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Letter of Transmittal

To	Jason Kryszak, G.I.T. New York State Department of Environmental Conservation Division of Environmental Remediation, Region 9 700 Delaware Avenue Buffalo, NY 14209 jason.kryszak@dec.ny.gov
CC	Benjamin McPherson, P.E., NYSDEC Shannon Lloyd, Ashland, Inc. AECOM Project File 60730037
Subject	Ashland Tank 75 Remedial Investigation Report
From	Colin Wasteneys, P.G.
Date	October 28, 2025

Dear Mr. Kryszak:

On behalf of Ashland, Inc., AECOM is pleased to submit one (1) electronic copy of the revised Ashland Tank 75 Remedial Investigation Report.

Please let me know if you have any questions regarding this Report.

Best regards,

Colin Wasteneys

Colin Wasteneys, PG
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Attachments:
Remedial Investigation Report, Rev. 1
Remedial Investigation Report, Rev. 1 (Red line, Strike Out)
Remedial Investigation Report, Response to Comments Matrix

AECOM

Remedial Investigation Report, Rev. 1

Ashland Tank 75 (Site No. 915008B)
4625 River Road, Tonawanda, New York 14150

Ashland Inc.

Project Reference: Site ID No. 915008B

Revised October 28, 2025

Delivering a better world

Prepared for:

Ashland Inc.
1979 Atlas Street
Hilliard, Ohio 43228

Prepared by:

AECOM
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Certification

I, Colin Wasteneys, certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that this Remedial Investigation Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and DER Green Remediation (DER-31) and that all activities were performed in full accordance with the DER-approved work plan and any DER-approved modifications.

Respectfully submitted,

Colin Wasteneys

Colin Wasteneys, P.G.

October 28, 2025
Date

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List of Acronyms and Abbreviations

AECOM	AECOM Technical Services, Inc.
amsl	above mean sea level
bgs	below ground surface
bws	below the water surface
BTU	British Thermal Unit
CAMP	Community Air Monitoring Plan
cis-1,2-DCE	cis-1,2-dichloroethene
COC	chain-of-custody
CPCs	chemicals of potential concern
CPM	counts per minute
1,1-DCA	1,1-dichloroethane
DPT	direct push technology
DER	Division of Environmental Remediation
DNAPL	dense non-aqueous phase liquids
DO	dissolved oxygen
DOT	Department of Transportation
DUSR	Data Usability Summary Report
FWRIA	Fish and Wildlife Resources Impact Analysis
GC/MS	gas chromatography/mass spectrometry
GPS	global positioning system
GWS	Gamma walkover survey
HASP	Health and Safety Plan
HDPE	high-density polyethylene
HHEA	Human Health Exposure Assessment
Hv	Higher heating value
ICP	inductively coupled plasma
ID	inner diameter
IDW	investigation derived wastes
µg/kg	micrograms per kilogram (parts per billion)
LNAPL	light non-aqueous phase liquids
Matrix	Matrix Environmental Technologies Inc.
MDL	method detection limit
mg/kg	milligrams per kilogram (parts per million)
MS/MSD	matrix spike / matrix spike duplicate
mS/cm	milliSiemens per centimeter
MW	monitoring well
NAPL	non-aqueous phase liquid
NAVD88	North American Vertical Datum of 1988
NORM	Naturally occurring radioactive material
ng/L	nanogram per liter
NYCRR	New York Codes, Rules and Regulations
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
ORP	oxidation/reduction potential
PAHs	polycyclic aromatic hydrocarbons
PCBs	polychlorinated biphenyls
PFAS	Per- and Polyfluoroalkyl Substances
PFBA	Perfluorobutanoic acid
PFBS	perfluorobutanesulfonic acid
PFDA	perfluorodecanoic acid
PFDS	perfluorodecane sulfonic acid
PFHxA	perfluorohexanoic acid

PFHxS	Perfluorohexanesulfonic acid
PFHpA	perfluoroheptanoic acid
PFNA	perfluorononanoic acid
PFNS	perfluorononanesulfonic acid
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctanesulfonic acid
PFOSA	Perfluorooctane sulfonamide
PFPeA	perfluoropentanoic acid
PFTriA	perfluorotridecanoic acid
PFUnA	perfluoroundecanoic acid
pCi/g	picocuries per gram
PID	photoionization detector
PM	project manager
PVC	polyvinyl chloride
Parratt-Wolff	Parratt-Wolff, Inc.
PPE	personal protective equipment
QA/QC	quality assurance/quality control
QAPP	Quality Assurance Project Plan
RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation
SC	Site Characterization
SCGs	standards, criteria and guidance values
SCO	soil cleanup objective
SVOCs	semi-volatile organic compounds
TAL	Target Analyte List
TCL	Target Compound List
TCLP	Toxicity Characteristic Leaching Procedure
TENORM	Technologically enhanced naturally occurring radioactive material
TOC	total organic carbon
TOGS	Technical and Operational Guidance Series
Eurofins	Eurofins Laboratories, Inc.
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
VOCs	volatile organic compounds

1. Introduction

This Remedial Investigation (RI) has been prepared by AECOM Technical Services, Inc. (AECOM) on behalf of Ashland Inc. (Ashland) for the Tank 75 Site located on a portion of the property at 4625 River Road, Tonawanda, New York (Site) (**Figure 1-1**).

The Site is being managed under a Consent Order within the New York State Department of Environmental Conservation (NYSDEC) State Superfund Program (Site No. 915008B, Index No. R9-20190829-112), dated May 4, 2022.

These RI activities were performed in accordance with the Site Characterization/Remedial Investigation Work Plan (SC/RIWP) dated October 11, 2023, and approved by the NYSDEC on October 31, 2023. This report presents data and information gathered between April 16, 2024, and November 13, 2024.

1.1 RI Objectives

The RI objectives listed in the SC/RIWP include:

- Confirm the exact property boundaries for the Site.
- Evaluate the presence of contaminants (i.e., volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls [PCBs], pesticides, metals, and the emerging contaminants 1,4-dioxane, and per- and polyfluoroalkyl substances [PFAS]) both within and around Tank 75.
- Evaluate the nature and extent of petroleum impacts observed in historical soil borings completed in the vicinity of Tank 75.
- Evaluate the possible presence of residual radioactive contamination in the surface and subsurface soils, sludges, and sediments using radiation surveys in the form of gamma walkover surveys (GWS) and soil cuttings/samples and Tank 75 sludge/sediment core screening.
- Evaluate the horizontal and vertical extent of contamination, including transport mechanisms.
- Evaluate actual and potential exposures related to contaminants on- and off-Site with a Qualitative Exposure Assessment.
- Assess potential or actual threats to public health and the environment, including potential or complete exposure pathways for human health and fish and wildlife resources per NYSDEC Division of Environmental Remediation (DER)-10.
- Assess the source(s) of contamination and determine if this source(s) has impacted soils outside the structure.
- Collect additional data to support the design and implementation of remedial actions.

RI field and reporting activities were conducted in general accordance with the SC/RIWP, the Quality Assurance Project Plan (QAPP), and the following regulatory documents and standards:

- NYSDEC Division of Water Technical & Operational Guidance Series 1.1.1 Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (TOGS 1.1.1) (NYSDEC, 1998, 1999, 2000, 2004, 2023).
- NYSDEC Sampling, Analysis, and Assessment of Per- and polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs (NYSDEC, 2023).
- NYSDEC 6 New York Codes, Rules and Regulations (NYCRR) 703.5(f) Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations (NYSDEC, 2004).

- NYSDEC, 6 NYCRR 375-6.8 Soil Cleanup Objectives (NYSDEC, 2006).
- NYSDEC DER-10, Technical Guidance for Site Investigation and Remediation (NYSDEC, 2010).
- NYSDEC DER-31, Green and Sustainable Remediation (NYSDEC, 2011).
- United States Environmental Protection Agency (USEPA) Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA (USEPA, 1988).

1.2 RI Structure

This RI is structured in accordance with DER-10 guidance. This report contains nine sections. Section 1 provides an introduction and overview of the project objectives and report organization. Section 2 presents the Site description, background, and summarizes previous investigation information. Section 3 outlines the scope of work and details the RI activities. Section 4 includes a description of the local and regional geology and hydrogeology. Section 5 identifies standards, criteria, and guidance values (SCGs) for the Site, and discusses the nature and extent of the contamination at the Site. Section 6 presents a conceptual model and discusses contaminant fate and transport. The Qualitative Human Health Exposure Assessment (HHEA) and the Fish and Wildlife Resources Impact Analysis (FWRIA) are included in Section 7. Section 8 includes a summary of the findings and recommendations offered for consideration by NYSDEC. Section 9 contains a list of references cited. Tables, Figures, and Appendices immediately follow the text.

2. Site Background

2.1 Site Description

The Tank 75 Site comprises approximately 2.2 acres situated in the western portion of an approximate 20-acre parcel owned by Ashland (**Figure 2-1**). However, it currently sits within the perimeter fence of the United Refining terminal facility (**Figure 2-2**). Tank 75 was constructed during World War II as an in-ground petroleum storage structure for the storage of fuel oil. The structure was constructed with a reinforced steel mesh, gunite lining approximately 3 to 4 inches thick. At the ground surface, Tank 75 measures approximately 200 feet wide by 300 feet long with sides that slope inward to a flat bottom approximately 28 feet below surrounding grade (**Figure 2-2**). Tank 75 was formerly equipped with two pumps, one for unloading oil and the second for removing accumulated precipitation. Steam coils (disconnected) are located on the bottom of the structure that were used to heat the fuel oil during cold weather. In addition to fuel oil, off-specification asphalt, other tank bottoms, and refinery sludge are believed to have been placed in Tank 75 for re-refining. It is possible that small amounts of soil and process piping has been deposited in the Tank. The Site and surrounding areas are zoned for mixed industrial use.

2.1.1 Adjacent Properties

The Tank 75 Site currently sits within the perimeter fence of the approximately 118-acre former Ashland Refinery/Terminal (now owned and operated by United Refining as a petroleum terminal). Ashland's refinery/terminal operations at one time included up to approximately 160 petroleum above-ground storage tanks (ASTs) with capacities up to 4,200,000 gallons. The Tank 75 Site is surrounded on the immediate north, west, and south by former AST clusters owned by United Refining. These former ASTs are in various stages of demolition and removal with some ASTs already removed or closed-in-place (**Figure 2-1**).

The surrounding area is predominantly industrial. Adjacent properties include several sites managed under the Formerly Utilized Sites Remedial Action Program (FUSRAP) including Ashland 1, Seaway Industrial Landfill Areas C and D (to the north and east), Ashland 2, and Rattle Snake Creek (to the northeast). The Site is also bounded by Tonawanda Terminals Company (to the north-northwest), and United Refining petroleum terminal (to the west and south) (**Figure 2-2**).

2.2 Site History

From 1933 to 1950, the property was owned and operated by Frontier Oil Refining Corporation (Frontier Oil). In 1950, Ashland acquired the refinery, including Tank 75, through its acquisition of Frontier Oil. Tank 75 was placed into operation in early 1940's and was taken out of service in 1980. The refinery itself discontinued production in July 1982; however, the facility was then operated as a petroleum terminal and active petroleum tanks remain in service. In 1992, the United Refining Company acquired the terminal facility from Ashland; however, Ashland retained the Tank 75 property. Dismantling of former refinery processes and disused petroleum storage tanks has been occurring for decades and continues, sporadically, today.

From 1980 to 1985, the only activity involving Tank 75 was to pump out accumulated precipitation in the structure using one of the two pumps discussed above. The rainwater, or supernatant water, was pumped to the refinery's oily water sewer system. The sewer system discharges to the Tonawanda publicly owned treatment works (POTW). In 1985, approximately 120,000 barrels (bbl.) (approximately 5 million gallons [gal]) of No. 6 fuel oil were recovered from Tank 75 and sent by barge to a reprocessor in Louisiana. During the summers of 1992 and 1993, approximately 34,000 bbl. (1.4 million gal) of top oily layer was recovered from Tank 75 and transported by tanker trucks to Ashland's Catlettsburg, Kentucky refining complex for reprocessing. Accumulated rainfall has occasionally been pumped to the facility's oil water separator to manage water levels.

Tank 75 is listed on the New York State Registry of Inactive Hazardous Waste Disposal Sites as Site # 915008B, Class 3 (does not represent a significant threat to the environment or to health). Since Tank 75 was taken out of service in 1980, wastes were not placed in the structure after the effective date of relevant Resource Conservation and Recovery Act (RCRA) regulations. Based on historical documents beginning with a Hazardous Waste Disposal Questionnaire dated August 27, 1984 (Ashland, 1984), listed hazardous wastes may have been placed into Tank 75. Potential listed hazardous wastes may include refinery wastes K049 (slop oil emulsion solids from the petroleum refining industry), K050 (heat exchanger bundle cleaning sludge from the petroleum refining industry), and K052 (tank bottoms (leaded) from the petroleum refining industry). Contents also meet the criteria for the ignitability characteristic (D001) with a flash point less than 140˚F. Contaminants associated with these refinery wastes include petroleum related VOCs, SVOCs, and metals.

2.3 Previous Investigation Work

Environmental investigations at Tank 75 have been conducted since its termination of service in 1980. These investigations have included groundwater monitoring well installation and sampling and structure content characterization of the tank contents (sludge, supernatant water, and top oily layer). A summary of these investigations is presented below. Historical sampling locations are shown in **Figure 2-3**. Historical boring logs and a summary of the results from groundwater sampling data (1997, 1998, 2005 and 2018 in tabular format from their respective reports) can be found in the NYSDEC-approved SC/RIWP.

2.3.1 1986 to 1987 Groundwater Monitoring Well Installation

From September 16 through September 18, 1986, Earth Dimensions, Inc. (EDI) installed six groundwater monitoring wells at the Site. Wells MW2S-86 and MW2D-86 were installed on the northwest side of the structure and are currently known as MW-02S and MW-02D. MW3-86, currently known as MW-03, was installed on the southwest side of the structure. MW-1/MW5-86, currently known as MW-5, was installed in the southeast portion of the Ashland property (located outside of the Tank 75 property boundary) to serve as the upgradient well. MW4S-86 and MW4D-86 were installed on the northeast portion of the structure and are currently known as MW-04S and MW-04D, respectively.

The boring logs for 2-86 and 3-86 located on the northwest and southwest sides of Tank 75, respectively, both indicate evidence of petroleum impacts in shallow fill. The boring log for 2-86 indicates black oily liquid was observed in fill from 0 to 0.5 feet below ground surface (bgs). The boring log for 3-86 indicates black oily liquid was observed in fill from 0 to 3.0 feet bgs. It is not known if the observed petroleum impacts were a result of the contents of Tank 75 or of historical general oil refinery operations.

EDI installed three additional monitoring wells in March 1987. These wells, 2-87 (MW2), 3-87 (MW3), and 4-87 (MW4), were all located in the northern portion of the Ashland refinery property at distances ranging from 2,000 to 2,700 feet northwest of Tank 75.

2.3.2 1993 to 1998 Annual Groundwater Monitoring

Annual groundwater sampling events were conducted from 1993 to 1998. For each sampling event, groundwater samples were collected from monitoring wells MW-02S, MW-02D, MW-03, MW-04S, MW-04D, and MW-5 and analyzed for VOCs using United States Environmental Protection Agency (USEPA) Method 8240 or 8260, SVOCs using USEPA Method 8270, and metals using USEPA Method 6020 inductively coupled plasma (ICP) gas chromatography/mass spectrometry (GC/MS).

The 1993 annual sampling event was conducted on September 14 and 15, 1993. Results indicated that lead in one well was the only metal to exceed its groundwater standard. No VOCs or SVOCs were detected.

The 1994 annual sampling event was conducted on September 30, 1994. The analytical results indicated that iron was the only metal to exceed its groundwater standard. Phenol was also detected in one well above its groundwater standard; however, the well was resampled on January 24, 1995, and the result for phenol was below the method detection limit (MDL). No other VOCs or SVOCs were detected.

1995/1996

The 1995 sampling event was conducted on August 23, 1995. Only iron exceeded its groundwater standard in several of the Site wells. No VOCs or SVOCs were detected.

The 1996 sampling event was conducted on August 27, 1996. Only cadmium exceeded its groundwater standard in one well. No VOCs or SVOCs were detected.

1997/1998

The 1997 annual groundwater sampling event was conducted on August 19, 1997. Methylene chloride was the only VOC detected in one well (MW-02D) above its groundwater standard. Methylene chloride is a common laboratory cleaning chemical, and its detection is believed to be related to cross-contamination. Three metals, cadmium, lead, and manganese exceeded their groundwater standards in at least one well. As for SVOCs, sulfolane was detected in one well, MW-04S, just above the MDL. There is no groundwater standard for sulfolane. Sulfolane, an extraction solvent used in the refining process, was never used at the Buffalo, New York refinery. MW-04S was resampled and sulfolane was not detected. The initial detection was most likely caused by cross-contamination introduced in the Ashland laboratory where the analyses were performed. No other SVOCs were detected.

The 1998 annual groundwater sampling event was conducted on July 17, 1998. No VOCs or metals were detected above their respective groundwater standards. Only one SVOC, sulfolane, was detected in MW-04S. The source of sulfolane is most likely an artifact from the Ashland laboratory (see discussion above for the 1997 groundwater sampling results).

2.3.3 2005 Groundwater Monitoring Well Installation and Sampling Event

Monitoring wells installed in 1986 are primarily screened in the deeper portion of the perched aquifer to intersect the elevation of the bottom of the structure. To determine if a floating layer of free product was present, URS Corporation (URS) installed four shallow groundwater monitoring wells in September 2005: MW05-01, MW05-02, MW05-03, and MW05-04. Boring logs for three of these wells, MW05-01, MW05-03, and MW05-04, indicate observations of petroleum impacted soil at depths ranging from surface to 8 feet bgs. The boring log for MW05-01 indicates a slight gasoline odor observed in soil from 4 to 6 feet bgs. It is not known if the observed petroleum impacts are a result of the contents of Tank 75 or of historical general oil refinery operations.

On September 13, 2005, groundwater samples were collected from existing monitoring wells MW-02S, MW-02D, MW-03, MW-04S, MW-04D, and newly installed wells MW05-01, MW05-02, and MW05-04. Two wells were not sampled: MW05-03, because it was dry and MW-5, because this background well is located in the southeastern portion of the Ashland property, not in proximity to Tank 75. The groundwater samples were analyzed for VOCs (USEPA Method 8260B), SVOCs (USEPA Method 8270C), and Target Analyte List (TAL) Metals (USEPA Method 6010B/7470A).

Two VOCs were detected – carbon disulfide at MW05-01, MW05-02, and MW05-04 and cis-1,2-dichloroethene (cis-1,2-DCE) at MW05-02. These analytes were not detected above their respective groundwater quality standards.

Two SVOCs, phenol and pentachlorophenol, were detected in MW-02D and MW-04S respectively. Both exceeded their groundwater standard. Pentachlorophenol has not been detected in groundwater during previous sampling events. Phenol was detected in one well in 1994; however, the well was resampled, and the result was below the MDL. Neither of these SVOCs are associated with refining operations. Thus, there appears to be no connection between these two SVOC detections and the contents of Tank 75.

Five metals were detected above their respective groundwater standards in at least one monitoring well: cadmium, iron, manganese, sodium, and nickel.

2.3.4 2018 Groundwater Sampling

The 2018 groundwater sampling event was conducted from January 29 to February 2, 2018. Metals detected above their groundwater standards included iron, magnesium, manganese, and sodium, which are all naturally occurring groundwater constituents. These metal concentrations detected in the Site wells have not changed significantly since the 2005 sampling event.

VOCs were detected at very low levels (generally around 1 microgram per liter (µg/L) or less) in only three Site wells (MW-04S, MW05-02, and MW05-04). Detected VOCs were three chlorinated solvents (1,1-dichloroethane [1,1-DCA], cis-1,2-DCE, and vinyl chloride), benzene, and acetone. Of these, only benzene, detected in well MW05-04, could be associated with typical refinery sludge wastes. Only vinyl chloride, detected in well MW05-02, was detected at a concentration above its groundwater standard.

The 2018 groundwater sampling analytical results generally confirm historical data and indicate that petroleum refining wastes contained in Tank 75 are not impacting surrounding groundwater quality. A letter report presenting the 2018 groundwater sampling results was submitted to the NYSDEC in March 2018 (AECOM, 2018).

2.3.5 Tank 75 Contents Characterization

The contents of Tank 75 had previously been sampled for laboratory analysis to determine if the contents can be reprocessed and to evaluate disposal options. Past investigations have determined that the contents consisted of four discernable layers: pumpable sludge, non-pumpable sludge, a top oily layer (no longer present), and a water layer. This section summarizes the previous Tank 75 content characterization activities.

Sludge Characterization

On November 10, 1989, a sample of material from Tank 75 was submitted to the Ashland Environmental Support Group and Kemron Laboratories for characterization. The following metals were detected following total metals analysis: arsenic, chromium, and lead. For Extraction Procedure (EP) Toxicity, only barium was detected. The material passed the paint filter test, and the flashpoint exceeded 230°F.

In 1990, a physical sampling program was undertaken to determine the inventory and physical characteristics of the materials in the structure. The sampling program identified four specific layers. From ground surface to the bottom of the structure, the four layers consisted of:

- A top oily layer from 10 to 30 inches in thickness (estimated as 550,000 gallons).
- A water layer varying from 9 to 18 feet in thickness (estimated as 4,289,000 gallons).
- A pumpable sludge layer from 1 to 5 feet thick (estimated as 500,000+ gallons) consisting of water, oil, and solids.
- A bottom layer of non-pumpable sludge ranging in thickness from 2 to 3 feet (estimated as 4,000 cubic yards).

On March 2, 1990, two samples were collected from Tank 75: top oil and hard bottom sludge. The samples were submitted to Buffalo Testing Laboratories Inc. for analysis. Results indicated that for the top oil, the flash point exceeded 294°F and contained 18.8% water distillates. For the hard bottom sludge, the flash point exceeded 212°F, and for EP Toxicity analysis, only lead was detected. The result for lead of 1.5 ppm was below the EP toxicity criteria of 5.0 milligrams per liter (mg/L).

On June 18, 1998, two sludge samples were collected and analyzed for Toxicity Characteristic Leaching Procedure (TCLP) VOCs (USEPA Method 8260A), TCLP SVOCs (USEPA Method 8270), TCLP metals, total metals, pH, ignitability, reactive cyanide, and reactive sulfide.

An additional sample of sludge was collected for further characterization purposes on October 1, 1999. The sample was analyzed for VOCs and metals to determine if the sludge met the definition of a

hazardous waste. Benzene was the only VOC that exceeded the land disposal restriction (LDR) standards for K049, K050, and K052.

Weavertown Environmental Group conducted bench scale separation and solidification testing on samples of sludge collected on May 26, 2005. Results indicated that filter pressing was not a viable option and was not recommended for achieving sludge volume reduction. Centrifuging and solidification were both found to be viable technologies, although with limitations due to cost. These results were discussed in a draft Remedial Work Plan that was never submitted or acted upon. Four samples of treated sludge collected on May 26, 2005, from the bench scale testing were analyzed for TCLP VOCs (USEPA Method 8260B), TCLP SVOCs (USEPA Method 8270C), TCLP pesticides and PCBs (USEPA Method 8081A/8082), TCLP metals, and general chemistry. The results of the analyses were used to determine if the treated sludge, a K-listed RCRA waste, met LDRs, thereby allowing disposal in a hazardous waste landfill in place of incineration, a more costly disposal method. None of the standards for K049, K050, or K052 were exceeded.

To determine the appropriate method of disposal for the centrifuged solidified sludge, a sample was submitted for laboratory analysis on September 6, 2005. Analyses included TCLP VOCs and VOCs (USEPA Method 8260B), TCLP SVOCS and SVOCs, (USEPA Method 8270C), TCLP metals and metals (USEPA Method 6010B), and general chemistry. Matrix interference prevented the laboratory from reaching quantification limits less that LDR treatment standards for many SVOCs; as such, a sample was submitted to Meta Environmental, Inc. (Meta) on January 13, 2006, for further analysis. To achieve the required quantification limits, the sample was analyzed as a non-aqueous phase liquid (NAPL) by modified USEPA Method 8270 with selective ion monitoring. Five SVOCs from the centrifuged solidified sludge sample exceeded LDR universal treatment standards (UTSs).

Top Oily Layer Characterization

On October 1, 1992, a sample of top oil was submitted to the Ashland Environmental Support Group to determine if the material could be reprocessed in one of the Ashland refineries. The sample was analyzed for VOCs (USEPA Methods 8240 Mod and TCLP Extract), SVOCs (USEPA Methods 8270 and TCLP Extract), wax and asphalt fractions, high temperature Sim-D, and basic sediment and water analyses. Results indicated that this material could be reprocessed. Therefore, during the summers of 1992 and 1993, approximately 34,000 bbl. (1,428,000 gallons) of this top oily layer was removed and transported by tanker trucks to Ashland's Catlettsburg, Kentucky refining complex for reprocessing.

The top oily layer is no longer present in Tank 75 as a result of the 1992 and 1993 removal activities.

Supernatant Water Characterization

In March 1990, wastewater type testing was conducted on a sample of the supernatant water pumped from the structure for laboratory analysis. The results resembled a weak domestic sewage, and the supernatant water contents were acceptable for processing at the Tonawanda POTW. No past issues had been identified by the POTW.

During 2000, Ashland worked with United Refining to pump out nearly all of the water from Tank 75 to allow various companies to observe the structure and collect samples to prepare closure proposals. Ashland had previously thought that the material piled in the southeast corner of the structure was asphaltic in nature. Upon closer inspection and analysis, the southeast corner consisted of a mixture of dirt and heavy molecular weight petroleum sludge material. Since this material could not effectively be recycled, approximately 523 tons of the material was removed and transported to the Waste Management facility in Model City, New York, for treatment and disposal.

2.4 Consent Order

On May 4, 2022, NYSDEC and Ashland entered into an Order on Consent and Administrative Settlement (Index No. R9-20190829-112) for the Ashland Tank 75 Site (DEC Site No. 915008B). This SC/RI has been completed to provide additional investigation activities to evaluate the possible presence and current state of contaminants within, around, and beneath Tank 75. Investigation activities included

gamma radiation surveys and collection of soil, groundwater, surface water, and sediment samples analyzed for VOCs, SVOCs, PCBs, pesticides, and metals across the Site. Soil vapor screening is not relevant for the Site as there are no occupied buildings within the property boundary or close to the Site.

3. Remedial Investigation Activities

The RI field investigation was performed between April 16 and November 13, 2024. Investigation activities were supervised and documented by qualified AECOM personnel. Copies of the investigation field notes are provided in **Appendix A**. Photographs of the RI field activities are provided in **Appendix B**. Sampling locations are shown on **Figure 3-1**.

3.1 Scope of Work

The scope of work of the SC/RI consisted of the following:

- Performance of a Site clearing activities.
- Completion of a preliminary Site survey to identify and stake Site boundaries.
- Completion of a gamma walkover survey of planned investigation areas.
- Redevelopment of and collection of groundwater samples from nine (9) existing monitoring wells.
- Performance of hydraulic conductivity testing on four (4) existing monitoring wells.
- Completion of a bathymetric survey of Tank 75.
- Collection of three (3) surface water samples and 15 sediment samples using a vibracore sampler from Tank 75.
- Clearance of underground utilities surrounding Tank 75.
- Advancement of nine (9) soil borings (SB-01 through SB-05 and SB-07 through SB-10) by direct push technology (DPT) methods surrounding Tank 75 for the collection of three (3) subsurface soil samples per boring.
- Advancement of eight (8) hand augered borings (HA-01 through HA-08) surrounding Tank 75 for the collection of two (2) soil samples per boring.
- Completion of a final Site survey to accurately record the 2024 sampling locations.
- Management and disposal of investigation derived waste (IDW).
- Preparation of a Remedial Investigation report.

3.1.1 Deviations from Scope of Work

The scope of work outlined above, consistent with the SC/RIWP, was followed, except for the following deviations:

- Following submittal of Tank 75 sediment samples to Eurofins Laboratories, Inc. in Buffalo, New York (Eurofins), the lab informed AECOM that, due to the tar-like nature of the samples and the potential for damage to laboratory equipment, the sediment samples could not be analyzed for TCLP methods. Eurofins also stated that none of their other facilities could perform this analysis. AECOM also inquired with Pace Analytical Services and were told they wouldn't be able to analyze the oily sediment samples via the TCLP analyses either. Therefore, no oily sediment samples were analyzed via TCLP methods.
- Angled soil boring SB-06 located south of the Tank was unable to be advanced due to difficult drilling conditions, the presence of a berm and limited clearance within the Site boundary.

3.2 Site Clearing

Before other field activities commenced, between April 16 and 17, 2024, Site clearing activities were conducted by Ontario Specialty Contracting with oversight by AECOM field staff. A Link-Belt 210 X4 excavator with a brush flail mower attachment was utilized to clear and grub the vegetation within the

fenced perimeter of Tank 75. Hand clearing and grubbing with motorized hand tools was conducted in hard-to-reach places.

On June 27, 2024, additional Site clearing activities were conducted by Matrix Environmental Technologies Inc. (Matrix) with oversight by AECOM field staff to remove the overgrowth in the Site investigation areas. A Kubota L45 tractor with a brush hog attachment was utilized to clear and grub the vegetation along the perimeter of Tank 75. Hand clearing and grubbing with motorized hand tools was conducted in hard-to-reach places.

3.3 Site Surveys (AECOM)

On April 22, 2024, a survey of the Site boundaries, existing monitoring wells and Site reference points was completed to confirm the spatial relationship between the Site and surrounding parcels. The Site survey was completed by an AECOM NYS-licensed professional land surveyor. Site boundary corners in the vicinity of Tank 75 were marked with railroad spikes. The horizontal positions were tied into the North American Datum 1983 (NAD83) New York State Plane West. The vertical positions were tied to the North American Vertical Datum 1988 (NAVD88). Measuring points were recorded to a vertical accuracy of 0.01 feet.

Following all the field sampling activities, the locations and elevations of the 2024 investigation points (soil borings, hand auger locations, and monitoring wells) were surveyed on September 11, 2024, by an AECOM NYS-licensed professional land surveyor. Ground surface elevations were measured to an accuracy of 0.01 feet. Updated survey data were used to develop report figures and are summarized in **Table 3-1**.

3.4 Gamma Walkover Survey

On April 22, 2024, a radiological screening survey in the form of a gamma walkover survey (GWS) was completed within the Site boundary and around the perimeter of Tank 75 in areas where intrusive investigation activities were to take place. The GWS was completed by an AECOM certified health physicist (CHP). An Environmental Radiation Specialist of the NYSDEC visited the Site on April 22, 2024, to oversee the GWS.

The radiological screening results were used mainly to ensure worker safety while conducting intrusive activities, and to identify and segregate TENORM containing materials from the IDW for waste management purposes. TENORM containing materials are not a target of these RI activities.

A GWS is a screening technique useful for identifying locations worthy of additional study and for identifying locations that likely contain little or no radioactive contamination from gamma radiation emitting radionuclides. For the Tank 75 Site, there is no prior knowledge of historical radiological release directly on the Site; however, there have been documented wastes containing uranium ore tailings deposited at the adjacent Seaway Landfill and Ashland 1 sites immediately to the north and east of Tank 75. Due to this proximity of the Site to these properties with known radiological contaminants, the surface soils around Tank 75 were scanned to rule out radiological impacts.

The GWS process involved slowly scanning the soil with radiation detection equipment at a height of approximately 15 centimeters (6 inches) above the ground surface and at a speed of not greater than 0.5 meters per second (m/s). Equipment employed during the GWS included a Ludlum Model 44-9 detector with a Ludlum Model 12 instrument, a Ludlum Model 19 detector with an internal NaI instrument, and a Ludlum Model 44-10 detector with a Ludlum Model 3000 instrument. All instruments were obtained from and calibrated by Environmental Restoration Group, Inc. (ERG) of Albuquerque, NM, prior to equipment delivery to AECOM's Buffalo, New York office. Each instrument was checked with radioactive check sources to verify proper instrument response. Equipment calibration logs and logs indicating daily performance and response checks for each instrument used can be found in **Appendix C**. For mapping purposes, the gamma detector was directly interfacing with a global positioning system (GPS) unit with a data logger that automatically recorded the location and the gamma reading on a prescribed frequency (i.e., logging rate of once per second while the surveyor walks at 0.5 m/s). Soils were scanned along a

series of adjacent lanes to obtain full coverage of the land area around Tank 75 (within the limits of safe access).

To determine the mean background and standard deviation of the background data set, a “background” GWS was conducted in an area that is known to contain native soil, to have previously been remediated, or likely to contain non-radioactive fill materials. Two background GWS were performed in the same manner as the Tank 75 perimeter GWS, at a grassy area proximate the corner of River Road and the exit ramp of Interstate 190 North, and at a grassy area northwest of the Site within the United Refining Company property (4545 River Road, Tonawanda, New York).

The results of the GWS were evaluated prior to additional drilling, groundwater, soil, and sediment handling activities and the results of the survey determined if additional sampling precautions were needed. Should gamma walkover measurements exceed the established action levels, the radiation surveyor investigated if naturally occurring radioactive materials (NORM), or technologically enhanced NORM (TENORM) materials (e.g., slag or porcelain) were visually present. Should the detector response then exceed the United States Army Corps of Engineers (USACE) correlation gross count rate of 16,000 counts per minute (cpm), the impacted area would be flagged, work would temporarily stop, and the Ashland Project Manager would be notified. The Ashland Project Manager would then notify the NYSDEC Project Manager and NYSDEC Radioactive Materials Management Section as soon as possible to communicate the discovery of potential FUSRAP materials.

Several readings in excess of 16,000 cpm were detected in an area in the southwest portion of the Tank 75 Site, particularly along the southern perimeter fence of the Site. The highest GWS reading was 17,800 cpm. A figure with the gamma count rate is provided in **Appendix C** and shows readings exceeding 16,000 cpm as red dots. Based on elevated readings, one-minute static readings were completed at three locations (blue dots on the figure). The highest of these one-minute readings was 18,400 cpm. The elevated areas were marked with orange flagging. All of the GWS and one-minute static readings exceeding 16,000 cpm were located in an area where slag-like material is visible on the ground surface. The attached photos in **Appendix C** show examples of the slag-like material, which was visible over much of the southern border of Tank 75. Due to the presence of the slag-like material, it was the opinion of the CHP that the elevated readings were likely due to TENORM material rather than related to FUSRAP material. There was no additional action planned regarding this material. As part of the RI, there are soil sampling locations near these areas (HA-05, SB-06 and SB-07). Additional radiological screening was conducted during the soil sampling program, investigation activities were adjusted to avoid any location with an elevated reading, and all cuttings and soil samples were screened for radiological materials (as discussed further below). This information was conveyed to the NYSDEC in an email on April 22, 2024.

3.5 Groundwater Sample Collection

3.5.1 Groundwater Elevation Survey

Between April 25 and April 26, 2024, AECOM collected a synoptic round of water level readings from nine (9) monitoring wells surrounding the tank. Each well was gauged using an electronic Solinist 122 oil-water interface probe to determine the depth to water and the possible presence of any light non-aqueous phase liquids (LNAPL). The oil water interface probe was then lowered to the bottom of each well to measure depth to bottom and evaluate for the presence of any dense non-aqueous phase liquids (DNAPL). Levels were recorded on an appropriate log to the nearest 0.01 feet. The oil-water interface probe was field decontaminated between monitoring locations. No LNAPL or DNAPL was identified at monitoring well locations.

Additional water level readings were obtained from each of the nine (9) on-Site wells on July 11 and September 20, 2024.

3.5.2 Well Development

Prior to groundwater sampling, between April 25 and April 26, 2024, any dedicated tubing or equipment in the nine (9) existing monitoring wells were removed and the wells were redeveloped to clear any accumulated sediments and improve hydraulic connection between the formation and the well screen. Each monitoring well was developed using a foot valve and surge block attached to disposable high-density polyethylene (HDPE) tubing operated by a Waterra Hydrolift pump. New dedicated HDPE tubing was installed at each well during well development. Water quality measurements of temperature, pH, oxidation-reduction potential (ORP), specific conductivity, dissolved oxygen (DO), turbidity, color and odor were measured utilizing a Horiba U-52 flow-through cell, periodically during the well development process. Equipment calibration documentation can be found in **Appendix D**.

On April 25, 2024, four (4) monitoring wells were developed (MW05-01, MW05-02, MW05-03, and MW05-04). On April 26, 2024, five (5) monitoring wells were developed (MW-02D, MW-02S, MW-03, MW-04D, and MW-04S). Details of each well development are provided in the well development logs located in **Appendix D**. Following completion of the well development, the wells were allowed to stabilize for at least 72 hours, prior to sampling.

3.5.3 Groundwater Sampling

On April 29, 2024, five (5) monitoring wells were sampled (MW-02S, MW-03, MW05-01, MW05-03, and MW05-04). On April 30, 2024, four (4) monitoring wells were sampled (MW-02D, MW-04D, MW-04S, and MW05-02). Details of each sampling location are provided in the groundwater sampling logs located in **Appendix D**.

All monitoring wells were purged prior to sample collection using a peristaltic pump and dedicated disposable HDPE tubing to the extent possible. The pump intake was set at the midpoint of the screened interval, or as dictated by field conditions if there was minimal water in the well. The pump was operated at a target flow rate of 400 to 500 milliliters per minute (mL/min). During the purging process, the water quality parameters including temperature, pH, ORP, SC, DO, turbidity, color and odor, were measured utilizing a Horiba U-52 flow-through cell at five-minute intervals. Equipment calibration documentation can be found in **Appendix D**.

Well purging continued until these water quality parameters stabilized within specific tolerances for at least three consecutive readings. Monitoring wells MW-02D and MW-04D had minimal water following recharge, not allowing for the use of the peristaltic pump and flow-through cell; and instead, a bailer was used to sample at each well. Copies of low-flow purge logs are provided in **Appendix D**.

Groundwater samples were collected using low-flow sampling techniques to the extent practicable. Groundwater samples were submitted for analysis of TCL VOCs, TCL SVOCs, pesticides, PCBs, TAL metals, cyanide, and mercury. At each well, two sets of water samples were collected for metals analyses – one unfiltered and one field filtered through a 0.45-micron filter. Sample collected for metals analysis using a bailer at MW-02D and MW-04D were filtered by the receiving laboratory. Select groundwater samples were also analyzed for 1,4-dioxane and PFAS. Wells for PFAS analysis were selected to provide uniform distribution across the Site and to include shallow and deep sample intervals. Refer to **Table 3-2** for the groundwater sampling summary.

Groundwater sampling was completed in accordance with Groundwater Sampling Guidelines for Superfund and RCRA Project Managers (USEPA OSWER 542-S-02-001) and NYSDEC Sampling, Analysis, and Assessment of Per-And Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs (NYSDEC PFAS Guidance), dated April 2023 (NYSDEC, 2023). The default groundwater sampling method was in accordance with EPA's low stress (often referred to as low flow) sampling technique (EPA, 1996).

3.5.4 Hydraulic Conductivity Testing

Between May 23 and May 24, 2024, hydraulic conductivity (slug) tests were performed on one deep well (MW-02D) and three shallow wells (MW-02S, MW 03, and MW-04S). Prior to the start of slug testing, the depth to water was measured. Both rising and falling head tests were performed at MW-02S, however, only falling head tests were performed on MW-02D, MW-03, and MW-04S due to the extremely low rates of static hydraulic head recovery. A single falling head test was performed at MW-02D, and data indicated that hydraulic head increased during the duration of the test and did not decrease as expected. It is believed that the hydraulic head at this monitoring well was still recovering from purge and sampling activities completed between April 29 and 30, 2024, and this test was considered invalid.

Slug tests were performed in a similar manner as described in ASTM D-4044. The tests were performed using one of two solid plastic slugs approximately 2 feet long by 1.5 inches in diameter or approximately 2 feet long by 1.25 inches in diameter. Prior to testing, a Level TROLL 700 data logger was placed in the well. A slug was inserted into the well, and the drop in water level (falling head) was monitored using a Rugged Reader connected to the Level TROLL. At MW-02S the slug was removed after water level returned to approximately 95% of the original, static water level. The water level recovery (rising head) was monitored until it reached approximately 64% of the original, static water level when the test was ended due to time constraints following conversation with the AECOM project manager. At MW-03, data from a single falling head test was collected over an approximately 6-hour period. The drop in water level was removed after the water level returned to approximately 44% of the original, static water level when the test was ended due to time constraints following conversation with the AECOM project manager. Similarly, at MW-04S data from a single falling head test was collected over an approximately 19-hour period. The drop in water level was removed after the water level returned to approximately 30% of the original, static water level when the test was ended due to time constraints following conversation with the AECOM project manager.

The equipment (slug, water level meter, transducer) used in the test was decontaminated prior to use at the next well. A new length of nylon cord was used at each well to suspend the slug. The electronic transducer was set to collect water levels at appropriate intervals to provide adequate data to determine the hydraulic conductivity of the monitoring well. Data collected by the data logger was checked in the field immediately following each test. If the data were not adequate (incorrect timing, transducer cable moved or disturbed, etc.) from the judgement of the field geologist, the test was re-run so that adequate data were collected.

The testing data was reduced following the Bouwer and Rice Slug Test method (Bouwer and Rice, 1976; Bouwer, 1989) using AQTESOLV Version 4.5 software. Field notes regarding hydraulic conductivity are provided in **Appendix A**. Hydraulic conductivity testing parameters, calculations, results, and equipment calibration documentation are provided in **Appendix D**.

3.6 Bathymetry Survey (Thew Associates)

On May 22, 2024, a bathymetric survey of the Tank 75 bottom was completed by Thew Associates personnel with oversight by AECOM field staff to accurately estimate the volume of submerged sediment/sludge and to verify the depths of the sloping sides and bottom of the tank. A 16-foot shallow-draft survey vessel (boat) was mobilized to the Site with a Norbit iWBMS integrated multi-beam sonar system. The nominal range resolution of the sonar is less than 10 millimeters in up to 275 meters of water, with actual performance dependent on environmental factors. The Norbit iWBMS was capable of achieving high resolution data and 100% coverage of the investigation area. The boat was launched from the northeast corner of the tank where slip resistant mats had previously been placed. A Trimble® Model R12i GNSS receiver and a Seafloor Systems SonarMite® DFX dual frequency single-beam echo sounder were utilized to perform quality control verification of the depths received from the Norbit iWBMS. A Castaway® sound speed profiler was utilized to correct for the speed at which the sonar pulses travel through the water based on environmental factors such as depth, temperature, and salinity of water. HYPACK version 2023 was utilized for the data collection as the boat was navigated along grid transects within the tank. Post processing work was conducted to remove anomalous data and reduce the

sounding data to 3 square foot cells. Upon completion of the field work, the raw survey data was processed, and a hydrographic survey contour map of the sediment/sludge surface was generated with AutoCAD Civil 3D, as show in **Appendix E**. The resulting terrain surface was compared against the structure bottom elevation to develop an estimate of the volume of submerged sediment/sludge.

The water surface elevation at the time of the bathymetric survey was 590.75 feet. The Tank 75 bottom elevation was approximately 570 feet.

3.7 Radiological Screening during Ground Intrusive Work

Due to the possibility of encountering radioactive materials (discussed in Section 3.4 above) during the tank contents investigation (surface water and sediment sample collection activities) and ground intrusive activities (soil boring and sampling activities) radiological screening was conducted.

Prior to completion of radiological screening during intrusive work on-Site, AECOM provided the New York State Department of Health (NYSDOH) with a Notice of Proposed Use of Radioactive Material Under Reciprocity under license number 39-35587-01. Approval was received from NYSDOH under NYS Temporary Registration No. 16252 for each phase of work that included radiological screening (sediment and soil investigation work). Notice of Proposed Use of Radioactive Material Under Reciprocity and NYSDOH approval documentation is provided in **Appendix F**.

During sediment core screening activities, radiological screening was performed by an AECOM CHP using a Ludlum Model 44-9 detector with a Ludlum Model 12 instrument and a Ludlum Model 44-10 detector with a Ludlum Model 3000 instrument. During soil investigation activities, radiological screening was performed by an AECOM nuclear engineer using a Ludlum Model 44-9 detector with a Ludlum Model 2221 instrument and a Ludlum Model 44-10 detector with a Ludlum Model 2221 instrument. All instruments were obtained from and calibrated by ERG of Albuquerque, NM, prior to equipment delivery. Each instrument was checked with radioactive check sources to verify proper instrument response. Equipment calibration logs and logs indicating daily performance and response checks for each instrument used for both the radiological screening of sediment and soils are provided in **Appendix G** and **Appendix I**, respectively.

Radiologically impacted material with readings above the USACE pre-determined value of 16,000 cpm or Site background levels was not encountered in any of the sediment or soil core samples collected. Radiological screening activities are documented in field notes provided in **Appendix A**. Summaries of the radiological instrument readings for each sediment and soil core are provided in screening logs found in **Appendix G** and **Appendix I**.

As noted in Section 3.4, there is no prior knowledge of historical radiological release directly on the Site; however, there have been documented wastes containing uranium ore tailings deposited at the adjacent Seaway Landfill and Ashland 1 sites immediately to the northeast of Tank 75. Considering the proximity of the Site to these properties with known radiological contamination remediated under the FUSRAP program, the radiological screening results were used mainly to 1) ensure worker safety while conducting intrusive activities, 2) evaluate the possible presence of FUSRAP-related materials, and 3) to identify and segregate TENORM containing materials from the IDW for waste management purposes. TENORM containing materials are not a target of these RI activities.

In addition to radiological field screening, two subsurface soil samples, SB-01-C and SB-05-C, were collected and submitted for analysis of thorium-232, thorium-234, radium-226, radium-228, uranium-234, uranium-235, and uranium-238 by USEPA method 901.1. The submission of these samples was for quality control purposes to compare results to the MicroShield® modeling analysis used to determine the field screening threshold for radiologically impacted subsurface soil cores (200 cpm above background) based on 3 picocuries per gram (pCi/g) radium-226. According to a 1999 report on work sponsored by USACE for Seaway Area A, NY (Argonne National Laboratory, 1999), and as noted in the NYSDEC approved SC/RIWP, the 3 pCi/g radium-226 value corresponds with the USACE pre-determined threshold of 16,000 cpm. Results for both soil samples were less than 1 pCi/g radium-226, well below the threshold

for being considered radiologically impacted. The results of the soil analysis confirmed the modeling analysis criteria described in the SC/RIWP. Laboratory results are provided in **Appendix M**.

3.8 Surface Water and Sediment Sample Collection

Between June 3 and June 4, 2024, surface water and sediment testing were performed on Tank 75. A sampling vessel / pontoon boat provided by Atlantic Testing was placed onto the water by a Liebherr all-terrain crane provided by Clark Rigging. The crane was placed at the northeast corner of the Site just outside of the fenced area to lower the vessel into the northeast corner of the tank. Once the sampling vessel was in the water, two (2) Atlantic Testing personnel and one (1) AECOM staff member boarded the vessel from the northeast slope of the tank, where slip-resistant mats were previously placed.

Surface water and sediment samples were collected from Tank 75 over the course of two (2) days and logged by additional AECOM staff on the shore. Sampling locations are shown on **Figure 3-1**. Surface water and sediment sampling forms are provided in **Appendix G**.

The water surface elevation at the time of the surface water and sediment testing was 591.2 feet above mean sea level (AMSL).

3.8.1 Surface Water Sampling

Surface water samples were collected from approximately the center of Tank 75 (SW-01), from the sampling vessel (**Figure 3-1**). The surface water samples were collected using a peristaltic pump with weighted HDPE tubing. Following sample collection, water quality parameters were measured from a co-located aliquot which included pH, DO, SC, ORP, temperature, and turbidity.

Three (3) vertically distributed samples were collected at this location: the uppermost sample was collected from approximately one foot below the surface (SW-01-1); the second sample was collected from approximately the middle of the water column, approximately seven feet below the surface (SW-01-2); and the third water sample was collected from approximately one foot above the sediment/sludge surface, or approximately 13 feet below the water surface (SW-01-3). Surface water samples were submitted for analysis of TCL VOCs, TCL SVOCs, pesticides, PCBs, TAL metals, cyanide, and mercury. One (1) surface water sample (SW-01-2) was also be analyzed for 1,4-dioxane and PFAS. Refer to **Table 3-2** for the surface water sampling summary. Surface water sampling logs are provided in **Appendix G**. Surface water sampling activities were conducted in accordance with NYSDEC PFAS Guidance (NYSDEC, 2023).

3.8.2 Sediment/Sludge Sampling

Sediment cores were collected at 15 locations throughout Tank 75 based on an approximate 25-foot grid pattern (SED-01 to SED-15) using vibracore sampling methods from the sampling vessel (**Figure 3-1**). Vibracoring is a method of vibrating a core tube into underwater sediment. The vibration causes liquefaction of sediments along the exterior of the core tube and reduces friction, allowing easier core-barrel penetration into sediments. When the core is driven fully into the sediments, the vibration is stopped, and the core-barrel is pulled out. Suction due to the difference in pressure between the top and bottom of the core prevented sediments from falling out of the core barrel upon retrieval from the subsurface. Sediment core logs are provided in **Appendix G**.

Sediment cores were evaluated to identify each type of sludge / sediment material that is currently present and the nature of each phase of material. Prior to introduction of the vibracore sampler to the water, the top and bottom of the sediment were identified and measured using a measuring pole at each sediment sampling location. The depth to top of sediment and depth to refusal of the measuring pole (assumed tank bottom) were measured to the water's surface. Upon retrieval of each sediment core, a health physicist scanned each core for elevated gamma radiation. An AECOM geologist then performed core descriptions and measurements for the different sediment layers. One (1) sediment/sludge sample was collected from each sediment core for laboratory analysis. Discrete samples of either the soft sludge or medium-stiff sediment were collected from each core such that six samples were collected of the soft

sludge and nine samples were collected of the medium-stiff sediment. The sludge/sediment consistencies of the samples, either soft or medium-stiff/hard, are listed for each sample on Table 5-3. Sediment samples were submitted for analysis of TCL VOCs, TCL SVOCs, pesticides, PCBs, TAL metals, cyanide, mercury, and total organic carbon (TOC). Select sediment samples were also analyzed for 1,4-dioxane and PFAS. Samples for 1,4-dioxane and PFAS analysis were selected to provide uniform distribution across the Site and to include shallow and deep sample intervals to best characterize sediment within the tank. Refer to **Table 3-2** for the sediment/sludge sampling summary. Sediment sampling activities were conducted in accordance with NYSDEC PFAS Guidance (NYSDEC, 2023).

Thicknesses of each material in different areas of Tank 75 were recorded and used to help quantify the volume of sludge / sediment layers (see **Table 3-3**). The total depth to the gunite bottom of Tank 75 was gauged at each of the locations to provide the estimated structure bottom elevation/topography.

3.9 Drilling and Soil Sample Collection

3.9.1 Underground Utility Locating

Prior to the drilling activities, public underground utility locating was performed by the boring contractor by notifying UDig NY.

On July 8, 2024, AECOM retained GPRS Inc. (GPRS) to evaluate boring locations for the possible presence of subsurface utilities prior to the drilling activities. GPRS utilized a Ground Penetrating Radar (GPR) unit coupled with a 250 to 450-megahertz (MHz) antenna and an electromagnetic pipe and cable locator over the proposed boring locations and marked out detected features directly on the ground surface, as needed. GPRS documented their survey activities in a summary report. A copy of the private utility locating documents is provided in **Appendix H.** Due to the uneven ground surface and thick vegetation, specific utilities could not be identified with certainty. However, several underground anomalies were identified, and these are marked on the figure included with the summary report. The long, narrow anomaly located on the east side of Tank 75 was encountered during initial attempts at drilling of SB-10. The anomaly appears to be a concrete footer or foundation that may run the length of the eastern edge of Tank 75.

In addition, a Site walk was completed on July 8, 2024, with individuals from the adjacent United Refining Company (URC) Tonawanda Terminal with knowledge of the Site to assist in verifying the presence of subsurface utilities prior to drilling. URC personnel did not identify any previously unidentified underground utilities.

In addition, soil borings were manually precleared to a depth of approximately 5 feet prior to drilling using either a hand auger or air knife/vacuum extraction equipment.

3.9.2 Drilling

Between July 8 and 15, 2024, AECOM staff oversaw the installation of soil borings performed by Parratt-Wolff Inc. (Parratt-Wolff) using either a Geoprobe® 7822DT track-mounted DPT drill rig with Geoprobe® DT22 dual tube tooling (used between July 8 and July 12, 2024) or a Geoprobe® 6712DT track-mounted DPT drill rig with Macro-Core® tooling (used July 15, 2024). A total of four (4) soil borings were completed around Tank 75, including one (1) vertical boring (SB-05) and three (3) angled borings (SB-01, SB-04, and SB-10).

Between August 8 and August 9, 2024, AECOM staff oversaw the installation of soil borings performed by Matrix using a Geoprobe® 7822DT track-mounted DPT drill rig with Macro-Core® tooling. A total of five (5) vertical soil borings were completed around Tank 75 (SB-02, SB-03, SB-07, SB-08, and SB-09).

Angled soil boring SB-06 located south of Tank 75 was unable to be advanced due to difficult drilling conditions, the presence of a berm, and limited clearance within the Site boundary. As result of these conditions AECOM notified and received approval from the NYSDEC on August 12, 2024, to omit this boring from the remedial investigation.

The upper 5 feet of most borings was cleared using either a hand auger or air knife (i.e. Vac-Tron®). Due to inherent difficulties of performing angled borings using DPT equipment, angled borings SB-01 and SB-04 were not manually precleared at surface. These locations were previously investigated by GPRS, and discussions were held with representatives of the URC property regarding the potential presence of subsurface utilities in the area. Using these methods, it was confirmed that there were no subsurface utilities present. All other locations were cleared to 5 feet bgs using a hand auger except boring SB-10 which was cleared using air knife. The remaining length of each boring was continuously sampled via DPT methods using a 4-foot long, acetate-lined sampler (employed by Parratt-Wolff July 8 through 15, 2024) or a 5-foot long, acetate-lined sampler (employed by Matrix August 8 and 9, 2024), to attempt to achieve a maximum vertical depth of 30 feet bgs, except for SB-07 which was continuously sampled to 35 feet bgs due to the rise in grade in the southern portion of the Site. Soil borings were advanced to approximately the same vertical depths, with a maximum depth of approximately 2 feet below the bottom of the Tank 75 gunite liner (or approximately 30-35 feet bgs).

The angled borings SB-01 and SB-10 were each drilled at approximately a 37-degree angle measured from horizontal (53-degree angle from vertical), while the SB-04 angled boring was drilled at approximately a 45-degree angle measured from horizontal, all to a depth of 27 to 30 feet bgs to attempt to collected soil samples from beneath the bottom the Tank 75 structure. The variation in angle occurred due to the difficult nature of the angled borings. The 37-degree angle, closer to parallel with the ground surface when compared to the 45-degree angle, was not conducive to drilling at the lengths the investigation was looking to achieve and was identified as the limits of this drilling setup. Drilling at a 37-degree angle drastically increased time constraints on the project, increased the potential for equipment to break or get lost in the boring hole itself, increased the potential for safety hazards on-Site, and was determined to be unfeasible for the remainder of the investigation. A 45-degree angle was employed at SB-04 following discussion with the Parratt-Wolff drill team on-Site to continue the angled boring investigation, while making the work more technically feasible. The AECOM geologist classified the soils in accordance with the Unified Soil Classification System (USCS) and soils were continuously logged during subsurface sampling using EQuIS Collect. The soil boring locations are shown in **Figure 3-1**.

All soil borings were backfilled with a combination of soil cuttings that were not visibly contaminated (i.e. olfactory signs, elevated PID, staining, and/or visible product) and hydrated bentonite chips where necessary to backfill to surface grade. Angled borings were sealed with cement-bentonite grout. Any soil cuttings generated by soil boring activities that were not used for sampling or returned to the boring were containerized pending final disposition.

Subsurface observations were recorded on the boring logs presented in **Appendix I** and summarized in **Table 3-4**.

3.9.3 Hand Augering

Between July 10 and 11, 2024, AECOM staff advanced eight (8) borings via hand auger (HA-01 through HA-08) around Tank 75. The hand auger, consisting of a stainless-steel auger bit connected to a cylinder, was utilized to collect soil samples up to 4 feet bgs. The AECOM geologist classified the soils in accordance with the USCS and soils were continuously logged during subsurface sampling using EQuIS Collect. The hand augered locations are shown in **Figure 3-1**. Hand auger borings were backfilled with soils not utilized for sampling that were not visibly contaminated (i.e. olfactory signs, elevated PID, staining, and/or visible product), or a combination of soil and bentonite chips where necessary. Any soil cuttings generated by hand auger activities that were not used for sampling or returned to the boring were containerized pending final disposition.

Subsurface observations in the hand augers were recorded on boring logs presented in **Appendix I** and summarized in **Table 3-4**.

3.9.4 Soil Sampling

Soil sampling at soil borings (SB-01 through SB-05 and SB-07 through SB-10) was completed via DPT methods using a 4-foot long, acetate-lined dual tube or Macrocore sampler (employed by Parratt-Wolff

July 8 through 15, 2024) or a 5-foot long, acetate-lined Macrocore sampler (employed by Matrix August 8 and 9, 2024) up to a maximum vertical depth of 35 feet bgs. Three (3) soil samples were retained from each boring for laboratory analysis. Soil samples to be analyzed for VOCs were collected using Terra Core samplers.

Upon recovery, each soil sample was inspected for evidence of contamination (e.g., visible staining, odors, etc.) and screened for total VOCs using a PID. The first sample was collected from the surface (0' to 0.2 feet bgs) prior to the start of drilling at the investigation location. The second sample was collected from the interval exhibiting the greatest indication of contamination (e.g., elevated PID reading, odor, staining) above the water table. If no visible sign of contamination was present above the water table, the interval just above the water table was sampled. If both historical fill material and native material were present in a soil boring, a sample from each type of material was collected.

Shallow soil sampling at the hand augered locations (HA-01 through HA-08) was completed using a hand auger to depths of up to 4 feet bgs. Once extracted by the hand auger, soil samples were collected for analysis of VOCs using Terra Core samplers. Following collection of VOCs samples, soils from each stratigraphic unit to be sampled were placed in a stainless-steel mixing bowl to homogenize the sample, and then placed into the appropriate sampling containers. Two (2) soil samples were retained from each hand auger for laboratory analysis.

Soil samples collected at all locations were submitted for analysis of TCL VOCs, TCL SVOCs, pesticides, PCBs, TAL metals, cyanide, and/or mercury. Select soil samples were also analyzed for 1,4-dioxane and PFAS. Refer to **Table 3-2** for the soil sampling summary. Soil sampling activities were conducted in accordance with NYSDEC PFAS Guidance (NYSDEC, 2023).

3.10 Community Air Monitoring

In accordance with the CAMP for VOCs and particulates, monitoring was performed during intrusive activities associated with the Site, which included surface water and sediment sampling as well as the completion of soil borings and hand augers. CAMP monitoring was performed according to the guidance outlined in the SC/RIWP, the AECOM site-specific HASP, NYSDOH (2000) Generic CAMP, and NYSDEC DER-10 Guidance. For the surface water sand sediment sampling, only VOCs were monitored continuously at the upwind and downwind perimeters of the work area at temporary monitoring stations, which consisted of one MiniRae 3000 PID. For drilling and soil sampling, VOC and dust particulates were monitored continuously at the upwind and downwind perimeters of the work area at temporary monitoring stations, which consisted of one MiniRae 3000 PID and one Dusttrak II 8530 per station. In addition to using the particulate monitors, fugitive dust migration was visually assessed during ground intrusive work activities. During periods of heavy rain which were experienced at times during soil investigation work on July 10, 2024, CAMP monitoring was halted. No soil investigation work occurred during this time. Due to technical error, the upwind Dusttrak did not properly log on July 8, or after an initial 15-minute period on August 8, 2024. There was no evidence of fugitive dust noted during these instances and the downwind monitoring station indicated no exceeding particulate values.

There were no exceedances of VOCs during CAMP monitoring as part of the collection of surface water and sediment samples. Upwind and downwind monitoring data are summarized in **Appendix J**.

There were no exceedances of VOCs or particulate, or evidence of fugitive dust, during CAMP monitoring as part of the drilling and soil sampling activities. Upwind and downwind monitoring data are summarized in **Appendix J**.

3.11 Sample Analyses

Samples collected during the field investigations were delivered under chain-of-custody protocol to Eurofins, a NYSDOH Environmental Laboratory Approval Program (ELAP) certified laboratory. Analyses performed are listed in **Table 3-2**, and summarized below:

Groundwater: TCL VOCs, TCL SVOCs including 1,4-dioxane, pesticides, PCBs, PFAS, metals, mercury and cyanide.

Surface Water: TCL VOCs, TCL SVOCs including 1,4-dioxane, pesticides, PCBs, PFAS, metals, mercury, and cyanide.

Sediment: TCL VOCs, TCL SVOCs including 1,4-dioxane, pesticides, PCBs, PFAS, metals, mercury cyanide, and TOC.

Surface Soil: TCL SVOCs including 1,4-dioxane, pesticides, PCBs, PFAS, metals, mercury and cyanide.

Subsurface Soil: TCL VOCs, TCL SVOCs including 1,4-dioxane, pesticides, PCBs, PFAS, metals, mercury, and cyanide.

As discussed in Section 3.1.1, sediment samples collected from Tank 75 were originally supposed to be analyzed for waste characterization parameters by the TCLP method. However, following submittal of Tank 75 sediment samples to Eurofins, the lab informed AECOM that, due to the tar-like nature of the sediment and the potential for damage to laboratory equipment, the sediment samples could not be analyzed by TCLP methods. Eurofins stated that none of their other facilities could perform this analysis. AECOM also inquired with Pace Analytical Services and were told they would not analyze the oily sediment samples via the TCLP analyses either. Therefore, no oily sediment samples were analyzed via TCLP methods.

3.12 Management and Disposal of Investigation-Derived Waste

3.12.1 Waste Management

Well development and purged groundwater, surface water, decontamination water, and sludge / sediment generated from the investigation of Tank 75 contents, including water used for decontamination of sampling equipment, were returned to the structure.

Used disposable sampling equipment and personal protective equipment (PPE) that came in contact with non-visually impacted media exhibiting no gross contamination were containerized in 55-gallon steel drums. Soils with evidence of gross contamination and used disposable sampling equipment and PPE that came in contact with grossly contaminated soils were segregated and containerized in 55-gallon steel drums. Materials that may have come into contact with the Tank 75 contents, including sampling equipment and used PPE, were considered hazardous waste and containerized in 55-gallon steel drums.

All drums were labeled to identify contents and accumulation start date and staged within an on-Site accumulation and containment area prior to final disposal. The containment area consisted of polyethylene plastic sheeting equipped with 4”x4” lumber used to create a raised berm on all sides. Considering the formerly identified hazardous nature of Tank 75 contents (K049, K050, K052) and on-Site drummed material that may have come in contact with its content, the accumulation and containment area was inspected weekly as required by 40 CFR Part 262.16(b)(2)(iv). Based on the current sampling program, waste codes D007 [chromium], D008 [lead], K049 and K052 were identified.

Accumulation area weekly inspection logs are presented in **Appendix K**.

3.12.2 Radioactive Waste Management

As noted in Section 3.7, no IDW indicating elevated radiological readings was encountered during RI activities.

3.12.3 Decontamination Procedures

Non-disposable equipment used during the investigation of Tank 75 contents (e.g., bathymetry survey equipment, Vibracore sampler, and water vessels) were decontaminated with a combination of Simple Green® all-purpose cleaner or non-phosphate detergent (Alconox®) and a potable water solution with either a standard or hot water industrial pressure washer. Non-disposable equipment used during all other RI activities (e.g., Macrocore samplers and drilling rods) were decontaminated with a non-phosphate detergent (Alconox®) and potable water solution. Field equipment rinsate blanks were generated and analyzed to monitor the effectiveness of field decontamination procedures.

Wash buckets and potable water were set up at the decontamination area. This included an area for washing hands and a boot wash.

3.12.4 Waste Storage

IDW drums were stored and covered with plastic sheeting in the decontamination area located northeast of Tank 75, prior to waste characterization and off-Site disposal. Drums were properly labeled and indicated as “Hazardous Waste Pending Analysis”, where applicable, and also included the Site information, accumulation date, waste characterization (i.e., toxic), and sampling date.

The drums and drum storage area were inspected weekly, and inspections were documented on weekly inspection forms. The weekly inspection forms are attached to **Appendix K**.

Hazardous waste was removed from the Site within 180 days of the start of waste accumulation.

Following removal of all containers from the decontamination area, the drum storage area was properly closed on November 13, 2024.

3.12.5 Waste Characterization

AECOM collected waste characterization samples to classify the IDW and coordinate disposal at appropriate licensed facilities. Waste characterization samples were collected during the field investigations and delivered under chain-of-custody protocol to Eurofins in Buffalo, New York. Analyses performed are listed in **Table 3-2**, and summarized below:

Groundwater: None

Surface Water: Corrosivity, pH, ignitability, reactivity, ethylene glycol, British Thermal Unit (BTU), TEPH and paint filter.

Sediment: Corrosivity, pH, ignitability, reactivity, ethylene glycol, BTU, TEPH and paint filter.

Surface Soil: None

Subsurface Soil: None

3.12.6 Waste Transportation and Disposal

All IDW not managed on-Site was shipped for off-Site disposal to the following facilities:

- BU172468-MT: Nine (9) empty drums
    - Clean Harbors Spring Grove, Cincinnati, OH
    - Reclamation/Landfill
- CH2853762: One (1) drum with soils
    - EPA Waste Code D008 (lead)

    - Clean Harbors Lone Mountain, OK Sub-C landfill via Spring Grove
    - MICROENCAPSULATION-Landfill
- CH2853653, CH2853675, SB-07 & CH2853799: Seven (7) drums with soil and debris
    - EPA Waste Codes D007 (chromium), D008 (lead), K049, and K052
    - Clean Harbors El Dorado, AR
    - Incineration

Prior to off-Site shipment and disposal, the IDW information for the proposed waste transporter and disposal facility were provided to the NYSDEC on November 5, 2024, for review. A Hazardous Waste Manifest that documented shipping information, including transporter and disposal facility names and locations, accompanied all hazardous waste shipments. An Ashland-approved waste contractor, Clean Harbors, coordinated the waste disposal, transportation, treatment, and disposal.

Hazardous waste was removed from the Site on November 13, 2024.

Waste records and manifests are attached to **Appendix K**.

3.13 DER-31 Green and Sustainable Remediation

Pursuant to the NYSDEC DER-31 Green and Sustainable Remediation (GSR) initiative, GSR principles and techniques shall be implemented to the extent feasible in the Site management of the remedy. The major GSR components are as follows:

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gas and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling, and increasing reuse of materials which would otherwise be considered a waste; and,
- Incorporating GSR principles and techniques to the extent feasible in the future development at this Site. Any future on-Site building shall be constructed, at a minimum, to meet the 2020 Energy Conservation Construction Code of New York (or most recent edition) to improve energy efficiency as an element of construction.

During the Remedial Investigation activities, the following GSR efforts were employed:

- Vehicle idling was reduced.
- Groundwater sampling pumps were powered by a battery instead of a gas-powered generator.
- Sample tubing was precisely measured as to not generate any excess which would contribute to additional waste.
- Waste materials amendable for recycling (i.e., carboard, glass, etc.) were disposed of in the proper recycling receptacle.
- IDW drums were removed from the Site in a single event at the end of entire program rather than daily pickups.
- When applicable, visits to stores to purchase field supplies, etc., and trips to the laboratory to drop off sample coolers were limited to save energy, reduce emissions, reduce localized noise, vibration, and wear and tear on roads.

4. Site Physical Characteristics

Information obtained during the current and previous investigations performed at the Site pertaining to topography, geology, and hydrogeology, is summarized in the following sections.

4.1 Physical Setting and Surface Water Drainage

The Site is generally flat with a gentle slope toward the Niagara River, located approximately 3,100 feet to the northwest. The dominant terrain feature is the Seaway Landfill, located approximately 500 feet northeast of the Site and forming a ridgeline running northwest to northeast.

Surface water drainage in the immediate area of Tank 75 is into the tank. To the south, west, and north, drainage is controlled by containment diking and is directed to the United Refining Company's oily water sewer system. Drainage east of the tank moves eastward and flows into Two Mile Creek via culverts and drainage swales.

4.2 Geologic Setting

The Site is located in the Erie-Ontario Lowlands Physiographic Province, composed of lake plains bordering the Great Lakes. The U.S. Department of Agriculture's Soil Conservation Service (USDA, 2024) identified the surface soils at the Site as Urban land consisting of highly disturbed land.

The Site and surrounding area are predominately underlain by reddish brown and gray varved glaciolacustrine silty clay and clayey silt deposits that are at least 40 feet thick. Soil boring logs from the Remedial Investigation Report for the Tonawanda Site (Bechtel, 1993), show that clay extends to a depth of 63 feet bgs in the vicinity of Tank 75, and depth to bedrock is approximately 77 feet bgs. Previous test borings on the Site indicate that the glaciolacustrine deposits contain desiccation cracks to depths of approximately 25 feet bgs that permit vertical groundwater recharge and may also provide the principal conduits for horizontal groundwater flow in this interval. The natural glaciolacustrine deposits have been disturbed and reworked to depths ranging between 0.3 to 7.0 feet (Earth Dimensions, Inc. [EDI], 1990). This altered material is identified as fill on the soil boring/monitoring well construction logs prepared by EDI.

Glaciolacustrine deposits of red-brown silty clays and clayey silts were identified during RI field activities to depths up to 35 feet bgs, including locations where angled borings were advanced to depths assumed to be below Tank 75. Blue-gray mottling was identified within native glaciolacustrine deposits and groundwater was primarily identified in soil cores at depths of 25 feet bgs or greater. Non-native fill material consisting of poorly graded sand with silt as well as disturbed or reworked native clays were identified from surface to depths up to 5 feet bgs. Impacts to subsurface soil including odor, visible staining, or elevated PID readings appear localized to specific shallow areas surrounding the tank and are most likely associated with former operations at or around the Site rather than attributable to a release of the tank itself.

Refer to **Figure 4-1.1** for the geological cross section lines on the Site Plan, and to **Figures 4-1.2** through **4-1.4** for the geological cross sections. Boring logs are provided in **Appendix I**.

4.3 Hydrogeologic Setting

The Site is underlain by 25 to 55 feet of glaciolacustrine clay with a low hydraulic conductivity. In the vicinity of Tank 75, shallow groundwater is believed to represent a perched system that is intermittent and associated with precipitation events. A shallow semi-confined hydrogeologic system has also been identified, which consists of sand lenses at depths of approximately 16 to 40 feet bgs associated with glaciolacustrine deposits.

Groundwater Levels and Flow Direction

Between April 25 and April 26, 2024, water level readings were collected by AECOM prior to well development. The depth to groundwater ranged from approximately 2.01 feet bgs (MW05-04) to 7.67 feet bgs (MW-02D), and the groundwater elevations ranged from approximately 588.52 feet AMSL (MW-02D) to 598.21 feet AMSL (MW05-03), as presented in **Table 4-1**. Due to the proximity of the monitoring well network to Tank 75, groundwater elevation contours were not generated. Based solely on groundwater elevations at each well, groundwater flow direction was generally towards the west/northwest, as shown on **Figure 4-2.1**.

On July 11, 2024, water level readings were collected by AECOM to obtain hydrogeological information during a different season. The depth to groundwater ranged from approximately 0.86 feet bgs (MW05-04) to 13.09 feet bgs (MW-02D), and the groundwater elevations ranged from approximately 583.10 feet AMSL (MW-02D) to 599.05 feet AMSL (MW05-03), as presented in **Table 4-2**. The groundwater flow direction was generally towards the west/northwest, as shown on **Figure 4-2.2**.

On September 20, 2024, the depth to groundwater ranged from approximately 2.53 feet bgs (MW-02S) to 9.13 feet bgs (MW-02D), and the groundwater elevations ranged from approximately 587.06 feet AMSL (MW-02D) to 594.88 feet AMSL (MW05-03), as presented in **Table 4-3**. The groundwater flow direction was generally towards the west/northwest, as shown on **Figure 4-2.3**.

Vertical hydraulic gradients were calculated for the two shallow/deep well pairs; MW-02S/MW-02D and MW-04S/MW-04D using data collected from the April 2024 gauging event. The calculated vertical hydraulic gradient for the MW-02S/MW-02D well pair is estimated at -0.58 feet per foot; indicating a downward gradient. The calculated vertical hydraulic gradient for the MW-04S/MW-04D well pair is estimated at -0.39 feet per foot; indicating a downward gradient.

Estimated Hydraulic Conductivity

Results of the May 2024 hydraulic conductivity testing indicate that the average hydraulic conductivities in overburden wells ranged from 2.44×10^{-5} centimeter per second (cm/s) at MW-02S to 6.90×10^{-7} cm/s at MW-03, as presented in **Table 4-4**.

4.4 Tank 75 Contents

Stormwater accumulates within Tank 75. At the time of SC/RI field activities, the total water depth was approximately 21 feet. Surface water has regularly been identified with a sheen because it comingles with impacted sludge and sediment located at the bottom of the tank. During warmer months, black, globular petroleum product has been identified at the surface most likely rising from deeper portions of the tank as the water within warms with increased air temperature. Accumulated stormwater has occasionally been pumped to lower the water levels within Tank 75. The water has been pumped to the Tonawanda POTW via the United Refining facility's API oil-water separator.

Two primary sediment types were identified within the tank during sediment investigation activities: a wet, soft, oily sludge with significant petroleum impacts, and a medium stiff to hard sediment, also with significant petroleum impacts, located below the previously noted unit. The soft sediment was identified via a combination of hand probing from the water vessel during vibracore sampling and sediment core logging on shore following collection. The identified depth of soft sediment ranged from 8.0 to 19.7 feet below the water surface (bws) with a thickness that ranged from 0.2 to 2.8 feet across 15 investigation locations. The medium stiff to hard sediment was identified below this unit at depths ranging from 10.4 to 21.6 feet bws with a thickness that ranged from 0.7 to 3.5 feet across 15 investigation locations. Total sediment thickness within the bottom of the tank ranged from 2.3 to 5.5 feet. The bottom of the hard sediment was inferred to be equivalent to the estimated bottom of Tank 75 and predominately determined via probe refusal. In some cases, as noted in sediment core logs provided in **Appendix G**, the total recovery of the sediment core completed to refusal exceeded the thickness of the sediment determined via hand probe. In these instances, the depth of the bottom of the tank (bottom of medium stiff / hard sediment) is estimated based on the total recovery of the sediment core.

Ambiguity in sediment thickness and tank bottom estimation arises from differences between hand probing and sediment core recovery methods. Hand probing provided tactile feedback to infer the bottom of the tank but may underestimate sediment thickness due to resistance from medium stiff to hard sediment that had been previously identified. Conversely, sediment core recovery can exceed the inferred sediment thickness if the vibracore sampler over-recovers material due to the effects of compaction or suction during sampling. Furthermore, it is possible that refusal of the vibracore sampler occurred due to refusal within medium stuff to hard sediment as opposed to the true tank bottom. Where discrepancies occur, the tank bottom is estimated based on total core recovery.

The total volume of the upper soft sludge was approximately 1,380 cubic yards; the total volume of the lower medium to hard sludge was approximately 4,570 cubic yards; resulting in a total estimated sludge/sediment volume of approximately 5,950 cubic yards.

The tank's gunite liner was noted as missing/removed from areas proximate two of the 15 sediment investigation locations (SED-03 and SED-15) considering glaciolacustrine silty clay similar to surrounding Site soils was identified within the bottom of the sediment core. These locations represent the northeast and southeast most sediment investigation locations.

Refer to **Figure 4-3.1** for the cross-section lines of Tank 75 on the Site Plan, and to **Figures 4-3.2** and **4-3.3** for the surface water and sediment/sludge cross sections.

5. Nature and Extent of Contamination

Upon receipt from the laboratory, the analytical results were validated by an AECOM chemist in accordance with NYSDEC DER-10 and USEPA Region II data validation procedures. The Data Usability Summary Reports (DUSRs) are provided in **Appendix L**. The laboratory certificates of analyses are provided in **Appendix M**.

5.1 Applicable Standards, Criteria, and Guidance

The data are compared to the following applicable SCG values.

Groundwater and Surface Water

The groundwater and surface water analytical results were compared to the class GA groundwater standards or guidance values listed in NYSDEC TOGS 1.1.1 (NYSDEC, 1998), as amended, protection for a source of drinking water.

The surface water analytical results were also compared to the class A, A-S, AA, AA-S surface water standards or guidance values listed in NYSDEC TOGS 1.1.1 (NYSDEC, 1998), as amended, protection for surface water. The lowest value available of the Source of Drinking Water (surface water), Human Consumption of Fish (fresh waters), Fish Propagation (fresh waters), Fish Survival (fresh waters), Wildlife Protection (fresh waters), and Aesthetic (fresh water), was selected as the standard.

Soil and Sediment / Sludge

The soil and sediment analytical results were compared to Unrestricted Use, Industrial Use, and Protection of Groundwater soil cleanup objectives (SCOs) presented in NYCRR Chapter IV Part 375.6, effective 12/14/06 (NYSDEC, 2006). Where there were no Part 375.6 SCOs, the NYSDEC (2010c) CP-51 Table 1 Supplemental SCOs, effective 12/2/10, were provided. Where there were no Unrestricted Use SCOs, the lowest of the Supplemental SCOs was selected.

For PFAS constituents, soil and sediment analytical results are compared to the guidance values presented in the NYSDEC PFAS Guidance, dated April 2023 (NYSDEC, 2023).

As the sediment is contained within the gunite lined tank and there is no outlet to natural waters, and thus no potential risk to aquatic or marine life, sediment sample results were not compared to NYSDEC sediment guidance values (NYSDEC, 2014). This data will be used in evaluating remedial options.

5.2 Groundwater Analytical Results

Nine (9) groundwater samples and one (1) field duplicate groundwater sample were collected from nine (9) monitoring wells during the RI field investigation activities completed on April 29 and 30, 2024. Groundwater samples were analyzed for VOCs, SVOCs including 1,4-dioxane, pesticides, PCBs, metals and inorganics, and PFAS. The groundwater analytical results are summarized in **Table 5-1**. Detected groundwater analytical results for all compounds are presented in **Figure 5-1**.

Field Measurements

Field water quality measurements of temperature, pH, ORP, specific conductivity, DO, turbidity, color and odor were recorded during well purging and groundwater sample collection. Well purging and sampling logs are provided in **Appendix D**.

The measurements recorded during groundwater sampling of the nine (9) monitoring wells in April 2024 are briefly discussed below.

- Temperatures ranged from 9.36 to 15.26 degrees Celsius.

- pH values were generally neutral, ranging from 7.48 standard units (SU) to 8.61 SU, except for an initially higher reading of 10.35 SU at MW05-02.
- ORP values ranged from 32 to 167 milliVolts (mV).
- Specific conductivity values ranged from 0.94 to 4.42 milliSiemens per centimeter (mS/cm).
- DO levels ranged from 1.50 to 7.26 mg/L, except for a higher reading of 396 mg/L at MW05-02.
- Turbidity values ranged from 2.5 to 98.9 nephelometric turbidity units (NTUs), except for initially high readings of 1,000 and 939 NTU at MW05-01 and MW05-04, respectively.
- Color was clear, except for an initial brown color at MW05-01 and MW05-04.
- There was no odor detected.

Monitoring wells MW-02D and MW-04D had minimal water following recharge, not allowing for the collection of water quality parameters.

VOCs

VOCs were not detected at concentrations above groundwater criteria in any of the nine (9) monitoring wells. One or more of five (5) VOCs (1,1-DCA, acetone, carbon disulfide, cis-1,2-DCE, and/or vinyl chloride), were detected in at least one of four (4) monitoring wells (MW-02D, MW-04S, MW05-02, and MW05-03) but at concentrations below the groundwater criteria.

SVOCs

SVOCs were not detected at concentrations above groundwater criteria in any of the nine (9) monitoring wells. One of three (3) SVOCs (caprolactam, di-n-butyl phthalate, and/or 1,4-dioxane) were detected in four (4) wells (MW-02D, MW-02S, MW-04D, MW05-01), but at concentrations below the groundwater criteria.

Pesticides

Pesticides were not detected in groundwater in any of the nine (9) monitoring wells.

PCBs

PCBs were not detected in groundwater in any of the nine (9) monitoring wells.

Metals and Inorganics

Metals were detected in groundwater in all nine (9) monitoring wells.

One or more of four (4) metals (iron (total and/or dissolved), magnesium (total and/or dissolved), manganese (total) and sodium (total and dissolved)) were detected at concentrations above their groundwater criteria in all nine (9) monitoring wells. Based on their ubiquitous distribution in soil and groundwater across the Site, these metals may be associated with background conditions rather than past fuel bulk storage activities. The highest concentrations of total metals exceeding criteria were detected in overburden well MW05-03 (screened at 3-28 feet bgs) and deeper overburden well MW-03 (screened at 17.5-27.5 feet bgs). The highest number of total metals exceeding criteria were detected in in overburden well MW05-03 (screened at 3-28 feet bgs). Metal concentrations also reduced when compared to the filtered (dissolved) groundwater samples, which may indicate the inclusion of sediment in the unfiltered groundwater samples.

Other metal and inorganic parameters were also detected in at least one monitoring well, but at levels below their groundwater criteria, including aluminum (total and dissolved), arsenic (total and dissolved), barium (total and dissolved), cadmium (total and dissolved), calcium (total and dissolved), chromium (total and dissolved), cobalt (total and dissolved), copper (total and dissolved), lead (total and dissolved), nickel (total and dissolved), potassium (total and dissolved), selenium (dissolved only), silver (dissolved only), vanadium (total and dissolved), zinc (total and dissolved), and cyanide (dissolved only).

PFAS

PFAS were detected in groundwater in all four (4) monitoring wells sampled.

Perfluorooctanesulfonic acid (PFOS) was detected in one (1) monitoring well MW05-01 (2.8-22.8 feet bgs) at a concentration marginally above its groundwater criterion (3.4 nanogram per liter (ng/L) detection compared to 2.7 ng/L groundwater criterion). Perfluorooctanoic acid (PFOA) was also detected at all four (4) monitoring wells sampled, but at concentrations below its groundwater criteria.

Other PFAS parameters were also detected, including 1H,1H,2H,2H-perfluorooctane sulfonic acid (6:2), perfluorobutanesulfonic acid (PFBS), perfluorobutanoic acid (PFBA), perfluorodecanoic acid (PFDA), perfluoroheptanoic acid (PFHpA), perfluorohexanesulfonic acid (PFHxS), perfluorohexanoic acid (PFHxA), perfluoropentanoic acid (PFPeA), and perfluorononanoic acid (PFNA); however, there are no groundwater criteria for these analytes at this time.

5.3 Surface Water Analytical Results

Three (3) surface water samples and one (1) field duplicate surface water sample were collected from one (1) central location within Tank 75 during the RI field investigation activities completed on June 3, 2024. Surface water samples were analyzed for VOCs, SVOCs including 1,4-dioxane, pesticides, PCBs, metals and inorganics, and/or PFAS, as well as various additional parameters to characterize the surface water samples. The surface water analytical results are summarized in **Table 5-2**. Detected surface water analytical results for all compounds are presented in **Figure 5-2**.

Field Measurements

Field water quality measurements of temperature, pH, ORP, specific conductivity, DO, and turbidity were recorded during surface water sample collection. Sampling logs are provided in **Appendix G**.

The measurements recorded during surface water sampling of the three (3) surface water depth intervals at SW-01 on June 3, 2024, are briefly discussed below.

- Temperatures ranged from 21.87 to 22.66 degrees Celsius.
- pH values were generally neutral, ranging from 6.97 to 7.84.
- ORP values ranged from 48 to 232 mV.
- Specific conductivity values ranged from 0.261 to 0.296 mS/cm.
- DO levels ranged from 1.91 to 6.83 mg/L.
- Turbidity values ranged from 1.6 to 23 NTU.
- No abnormal color or visual impacts identified in samples; however, a petroleum sheen has been identified on the surface water within the tank.
- Trace petroleum odor identified.

VOCs

VOCs were not detected at concentrations above the groundwater or surface water criteria in Tank 75. Five (5) VOCs (acetone, benzene, chlorobenzene, cyclohexane and methylcyclohexane) were detected in the deepest surface water sample (SW-01-3 at 13 feet bws), but at concentrations below the groundwater and surface water criteria.

SVOCs

SVOCs were not detected at concentrations above the groundwater or surface water criteria in Tank 75. Six (6) SVOCs (2-methylnaphthalene, 4-methylphenol (p-cresol), acenaphthene, fluorene, phenanthrene and phenol) were detected in the deepest surface water sample (SW-01-3 at 13 feet bws), but at concentrations below the groundwater and surface water criteria.

Pesticides

Pesticides were not detected at concentrations above the groundwater criteria in Tank 75. However, one or more of four (4) pesticides (delta-BHC, methoxychlor, p,p'-DDD, and/or p,p'-DDT) were detected at concentrations above their surface water criteria in all three (3) surface water samples. Endrin aldehyde or endrin ketone were also detected at two (2) surface water samples, but at concentrations below both the groundwater and surface water criteria.

PCBs

PCBs were not detected in surface water in Tank 75.

Metals and Inorganics

Metals were detected in surface water at all three (3) surface water depths in Tank 75.

Manganese (total) was detected at a concentration above the groundwater and surface water criteria in the deepest surface water sample (SW-01-3 at 13 feet bws). However, the dissolved phase manganese concentration was well below the groundwater and surface water criteria at this sample, indicating that the surface water sample SW-01-3 may have had sediment inclusion, and therefore may not be attributable to the surface water media, but rather the sediment inclusion. Manganese (dissolved) was detected above the groundwater and surface water criteria in the intermediate surface water field duplicate sample (SW-01-2 at 7 feet bws) but was non-detect in the original sample.

Other metal and inorganic parameters were also detected, but at levels below their groundwater and surface water criteria, including barium (total and dissolved), calcium (total and dissolved), cobalt (dissolved only), copper (dissolved only), iron (total and dissolved), magnesium (total and dissolved), nickel (total and dissolved), potassium (total and dissolved), sodium (total and dissolved), and zinc (total and dissolved).

PFAS

PFAS were detected in surface water at the one (1) surface water sample collected (SW-01-2 at 7 feet bws) in Tank 75.

PFOA was detected at concentrations marginally above its groundwater and surface water criteria (8.0-8.3 ng/L detection compared to 6.7 ng/L groundwater and surface water criteria). PFOS was also detected at a concentration marginally above its groundwater and surface water criteria (2.9 ng/L detection compared to 2.7 ng/L groundwater and surface water criteria).

Other PFAS parameters were also detected, including 1H,1H,2H,2H-perfluorodecane sulfonic acid (6:2), 1H,1H,2H,2H-perfluorooctane sulfonic acid (6:2), PFBS, PFBA, PFDA, PFHpA, PFHxS, PFHxA, and PFNA; however, there are no groundwater or surface water criteria for these parameters.

Additional Parameters

The following additional parameters were also analyzed to assist in the characterization of the surface water in Tank 75:

- The heat of combustion of liquid hydrocarbon fuels, which is a measure of the energy a fuel can provide, and as measured by Parr calorimeter were reported as "Did Not Fire" indicating that when prepped for Heat of Combustion/BTU analysis, the samples did not combust.
- The measurement of oil and grease, as measured by the silica gel treated n-hexane extractable material (SGT-HEM; non-polar material), was not detected above the reported limit for all samples.
- Flash point was determined to be >175 degrees Fahrenheit for all samples.
- Ethylene glycol was not detected.
- Reactive cyanide and sulfide were not detected.

- pH was slightly basic, ranging from 7.95 (SW-01-3) to 8.28 (SW-01-1).
- Temperature was consistent, ranging from 19.7 degrees Celsius (SW-01-3) to 19.9 degrees Celsius (SW-01-1 and SW-01-2).

5.4 Sediment Analytical Results

Fifteen (15) sediment samples and two (2) field duplicate sediment samples were collected from 15 locations in Tank 75 during the RI field investigation activities completed on June 3 and 4, 2024. Sediment samples were analyzed for VOCs, SVOCs including 1,4-dioxane, pesticides, PCBs, metals and inorganics, and/or PFAS, as well as various additional parameters to characterize the sediment samples. The sediment analytical results are summarized in **Table 5-3**. Detected sediment analytical results for all compounds are presented in **Figure 5-3**.

VOCs

VOCs were detected above one or more sol cleanup objective (SCO) at all 17 sediment samples collected from Tank 75.

Eight (8) VOCs, including 1,2-dichlorobenzene, 1,4-dichlorobenzene, chlorobenzene, isopropylbenzene (cumene), styrene, and/or benzene, toluene, ethylbenzene and xylenes (BTEX), were detected above the Unrestricted Use SCOs at all 17 sediment samples.

One (1) VOC, benzene, was detected above the Industrial Use SCO in 12 out of 17 sediment samples.

Seven (7) VOCs, 1,2-dichlorobenzene, 1,4-dichlorobenzene, chlorobenzene, isopropylbenzene (cumene), toluene, ethylbenzene and/or xylenes, were detected above the Protection of Groundwater SCOs at all 17 sediment samples.

SVOCs

SVOCs were detected above one or more SCO at all 17 sediment samples collected in Tank 75.

Seventeen (17) SVOCs, including most polycyclic aromatic hydrocarbons (PAHs), 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, biphenyl, chrysene, dibenzofuran, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene and pyrene were detected above the Unrestricted Use SCOs at all 17 sediment samples.

Seven (7) SVOCs, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, indeno(1,2,3-cd)pyrene, naphthalene, and/or phenanthrene, were detected above the Industrial Use SCOs at 12 out of 17 sediment samples.

Eleven (11) SVOCs, including 2-methylnaphthalene, acenaphthylene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, fluorene, indeno(1,2,3-cd)pyrene, naphthalene, and/or phenanthrene, were detected above the Protection of Groundwater SCOs at all 17 sediment samples.

Pesticides

Pesticides were not detected in sediment in Tank 75.

PCBs

PCBs were detected at one (1) sediment sample (SED-03) in Tank 75, at a concentration of 4 milligram per kilogram (mg/kg) above its Unrestricted Use SCO of 0.1 mg/kg and its Protection of Groundwater SCO of 3.2 mg/kg, but below its Industrial Use SCO of 25 mg/kg.

PCBs were not detected at the remaining 16 out of 17 sediment samples collected.

Metals and Inorganics

Metals and inorganics were detected above one or more SCO at all 17 sediment samples collected in Tank 75.

Sixteen (16) metals, including aluminum, antimony, arsenic, barium, cadmium, calcium, chromium (total), cobalt, copper, iron, lead, mercury, nickel, selenium, vanadium, and/or zinc, were detected above the Unrestricted Use SCOs at all 17 sediment samples.

Five (5) metals, arsenic, chromium (total), copper, lead, and/or mercury, were detected above the Industrial Use SCOs at all 17 sediment samples.

Nine (9) metals, arsenic, barium, chromium (total), copper, lead, mercury, nickel, selenium, and/or zinc, were detected above the Protection of Groundwater SCOs at all 17 sediment samples.

Other metal and inorganic parameters were also detected, but at levels below their soil SCOs, including beryllium, manganese, silver, sodium, thallium, and cyanide.

PFAS

PFAS were detected in sediment at all six (6) sediment samples collected in Tank 75.

At this time, NYSDEC has only issued soil cleanup guidance values for PFOA and PFOS. PFOA was detected at concentrations marginally above the guidance levels for unrestricted use in five (5) out of the six (6) sediment samples. PFOA was also detected at concentrations marginally above guidance levels for protection of groundwater in two (2) out of six (6) sediment samples. Neither PFOA nor PFOS were detected above the guidance levels for industrial use in any of the sediment samples collected.

Other PFAS parameters were also detected, including 1H,1H,2H,2H-perfluorooctane sulfonic acid (6:2), 2-(n-methyl perfluorooctanesulfonamide) acetic acid, n-ethyl perfluoro-1-octanesulfonamide, n-ethyl-n-((heptadecafluorooctyl)sulphonyl) glycine, perfluorodecane sulfonic acid (PFDS), perfluorononanesulfonic acid (PFNS), PFHPA, perfluorooctane sulfonamide (PFOSA), PFOS, perfluoropentanoic acid (PFPeA), perfluorotridecanoic acid (PFTriA), perfluoroundecanoic acid (PFUnA), and PFNA; however, there are no soil guidance levels for these parameters.

Additional Parameters

The following additional parameters were also analyzed to assist in the characterization of the sediment in Tank 75:

- The heat of combustion of liquid hydrocarbon fuels, which is a measure of the energy a fuel can provide, and as measured by a Parr calorimeter and expressed in BTU, ranged from non-detect (SED-13) to 5,430 BTU/lb (SED-07).
- The measurement of oil and grease, as measured by the silica gel treated n-hexane extractable material (SGT-HEM; non-polar material), ranged from 10,400 mg/kg (SED-08) to 45,600 mg/kg (SED-13).
- TOC ranged from 140,000 mg/kg (SED-03) to 447,000 mg/kg (SED-05).
- Flash point was not detected.
- Ethylene glycol was not detected.
- Reactive sulfide ranged from 18.5 mg/kg (SED-15) to 377 mg/kg (SED-05).
- pH was generally neutral, ranging from 7.0 (SED-11) to 8.0 (SED-08).
- Temperature was consistent, ranging from 18.3 degrees Celsius (SED-09) to 20.1 degrees Celsius (SED-03, -04, -05)).
- There were no free liquids present in any samples, as measured by the paint filter liquids test.

5.5 Soil Analytical Results

A total of nine (9) soil borings were completed between July 8 and August 9, 2024, and a total of eight (8) hand augers were completed between July 10 and 11, 2024, during the RI field investigation activities.

5.5.1 Surface Soil Analytical Results

Seventeen (17) surface soil samples at depths of 0 to 0.2 feet bgs and two (2) field duplicate surface soil samples were collected between July 8 and August 8, 2024. In accordance with the SC/RIWP (AECOM, 2023), surface soil samples were not analyzed for VOCs. Surface soil samples were analyzed for SVOCs including 1,4-dioxane, pesticides, PCBs, metals and inorganics, and PFAS. The surface soil analytical results are summarized in **Table 5-4.1**. Detected surface soil analytical results for all compounds are presented in **Figure 5-4.1**.

SVOCs

SVOCs were not detected at concentrations above the soil SCOs.

Eleven (11) SVOCs, including acenaphthylene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, fluoranthene, indeno(1,2,3-cd)pyrene, phenanthrene and/or pyrene, were detected in eight (8) surface soil samples but below SCOs.

Pesticides

Pesticides were detected above the soil SCOs at three (3) surface soil samples collected.

Two (2) pesticides, including p,p'-DDD and/or p,p'-DDT, were detected above the Unrestricted Use SCOs at three (3) surface soil samples (HA-01 0-0.2 feet bgs, HA-07 0-0.2 feet bgs, and SB-10 0-0.2 feet bgs).

Pesticides were not detected above Industrial Use or Protection of Groundwater SCOs and were not detected in the remaining surface soil samples.

PCBs

PCBs were detected above the soil SCOs at seven (7) surface soil samples collected.

PCB-1260 was detected above the Unrestricted Use SCO at seven (7) surface soil samples (HA-01 0-0.2 feet bgs, HA-04 0-0.2 feet bgs and its duplicate, HA-07 0-0.2 feet bgs, SB-02 0-0.2 feet bgs and its duplicate, and SB-08 0-0.2 feet bgs).

PCBs were not detected above Industrial Use or Protection of Groundwater SCOs and were not detected in the remaining surface soil samples.

Metals and Inorganics

Metals and inorganics were detected above one or more SCO at all 19 surface soil samples collected.

Eleven (11) metals, including aluminum, arsenic, calcium, chromium (total), copper, iron, lead, mercury, nickel, vanadium, and/or zinc, were detected above the Unrestricted Use SCOs at all 19 surface soil samples.

One (1) metal, arsenic, was detected above the Industrial Use SCO at one (1) surface soil sample (SB-01 0-0.2 feet bgs).

Five (5) metals, arsenic, chromium (total), lead, mercury, and/or nickel, were detected above the Protection of Groundwater SCOs at 17 surface soil samples (all except HA-05 0-0.2 feet bgs, and SB-07 0-0.2 feet bgs).

Other metal and inorganic parameters were also detected, but at levels below their soil SCOs, including antimony, barium, beryllium, cadmium, cobalt, magnesium, manganese, potassium, selenium, silver, sodium, and cyanide.

PFAS

PFAS were detected in soil at all three (3) surface soil samples analyzed, but at concentrations below the soil guidance levels.

PFOS was detected in two (2) surface soil samples (SB-01 0-0.2 feet bgs, and SB-07 0-0.2 feet bgs), but below the soil guidance levels.

Other PFAS parameters were also detected, including PFDA, PFHxA, PFTriA, PFUnA, and PFNA; however, there are no soil guidance levels for these parameters.

5.5.2 Subsurface Soil Analytical Results

Twenty-six (26) subsurface soil samples at depths greater than 0.2 feet bgs and three (3) field duplicate subsurface soil samples were collected between July 9 and August 9, 2024. Subsurface soil samples were analyzed for VOCs, SVOCs including 1,4-dioxane, pesticides, PCBs, metals and inorganics, and PFAS. The subsurface soil analytical results are summarized in **Table 5-4.2**. Detected subsurface soil analytical results for all compounds are presented in **Figure 5-4.2**.

VOCs

VOCs were detected above one or more SCO at three (3) subsurface soil samples collected.

Five (5) VOCs, including acetone, benzene, ethylbenzene, toluene, and/or xylenes, were detected above the Unrestricted Use and the Protection of Groundwater SCOs at three (3) subsurface soil samples (HA-03 2.3-2.5 feet bgs, HA-04 1.3-1.5 feet bgs, and SB-03 5-7 feet bgs).

VOCs were not detected above Industrial Use SCOs and were not detected above any soil SCOs in the remaining subsurface soil samples.

SVOCs

SVOCs were detected above one or more SCO at one (1) subsurface soil sample collected.

Twelve (12) SVOCs, including most PAHs 2-methylnaphthalene, acenaphthene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, fluorene, naphthalene, phenanthrene and pyrene, as well as dibenzofuran, and n-nitrosodiphenylamine, were detected above the Unrestricted Use SCOs at one (1) subsurface soil sample (HA-03 2.3-2.5 feet bgs).

Four (4) SVOCs, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and chrysene, were detected above the Industrial Use SCOs at one (1) subsurface soil sample (HA-03 2.3-2.5 feet bgs).

Six (6) SVOCs, including 2-methylnaphthalene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, and naphthalene, were detected above the Protection of Groundwater SCOs at one (1) subsurface soil sample (HA-03 2.3-2.5 feet bgs).

SVOCs were not detected above any soil SCOs in the remaining subsurface soil samples.

Pesticides

Pesticides were detected above the soil SCOs at three (3) subsurface soil samples collected.

One (1) pesticide, p,p'-DDT, was detected above the Unrestricted Use SCO at three (3) subsurface soil samples (HA-01 2.5-3.5 feet bgs, HA-03 2.3-2.5 feet bgs, and HA-04 1.3-1.5 feet bgs).

Pesticides were not detected above Industrial Use or the Protection of Groundwater SCOs and were not detected above any soil SCOs in the remaining subsurface soil samples.

PCBs

PCB-1260 was only detected above the Unrestricted Use SCO at one (1) subsurface soil sample (SB-02 10-11 feet bgs).

PCBs were not detected above Industrial Use or the Protection of Groundwater SCOs and were not detected in the remaining surface soil samples.

Metals and Inorganics

Metals and inorganics were detected above one or more SCO at all 29 subsurface soil samples collected.

Eleven (11) metals, including aluminum, arsenic, calcium, chromium (total), iron, lead, manganese, mercury, nickel, vanadium, and/or zinc, were detected above the Unrestricted Use SCOs at all 29 subsurface soil samples.

One (1) metal, arsenic, was detected above the Industrial Use SCO at one (1) subsurface soil sample (HA-03 2.3-2.5 feet bgs).

Three (3) metals, arsenic, chromium (total), and/or manganese, were detected above the Protection of Groundwater SCOs at 27 subsurface soil samples (all except HA-06 3-4 feet bgs, and SB-07 1-2 feet bgs).

Other metal and inorganic parameters were also detected, but at levels below their soil SCOs, including antimony, barium, beryllium, cadmium, cobalt, copper, magnesium, potassium, selenium, silver, and sodium.

PFAS

PFAS were detected in subsurface soil at one (1) out of six (6) subsurface soil samples analyzed.

Only PFOS was detected in the subsurface soil sample collected from HA-05 (3-4 feet bgs), but at a concentration below all guidance levels. No other PFAS were detected in this subsurface soil sample or at the remaining five (5) subsurface soil samples collected.

5.6 Petroleum Impacted Soil Observations

Indications of petroleum impacted materials were observed in the field (i.e., petroleum odor or staining) in three shallow borings, HA-01, HA-03, and HA-04, all located in the immediate vicinity of Tank 75. Signs of petroleum impacts were observed from ground surface to the total depth of 4 feet bgs in boring HA-01 in the northeast corner of Tank 75 in the area where the gunite lining has been removed. Two hand auger borings located on the western perimeter of Tank 75 also exhibited petroleum impacts. A thin layer of asphaltic material was observed in Boring HA-03 from 2.3 to 2.5 feet bgs, and HA-04 also exhibited signs of petroleum impacted soil from 1.3 to 1.5 feet bgs. Refusal on concrete was encountered at 1.5 feet bgs in boring HA-04. Stained soil exhibiting a creosote odor was observed in DPT soil boring SB-07 from a depth of 2.0 to 5.4 feet bgs. The stained soil exhibited a creosote odor.

6. Contaminant Fate and Transport

This section describes fate and transport processes that may influence the behavior of the contaminants detected at the Site. The discussion emphasizes the processes that are essential in evaluating potential exposure of human and environmental receptors to the Site contaminants detected at concentrations above the SCGs. The following items are presented in this section:

1. A list of contaminants detected above applicable SCGs at the Site.
2. General description of fate and transport processes occurring in soil, soil vapor/indoor air, surface water/sediments, and groundwater systems.
3. Identification and description of properties of contaminants detected above the SCGs in the various media at the Site.
4. Media-specific and contaminant-specific evaluation of potential fate and transport mechanisms occurring at the Site.

6.1 Contaminants of Concern

Contaminants that exceeded SCGs at the Site during the RI include:

Groundwater	Metals:	iron, magnesium, manganese, and sodium
	PFAS:	PFOS
Surface Water	Pesticides:	delta-BHC, methoxychlor, p,p'-DDD, and p,p'-DDT
	Metals:	manganese
	PFAS:	PFOS, PFOA
Sediment	VOCs:	1,2-dichlorobenzene, 1,4-dichlorobenzene, chlorobenzene, isopropylbenzene, styrene, benzene, toluene, ethylbenzene, and xylenes
	SVOCs:	2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, biphenyl, chrysene, dibenzofuran, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene and pyrene
	PCBs:	PCB-1248
	Metals:	aluminum, antimony, arsenic, barium, cadmium, calcium, chromium (total), cobalt, copper, iron, lead, mercury, nickel, selenium, vanadium, and zinc
	PFAS:	PFOA
Surface Soil	Pesticides:	p,p'-DDD, and p,p'-DDT
	PCBs:	PCB-1260
	Metals:	aluminum, arsenic, calcium, chromium (total), copper, iron, lead, mercury, nickel, vanadium, and zinc
Subsurface Soil	VOCs:	acetone, benzene, ethylbenzene, toluene, and xylenes
	SVOCs:	2-methylnaphthalene, acenaphthene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, fluorene, naphthalene, phenanthrene, pyrene, dibenzofuran, and n-nitrosodiphenylamine
	Pesticides:	p,p'-DDT

PCBs: PCB-1260

Metals: aluminum, arsenic, calcium, chromium (total), iron, lead, manganese, mercury, nickel, vanadium, and zinc

Soil Vapor Not Analyzed

Indoor Air Not Analyzed

The above identified contaminants are evaluated further below.

6.2 General Description of Fate and Transport Mechanisms

This section provides general descriptions of the fate and transport processes that can occur in the environment in which samples were collected as part of the Site investigations. In addition, the Site characteristics that can affect these processes are discussed.

6.2.1 Transport Processes

Contaminant transport processes on the ground surface can occur through volatilization, wind erosion, and as movement of dissolved contaminants in surface water runoff.

Contaminant transport in the subsurface can occur as movement of dissolved contaminants in groundwater and/or as migration of volatilized contaminants in soil vapor. The primary transport mechanisms are mass partitioning, advection, and dispersion.

Mass partitioning is a process in which contaminants move between different environmental media in response to concentration gradients. For example, contaminants dissolved in groundwater may sorb (i.e., attach) onto soil particles or volatilize into the soil vapor. The process may involve mass transfer in any direction between any of the environmental media. The net result of mass partitioning is the distribution of the contaminant between all phases that remain in physical contact with each other. Typically, mass partitioning acts to inhibit the migration of contaminants in groundwater or soil vapor by immobilizing a part of the mass in the soil matrix (retardation). However, the process may be reversed, resulting in the release of the sorbed contamination into the groundwater or soil vapor.

In the unsaturated zone (i.e., between ground surface and the water table), the total mass of a contaminant is partitioned between the dissolved phase (soil moisture), the gas phase (soil vapor), and the solid phase (soil matrix). In the saturated zone, the soil vapor phase is absent, and the partitioning occurs only between the soil matrix and groundwater. Under equilibrium conditions, each phase contains a fraction of the total contaminant mass present in the system (i.e., total of all phases equals 100 percent of the contaminant mass present). The relative mass fractions are determined by the properties of each contaminant and by the nature of the soil matrix. Equilibrium conditions may be disturbed by phenomena such as migration of contaminated groundwater or soil vapor into an area, or removal of contaminant mass from one of the media through degradation processes or gravity flow. Under these circumstances, concentration gradients are created resulting in the occurrence of mass transfer between the media until equilibrium is re-established.

The contaminant mass sorbed onto the soil matrix is essentially immobile. The exception is the mass in the topmost soil layer near the ground surface, which can be transported by processes capable of moving soil particles (wind or surface water runoff).

Transport of contaminants dissolved in the soil moisture in the unsaturated zone is generally limited as a result of very low flow rates in the absence of full saturation. The only significant mechanisms may be driven by water level fluctuations and gravity-driven downward flow during wet-weather periods, or possibly sewer lines and manholes/catch basins which may be leaking and/or act as preferential pathways. Such vertical transport of contaminants acts as a source for the saturated zone below.

The contaminant mass, especially VOCs, contained within the soil vapor in the unsaturated zone and within groundwater in the saturated zone is more mobile. Soil vapor can migrate in both vertical and horizontal directions in response to pressure gradients. Soil vapor migration can create a discharge of contaminants into the atmosphere or act as a source of contamination for groundwater in the saturated zone. Migrating soil vapor may transfer mass into the soil matrix and soil moisture in previously uncontaminated areas, thus increasing the areal extent of soil contamination in the unsaturated zone.

The primary transport mechanisms for contaminants dissolved in groundwater are advection and dispersion. Advection is the movement of the dissolved contaminants carried by the flow of groundwater. Dispersion refers to dissolved contaminants spreading due to the presence of non-uniformities of the groundwater flow field. Dispersion results in a general widening of a plume, as well in smearing of the plume boundaries. Processes similar to those that occur for soil vapor can enable dissolved contaminants to reach a previously uncontaminated area and enter other environmental media. Given the relatively moderate hydraulic gradient observed in the groundwater levels, dispersion and advection are transport mechanisms in groundwater at this Site.

Contamination migrating with soil vapor or groundwater constantly interacts with the soil matrix. The driving forces behind this process are created by concentration gradients between different phases and the properties of the contamination and the soil matrix. Contaminant mass may either sorb from the mobile soil vapor or groundwater onto the soil particles or it may undergo a reverse process of desorption.

In the case of sorption, contaminant mass is transferred from the mobile medium into the immobile soil medium. This retardation phenomenon tends to decrease the velocity of contaminant migration. The magnitude of the retardation depends on the properties of each contaminant and the soil matrix. The key indicator parameter for the retardation properties of the soil is the organic carbon content. Soils with high organic carbon content sorb dissolved contaminants more readily and create a more significant retardation effect than soil with limited, or no organic carbon content. Desorption is the reverse process. Contamination is transferred from the soil matrix into the groundwater or soil vapor. As a result, soil containing contaminant mass may act as a source if exposed to the less-contaminated soil vapor or groundwater. Desorption from soil into the soil vapor or groundwater is increasingly inhibited by increasing content of organic carbon in the soil.

The primary transport mechanisms in the surface water at the Site are advection, dispersion, and mass partitioning. These are essentially the same as described for groundwater, although advection and dispersion of contaminants may be enhanced due to the increased water flow rates as compared to groundwater flow rates at the Site. In addition, volatilization is greater in surface water. The transport of contaminants in surface water is also affected by flocculation and/or precipitation of contaminants. These processes may change the rate at which contaminants are transported or may cause them to settle out of the surface water into the underlying sediment.

Mass partitioning and erosion/particle entrainment are two primary transport mechanisms of contaminants in sediment. Contaminants sorbed to sediment particles are in equilibrium with the water immediately adjacent to the particles, based on the organic carbon content of the sediment and portioning properties of each contaminant. Particle entrainment is a process where sediment particles are moved from one location to another due to turbulent water flow. Contaminants in the sediment are transported along with the sediment particles.

6.2.2 Mass Destruction Processes

Abiotic mass destruction processes that rely on the presence of air or exposure to sunlight (such as hydrolysis and photolysis) have not been proven to be effective on the contaminants present in the surface soil of the Site (i.e., PAHs and metals).

The most significant mass destruction process that takes place in the subsurface environment is microbial degradation. The most significant microbial degradation processes for organic contaminants that operate in the subsurface are biological oxidation (aerobic and anaerobic); reductive dechlorination; and co-

metabolic degradation. During degradation, organic compounds are transformed into daughter forms, which may be recalcitrant or further degradable. Daughter compounds can be either more or less toxic than the parent compounds. If a contaminant degrades into a sequence of degradable daughter compounds, it is ultimately fully metabolized into such compounds as carbon dioxide, methane, water, and chloride.

6.2.3 Properties of Site Contaminants

This section discusses the properties of the contaminants identified at the Site that will impact their fate and transport. As described in Section 5.0, groups of compounds detected at concentrations above SCGs include: VOCs, SVOCs, pesticides, PCBs, metals, and PFAS. These are briefly discussed below.

VOCs

VOCs were not detected in groundwater at concentrations above groundwater criteria in any of the nine (9) monitoring wells.

VOCs were not detected in surface water at concentrations above the groundwater or surface water criteria in any of the three (3) surface water sample depths collected from Tank 75.

VOCs were detected in sediment above one or more SCO in all 15 sediment sample locations collected from Tank 75. Eight (8) VOCs, including 1,2-dichlorobenzene, 1,4-dichlorobenzene, chlorobenzene, isopropylbenzene, styrene, and BTEX, were detected above the Unrestricted Use SCOs. One (1) VOC, benzene, was detected above the Industrial Use SCO. Seven (7) VOCs, including 1,2-dichlorobenzene, 1,4-dichlorobenzene, chlorobenzene, isopropylbenzene, toluene, ethylbenzene and xylenes, were detected above the Protection of Groundwater SCOs.

In accordance with the SC/RIWP (AECOM, 2023), surface soil samples were not analyzed for VOCs. VOCs were detected in subsurface soil above one or more SCO at three (3) subsurface soil samples collected. Five (5) VOCs, including acetone, benzene, ethylbenzene, toluene, and xylenes, were detected above the Unrestricted Use and the Protection of Groundwater SCOs.

In general, VOCs readily volatilize into the atmosphere or soil vapor. At the surface, these compounds may decay and/or volatilize upon exposure to sunlight and to the atmosphere. VOCs are soluble in water and their dissolved contaminants are transported by advection and dispersion in groundwater and surface water. The same processes of advection and dispersion are responsible for the migration of these compounds in the atmosphere or the soil.

1,2-Dichlorobenzene, 1,4-dichlorobenzene, chlorobenzene, ethylbenzene, styrene, and BTEX are simple aromatic hydrocarbons with a benzene ring. These VOC contaminants were only identified in sediment media within Tank 75. Simple aromatic hydrocarbons are volatile and moderately soluble in water. They are readily biodegraded under aerobic conditions and also degrade under anaerobic conditions, albeit at slower rates. They have low to moderate organic carbon-to-water partitioning coefficients and do not readily partition into the soil or sediment, making it relatively mobile in the environment.

SVOCs

SVOCs were not detected in groundwater at concentrations above groundwater criteria in any of the nine (9) monitoring wells.

SVOCs were not detected in surface water at concentrations above the groundwater or surface water criteria in the three (3) surface water sample locations collected from Tank 75.

SVOCs were detected in sediment above one or more SCO in all 15 sediment sample locations collected in Tank 75. Seventeen (17) SVOCs, including most PAHs: 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, biphenyl, chrysene, dibenzofuran, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene and pyrene, were detected above the Unrestricted Use SCOs. Seven (7) SVOCs, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, indeno(1,2,3-cd)pyrene,

naphthalene, and phenanthrene, were detected above the Industrial Use SCOs. Eleven (11) SVOCs, including 2-methylnaphthalene, acenaphthylene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, indeno(1,2,3-cd)pyrene, naphthalene, and phenanthrene, were detected above the Protection of Groundwater SCOs.

SVOCs were not detected in surface soil at concentrations above the soil SCOs. SVOCs were detected in subsurface soil above one or more SCO at one (1) subsurface soil sample collected. Twelve (12) SVOCs, including most PAHs 2-methylnaphthalene, acenaphthene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, fluorene, naphthalene, phenanthrene and pyrene, as well as dibenzofuran, and n-nitrosodiphenylamine, were detected above the Unrestricted Use SCOs. Four (4) SVOCs, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and chrysene, were detected above the Industrial Use SCOs. Six (6) SVOCs, 2-methylnaphthalene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, and naphthalene, were detected above the Protection of Groundwater SCOs.

Generally, SVOCs are characterized by low volatility, low solubility in water, and a high organic carbon-to-water partitioning coefficient. As a result, they are relatively immobile, and typically sorb onto the soil/sediment matrix. The potential for leaching from soil/sediment to groundwater or surface water decreases as the compound's molecular weight increases. As a result, the primary transport mechanism for SVOCs (PAHs especially) is mechanically by wind and erosion/particle entrainment. Biodegradation rates are relatively low. PAHs are often associated with the combustion of organic materials and are commonly found at elevated levels in industrial areas and adjacent to roadways.

Pesticides

Pesticides were not detected in groundwater in any of the nine (9) monitoring wells.

Pesticides were not detected in surface water at concentrations above the groundwater criteria in Tank 75. However, four (4) pesticides, including delta-BHC, methoxychlor, p,p'-DDD, and p,p'-DDT, were detected above their surface water criteria in all three (3) surface water sample locations.

Pesticides were not detected in sediment in Tank 75.

Pesticides were detected in surface soil above the soil SCOs at three (3) surface soil samples collected. Two (2) pesticides, including p,p'-DDD and/or p,p'-DDT, were detected above the Unrestricted Use SCOs. Pesticides were also detected in subsurface soil above the soil SCOs at three (3) subsurface soil samples collected. One (1) pesticide, p,p'-DDT, was detected above the Unrestricted Use SCO.

The high organic partition coefficients of pesticides, and their relatively low water solubilities, suggest that they will adsorb strongly to soil and will not partition into groundwater. The biodegradability of these compounds varies, but in general, these compounds will persist in a temperate climate such as found at the Site. These compounds can accumulate in some plants and can be absorbed by animals or humans eating the plants.

PCBs

PCBs were not detected in groundwater in any of the nine (9) monitoring wells.

PCBs were not detected in surface water in Tank 75.

PCBs were detected at one (1) sediment sample (SED-03) above its Unrestricted Use and Protection of Groundwater SCOs, but below its Industrial Use SCO. PCBs were not detected in the remaining 14 out of 15 sediment sample locations collected in Tank 75.

PCBs were detected in surface soil above the soil SCOs at seven (7) surface soil samples collected. PCB-1260 was detected above the Unrestricted Use SCO. PCBs were also detected in subsurface soil above the soil SCOs at one (1) subsurface soil sample collected. PCB-1260 was detected above the Unrestricted Use SCO.

PCBs are a group of manmade chemicals that are oily liquids or solids and were used widely in electrical equipment like capacitors and transformers. They are very stable mixtures that are resistant to extreme temperature and pressure. PCBs do not readily breakdown in the environment, and can remain for long periods cycling between air, water, and soil.

Metals and Inorganics

Metals and inorganics were detected in groundwater in all nine (9) monitoring wells. Four (4) metals, including iron, magnesium, manganese, and sodium, were detected above their groundwater criteria in all nine (9) monitoring wells. Based on their ubiquitous distribution in soil and groundwater across the Site, these metals may be associated with background conditions rather than past fuel bulk storage activities. The highest concentrations of total metals exceeding criteria were detected in overburden well MW05-03 (3-28 feet bgs) and deeper overburden well MW-03 (17.5-27.5 feet bgs). The highest number of total metals exceeding criteria were detected in in overburden well MW05-03 (3-28 feet bgs). Metal concentrations also reduced when compared to the filtered (dissolved) groundwater samples, which may indicate the inclusion of sediment in the unfiltered groundwater samples.

Metals and inorganics were detected in surface water at all three (3) surface water depths in Tank 75. Manganese (total) was detected above the groundwater and surface water criteria in the deepest surface water sample (SW-01-3 at 13 feet bws). However, the dissolved phase manganese concentration was well below the groundwater and surface water criteria at this sample, indicating that the surface water sample SW-01-3 may have had sediment inclusion, and therefore may not be attributable to the surface water media, but rather the sediment inclusion. Manganese (dissolved) was detected above the groundwater and surface water criteria in the intermediate surface water field duplicate sample (SW-01-2 at 7 feet bws) but was non-detect in the original sample.

Metals and inorganics were detected in sediment at all 15 sediment sample locations collected in Tank 75. Sixteen (16) metals, including aluminum, antimony, arsenic, barium, cadmium, calcium, chromium (total), cobalt, copper, iron, lead, mercury, nickel, selenium, vanadium, and zinc, were detected above the Unrestricted Use SCOs. Five (5) metals, arsenic, chromium (total), copper, lead, and mercury, were detected above the Industrial Use SCOs. Nine (9) metals, arsenic, barium, chromium (total), copper, lead, mercury, nickel, selenium, and zinc, were detected above the Protection of Groundwater SCOs.

Metals and inorganics were detected in surface soil above one or more SCO at all 19 surface soil samples collected. Eleven (11) metals, including aluminum, arsenic, calcium, chromium (total), copper, iron, lead, mercury, nickel, vanadium, and zinc, were detected above the Unrestricted Use SCOs. One (1) metal, arsenic, was detected above the Industrial Use SCO. Five (5) metals, arsenic, chromium (total), lead, mercury, and nickel, were detected above the Protection of Groundwater SCOs. Metals and inorganics were also detected in subsurface soil above one or more SCO at all 29 subsurface soil samples collected. Eleven (11) metals, including aluminum, arsenic, calcium, chromium (total), iron, lead, manganese, mercury, nickel, vanadium, and zinc, were detected above the Unrestricted Use SCOs. One (1) metal, arsenic, was detected above the Industrial Use SCO. Three (3) metals, arsenic, chromium (total), and manganese, were detected above the Protection of Groundwater SCOs.

Metals are generally persistent, and they may form complexes with other elements. They do not volatilize or degrade. However, in their soluble form, metals are mobile in groundwater and surface water. The preference of metals towards soil/sediment sorption as opposed to dissolution in water depends mostly on the acidity or alkalinity of the system.

PFAS

PFAS were detected in groundwater in all four (4) monitoring wells sampled. PFOS was detected in one (1) monitoring well MW05-01 (2.8-22.8 feet bgs) marginally above its groundwater criterion. PFOA was also detected at all four (4) monitoring wells sampled, but below its groundwater criteria.

PFAS were detected in surface water at the one (1) surface water sample collected (SW-01-2 at 7 feet bws) in Tank 75. PFOA and PFOS were detected marginally above their groundwater and surface water criteria.

PFAS were detected in sediment at all six (6) sediment samples collected in Tank 75. PFOA was detected marginally above guidance levels for unrestricted use in five (5) out of the six (6) sediment samples. PFOA was also detected marginally above guidance levels for protection of groundwater in two (2) out of six (6) sediment samples. There were no PFAS detected above guidance levels for industrial use in any of the sediment samples collected.

PFAS were detected in surface soil at all three (3) surface soil samples analyzed, but at concentrations below the soil guidance levels. PFAS were also detected in subsurface soil at one (1) out of six (6) subsurface soil samples analyzed, but below all guidance levels.

PFAS can be released into the air, water, and soil in places where they are produced or used. The highest levels are typically found near facilities that have made or used PFAS. PFAS do not occur naturally and do not readily biodegrade. As a result, they are persistent in the environment. PFAS are highly soluble in water and have very low volatility and can be transported long distances via groundwater or surface water.

6.3 Fate and Transport in the Unsaturated Zone

6.3.1 Migration

The propagation of contaminants in the unsaturated zone is dominated by three processes: migration of the dissolved phase contaminants with infiltrating precipitation; migration of the volatilized contaminants in the soil vapor; and migration of the sorbed contamination with fugitive dust emissions or surface runoff. Contaminants present on the surface or within the soil or sorbed to the soil may dissolve as precipitation percolates through the unsaturated zone. The flow is mostly gravity-driven and directed downwards. Such downward migration through the unsaturated zone may constitute a source of contamination of the saturated zone below.

Infiltration-induced migration is expected to be higher for the contaminants with higher solubility, such as VOCs and low molecular weight SVOCs, and lower for PAHs, pesticides, PCBs, and PFAS due to their lower solubility in water.

For metals, the degree of solubility is determined primarily by the type of metal and the pH of the environment with a general decrease in metals solubility with increasing pH. According to the purge logs for the monitoring wells sampled during the RI activities, the pH at the Site is generally neutral ranging from 7.1 to 9.2, which suggests limited solubility. The exception to this is the slightly elevated pH of 10.1 to 10.3 at shallow well MW05-02 during groundwater sampling, and of 10.6 at deeper well MW-04D during well development, which may be caused by mineral compounds and/or debris (e.g., concrete, wood and brick) present in the surrounding soils. However, the metals detected in groundwater at these monitoring wells were present at relatively low concentrations, consistent with the other monitoring wells, which suggests limited leaching and solubility.

Contaminants can enter the soil vapor through the process of volatilization. There are limited VOCs present at the Site, in subsurface soil, and, as a result, the migration of VOCs through the gas phase is not likely significant.

The Site contains vegetated areas and the exposed surfaces of soil at the Site would generate fugitive dust emissions. Erosion and transport of surface soils by wind and runoff are possible migration pathways for contamination present on the surface and adsorbed onto surface soils.

6.3.2 Degradation

Generally, the occurrence and rates of unsaturated zone degradation have to be determined by means of field studies, such as respiration tests. However, unsaturated zone biodegradation is limited by the amount of moisture present in the soil and transport processes between bacteria and contaminants. Sufficient moisture for active biological growth may not be present at all locations where contamination is elevated. Also, without a continuous aqueous phase, mass transfer between the bacteria and

contaminants will be low, especially for low mobility compounds such as PAHs, pesticides, and metals. These conditions tend to limit the amount of natural biodegradation of some compounds that will occur in the unsaturated zone.

6.4 Fate and Transport in the Saturated Zone

6.4.1 Migration

Contaminant migration in the saturated zone takes place predominantly by means of the transport of the dissolved-phase contamination in groundwater. The dominant factors are the direction of groundwater flow within the aquifer, the hydraulic gradient, the hydraulic conductivity of the aquifer material (both the average value and spatial distribution) and the chemical composition of the soil matrix.

Groundwater was observed within the overburden fill material and within native silty clay. The groundwater flow direction was generally towards the west/northwest, with a small component to the north. Horizontal hydraulic conductivity values for the shallow overburden ranged from 2.44×10^{-5} cm/s to 6.90×10^{-7} cm/s. This estimated horizontal groundwater velocity was approximately 0.02 feet per year. The estimated vertical groundwater flow was also fairly low, at 0.10 feet per year. As such, it is expected that contaminant migration in the saturated zone is minimal.

6.4.2 Degradation

Only metals and PFAS were detected in groundwater at the Site. PFAS are generally recalcitrant and therefore, degradation of these contaminants at the Site is expected to be minimal to nonexistent. Metals do not degrade.

6.5 Fate and Transport in Surface Water and Sediment in Tank 75

6.5.1 Migration

In natural settings, contaminant migration in surface water and sediment occurs primarily by physical transportation. However, given that Tank 75 is an isolated gunite-lined lagoon situated in low-permeability silty clay, migration of surface water and sediment contaminants does not occur. This is supported by groundwater sample analytical results indicating not significant impacts of Site-related compounds.

6.5.2 Degradation

Only pesticides, metals and PFAS were detected in surface water in Tank 75; whereas VOCs, SVOCs, PCBs, metals and PFAS were detected in sediment.

VOCs in sediment can degrade by both aerobic and anaerobic processes, and some phenolic compounds would typically degrade in anaerobic environments. DO measurements recorded during surface water sampling were less than 10 m/L, but ORP measurements were all positive, which indicates a slightly aerobic environment. As such, VOCs, and some SVOCs, are expected to naturally degrade within Tank 75.

PCBs, PFAS, and most SVOCs detected in sediment and/or surface water in Tank 75 are generally recalcitrant and therefore, degradation of these contaminants is expected to be minimal to nonexistent. Metals do not degrade.

7. Qualitative Human Health Exposure Assessment and Fish and Wildlife Assessment

This section presents the HHEA and FWRIA for the Site. The qualitative HHEA uses data and information collected during the RI to assess human health exposure in the immediate and surrounding areas. The qualitative HHEA provides an evaluation of potential adverse health effects under current and potential future Site conditions that may result from exposure to contaminants attributable to former activities at the Site.

7.1 Qualitative Human Health Exposure Assessment

This qualitative HHEA follows the general format and procedures set forth in DER-10. This qualitative HHEA uses data and information collected during site investigations, and appropriate information from site characterization activities to assess human health exposure in the immediate and surrounding areas. The qualitative HHEA provides an evaluation of potential adverse health effects under current and potential future site conditions that may result from exposure to contaminants attributable to former activities at the Site. The HHEA includes five components which are presented in this RI Report:

1. Description of contaminant source(s) (if known) and contaminated environmental medium.
2. Explanation of the contaminant release and transport mechanisms to the exposed population (see Section 6).
3. Identification of exposure points where actual or potential human contact with a contaminated medium could occur.
4. Description of the routes of exposure to potential human receptors (i.e., ingestion, inhalation, dermal absorption).
5. Characterization of the receptor populations who may be exposed to contaminants at a point of exposure (e.g., construction worker, onsite employee, public).

7.2 Source(s) of Contamination

Tank 75 is an in-ground petroleum storage structure constructed during World War II for the storage of fuel oil. Tank 75 was formerly equipped with two pumps, one for unloading oil and the second for removing accumulated rainfall. In addition to fuel oil, off-specification asphalt, other tank bottoms, soils, piping, and refinery sludge are believed to have been placed in Tank 75.

Since Tank 75 was taken out of service in 1980, wastes were not placed in the structure after the effective date of relevant RCRA regulations. The structure contents include both listed and characteristic hazardous wastes. Contaminants associated with these refinery wastes include petroleum related VOCs, SVOCs, and metals.

Contaminants identified in soil and groundwater adjacent to Tank 75 is likely associated with occasional spills over the years.

7.3 Identification of Contaminants of Potential Concern

Based upon the analytical data obtained and presented in Section 5, the contaminants listed in Section 6.1 (and summarized in **Table 7-1**) include all chemicals, organized by media of concern, for which there was at least one sample in at least one location where SCGs were exceeded. A “medium of concern” is identified as a physical medium (e.g., soil, groundwater) in which one or more contaminants were detected at concentrations exceeding their SCGs.

Media of concern at the Site include surface soil, subsurface soil, groundwater, sediment / sludge, surface water and vapor.

The primary contaminants of concern on the Site are VOCs, SVOCs and PCBs in soil and sediment; pesticides in soil and surface water; metals in all media of concern; and PFAS in groundwater, sediment and surface water. The contaminants of concern in each media are listed in **Table 7-1**.

7.4 Exposure Pathways

An exposure pathway is the manner by which an individual may come in contact with a contaminant. The exposure pathway is complete when all five elements associated with exposure pathways are documented (per Section 7.1). A potential exposure pathway exists when any one or more of the five elements is not known. If any of the five elements comprising an exposure pathway has never existed in the past, does not exist in the present, and is likely to not exist in the future, then an exposure pathway can be eliminated.

The Site and surrounding properties are zoned industrial and are located within the United Refinery property which is fenced in and restricted to the general public. There are no buildings on-Site and none are expected to be erected in the foreseeable future. The property predominantly consists of the in-ground petroleum storage structure that is fenced in, and the remainder is surrounded by vegetative cover. The reasonably anticipated future use of the Site is to remain industrial with the eventual decommissioning and removal or stabilization of the tank.

Under the current and continued industrial use of the Site, the relevant human receptors include long-term workers who regularly access the Site; short-term construction workers who may be involved in construction and/or repair work to existing Site infrastructure or remediation activities; visitors or trespassers who may enter the property occasionally; and neighboring workers on adjacent industrial properties.

The potentially complete exposure pathways include direct contact with surface soil by all on-Site receptors; direct contact with surface soil, subsurface soils, groundwater, sediment and surface water by short-term construction workers; dust inhalation with surface and subsurface soils by all relevant human receptors; and inhalation of trench air and outdoor air by short-term construction workers.

Incomplete exposure pathways include inhalation of indoor air since there are no buildings on or within vicinity of the Site; outdoor air by non-intrusive receptors since contaminants released into the environment would be quickly dispersed and diluted; ingestion of potable groundwater since the Site and surrounding properties are serviced by the municipal water supply which sources drinking water from the Niagara River; and the consumption of vegetation, fish and wildlife since the Site and surrounding properties are zoned industrial whereby foraging, fishing and hunting is not permissible. In addition, the nearest natural surface water body, Niagara River, is located more than 3,100’ northwest of the Site, which is sufficiently distant such that on-Site contaminants would be unlikely to discharge to the waterbody and be exposed to people.

Table 7-2 includes a conceptual site model of the relevant human receptors and exposure pathways at the Site. The following subsections present the exposure pathways assessed for the Site under the current and continued industrial land use scenario.

7.4.1 Groundwater

Groundwater is not accessible to most human receptors, except for construction workers who could come into contact with contaminated groundwater during ground intrusive activities. However, it is standard industry practice for construction workers to follow a HASP during ground intrusive work, including the use of PPE, such that the actual exposure to contaminated groundwater is expected to be minimal.

In addition, contaminated groundwater is not being used for drinking water. The Site and surrounding properties are serviced by the municipal water supply which sources drinking water from the Niagara River. There are also no known domestic water supply wells in the area.

7.4.2 Surface Water

There are no natural surface water bodies on or within vicinity of the Site. However, there is surface water (i.e., rainwater) that has accumulated within Tank 75. This surface water is not accessible to most human receptors given that the Site is fenced and access is restricted, except for construction workers who could come into contact with contaminated surface water during intrusive activities within the in-ground structure. Nevertheless, it is standard industry practice for construction workers to follow a HASP during intrusive work, including the use of PPE, such that the actual exposure to contaminated surface water is expected to be minimal.

7.4.3 Sediment

There are no natural surface water bodies on or within vicinity of the Site. However, there is sediment (i.e., sludge) that has accumulated within Tank 75. This sediment is not accessible to most human receptors given that the Site is fenced and access is restricted, except for construction workers who could come into contact with contaminated sediment during intrusive activities within the in-ground structure. Nevertheless, it is standard industry practice for construction workers to follow a HASP during intrusive work, including the use of PPE, such that the actual exposure to contaminated sediment is expected to be minimal.

7.4.4 Surface Soil

The Site predominantly consists of the in-ground petroleum storage structure that is fenced in, and the remainder is vegetative cover where surface soils may be disturbed.

Soil particulates could be dispersed as dust throughout the Site and neighboring properties during significant ground disturbance and/or high winds and inhaled by on- and off-Site receptors. Direct contact with surface soils may also occur for on-Site receptors who walk across the Site and who may handle the disturbed soils. It is unlikely for neighboring workers to enter the Site and therefore the direct contact exposure pathway is incomplete for off-Site receptors.

Based on the age of the source of contaminants (i.e., from the historical incidental spills while Tank 75 was in use) and the amount of significant vegetative cover across the Site, the soils are well compacted, and it is unlikely that surface soils will be significantly disturbed during non-intrusive activities such that direct contact or dust inhalation would be a concern.

In addition, it is standard industry practice for construction workers to follow a health and safety plan (HASP) during ground intrusive work, including the use of PPE, such that the actual exposure to contaminated surface soil is expected to be minimal.

7.4.5 Subsurface Soil

Subsurface soil is not accessible to most human receptors, except for construction workers who could come into contact with contaminated subsurface soil during ground intrusive activities. However, it is standard industry practice for construction workers to follow a HASP during ground intrusive work, including the use of PPE, such that the actual exposure to contaminated subsurface soil is expected to be minimal.

All human receptors may come into indirect contact with subsurface soils via dust inhalation during ground intrusive work. However, it is standard industry practice to control volatilization, erosion, and/or fugitive dust during construction activities, such that the actual dust inhalation exposure to contaminated subsurface soil is expected to be minimal.

7.4.6 Vapor

There may be vapor impacts at the Site sourced from known subsurface soil and sediment volatile impacts. However, it should be noted that vapor testing has not been conducted at the Site given that the vapor inhalation pathways are considered to be insignificant.

There are no buildings on Site and none are expected to be erected in the foreseeable future. As such, there are no complete indoor air inhalation exposure pathways.

Vapor contaminants released into the ambient air would be quickly dispersed and diluted, such that the outdoor air inhalation exposure pathway is considered to be incomplete for most human receptors, except for construction workers who could be exposed to contaminated outdoor air while working within Tank 75. Construction workers could also be exposed to potentially contaminated trench air while conducting ground intrusive work. However, it is standard industry practice for construction workers to follow a HASP during intrusive work, including the use of PPE, such that the actual exposure to potentially contaminated outdoor or trench air is expected to be minimal.

7.4.7 Summary

Under the current and continued industrial use of the Site, there are complete exposure pathways from surface soil, subsurface soil, groundwater, sediment, surface water, surface water and vapor for the long-term workers, short-term construction workers, visitors / trespassers, and neighboring workers.

7.5 Fish and Wildlife Resources Impact Analysis

The need to perform a FWRIA is discussed in the NYSDEC document titled *Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Sites*, dated October 1994 [NYSDEC, 1994b]. The NYSDEC requires a FWRIA when there is a significant potential for fish and wildlife resources to be present at a site, and there is a significant potential for the migration of residuals to these resources.

As part of the SC/RI Work Plan (AECOM, 2023), the DER-10 Appendix 3C Fish and Wildlife Resources Impact Analysis Decision Key was completed (**Appendix N**). Also presented in **Appendix N** is a screenshot showing results of a search on the NYSDEC Environmental Resource Mapper indicating there are no records of rare or state-listed animals or plants, or significant natural communities at the Site or in its immediate vicinity. As stated in the SC/RI Work Plan, performance of a Fish and Wildlife Impact Analysis (FWIA), was not planned for this Site unless significant impacts were identified. Based on results of these RI sampling activities, the possibility of significant impacts was not identified. Therefore, in accordance with DER-10 Appendix 3C, performance of an FWRIA was not completed for this Site.

8. Summary and Recommendations

Based upon the results of the RI, the following summary of the findings and recommendations is provided. These RI activities were performed in accordance with the SC/RIWP dated October 11, 2023, and approved by the NYSDEC on October 31, 2023. This report presents data and information gathered in the field between April 16, 2024, and November 13, 2024.

8.1 Summary of Physical Characteristics and Geology

The Tank 75 Site comprises approximately 2.2 acres situated in the western portion of an approximate 20-acre parcel owned by Ashland. However, it currently sits within the perimeter fence of the United Refining terminal facility (**Figure 2-1**). The Site is predominantly occupied by the in-ground gunite-lined petroleum storage structure. The gunite liner is approximately 3 to 4 inches thick and is reinforced with steel mesh. At the ground surface, the structure measures approximately 200 feet wide by 300 feet long with sides that slope inward to a flat bottom approximately 26 feet below surrounding grade (**Figure 2-2**). Tank 75 was formerly equipped with two pumps, one for unloading oil and the second for removing accumulated rainfall. Steam coils (disconnected) are located on the bottom of the structure that were used to heat the fuel oil during cold weather.

Surface water has regularly been identified with a sheen or other petroleum impacts because it comingles with impacted sludge and sediment located at the bottom of the tank. During warmer months, black, globular petroleum product has been identified at the surface most likely rising from deeper portions of the tank as the water within warms with increased air temperature.

Two primary sediment types were identified within the tank during sediment investigation activities: a wet, soft, oily sludge with significant petroleum impacts, and a medium stiff to hard sediment also with significant petroleum impacts located below the previously noted unit. The soft sediment was identified at depths ranging from 8.0 to 19.7 feet below the water surface (bws) with a thickness that ranged from 0.2 to 2.8 feet across 15 investigation locations. The medium stiff to hard sediment was identified below this unit at depths ranging from 10.4 to 21.6 feet bws with a thickness that ranged from 0.7 to 3.5 feet across 15 investigation locations. Total sediment thickness within the bottom of the tank ranged from 2.3 to 5.5 feet.

The bottom of the medium stiff to hard sediment was interpreted as the tank bottom, primarily based on probe refusal. In some cases, sediment core recovery exceeded the depth inferred by probing, suggesting either over-recovery or misidentification of the tank bottom due to equipment limitations. Ambiguity in sediment thickness and tank bottom depth stems from differences in probing and coring methods. Hand probing may underestimate sediment thickness due to resistance from stiff sediment, while vibracore sampling may over-recover material due to compaction or suction. Additionally, refusal during coring may occur within stiff sediment rather than at the true tank bottom. Where discrepancies occur, the tank bottom is estimated based on total core recovery.

The total volume of the upper soft sludge was approximately 1,380 cubic yards; the total volume of the lower medium to hard sludge was approximately 4,570 cubic yards; resulting in a total volume of the sludge of approximately 5,950 cubic yards.

The tank's gunite liner was noted as missing/removed from areas proximate two of the 15 sediment investigation locations (SED-03 and SED-15) considering glaciolacustrine silty clay similar to surrounding Site soils was identified within the bottom of the sediment core. These locations represent the northeast and southeast most sediment investigation locations.

The Site is underlain by glaciolacustrine deposits of red-brown silty clays and clayey silts to depths up to 35 feet bgs. Blue-gray mottling was identified within native glaciolacustrine deposits and groundwater was primarily identified in soil cores at depths of 25 feet bgs or greater. Non-native fill material consisting of poorly graded sand with silt as well as disturbed or reworked native clays were identified from surface to depths up to 5 feet bgs. Impacts to subsurface soil including odor, visible staining, or elevated PID

readings appear localized to specific shallow areas surrounding the tank and are most likely associated with former operations at or around the Site rather than attributable to a release of the tank itself.

Water level readings were collected from the existing monitoring wells in April, July, and September 2024. The depth to groundwater ranged from approximately 0.87 feet bgs (MW05-04) in July 2024, to 13.37 feet bgs (MW-02D) in July 2024. The groundwater flow direction was generally towards the west/northwest with a small component to the north in April and July 2024, and generally towards the west and southwest, with a small component to the north in September 2024. Average hydraulic gradients ranged from 0.011 to 0.026 feet per foot, with a downward vertical gradient of 0.39 to 0.58 feet per foot. Hydraulic conductivity in overburden wells ranged from 2.44×10^{-5} cm/s (MW-02S) to 6.90×10^{-7} cm/s (MW-03).

8.2 Summary of Remedial Investigation

RI field activities were conducted between April 16 and November 13, 2024. The scope of field activities is summarized as follows:

- Performance of Site clearing activities between April 16 and 17, 2024, and again on June 27, 2024.
- Completion of a preliminary Site survey on April 22, 2024, to confirm Site boundaries.
- Completion of a gamma walkover survey on April 22, 2024, to screen for possible areas of elevated gamma radiation levels related to either former FUSRAP materials or slag. In addition, field screening for elevated radiological levels was performed on all solid material generated during RI sampling activities. No evidence of FUSRAP-related material was identified during field screening activities. The radiological screening results were used mainly to ensure worker safety while conducting intrusive activities, and to identify and segregate TENORM containing materials from the IDW for waste management purposes. TENORM containing materials are not a target of these RI activities.
- Redevelopment of nine (9) existing monitoring wells (MW-02S, MW-02D, MW-03, MW-04D, MW-04S, MW05-01, MW05-02, MW05-03, and MW05-04).
- Collection of groundwater samples between April 29 and 30, 2024, from nine (9) existing monitoring wells (MW-02S, MW-02D, MW-03, MW-04D, MW-04S, MW05-01, MW05-02, MW05-03, and MW05-04), for laboratory analysis.
- Performance of hydraulic conductivity testing between May 23 and May 24, 2024, on one (1) deep well (MW-02D) and three (3) shallow wells (MW-02S, MW-03, and MW-04S).
- Completion of a bathymetric survey of the tank on May 22, 2024, to estimate the volume of submerged sediment/sludge and to verify the depths of the sloping sides and bottom of the tank.
- Collection of three (3) surface water samples from Tank 75 at varying depths (SW-01-1 through SW-01-3), and 15 sediment samples using a vibracore sampler (SED-01 through SED-15) between June 3 and June 4, 2024, for laboratory analysis.
- Clearance of underground utilities surrounding Tank 75 on July 8, 2024.
- Advancement of nine (9) soil borings (SB-01 through SB-05 and SB-07 through SB-10) between July 8 and 15, 2024, and between August 8 and August 9, 2024, by DPT methods surrounding Tank 75 for the collection of surface and subsurface soil samples for laboratory analysis. Angled soil boring SB-06 located south of the Tank was unable to be advanced due to difficult drilling conditions, the presence of a berm, and limited clearance within the Site boundary.
- Advancement of eight (8) hand augered borings (HA-01 through HA-08) between July 10 and 11, 2024, surrounding Tank 75 for the collection of surface soil samples for laboratory analysis.
- Completion of a final Site survey on September 11, 2024, to measure the recently advanced sampling locations.
- Management, and disposal of IDW on November 13, 2024.

The laboratory analytical results are summarized in the following subsections.

Groundwater

Metals and PFAS were detected in groundwater above one or more SCG. The following parameters exceeded their applicable SCG:

- TOGS Class GA Protection for Source of Drinking Water exceedances:
  - Iron, magnesium, manganese, and sodium
  - PFOS

Based on their ubiquitous distribution in soil and groundwater across the Site, these metals may be associated with background conditions rather than past fuel bulk storage activities. Metal concentrations also reduced when compared to the filtered (dissolved) groundwater samples, which may indicate the inclusion of sediment in the unfiltered groundwater samples.

PFOS was detected marginally above the SCG in one monitoring well, which may be associated with background levels.

VOCs, SVOCs, pesticides, and PCBs were not detected in groundwater above groundwater criteria. As such, RI results do not indicate that Tank 75 materials are adversely impacting surrounding groundwater.

Tank 75 Surface Water

Pesticides, metals, and PFAS were detected in Tank 75 surface water above one or more SCG. The following parameters exceeded their applicable SCG:

- TOGS Class GA Protection for Source of Drinking Water exceedances:
  - Manganese
  - PFOA and PFOS
- TOGS Class A Protection for Surface Water exceedances:
  - delta-BHC, methoxychlor, p,p'-DDD, and p,p'-DDT
  - Manganese
  - PFOA and PFOS

Pesticides were detected marginally above their surface water criteria in all three (3) surface water sample locations but were not detected in surface water above the groundwater criteria. These pesticides may be associated with historical application on the adjacent vegetation surrounding Tank 75.

Manganese (total) was detected above the groundwater and surface water criteria in the deepest surface water sample (SW-01-3 at 13 feet bws). However, the dissolved phase manganese concentration was well below the groundwater and surface water criteria at this sample, indicating that the surface water sample SW-01-3 may have had sediment inclusion, and therefore may not be attributable to the surface water media, but rather the sediment inclusion. Manganese (dissolved) was detected above the groundwater and surface water criteria in the intermediate surface water field duplicate sample (SW-01-2 at 7 feet bws) but was non-detect in the original sample.

PFOS and PFOA were detected marginally above the SCG in surface water, which is likely associated with background levels.

VOCs, SVOCs, and PCBs were not detected in surface water above the groundwater or surface water criteria.

No abnormal color or visual impacts were identified in surface water samples collected from Tank 75; however, a petroleum sheen has been identified on the surface of the water within the tank, as well as petroleum odor.

Sediment

VOCs, SVOCs, PCBs, metals, and PFAS were detected in sediment above one or more SCG. The following parameters exceeded their applicable SCG:

- Unrestricted Use SCO exceedances:
  - BTEX, 1,2-dichlorobenzene, 1,4-dichlorobenzene, chlorobenzene, isopropylbenzene, and styrene
  - 2-Methylnaphthalene, acenaphthene, acenaphthylene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene, pyrene, biphenyl, dibenzofuran, and n-nitrosodiphenylamine
  - PCBs, specifically Aroclor 1248
  - Aluminum, antimony, arsenic, barium, cadmium, calcium, chromium (total), cobalt, copper, iron, lead, mercury, nickel, selenium, vanadium, and zinc
  - PFOA (exceedance of guidance level for unrestricted use)
- Industrial Use SCO exceedances:
  - Benzene
  - Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, indeno(1,2,3-cd)pyrene, naphthalene, and phenanthrene
  - Arsenic, chromium (total), copper, lead, and mercury
- Protection of Groundwater SCO exceedances:
  - 1,2-Dichlorobenzene, 1,4-dichlorobenzene, chlorobenzene, isopropylbenzene, toluene, ethylbenzene and xylenes
  - 2-Methylnaphthalene, acenaphthylene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, indeno(1,2,3-cd)pyrene, naphthalene, and phenanthrene
  - PCBs, specifically Aroclor 1248
  - Arsenic, barium, chromium (total), copper, lead, mercury, nickel, selenium, and zinc
  - PFOA (exceedance of guidance level for protection of groundwater)

Pesticides were not detected in sediment in Tank 75.

Surface Soil

Pesticides, PCBs, and metals were detected in surface soil above one or more SCG. The following parameters exceeded their applicable SCG:

- Unrestricted Use SCO exceedances:
  - p,p'-DDD, and p,p'-DDT
  - PCBs, specifically Aroclor 1260
  - Aluminum, arsenic, calcium, chromium (total), copper, iron, lead, mercury, nickel, vanadium, and zinc
- Industrial Use SCO exceedances:
  - Arsenic
- Protection of Groundwater SCO exceedances:

  - Arsenic, chromium (total), lead, mercury, and nickel

SVOCs, and PFAS were not detected in surface soil above the soil SCGs.

VOCs were not analyzed in surface soil.

Elevated gamma count rates were observed associated with slag-like material indicating the likely presence of TENORM-related slag.

Subsurface Soil

VOCs, SVOCs, pesticides, PCBs, and metals were detected in subsurface soil above one or more SCG. The following parameters exceeded their applicable SCG:

- Unrestricted Use SCO exceedances:
  - Acetone, benzene, ethylbenzene, toluene, and xylenes
  - 2-Methylnaphthalene, acenaphthene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, fluorene, naphthalene, phenanthrene, pyrene, dibenzofuran, and n-nitrosodiphenylamine
  - p,p'-DDT
  - PCBs, specifically Aroclor 1260
  - Aluminum, arsenic, calcium, chromium (total), iron, lead, manganese, mercury, nickel, vanadium, and zinc
- Industrial Use SCO exceedances:
  - Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and chrysene
  - Arsenic
- Protection of Groundwater SCO exceedances:
  - Acetone, benzene, ethylbenzene, toluene, and xylenes
  - 2-Methylnaphthalene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, and naphthalene
  - Arsenic, chromium (total), and manganese

PFAS were not detected in subsurface soil above the soil guidance levels.

8.3 Qualitative Human Health Exposure Assessment

Under the current and continued industrial use of the Site, there are complete, albeit minimal, exposure pathways from surface soil, subsurface soil, groundwater, sediment, surface water, surface water and vapor for the long-term workers, short-term construction workers, visitors / trespassers, and neighboring workers.

8.4 Recommendations

The following recommendations are offered for consideration by the NYSDEC. The recommendations include additional Remedial Investigation/Feasibility Study activities:

Surface Soil

Surface soil exceedances of Pesticides, PCBs, and metals should be addressed in a feasibility study. Remedial action objectives include preventing ingestion/direct contact of impacted soils, preventing migration of contaminates from the Site to adjacent surface soils, and restoring impacted surface soils to below the appropriate SCG based current and anticipated future on land use.

Subsurface Soil

Surface soil exceedances of VOCs, SVOCs, pesticides, PCBs, and metals should be addressed in a feasibility study. Remedial action objectives include preventing ingestion/direct contact of impacted soils, preventing migration of contaminants from the Site to adjacent surface soils, and restoring impacted surface soils to below the appropriate SCG based current and anticipated future on land use.

Groundwater

Groundwater exceedances of Metals (iron, magnesium, manganese, and sodium) and PFAS (PFOS) are likely a result of background and are not a result of impacts from Tank 75 operations. No action for groundwater is recommended at this time.

Tank 75 Surface Water

Surface water exceedances of Pesticides, metals, and PFAS should be addressed in a feasibility study. Remedial action objectives include removing Tank 75 surface water and filling in Tank 75.

Tank 75 Sediment

Tank 75 sediment analytical results were compared to soil criteria. Exceedances of VOCs, SVOCs, PCBs, metals, and PFAS should be addressed in a feasibility study. Remedial action objectives include preventing ingestion/direct contact of impacted soils and preventing off-Site migration of contaminants.

9. References

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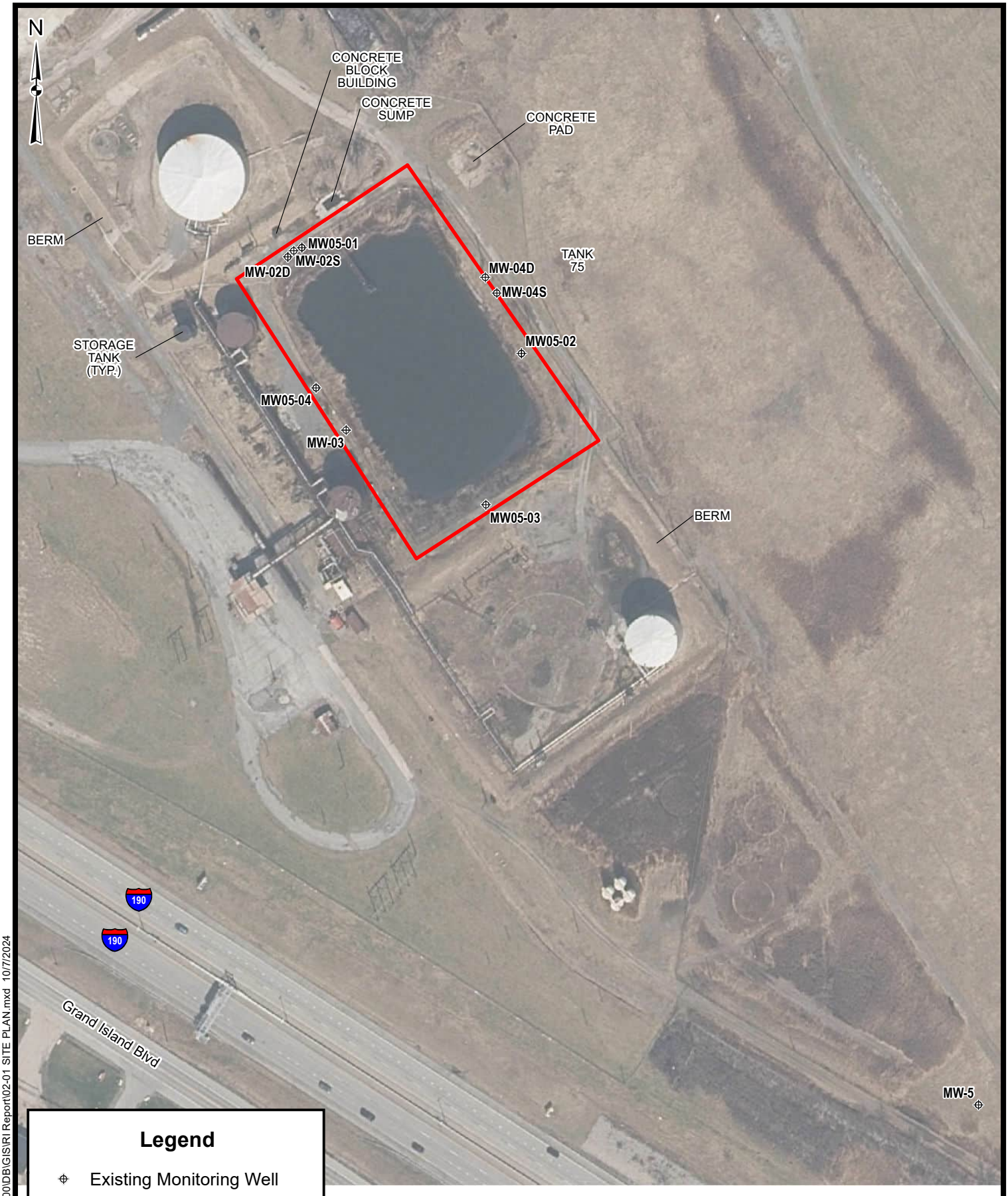
Figures

L:\DCS\Projects\37679411.0000\DB\GIS\01-01 SITE LOCATION.mxd 6/17/2024

AECOM

ASHLAND TANK 75, TONAWANDA, NY
REMEDIAL INVESTIGATION
SITE LOCATION

FIGURE 1-1



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AECOM

ASHLAND TANK 75, TONAWANDA, NY
REMEDIAL INVESTIGATION
SITE PLAN

FIGURE 2-1

Source:
NYS ITS GIS Program Office, 2021

1,000 0 1,000 Feet

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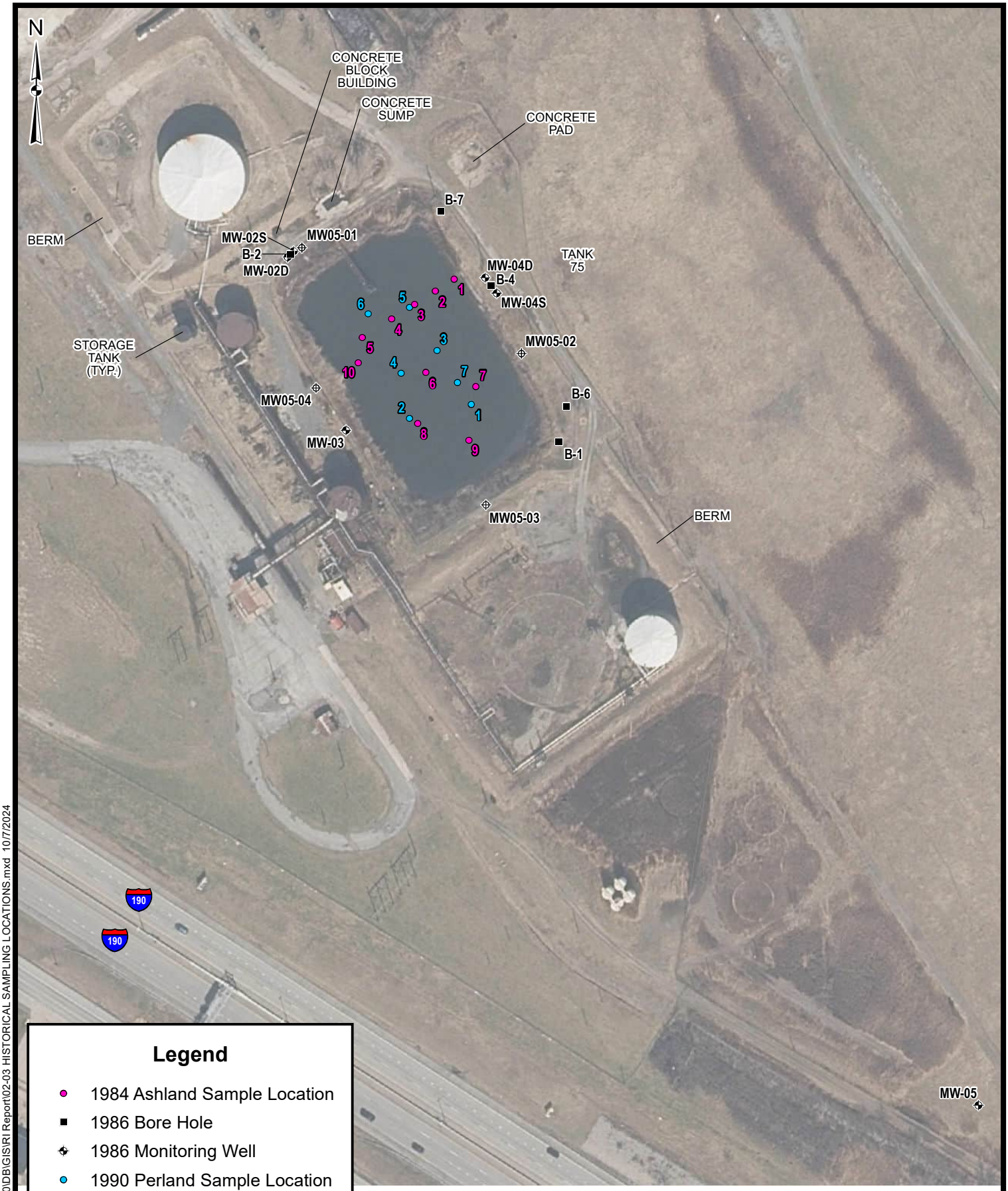
AECOM

ASHLAND TANK 75, TONAWANDA, NY
REMEDIAL INVESTIGATION
TAX PARCELS

FIGURE 2-2



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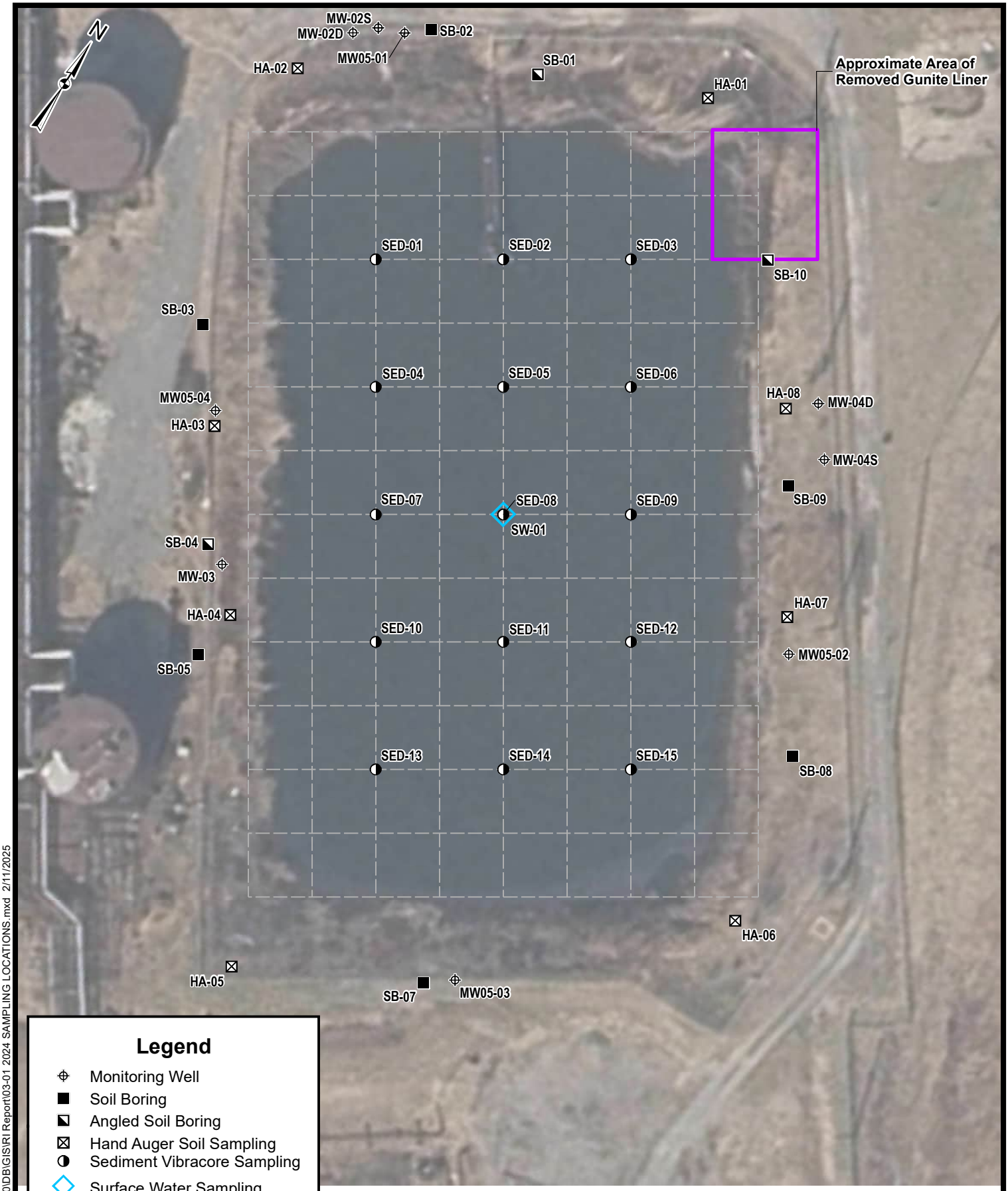
AECOM

ASHLAND TANK 75, TONAWANDA, NY
REMEDIAL INVESTIGATION
HISTORICAL SAMPLING LOCATIONS

FIGURE 2-3



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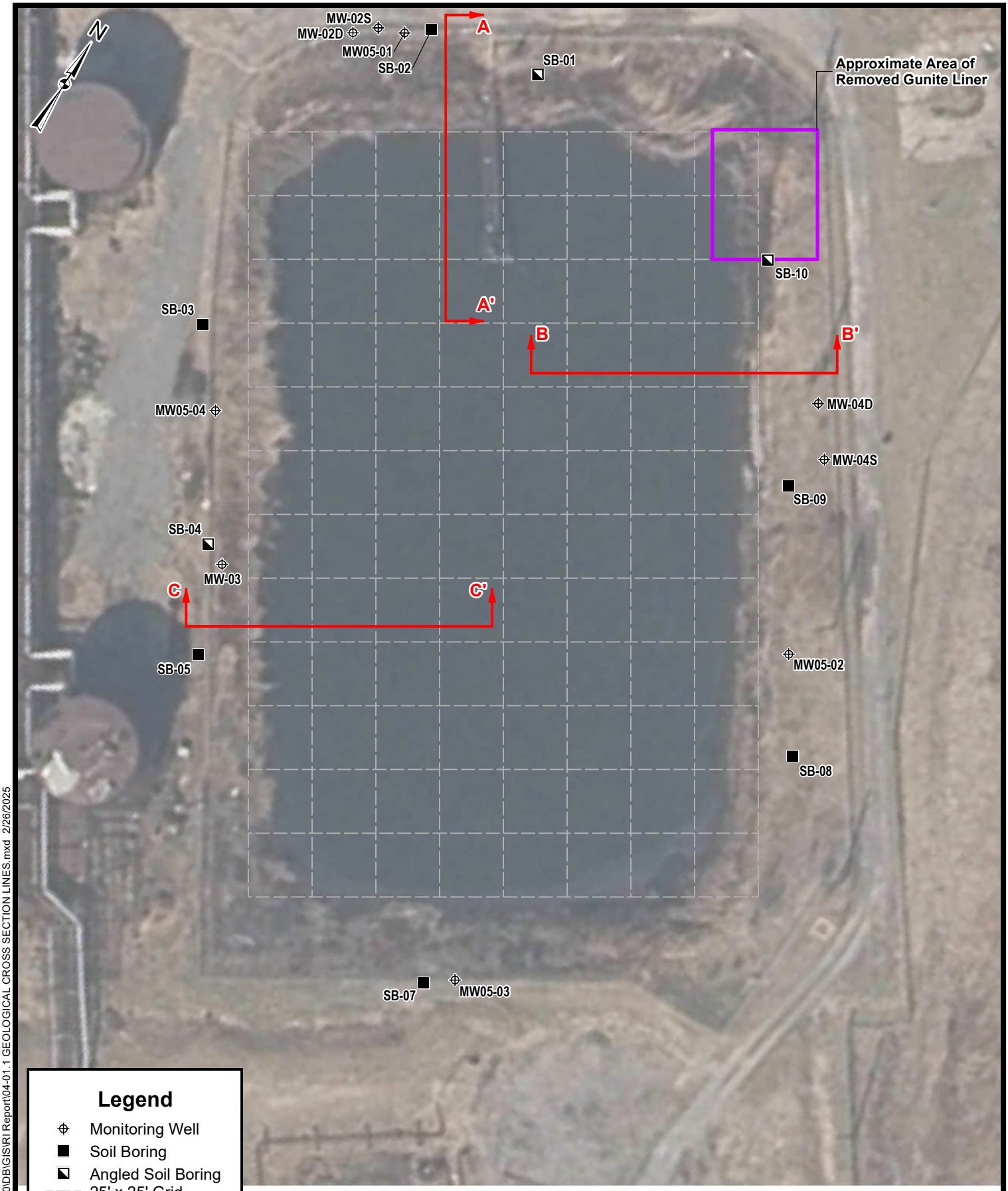
AECOM

ASHLAND TANK 75, TONAWANDA, NY
REMEDIAL INVESTIGATION
2024 SAMPLING LOCATIONS

FIGURE 3-1



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AECOM

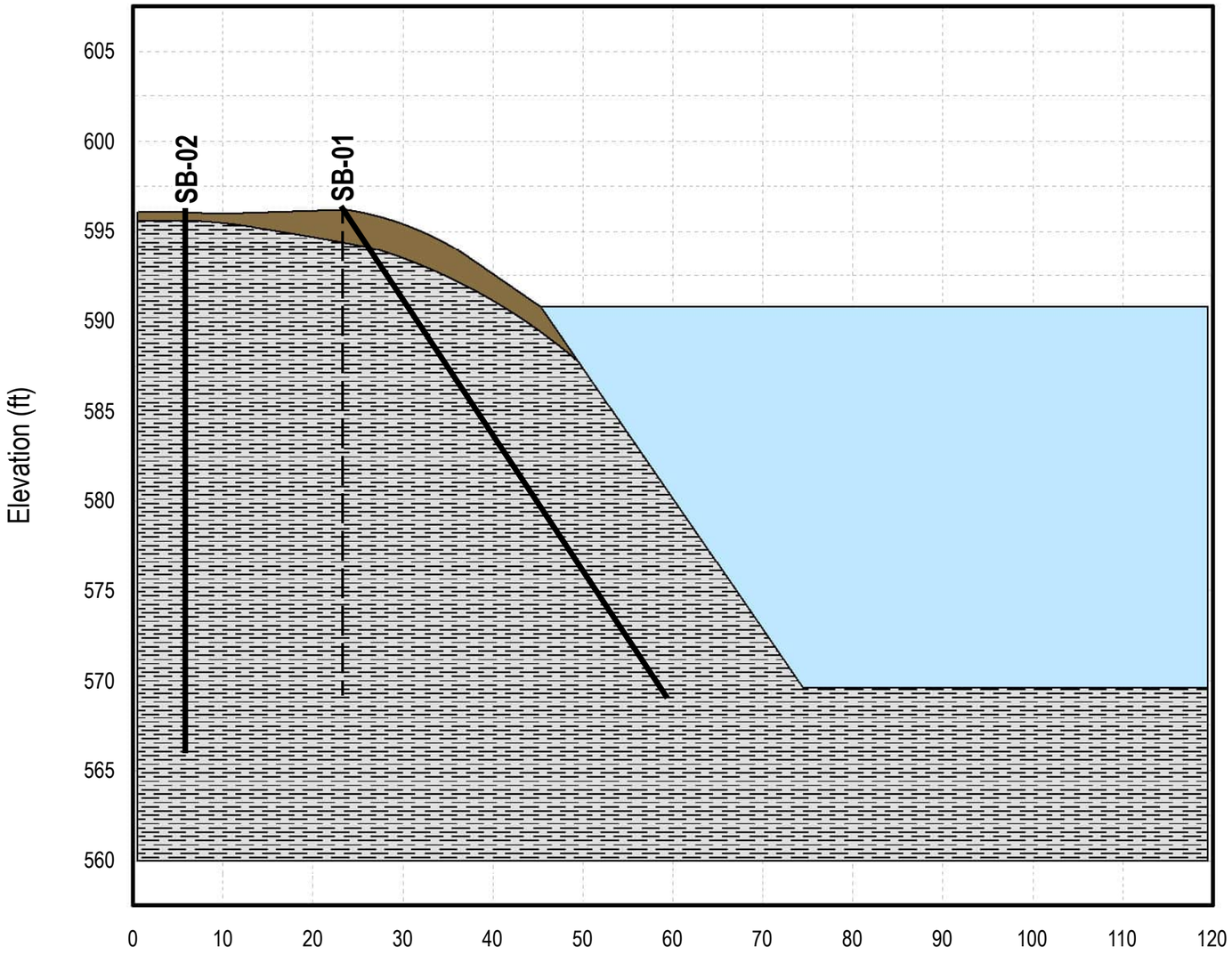
ASHLAND TANK 75, TONAWANDA, NY
REMEDIAL INVESTIGATION
GEOLOGICAL CROSS SECTION LINES

FIGURE 4-1.1

CROSS SECTION A-A'

North

South



Legend

- Fill
- Silty Clay
- Ashland Tank 75

Note:
2x Vertical Exaggeration

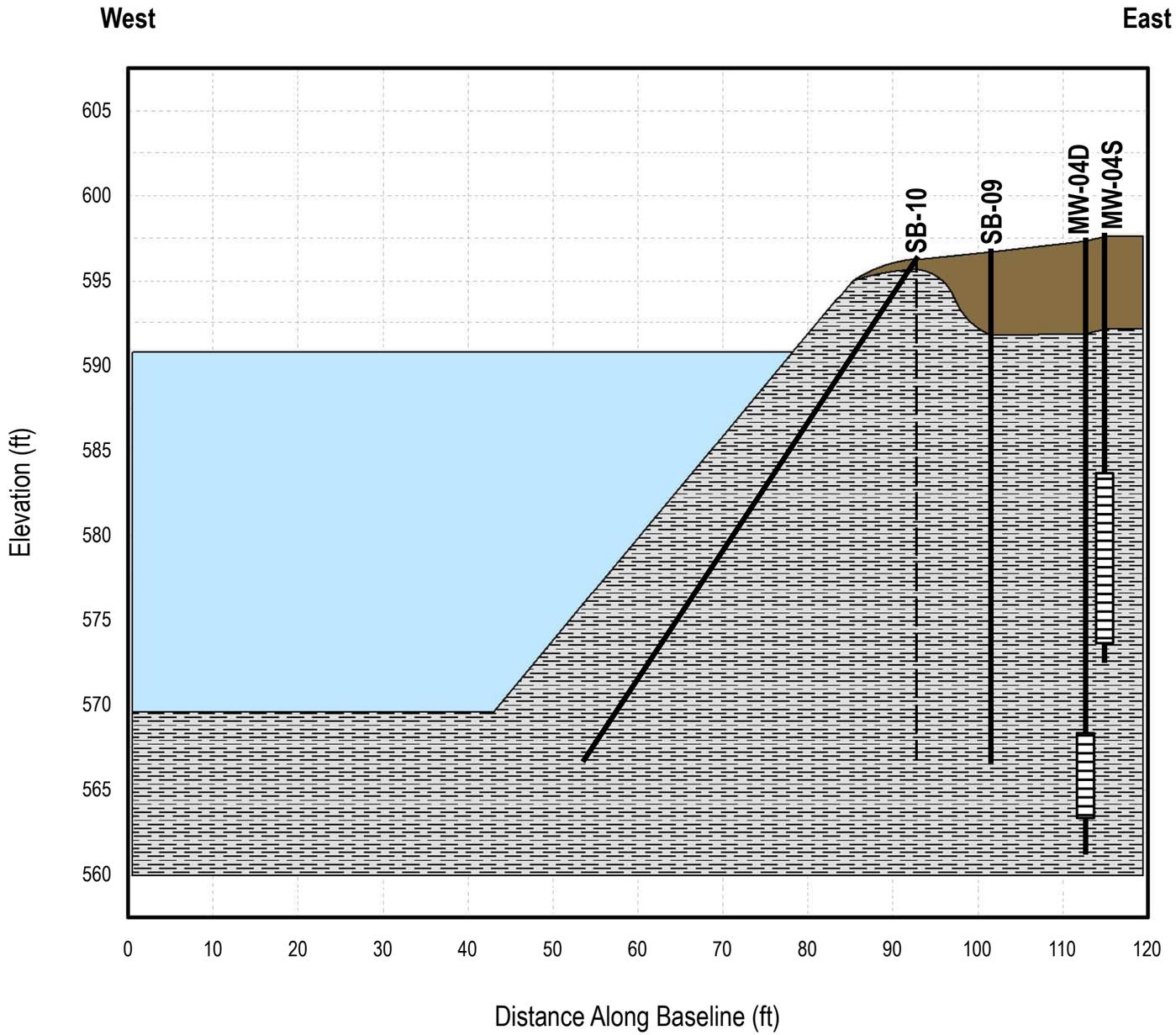
ASHLAND TANK 75, TONAWANDA, NY
REMEDIAL INVESTIGATION
CROSS SECTION A-A'

AECOM

FIGURE 4-1.2

L:\DCS\Projects\37679411.00000\DB\GIS\RI Report\04-01.2 CROSS SECTION A-A'.mxd 2/26/2025

CROSS SECTION B-B'



Legend

- Fill
- Silty Clay
- Ashland Tank 75

Note:
2x Vertical Exaggeration

ASHLAND TANK 75, TONAWANDA, NY
REMEDIAL INVESTIGATION
CROSS SECTION B-B'

AECOM

FIGURE 4-1.3

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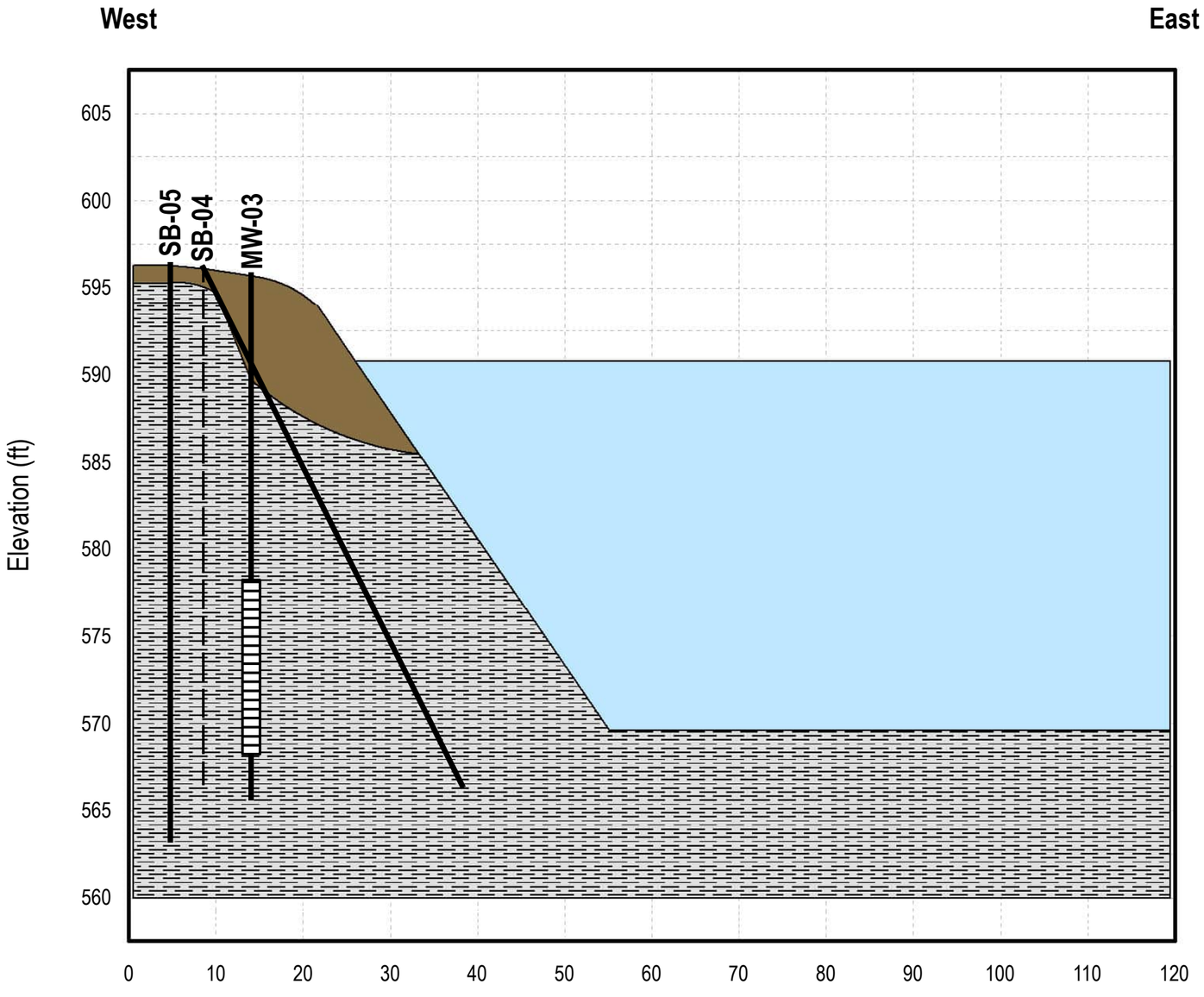
CROSS SECTION C-C'



Legend

- Fill
- Silty Clay
- Ashland Tank 75

Note:
2x Vertical Exaggeration

ASHLAND TANK 75, TONAWANDA, NY
REMEDIAL INVESTIGATION
CROSS SECTION C-C'

AECOM

FIGURE 4-1.4

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AECOM

ASHLAND TANK 75, TONAWANDA, NY
REMEDIAL INVESTIGATION
GROUNDWATER ELEVATIONS (APRIL 25-26, 2024)

FIGURE 4-2.1

L:\DCS\Projects\376794 11.00000\DB\GIS\RI Report\04-02.1 GW ELEVATIONS (20240425).mxd 2/25/2025

Legend

- Monitoring Well
- Groundwater Flow Direction
- MW-02S, 594.57
  - Location ID
  - Groundwater Elevation (ft amsl)

Acronymn:
ft amsl = feet above mean sea level

Source:
NYS ITS GIS Program Office, 2021

50 0 50 Feet

AECOM

ASHLAND TANK 75, TONAWANDA, NY
REMEDIAL INVESTIGATION
GROUNDWATER ELEVATIONS (JULY 11, 2024)

FIGURE 4-2.2

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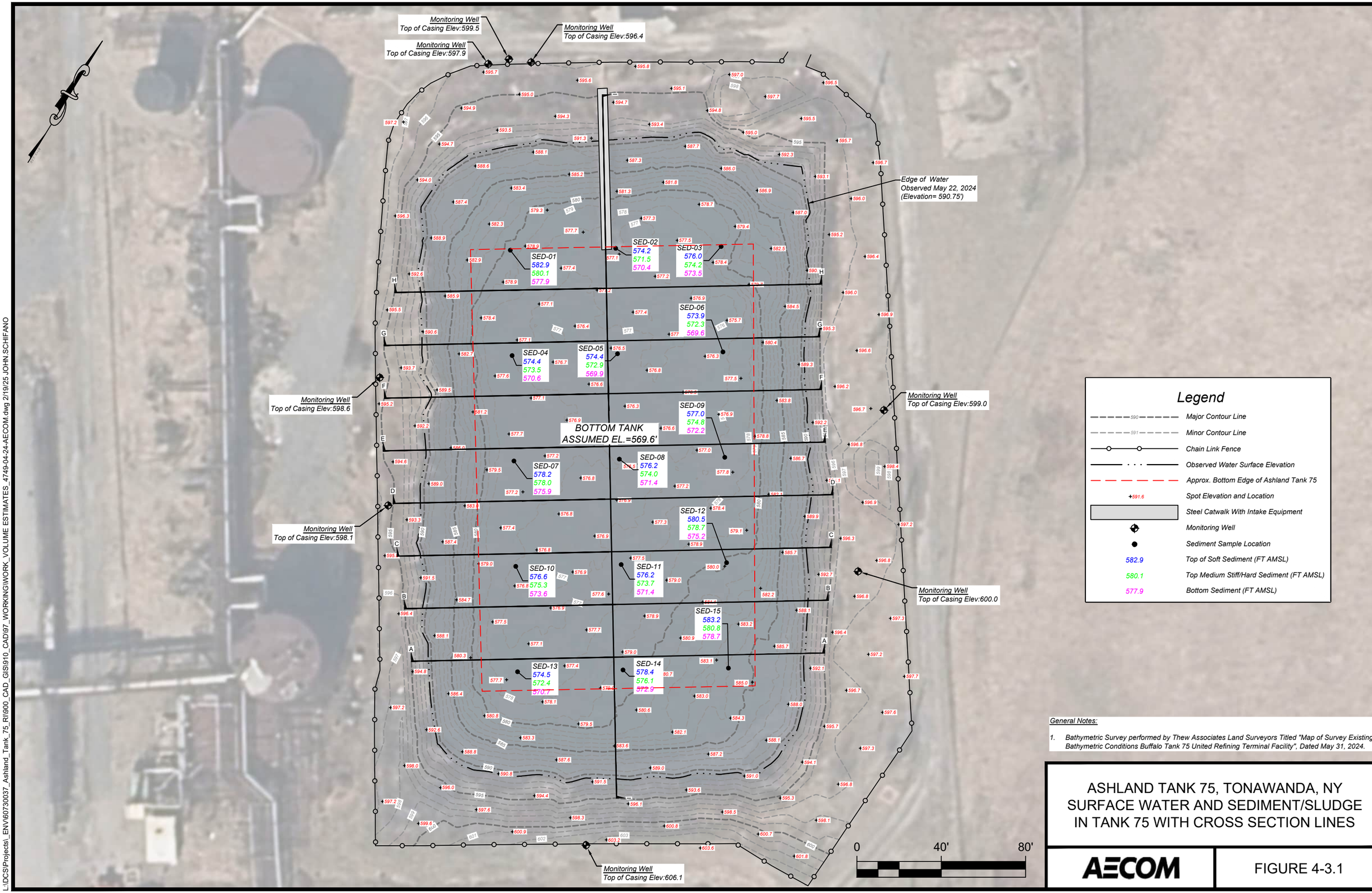
AECOM

ASHLAND TANK 75, TONAWANDA, NY
REMEDIAL INVESTIGATION
GROUNDWATER ELEVATIONS (SEPTEMBER 20, 2024)

FIGURE 4-2.3

L:\DCS\Projects\376794 11.00000\DB\GIS\RI Report\04-02.3 GW ELEVATIONS (20240920).mxd 2/25/2025



General Notes:

1. Bathymetric Survey performed by Thew Associates Land Surveyors Titled "Map of Survey Existing Bathymetric Conditions Buffalo Tank 75 United Refining Terminal Facility", Dated May 31, 2024.

ASHLAND TANK 75, TONAWANDA, NY
SURFACE WATER AND SEDIMENT/SLUDGE IN TANK 75 WITH CROSS SECTION LINES

AECOM

FIGURE 4-3.1

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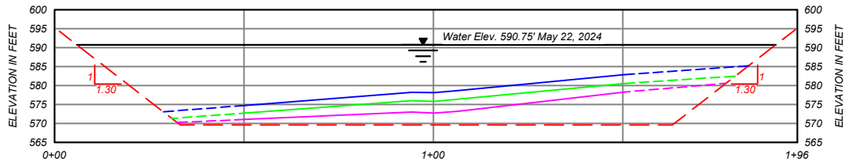
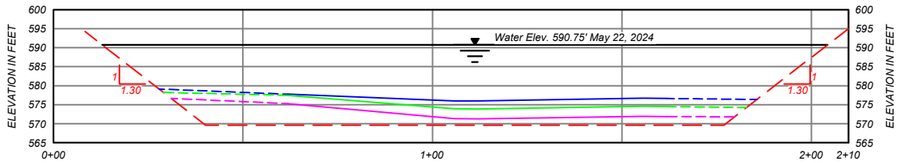


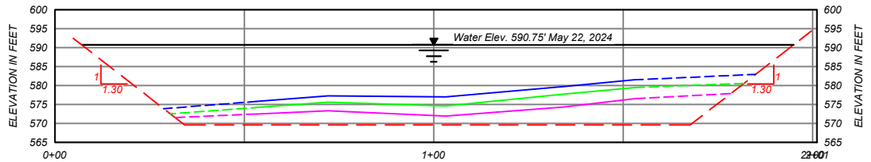
SECTION A

Horizontal Scale: 1" =40'
Vertical Scale: 1" = 40'



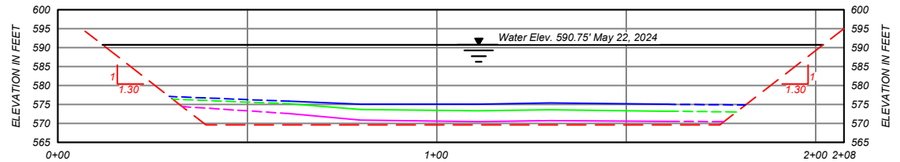
SECTION E

Horizontal Scale: 1" =40'
Vertical Scale: 1" = 40'



SECTION B

Horizontal Scale: 1" =40'
Vertical Scale: 1" = 40'



SECTION F

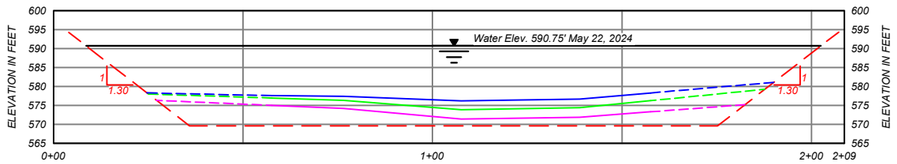
Horizontal Scale: 1" =40'
Vertical Scale: 1" = 40'

SECTION C

Horizontal Scale: 1" =40'
Vertical Scale: 1" = 40'

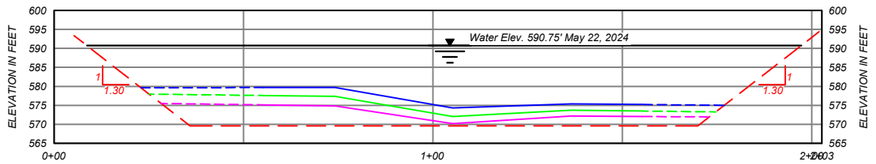
SECTION G

Horizontal Scale: 1" =40'
Vertical Scale: 1" = 40'



SECTION D

Horizontal Scale: 1" =40'
Vertical Scale: 1" = 40'



SECTION H

Horizontal Scale: 1" =40'
Vertical Scale: 1" = 40'

Legend

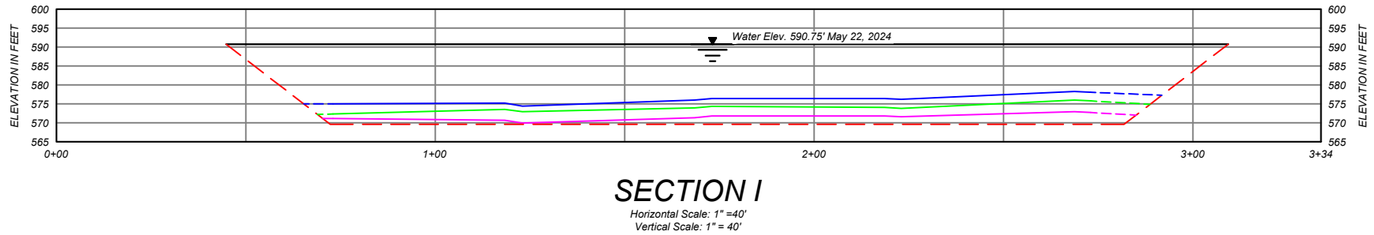
- Top of Soft Sediment
- Top of Medium Stiff/Hard Sediment
- Bottom of Sediment
- Top of Soft Sediment Inferred
- Top of Medium Stiff/Hard Sediment Inferred
- Bottom of Sediment Inferred
- Approx. Bottom of Ashland Tank 75

ASHLAND TANK 75, TONAWANDA, NY
SURFACE WATER AND SEDIMENT/SLUDGE IN TANK 75 CROSS SECTIONS (1 OF 2)

AECOM

FIGURE 4-3.2

L:\DCS\Projects_ENV\60730037_Ashland_Tank_75_RI\900_CAD_GIS\910_CAD\97_WORKING\WORK_VOLUME ESTIMATES_4749-04-24-AECOM.dwg 2/19/25 JOHN.SCHIFANO



SECTION I

Horizontal Scale: 1" =40'
Vertical Scale: 1" = 40'

Legend

- Top of Soft Sediment
- Top of Medium Stiff/Hard Sediment
- Bottom of Sediment
- Top of Soft Sediment Inferred
- Top of Medium Stiff/Hard Sediment Inferred
- Bottom of Sediment Inferred
- Approx. Bottom of Ashland Tank 75

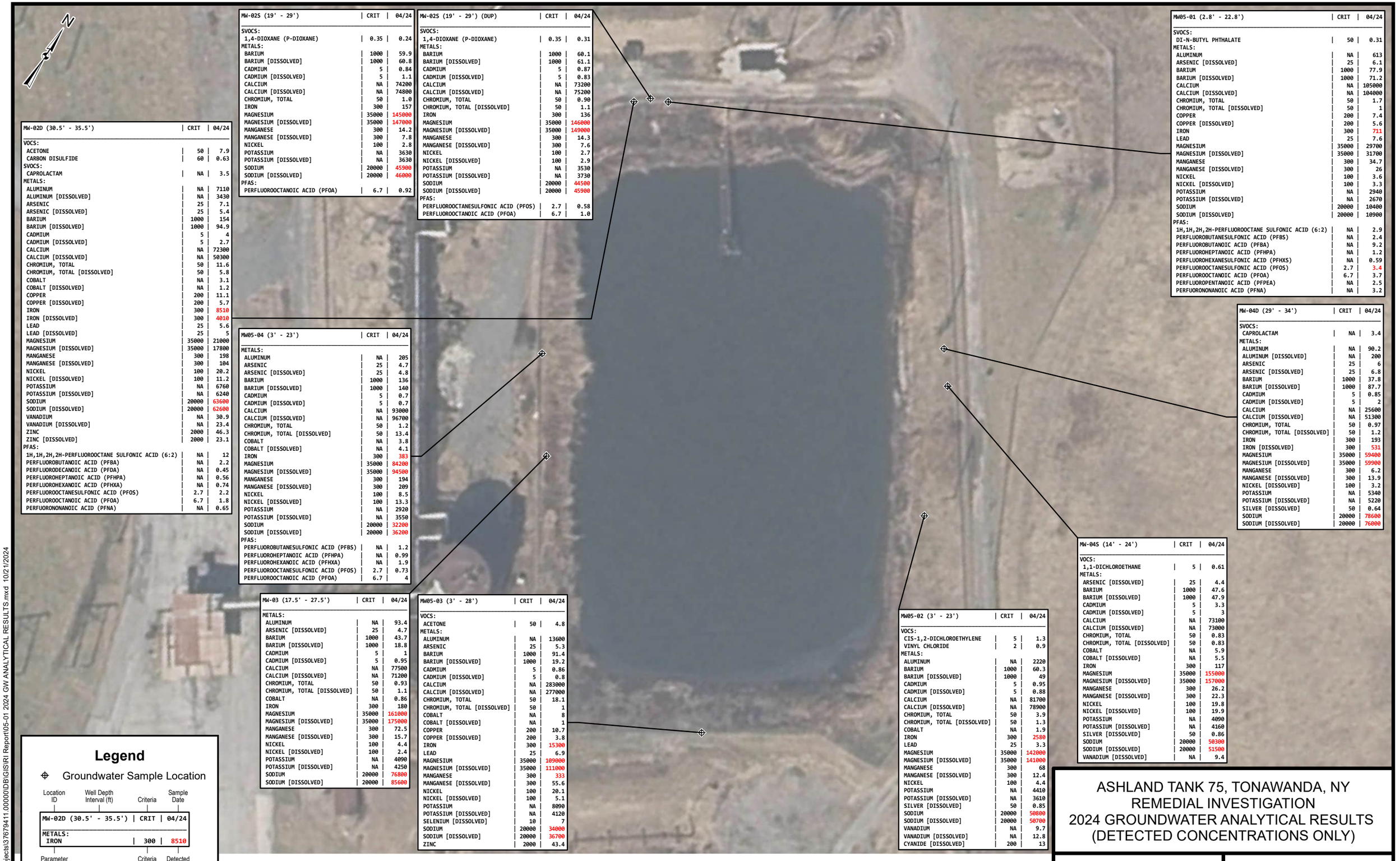
Cut/Fill Summary

Name	Cut Factor	Fill Factor	2d Area	Cut	Fill	Net
TOP SOFT SEDIMENT TO TOP OF MEDIUM STIFF/HARD SEDIMENT	1.000	1.000	20000 Sq. Ft.	1379.634 Cu. Yd.	0.000 Cu. Yd.	1379.634 Cu. Yd.<Cut>
TOP OF MEDIUM STIFF/HARD SEDIMENT TO BOTTOM TANK	1.000	1.000	20000 Sq. Ft.	4571.164 Cu. Yd.	0.000 Cu. Yd.	4571.164 Cu. Yd.<Cut>
TOP SOFT SEDIMENT TO BOTTOM TANK	1.000	1.000	20000 Sq. Ft.	5950.797 Cu. Yd.	0.000 Cu. Yd.	5950.797 Cu. Yd.<Cut>

ASHLAND TANK 75, TONAWANDA, NY
SURFACE WATER AND SEDIMENT/SLUDGE
IN TANK 75 CROSS SECTIONS (2 OF 2)

AECOM

FIGURE 4-3.3



MW-02D (30.5' - 35.5')	CRIT	04/24
VOCS:		
ACETONE	50	7.9
CARBON DISULFIDE	60	0.63
SVOCS:		
CAPROLACTAM	NA	3.5
METALS:		
ALUMINUM	NA	7110
ALUMINUM [DISSOLVED]	NA	3430
ARSENIC	25	7.1
ARSENIC [DISSOLVED]	25	5.4
BARIUM	1000	154
BARIUM [DISSOLVED]	1000	94.9
CADMIUM	5	4
CADMIUM [DISSOLVED]	5	2.7
CALCIUM	NA	72300
CALCIUM [DISSOLVED]	NA	50300
CHROMIUM, TOTAL	50	11.6
CHROMIUM, TOTAL [DISSOLVED]	50	5.8
COBALT	NA	3.1
COBALT [DISSOLVED]	NA	1.2
COPPER	200	11.1
COPPER [DISSOLVED]	200	5.7
IRON	300	8510
IRON [DISSOLVED]	300	4010
LEAD	25	5.6
LEAD [DISSOLVED]	25	5
MAGNESIUM	35000	21000
MAGNESIUM [DISSOLVED]	35000	17800
MANGANESE	300	198
MANGANESE [DISSOLVED]	300	104
NICKEL	100	20.2
NICKEL [DISSOLVED]	100	11.2
POTASSIUM	NA	6760
POTASSIUM [DISSOLVED]	NA	6240
SODIUM	20000	63600
SODIUM [DISSOLVED]	20000	62600
VANADIUM	NA	30.9
VANADIUM [DISSOLVED]	NA	23.4
ZINC	2000	46.3
ZINC [DISSOLVED]	2000	23.1
PFAS:		
1H,1H,2H,2H-PERFLUOROOCTANE SULFONIC ACID (6:2)	NA	12
PERFLUOROBUTANOIC ACID (PFBA)	NA	2.2
PERFLUORODECANOIC ACID (PFDA)	NA	0.45
PERFLUOROHEPTANOIC ACID (PFHPA)	NA	0.56
PERFLUOROHEXANOIC ACID (PFHXA)	NA	0.74
PERFLUOROOCTANESULFONIC ACID (PFOS)	2.7	2.2
PERFLUOROOCTANOIC ACID (PFOA)	6.7	1.8
PERFLUORONONANOIC ACID (PFNA)	NA	0.65

MW-02S (19' - 29')	CRIT	04/24
SVOCS:		
1,4-DIOXANE (P-DIOXANE)	0.35	0.24
METALS:		
BARIUM	1000	59.9
BARIUM [DISSOLVED]	1000	60.8
CADMIUM	5	0.84
CADMIUM [DISSOLVED]	5	1.1
CALCIUM	NA	74200
CALCIUM [DISSOLVED]	NA	74800
CHROMIUM, TOTAL	50	1.0
IRON	300	157
MAGNESIUM	35000	145000
MAGNESIUM [DISSOLVED]	35000	147000
MANGANESE	300	14.2
MANGANESE [DISSOLVED]	300	7.8
NICKEL	100	2.8
POTASSIUM	NA	3630
POTASSIUM [DISSOLVED]	NA	3630
SODIUM	20000	45900
SODIUM [DISSOLVED]	20000	46000
PFAS:		
PERFLUOROOCTANOIC ACID (PFOA)	6.7	0.92

MW-02S (19' - 29') (DUP)	CRIT	04/24
SVOCS:		
1,4-DIOXANE (P-DIOXANE)	0.35	0.31
METALS:		
BARIUM	1000	60.1
BARIUM [DISSOLVED]	1000	61.1
CADMIUM	5	0.87
CADMIUM [DISSOLVED]	5	0.83
CALCIUM	NA	73200
CALCIUM [DISSOLVED]	NA	75200
CHROMIUM, TOTAL	50	0.90
CHROMIUM, TOTAL [DISSOLVED]	50	1.1
IRON	300	136
MAGNESIUM	35000	146000
MAGNESIUM [DISSOLVED]	35000	149000
MANGANESE	300	14.3
MANGANESE [DISSOLVED]	300	7.6
NICKEL	100	2.7
NICKEL [DISSOLVED]	100	2.9
POTASSIUM	NA	3530
POTASSIUM [DISSOLVED]	NA	3730
SODIUM	20000	44500
SODIUM [DISSOLVED]	20000	45900
PFAS:		
PERFLUOROOCTANESULFONIC ACID (PFOS)	2.7	0.58
PERFLUOROOCTANOIC ACID (PFOA)	6.7	1.0

MW05-01 (2.8' - 22.8')	CRIT	04/24
SVOCS:		
DI-N-BUTYL PHTHALATE	50	0.31
METALS:		
ALUMINUM	NA	613
ARSENIC [DISSOLVED]	25	6.1
BARIUM	1000	77.9
BARIUM [DISSOLVED]	1000	71.2
CALCIUM	NA	105000
CALCIUM [DISSOLVED]	NA	104000
CHROMIUM, TOTAL	50	1.7
CHROMIUM, TOTAL [DISSOLVED]	50	1
COPPER	200	7.4
COPPER [DISSOLVED]	200	5.6
IRON	300	711
LEAD	25	7.6
MAGNESIUM	35000	29700
MAGNESIUM [DISSOLVED]	35000	31700
MANGANESE	300	34.7
MANGANESE [DISSOLVED]	300	26
NICKEL	100	3.6
NICKEL [DISSOLVED]	100	3.3
POTASSIUM	NA	2940
POTASSIUM [DISSOLVED]	NA	2670
SODIUM	20000	10400
SODIUM [DISSOLVED]	20000	10900
PFAS:		
1H,1H,2H,2H-PERFLUOROOCTANE SULFONIC ACID (6:2)	NA	2.9
PERFLUOROBUTANESULFONIC ACID (PFBS)	NA	2.4
PERFLUOROBUTANOIC ACID (PFBA)	NA	9.2
PERFLUOROHEPTANOIC ACID (PFHPA)	NA	1.2
PERFLUOROHEXANESULFONIC ACID (PFHXS)	NA	0.59
PERFLUOROOCTANESULFONIC ACID (PFOS)	2.7	3.4
PERFLUOROOCTANOIC ACID (PFOA)	6.7	3.7
PERFLUOROPENTANOIC ACID (PFPEA)	NA	2.5
PERFUORONONANOIC ACID (PFNA)	NA	3.2

MW05-04 (3' - 23')	CRIT	04/24
METALS:		
ALUMINUM	NA	205
ARSENIC	25	4.7
ARSENIC [DISSOLVED]	25	4.8
BARIUM	1000	136
BARIUM [DISSOLVED]	1000	140
CADMIUM	5	0.7
CADMIUM [DISSOLVED]	5	0.7
CALCIUM	NA	93000
CALCIUM [DISSOLVED]	NA	96700
CHROMIUM, TOTAL	50	1.2
CHROMIUM, TOTAL [DISSOLVED]	50	13.4
COBALT	NA	3.8
COBALT [DISSOLVED]	NA	4.1
IRON	300	383
MAGNESIUM	35000	84200
MAGNESIUM [DISSOLVED]	35000	94500
MANGANESE	300	194
MANGANESE [DISSOLVED]	300	209
NICKEL	100	8.5
NICKEL [DISSOLVED]	100	13.3
POTASSIUM	NA	2920
POTASSIUM [DISSOLVED]	NA	3550
SODIUM	20000	32200
SODIUM [DISSOLVED]	20000	36200
PFAS:		
PERFLUOROBUTANESULFONIC ACID (PFBS)	NA	1.2
PERFLUOROHEPTANOIC ACID (PFHPA)	NA	0.99
PERFLUOROHEXANOIC ACID (PFHXA)	NA	1.9
PERFLUOROOCTANESULFONIC ACID (PFOS)	2.7	0.73
PERFLUOROOCTANOIC ACID (PFOA)	6.7	4

MW-03 (17.5' - 27.5')	CRIT	04/24
METALS:		
ALUMINUM	NA	93.4
ARSENIC [DISSOLVED]	25	4.7
BARIUM	1000	43.7
BARIUM [DISSOLVED]	1000	18.8
CADMIUM	5	1
CADMIUM [DISSOLVED]	5	0.95
CALCIUM	NA	77500
CALCIUM [DISSOLVED]	NA	71200
CHROMIUM, TOTAL	50	0.93
CHROMIUM, TOTAL [DISSOLVED]	50	1.1
COBALT	NA	0.86
IRON	300	180
MAGNESIUM	35000	161000
MAGNESIUM [DISSOLVED]	35000	175000
MANGANESE	300	72.5
MANGANESE [DISSOLVED]	300	15.7
NICKEL	100	4.4
NICKEL [DISSOLVED]	100	2.4
POTASSIUM	NA	4090
POTASSIUM [DISSOLVED]	NA	4250
SODIUM	20000	76800
SODIUM [DISSOLVED]	20000	85600

MW05-03 (3' - 28')	CRIT	04/24
VOCS:		
ACETONE	50	4.8
METALS:		
ALUMINUM	NA	13600
ARSENIC	25	5.3
BARIUM	1000	91.4
BARIUM [DISSOLVED]	1000	19.2
CADMIUM	5	0.86
CADMIUM [DISSOLVED]	5	0.8
CALCIUM	NA	283000
CALCIUM [DISSOLVED]	NA	277000
CHROMIUM, TOTAL	50	18.1
CHROMIUM, TOTAL [DISSOLVED]	50	1
COBALT	NA	8
COBALT [DISSOLVED]	NA	1
COPPER	200	10.7
COPPER [DISSOLVED]	200	3.8
IRON	300	15300
LEAD	25	6.9
MAGNESIUM	35000	109000
MAGNESIUM [DISSOLVED]	35000	111000
MANGANESE	300	333
MANGANESE [DISSOLVED]	300	55.6
NICKEL	100	20.1
NICKEL [DISSOLVED]	100	5.1
POTASSIUM	NA	8090
POTASSIUM [DISSOLVED]	NA	4120
SELENIUM [DISSOLVED]	10	7
SODIUM	20000	34000
SODIUM [DISSOLVED]	20000	36700
ZINC	2000	43.4

MW05-02 (3' - 23')	CRIT	04/24
VOCS:		
CIS-1,2-DICHLOROETHYLENE	5	1.3
VINYL CHLORIDE	2	0.9
METALS:		
ALUMINUM	NA	2220
BARIUM	1000	60.3
BARIUM [DISSOLVED]	1000	49
CADMIUM	5	0.95
CADMIUM [DISSOLVED]	5	0.88
CALCIUM	NA	81700
CALCIUM [DISSOLVED]	NA	78900
CHROMIUM, TOTAL	50	3.9
CHROMIUM, TOTAL [DISSOLVED]	50	1.3
COBALT	NA	1.9
IRON	300	2580
LEAD	25	3.3
MAGNESIUM	35000	142000
MAGNESIUM [DISSOLVED]	35000	141000
MANGANESE	300	68
MANGANESE [DISSOLVED]	300	12.4
NICKEL	100	4.4
POTASSIUM	NA	4410
POTASSIUM [DISSOLVED]	NA	3610
SILVER [DISSOLVED]	50	0.85
SODIUM	20000	50800
SODIUM [DISSOLVED]	20000	50700
VANADIUM	NA	9.7
VANADIUM [DISSOLVED]	NA	12.8
CYANIDE [DISSOLVED]	200	13

MW-04D (29' - 34')	CRIT	04/24
SVOCS:		
CAPROLACTAM	NA	3.4
METALS:		
ALUMINUM	NA	90.2
ALUMINUM [DISSOLVED]	NA	200
ARSENIC	25	6
ARSENIC [DISSOLVED]	25	6.8
BARIUM	1000	37.8
BARIUM [DISSOLVED]	1000	87.7
CADMIUM	5	0.85
CADMIUM [DISSOLVED]	5	2
CALCIUM	NA	25600
CALCIUM [DISSOLVED]	NA	51300
CHROMIUM, TOTAL	50	0.97
CHROMIUM, TOTAL [DISSOLVED]	50	1.2
IRON	300	193
IRON [DISSOLVED]	300	531
MAGNESIUM	35000	59400
MAGNESIUM [DISSOLVED]	35000	59900
MANGANESE	300	6.2
MANGANESE [DISSOLVED]	300	13.9
NICKEL [DISSOLVED]	100	3.2
POTASSIUM	NA	5340
POTASSIUM [DISSOLVED]	NA	5220
SILVER [DISSOLVED]	50	0.64
SODIUM	20000	78600
SODIUM [DISSOLVED]	20000	76000

MW-04S (14' - 24')	CRIT	04/24
VOCS:		
1,1-DICHLOROETHANE	5	0.61
METALS:		
ARSENIC [DISSOLVED]	25	4.4
BARIUM	1000	47.6
BARIUM [DISSOLVED]	1000	47.9
CADMIUM	5	3.3
CADMIUM [DISSOLVED]	5	3
CALCIUM	NA	73100
CALCIUM [DISSOLVED]	NA	73000
CHROMIUM, TOTAL	50	0.83
CHROMIUM, TOTAL [DISSOLVED]	50	0.83
COBALT	NA	5.9
COBALT [DISSOLVED]	NA	5.5
IRON	300	117
MAGNESIUM	35000	155000
MAGNESIUM [DISSOLVED]	35000	157000
MANGANESE	300	26.2
MANGANESE [DISSOLVED]	300	22.3
NICKEL	100	19.8
NICKEL [DISSOLVED]	100	19.9
POTASSIUM	NA	4090
POTASSIUM [DISSOLVED]	NA	4160
SILVER [DISSOLVED]	50	0.86
SODIUM	20000	50300
SODIUM [DISSOLVED]	20000	51500
VANADIUM [DISSOLVED]	NA	9.4

Legend

Groundwater Sample Location

Location ID | Well Depth Interval (ft) | Criteria | Sample Date

MW-02D (30.5' - 35.5')	CRIT	04/24
METALS:		
IRON	300	8510

Parameter | Criteria Value | Detected Concentration (Red Text Indicates Exceedance)

Criteria: CRIT = NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA.
Note: PFAS criteria and detected concentrations are shown in ng/L; all others are shown in µg/L.
Source: NYS ITS GIS Program Office, 2021

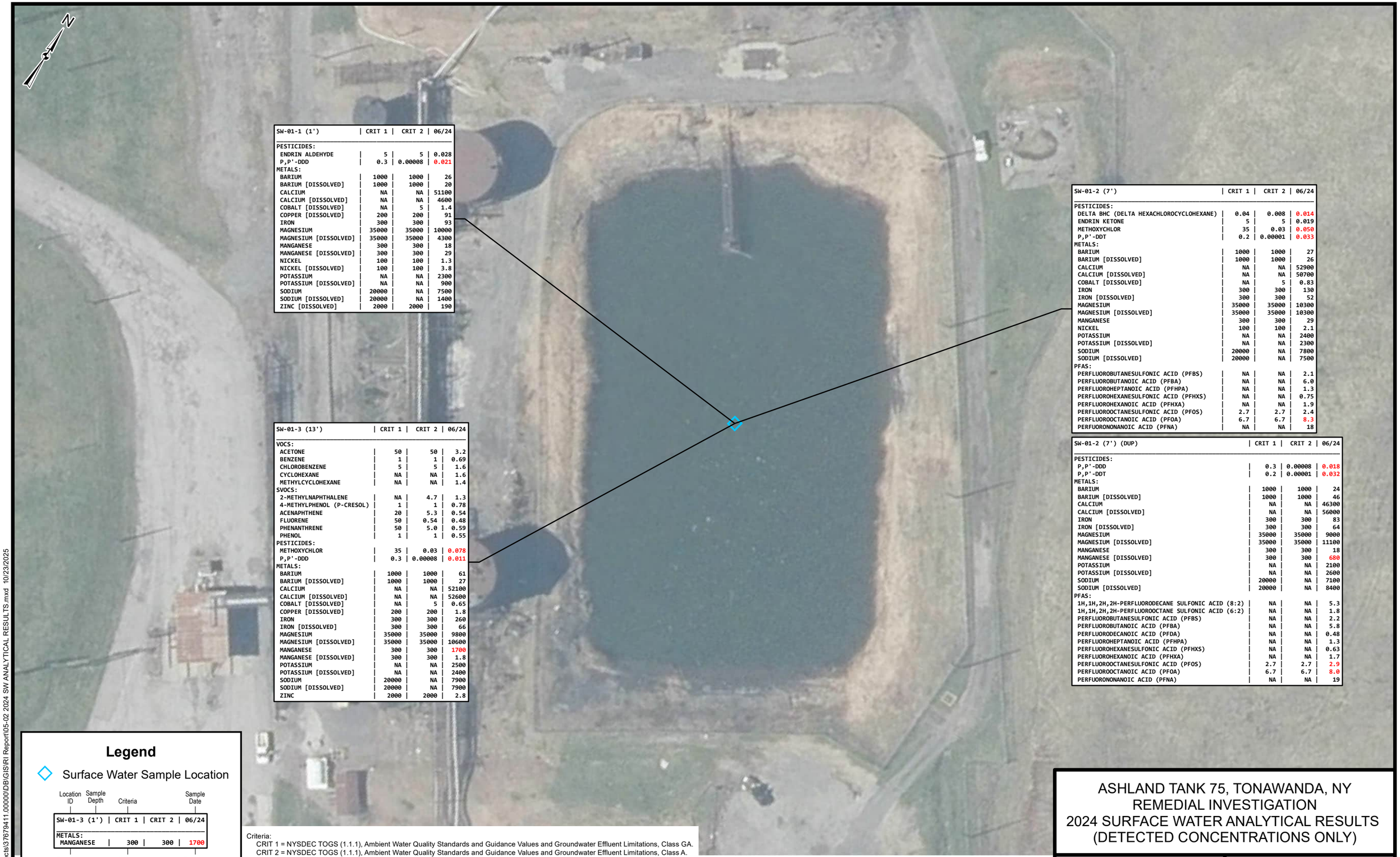
50 0 50 Feet

ASHLAND TANK 75, TONAWANDA, NY
REMEDIAL INVESTIGATION
2024 GROUNDWATER ANALYTICAL RESULTS
(DETECTED CONCENTRATIONS ONLY)

AECOM

FIGURE 5-1

L:\DCS\Projects\37679411.00000\DB\GIS\RI Report\105-01 2024 GW ANALYTICAL RESULTS.mxd 10/21/2024



SW-01-1 (1')	CRIT 1	CRIT 2	06/24
PESTICIDES:			
ENDRIN ALDEHYDE	5	5	0.028
P,P'-DDD	0.3	0.00008	0.021
METALS:			
BARIUM	1000	1000	26
BARIUM [DISSOLVED]	1000	1000	20
CALCIUM	NA	NA	51100
CALCIUM [DISSOLVED]	NA	NA	4600
COBALT [DISSOLVED]	NA	5	1.4
COPPER [DISSOLVED]	200	200	91
IRON	300	300	93
MAGNESIUM	35000	35000	10000
MAGNESIUM [DISSOLVED]	35000	35000	4300
MANGANESE	300	300	18
MANGANESE [DISSOLVED]	300	300	29
NICKEL	100	100	1.3
NICKEL [DISSOLVED]	100	100	3.8
POTASSIUM	NA	NA	2300
POTASSIUM [DISSOLVED]	NA	NA	900
SODIUM	20000	NA	7500
SODIUM [DISSOLVED]	20000	NA	1400
ZINC [DISSOLVED]	2000	2000	190

SW-01-3 (13')	CRIT 1	CRIT 2	06/24
VOCS:			
ACETONE	50	50	3.2
BENZENE	1	1	0.69
CHLOROBENZENE	5	5	1.6
CYCLOHEXANE	NA	NA	1.6
METHYLCYCLOHEXANE	NA	NA	1.4
SVOCS:			
2-METHYLNAPHTHALENE	NA	4.7	1.3
4-METHYLPHENOL (P-CRESOL)	1	1	0.78
ACENAPHTHENE	20	5.3	0.54
FLUORENE	50	0.54	0.48
PHENANTHRENE	50	5.0	0.59
PHENOL	1	1	0.55
PESTICIDES:			
METHOXYCHLOR	35	0.03	0.078
P,P'-DDD	0.3	0.00008	0.011
METALS:			
BARIUM	1000	1000	61
BARIUM [DISSOLVED]	1000	1000	27
CALCIUM	NA	NA	52100
CALCIUM [DISSOLVED]	NA	NA	52600
COBALT [DISSOLVED]	NA	5	0.65
COPPER [DISSOLVED]	200	200	1.8
IRON	300	300	260
IRON [DISSOLVED]	300	300	66
MAGNESIUM	35000	35000	9800
MAGNESIUM [DISSOLVED]	35000	35000	10600
MANGANESE	300	300	1700
MANGANESE [DISSOLVED]	300	300	1.8
POTASSIUM	NA	NA	2500
POTASSIUM [DISSOLVED]	NA	NA	2400
SODIUM	20000	NA	7900
SODIUM [DISSOLVED]	20000	NA	7900
ZINC	2000	2000	2.8

SW-01-2 (7')	CRIT 1	CRIT 2	06/24
PESTICIDES:			
DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	0.04	0.008	0.014
ENDRIN KETONE	5	5	0.019
METHOXYCHLOR	35	0.03	0.050
P,P'-DDT	0.2	0.00001	0.033
METALS:			
BARIUM	1000	1000	27
BARIUM [DISSOLVED]	1000	1000	26
CALCIUM	NA	NA	52900
CALCIUM [DISSOLVED]	NA	NA	50700
COBALT [DISSOLVED]	NA	5	0.83
IRON	300	300	130
IRON [DISSOLVED]	300	300	52
MAGNESIUM	35000	35000	10300
MAGNESIUM [DISSOLVED]	35000	35000	10300
MANGANESE	300	300	29
NICKEL	100	100	2.1
POTASSIUM	NA	NA	2400
POTASSIUM [DISSOLVED]	NA	NA	2300
SODIUM	20000	NA	7800
SODIUM [DISSOLVED]	20000	NA	7500
PFAS:			
PERFLUOROBUTANESULFONIC ACID (PFBS)	NA	NA	2.1
PERFLUOROBUTANOIC ACID (PFBA)	NA	NA	6.0
PERFLUOROHEPTANOIC ACID (PFHPA)	NA	NA	1.3
PERFLUOROHEXANESULFONIC ACID (PFHXS)	NA	NA	0.75
PERFLUOROHEXANOIC ACID (PFHXA)	NA	NA	1.9
PERFLUOROOCTANESULFONIC ACID (PFOS)	2.7	2.7	2.4
PERFLUOROOCTANOIC ACID (PFOA)	6.7	6.7	8.3
PERFUORONONANOIC ACID (PFNA)	NA	NA	18

SW-01-2 (7') (DUP)	CRIT 1	CRIT 2	06/24
PESTICIDES:			
P,P'-DDD	0.3	0.00008	0.018
P,P'-DDT	0.2	0.00001	0.032
METALS:			
BARIUM	1000	1000	24
BARIUM [DISSOLVED]	1000	1000	46
CALCIUM	NA	NA	46300
CALCIUM [DISSOLVED]	NA	NA	56000
IRON	300	300	83
IRON [DISSOLVED]	300	300	64
MAGNESIUM	35000	35000	9000
MAGNESIUM [DISSOLVED]	35000	35000	11100
MANGANESE	300	300	18
MANGANESE [DISSOLVED]	300	300	680
POTASSIUM	NA	NA	2100
POTASSIUM [DISSOLVED]	NA	NA	2600
SODIUM	20000	NA	7100
SODIUM [DISSOLVED]	20000	NA	8400
PFAS:			
1H,1H,2H,2H-PERFLUORODECANE SULFONIC ACID (8:2)	NA	NA	5.3
1H,1H,2H,2H-PERFLUOROOCTANE SULFONIC ACID (6:2)	NA	NA	1.8
PERFLUOROBUTANESULFONIC ACID (PFBS)	NA	NA	2.2
PERFLUOROBUTANOIC ACID (PFBA)	NA	NA	5.8
PERFLUORODECANOIC ACID (PFDA)	NA	NA	0.48
PERFLUOROHEPTANOIC ACID (PFHPA)	NA	NA	1.3
PERFLUOROHEXANESULFONIC ACID (PFHXS)	NA	NA	0.63
PERFLUOROHEXANOIC ACID (PFHXA)	NA	NA	1.7
PERFLUOROOCTANESULFONIC ACID (PFOS)	2.7	2.7	2.9
PERFLUOROOCTANOIC ACID (PFOA)	6.7	6.7	8.0
PERFUORONONANOIC ACID (PFNA)	NA	NA	19

Legend

Surface Water Sample Location

Location ID | Sample Depth | Criteria | Sample Date

SW-01-3 (1')	CRIT 1	CRIT 2	06/24
METALS:			
MANGANESE	300	300	1700

Parameter | Criteria Value | Detected Concentration (Red Text Indicates Exceedance)

Criteria:
CRIT 1 = NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA.
CRIT 2 = NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class A.

Notes:
1. PFAS criteria and detected concentrations are shown in ng/L; all others are shown in µg/L.
2. Surface water samples SW-01-1 through SW-01-3 were collected from the same location within Tank 75 at different depths.

Source: NYS ITS GIS Program Office, 2021

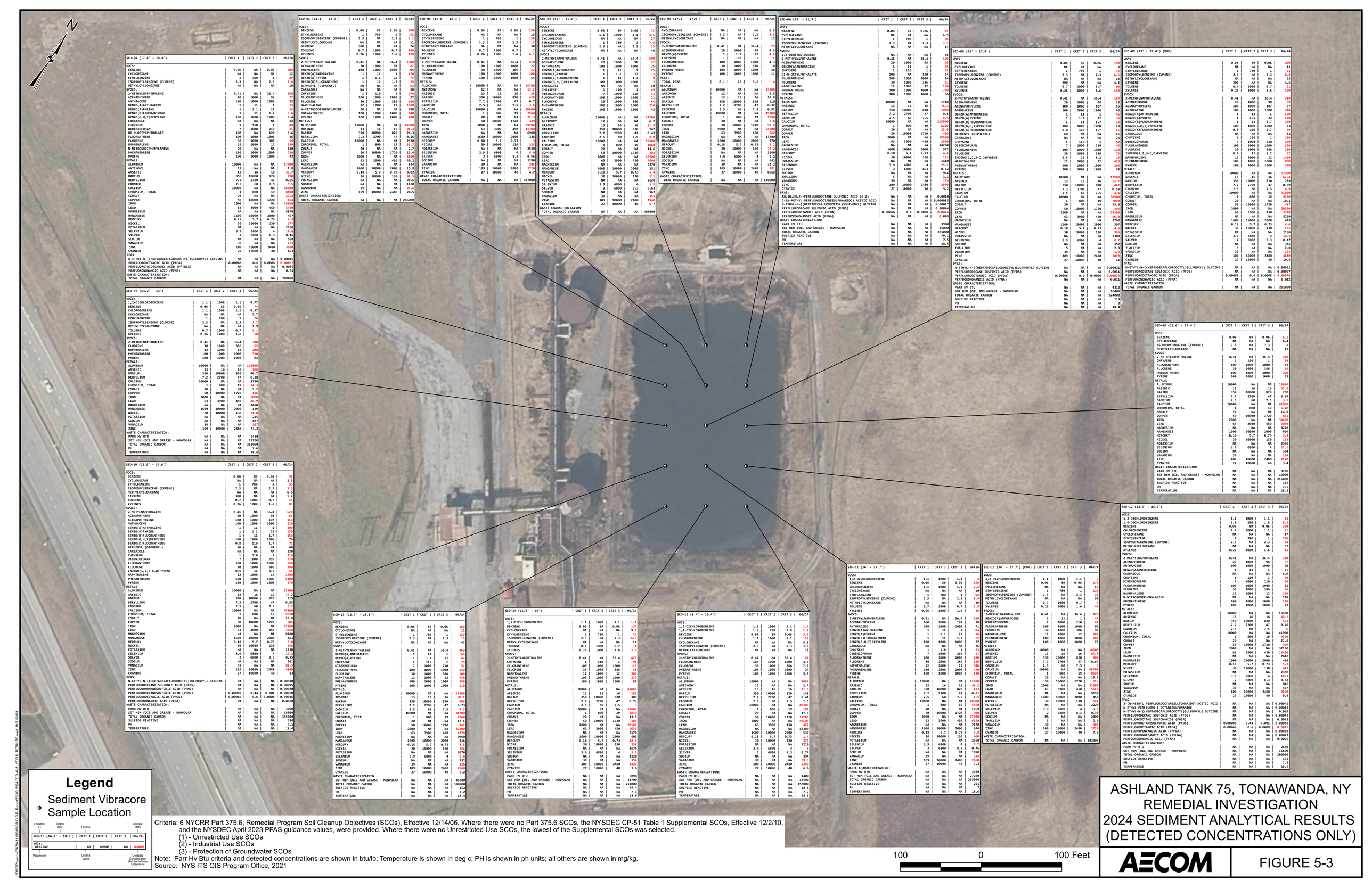
50 0 50 Feet

ASHLAND TANK 75, TONAWANDA, NY
REMEDIAL INVESTIGATION
2024 SURFACE WATER ANALYTICAL RESULTS
(DETECTED CONCENTRATIONS ONLY)

AECOM

FIGURE 5-2

L:\DCS\Projects\37679411.00000\DB\GIS\RI Report\05-02 2024 SW ANALYTICAL RESULTS.mxd 10/23/2025



SED-04 (17.8' - 20.8')	CRIT 1	CRIT 2	CRIT 3	06/24
VOCS:				
BENZENE	0.06	89	0.06	500
CYCLOHEXANE	NA	NA	NA	12
ETHYLBENZENE	1	780	1	89
ISOPROPYLBENZENE (CUMENE)	2.3	NA	2.3	7.6
METHYLCYCLOHEXANE	NA	NA	NA	19
SVOCS:				
2-METHYLNAPHTHALENE	0.41	NA	36.4	560
ACENAPHTHENE	20	1000	98	27
ANTHRACENE	100	1000	1000	23
BENZO(A)ANTHRACENE	1	11	1	23
BENZO(A)PYRENE	1	1.1	22	14
BENZO(B)FLUORANTHENE	1	11	1.7	6.6
BENZO(G,H,I)PERYLENE	100	1000	1000	8.4
CARBAZOLE	NA	NA	NA	12
CHRYSENE	1	110	1	49
DIBENZOFURAN	7	1000	210	21
DI-N-OCTYLPHTHALATE	100	NA	120	5.6
FLUORANTHENE	100	1000	1000	16
FLUORENE	30	1000	386	59
NAPHTHALENE	12	1000	12	150
N-NITROSODIPHENYLAMINE	20	NA	NA	110
PHENANTHRENE	100	1000	1000	230
PYRENE	100	1000	1000	43
METALS:				
ALUMINUM	10000	NA	NA	17000
ANTIMONY	12	NA	NA	1.8
ARSENIC	13	16	16	39.7
BARIUM	350	10000	820	790
BERYLLIUM	7.2	2700	47	0.65
CADMIUM	2.5	60	7.5	5.5
CALCIUM	10000	NA	NA	48000
CHROMIUM, TOTAL	1	800	19	8490
COBALT	20	NA	NA	22.8
COPPER	50	10000	1720	464
IRON	2000	NA	NA	26800
LEAD	63	3900	450	5480
MAGNESIUM	NA	NA	NA	8840
MANGANESE	1600	10000	2000	497
MERCURY	0.18	5.7	0.73	4.3
NICKEL	30	10000	130	377
POTASSIUM	NA	NA	NA	2160
SELENIUM	3.9	6800	4	10.6
SILVER	2	6800	8.3	0.46
SODIUM	NA	NA	NA	508
VANADIUM	39	NA	NA	252
ZINC	109	10000	2480	3050
CYANIDE	27	10000	40	8.3
PFAS:				
N-ETHYL-N-((HEPTADECAFLUOROOCTYL)SULPHONYL) GLYCINE	NA	NA	NA	0.00046
PERFLUOROOCTANOIC ACID (PFOA)	0.00066	0.6	0.0008	0.00067
PERFLUOROTRIDECANOIC ACID (PFTRIA)	NA	NA	NA	0.0085
PERFUORONONANOIC ACID (PFNA)	NA	NA	NA	0.01
WASTE CHARACTERIZATION:				
TOTAL ORGANIC CARBON	NA	NA	NA	280000

SED-01 (11.1' - 13.3')	CRIT 1	CRIT 2	CRIT 3	06/24
VOCS:				
BENZENE	0.06	89	0.06	290
ETHYLBENZENE	1	780	1	53
ISOPROPYLBENZENE (CUMENE)	2.3	NA	2.3	3.2
METHYLCYCLOHEXANE	NA	NA	NA	11
STYRENE	300	NA	NA	24
TOLUENE	0.7	1000	0.7	300
XYLENES	0.26	1000	1.6	420
SVOCS:				
2-METHYLNAPHTHALENE	0.41	NA	36.4	1500
ACENAPHTHENE	20	1000	98	82
ANTHRACENE	100	1000	1000	94
BENZO(A)ANTHRACENE	1	11	1	120
BENZO(A)PYRENE	1	1.1	22	74
BENZO(B)FLUORANTHENE	1	11	1.7	39
BIPHENYL (DIPHENYL)	60	NA	NA	62
CARBAZOLE	NA	NA	NA	50
CHRYSENE	1	110	1	270
FLUORANTHENE	100	1000	1000	57
FLUORENE	30	1000	386	160
NAPHTHALENE	12	1000	12	1000
N-NITROSODIPHENYLAMINE	20	NA	NA	280
PHENANTHRENE	100	1000	1000	840
PYRENE	100	1000	1000	200
METALS:				
ALUMINUM	10000	NA	NA	49600
ARSENIC	13	16	16	91.4
BARIUM	350	10000	820	26.3
BERYLLIUM	7.2	2700	47	0.26
CALCIUM	10000	NA	NA	2320
CHROMIUM, TOTAL	1	800	19	31.7
COBALT	20	NA	NA	2.7
COPPER	50	10000	1720	13.4
IRON	2000	NA	NA	3800
LEAD	63	3900	450	40.2
MAGNESIUM	NA	NA	NA	634
MANGANESE	1600	10000	2000	15.8
MERCURY	0.18	5.7	0.73	0.02
NICKEL	30	10000	130	90.5
POTASSIUM	NA	NA	NA	98.5
SODIUM	NA	NA	NA	1100
VANADIUM	39	NA	NA	95.6
ZINC	109	10000	2480	20.5
WASTE CHARACTERIZATION:				
TOTAL ORGANIC CARBON	NA	NA	NA	266000

SED-05 (16.8' - 18.3')	CRIT 1	CRIT 2	CRIT 3	06/24
VOCS:				
BENZENE	0.06	89	0.06	250
CYCLOHEXANE	NA	NA	NA	19
ETHYLBENZENE	1	780	1	130
ISOPROPYLBENZENE (CUMENE)	2.3	NA	2.3	12
METHYLCYCLOHEXANE	NA	NA	NA	30
TOLUENE	0.7	1000	0.7	2
XYLENES	0.26	1000	1.6	6.1
SVOCS:				
2-METHYLNAPHTHALENE	0.41	NA	36.4	470
FLUORANTHENE	100	1000	1000	22
FLUORENE	30	1000	386	52
PHENANTHRENE	100	1000	1000	200
PYRENE	100	1000	1000	54
METALS:				
ALUMINUM	10000	NA	NA	15700
ANTIMONY	12	NA	NA	13.2
ARSENIC	13	16	16	29
BARIUM	350	10000	820	428
BERYLLIUM	7.2	2700	47	0.7
CADMIUM	2.5	60	7.5	3.6
CALCIUM	10000	NA	NA	20900
CHROMIUM, TOTAL	1	800	19	2560
COBALT	20	NA	NA	21.3
COPPER	50	10000	1720	349
IRON	2000	NA	NA	39700
LEAD	63	3900	450	11300
MAGNESIUM	NA	NA	NA	6980
MANGANESE	1600	10000	2000	328
MERCURY	0.18	5.7	0.73	3
NICKEL	30	10000	130	325
POTASSIUM	NA	NA	NA	2540
SELENIUM	3.9	6800	4	8.0
SILVER	2	6800	8.3	0.56
SODIUM	NA	NA	NA	1280
VANADIUM	39	NA	NA	205
ZINC	109	10000	2480	1720
CYANIDE	27	10000	40	4.7
WASTE CHARACTERIZATION:				
TOTAL ORGANIC CARBON	NA	NA	NA	447000

SED-02 (17' - 19.8')	CRIT 1	CRIT 2	CRIT 3	06/24
VOCS:				
BENZENE	0.06	89	0.06	73
CHLOROBENZENE	1.1	1000	1.1	3.5
CYCLOHEXANE	NA	NA	NA	27
ETHYLBENZENE	1	780	1	7.6
ISOPROPYLBENZENE (CUMENE)	2.3	NA	2.3	15
METHYLCYCLOHEXANE	NA	NA	NA	46
SVOCS:				
2-METHYLNAPHTHALENE	0.41	NA	36.4	590
ACENAPHTHENE	20	1000	98	32
ANTHRACENE	100	1000	1000	25
BENZO(A)ANTHRACENE	1	11	1	25
BENZO(A)PYRENE	1	1.1	22	13
BENZO(B)FLUORANTHENE	1	11	1.7	9
BENZO(G,H,I)PERYLENE	100	1000	1000	7
CARBAZOLE	NA	NA	NA	10
CHRYSENE	1	110	1	49
DIBENZOFURAN	7	1000	210	31
FLUORANTHENE	100	1000	1000	21
FLUORENE	30	1000	386	64
PHENANTHRENE	100	1000	1000	220
PYRENE	100	1000	1000	48
METALS:				
ALUMINUM	10000	NA	NA	14700
ANTIMONY	12	NA	NA	6.2
ARSENIC	13	16	16	31.9
BARIUM	350	10000	820	247
BERYLLIUM	7.2	2700	47	0.49
CADMIUM	2.5	60	7.5	2.9
CALCIUM	10000	NA	NA	25500
CHROMIUM, TOTAL	1	800	19	1860
COBALT	20	NA	NA	14.6
COPPER	50	10000	1720	302
IRON	2000	NA	NA	45500
LEAD	63	3900	450	4660
MAGNESIUM	NA	NA	NA	7370
MANGANESE	1600	10000	2000	351
MERCURY	0.18	5.7	0.73	6.4
NICKEL	30	10000	130	311
POTASSIUM	NA	NA	NA	2620
SELENIUM	3.9	6800	4	5.8
SILVER	2	6800	8.3	0.63
SODIUM	NA	NA	NA	962
VANADIUM	39	NA	NA	151
ZINC	109	10000	2480	1940
CYANIDE	27	10000	40	6.7
WASTE CHARACTERIZATION:				
TOTAL ORGANIC CARBON	NA	NA	NA	403000

SED-03 (17.1' - 17.9')	CRIT 1	CRIT 2	CRIT 3	06/24
VOCS:				
CYCLOHEXANE	NA	NA	NA	6.3
ISOPROPYLBENZENE (CUMENE)	2.3	NA	2.3	3.8
METHYLCYCLOHEXANE	NA	NA	NA	12
SVOCS:				
2-METHYLNAPHTHALENE	0.41	NA	36.4	79
ACENAPHTHENE	20	1000	98	4.5
BENZO(A)PYRENE	1	1.1	22	4.4
CHRYSENE	1	110	1	11
FLUORANTHENE	100	1000	1000	4.3
FLUORENE	30	1000	386	10
PHENANTHRENE	100	1000	1000	38
PYRENE	100	1000	1000	11
PCBS:				
TOTAL PCBS	0.1	25	3.2	4
METALS:				
ALUMINUM	10000	NA	NA	13300
ANTIMONY	12	NA	NA	2.5
ARSENIC	13	16	16	10.8
BARIUM	350	10000	820	110
BERYLLIUM	7.2	2700	47	0.32
CADMIUM	2.5	60	7.5	0.92
CALCIUM	10000	NA	NA	45100
CHROMIUM, TOTAL	1	800	19	1150
COBALT	20	NA	NA	5.4
COPPER	50	10000	1720	93.9
IRON	2000	NA	NA	24200
LEAD	63	3900	450	662
MAGNESIUM	NA	NA	NA	13600
MANGANESE	1600	10000	2000	270
MERCURY	0.18	5.7	0.73	1.1
NICKEL	30	10000	130	73.2
POTASSIUM	NA	NA	NA	3660
SELENIUM	3.9	6800	4	2.2
SODIUM	NA	NA	NA	492
VANADIUM	39	NA	NA	31.2
ZINC	109	10000	2480	481
CYANIDE	27	10000	40	0.62
WASTE CHARACTERIZATION:				
TOTAL ORGANIC CARBON	NA	NA	NA	140000

SED-06 (19' - 21.7')	CRIT 1	CRIT 2	CRIT 3	06/24
VOCS:				
BENZENE	0.06	89	0.06	99
CYCLOHEXANE	NA	NA	NA	6.5
ETHYLBENZENE	1	780	1	36
ISOPROPYLBENZENE (CUMENE)	2.3	NA	2.3	3.3
METHYLCYCLOHEXANE	NA	NA	NA	14
SVOCS:				
2,4-DINITROTOLUENE	NA	NA	NA	56
2-METHYLNAPHTHALENE	0.41	NA	36.4	450
ACENAPHTHENE	20	1000	98	26
BENZO(A)ANTHRACENE	1	11	1	35
CHRYSENE	1	110	1	59
DI-N-OCTYLPHTHALATE	100	NA	120	24
FLUORANTHENE	100	1000	1000	24
FLUORENE	30	1000	386	52
NAPHTHALENE	12	1000	12	150
PHENANTHRENE	100	1000	1000	220
PYRENE	100	1000	1000	56
METALS:				
ALUMINUM	10000	NA	NA	7710
ARSENIC	13	16	16	76.2
BARIUM	350	10000	820	1080
BERYLLIUM	7.2	2700	47	0.5
CADMIUM	2.5	60	7.5	4.5
CALCIUM	10000	NA	NA	218000
CHROMIUM, TOTAL	1	800	19	8210
COBALT	20	NA	NA	23.8
COPPER	50	10000	1720	450
IRON	2000	NA	NA	39500
LEAD	63	3900	450	2300
MAGNESIUM	NA	NA	NA	14200
MANGANESE	1600	10000	2000	547
MERCURY	0.18	5.7	0.73	4.6
NICKEL	30	10000	130	192
POTASSIUM	NA	NA	NA	1410
SELENIUM	3.9	6800	4	25.1
SILVER	2	6800	8.3	0.62
SODIUM	NA	NA	NA	914
THALLIUM	5	NA	NA	3.1
VANADIUM	39	NA	NA	139
ZINC	109	10000	2480	2930
CYANIDE	27	10000	40	5.2
PFAS:				
1H,1H,2H,2H-PERFLUOROOCTANE SULFONIC ACID (6:2)	NA	NA	NA	0.0010
2-(N-METHYL PERFLUOROOCTANESULFONAMIDO) ACETIC ACID	NA	NA	NA	0.000085
N-ETHYL-N-((HEPTADECAFLUOROOCTYL)SULPHONYL) GLYCINE	NA	NA	NA	0.00017
PERFLUORODECANE SULFONIC ACID (PFDS)	NA	NA	NA	0.00084
PERFLUOROOCTANOIC ACID (PFOA)	0.00066	0.6	0.0008	0.0024
PERFUORONONANOIC ACID (PFNA)	NA	NA	NA	0.009
WASTE CHARACTERIZATION:				
PARR HV BTU	NA	NA	NA	3900
SGT HEM (OIL AND GREASE - NONPOLAR	NA	NA	NA	45000
TOTAL ORGANIC CARBON	NA	NA	NA	231000
SULFIDE REACTIVE	NA	NA	NA	79.1
PH	NA	NA	NA	7.5
TEMPERATURE	NA	NA	NA	18.5

SED-08 (15' - 17.4')	CRIT 1	CRIT 2	CRIT 3	06/24
VOCS:				
BENZENE	0.06	89	0.06	180
CYCLOHEXANE	NA	NA	NA	9
ETHYLBENZENE	1	780	1	73
ISOPROPYLBENZENE (CUMENE)	2.3	NA	2.3	6.5
METHYLCYCLOHEXANE	NA	NA	NA	18
STYRENE	300	NA	NA	4.4
TOLUENE	0.7	1000	0.7	60
XYLENES	0.26	1000	1.6	140
SVOCS:				
2-METHYLNAPHTHALENE	0.41	NA	36.4	170
ACENAPHTHENE	20	1000	98	18
ACENAPHTHYLENE	100	1000	107	15
ANTHRACENE	100	1000	1000	46
BENZO(A)ANTHRACENE	1	11	1	45
BENZO(A)PYRENE	1	1.1	22	36
BENZO(B)FLUORANTHENE	1	11	1.7	32
BENZO(G,H,I)PERYLENE	100	1000	1000	19
BENZO(K)FLUORANTHENE	0.8	110	1.7	15
BIPHENYL (DIPHENYL)	60	NA	NA	15
CARBAZOLE	NA	NA	NA	24
CHRYSENE	1	110	1	60
DIBENZOFURAN	7	1000	210	46
FLUORANTHENE	100	1000	1000	120
FLUORENE	30	1000	386	75
INDENO(1,2,3-C,D)PYRENE	0.5	11	8.2	13
NAPHTHALENE	12	1000	12	410
PHENANTHRENE	100	1000	1000	260
PYRENE	100	1000	1000	98
METALS:				
ALUMINUM	10000	NA	NA	12900
ARSENIC	13	16	16	53.7
BARIUM	350	10000	820	442
BERYLLIUM	7.2	2700	47	0.58
CADMIUM	2.5	60	7.5	4.4
CALCIUM	10000	NA	NA	36900
CHROMIUM, TOTAL	1	800	19	7090
COBALT	20	NA	NA	13.6
COPPER	50	10000	1720	404
IRON	2000	NA	NA	28300
LEAD	63	3900	450	3670
MAGNESIUM	NA	NA	NA	7760
MANGANESE	1600	10000	2000	397
MERCURY	0.18	5.7	0.73	4.6
NICKEL	30	10000	130	365
POTASSIUM	NA	NA	NA	2300
SELENIUM	3.9	6800	4	8.7
SODIUM	NA	NA	NA	352
THALLIUM	5	NA	NA	2.8
VANADIUM	39	NA	NA	179
ZINC	109	10000	2480	3070
CYANIDE	27	10000	40	11
PFAS:				
N-ETHYL-N-((HEPTADECAFLUOROOCTYL)SULPHONYL) GLYCINE	NA	NA	NA	0.00021
PERFLUORODECANE SULFONIC ACID (PFDS)	NA	NA	NA	0.0011
PERFLUOROOCTANOIC ACID (PFOA)	0.00066	0.6	0.0008	0.00073
PERFUORONONANOIC ACID (PFNA)	NA	NA	NA	0.011
WASTE CHARACTERIZATION:				
PARR HV BTU	NA	NA	NA	4310
SGT HEM (OIL AND GREASE - NONPOLAR	NA	NA	NA	10400
TOTAL ORGANIC CARBON	NA	NA	NA	324000
SULFIDE REACTIVE	NA	NA	NA	119
PH	NA	NA	NA	8
TEMPERATURE	NA	NA	NA	18.4

SED-08 (15' - 17.4') (DUP)	CRIT 1	CRIT 2	CRIT 3	06/24
VOCS:				
BENZENE	0.06	89	0.06	200
CYCLOHEXANE	NA	NA	NA	11
ETHYLBENZENE	1	780	1	91
ISOPROPYLBENZENE (CUMENE)	2.3	NA	2.3	8.4
METHYLCYCLOHEXANE	NA	NA	NA	25
STYRENE	300	NA	NA	4.6
TOLUENE	0.7	1000	0.7	61
XYLENES	0.26	1000	1.6	150
SVOCS:				
2-METHYLNAPHTHALENE	0.41	NA	36.4	710
ACENAPHTHENE	20	1000	98	69
ACENAPHTHYLENE	100	1000	107	57
ANTHRACENE	100	1000	1000	140
BENZO(A)ANTHRACENE	1	11	1	150
BENZO(A)PYRENE	1	1.1	22	120
BENZO(B)FLUORANTHENE	1	11	1.7	100
BENZO(G,H,I)PERYLENE	100	1000	1000	73
BENZO(K)FLUORANTHENE	0.8	110	1.7	49
CARBAZOLE	NA	NA	NA	84
CHRYSENE	1	110	1	180
DIBENZOFURAN	7	1000	210	140
FLUORANTHENE	100	1000	1000	350
FLUORENE	30	1000	386	230
INDENO(1,2,3-C,D)PYRENE	0.5	11	8.2	52
NAPHTHALENE	12	1000	12	1400
PHENANTHRENE	100	1000	1000	860
PYRENE	100	1000	1000	310
METALS:				
ALUMINUM	10000	NA	NA	12300
ARSENIC	13	16	16	67.4
BARIUM	350	10000	820	289
BERYLLIUM	7.2	2700	47	0.59
CADMIUM	2.5	60	7.5	4.9
CALCIUM	10000	NA	NA	41800
CHROMIUM, TOTAL	1	800	19	9180
COBALT	20	NA	NA	10.1
COPPER	50	10000	1720	487
IRON	2000	NA	NA	30300
LEAD	63	3900	450	3370
MAGNESIUM	NA	NA	NA	8260
MANGANESE	1600	10000	2000	449
MERCURY	0.18	5.7	0.73	4.6
NICKEL	30	10000	130	185
POTASSIUM	NA	NA	NA	2130
SELENIUM	3.9	6800	4	10.3
SILVER	2	6800	8.3	0.47
SODIUM	NA	NA	NA	346
THALLIUM	5	NA	NA	2.8
VANADIUM	39	NA	NA	103
ZINC	109	10000	2480	4140
CYANIDE	27	10000	40	10.4
PFAS:				
N-ETHYL-N-((HEPTADECAFLUOROOCTYL)SULPHONYL) GLYCINE	NA	NA	NA	0.00021
PERFLUORODECANE SULFONIC ACID (PFDS)	NA	NA	NA	0.00097
PERFLUOROOCTANOIC ACID (PFOA)	0.00066	0.6	0.0008	0.00074
PERFUORONONANOIC ACID (PFNA)	NA	NA	NA	0.012
WASTE CHARACTERIZATION:				
TOTAL ORGANIC CARBON	NA	NA	NA	291000

SED-07 (13.2' - 14')	CRIT 1	CRIT 2	CRIT 3	06/24
VOCS:				
1,2-DICHLOROBENZENE	1.1	1000	1.1	0.77
BENZENE	0.06	89	0.06	74
CHLOROBENZENE	1.1	1000	1.1	0.37
CYCLOHEXANE	NA	NA	NA	2.7
ETHYLBENZENE	1	780	1	26
ISOPROPYLBENZENE (CUMENE)	2.3	NA	2.3	2.7
METHYLCYCLOHEXANE	NA	NA	NA	7.9
TOLUENE	0.7	1000	0.7	3.1
XYLENES	0.26	1000	1.6	50
SVOCS:				
2-METHYLNAPHTHALENE	0.41	NA	36.4	380
FLUORENE	30	1000	386	62
NAPHTHALENE	12	1000	12	200
PHENANTHRENE	100	1000	1000	330
PYRENE	100	1000	1000	92
METALS:				
ALUMINUM	10000	NA	NA	128000
ARSENIC	13	16	16	108
BARIUM	350	10000	820	40.7
BERYLLIUM	7.2	2700	47	0.38
CALCIUM	10000	NA	NA	8780
CHROMIUM, TOTAL	1	800	19	54.3
COBALT	20	NA	NA	5.2
COPPER	50	10000	1720	116
IRON	2000	NA	NA	6000
LEAD	63	3900	450	80.9
MAGNESIUM	NA	NA	NA	1480
MANGANESE	1600	10000	2000	149
NICKEL	30	10000	130	71.8
POTASSIUM	NA	NA	NA	215
SODIUM	NA	NA	NA	807
VANADIUM	39	NA	NA	107
ZINC	109	10000	2480	73.2
WASTE CHARACTERIZATION:				
PARR HV BTU	NA	NA	NA	5430
SGT HEM (OIL AND GREASE - NONPOLAR	NA	NA	NA	19700
TOTAL ORGANIC CARBON	NA	NA	NA	263000
PH	NA	NA	NA	7.6
TEMPERATURE	NA	NA	NA	18.4

SED-10 (15.9' - 17.6')	CRIT 1	CRIT 2	CRIT 3	06/24
VOCS:				
BENZENE	0.06	89	0.06	97
CYCLOHEXANE	NA	NA	NA	2.5
ETHYLBENZENE	1	780	1	35
ISOPROPYLBENZENE (CUMENE)	2.3	NA	2.3	3.5
METHYLCYCLOHEXANE	NA	NA	NA	6.6
STYRENE	300	NA	NA	1.2
TOLUENE	0.7	1000	0.7	16
XYLENES	0.26	1000	1.6	83
SVOCS:				
2-METYLNAPHTHALENE	0.41	NA	36.4	620
ACENAPHTHENE	20	1000	98	63
ACENAPHTHYLENE	100	1000	107	110
ANTHRACENE	100	1000	1000	220
BENZO(A)ANTHRACENE	1	11	1	200
BENZO(A)PYRENE	1	1.1	22	130
BENZO(B)FLUORANTHENE	1	11	1.7	150
BENZO(G,H,I)PERYLENE	100	1000	1000	74
BENZO(K)FLUORANTHENE	0.8	110	1.7	71
BIPHENYL (DIPHENYL)	60	NA	NA	60
CARBAZOLE	NA	NA	NA	130
CHRYSENE	1	110	1	210
DIBENZOFURAN	7	1000	210	270
FLUORANTHENE	100	1000	1000	550
FLUORENE	30	1000	386	390
INDENO(1,2,3-C,D)PYRENE	0.5	11	8.2	55
NAPHTHALENE	12	1000	12	2400
PHENANTHRENE	100	1000	1000	1100
PYRENE	100	1000	1000	370
METALS:				
ALUMINUM	10000	NA	NA	12500
ARSENIC	13	16	16	75.2
BARIUM	350	10000	820	315
BERYLLIUM	7.2	2700	47	0.55
CADMIUM	2.5	60	7.5	5.2
CALCIUM	10000	NA	NA	49800
CHROMIUM, TOTAL	1	800	19	9650
COBALT	20	NA	NA	10.8
COPPER	50	10000	1720	505
IRON	2000	NA	NA	31800
LEAD	63	3900	450	3560
MAGNESIUM	NA	NA	NA	8200
MANGANESE	1600	10000	2000	463
MERCURY	0.18	5.7	0.73	5.8
NICKEL	30	10000	130	148
POTASSIUM	NA	NA	NA	1930
SELENIUM	3.9	6800	4	12.2
SILVER	2	6800	8.3	0.55
SODIUM	NA	NA	NA	501
VANADIUM	39	NA	NA	82.5
ZINC	109	10000	2480	4840
CYANIDE	27	10000	40	13
PFAS:				
N-ETHYL-N-((HEPTADECAFLUOROOCTYL)SULPHONYL) GLYCINE	NA	NA	NA	0.00010
PERFLUORODECANE SULFONIC ACID (PFDS)	NA	NA	NA	0.00095
PERFLUORONONANESULFONIC ACID (PFNS)	NA	NA	NA	0.00030
PERFLUOROOCTANESULFONIC ACID (PFOS)	0.00088	0.44	0.001	0.00060
PERFLUOROOCTANOIC ACID (PFOA)	0.00066	0.6	0.0008	0.00046
PERFUORONONANOIC ACID (PFNA)	NA	NA	NA	0.0058
WASTE CHARACTERIZATION:				
PARR HV BTU	NA	NA	NA	3090
SGT HEM (OIL AND GREASE - NONPOLAR	NA	NA	NA	18000
TOTAL ORGANIC CARBON	NA	NA	NA	355000
SULFIDE REACTIVE	NA	NA	NA	180
PH	NA	NA	NA	7.1
TEMPERATURE	NA	NA	NA	18.4

SED-09 (16.6' - 17.4')	CRIT 1	CRIT 2	CRIT 3	06/24
VOCS:				
BENZENE	0.06	89	0.06	6.1
CYCLOHEXANE	NA	NA	NA	6.4
ISOPROPYLBENZENE (CUMENE)	2.3	NA	2.3	4
METHYLCYCLOHEXANE	NA	NA	NA	13
SVOCS:				
2-METHYLNAPHTHALENE	0.41	NA	36.4	420
CHRYSENE	1	110	1	50
FLUORANTHENE	100	1000	1000	43
FLUORENE	30	1000	386	56
PHENANTHRENE	100	1000	1000	220
PYRENE	100	1000	1000	53
METALS:				
ALUMINUM	10000	NA	NA	18600
ARSENIC	13	16	16	57.9
BARIUM	350	10000	820	250
BERYLLIUM	7.2	2700	47	0.89
CADMIUM	2.5	60	7.5	3.1
CALCIUM	10000	NA	NA	41800
CHROMIUM, TOTAL	1	800	19	6320
COBALT	20	NA	NA	14.8
COPPER	50	10000	1720	601
IRON	2000	NA	NA	38400
LEAD	63	3900	450	3040
MAGNESIUM	NA	NA	NA	9210
MANGANESE	1600	10000	2000	604
MERCURY	0.18	5.7	0.73	3.9
NICKEL	30	10000	130	163
POTASSIUM	NA	NA	NA	2580
SELENIUM	3.9	6800	4	12.1
SODIUM	NA	NA	NA	384
VANADIUM	39	NA	NA	104
ZINC	109	10000	2480	2120
CYANIDE	27	10000	40	3.4
WASTE CHARACTERIZATION:				
PARR HV BTU	NA	NA	NA	3280
SGT HEM (OIL AND GREASE - NONPOLAR	NA	NA	NA	19000
TOTAL ORGANIC CARBON	NA	NA	NA	216000
SULFIDE REACTIVE	NA	NA	NA	156
PH	NA	NA	NA	7.5
TEMPERATURE	NA	NA	NA	18.3

SED-12 (12.5' - 15.2')	CRIT 1	CRIT 2	CRIT 3	06/24
VOCS:				
1,2-DICHLOROBENZENE	1.1	1000	1.1	13
1,4-DICHLOROBENZENE	1.8	250	1.8	9.3
BENZENE	0.06	89	0.06	320
CHLOROBENZENE	1.1	1000	1.1	61
CYCLOHEXANE	NA	NA	NA	17
ETHYLBENZENE	1	780	1	230
ISOPROPYLBENZENE (CUMENE)	2.3	NA	2.3	24
METHYLCYCLOHEXANE	NA	NA	NA	52
XYLENES	0.26	1000	1.6	11
SVOCS:				
2-METHYLNAPHTHALENE	0.41	NA	36.4	710
ACENAPHTHENE	20	1000	98	37
ANTHRACENE	100	1000	1000	20
BENZO(A)ANTHRACENE	1	11	1	11
CARBAZOLE	NA	NA	NA	6.9
CHRYSENE	1	110	1	20
DIBENZOFURAN	7	1000	210	36
FLUORANTHENE	100	1000	1000	11
FLUORENE	30	1000	386	66
NAPHTHALENE	12	1000	12	120
N-NITROSODIPHENYLAMINE	NA	NA	NA	140
PHENANTHRENE	100	1000	1000	190
PYRENE	100	1000	1000	23
METALS:				
ALUMINUM	10000	NA	NA	15900
ARSENIC	13	16	16	49.2
BARIUM	350	10000	820	553
BERYLLIUM	7.2	2700	47	0.76
CADMIUM	2.5	60	7.5	6
CALCIUM	10000	NA	NA	41900
CHROMIUM, TOTAL	1	800	19	9550
COBALT	20	NA	NA	21.6
COPPER	50	10000	1720	369
IRON	2000	NA	NA	32100
LEAD	63	3900	450	16400
MAGNESIUM	NA	NA	NA	7610
MANGANESE	1600	10000	2000	460
MERCURY	0.18	5.7	0.73	5.3
NICKEL	30	10000	130	443
POTASSIUM	NA	NA	NA	2350
SELENIUM	3.9	6800	4	10.3
SILVER	2	6800	8.3	0.62
SODIUM	NA	NA	NA	846
VANADIUM	39	NA	NA	497
ZINC	109	10000	2480	3100
CYANIDE	27	10000	40	9.9
PFAS:				
2-(N-METHYL PERFLUOROOCTANESULFONAMIDO) ACETIC ACID	NA	NA	NA	0.00041
N-ETHYL PERFLUORO-1-OCTANESULFONAMIDE	NA	NA	NA	0.00012
N-ETHYL-N-((HEPTADECAFLUOROOCTYL)SULPHONYL) GLYCINE	NA	NA	NA	0.002
PERFLUORODECANE SULFONIC ACID (PFDS)	NA	NA	NA	0.00043
PERFLUOROOCTANE SULFONAMIDE (FOSA)	NA	NA	NA	0.0018
PERFLUOROOCTANESULFONIC ACID (PFOS)	0.00088	0.44	0.001	0.00058
PERFLUOROOCTANOIC ACID (PFOA)	0.00066	0.6	0.0008	0.0011
PERFLUOROPENTANOIC ACID (PFPEA)	NA	NA	NA	0.00082
PERFLUOROUNDECANOIC ACID (PFUNA)	NA	NA	NA	0.00027
PERFUORONONANOIC ACID (PFNA)	NA	NA	NA	0.0025
WASTE CHARACTERIZATION:				
PARR HV BTU	NA	NA	NA	2660
SGT HEM (OIL AND GREASE - NONPOLAR	NA	NA	NA	16600
TOTAL ORGANIC CARBON	NA	NA	NA	203000
SULFIDE REACTIVE	NA	NA	NA	132
PH	NA	NA	NA	7.3
TEMPERATURE	NA	NA	NA	18.5

SED-11 (16' - 17.7')	CRIT 1	CRIT 2	CRIT 3	06/24
VOCS:				
1,2-DICHLOROBENZENE	1.1	1000	1.1	2
BENZENE	0.06	89	0.06	150
CHLOROBENZENE	1.1	1000	1.1	2.2
CYCLOHEXANE	NA	NA	NA	10
ETHYLBENZENE	1	780	1	92
ISOPROPYLBENZENE (CUMENE)	2.3	NA	2.3	8.9
METHYLCYCLOHEXANE	NA	NA	NA	29
TOLUENE	0.7	1000	0.7	2.9
XYLENES	0.26	1000	1.6	29
SVOCS:				
2-METHYLNAPHTHALENE	0.41	NA	36.4	620
ACENAPHTHYLENE	100	1000	107	38
ANTHRACENE	100	1000	1000	71
BENZO(A)ANTHRACENE	1	11	1	84
BENZO(A)PYRENE	1	1.1	22	56
BENZO(B)FLUORANTHENE	1	11	1.7	62
BENZO(G,H,I)PERYLENE	100	1000	1000	37
CARBAZOLE	NA	NA	NA	36
CHRYSENE	1	110	1	93
DIBENZOFURAN	7	1000	210	67
FLUORANTHENE	100	1000	1000	180
FLUORENE	30	1000	386	130
NAPHTHALENE	12	1000	12	540
PHENANTHRENE	100	1000	1000	440
PYRENE	100	1000	1000	130
METALS:				
ALUMINUM	10000	NA	NA	12800
ARSENIC	13	16	16	40.2
BARIUM	350	10000	820	423
BERYLLIUM	7.2	2700	47	0.61
CADMIUM	2.5	60	7.5	4.5
CALCIUM	10000	NA	NA	28300
CHROMIUM, TOTAL	1	800	19	4650
COBALT	20	NA	NA	18.9
COPPER	50	10000	1720	300
IRON	2000	NA	NA	27900
LEAD	63	3900	450	6950
MAGNESIUM	NA	NA	NA	7170
MANGANESE	1600	10000	2000	344
MERCURY	0.18	5.7	0.73	3.8
NICKEL	30	10000	130	460
POTASSIUM	NA	NA	NA	2360
SELENIUM	3.9	6800	4	7.7
SILVER	2	6800	8.3	0.46
SODIUM	NA	NA	NA	1890
VANADIUM	39	NA	NA	314
ZINC	109	10000	2480	2260
CYANIDE	27	10000	40	7.3
WASTE CHARACTERIZATION:				
PARR HV BTU	NA	NA	NA	3930
SGT HEM (OIL AND GREASE - NONPOLAR	NA	NA	NA	27200
TOTAL ORGANIC CARBON	NA	NA	NA	255000
SULFIDE REACTIVE	NA	NA	NA	291
PH	NA	NA	NA	7
TEMPERATURE	NA	NA	NA	18.6

SED-11 (16' - 17.7') (DUP)	CRIT 1	CRIT 2	CRIT 3	06/24
VOCS:				
1,2-DICHLOROBENZENE	1.1	1000	1.1	2
BENZENE	0.06	89	0.06	170
CYCLOHEXANE	NA	NA	NA	16
ETHYLBENZENE	1	780	1	120
ISOPROPYLBENZENE (CUMENE)	2.3	NA	2.3	13
METHYLCYCLOHEXANE	NA	NA	NA	50
TOLUENE	0.7	1000	0.7	4
XYLENES	0.26	1000	1.6	46
SVOCS:				
2-METHYLNAPHTHALENE	0.41	NA	36.4	470
BENZO(A)ANTHRACENE	1	11	1	47
DIBENZOFURAN	7	1000	210	41
FLUORANTHENE	100	1000	1000	95
FLUORENE	30	1000	386	90
NAPHTHALENE	12	1000	12	380
PHENANTHRENE	100	1000	1000	280
PYRENE	100	1000	1000	78
METALS:				
ALUMINUM	10000	NA	NA	16600
ARSENIC	13	16	16	64.8
BARIUM	350	10000	820	609
BERYLLIUM	7.2	2700	47	0.67
CADMIUM	2.5	60	7.5	5
CALCIUM	10000	NA	NA	48700
CHROMIUM, TOTAL	1	800	19	8690
COBALT	20	NA	NA	19.1
COPPER	50	10000	1720	513
IRON	2000	NA	NA	32000
LEAD	63	3900	450	5610
MAGNESIUM	NA	NA	NA	9150
MANGANESE	1600	10000	2000	458
NICKEL	30	10000	130	542
POTASSIUM	NA	NA	NA	2220
SELENIUM	3.9	6800	4	9.5
SILVER	2	6800	8.3	0.35
SODIUM	NA	NA	NA	2400
THALLIUM	5	NA	NA	2.1
VANADIUM	39	NA	NA	388
ZINC	109	10000	2480	2720
CYANIDE	27	10000	40	7.9
WASTE CHARACTERIZATION:				
TOTAL ORGANIC CARBON	NA	NA	NA	302000

SED-13 (16.7' - 18.8')	CRIT 1	CRIT 2	CRIT 3	06/24
VOCS:				
BENZENE	0.06	89	0.06	180
CYCLOHEXANE	NA	NA	NA	11
ETHYLBENZENE	1	780	1	130
ISOPROPYLBENZENE (CUMENE)	2.3	NA	2.3	15
METHYLCYCLOHEXANE	NA	NA	NA	47
SVOCS:				
2-METHYLNAPHTHALENE	0.41	NA	36.4	460
BENZO(A)ANTHRACENE	1	11	1	65
BENZO(A)PYRENE	1	1.1	22	42
CHRYSENE	1	110	1	78
DIBENZOFURAN	7	1000	210	51
FLUORANTHENE	100	1000	1000	130
FLUORENE	30	1000	386	100
NAPHTHALENE	12	1000	12	440
PHENANTHRENE	100	1000	1000	350
PYRENE	100	1000	1000	110
METALS:				
ALUMINUM	10000	NA	NA	19300
ARSENIC	13	16	16	60.1
BARIUM	350	10000	820	406
BERYLLIUM	7.2	2700	47	0.73
CADMIUM	2.5	60	7.5	4.3
CALCIUM	10000	NA	NA	34700
CHROMIUM, TOTAL	1	800	19	7760
COBALT	20	NA	NA	17.1
COPPER	50	10000	1720	362
IRON	2000	NA	NA	32200
LEAD	63	3900	450	4270
MAGNESIUM	NA	NA	NA	9090
MANGANESE	1600	10000	2000	416
MERCURY	0.18	5.7	0.73	3.5
NICKEL	30	10000	130	356
POTASSIUM	NA	NA	NA	3070
SELENIUM	3.9	6800	4	8.6
SODIUM	NA	NA	NA	732
VANADIUM	39	NA	NA	226
ZINC	109	10000	2480	2860
CYANIDE	27	10000	40	6.2
WASTE CHARACTERIZATION:				
SGT HEM (OIL AND GREASE - NONPOLAR	NA	NA	NA	45600
TOTAL ORGANIC CARBON	NA	NA	NA	390000
SULFIDE REACTIVE	NA	NA	NA	152
PH	NA	NA	NA	7.2
TEMPERATURE	NA	NA	NA	18.4

SED-14 (15.8' - 19')	CRIT 1	CRIT 2	CRIT 3	06/24
VOCS:				
1,2-DICHLOROBENZENE	1.1	1000	1.1	1.4
BENZENE	0.06	89	0.06	170
CYCLOHEXANE	NA	NA	NA	9.5
ETHYLBENZENE	1	780	1	71
ISOPROPYLBENZENE (CUMENE)	2.3	NA	2.3	6.8
METHYLCYCLOHEXANE	NA	NA	NA	24
TOLUENE	0.7	1000	0.7	1
XYLENES	0.26	1000	1.6	3.9
SVOCS:				
2-METHYLNAPHTHALENE	0.41	NA	36.4	470
CHRYSENE	1	110	1	91
FLUORANTHENE	100	1000	1000	110
FLUORENE	30	1000	386	83
NAPHTHALENE	12	1000	12	300
PHENANTHRENE	100	1000	1000	270
PYRENE	100	1000	1000	92
METALS:				
ALUMINUM	10000	NA	NA	41000
ARSENIC	13	16	16	103
BARIUM	350	10000	820	300
BERYLLIUM	7.2	2700	47	0.73
CADMIUM	2.5	60	7.5	3
CALCIUM	10000	NA	NA	33600
CHROMIUM, TOTAL	1	800	19	2830
COBALT	20	NA	NA	13.5
COPPER	50	10000	1720	406
IRON	2000	NA	NA	28100
LEAD	63	3900	450	2630
MAGNESIUM	NA	NA	NA	7170
MANGANESE	1600	10000	2000	405
MERCURY	0.18	5.7	0.73	12.8
NICKEL	30	10000	130	358
POTASSIUM	NA	NA	NA	1670
SELENIUM	3.9	6800	4	5.1
SODIUM	NA	NA	NA	1220
VANADIUM	39	NA	NA	354
ZINC	109	10000	2480	1220
CYANIDE	27	10000	40	3.6
WASTE CHARACTERIZATION:				
PARR HV BTU	NA	NA	NA	3090
SGT HEM (OIL AND GREASE - NONPOLAR	NA	NA	NA	31700
TOTAL ORGANIC CARBON	NA	NA	NA	211000
SULFIDE REACTIVE	NA	NA	NA	79.4
PH	NA	NA	NA	7.3
TEMPERATURE	NA	NA	NA	18.6

SED-15 (8.4' - 10.4')	CRIT 1	CRIT 2	CRIT 3	06/24
VOCS:				
1,2-DICHLOROBENZENE	1.1	1000	1.1	1.4
1,4-DICHLOROBENZENE	1.8	250	1.8	1.3
BENZENE	0.06	89	0.06	3.5
CHLOROBENZENE	1.1	1000	1.1	12
CYCLOHEXANE	NA	NA	NA	5.3
ISOPROPYLBENZENE (CUMENE)	2.3	NA	2.3	3.7
METHYLCYCLOHEXANE	NA	NA	NA	18
SVOCS:				
2-METHYLNAPHTHALENE	0.41	NA	36.4	67
FLUORANTHENE	100	1000	1000	3.7
FLUORENE	30	1000	386	7.9
PHENANTHRENE	100	1000	1000	27
PYRENE	100	1000	1000	5.8
METALS:				
ALUMINUM	10000	NA	NA	7080
ANTIMONY	12	NA	NA	2.4
ARSENIC	13	16	16	31.3
BARIUM	350	10000	820	148
BERYLLIUM	7.2	2700	47	0.41
CADMIUM	2.5	60	7.5	1.5
CALCIUM	10000	NA	NA	40300
CHROMIUM, TOTAL	1	800	19	182
COBALT	20	NA	NA	17.8
COPPER	50	10000	1720	11700
IRON	2000	NA	NA	48100
LEAD	63	3900	450	472
MAGNESIUM	NA	NA	NA	13300
MANGANESE	1600	10000	2000	539
MERCURY	0.18	5.7	0.73	1.4
NICKEL	30	10000	130	375
POTASSIUM	NA	NA	NA	1210
SELENIUM	3.9	6800	4	8
SILVER	2	6800	8.3	0.74
SODIUM	NA	NA	NA	394
VANADIUM	39	NA	NA	59.3
ZINC	109	10000	2480	2390
CYANIDE	27	10000	40	6.6
WASTE CHARACTERIZATION:				
PARR HV BTU	NA	NA	NA	1400
SGT HEM (OIL AND GREASE - NONPOLAR	NA	NA	NA	13500
TOTAL ORGANIC CARBON	NA	NA	NA	155000
SULFIDE REACTIVE	NA	NA	NA	18.5
PH	NA	NA	NA	7.7
TEMPERATURE	NA	NA	NA	18.3

Legend

● Sediment Vibracore Sample Location

Location ID
Depth (feet)
Criteria
Sample Date

SED-13 (16.7' - 18.8')	CRIT 1	CRIT 2	CRIT 3	06/24
VOCS:				
BENZENE	60	89000	60	180000

Parameter
Criteria Value
Detected Concentration (Red Text Indicates Exceedance)

Criteria: 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives (SCOs), Effective 12/14/06. Where there were no Part 375.6 SCOs, the NYSDEC CP-51 Table 1 Supplemental SCOs, Effective 12/2/10, and the NYSDEC April 2023 PFAS guidance values, were provided. Where there were no Unrestricted Use SCOs, the lowest of the Supplemental SCOs was selected.
(1) - Unrestricted Use SCOs
(2) - Industrial Use SCOs
(3) - Protection of Groundwater SCOs

Note: Parr Hv Btu criteria and detected concentrations are shown in btu/lb; Temperature is shown in deg c; PH is shown in ph units; all others are shown in mg/kg.
Source: NYS ITS GIS Program Office, 2021

ASHLAND TANK 75, TONAWANDA, NY
REMEDIAL INVESTIGATION
2024 SEDIMENT ANALYTICAL RESULTS
(DETECTED CONCENTRATIONS ONLY)

AECOM

FIGURE 5-3

HA-02 (0' - 0.2')	CRIT 1	CRIT 2	CRIT 3	07/24
METALS:				
ALUMINUM	10000	NA	NA	13900
ANTIMONY	12	NA	NA	0.89
ARSENIC	13	16	16	8.2
BARIUM	350	10000	820	127
BERYLLIUM	7.2	2700	47	1
CADMIUM	2.5	60	7.5	0.88
CALCIUM	10000	NA	NA	12500
CHROMIUM, TOTAL	1	800	19	35.7
COBALT	20	NA	NA	9.4
COPPER	50	10000	1720	38.2
IRON	2000	NA	NA	19500
LEAD	63	3900	450	98.8
MAGNESIUM	NA	NA	NA	12300
MANGANESE	1600	10000	2000	639
NICKEL	30	10000	130	43
POTASSIUM	NA	NA	NA	3530
SILVER	2	6800	8.3	0.35
SODIUM	NA	NA	NA	227
VANADIUM	39	NA	NA	41.7
ZINC	109	10000	2480	381
MERCURY	0.18	5.7	0.73	0.42

S8-02 (0' - 0.2')	CRIT 1	CRIT 2	CRIT 3	08/24
PCBS:				
TOTAL PCBS	0.1	25	3.2	0.27
METALS:				
ALUMINUM	10000	NA	NA	13700
ANTIMONY	12	NA	NA	1.8
ARSENIC	13	16	16	9.6
BARIUM	350	10000	820	109
BERYLLIUM	7.2	2700	47	1.2
CADMIUM	2.5	60	7.5	1.1
CALCIUM	10000	NA	NA	68600
CHROMIUM, TOTAL	1	800	19	41.3
COBALT	20	NA	NA	9.1
COPPER	50	10000	1720	49.1
IRON	2000	NA	NA	19500
LEAD	63	3900	450	106
MAGNESIUM	NA	NA	NA	13700
MANGANESE	1600	10000	2000	710
NICKEL	30	10000	130	62.1
POTASSIUM	NA	NA	NA	2570
SODIUM	NA	NA	NA	253
VANADIUM	39	NA	NA	156
ZINC	109	10000	2480	291
MERCURY	0.18	5.7	0.73	0.22

S8-02 (0' - 0.2') (DUP)	CRIT 1	CRIT 2	CRIT 3	08/24
PCBS:				
TOTAL PCBS	0.1	25	3.2	0.27
METALS:				
ALUMINUM	10000	NA	NA	13700
ANTIMONY	12	NA	NA	2.4
ARSENIC	13	16	16	8.5
BARIUM	350	10000	820	105
BERYLLIUM	7.2	2700	47	1.1
CADMIUM	2.5	60	7.5	1
CALCIUM	10000	NA	NA	58900
CHROMIUM, TOTAL	1	800	19	39.1
COBALT	20	NA	NA	8.3
COPPER	50	10000	1720	45.3
IRON	2000	NA	NA	18900
LEAD	63	3900	450	107
MAGNESIUM	NA	NA	NA	13000
MANGANESE	1600	10000	2000	627
NICKEL	30	10000	130	52.3
POTASSIUM	NA	NA	NA	2840
SELENIUM	3.9	6800	4	1.3
SODIUM	NA	NA	NA	263
VANADIUM	39	NA	NA	113
ZINC	109	10000	2480	290
MERCURY	0.18	5.7	0.73	0.24

S8-01 (0' - 0.2')	CRIT 1	CRIT 2	CRIT 3	07/24
METALS:				
ALUMINUM	10000	NA	NA	5290
ARSENIC	13	16	16	59.2
BARIUM	350	10000	820	111
BERYLLIUM	7.2	2700	47	0.93
CADMIUM	2.5	60	7.5	0.63
CALCIUM	10000	NA	NA	2950
CHROMIUM, TOTAL	1	800	19	198
COBALT	20	NA	NA	15.8
COPPER	50	10000	1720	47.3
IRON	2000	NA	NA	10400
LEAD	63	3900	450	577
MAGNESIUM	NA	NA	NA	1380
MANGANESE	1600	10000	2000	90.8
NICKEL	30	10000	130	473
POTASSIUM	NA	NA	NA	425
SILVER	2	6800	8.3	1
SODIUM	NA	NA	NA	234
THALLIUM	5	NA	NA	0.95
VANADIUM	39	NA	NA	107
ZINC	109	10000	2480	65.1
MERCURY	0.18	5.7	0.73	0.37
PFAS:				
PERFLUOROOCTANESULFONIC ACID (PFOS)	0.00088	0.44	0.001	0.00016
PERFUORONONANOIC ACID (PFNA)	NA	NA	NA	0.00005

HA-01 (0' - 0.2')	CRIT 1	CRIT 2	CRIT 3	07/24
PESTICIDES:				
P,P'-DDT	0.0033	94	136	0.16
PCBS:				
PCB-1260 (AROCLOR 1260)	0.1	25	3.2	0.51
METALS:				
ALUMINUM	10000	NA	NA	9430
ANTIMONY	12	NA	NA	2.3
ARSENIC	13	16	16	5.2
BARIUM	350	10000	820	76.1
BERYLLIUM	7.2	2700	47	0.76
CADMIUM	2.5	60	7.5	0.59
CALCIUM	10000	NA	NA	30800
CHROMIUM, TOTAL	1	800	19	32.3
COBALT	20	NA	NA	4.6
COPPER	50	10000	1720	32.7
IRON	2000	NA	NA	12700
LEAD	63	3900	450	113
MAGNESIUM	NA	NA	NA	9220
MANGANESE	1600	10000	2000	410
NICKEL	30	10000	130	22.1
POTASSIUM	NA	NA	NA	2490
SODIUM	NA	NA	NA	169
VANADIUM	39	NA	NA	30
ZINC	109	10000	2480	158
MERCURY	0.18	5.7	0.73	0.19
CYANIDE	27	10000	40	1.7
PFAS:				
PERFLUOROHEXANOIC ACID (PFHXA)	NA	NA	NA	0.00063

S8-03 (0' - 0.2')	CRIT 1	CRIT 2	CRIT 3	07/24
SVOCS:				
BENZO(A)ANTHRACENE	1	1.1	22	0.57
BENZO(A)PYRENE	1	11	1.7	0.91
BENZO(B)FLUORANTHENE	1	11	1.7	0.91
BENZO(G,H,I)PERYLENE	100	1000	1000	0.43
BENZO(K)FLUORANTHENE	0.8	110	1.7	0.33
CHRYSENE	1	110	1	0.61
FLUORANTHENE	100	1000	1000	0.97
INDENO(1,2,3-C,D)PYRENE	0.5	11	8.2	0.4
PHENANTHRENE	100	1000	1000	0.45
PYRENE	100	1000	1000	0.73
METALS:				
ALUMINUM	10000	NA	NA	17000
ANTIMONY	12	NA	NA	1.8
ARSENIC	13	16	16	4.6
BARIUM	350	10000	820	132
BERYLLIUM	7.2	2700	47	0.97
CADMIUM	2.5	60	7.5	0.56
CALCIUM	10000	NA	NA	71500
CHROMIUM, TOTAL	1	800	19	28.6
COBALT	20	NA	NA	10.7
COPPER	50	10000	1720	45.2
IRON	2000	NA	NA	23100
LEAD	63	3900	450	62.1
MAGNESIUM	NA	NA	NA	15000
MANGANESE	1600	10000	2000	763
NICKEL	30	10000	130	24.7
POTASSIUM	NA	NA	NA	4020
SELENIUM	3.9	6800	4	1.2
SILVER	2	6800	8.3	0.34
SODIUM	NA	NA	NA	225
VANADIUM	39	NA	NA	32.7
ZINC	109	10000	2480	157
MERCURY	0.18	5.7	0.73	0.14
CYANIDE	27	10000	40	2.1

S8-10 (0' - 0.2')	CRIT 1	CRIT 2	CRIT 3	07/24
PESTICIDES:				
P,P'-DDD	0.0033	180	14	0.025
P,P'-DDT	0.0033	94	136	0.068
METALS:				
ALUMINUM	10000	NA	NA	18800
ANTIMONY	12	NA	NA	0.88
ARSENIC	13	16	16	5.8
BARIUM	350	10000	820	139
BERYLLIUM	7.2	2700	47	1.1
CADMIUM	2.5	60	7.5	0.31
CALCIUM	10000	NA	NA	36900
CHROMIUM, TOTAL	1	800	19	36.1
COBALT	20	NA	NA	10.8
COPPER	50	10000	1720	56.2
IRON	2000	NA	NA	22500
LEAD	63	3900	450	60.4
MAGNESIUM	NA	NA	NA	12400
MANGANESE	1600	10000	2000	658
NICKEL	30	10000	130	27.4
POTASSIUM	NA	NA	NA	4640
SELENIUM	3.9	6800	4	1.2
SILVER	2	6800	8.3	0.25
SODIUM	NA	NA	NA	215
VANADIUM	39	NA	NA	35.6
ZINC	109	10000	2480	114
MERCURY	0.18	5.7	0.73	1.3

HA-04 (0' - 0.2')	CRIT 1	CRIT 2	CRIT 3	07/24
PCBS:				
TOTAL PCBS	0.1	25	3.2	0.38
METALS:				
ALUMINUM	10000	NA	NA	24700
ANTIMONY	12	NA	NA	1.3
ARSENIC	13	16	16	7.1
BARIUM	350	10000	820	154
BERYLLIUM	7.2	2700	47	1.3
CADMIUM	2.5	60	7.5	0.94
CALCIUM	10000	NA	NA	33300
CHROMIUM, TOTAL	1	800	19	38.3
COBALT	20	NA	NA	14.6
COPPER	50	10000	1720	39.9
IRON	2000	NA	NA	27500
LEAD	63	3900	450	61.7
MAGNESIUM	NA	NA	NA	10900
MANGANESE	1600	10000	2000	832
NICKEL	30	10000	130	39.4
POTASSIUM	NA	NA	NA	5330
SILVER	2	6800	8.3	0.28
SODIUM	NA	NA	NA	266
VANADIUM	39	NA	NA	55.6
ZINC	109	10000	2480	166
MERCURY	0.18	5.7	0.73	0.18

HA-04 (0' - 0.2') (DUP)	CRIT 1	CRIT 2	CRIT 3	07/24
PCBS:				
TOTAL PCBS	0.1	25	3.2	0.25
METALS:				
ALUMINUM	10000	NA	NA	19900
ANTIMONY	12	NA	NA	1.3
ARSENIC	13	16	16	7.1
BARIUM	350	10000	820	154
BERYLLIUM	7.2	2700	47	1.3
CADMIUM	2.5	60	7.5	0.94
CALCIUM	10000	NA	NA	33300
CHROMIUM, TOTAL	1	800	19	38.3
COBALT	20	NA	NA	14.6
COPPER	50	10000	1720	39.9
IRON	2000	NA	NA	27500
LEAD	63	3900	450	61.7
MAGNESIUM	NA	NA	NA	10900
MANGANESE	1600	10000	2000	832
NICKEL	30	10000	130	39.4
POTASSIUM	NA	NA	NA	5330
SODIUM	NA	NA	NA	266
VANADIUM	39	NA	NA	55.6
ZINC	109	10000	2480	166
MERCURY	0.18	5.7	0.73	0.18

HA-08 (0' - 0.2')	CRIT 1	CRIT 2	CRIT 3	07/24
SVOCS:				
BENZO(A)ANTHRACENE	1	1.1	22	0.44
BENZO(A)PYRENE	1	11	1.7	0.38
BENZO(B)FLUORANTHENE	1	11	1.7	0.49
BENZO(G,H,I)PERYLENE	100	1000	1000	0.36
FLUORANTHENE	100	1000	1000	0.5
INDENO(1,2,3-C,D)PYRENE	0.5	11	8.2	0.28
PYRENE	100	1000	1000	0.43
METALS:				
ALUMINUM	10000	NA	NA	15400
ANTIMONY	12	NA	NA	0.72
ARSENIC	13	16	16	5.2
BARIUM	350	10000	820	129
BERYLLIUM	7.2	2700	47	1.5
CADMIUM	2.5	60	7.5	0.43
CALCIUM	10000	NA	NA	47000
CHROMIUM, TOTAL	1	800	19	27
COBALT	20	NA	NA	14.1
COPPER	50	10000	1720	40.3
IRON	2000	NA	NA	21300
LEAD	63	3900	450	61.9
MAGNESIUM	NA	NA	NA	14200
MANGANESE	1600	10000	2000	784
NICKEL	30	10000	130	32
POTASSIUM	NA	NA	NA	4350
SODIUM	NA	NA	NA	247
VANADIUM	39	NA	NA	36.1
ZINC	109	10000	2480	115
MERCURY	0.18	5.7	0.73	0.05
CYANIDE	27	10000	40	2.9

S8-09 (0' - 0.2')	CRIT 1	CRIT 2	CRIT 3	08/24
SVOCS:				
ACENAPHTHYLENE	100	1000	107	0.34
BENZO(A)ANTHRACENE	1	11	1	0.6
BENZO(A)PYRENE	1	1.1	22	0.68
BENZO(B)FLUORANTHENE	1	11	1.7	0.8
BENZO(G,H,I)PERYLENE	100	1000	1000	0.57
BENZO(K)FLUORANTHENE	0.8	110	1.7	0.42
CHRYSENE	1	110	1	0.64
FLUORANTHENE	100	1000	1000	0.99
INDENO(1,2,3-C,D)PYRENE	0.5	11	8.2	0.44
PHENANTHRENE	100	1000	1000	0.42
PYRENE	100	1000	1000	0.75
METALS:				
ALUMINUM	10000	NA	NA	19000
ARSENIC	13	16	16	5.4
BARIUM	350	10000	820	119
BERYLLIUM	7.2	2700	47	1.3
CADMIUM	2.5	60	7.5	0.38
CALCIUM	10000	NA	NA	37600
CHROMIUM, TOTAL	1	800	19	33.7
COBALT	20	NA	NA	11.3
COPPER	50	10000	1720	38.1
IRON	2000	NA	NA	20700
LEAD	63	3900	450	53.2
MAGNESIUM	NA	NA	NA	12400
MANGANESE	1600	10000	2000	605
NICKEL	30	10000	130	30.9
POTASSIUM	NA	NA	NA	4420
SODIUM	NA	NA	NA	190
VANADIUM	39	NA	NA	37.1
ZINC	109	10000	2480	102
MERCURY	0.18	5.7	0.73	0.21
CYANIDE	27	10000	40	4.7

HA-07 (0' - 0.2')	CRIT 1	CRIT 2	CRIT 3	07/24
SVOCS:				
ACENAPHTHYLENE	100	1000	107	0.3
BENZO(A)ANTHRACENE	1	11	1	0.2
BENZO(B)FLUORANTHENE	1	11	1.7	0.37
BENZO(G,H,I)PERYLENE	100	1000	1000	0.4
FLUORANTHENE	100	1000	1000	0.22
INDENO(1,2,3-C,D)PYRENE	0.5	11	8.2	0.25
PESTICIDES:				
ENDRIN KETONE	NA	NA	NA	0.03
P,P'-DDT	0.0033	94	136	0.094
PCBS:				
TOTAL PCBS	0.1	25	3.2	0.48
METALS:				
ALUMINUM	10000	NA	NA	19300
ANTIMONY	12	NA	NA	0.79
ARSENIC	13	16	16	3.9
BARIUM	350	10000	820	125
BERYLLIUM	7.2	2700	47	0.9
CADMIUM	2.5	60	7.5	0.34
CALCIUM	10000	NA	NA	35800
CHROMIUM, TOTAL	1	800	19	28.1
COBALT	20	NA	NA	10.8
COPPER	50	10000	1720	29.5
IRON	2000	NA	NA	19600
LEAD	63	3900	450	39.9
MAGNESIUM	NA	NA	NA	11900
MANGANESE	1600	10000	2000	492
NICKEL	30	10000	130	23.8
POTASSIUM	NA	NA	NA	5130
SILVER	2	6800	8.3	0.24
SODIUM	NA	NA	NA	198
VANADIUM	39	NA	NA	27.7
ZINC	109	10000	2480	73.4
MERCURY	0.18	5.7	0.73	0.64

S8-05 (0' - 0.2')	CRIT 1	CRIT 2	CRIT 3	07/24
METALS:				
ALUMINUM	10000	NA	NA	12300
ANTIMONY	12	NA	NA	2.1
ARSENIC	13	16	16	8.1
BARIUM	350	10000	820	78.2
BERYLLIUM	7.2	2700	47	1.1
CADMIUM	2.5	60	7.5	1.2
CALCIUM	10000	NA	NA	55200
CHROMIUM, TOTAL	1	800	19	24.5
COBALT	20	NA	NA	7.9
COPPER	50	10000	1720	27.3
IRON	2000	NA	NA	20800
LEAD	63	3900	450	93.6
MAGNESIUM	NA	NA	NA	11900
MANGANESE	1600	10000	2000	665
NICKEL	30	10000	130	19.7
POTASSIUM	NA	NA	NA	3540
SELENIUM	3.9	6800	4	1.3
SODIUM	NA	NA	NA	293
VANADIUM	39	NA	NA	31
ZINC	109	10000	2480	223
MERCURY	0.18	5.7	0.73	0.031

HA-03 (0' - 0.2')	CRIT 1	CRIT 2	CRIT 3	07/24
METALS:				
ALUMINUM	10000	NA	NA	16700
ANTIMONY	12	NA	NA	2.6
ARSENIC	13	16	16	14
BARIUM	350	10000	820	118
BERYLLIUM	7.2	2700	47	2.2
CADMIUM	2.5	60	7.5	0.74
CALCIUM	10000	NA	NA	29400
CHROMIUM, TOTAL	1	800	19	35
COBALT	20	NA	NA	11.6
COPPER	50	10000	1720	46.4
IRON	2000	NA	NA	25600
LEAD	63	3900	450	54.9
MAGNESIUM	NA	NA	NA	11400
MANGANESE	1600	10000	2000	387
NICKEL	30	10000	130	40.2
POTASSIUM	NA	NA	NA	2960
SILVER	2	6800	8.3	0.23
SODIUM	NA	NA	NA	326
VANADIUM	39	NA	NA	47.1
ZINC	109	10000	2480	159
MERCURY	0.18	5.7	0.73	0.062
CYANIDE	27	10000	40	0.6

S8-04 (0' - 0.2')	CRIT 1	CRIT 2	CRIT 3	07/24
METALS:				
ALUMINUM	10000	NA	NA	14400
ANTIMONY	12	NA	NA	2.5
ARSENIC	13	16	16	11.4
BARIUM	350	10000	820	94.2
BERYLLIUM	7.2	2700	47	2.1
CADMIUM	2.5	60	7.5	0.8
CALCIUM	10000	NA	NA	54600
CHROMIUM, TOTAL	1	800	19	32
COBALT	20	NA	NA	9.6
COPPER	50	10000	1720	41.1
IRON	2000	NA	NA	22100
LEAD	63	3900	450	80.5
MAGNESIUM	NA	NA	NA	11400
MANGANESE	1600	10000	2000	527
NICKEL	30	10000	130	34
POTASSIUM	NA	NA	NA	2660
SODIUM	NA	NA	NA	325
VANADIUM	39	NA	NA	45.7
ZINC	109	10000	2480	185
MERCURY	0.18	5.7	0.73	0.041

HA-05 (0' - 0.2')	CRIT 1	CRIT 2	CRIT 3	07/24
SVOCS:				
BENZO(A)ANTHRACENE	1	11	1	0.18
BENZO(A)PYRENE	1	1.1	22	0.22
BENZO(B)FLUORANTHENE	1	11	1.7	0.2
BENZO(G,H,I)PERYLENE	100	1000	1000	0.21
BENZO(K)FLUORANTHENE	0.8	110	1.7	0.16
FLUORANTHENE	100	1000	1000	0.69
INDENO(1,2,3-C,D)PYRENE	0.5	11	8.2	0.16
PHENANTHRENE	100	1000	1000	0.17
PYRENE	100	1000	1000	0.45
METALS:				
ALUMINUM	10000	NA	NA	14500
ARSENIC	13	16	16	4.4
BARIUM	350	10000	820	115
BERYLLIUM	7.2	2700	47	2.4
CADMIUM	2.5	60	7.5	0.24
CALCIUM	10000	NA	NA	61700
CHROMIUM, TOTAL	1	800	19	13.5
COBALT	20	NA	NA	6.7
COPPER	50	10000	1720	14
IRON	2000	NA	NA	11700
LEAD	63	3900	450	41.1
MAGNESIUM	NA	NA	NA	13700
MANGANESE	1600	10000	2000	760
NICKEL	30	10000	130	17.6
POTASSIUM	NA	NA	NA	2370
SODIUM	NA	NA	NA	471
VANADIUM	39	NA	NA	15.9
ZINC	109	10000	2480	75.1
MERCURY	0.18	5.7	0.73	0.069
CYANIDE	27	10000	40	4.7

S8-07 (0' - 0.2')	CRIT 1	CRIT 2	CRIT 3	08/24
SVOCS:				
FLUORANTHENE	100	1000	1000	0.21
METALS:				
ALUMINUM	10000	NA	NA	13400
ARSENIC	13	16	16	4.7
BARIUM	350	10000	820	121
BERYLLIUM	7.2	2700	47	1.4
CALCIUM	10000	NA	NA	64900
CHROMIUM, TOTAL	1	800	19	15.7
COBALT	20	NA	NA	4.6
COPPER	50	10000	1720	11
IRON	2000	NA	NA	10400
LEAD	63	3900	450	13.7
MAGNESIUM	NA	NA	NA	11400
MANGANESE	1600	10000	2000	872
NICKEL	30	10000	130	15.2
POTASSIUM	NA	NA	NA	793
SODIUM	NA	NA	NA	788
VANADIUM	39	NA	NA	6.5
ZINC	109	10000	2480	70.3
MERCURY	0.18	5.7	0.73	0.024
CYANIDE	27	10000	40	0.85
PFAS:				
PERFLUORODECANOIC ACID (PFDA)	NA	NA	NA	0.00012
PERFLUORODODECANOIC ACID (PFDOA)	NA	NA	NA	0.00007
PERFLUOROCTANESULFONIC ACID (PFOS)	0.00088	0.44	0.001	0.00019
PERFLUOROTRIDECANOIC ACID (PFTRIA)	NA	NA	NA	0.000057
PERFLUOROUNDECANOIC ACID (PFUNA)	NA	NA	NA	0.00016
PERFUORONONANOIC ACID (PFNA)	NA	NA	NA	0.000073

HA-06 (0' - 0.2')	CRIT 1	CRIT 2	CRIT 3	07/24
SVOCS:				
BENZO(G,H,I)PERYLENE	100	1000	1000	0.13
METALS:				
ALUMINUM	10000	NA	NA	19600
ARSENIC	13	16	16	4.1
BARIUM	350	10000	820	122
BERYLLIUM	7.2	2700	47	0.88
CADMIUM	2.5	60	7.5	0.27
CALCIUM	10000	NA	NA	52100
CHROMIUM, TOTAL	1	800	19	27.4
COBALT	20	NA	NA	11.8
COPPER	50	10000	1720	23
IRON	2000	NA	NA	21000
LEAD	63	3900	450	39.7
MAGNESIUM	NA	NA	NA	16100
MANGANESE	1600	10000	2000	552
NICKEL	30	10000	130	30.1
POTASSIUM	NA	NA	NA	6080
SILVER	2	6800	8.3	0.36
SODIUM	NA	NA	NA	274
VANADIUM	39	NA	NA	44.1
ZINC	109	10000	2480	75.3
MERCURY	0.18	5.7	0.73	0.024

S8-08 (0' - 0.2')	CRIT 1	CRIT 2	CRIT 3	08/24
SVOCS:				
BENZO(G,H,I)PERYLENE	100	1000	1000	5.3
PCBS:				
PCB-1260 (AROCLOR 1260)	0.1	25	3.2	0.31
METALS:				
ALUMINUM	10000	NA	NA	15000
ANTIMONY	12	NA	NA	0.62
ARSENIC	13	16	16	12.3
BARIUM	350	10000	820	98.6
BERYLLIUM	7.2	2700	47	0.99
CADMIUM	2.5	60	7.5	1.3
CALCIUM	10000	NA	NA	61900
CHROMIUM, TOTAL	1	800	19	118
COBALT	20	NA	NA	10.4
COPPER	50	10000	1720	146
IRON	2000	NA	NA	26300
LEAD	63	3900	450	595
MAGNESIUM	NA	NA	NA	23300
MANGANESE	1600	10000	2000	671
NICKEL	30	10000	130	74.5
POTASSIUM	NA	NA	NA	2960
SELENIUM	3.9	6800	4	3.2
SILVER	2	6800	8.3	0.21
SODIUM	NA	NA	NA	246
VANADIUM	39	NA	NA	135
ZINC	109	10000	2480	262
MERCURY	0.18	5.7	0.73	0.77
CYANIDE	27	10000	40	4.3

Legend

- Hand Auger Soil Sample Location
- Soil Boring Location

Location ID (Red) | Depth (feet) | Criteria | Sample Date

HA-01 (0' - 0.2')	CRIT 1	CRIT 2	CRIT 3	07/24
Pesticides:				
P,P'-DDT	3.3	94000	136000	160

Parameter | Criteria Value | Detected Concentration (Red Text Indicates Exceedance)

Criteria: 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives (SCOs), Effective 12/14/06. Where there were no Part 375.6 SCOs, the NYSDEC CP-51 Table 1 Supplemental SCOs, Effective 12/2/10, and the NYSDEC April 2023 PFAS guidance values, were provided. Where there were no Unrestricted Use SCOs, the lowest of the Supplemental SCOs was selected.
(1) - Unrestricted Use SCOs
(2) - Industrial Use SCOs
(3) - Protection of Groundwater SCOs
Note: All criteria and detected concentrations are shown in mg/kg.
Source: NYS ITS GIS Program Office, 2021

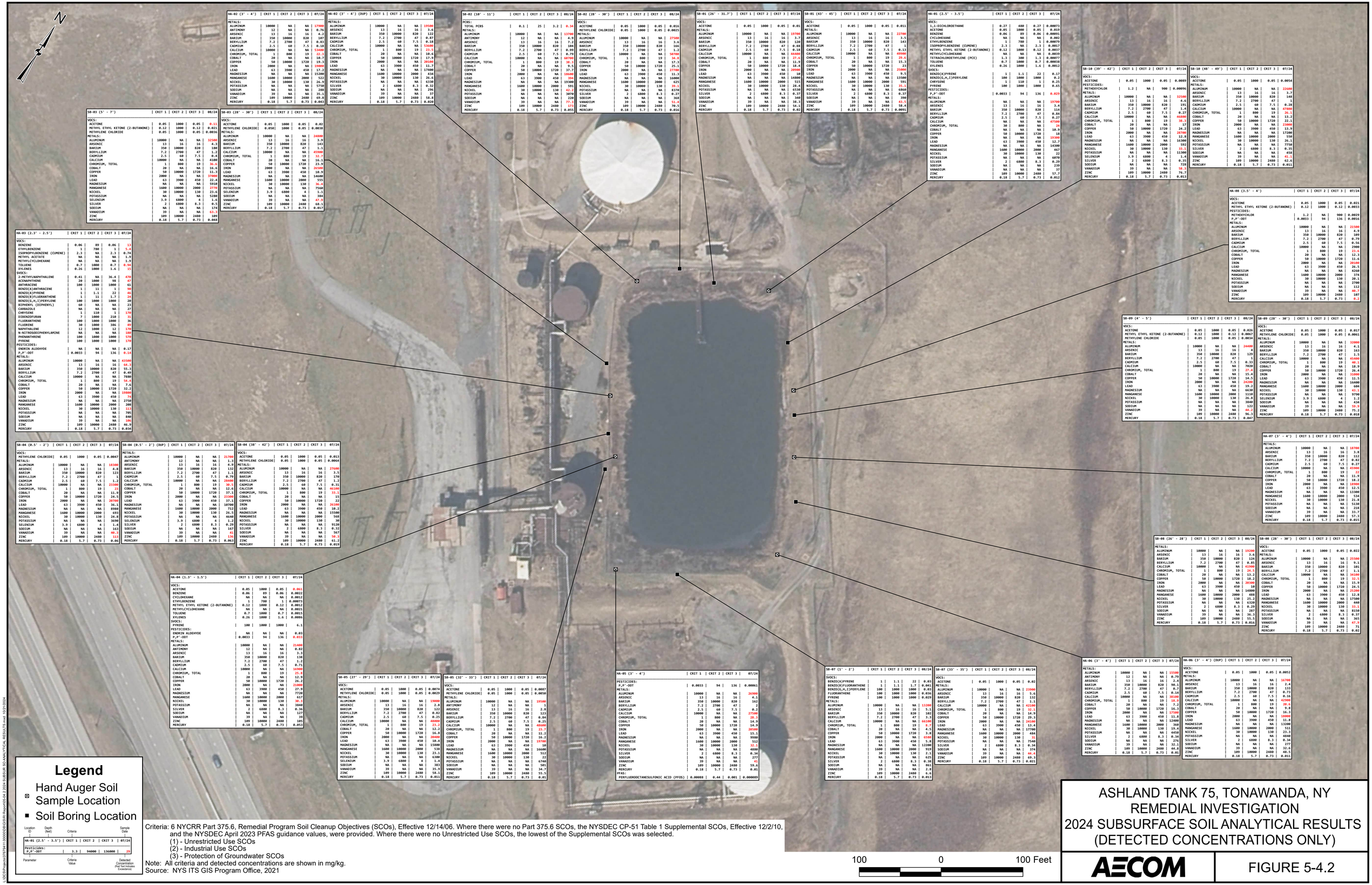
100 0 100 Feet

ASHLAND TANK 75, TONAWANDA, NY
REMEDIAL INVESTIGATION
2024 SURFACE SOIL ANALYTICAL RESULTS (DETECTED CONCENTRATIONS ONLY)

AECOM

FIGURE 5-4.1

U:\DC8\Projects\37679411.1000\DWG\FIG5\R\Report\05-24 1 2024 SUR SOI ANALYTICAL RESULTS.mxd 10/21/2024



HA-02 (3' - 4')	CRIT 1	CRIT 2	CRIT 3	07/24
METALS:				
ALUMINUM	10000	NA	NA	17900
ANTIMONY	12	NA	NA	0.76
ARSENIC	13	16	16	4.2
BARIUM	350	10000	820	107
BERYLLIUM	7.2	2700	47	0.83
CADMIUM	2.5	60	7.5	0.18
CALCIUM	10000	NA	NA	53400
CHROMIUM, TOTAL	1	800	19	22.3
COBALT	20	NA	NA	10.7
COPPER	50	10000	1720	19.3
IRON	2000	NA	NA	19000
LEAD	63	3900	450	17.2
MAGNESIUM	NA	NA	NA	15200
MANGANESE	1600	10000	2000	522
NICKEL	30	10000	130	26.9
POTASSIUM	NA	NA	NA	5750
SODIUM	NA	NA	NA	288
VANADIUM	39	NA	NA	35.1
ZINC	109	10000	2480	69.8
MERCURY	0.18	5.7	0.73	0.043

HA-02 (3' - 4') (DUP)	CRIT 1	CRIT 2	CRIT 3	07/24
METALS:				
ALUMINUM	10000	NA	NA	19500
ARSENIC	13	16	16	3.6
BARIUM	350	10000	820	122
BERYLLIUM	7.2	2700	47	0.87
CADMIUM	2.5	60	7.5	0.18
CALCIUM	10000	NA	NA	53600
CHROMIUM, TOTAL	1	800	19	23.5
COBALT	20	NA	NA	10.6
COPPER	50	10000	1720	17.9
IRON	2000	NA	NA	20100
LEAD	63	3900	450	11.7
MAGNESIUM	NA	NA	NA	17400
MANGANESE	1600	10000	2000	434
NICKEL	30	10000	130	26.6
POTASSIUM	NA	NA	NA	6330
SILVER	2	6800	8.3	0.32
SODIUM	NA	NA	NA	296
VANADIUM	39	NA	NA	37
ZINC	109	10000	2480	58.8
MERCURY	0.18	5.7	0.73	0.020

SB-02 (10' - 11')	CRIT 1	CRIT 2	CRIT 3	08/24
PCBS:				
TOTAL PCBS	0.1	25	3.2	0.34
METALS:				
ALUMINUM	10000	NA	NA	13700
ANTIMONY	12	NA	NA	4.9
ARSENIC	13	16	16	7.2
BARIUM	350	10000	820	104
BERYLLIUM	7.2	2700	47	0.99
CADMIUM	2.5	60	7.5	0.79
CALCIUM	10000	NA	NA	60700
CHROMIUM, TOTAL	1	800	19	38.3
COBALT	20	NA	NA	9.5
COPPER	50	10000	1720	37.7
IRON	2000	NA	NA	18600
LEAD	63	3900	450	394
MAGNESIUM	NA	NA	NA	19300
MANGANESE	1600	10000	2000	591
NICKEL	30	10000	130	42.2
POTASSIUM	NA	NA	NA	3070
SODIUM	NA	NA	NA	220
VANADIUM	39	NA	NA	77.3
ZINC	109	10000	2480	173
MERCURY	0.18	5.7	0.73	0.055

SB-02 (28' - 30')	CRIT 1	CRIT 2	CRIT 3	08/24
VOCS:				
ACETONE	0.05	1000	0.05	0.016
METHYLENE CHLORIDE	0.05	1000	0.05	0.0025
METALS:				
ALUMINUM	10000	NA	NA	27500
ARSENIC	13	16	16	3.6
BARIUM	350	10000	820	166
BERYLLIUM	7.2	2700	47	1.2
CALCIUM	10000	NA	NA	50700
CHROMIUM, TOTAL	1	800	19	34.8
COBALT	20	NA	NA	17.3
COPPER	50	10000	1720	25.1
IRON	2000	NA	NA	27700
LEAD	63	3900	450	11.3
MAGNESIUM	NA	NA	NA	16000
MANGANESE	1600	10000	2000	625
NICKEL	30	10000	130	39.1
POTASSIUM	NA	NA	NA	8370
SILVER	2	6800	8.3	0.27
SODIUM	NA	NA	NA	368
VANADIUM	39	NA	NA	51.4
ZINC	109	10000	2480	70.5
MERCURY	0.18	5.7	0.73	0.016

SB-01 (26' - 31.7')	CRIT 1	CRIT 2	CRIT 3	07/24
VOCS:				
ACETONE	0.05	1000	0.05	0.01
METALS:				
ALUMINUM	10000	NA	NA	19700
ARSENIC	13	16	16	3.7
BARIUM	350	10000	820	120
BERYLLIUM	7.2	2700	47	0.88
CADMIUM	2.5	60	7.5	0.18
CALCIUM	10000	NA	NA	44400
CHROMIUM, TOTAL	1	800	19	27.6
COBALT	20	NA	NA	11.9
COPPER	50	10000	1720	18.4
IRON	2000	NA	NA	20900
LEAD	63	3900	450	10
MAGNESIUM	NA	NA	NA	14800
MANGANESE	1600	10000	2000	515
NICKEL	30	10000	130	28.4
POTASSIUM	NA	NA	NA	6530
SILVER	2	6800	8.3	0.37
SODIUM	NA	NA	NA	340
VANADIUM	39	NA	NA	38.3
ZINC	109	10000	2480	54.1
MERCURY	0.18	5.7	0.73	0.02

SB-01 (43' - 45')	CRIT 1	CRIT 2	CRIT 3	07/24
VOCS:				
ACETONE	0.05	1000	0.05	0.011
METALS:				
ALUMINUM	10000	NA	NA	22700
ARSENIC	13	16	16	3.5
BARIUM	350	10000	820	143
BERYLLIUM	7.2	2700	47	1
CADMIUM	2.5	60	7.5	0.13
CALCIUM	10000	NA	NA	49900
CHROMIUM, TOTAL	1	800	19	29.6
COBALT	20	NA	NA	15.3
COPPER	50	10000	1720	23
IRON	2000	NA	NA	25000
LEAD	63	3900	450	9.5
MAGNESIUM	NA	NA	NA	13500
MANGANESE	1600	10000	2000	591
NICKEL	30	10000	130	35.1
POTASSIUM	NA	NA	NA	6860
SILVER	2	6800	8.3	0.37
SODIUM	NA	NA	NA	390
VANADIUM	39	NA	NA	43.5
ZINC	109	10000	2480	58.4
MERCURY	0.18	5.7	0.73	0.0091

HA-01 (2.5' - 3.5')	CRIT 1	CRIT 2	CRIT 3	07/24
VOCS:				
1,1-DICHLOROETHANE	0.27	480	0.27	0.00073
ACETONE	0.05	1000	0.05	0.019
BENZENE	0.06	89	0.06	0.00091
CYCLOHEXANE	NA	NA	NA	0.002
ETHYLBENZENE	1	780	1	0.00079
ISOPROPYLBENZENE (CUMENE)	2.3	NA	2.3	0.0017
METHYL ETHYL KETONE (2-BUTANONE)	0.12	1000	0.12	0.0037
METHYLCYCLOHEXANE	NA	NA	NA	0.0039
TETRACHLOROETHYLENE (PCE)	1.3	300	1.3	0.00077
TOLUENE	0.7	1000	0.7	0.00038
XYLENES	0.26	1000	1.6	0.0012
SVOCS:				
BENZO(A)PYRENE	1	1.1	22	0.17
BENZO(G,H,I)PERYLENE	100	1000	1000	0.2
CHRYSENE	1	110	1	0.25
PYRENE	100	1000	1000	0.65
PESTICIDES:				
P,P'-DDT	0.0033	94	136	0.029
METALS:				
ALUMINUM	NA	NA	NA	19700
ARSENIC	13	16	16	3.4
BARIUM	350	10000	820	114
BERYLLIUM	7.2	2700	47	0.84
CADMIUM	2.5	60	7.5	0.27
CALCIUM	NA	NA	NA	47500
CHROMIUM, TOTAL	30	800	NA	24
COBALT	NA	NA	NA	10.9
COPPER	50	10000	1720	18
IRON	NA	NA	NA	19300
LEAD	63	3900	450	12.7
MAGNESIUM	NA	NA	NA	14300
MANGANESE	1600	10000	2000	467
NICKEL	30	10000	130	22
POTASSIUM	NA	NA	NA	6070
SILVER	2	6800	8.3	0.29
SODIUM	NA	NA	NA	239
VANADIUM	NA	NA	NA	37
ZINC	109	10000	2480	57.7
MERCURY	0.18	5.7	0.73	0.012

SB-10 (39' - 42')	CRIT 1	CRIT 2	CRIT 3	07/24
VOCS:				
ACETONE	0.05	1000	0.05	0.0089
PESTICIDES:				
METHOXYCHLOR	1.2	NA	900	0.00096
METALS:				
ALUMINUM	10000	NA	NA	32500
ARSENIC	13	16	16	4.6
BARIUM	350	10000	820	191
BERYLLIUM	7.2	2700	47	1.4
CADMIUM	2.5	60	7.5	0.27
CALCIUM	10000	NA	NA	46800
CHROMIUM, TOTAL	1	800	19	38.3
COBALT	20	NA	NA	17
COPPER	50	10000	1720	24.2
IRON	2000	NA	NA	28700
LEAD	63	3900	450	12.8
MAGNESIUM	NA	NA	NA	16300
MANGANESE	1600	10000	2000	592
NICKEL	30	10000	130	33.1
POTASSIUM	NA	NA	NA	11300
SELENIUM	3.9	6800	4	1.4
SILVER	2	6800	8.3	0.35
SODIUM	NA	NA	NA	728
VANADIUM	39	NA	NA	58.3
ZINC	109	10000	2480	76.7
MERCURY	0.18	5.7	0.73	0.013

SB-10 (48' - 49')	CRIT 1	CRIT 2	CRIT 3	07/24
VOCS:				
ACETONE	0.05	1000	0.05	0.0054
METALS:				
ALUMINUM	10000	NA	NA	22600
ARSENIC	13	16	16	3.7
BARIUM	350	10000	820	148
BERYLLIUM	7.2	2700	47	1
CADMIUM	2.5	60	7.5	0.28
CALCIUM	10000	NA	NA	47800
CHROMIUM, TOTAL	1	800	19	26.1
COBALT	20	NA	NA	13.2
COPPER	50	10000	1720	22.1
IRON	2000	NA	NA	23000
LEAD	63	3900	450	13.9
MAGNESIUM	NA	NA	NA	17200
MANGANESE	1600	10000	2000	550
NICKEL	30	10000	130	26.1
POTASSIUM	NA	NA	NA	7750
SILVER	2	6800	8.3	0.35
SODIUM	NA	NA	NA	458
VANADIUM	39	NA	NA	41.1
ZINC	109	10000	2480	62.6
MERCURY	0.18	5.7	0.73	0.011

SB-03 (5' - 7')	CRIT 1	CRIT 2	CRIT 3	08/24
VOCS:				
ACETONE	0.05	1000	0.05	0.11
METHYL ETHYL KETONE (2-BUTANONE)	0.12	1000	0.12	0.021
METHYLENE CHLORIDE	0.05	1000	0.05	0.0036
METALS:				
ALUMINUM	10000	NA	NA	32500
ARSENIC	13	16	16	4.3
BARIUM	350	10000	820	180
BERYLLIUM	7.2	2700	47	1.2
CADMIUM	2.5	60	7.5	0.4
CALCIUM	10000	NA	NA	4100
CHROMIUM, TOTAL	1	800	19	36.6
COBALT	20	NA	NA	16.6
COPPER	50	10000	1720	11.3
IRON	2000	NA	NA	37000
LEAD	63	3900	450	22.4
MAGNESIUM	NA	NA	NA	5910
MANGANESE	1600	10000	2000	2770
NICKEL	30	10000	130	23.6
POTASSIUM	NA	NA	NA	5280
SELENIUM	3.9	6800	4	1.6
SILVER	2	6800	8.3	0.5
SODIUM	NA	NA	NA	174
VANADIUM	39	NA	NA	63.3
ZINC	109	10000	2480	109
MERCURY	0.18	5.7	0.73	0.048

SB-03 (28' - 30')	CRIT 1	CRIT 2	CRIT 3	08/24
VOCS:				
ACETONE	0.05	1000	0.05	0.02
METHYLENE CHLORIDE	0.050	1000	0.05	0.0038
METALS:				
ALUMINUM	10000	NA	NA	24800
ARSENIC	13	16	16	3.9
BARIUM	350	10000	820	143
BERYLLIUM	7.2	2700	47	1.1
CALCIUM	10000	NA	NA	45900
CHROMIUM, TOTAL	1	800	19	32.7
COBALT	20	NA	NA	16.1
COPPER	50	10000	1720	23.9
IRON	2000	NA	NA	26500
LEAD	63	3900	450	10.9
MAGNESIUM	NA	NA	NA	14600
MANGANESE	1600	10000	2000	555
NICKEL	30	10000	130	36.4
POTASSIUM	NA	NA	NA	7560
SELENIUM	3.9	6800	4	1.1
SODIUM	NA	NA	NA	384
VANADIUM	39	NA	NA	47.9
ZINC	109	10000	2480	68.1
MERCURY	0.18	5.7	0.73	0.017

HA-08 (3.5' - 4')	CRIT 1	CRIT 2	CRIT 3	07/24
VOCS:				
ACETONE	0.05	1000	0.05	0.021
METHYL ETHYL KETONE (2-BUTANONE)	0.12	1000	0.12	0.0033
PESTICIDES:				
METHOXYCHLOR	1.2	NA	900	0.0029
P,P'-DDT	0.0033	94	136	0.0016
METALS:				
ALUMINUM	10000	NA	NA	21500
ARSENIC	13	16	16	4.9
BARIUM	350	10000	820	109
BERYLLIUM	7.2	2700	47	0.79
CADMIUM	2.5	60	7.5	0.56
CALCIUM	10000	NA	NA	2900
CHROMIUM, TOTAL	1	800	19	23.6
COBALT	20	NA	NA	12.3
COPPER	50	10000	1720	11.6
IRON	2000	NA	NA	20100
LEAD	63	3900	450	26.5
MAGNESIUM	NA	NA	NA	4260
MANGANESE	1600	10000	2000	374
NICKEL	30	10000	130	20.1
POTASSIUM	NA	NA	NA	2700
SODIUM	NA	NA	NA	112
VANADIUM	39	NA	NA	40.7
ZINC	109	10000	2480	107
MERCURY	0.18	5.7	0.73	0.2

HA-03 (2.3' - 2.5')	CRIT 1	CRIT 2	CRIT 3	07/24
VOCS:				
BENZENE	0.06	89	0.06	13
ETHYLBENZENE	1	780	1	5.4
ISOPROPYLBENZENE (CUMENE)	2.3	NA	2.3	0.74
METHYL ACETATE	NA	NA	NA	1.9
METHYLCYCLOHEXANE	NA	NA	NA	1.9
TOLUENE	0.7	1000	0.7	0.94
XYLENES	0.26	1000	1.6	15
SVOCS:				
2-METHYLNAPHTHALENE	0.41	NA	36.4	470
ACENAPHTHENE	20	1000	98	47
ANTHRACENE	100	1000	1000	61
BENZO(A)ANTHRACENE	1	11	1	90
BENZO(A)PYRENE	1	1.1	22	46
BENZO(B)FLUORANTHENE	1	11	1.7	24
BENZO(G,H,I)PERYLENE	100	1000	1000	20
BIPHENYL (DIPHENYL)	60	NA	NA	23
CARBAZOLE	NA	NA	NA	27
CHRYSENE	1	110	1	170
DIBENZOFURAN	7	1000	210	31
FLUORANTHENE	100	1000	1000	36
FLUORENE	30	1000	386	89
NAPHTHALENE	12	1000	12	170
N-NITROSODIPHENYLAMINE	NA	NA	NA	180
PHENANTHRENE	100	1000	1000	570
PYRENE	100	1000	1000	170
PESTICIDES:				
ENDRIN ALDEHYDE	NA	NA	NA	0.17
P,P'-DDT	0.0033	94	136	0.14
METALS:				
ALUMINUM	10000	NA	NA	43500
ARSENIC	13	16	16	64.3
BARIUM	350	10000	820	55.3
BERYLLIUM	7.2	2700	47	0.49
CALCIUM	10000	NA	NA	7880
CHROMIUM, TOTAL	1	800	19	54.4
COBALT	20	NA	NA	7.6
COPPER	50	10000	1720	32.2
IRON	2000	NA	NA	19800
LEAD	63	3900	450	74
MAGNESIUM	NA	NA	NA	2750
MANGANESE	1600	10000	2000	208
NICKEL	30	10000	130	113
POTASSIUM	NA	NA	NA	705
SODIUM	NA	NA	NA	840
VANADIUM	39	NA	NA	106
ZINC	109	10000	2480	46.9
MERCURY	0.18	5.7	0.73	0.034

SB-09 (4' - 5')	CRIT 1	CRIT 2	CRIT 3	08/24
VOCS:				
ACETONE	0.05	1000	0.05	0.026
METHYL ETHYL KETONE (2-BUTANONE)	0.12	1000	0.12	0.0067
METHYLENE CHLORIDE	0.05	1000	0.05	0.0034
METALS:				
ALUMINUM	10000	NA	NA	24400
ARSENIC	13	16	16	4
BARIUM	350	10000	820	129
BERYLLIUM	7.2	2700	47	1
CADMIUM	2.5	60	7.5	0.33
CALCIUM	10000	NA	NA	7020
CHROMIUM, TOTAL	1	800	19	27.4
COBALT	20	NA	NA	15.4
COPPER	50	10000	1720	14.5
IRON	2000	NA	NA	24200
LEAD	63	3900	450	19.2
MAGNESIUM	NA	NA	NA	6630
MANGANESE	1600	10000	2000	1110
NICKEL	30	10000	130	26.8
POTASSIUM	NA	NA	NA	3840
SODIUM	NA	NA	NA	122
VANADIUM	39	NA	NA	44.2
ZINC	109	10000	2480	96.3
MERCURY	0.18	5.7	0.73	0.047

SB-09 (28' - 30')	CRIT 1	CRIT 2	CRIT 3	08/24
VOCS:				
ACETONE	0.05	1000	0.05	0.017
METHYLENE CHLORIDE	0.05	1000	0.05	0.0061
METALS:				
ALUMINUM	10000	NA	NA	32000
ARSENIC	13	16	16	4.1
BARIUM	350	10000	820	163
BERYLLIUM	7.2	2700	47	1.5
CALCIUM	10000	NA	NA	45400
CHROMIUM, TOTAL	1	800	19	40.1
COBALT	20	NA	NA	18.9
COPPER	50	10000	1720	26.4
IRON	2000	NA	NA	31000
LEAD	63	3900	450	11.5
MAGNESIUM	NA	NA	NA	16400
MANGANESE	1600	10000	2000	604
NICKEL	30	10000	130	43.1
POTASSIUM	NA	NA	NA	9790
SELENIUM	3.9	6800	4	1.2
SODIUM	NA	NA	NA	434
VANADIUM	39	NA	NA	59.9
ZINC	109	10000	2480	75.2
MERCURY	0.18	5.7	0.73	0.018

HA-07 (3' - 4')	CRIT 1	CRIT 2	CRIT 3	07/24
METALS:				
ALUMINUM	10000	NA	NA	18700
ARSENIC	13	16	16	3.8
BARIUM	350	10000	820	112
BERYLLIUM	7.2	2700	47	0.82
CADMIUM	2.5	60	7.5	0.27
CALCIUM	10000	NA	NA	45900
CHROMIUM, TOTAL	1	800	19	22
COBALT	20	NA	NA	11.9
COPPER	50	10000	1720	18.2
IRON	2000	NA	NA	18900
LEAD	63	3900	450	12.5
MAGNESIUM	NA	NA	NA	13300
MANGANESE	1600	10000	2000	534
NICKEL	30	10000	130	21.8
POTASSIUM	NA	NA	NA	5130
SODIUM	NA	NA	NA	218
VANADIUM	39	NA	NA	33.7
ZINC	109	10000	2480	57.3
MERCURY	0.18	5.7	0.73	0.015

SB-04 (0.5' - 2')	CRIT 1	CRIT 2	CRIT 3	07/24
VOCS:				
METHYLENE CHLORIDE	0.05	1000	0.05	0.0047
METALS:				
ALUMINUM	10000	NA	NA	18300
ARSENIC	13	16	16	4.8
BARIUM	350	10000	820	123
BERYLLIUM	7.2	2700	47	1
CADMIUM	2.5	60	7.5	1.2
CALCIUM	10000	NA	NA	23300
CHROMIUM, TOTAL	1	800	19	23
COBALT	20	NA	NA	11.9
COPPER	50	10000	1720	24.5
IRON	2000	NA	NA	20700
LEAD	63	3900	450	36.1
MAGNESIUM	NA	NA	NA	8980
MANGANESE	1600	10000	2000	693
NICKEL	30	10000	130	24.8
POTASSIUM	NA	NA	NA	3690
SELENIUM	3.9	6800	4	1.4
SODIUM	NA	NA	NA	163
VANADIUM	39	NA	NA	40.3
ZINC	109	10000	2480	113
MERCURY	0.18	5.7	0.73	0.06

SB-04 (0.5' - 2') (DUP)	CRIT 1	CRIT 2	CRIT 3	07/24
METALS:				
ALUMINUM	10000	NA	NA	21700
ANTIMONY	12	NA	NA	1.3
ARSENIC	13	16	16	4.9
BARIUM	350	10000	820	132
BERYLLIUM	7.2	2700	47	1.1
CADMIUM	2.5	60	7.5	0.79
CALCIUM	10000	NA	NA	28400
CHROMIUM, TOTAL	1	800	19	30.5
COBALT	20	NA	NA	12.6
COPPER	50	10000	1720	37.1
IRON	2000	NA	NA	23300
LEAD	63	3900	450	37.1
MAGNESIUM	NA	NA	NA	10700
MANGANESE	1600	10000	2000	712
NICKEL	30	10000	130	26.5
POTASSIUM	NA	NA	NA	4640
SELENIUM	3.9	6800	4	1.2
SILVER	2	6800	8.3	0.29
SODIUM	NA	NA	NA	167
VANADIUM	39	NA	NA	41
ZINC	109	10000	2480	136
MERCURY	0.18	5.7	0.73	0.063

SB-04 (38' - 42')	CRIT 1	CRIT 2	CRIT 3	07/24
VOCS:				
ACETONE	0.05	1000	0.05	0.013
METHYLENE CHLORIDE	0.05	1000	0.05	0.0064
METALS:				
ALUMINUM	10000	NA	NA	27600
ARSENIC	13	16	16	3.5
BARIUM	350	10000	820	170
BERYLLIUM	7.2	2700	47	1.2
CADMIUM	2.5	60	7.5	0.31
CALCIUM	10000	NA	NA	46100
CHROMIUM, TOTAL	1	800	19	33.1
COBALT	20	NA	NA	15
COPPER	50	10000	1720	22
IRON	2000	NA	NA	26100
LEAD	63	3900	450	10.2
MAGNESIUM	NA	NA	NA	15500
MANGANESE	1600	10000	2000	568
NICKEL	30	10000	130	30
POTASSIUM	NA	NA	NA	9120
SILVER	2	6800	8.3	0.32
SODIUM	NA	NA	NA	567
VANADIUM	39	NA	NA	50.3
ZINC	109	10000	2480	61.2
MERCURY	0.18	5.7	0.73	0.019

SB-08 (26' - 28')	CRIT 1	CRIT 2	CRIT 3	08/24
METALS:				
ALUMINUM	10000	NA	NA	19200
ARSENIC	13	16	16	3.6
BARIUM	350	10000	820	124
BERYLLIUM	7.2	2700	47	0.85
CALCIUM	10000	NA	NA	41900
CHROMIUM, TOTAL	1	800	19	24.5
COBALT	20	NA	NA	13.2
COPPER	50	10000	1720	18.2
IRON	2000	NA	NA	20300
LEAD	63	3900	450	10
MAGNESIUM	NA	NA	NA	14800
MANGANESE	1600	10000	2000	488
NICKEL	30	10000	130	25.2
POTASSIUM	NA	NA	NA	6320
SILVER	2	6800	8.3	0.29
SODIUM	NA	NA	NA	287
VANADIUM	39	NA	NA	36.3
ZINC	109	10000	2480	55.5
MERCURY	0.18	5.7	0.73	0.016

SB-08 (28' - 30')	CRIT 1	CRIT 2	CRIT 3	08/24
VOCS:				
ACETONE	0.05	1000	0.05	0.022
METALS:				
ALUMINUM	10000	NA	NA	25500
ARSENIC	13	16	16	9.1
BARIUM	350	10000	820	101
BERYLLIUM	7.2	2700	47	1.1
CALCIUM	10000	NA	NA	34100
CHROMIUM, TOTAL	1	800	19	32.5
COBALT	20	NA	NA	15.9
COPPER	50	10000	1720	24.5
IRON	2000	NA	NA	25200
LEAD	63	3900	450	12.8
MAGNESIUM	NA	NA	NA	17500
MANGANESE	1600	10000	2000	440
NICKEL	30	10000	130	33.1
POTASSIUM	NA	NA	NA	8150
SILVER	2	6800	8.3	0.37
SODIUM	NA	NA	NA	365
VANADIUM	39	NA	NA	47.9
ZINC	109	10000	2480	71
MERCURY	0.18	5.7	0.73	0.02

HA-04 (1.3' - 1.5')	CRIT 1	CRIT 2	CRIT 3	07/24
VOCS:				
ACETONE	0.05	1000	0.05	0.061
BENZENE	0.06	89	0.06	0.0022
CYCLOHEXANE	NA	NA	NA	0.0012
ETHYLBENZENE	1	780	1	0.00073
METHYL ETHYL KETONE (2-BUTANONE)	0.12	1000	0.12	0.0012
METHYLCYCLOHEXANE	NA	NA	NA	0.0021
TOLUENE	0.7	1000	0.7	0.0015
XYLENES	0.26	1000	1.6	0.0086
SVOCS:				
PYRENE	100	1000	1000	6.1
PESTICIDES:				
ENDRIN ALDEHYDE	NA	NA	NA	0.03
P,P'-DDT	0.0033	94	136	0.033
METALS:				
ALUMINUM	10000	NA	NA	21400
ANTIMONY	12	NA	NA	0.82
ARSENIC	13	16	16	3.3
BARIUM	350	10000	820	138
BERYLLIUM	7.2	2700	47	1.2
CADMIUM	2.5	60	7.5	0.71
CALCIUM	10000	NA	NA	16900
CHROMIUM, TOTAL	1	800	19	25.8
COBALT	20	NA	NA	12.9
COPPER	50	10000	1720	26.2
IRON	2000	NA	NA	21000
LEAD	63	3900	450	27.9
MAGNESIUM	NA	NA	NA	7720
MANGANESE	1600	10000	2000	617
NICKEL	30	10000	130	30.3
POTASSIUM	NA	NA	NA	3840
SILVER	2	6800	8.3	0.36
SODIUM	NA	NA	NA	127
VANADIUM	39	NA	NA	39
ZINC	109	10000	2480	105
MERCURY	0.18	5.7	0.73	0.053

SB-05 (27' - 29')	CRIT 1	CRIT 2	CRIT 3	07/24
VOCS:				
ACETONE	0.05	1000	0.05	0.0074
METHYLENE CHLORIDE	0.05	1000	0.05	0.0029
METALS:				
ALUMINUM	10000	NA	NA	19000
ARSENIC	13	16	16	2.8
BARIUM	350	10000	820	122
BERYLLIUM	7.2	2700	47	0.82
CADMIUM	2.5	60	7.5	0.25
CALCIUM	10000	NA	NA	48000
CHROMIUM, TOTAL	1	800	19	23.2
COBALT	20	NA	NA	12.2
COPPER	50	10000	1720	16.8
IRON	2000	NA	NA	20400
LEAD	63	3900	450	10.4
MAGNESIUM	NA	NA	NA	15800
MANGANESE	1600	10000	2000	538
NICKEL	30	10000	130	23.1
POTASSIUM	NA	NA	NA	6300
SELENIUM	3.9	6800	4	1.4
SODIUM	NA	NA	NA	383
VANADIUM	39	NA	NA	35.9
ZINC	109	10000	2480	58.1
MERCURY	0.18	5.7	0.73	0.011

SB-05 (32' - 33')	CRIT 1	CRIT 2	CRIT 3	07/24
VOCS:				
ACETONE	0.05	1000	0.05	0.0087
METHYLENE CHLORIDE	0.05	1000	0.05	0.0050
METALS:				
ALUMINUM	10000	NA	NA	19500
ANTIMONY	12	NA	NA	1
ARSENIC	13	16	16	2.8
BARIUM	350	10000	820	123
BERYLLIUM	7.2	2700	47	0.84
CADMIUM	2.5	60	7.5	0.25
CALCIUM	10000	NA	NA	48600
CHROMIUM, TOTAL	1	800	19	23.7
COBALT	20	NA	NA	11.2
COPPER	50	10000	1720	16.2
IRON	2000	NA	NA	19700
LEAD	63	3900	450	10
MAGNESIUM	NA	NA	NA	16600
MANGANESE	1600	10000	2000	512
NICKEL	30	10000	130	22
POTASSIUM	NA	NA	NA	6740
SODIUM	NA	NA	NA	501
VANADIUM	39	NA	NA	34.7
ZINC	109	10000	2480	55.5
MERCURY	0.18	5.7	0.73	0.01

HA-05 (3' - 4')	CRIT 1	CRIT 2	CRIT 3	07/24
PESTICIDES:				
P,P'-DDT	0.0033	94	136	0.00061
METALS:				
ALUMINUM	10000	NA	NA	26900
ARSENIC	13	16	16	4.1
BARIUM	350	10000	820	162
BERYLLIUM	7.2	2700	47	2
CADMIUM	2.5	60	7.5	0.2
CALCIUM	10000	NA	NA	27500
CHROMIUM, TOTAL	1	800	NA	28.3
COBALT	20	NA	NA	14.9
COPPER	50	10000	1720	14.9
IRON	2000	NA	NA	20500
LEAD	63	3900	450	15.1
MAGNESIUM	NA	NA	NA	9980
MANGANESE	1600	10000	2000	512
NICKEL	30	10000	130	32.1
POTASSIUM	NA	NA	NA	4880
SILVER	2	6800	8.3	0.34
SODIUM	NA	NA	NA	277
VANADIUM	39	NA	NA	41
ZINC	109	10000	2480	59.6
MERCURY	0.18	5.7	0.73	0.01
PFAS:				
PERFLUOROOCTANESULFONIC ACID (PFOS)	0.00088	0.44	0.001	0.000089

SB-07 (1' - 2')	CRIT 1	CRIT 2	CRIT 3	08/24
SVOCS:				
BENZO(A)PYRENE	1	1.1	22	0.03
BENZO(B)FLUORANTHENE	1	1.1	1.7	0.041
BENZO(G,H,I)PERYLENE	100	1000	1000	0.03
FLUORANTHENE	100	1000	1000	0.036
PYRENE	100	1000	1000	0.029
METALS:				
ALUMINUM	10000	NA	NA	13200
ARSENIC	13	16	16	5.1
BARIUM	350	10000	820	102
BERYLLIUM	7.2	2700	47	3.3
CALCIUM	10000	NA	NA	66100
CHROMIUM, TOTAL	1	800	19	8.7
COBALT	20	NA	NA	4.5
COPPER	50	10000	1720	3.8
IRON	2000	NA	NA	6580
LEAD	63	3900	450	5.8
MAGNESIUM	NA	NA	NA	12200
MANGANESE	1600	10000	2000	919
NICKEL	30	10000	130	2.1
POTASSIUM	NA	NA	NA	625
SILVER	2	6800	8.3	0.38
SODIUM	NA	NA	NA	861
VANADIUM	39	NA	NA	2.8
ZINC	109	10000	2480	6.6
MERCURY	0.18	5.7	0.73	0.013

SB-07 (33' - 35')	CRIT 1	CRIT 2	CRIT 3	08/24
VOCS:				
ACETONE	0.05	1000	0.05	0.02
METALS:				
ALUMINUM	10000	NA	NA	23900
ARSENIC	13	16	16	5.6
BARIUM	350	10000	820	132
BERYLLIUM	7.2	2700	47	1.1
CALCIUM	10000	NA	NA	42100
CHROMIUM, TOTAL	1	800	19	32.1
COBALT	20	NA	NA	14.9
COPPER	50	10000	1720	29.3
IRON	2000	NA	NA	24100
LEAD	63	3900	450	13.4
MAGNESIUM	NA	NA	NA	17700
MANGANESE	1600	10000	2000	484
NICKEL	30	10000	130	31
POTASSIUM	NA	NA	NA	7540
SILVER	2	6800	8.3	0.34
SODIUM	NA	NA	NA	374
VANADIUM	39	NA	NA	44.4
ZINC	109	10000	2480	69.3
MERCURY	0.18	5.7	0.73	0.021

HA-06 (3' - 4')	CRIT 1	CRIT 2	CRIT 3	07/24
METALS:				
ALUMINUM	10000	NA	NA	15500
ANTIMONY	12	NA	NA	0.79
ARSENIC	13	16	16	2.4
BARIUM	350	10000	820	90.1
BERYLLIUM	7.2	2700	47	0.7
CADMIUM	2.5	60	7.5	0.14
CALCIUM	10000	NA	NA	38100
CHROMIUM, TOTAL	1	800	19	18.9
COBALT	20	NA	NA	7.2
COPPER	50	10000	1720	16.3
IRON	2000	NA	NA	17500
LEAD	63	3900	450	11.8
MAGNESIUM	NA	NA	NA	12400
MANGANESE	1600	10000	2000	360
NICKEL	30	10000	130	19.4
POTASSIUM	NA	NA	NA	4450
SILVER	2	6800	8.3	0.34
SODIUM	NA	NA	NA	276
VANADIUM	39	NA	NA	32.1
ZINC	109	10000	2480	44.8
MERCURY	0.18	5.7	0.73	0.01

HA-06 (3' - 4') (DUP)	CRIT 1	CRIT 2	CRIT 3	07/24
VOCS:				
ACETONE	0.05	1000	0.05	0.0052
METALS:				
ALUMINUM	10000	NA	NA	16700
ARSENIC	13	16	16	2.4
BARIUM	350	10000	820	133
BERYLLIUM	7.2	2700	47	0.73
CADMIUM	2.5	60	7.5	0.16
CALCIUM	10000	NA	NA	42900
CHROMIUM, TOTAL	1	800	19	20.6
COBALT	20	NA	NA	9.8
COPPER	50	10000	1720	16.3
IRON	2000	NA	NA	18000
LEAD	63	3900	450	11.8
MAGNESIUM	NA	NA	NA	13200
MANGANESE	1600	10000	2000	511
NICKEL	30	10000	130	23.3
POTASSIUM	NA	NA	NA	4840
SILVER	2	6800	8.3	0.34
SODIUM	NA	NA	NA	277
VANADIUM	39	NA	NA	32.6
ZINC	109	10000	2480	48.5
MERCURY	0.18	5.7	0.73	0.011

Legend

☒ Hand Auger Soil Sample Location

■ Soil Boring Location

Location ID
Depth (feet)
Criteria
Sample Date

HA-01 (2.5' - 3.5')	CRIT 1	CRIT 2	CRIT 3	07/24
Pesticides:				
P,P'-DDT	3.3	94000	136000	29

Parameter
Criteria Value
Detected Concentration (Red Text Indicates Exceedance)

Criteria: 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives (SCOs), Effective 12/14/06. Where there were no Part 375.6 SCOs, the NYSDEC CP-51 Table 1 Supplemental SCOs, Effective 12/2/10, and the NYSDEC April 2023 PFAS guidance values, were provided. Where there were no Unrestricted Use SCOs, the lowest of the Supplemental SCOs was selected.
(1) - Unrestricted Use SCOs
(2) - Industrial Use SCOs
(3) - Protection of Groundwater SCOs

Note: All criteria and detected concentrations are shown in mg/kg.

Source: NYS ITS GIS Program Office, 2021

ASHLAND TANK 75, TONAWANDA, NY
REMEDIAL INVESTIGATION
2024 SUBSURFACE SOIL ANALYTICAL RESULTS
(DETECTED CONCENTRATIONS ONLY)

AECOM

FIGURE 5-4.2

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Tables

Table 3-1
Survey Data
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

LOCATION ID	TYPE	NORTHING	EASTING	GROUND ELEVATION (ft AMSL)	CONCRETE SURFACE SEAL/PAD ELEVATION (ft AMSL)	CASING ELEVATION (ft AMSL)	RISER ELEVATION (ft AMSL)
SB-01	Soil Boring	1090909.99	1057709.27	596.22	-	-	-
SB-02	Soil Boring	1090902.24	1057664.60	596.09	-	-	-
SB-03	Soil Boring	1090756.70	1057651.19	596.91	-	-	-
SB-04	Soil Boring	1090685.19	1057699.09	596.12	-	-	-
SB-05	Soil Boring	1090646.54	1057719.25	596.28	-	-	-
SB-06[1]	Soil Boring	-	-	-	-	-	-
SB-07	Soil Boring	1090585.50	1057862.89	602.62	-	-	-
SB-08	Soil Boring	1090738.28	1057937.17	597.68	-	-	-
SB-09	Soil Boring	1090826.62	1057878.78	596.69	-	-	-
SB-10	Soil Boring	1090897.01	1057824.46	596.26	-	-	-
HA-01	Hand Auger	1090937.99	1057770.65	594.20	-	-	-
HA-02	Hand Auger	1090861.41	1057628.56	596.32	-	-	-
HA-03	Hand Auger	1090725.64	1057676.44	595.55	-	-	-
HA-04	Hand Auger	1090666.44	1057721.55	594.97	-	-	-
HA-05	Hand Auger	1090550.46	1057796.00	599.61	-	-	-
HA-06	Hand Auger	1090671.67	1057952.89	597.19	-	-	-
HA-07	Hand Auger	1090783.14	1057906.16	596.89	-	-	-
HA-08	Hand Auger	1090851.69	1057861.71	596.76	-	-	-
MW-02S*	Monitoring Well	1090891.80	1057646.66	596.31	596.48	599.68	596.93
MW-02D*	Monitoring Well	1090884.82	1057639.40	596.19	596.48	598.12	597.87
MW-03	Monitoring Well	1090681.36	1057708.05	595.70	-	598.28	597.97
MW-04S*	Monitoring Well	1090842.94	1057885.16	597.62	598.01	599.12	598.87
MW-04D	Monitoring Well	1090860.31	1057871.44	597.33	-	597.88	597.58
MW05-01*	Monitoring Well	1090895.65	1057656.53	596.45	596.74	599.80	599.59
MW05-02	Monitoring Well	1090771.21	1057914.49	597.12	-	600.05	599.98
MW05-03	Monitoring Well	1090593.09	1057872.64	603.28	-	606.33	606.18
MW05-04	Monitoring Well	1090730.88	1057673.47	595.75	-	598.74	598.50

Notes:

Surveys performed on April 22 and September 11, 2024.

NAD 1983 State Plane New York West; North American Vertical Datum of 1988 (NAVD 88)

(1) Due to adverse drilling conditions, it was determined to be unfeasible to complete angled boring SB-06. Approval to omit SB-06 from the sampling plan was received from NYSDEC on August 12, 2024.

*Monitoring well locations where concrete surface seal/pad is not flush with ground surface. In these instances, both the ground elevation and the elevation of the concrete surface seal/pad were surveyed.

ft - feet

AMSL - above mean sea level

"-" - Not applicable

Table 3-2
Sampling Matrix
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

	Parameters																																												
	Soils(3) (4)							Groundwater								Surface Water								Sediment								Waste Characterization												
	TCL VOCs + TICs (8260C)	TCL SVOCs + TICs (8270D)	PFAS(5) (1633)	1,4-Dioxane(5) (8270D)	PCBs (8082A)	Pesticides (8081A)	TAL Metals + Cn (6010C, 7471B, 9012B)	TCL VOCs +TICs (8260C)	TCL SVOCs +TICs (8270D)	PFAS (1633)	1,4-Dioxane (8270D SIM)	PCBs (8082A)	Pesticides (8081B)	TAL Metals + Hg + Cn (6010D, 7470A, 9012B)	Dissolved TAL Metals + Hg + Cn (6010D, 7470A, 9012B)	TCL VOCs +TICs (8260C)	TCL SVOCs +TICs (8270D)	PFAS (1633)	1,4-Dioxane (8270D SIM)	PCBs (8082A)	Pesticides (8081B)	TAL Metals + Hg + Cn (6010D, 7470A, 9012B)	Dissolved TAL Metals + Hg + Cn (6010D, 7470A, 9012B)	TCL VOCs +TICs (8260C)	TCL SVOCs +TICs (8270D)	PFAS (1633)	1,4-Dioxane (8270D)	PCBs (8082A)	Pesticides (8081B)	TAL Metals + Hg + Cn (6010C, 7471B, 9012B)	TOC (9060A)	TCLP VOCs (8260C)	TCLP SVOCs (8270D)	TCLP Metals + Hg (6010C & 7470A)	TCLP Pesticides (8081B)	TCLP Herbicides (8151A)	Corrosivity + pH (9045D)	Ignitability/ Burn Rate (1010A)	Reactivity (Cyanide/ Sulfide) (9012/ 9034)	Ethylene Glycol (8015C)	BTU (D240-87)	TEPH (1664B)	Paint Filter Test (9095B)	Viscosity
MW-02S								1	1	1	1	1	1	1	1																													
MW-02D								1	1	1	1	1	1	1	1																													
MW-03								1	1			1	1	1	1																													
MW-04S								1	1			1	1	1	1																													
MW-04D								1	1			1	1	1	1																													
MW05-01								1	1	1	1	1	1	1	1																													
MW05-02								1	1			1	1	1	1																													
MW05-03								1	1			1	1	1	1																													
MW05-04								1	1	1	1	1	1	1	1																													
SB-01	2	3	2	2	3	3	3																																					
SB-02	2	3			3	3	3																																					
SB-03	2	3			3	3	3																																					
SB-04	2	3	2	2	3	3	3																																					
SB-05	2	3			3	3	3																																					
SB-06(6)																																												
SB-07	2	3	2	2	3	3	3																																					
SB-08	2	3			3	3	3																																					
SB-09	2	3			3	3	3																																					
SB-10	2	3			3	3	3																																					
HA-01	1	2	1	1	2	2	2																																					
HA-02	1	2			2	2	2																																					
HA-03	1	2			2	2	2																																					
HA-04	1	2			2	2	2																																					
HA-05	1	2	1	1	2	2	2																																					
HA-06	1	2			2	2	2																																					
HA-07	1	2			2	2	2																																					
HA-08	1	2			2	2	2																																					
SED - 01																								1	1			1	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1	0
SED - 02																								1	1			1	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1	0
SED - 03																								1	1			1	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1	0
SED - 04																								1	1	1	1	1	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1	0
SED - 05																								1	1			1	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1	0
SED - 06																								1	1	1	1	1	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1	0
SED - 07																								1	1			1	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1	0
SED - 08																								1	1	1	1	1	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1	0
SED - 09																								1	1			1	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1	0
SED - 10																								1	1	1	1	1	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1	0
SED - 11																								1	1			1	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1	0
SED - 12																								1	1	1	1	1	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1	0
SED - 13																								1	1			1	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1	0
SED - 14																								1	1			1	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1	0
SED - 15																								1	1			1	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1	0
SW-01																3	3	1	1	3	3	3	3														3	3	3	3	3	3		
Monitoring Subtotal	**26**	**43**	**8**	**8**	**43**	**43**	**43**	**9**	**9**	**4**	**4**	**9**	**9**	**9**	**9**	**3**	**3**	**1**	**1**	**3**	**3**	**3**	**3**	**15**	**15**	**5**	**5**	**15**	**15**	**15**	**15**	**0**	**0**	**0**	**0**	**0**	**18**	**18**	**18**	**18**	**18**	**18**	**15**	**0**
QA/QC																																												
Duplicates (1)	3	5	1	1	5	5	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0
Matrix Spike (1)	2	3	1	1	3	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Matrix Spike Duplicate (1)	2	3	1	1	3	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Trip Blanks	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rinse Blank (2)	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Per Sampling Event	**35**	**56**	**13**	**13**	**56**	**56**	**56**	**15**	**13**	**8**	**8**	**13**	**13**	**13**	**13**	**8**	**7**	**5**	**5**	**7**	**7**	**7**	**7**	**21**	**20**	**9**	**9**	**20**	**20**	**20**	**20**	**0**	**0**	**0**	**0**	**0**	**18**	**18**	**18**	**18**	**18**	**18**	**15**	**0**

Notes:

(1) Duplicates were collected at a rate of 1 per 10 samples. Matrix Spike and Matrix Spike Duplicate samples were collected at a rate of 1 per 20 samples.

(2) Rinse Blanks for PFAs were taken on a basis of once per day per media or 1 per 20 samples. Other rinse blanks were taken on a basis of 1 per week per media or 1 per 20 samples.

(3) Sample intervals for SB-01 through SB-10:
- a. Surface Soil sample: 0-2" (excluding VOCs analysis)
- b. 1 from Subsurface Soil samples: Interval above water table exhibiting greatest indication of contamination. If no visible sign of contamination is present, collect sample from interval directly above the water table.
- c. 1 from Interval directly below the bottom of the gunite layer (estimated 26 ft bgs).

(4) Sample intervals for HA-01 through HA-08:
- a. Surface Soil sample: 0-2"
- b. 1 from Subsurface Soil samples: Interval above water table exhibiting greatest indication of contamination. If no visible sign of contamination is present, collect sample from 3-4 ft bgs.

(5) For select sampling locations, one surface soil and one subsurface soil sample were analyzed for PFAS and 1,4-dioxane.

(6) Due to adverse drilling conditions, it was determined to be unfeasible to complete angled boring SB-06. Approval to omit SB-06 from the sampling plan was received from NYSDEC on August 12, 2024.

MW - Monitoring Well
SB - Soil Boring
SW - Surface Water
SED - Sediment
TCL - Target Compound List
TAL - Target Analyte List

TICs - tentatively identified compounds
PFAS - per-and polyfluoroalkyl substances
PCB - polychlorinated biphenyls
TCLP - Toxicity Characteristic Leaching Procedure
bgs - below ground surface
CN - cyanide
Hg - mercury

TOC - total organic carbon
QA/QC - quality assurance/quality control
BTU - British Thermal Unit
TEPH - Total Extractable Petroleum Hydrocarbons
TCL VOC + TICs - Target Compound List volatile organic compounds plus 10 highest TICs
TCL SVOC + TICs - Target Compound List semi-volatile organic compound plus 20 highest TICs

Table 3-3
Sediment Dimensions
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

Date	Time	Sampling Location	Northing	Easting	Surface Water Elevation[1] (ft AMSL)	Soft Sediment					Medium Stiff / Hard Sediment					Total Sediment Thickness[5] (ft)
						Top of Sediment[2] (ft bws)	Bottom of Sediment[3] (ft bws)	Sediment Thickness (ft)	Top of Sediment (ft AMSL)	Bottom of Sediment (ft AMSL)	Top of Sediment (ft bws)	Bottom of Sediment[4] (ft bws)	Sediment Thickness (ft)	Top of Sediment (ft AMSL)	Bottom of Sediment (ft AMSL)	
6/3/2024	14:37	SED-01	1090814.70	1057694.68	591.2	8.3	11.1	2.8	582.9	580.1	11.1	13.3	2.2	580.1	577.9	5.0
6/3/2024	14:56	SED-02	1090841.57	1057736.85	591.2	17.0	19.7	2.7	574.2	571.5	19.7	20.8	1.1	571.5	570.4	3.8
6/3/2024	15:13	SED-03[6]	1090868.43	1057779.02	591.2	15.2	17.0	1.8	576.0	574.2	17.0	17.7	0.7	574.2	573.5	2.5
6/3/2024	15:48	SED-04	1090772.53	1057721.55	591.2	16.8	17.7	0.9	574.4	573.5	17.7	20.6	2.9	573.5	570.6	3.8
6/3/2024	16:01	SED-05	1090799.40	1057763.72	591.2	16.8	18.3	1.5	574.4	572.9	18.3	21.3	3.0	572.9	569.9	4.5
6/4/2024	6:48	SED-06	1090826.26	1057805.89	591.2	17.3	18.9	1.6	573.9	572.3	18.9	21.6	2.7	572.3	569.6	4.3
6/4/2024	7:05	SED-07[7]	1090730.36	1057748.41	591.2	13.0	13.2	0.2	578.2	578.0	13.2	15.3	2.1	578.0	575.9	2.3
6/4/2024	7:21	SED-08	1090757.23	1057790.58	591.2	15.0	17.2	2.2	576.2	574.0	17.2	19.8	2.6	574.0	571.4	4.8
6/4/2024	7:30	SED-09	1090784.09	1057832.75	591.2	14.2	16.4	2.2	577.0	574.8	16.4	19.0	2.6	574.8	572.2	4.8
6/4/2024	7:50	SED-10	1090688.19	1057775.28	591.2	14.6	15.9	1.3	576.6	575.3	15.9	17.6	1.7	575.3	573.6	3.0
6/4/2024	8:00	SED-11	1090715.06	1057817.45	591.2	15.0	17.5	2.5	576.2	573.7	17.5	19.8	2.3	573.7	571.4	4.8
6/4/2024	8:15	SED-12	1090741.92	1057859.62	591.2	10.7	12.5	1.8	580.5	578.7	12.5	16.0	3.5	578.7	575.2	5.3
6/4/2024	8:46	SED-13	1090646.02	1057802.14	591.2	16.7	18.8	2.1	574.5	572.4	18.8	20.5	1.7	572.4	570.7	3.8
6/4/2024	9:19	SED-14	1090672.89	1057844.31	591.2	12.8	15.1	2.3	578.4	576.1	15.1	18.3	3.2	576.1	572.9	5.5
6/4/2024	9:35	SED-15	1090699.75	1057886.48	591.2	8.0	10.4	2.4	583.2	580.8	10.4	12.5	2.1	580.8	578.7	4.5
							Minimum =	0.2				Minimum =	0.7		Minimum =	2.3
							Maximum =	2.8				Maximum =	3.5		Maximum =	5.5

Notes:

NAD 1983 State Plane New York West; North American Vertical Datum of 1988 (NAVD 88)

1. Surface water elevation as measured on June 3, 2024 by Atlantic Testing Laboratories (ATL): 591.2 ft. AMSL.
2. Top of sediment measured via hand probe from water vessel during vibracore sampling.
3. Bottom of soft sediment determined via sediment core logging on shore proximate Tank 75.
4. Bottom of hard sediment is equivalent to the estimated bottom of Tank 75. This depth was determined via hand probe, however, where total recovery of the sediment core exceeded the thickness of the sediment determined via hand probe, the depth of the bottom of the tank (bottom of medium stiff / hard sediment) is estimated based on the total recovery of the sediment core.
5. Total sediment thickness is the sum of soft sediment thickness and medium stiff / hard sediment thickness.
6. Sediment log indicates the presence of clayey silt at 17.5 to 17.7 ft bws, below the medium stiff / hard sediment.
7. Sediment log indicates the presence of soft sediment layer at 14.0 to 14.2 ft bws. It is inferred that the medium stiff / hard sediment unit extends from 13.2 to 15.3 ft bws.

Table 3-4
Soil Boring and Hand Auger Details (July-August 2024)
Remedial Investigation
Ashland Tank 75, Tonawanda, New York

Boring/ Hand Auger ID	Approximate Angle of Boring (degrees from horizontal axis)	Total Angled Length (ft)	Total Vertical Depth (ft bgs)	Depth to Water During Drilling (ft bgs)	Maximum PID reading (ppm)	Depth to Top of Rock (ft bgs)	Remarks
SB-01	37	45.0	27.0	19.1	0.0	-	-
SB-02	90	-	30.0	-	0.0	-	Asphalt like sub-base noted at 0.3 ft bgs on north side of boring.
SB-03	90	-	30.0	25.0	0.0	-	-
SB-04	45	42.0	30.0	23.1	0.0	-	-
SB-05	90	-	33.0	-	0.0	-	-
SB-06	-	-	-	-	-	-	Boring removed from remedial investigation scope of work
SB-07	90	-	35.0	31.7	0.0	-	Hydrocarbon staining and odor noted from 2 to 5.4 ft bgs.
SB-08	90	-	30.0	28.3	0.0	-	-
SB-09	90	-	30.0	4.0	0.0	-	Assumed perched groundwater noted in hand clearing at 4 ft bgs. True groundwater assumed at 27.7 ft bgs.
SB-10	37	49.0	29.5	25.5	0.0	-	-
HA-01	90	-	4.0	-	0.2	-	Shallow subsurface soils noted as wet most likely due to recent precipitation, not believed to be true groundwater. Hydrocarbon odor and staining noted throughout.
HA-02	90	-	4.0	-	0.0	-	-
HA-03	90	-	4.0	-	10.5	-	Hydrocarbon staining noted from 2 to 4 ft bgs. Hydrocarbon odor noted from 2.3 to 2.5 ft bgs.
HA-04	90	-	1.5	-	0.4	-	Hydrocarbon staining and odor noted from 1.3 to 1.5 ft bgs. Concrete refusal noted at 1.5 ft bgs.
HA-05	90	-	4.0	-	0.0	-	-
HA-06	90	-	4.0	-	0.0	-	Surface soils noted as wet most likely due to recent precipitation.
HA-07	90	-	4.0	-	0.0	-	-
HA-08	90	-	4.0	3.4	0.0	-	-

Notes:
"-" - Not applicable
ft - feet
bgs - below ground surface
PID - photoionization detector
ppm - parts per million

Table 4-1
April 2024 Groundwater Elevations
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

Location	Ground Elevation (ft AMSL)	Top of Well Riser Elevation (ft AMSL)	Top of Well Riser (ft ags)	Top of Outer Casing Elevation (ft AMSL)	Top of Outer Casing (ft ags)	Groundwater Depth (ft bTOR)[(1)]	Groundwater Depth (ft bgs)	Groundwater Elevation (ft AMSL)
MW-02S	596.31	596.93	0.62	599.68	3.37	5.82	2.45	593.86
MW-02D	596.19	597.87	1.68	598.12	1.93	9.35	7.67	588.52
MW-03	595.70	597.97	2.27	598.28	2.58	4.30	2.03	593.67
MW-04S	597.62	598.87	1.26	599.12	1.51	4.00	2.74	594.87
MW-04D	597.33	597.58	0.25	597.88	0.55	7.66	7.41	589.92
MW05-01	596.45	599.59	3.14	599.80	3.35	5.76	2.62	593.83
MW05-02	597.12	599.98	2.86	600.05	2.93	5.36	2.50	594.62
MW05-03	603.28	606.18	2.90	606.33	3.05	7.97	5.07	598.21
MW05-04	595.75	598.50	2.75	598.74	2.99	4.76	2.01	593.74

Notes:

Groundwater depths measured on 4/25/2024-4/26/2024	Minimum =	2.01	588.52
(1) Groundwater depth at MW-02S was measured below top of outer casing	Maximum =	7.67	598.21

ags - above ground surface
AMSL - above mean sea level
bTOR - below top of well riser
bgs - below ground surface
ft - feet

Table 4-2
July 2024 Groundwater Elevations
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

Location	Ground Elevation (ft AMSL)	Top of Well Riser Elevation (ft AMSL)	Top of Well Riser (ft ags)	Top of Outer Casing Elevation (ft AMSL)	Top of Outer Casing (ft ags)	Groundwater Depth (ft bTOR)[(1)]	Groundwater Depth (ft bgs)	Groundwater Elevation (ft AMSL)
MW-02S	596.31	596.93	0.62	599.68	3.37	5.11	1.74	594.57
MW-02D	596.19	597.87	1.68	598.12	1.93	14.77	13.09	583.10
MW-03	595.70	597.97	2.27	598.28	2.58	4.27	2.00	593.70
MW-04S	597.62	598.87	1.26	599.12	1.51	4.02	2.76	594.85
MW-04D	597.33	597.58	0.25	597.88	0.55	12.38	12.13	585.20
MW05-01	596.45	599.59	3.14	599.80	3.35	4.29	1.15	595.30
MW05-02	597.12	599.98	2.86	600.05	2.93	5.18	2.32	594.80
MW05-03	603.28	606.18	2.90	606.33	3.05	7.13	4.23	599.05
MW05-04	595.75	598.50	2.75	598.74	2.99	3.61	0.86	594.89

Notes:

Groundwater depths measured on 7/11/2024	Minimum =	0.86	583.10
(1) Groundwater depth at MW-02S was measured below top of outer casing	Maximum =	13.09	599.05

ags - above ground surface
AMSL - above mean sea level
bTOR - below top of well riser
bgs - below ground surface
ft - feet

Table 4-3
September 2024 Groundwater Elevations
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

Location	Ground Elevation (ft AMSL)	Top of Well Riser Elevation (ft AMSL)	Top of Well Riser (ft ags)	Top of Outer Casing Elevation (ft AMSL)	Top of Outer Casing (ft ags)	Groundwater Depth (ft bTOR)[(1)]	Groundwater Depth (ft bgs)	Groundwater Elevation (ft AMSL)
MW-02S	596.31	596.93	0.62	599.68	3.37	5.90	2.53	593.78
MW-02D	596.19	597.87	1.68	598.12	1.93	10.81	9.13	587.06
MW-03	595.70	597.97	2.27	598.28	2.58	5.44	3.17	592.53
MW-04S	597.62	598.87	1.26	599.12	1.51	5.08	3.82	593.79
MW-04D	597.33	597.58	0.25	597.88	0.55	9.20	8.95	588.38
MW05-01	596.45	599.59	3.14	599.80	3.35	5.81	2.67	593.78
MW05-02	597.12	599.98	2.86	600.05	2.93	6.33	3.47	593.65
MW05-03	603.28	606.18	2.90	606.33	3.05	11.30	8.40	594.88
MW05-04	595.75	598.50	2.75	598.74	2.99	5.38	2.63	593.12

Notes:

Groundwater depths measured on 9/20/2024	Minimum =	2.53	587.06
(1) Groundwater depth at MW-02S was measured below top of outer casing	Maximum =	9.13	594.88

ags - above ground surface
AMSL - above mean sea level
bTOR - below top of well riser
bgs - below ground surface
ft - feet

Table 4-4
May 2024 Hydraulic Conductivity Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

Well ID	Hydraulic Conductivity (cm/sec)			
	Test 1		N(1)	Mean(2)
	FH1	RH1		
MW-02S	5.76E-05	1.03E-05	2	2.44E-05
MW-02D	-	-	-	-
MW-03	6.90E-07	-	1	6.90E-07
MW-04S	2.27E-07	-	1	2.27E-07

Notes:

FH - Falling Head test
RH - Rising Head test
(1) - number of valid tests
(2) - geometric mean

-For all graphs, normalized head is defined as H(t)/Ho, where H(t) is the displacement measured at time t and Ho is the initial displacement at time t=0.
-While the geometric mean for both the falling and rising head tests are given, it is understood that the rising head tests more accurately describe the overall hydraulic characteristics of the aquifer.
(See attached reference, *The Bouwer and Rice Slug Test - An Update*)

Table 5-1
2024 Groundwater Analytical Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

				Location	MW-02S	MW-02S	MW-02D	MW-03	MW-04S	MW-04D	MW05-01	MW05-02	MW05-03	MW05-04
				Sample Name	MW-02S-042924	MW-02S-042924-FD	MW-02D-043024	MW-03-042924	MW-04S-043024	MW-04D-043024	MW05-01-042924	MW05-02-043024	MW05-03-042924	MW05-04-042924
				Sample Date	4/29/2024	4/29/2024	4/30/2024	4/29/2024	4/30/2024	4/30/2024	4/29/2024	4/30/2024	4/29/2024	4/29/2024
				Approximate Well Depth Interval (ft bgs)	19 - 29	19 - 29	30.5 - 35.5	17.5 - 27.5	14 - 24	29 - 34	2.8 - 22.8	3 - 23	3 - 28	3 - 23
						Field Duplicate								
Method	**Analyte**	**Fraction**	**Unit**	**Criteria (1)**										
Volatile Organic Compounds (VOCs)														
SW8260C	1,1,1-TRICHLOROETHANE (TCA)	NA	ug/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	1,1,2,2-TETRACHLOROETHANE	NA	ug/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	NA	ug/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	1,1,2-TRICHLOROETHANE	NA	ug/L	1	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	1,1-DICHLOROETHANE	NA	ug/L	**5**	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	**0.61 J**	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	1,1-DICHLOROETHENE	NA	ug/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	1,2,4-TRICHLOROBENZENE	NA	ug/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	1,2-DIBROMO-3-CHLOROPROPANE	NA	ug/L	0.04	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	NA	ug/L	0.0006	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	1,2-DICHLOROBENZENE	NA	ug/L	3	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	1,2-DICHLOROETHANE	NA	ug/L	0.6	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	1,2-DICHLOROPROPANE	NA	ug/L	1	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	1,3-DICHLOROBENZENE	NA	ug/L	3	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	1,4-DICHLOROBENZENE	NA	ug/L	3	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	2-HEXANONE	NA	ug/L	50	< 5.0 U	< 5.0 U	< 5.0 U	< 10 U	< 5.0 U	< 5.0 U	< 25 U	< 5.0 U	< 5.0 U	< 20 U
SW8260C	ACETONE	NA	ug/L	**50**	< 10 U	< 10 U	**7.9 J**	< 20 U	< 10 U	< 10 U	< 50 U	< 10 U	**4.8 J**	< 40 U
SW8260C	BENZENE	NA	ug/L	1	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	BROMODICHLOROMETHANE	NA	ug/L	50	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	BROMOFORM	NA	ug/L	50	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	BROMOMETHANE	NA	ug/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	CARBON DISULFIDE	NA	ug/L	**60**	< 1.0 U	< 1.0 U	**0.63 J**	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	CARBON TETRACHLORIDE	NA	ug/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	CHLOROBENZENE	NA	ug/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	CHLOROETHANE	NA	ug/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	CHLOROFORM	NA	ug/L	7	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	CHLOROMETHANE	NA	ug/L	5	< 1.0 U	< 1.0 U	< 1.0 UJ	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	CIS-1,2-DICHLOROETHYLENE	NA	ug/L	**5**	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	**1.3**	< 1.0 U	< 4.0 U
SW8260C	CIS-1,3-DICHLOROPROPENE	NA	ug/L	0.4	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	CYCLOHEXANE	NA	ug/L		< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	DIBROMOCHLOROMETHANE	NA	ug/L	50	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	DICHLORODIFLUOROMETHANE	NA	ug/L	5	< 1.0 U	< 1.0 U	< 1.0 UJ	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	ETHYLBENZENE	NA	ug/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	ISOPROPYLBENZENE (CUMENE)	NA	ug/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	METHYL ACETATE	NA	ug/L		< 2.5 U	< 2.5 U	< 2.5 U	< 5.0 U	< 2.5 U	< 2.5 U	< 13 U	< 2.5 U	< 2.5 U	< 10 U
SW8260C	METHYL ETHYL KETONE (2-BUTANONE)	NA	ug/L	50	< 10 U	< 10 U	< 10 U	< 20 U	< 10 U	< 10 U	< 50 U	< 10 U	< 10 U	< 40 U
SW8260C	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	NA	ug/L		< 5.0 U	< 5.0 U	< 5.0 U	< 10 U	< 5.0 U	< 5.0 UJ	< 25 U	< 5.0 U	< 5.0 U	< 20 U
SW8260C	METHYLCYCLOHEXANE	NA	ug/L		< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	METHYLENE CHLORIDE	NA	ug/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	STYRENE	NA	ug/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	TERT-BUTYL METHYL ETHER	NA	ug/L	10	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	TETRACHLOROETHYLENE (PCE)	NA	ug/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	TOLUENE	NA	ug/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	TRANS-1,2-DICHLOROETHENE	NA	ug/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	TRANS-1,3-DICHLOROPROPENE	NA	ug/L	0.4	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	TRICHLOROETHYLENE (TCE)	NA	ug/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	TRICHLOROFLUOROMETHANE	NA	ug/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 4.0 U
SW8260C	VINYL CHLORIDE	NA	ug/L	**2**	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	**0.90 J**	< 1.0 U	< 4.0 U
SW8260C	XYLENES	NA	ug/L	5	< 2.0 U	< 2.0 U	< 2.0 U	< 4.0 U	< 2.0 U	< 2.0 U	< 10 U	< 2.0 U	< 2.0 U	< 8.0 U

Table 5-1
2024 Groundwater Analytical Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

					Location	MW-02S	MW-02S	MW-02D	MW-03	MW-04S	MW-04D	MW05-01	MW05-02	MW05-03	MW05-04
					Sample Name	MW-02S-042924	MW-02S-042924-FD	MW-02D-043024	MW-03-042924	MW-04S-043024	MW-04D-043024	MW05-01-042924	MW05-02-043024	MW05-03-042924	MW05-04-042924
					Sample Date	4/29/2024	4/29/2024	4/30/2024	4/29/2024	4/30/2024	4/30/2024	4/29/2024	4/30/2024	4/29/2024	4/29/2024
					Approximate Well Depth Interval (ft bgs)	19 - 29	19 - 29	30.5 - 35.5	17.5 - 27.5	14 - 24	29 - 34	2.8 - 22.8	3 - 23	3 - 28	3 - 23
							Field Duplicate								
Method	**Analyte**	**Fraction**	**Unit**	**Criteria (1)**											
Semi Volatile Organic Compounds (SVOCs)															
SW8270D	2,4,5-TRICHLOROPHENOL	NA	ug/L	1		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	2,4,6-TRICHLOROPHENOL	NA	ug/L	1		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	2,4-DICHLOROPHENOL	NA	ug/L	1		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	2,4-DIMETHYLPHENOL	NA	ug/L	1		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	2,4-DINITROPHENOL	NA	ug/L	1		< 10 UJ	< 10 UJ	< 11 UJ	< 10 UJ	< 12 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
SW8270D	2,4-DINITROTOLUENE	NA	ug/L	5		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	2,6-DINITROTOLUENE	NA	ug/L	5		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	2-CHLORONAPHTHALENE	NA	ug/L	10		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	2-CHLOROPHENOL	NA	ug/L	1		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	2-METHYLNAPHTHALENE	NA	ug/L			< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	2-METHYLPHENOL (O-CRESOL)	NA	ug/L	1		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	2-NITROANILINE	NA	ug/L	5		< 10 U	< 10 U	< 11 U	< 10 U	< 12 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
SW8270D	2-NITROPHENOL	NA	ug/L	1		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	3,3'-DICHLOROBENZIDINE	NA	ug/L	5		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 UJ
SW8270D	3-NITROANILINE	NA	ug/L	5		< 10 U	< 10 U	< 11 U	< 10 U	< 12 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
SW8270D	4,6-DINITRO-2-METHYLPHENOL	NA	ug/L	1		< 10 U	< 10 U	< 11 U	< 10 U	< 12 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
SW8270D	4-BROMOPHENYL PHENYL ETHER	NA	ug/L			< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	4-CHLORO-3-METHYLPHENOL	NA	ug/L	1		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	4-CHLOROANILINE	NA	ug/L	5		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	4-CHLOROPHENYL PHENYL ETHER	NA	ug/L			< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	4-METHYLPHENOL (P-CRESOL)	NA	ug/L	1		< 10 U	< 10 U	< 11 U	< 10 U	< 12 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
SW8270D	4-NITROANILINE	NA	ug/L	5		< 10 U	< 10 U	< 11 U	< 10 U	< 12 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
SW8270D	4-NITROPHENOL	NA	ug/L	1		< 10 U	< 10 U	< 11 U	< 10 U	< 12 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
SW8270D	ACENAPHTHENE	NA	ug/L	20		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	ACENAPHTHYLENE	NA	ug/L			< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	ACETOPHENONE	NA	ug/L			< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	ANTHRACENE	NA	ug/L	50		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	ATRAZINE	NA	ug/L	7.5		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	BENZALDEHYDE	NA	ug/L			< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	BENZO(A)ANTHRACENE	NA	ug/L	0.002		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	BENZO(A)PYRENE	NA	ug/L	ND		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	BENZO(B)FLUORANTHENE	NA	ug/L	0.002		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	BENZO(G,H,I)PERYLENE	NA	ug/L			< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	BENZO(K)FLUORANTHENE	NA	ug/L	0.002		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	BENZYL BUTYL PHTHALATE	NA	ug/L	50		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	BIPHENYL (DIPHENYL)	NA	ug/L	5		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	BIS(2-CHLOROETHOXY) METHANE	NA	ug/L	5		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	BIS(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER)	NA	ug/L	1		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	BIS(2-CHLOROISOPROPYL) ETHER	NA	ug/L	5		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	BIS(2-ETHYLHEXYL) PHTHALATE	NA	ug/L	5		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	CAPROLACTAM	NA	ug/L			< 5.0 U	< 5.2 U	**3.5 J**	< 5.0 U	< 6.0 U	**3.4 J**	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	CARBAZOLE	NA	ug/L			< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	CHRYSENE	NA	ug/L	0.002		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	DIBENZ(A,H)ANTHRACENE	NA	ug/L			< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	DIBENZOFURAN	NA	ug/L			< 10 U	< 10 U	< 11 U	< 10 U	< 12 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
SW8270D	DIETHYL PHTHALATE	NA	ug/L	50		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	DIMETHYL PHTHALATE	NA	ug/L	50		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	DI-N-BUTYL PHTHALATE	NA	ug/L	**50**		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	**0.31 J**	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	DI-N-OCTYLPHTHALATE	NA	ug/L	50		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	FLUORANTHENE	NA	ug/L	50		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	FLUORENE	NA	ug/L	50		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	HEXACHLOROBENZENE	NA	ug/L	0.04		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	HEXACHLOROBUTADIENE	NA	ug/L	0.5		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U

Table 5-1
2024 Groundwater Analytical Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

					Location	MW-02S	MW-02S	MW-02D	MW-03	MW-04S	MW-04D	MW05-01	MW05-02	MW05-03	MW05-04
					Sample Name	MW-02S-042924	MW-02S-042924-FD	MW-02D-043024	MW-03-042924	MW-04S-043024	MW-04D-043024	MW05-01-042924	MW05-02-043024	MW05-03-042924	MW05-04-042924
					Sample Date	4/29/2024	4/29/2024	4/30/2024	4/29/2024	4/30/2024	4/30/2024	4/29/2024	4/30/2024	4/29/2024	4/29/2024
					Approximate Well Depth Interval (ft bgs)	19 - 29	19 - 29	30.5 - 35.5	17.5 - 27.5	14 - 24	29 - 34	2.8 - 22.8	3 - 23	3 - 28	3 - 23
							Field Duplicate								
Method	**Analyte**	**Fraction**	**Unit**	**Criteria (1)**											
SW8270D	HEXACHLOROCYCLOPENTADIENE	NA	ug/L	5	< 5.0 U	< 5.2 U	< 5.4 UJ	< 5.0 U	< 6.0 UJ	< 5.0 UJ	< 5.0 U	< 5.0 UJ	< 5.2 U	< 5.2 U
SW8270D	HEXACHLOROETHANE	NA	ug/L	5	< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	INDENO(1,2,3-C,D)PYRENE	NA	ug/L	0.002	< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	ISOPHORONE	NA	ug/L	50	< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	NAPHTHALENE	NA	ug/L	10	< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	NITROBENZENE	NA	ug/L	0.4	< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	N-NITROSODI-N-PROPYLAMINE	NA	ug/L		< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	N-NITROSODIPHENYLAMINE	NA	ug/L	50	< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	PENTACHLOROPHENOL	NA	ug/L	1	< 10 UJ	< 10 UJ	< 11 U	< 10 UJ	< 12 U	< 10 U	< 10 UJ	< 10 U	< 10 UJ	< 10 UJ
SW8270D	PHENANTHRENE	NA	ug/L	50	< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	PHENOL	NA	ug/L	1	< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270D	PYRENE	NA	ug/L	50	< 5.0 U	< 5.2 U	< 5.4 U	< 5.0 U	< 6.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.2 U	< 5.2 U
SW8270DSIM	1,4-DIOXANE (P-DIOXANE)	NA	ug/L	**0.35**	**0.24**	**0.31**	< 0.20 U	--	--	--	< 0.20 U	--	--	< 0.20 U
Pesticides															
SW8081B	ALDRIN	NA	ug/L	ND	< 0.20 U	< 0.20 U	< 0.23 U	< 0.20 U	< 0.21 U	< 0.22 U	< 0.21 U	< 0.20 U	< 0.20 U	< 0.21 U
SW8081B	ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	NA	ug/L	0.01	< 0.20 U	< 0.20 U	< 0.23 U	< 0.20 U	< 0.21 U	< 0.22 U	< 0.21 U	< 0.20 U	< 0.20 U	< 0.21 U
SW8081B	ALPHA ENDOSULFAN	NA	ug/L		< 0.20 U	< 0.20 U	< 0.23 U	< 0.20 U	< 0.21 U	< 0.22 U	< 0.21 U	< 0.20 U	< 0.20 U	< 0.21 U
SW8081B	ALPHA-CHLORDANE	NA	ug/L		< 0.20 U	< 0.20 U	< 0.23 U	< 0.20 U	< 0.21 U	< 0.22 U	< 0.21 U	< 0.20 U	< 0.20 U	< 0.21 U
SW8081B	BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	NA	ug/L	0.04	< 0.20 U	< 0.20 U	< 0.23 U	< 0.20 U	< 0.21 U	< 0.22 U	< 0.21 U	< 0.20 U	< 0.20 U	< 0.21 U
SW8081B	BETA ENDOSULFAN	NA	ug/L		< 0.20 U	< 0.20 U	< 0.23 U	< 0.20 U	< 0.21 U	< 0.22 U	< 0.21 U	< 0.20 U	< 0.20 U	< 0.21 U
SW8081B	BETA-CHLORDANE	NA	ug/L		< 0.20 U	< 0.20 U	< 0.23 U	< 0.20 U	< 0.21 U	< 0.22 U	< 0.21 U	< 0.20 U	< 0.20 U	< 0.21 U
SW8081B	DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	NA	ug/L	0.04	< 0.20 U	< 0.20 U	< 0.23 U	< 0.20 U	< 0.21 U	< 0.22 U	< 0.21 U	< 0.20 U	< 0.20 U	< 0.21 U
SW8081B	DIELDRIN	NA	ug/L	0.004	< 0.20 U	< 0.20 U	< 0.23 U	< 0.20 U	< 0.21 U	< 0.22 U	< 0.21 U	< 0.20 U	< 0.20 U	< 0.21 U
SW8081B	ENDOSULFAN SULFATE	NA	ug/L		< 0.20 U	< 0.20 U	< 0.23 U	< 0.20 U	< 0.21 U	< 0.22 U	< 0.21 U	< 0.20 U	< 0.20 U	< 0.21 U
SW8081B	ENDRIN	NA	ug/L	ND	< 0.20 U	< 0.20 U	< 0.23 U	< 0.20 U	< 0.21 U	< 0.22 U	< 0.21 U	< 0.20 U	< 0.20 U	< 0.21 U
SW8081B	ENDRIN ALDEHYDE	NA	ug/L	5	< 0.20 U	< 0.20 U	< 0.23 U	< 0.20 U	< 0.21 U	< 0.22 U	< 0.21 U	< 0.20 U	< 0.20 U	< 0.21 U
SW8081B	ENDRIN KETONE	NA	ug/L	5	< 0.20 U	< 0.20 U	< 0.23 U	< 0.20 U	< 0.21 U	< 0.22 U	< 0.21 U	< 0.20 U	< 0.20 U	< 0.21 U
SW8081B	GAMMA BHC (LINDANE)	NA	ug/L	0.05	< 0.20 U	< 0.20 U	< 0.23 U	< 0.20 U	< 0.21 U	< 0.22 U	< 0.21 U	< 0.20 U	< 0.20 U	< 0.21 U
SW8081B	HEPTACHLOR	NA	ug/L	0.04	< 0.20 U	< 0.20 U	< 0.23 U	< 0.20 U	< 0.21 U	< 0.22 U	< 0.21 U	< 0.20 U	< 0.20 U	< 0.21 U
SW8081B	HEPTACHLOR EPOXIDE	NA	ug/L	0.03	< 0.20 U	< 0.20 U	< 0.23 U	< 0.20 U	< 0.21 U	< 0.22 U	< 0.21 U	< 0.20 U	< 0.20 U	< 0.21 U
SW8081B	METHOXYCHLOR	NA	ug/L	35	< 0.40 U	< 0.40 U	< 0.45 U	< 0.40 U	< 0.42 U	< 0.43 U	< 0.42 U	< 0.40 U	< 0.40 U	< 0.42 U
SW8081B	P,P'-DDD	NA	ug/L	0.3	< 0.20 U	< 0.20 U	< 0.23 U	< 0.20 U	< 0.21 U	< 0.22 U	< 0.21 U	< 0.20 U	< 0.20 U	< 0.21 U
SW8081B	P,P'-DDE	NA	ug/L	0.2	< 0.20 U	< 0.20 U	< 0.23 U	< 0.20 U	< 0.21 U	< 0.22 U	< 0.21 U	< 0.20 U	< 0.20 U	< 0.21 U
SW8081B	P,P'-DDT	NA	ug/L	0.2	< 0.20 U	< 0.20 U	< 0.23 U	< 0.20 U	< 0.21 U	< 0.22 U	< 0.21 U	< 0.20 U	< 0.20 U	< 0.21 U
SW8081B	TOXAPHENE	NA	ug/L	0.06	< 8.0 U	< 8.0 U	< 9.1 U	< 8.0 U	< 8.3 U	< 8.7 U	< 8.3 U	< 8.0 U	< 8.0 U	< 8.3 U
Polychlorinated Biphenyls (PCBs)															
SW8082A	PCB-1016 (AROCLOR 1016)	NA	ug/L		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.52 U	< 0.54 U	< 0.50 U	< 0.52 U	< 0.52 U	< 0.50 U
SW8082A	PCB-1221 (AROCLOR 1221)	NA	ug/L		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.52 U	< 0.54 U	< 0.50 U	< 0.52 U	< 0.52 U	< 0.50 U
SW8082A	PCB-1232 (AROCLOR 1232)	NA	ug/L		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.52 U	< 0.54 U	< 0.50 U	< 0.52 U	< 0.52 U	< 0.50 U
SW8082A	PCB-1242 (AROCLOR 1242)	NA	ug/L		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.52 U	< 0.54 U	< 0.50 U	< 0.52 U	< 0.52 U	< 0.50 U
SW8082A	PCB-1248 (AROCLOR 1248)	NA	ug/L		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.52 U	< 0.54 U	< 0.50 U	< 0.52 U	< 0.52 U	< 0.50 U
SW8082A	PCB-1254 (AROCLOR 1254)	NA	ug/L		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.52 U	< 0.54 U	< 0.50 U	< 0.52 U	< 0.52 U	< 0.50 U
SW8082A	PCB-1260 (AROCLOR 1260)	NA	ug/L		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.52 U	< 0.54 U	< 0.50 U	< 0.52 U	< 0.52 U	< 0.50 U
--	Total PCBs	NA	ug/L	0.09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals and Inorganics (Total [T] and Dissolved [D])															
SW6010D	ALUMINUM	T	ug/L		< 200 U	< 200 U	**7110**	**93.4 J**	< 200 U	**90.2 J**	**613**	**2220**	**13600**	**205**
SW6010D	ALUMINUM	D	ug/L		< 200 U	< 200 U	**3430**	< 200 U	< 200 U	**200**	< 200 U	< 200 U	< 200 U	< 200 U
SW6010D	ANTIMONY	T	ug/L	3	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U
SW6010D	ANTIMONY	D	ug/L	3	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U
SW6010D	ARSENIC	T	ug/L	**25**	< 15.0 U	< 15.0 U	**7.1 J**	< 15.0 U	< 15.0 U	**6.0 J**	< 15.0 U	< 15.0 U	**5.3 J**	**4.7 J**
SW6010D	ARSENIC	D	ug/L	**25**	< 15.0 U	< 15.0 U	**5.4 J**	**4.7 J**	**4.4 J**	**6.8 J**	**6.1 J**	< 15.0 U	< 15.0 U	**4.8 J**
SW6010D	BARIUM	T	ug/L	**1000**	**59.9 J**	**60.1 J**	**154 J**	**43.7 J**	**47.6 J**	**37.8 J**	**77.9 J**	**60.3 J**	**91.4 J**	**136 J**
SW6010D	BARIUM	D	ug/L	**1000**	**60.8 J**	**61.1 J**	**94.9 J**	**18.8 J**	**47.9 J**	**87.7 J**	**71.2 J**	**49.0 J**	**19.2 J**	**140 J**
SW6010D	BERYLLIUM	T	ug/L	3	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U

Table 5-1
2024 Groundwater Analytical Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

				Location	MW-02S	MW-02S	MW-02D	MW-03	MW-04S	MW-04D	MW05-01	MW05-02	MW05-03	MW05-04
				Sample Name	MW-02S-042924	MW-02S-042924-FD	MW-02D-043024	MW-03-042924	MW-04S-043024	MW-04D-043024	MW05-01-042924	MW05-02-043024	MW05-03-042924	MW05-04-042924
				Sample Date	4/29/2024	4/29/2024	4/30/2024	4/29/2024	4/30/2024	4/30/2024	4/29/2024	4/30/2024	4/29/2024	4/29/2024
				Approximate Well Depth Interval (ft bgs)	19 - 29	19 - 29	30.5 - 35.5	17.5 - 27.5	14 - 24	29 - 34	2.8 - 22.8	3 - 23	3 - 28	3 - 23
						Field Duplicate								
Method	**Analyte**	**Fraction**	**Unit**	**Criteria (1)**										
SW6010D	BERYLLIUM	D	ug/L	3	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
SW6010D	CADMIUM	T	ug/L	**5**	**0.84 J**	**0.87 J**	**4.0 J**	**1.0 J**	**3.3 J**	**0.85 J**	< 5.0 U	**0.95 J**	**0.86 J**	**0.70 J**
SW6010D	CADMIUM	D	ug/L	**5**	**1.1 J**	**0.83 J**	**2.7 J**	**0.95 J**	**3.0 J**	**2.0 J**	< 5.0 U	**0.88 J**	**0.80 J**	**0.70 J**
SW6010D	CALCIUM	T	ug/L		**74200**	**73200**	**72300**	**77500**	**73100**	**25600**	**105000**	**81700**	**283000**	**93000**
SW6010D	CALCIUM	D	ug/L		**74800**	**75200**	**50300**	**71200**	**73000**	**51300**	**104000**	**78900**	**277000**	**96700**
SW6010D	CHROMIUM, TOTAL	T	ug/L	**50**	**1.0 J**	**0.90 J**	**11.6**	**0.93 J**	**0.83 J**	**0.97 J**	**1.7 J**	**3.9 J**	**18.1**	**1.2 J**
SW6010D	CHROMIUM, TOTAL	D	ug/L	**50**	< 10.0 U	**1.1 J**	**5.8 J**	**1.1 J**	**0.83 J**	**1.2 J**	**1.0 J**	**1.3 J**	**1.0 J**	**13.4**
SW6010D	COBALT	T	ug/L		< 10.0 U	< 10.0 U	**3.1 J**	**0.86 J**	**5.9 J**	< 10.0 U	< 10.0 U	**1.9 J**	**8.0 J**	**3.8 J**
SW6010D	COBALT	D	ug/L		< 10.0 U	< 10.0 U	**1.2 J**	< 10.0 U	**5.5 J**	< 10.0 U	< 10.0 U	< 10.0 U	**1.0 J**	**4.1 J**
SW6010D	COPPER	T	ug/L	**200**	< 25.0 U	< 25.0 U	**11.1 J**	< 25.0 U	< 25.0 U	< 25.0 U	**7.4 J**	< 25.0 U	**10.7 J**	< 25.0 U
SW6010D	COPPER	D	ug/L	**200**	< 25.0 U	< 25.0 U	**5.7 J**	< 25.0 U	< 25.0 U	< 25.0 U	**5.6 J**	< 25.0 U	**3.8 J**	< 25.0 U
SW6010D	IRON	T	ug/L	**300**	**157 J**	**136 J**	**8510**	**180 J**	**117 J**	**193 J**	**711**	**2580**	**15300**	**383**
SW6010D	IRON	D	ug/L	**300**	< 200 U	< 200 U	**4010**	< 200 U	< 200 U	**531**	< 200 U	< 200 U	< 200 U	< 200 U
SW6010D	LEAD	T	ug/L	**25**	< 10.0 U	< 10.0 U	**5.6 J**	< 10.0 U	< 10.0 U	< 10.0 U	**7.6 J**	**3.3 J**	**6.9 J**	< 10.0 U
SW6010D	LEAD	D	ug/L	**25**	< 10.0 U	< 10.0 U	**5.0 J**	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U
SW6010D	MAGNESIUM	T	ug/L	**35000**	**145000**	**146000**	**21000**	**161000**	**155000**	**59400**	**29700**	**142000**	**109000**	**84200**
SW6010D	MAGNESIUM	D	ug/L	**35000**	**147000**	**149000**	**17800**	**175000**	**157000**	**59900**	**31700**	**141000**	**111000**	**94500**
SW6010D	MANGANESE	T	ug/L	**300**	**14.2 J**	**14.3 J**	**198**	**72.5**	**26.2**	**6.2 J**	**34.7**	**68**	**333**	**194**
SW6010D	MANGANESE	D	ug/L	**300**	**7.8 J**	**7.6 J**	**104**	**15.7**	**22.3**	**13.9 J**	**26**	**12.4 J**	**55.6**	**209**
SW7470A	MERCURY	T	mg/l	0.0007	< 0.00040 U	< 0.00040 U	< 0.00020 U	< 0.00040 U	< 0.00020 U	< 0.00020 U	< 0.00040 U	< 0.00020 U	< 0.00030 U	< 0.00040 U
SW7470A	MERCURY	D	mg/l	0.0007	< 0.00020 U	< 0.00020 U	< 0.00020 U	< 0.00020 U	< 0.00020 U	< 0.00020 U	< 0.00020 U	< 0.00020 U	< 0.00020 U	< 0.00020 U
SW6010D	NICKEL	T	ug/L	**100**	**2.8 J**	**2.7 J**	**20.2 J**	**4.4 J**	**19.8 J**	< 40.0 U	**3.6 J**	**4.4 J**	**20.1 J**	**8.5 J**
SW6010D	NICKEL	D	ug/L	**100**	< 40.0 U	**2.9 J**	**11.2 J**	**2.4 J**	**19.9 J**	**3.2 J**	**3.3 J**	< 40.0 U	**5.1 J**	**13.3 J**
SW6010D	POTASSIUM	T	ug/L		**3630 J**	**3530 J**	**6760**	**4090 J**	**4090 J**	**5340**	**2940 J**	**4410 J**	**8090**	**2920 J**
SW6010D	POTASSIUM	D	ug/L		**3630 J**	**3730 J**	**6240**	**4250 J**	**4160 J**	**5220**	**2670 J**	**3610 J**	**4120 J**	**3550 J**
SW6010D	SELENIUM	T	ug/L	10	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U
SW6010D	SELENIUM	D	ug/L	**10**	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	**7.0 J**	< 20.0 U
SW6010D	SILVER	T	ug/L	50	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U
SW6010D	SILVER	D	ug/L	**50**	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	**0.86 J**	**0.64 J**	< 10.0 U	**0.85 J**	< 10.0 U	< 10.0 U
SW6010D	SODIUM	T	ug/L	**20000**	**45900 J+**	**44500 J+**	**63600 J+**	**76800 J+**	**50300 J+**	**78600 J+**	**10400 J+**	**50800 J+**	**34000 J+**	**32200 J+**
SW6010D	SODIUM	D	ug/L	**20000**	**46000**	**45900**	**62600**	**85600**	**51500**	**76000**	**10900**	**50700**	**36700**	**36200**
SW6010D	THALLIUM	T	ug/L	0.5	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U
SW6010D	THALLIUM	D	ug/L	0.5	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U	< 20.0 U
SW6010D	VANADIUM	T	ug/L		< 50.0 U	< 50.0 U	**30.9 J**	< 50.0 U	< 50.0 U	< 50.0 U	< 50.0 U	**9.7 J**	< 50.0 U	< 50.0 U
SW6010D	VANADIUM	D	ug/L		< 50.0 U	< 50.0 U	**23.4 J**	< 50.0 U	**9.4 J**	< 50.0 U	< 50.0 U	**12.8 J**	< 50.0 U	< 50.0 U
SW6010D	ZINC	T	ug/L	**2000**	< 50.0 U	< 50.0 U	**46.3 J**	< 50.0 U	< 50.0 U	< 50.0 U	< 50.0 U	< 50.0 U	**43.4 J**	< 50.0 U
SW6010D	ZINC	D	ug/L	**2000**	< 50.0 U	< 50.0 U	**23.1 J**	< 50.0 U	< 50.0 U	< 50.0 U	< 50.0 U	< 50.0 U	< 50.0 U	< 50.0 U
SW9012B	CYANIDE	NA	mg/L	0.2	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 UJ
SW9012B	CYANIDE	D	mg/L	**0.2**	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U	**0.013 J+**	< 0.010 U	< 0.010 U
Per- and Polyfluoroalkyl Substances (PFAS)														
E1633	11-CHLOROEICOSAFLUORO-3-OXAUNDECANE-1-SULFONIC ACID	NA	ng/L		< 6.6 U	< 7.0 U	< 6.9 U	--	--	--	< 6.4 U	--	--	< 6.3 U
E1633	1H,1H,2H,2H-PERFLURODECANE SULFONIC ACID (8:2)	NA	ng/L		< 6.6 U	< 7.0 U	< 6.9 U	--	--	--	< 6.4 U	--	--	< 6.3 U
E1633	1H,1H,2H,2H-PERFLUOROHEXANE SULFONIC ACID (4:2)	NA	ng/L		< 6.6 U	< 7.0 U	< 6.9 U	--	--	--	< 6.4 U	--	--	< 6.3 U
E1633	1H,1H,2H,2H-PERFLUOROOCTANE SULFONIC ACID (6:2)	NA	ng/L		< 6.6 U	< 7.0 U	**12**	--	--	--	**2.9 J**	--	--	< 6.3 U
E1633	2-(N-ETHYL PERFLUORO-1-OCTANESULFONAMIDO)-ETHANOL	NA	ng/L		< 16 U	< 17 U	< 17 U	--	--	--	< 16 U	--	--	< 16 U
E1633	2-(N-METHYL PERFLUORO-1-OCTANESULFONAMIDO)-ETHANOL	NA	ng/L		< 16 U	< 17 U	< 17 U	--	--	--	< 16 U	--	--	< 16 U
E1633	2-(N-METHYL PERFLUOROOCTANESULFONAMIDO) ACETIC ACID	NA	ng/L		< 1.6 U	< 1.7 U	< 1.7 U	--	--	--	< 1.6 U	--	--	< 1.6 U
E1633	2H,2H,3H,3H-PERFLUOROOCTANOIC ACID	NA	ng/L		< 41 U	< 44 U	< 43 U	--	--	--	< 40 U	--	--	< 40 U
E1633	3-PERFLUOROHEPTYL PROPANOIC ACID	NA	ng/L		< 41 U	< 44 U	< 43 U	--	--	--	< 40 U	--	--	< 40 U
E1633	3-PERFLUOROPROPYL PROPANOIC ACID	NA	ng/L		< 8.2 U	< 8.7 U	< 8.6 U	--	--	--	< 8.0 U	--	--	< 7.9 U
E1633	4,8-DIOXA-3H-PERFLUORONONANOIC ACID (ADONA)	NA	ng/L		< 6.6 U	< 7.0 U	< 6.9 U	--	--	--	< 6.4 U	--	--	< 6.3 U
E1633	9-CHLOROHEXADECAFLUORO-3-OXANONANE-1-SULFONIC ACID	NA	ng/L		< 6.6 U	< 7.0 U	< 6.9 U	--	--	--	< 6.4 U	--	--	< 6.3 U
E1633	N-ETHYL PERFLUORO-1-OCTANESULFONAMIDE	NA	ng/L		< 1.6 U	< 1.7 U	< 1.7 U	--	--	--	< 1.6 U	--	--	< 1.6 U
E1633	N-ETHYL-N-((HEPTADECAFLUOROOCTYL)SULPHONYL) GLYCINE	NA	ng/L		< 1.6 U	< 1.7 U	< 1.7 U	--	--	--	< 1.6 U	--	--	< 1.6 U

Table 5-1
2024 Groundwater Analytical Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

				Location	MW-02S	MW-02S	MW-02D	MW-03	MW-04S	MW-04D	MW05-01	MW05-02	MW05-03	MW05-04
				Sample Name	MW-02S-042924	MW-02S-042924-FD	MW-02D-043024	MW-03-042924	MW-04S-043024	MW-04D-043024	MW05-01-042924	MW05-02-043024	MW05-03-042924	MW05-04-042924
				Sample Date	4/29/2024	4/29/2024	4/30/2024	4/29/2024	4/30/2024	4/30/2024	4/29/2024	4/30/2024	4/29/2024	4/29/2024
				Approximate Well Depth Interval (ft bgs)	19 - 29	19 - 29	30.5 - 35.5	17.5 - 27.5	14 - 24	29 - 34	2.8 - 22.8	3 - 23	3 - 28	3 - 23
						Field Duplicate								
Method	**Analyte**	**Fraction**	**Unit**	**Criteria (1)**										
E1633	N-METHYL PERFLUORO-1-OCTANESULFONAMIDE	NA	ng/L		< 1.6 U	< 1.7 U	< 1.7 U	--	--	--	< 1.6 U	--	--	< 1.6 U
E1633	NONAFLUORO-3,6-DIOXAHEPTANOIC ACID	NA	ng/L		< 3.3 U	< 3.5 U	< 3.4 U	--	--	--	< 3.2 U	--	--	< 3.2 U
E1633	PERFLUORO(2-ETHOXYETHANE)SULFONIC ACID	NA	ng/L		< 3.3 U	< 3.5 U	< 3.4 U	--	--	--	< 3.2 U	--	--	< 3.2 U
E1633	PERFLUORO(2-PROPOXYPROPANOIC) ACID	NA	ng/L		< 6.6 U	< 7.0 U	< 6.9 U	--	--	--	< 6.4 U	--	--	< 6.3 U
E1633	PERFLUORO-3-METHOXYPROPANOIC ACID	NA	ng/L		< 3.3 U	< 3.5 U	< 3.4 U	--	--	--	< 3.2 U	--	--	< 3.2 U
E1633	PERFLUORO-4-METHOXYBUTANOIC ACID	NA	ng/L		< 3.3 U	< 3.5 U	< 3.4 U	--	--	--	< 3.2 U	--	--	< 3.2 U
E1633	PERFLUOROBUTANESULFONIC ACID (PFBS)	NA	ng/L		< 1.6 U	< 1.7 U	< 1.7 U	--	--	--	**2.4**	--	--	**1.2 J**
E1633	PERFLUOROBUTANOIC ACID (PFBA)	NA	ng/L		< 6.6 U	< 7.0 U	**2.2 J**	--	--	--	**9.2**	--	--	< 17 U
E1633	PERFLUORODECANE SULFONIC ACID (PFDS)	NA	ng/L		< 1.6 U	< 1.7 U	< 1.7 U	--	--	--	< 1.6 U	--	--	< 1.6 U
E1633	PERFLUORODECANOIC ACID (PFDA)	NA	ng/L		< 1.6 U	< 1.7 U	**0.45 J**	--	--	--	< 1.6 U	--	--	< 1.6 U
E1633	PERFLUORODODECANESULFONIC ACID (PFDOS)	NA	ng/L		< 1.6 U	< 1.7 U	< 1.7 U	--	--	--	< 1.6 U	--	--	< 1.6 U
E1633	PERFLUORODODECANOIC ACID (PFDOA)	NA	ng/L		< 1.6 U	< 1.7 U	< 1.7 U	--	--	--	< 1.6 U	--	--	< 1.6 U
E1633	PERFLUOROHEPTANE SULFONATE (PFHPS)	NA	ng/L		< 1.6 U	< 1.7 U	< 1.7 U	--	--	--	< 1.6 U	--	--	< 1.6 U
E1633	PERFLUOROHEPTANOIC ACID (PFHPA)	NA	ng/L		< 1.6 U	< 1.7 U	**0.56 J**	--	--	--	**1.2 J**	--	--	**0.99 J**
E1633	PERFLUOROHEXANESULFONIC ACID (PFHXS)	NA	ng/L		< 1.6 U	< 1.7 U	< 1.7 U	--	--	--	**0.59 J**	--	--	< 1.6 U
E1633	PERFLUOROHEXANOIC ACID (PFHXA)	NA	ng/L		< 1.6 U	< 1.7 U	**0.74 J**	--	--	--	< 1.6 U	--	--	**1.9**
E1633	PERFLUORONONANESULFONIC ACID (PFNS)	NA	ng/L		< 1.6 U	< 1.7 U	< 1.7 U	--	--	--	< 1.6 U	--	--	< 1.6 U
E1633	PERFLUOROOCTANE SULFONAMIDE (PFOSA)	NA	ng/L		< 1.6 U	< 1.7 U	< 1.7 U	--	--	--	< 1.6 U	--	--	< 1.6 U
E1633	PERFLUOROOCTANESULFONIC ACID (PFOS)	NA	ng/L	**2.7**	< 1.6 U	**0.58 J**	**2.2**	--	--	--	**3.4**	--	--	**0.73 J**
E1633	PERFLUOROOCTANOIC ACID (PFOA)	NA	ng/L	**6.7**	**0.92 J**	**1.0 J**	**1.8**	--	--	--	**3.7**	--	--	**4**
E1633	PERFLUOROPENTANESULFONIC ACID (PFPES)	NA	ng/L		< 1.6 U	< 1.7 U	< 1.7 U	--	--	--	< 1.6 U	--	--	< 1.6 U
E1633	PERFLUOROPENTANOIC ACID (PFPEA)	NA	ng/L		< 3.3 U	< 3.5 U	< 3.4 U	--	--	--	**2.5 JN**	--	--	< 3.2 U
E1633	PERFLUOROTETRADECANOIC ACID (PFTA)	NA	ng/L		< 1.6 U	< 1.7 U	< 1.7 U	--	--	--	< 1.6 U	--	--	< 1.6 U
E1633	PERFLUOROTRIDECANOIC ACID (PFTRIA)	NA	ng/L		< 1.6 U	< 1.7 U	< 1.7 U	--	--	--	< 1.6 U	--	--	< 1.6 U
E1633	PERFLUOROUNDECANOIC ACID (PFUNA)	NA	ng/L		< 1.6 U	< 1.7 U	< 1.7 U	--	--	--	< 1.6 U	--	--	< 1.6 U
E1633	PERFLUORONONANOIC ACID (PFNA)	NA	ng/L		< 1.6 U	< 1.7 U	**0.65 J**	--	--	--	**3.2**	--	--	< 1.6 U

Notes:

Criteria = NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes addendums through 2/2023).

(1) - Class GA, Protection for Source of Drinking Water (groundwater)

Definitions:

ft bgs - feet below ground surface

ug/L - micrograms per liter

mg/L - milligrams per liter

ng/L - nanograms per liter

"--" - Not analyzed

ND - Non-detect

NA - Not applicable

J - Reported concentration is an estimated value.

J+ - Reported concentration is an estimated value, and may be biased high.

JN - Reported concentration is an estimated value, that has been "tentatively identified".

U - Analyte was analyzed for but was not detected above the reported limit.

UJ - Analyte was analyzed for but was not detected above the reported limit, but the reported limit is approximate.

Bold Analyte was detected

Highlight Detected concentration exceeds Criteria (1)

Table 5-2
2024 Surface Water Analytical Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

					Location	SW-01-1	SW-01-2	SW-01-2	SW-01-3
					Sample Name	SW-01-1-20240603	SW-01-2-20240603	SW-01-2-FD-20240603	SW-01-3-20240603
					Sample Date	6/3/2024	6/3/2024	6/3/2024	6/3/2024
					Sample Depth (ft bws)	1	7	7	13
Method	Analyte	Fraction	Unit	Criteria (1)	Criteria (2)			Field Duplicate	
Volatile Organic Compounds (VOCs)									
SW8260C	1,1,1-TRICHLOROETHANE (TCA)	NA	ug/L	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	1,1,2,2-TETRACHLOROETHANE	NA	ug/L	5	0.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	NA	ug/L	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	1,1,2-TRICHLOROETHANE	NA	ug/L	1	1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	1,1-DICHLOROETHANE	NA	ug/L	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	1,1-DICHLOROETHENE	NA	ug/L	5	0.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	1,2,4-TRICHLOROBENZENE	NA	ug/L	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	1,2-DIBROMO-3-CHLOROPROPANE	NA	ug/L	0.04	0.04	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	NA	ug/L	0.0006	0.0006	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	1,2-DICHLOROBENZENE	NA	ug/L	3	3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	1,2-DICHLOROETHANE	NA	ug/L	0.6	0.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	1,2-DICHLOROPROPANE	NA	ug/L	1	1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	1,3-DICHLOROBENZENE	NA	ug/L	3	3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	1,4-DICHLOROBENZENE	NA	ug/L	3	3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	2-HEXANONE	NA	ug/L	50	50	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
SW8260C	ACETONE	NA	ug/L	**50**	**50**	< 10 U	< 10 U	< 10 U	**3.2 J**
SW8260C	BENZENE	NA	ug/L	**1**	**1**	< 1.0 U	< 1.0 U	< 1.0 U	**0.69 J**
SW8260C	BROMODICHLOROMETHANE	NA	ug/L	50	50	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	BROMOFORM	NA	ug/L	50	50	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	BROMOMETHANE	NA	ug/L	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	CARBON DISULFIDE	NA	ug/L	60	60	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	CARBON TETRACHLORIDE	NA	ug/L	5	0.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	CHLOROBENZENE	NA	ug/L	**5**	**5**	< 1.0 U	< 1.0 U	< 1.0 U	**1.6**
SW8260C	CHLOROETHANE	NA	ug/L	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	CHLOROFORM	NA	ug/L	7	7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	CHLOROMETHANE	NA	ug/L	5	5	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ
SW8260C	CIS-1,2-DICHLOROETHYLENE	NA	ug/L	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	CIS-1,3-DICHLOROPROPENE	NA	ug/L	0.4	0.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	CYCLOHEXANE	NA	ug/L			< 1.0 U	< 1.0 U	< 1.0 U	**1.6**
SW8260C	DIBROMOCHLOROMETHANE	NA	ug/L	50	50	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	DICHLORODIFLUOROMETHANE	NA	ug/L	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	ETHYLBENZENE	NA	ug/L	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	ISOPROPYLBENZENE (CUMENE)	NA	ug/L	5	2.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	METHYL ACETATE	NA	ug/L			< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U
SW8260C	METHYL ETHYL KETONE (2-BUTANONE)	NA	ug/L	50	50	< 10 U	< 10 U	< 10 U	< 10 U
SW8260C	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	NA	ug/L			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
SW8260C	METHYLCYCLOHEXANE	NA	ug/L			< 1.0 U	< 1.0 U	< 1.0 U	**1.4**
SW8260C	METHYLENE CHLORIDE	NA	ug/L	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	STYRENE	NA	ug/L	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	TERT-BUTYL METHYL ETHER	NA	ug/L	10	10	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	TETRACHLOROETHYLENE (PCE)	NA	ug/L	5	0.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	TOLUENE	NA	ug/L	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U

Table 5-2
2024 Surface Water Analytical Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

					Location	SW-01-1	SW-01-2	SW-01-2	SW-01-3
					Sample Name	SW-01-1-20240603	SW-01-2-20240603	SW-01-2-FD-20240603	SW-01-3-20240603
					Sample Date	6/3/2024	6/3/2024	6/3/2024	6/3/2024
					Sample Depth (ft bws)	1	7	7	13
								Field Duplicate	
Method	Analyte	Fraction	Unit	Criteria (1)	Criteria (2)				
SW8260C	TRANS-1,2-DICHLOROETHENE	NA	ug/L	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	TRANS-1,3-DICHLOROPROPENE	NA	ug/L	0.4	0.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	TRICHLOROETHYLENE (TCE)	NA	ug/L	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	TRICHLOROFLUOROMETHANE	NA	ug/L	5	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	VINYL CHLORIDE	NA	ug/L	2	0.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
SW8260C	XYLENES	NA	ug/L	5	5	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Semi Volatile Organic Compounds (SVOCs)									
SW8270D	2,4,5-TRICHLOROPHENOL	NA	ug/L	1	1	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	2,4,6-TRICHLOROPHENOL	NA	ug/L	1	1	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	2,4-DICHLOROPHENOL	NA	ug/L	1	0.3	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	2,4-DIMETHYLPHENOL	NA	ug/L	1	1	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	2,4-DINITROPHENOL	NA	ug/L	1	1	< 10 U	< 10 U	< 10 U	< 10 U
SW8270D	2,4-DINITROTOLUENE	NA	ug/L	5	5	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	2,6-DINITROTOLUENE	NA	ug/L	5	0.07	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	2-CHLORONAPHTHALENE	NA	ug/L	10	10	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	2-CHLOROPHENOL	NA	ug/L	1	1	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	2-METHYLNAPHTHALENE	NA	ug/L		**4.7**	< 5.0 U	< 5.2 U	< 5.0 U	**1.3 J**
SW8270D	2-METHYLPHENOL (O-CRESOL)	NA	ug/L	1	1	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	2-NITROANILINE	NA	ug/L	5	5	< 10 U	< 10 U	< 10 U	< 10 U
SW8270D	2-NITROPHENOL	NA	ug/L	1	1	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	3,3'-DICHLOROBENZIDINE	NA	ug/L	5	5	< 5.0 U	< 5.2 UJ	< 5.0 UJ	< 5.0 U
SW8270D	3-NITROANILINE	NA	ug/L	5	5	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
SW8270D	4,6-DINITRO-2-METHYLPHENOL	NA	ug/L	1	1	< 10 U	< 10 U	< 10 U	< 10 U
SW8270D	4-BROMOPHENYL PHENYL ETHER	NA	ug/L			< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	4-CHLORO-3-METHYLPHENOL	NA	ug/L	1	1	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	4-CHLOROANILINE	NA	ug/L	5	5	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	4-CHLOROPHENYL PHENYL ETHER	NA	ug/L			< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	4-METHYLPHENOL (P-CRESOL)	NA	ug/L	**1**	**1**	< 10 U	< 10 U	< 10 U	**0.78 J**
SW8270D	4-NITROANILINE	NA	ug/L	5	5	< 10 U	< 10 U	< 10 U	< 10 U
SW8270D	4-NITROPHENOL	NA	ug/L	1	1	< 10 U	< 10 U	< 10 U	< 10 U
SW8270D	ACENAPHTHENE	NA	ug/L	**20**	**5.3**	< 5.0 U	< 5.2 U	< 5.0 U	**0.54 J**
SW8270D	ACENAPHTHYLENE	NA	ug/L			< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	ACETOPHENONE	NA	ug/L			< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	ANTHRACENE	NA	ug/L	50	3.8	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	ATRAZINE	NA	ug/L	7.5	3	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	BENZALDEHYDE	NA	ug/L			< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	BENZO(A)ANTHRACENE	NA	ug/L	0.002	0.002	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	BENZO(A)PYRENE	NA	ug/L	ND	0.0012	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	BENZO(B)FLUORANTHENE	NA	ug/L	0.002	0.002	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	BENZO(G,H,I)PERYLENE	NA	ug/L			< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	BENZO(K)FLUORANTHENE	NA	ug/L	0.002	0.002	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	BENZYL BUTYL PHTHALATE	NA	ug/L	50	50	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	BIPHENYL (DIPHENYL)	NA	ug/L	5	5	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U

Table 5-2
2024 Surface Water Analytical Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

					Location	SW-01-1	SW-01-2	SW-01-2	SW-01-3
					Sample Name	SW-01-1-20240603	SW-01-2-20240603	SW-01-2-FD-20240603	SW-01-3-20240603
					Sample Date	6/3/2024	6/3/2024	6/3/2024	6/3/2024
					Sample Depth (ft bws)	1	7	7	13
Method	Analyte	Fraction	Unit	Criteria				Field Duplicate	
				(1)	(2)				
SW8270D	BIS(2-CHLOROETHOXY) METHANE	NA	ug/L	5	5	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	BIS(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER)	NA	ug/L	1	0.03	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	BIS(2-CHLOROISOPROPYL) ETHER	NA	ug/L	5	5	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	BIS(2-ETHYLHEXYL) PHTHALATE	NA	ug/L	5	0.6	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	CAPROLACTAM	NA	ug/L			< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	CARBAZOLE	NA	ug/L			< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	CHRYSENE	NA	ug/L	0.002	0.002	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	DIBENZ(A,H)ANTHRACENE	NA	ug/L			< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	DIBENZOFURAN	NA	ug/L			< 10 U	< 10 U	< 10 U	< 10 U
SW8270D	DIETHYL PHTHALATE	NA	ug/L	50	50	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	DIMETHYL PHTHALATE	NA	ug/L	50	50	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	DI-N-BUTYL PHTHALATE	NA	ug/L	50	50	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	DI-N-OCTYLPHTHALATE	NA	ug/L	50	50	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	FLUORANTHENE	NA	ug/L	50	50	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	FLUORENE	NA	ug/L	**50**	**0.54**	< 5.0 U	< 5.2 U	< 5.0 U	**0.48 J**
SW8270D	HEXACHLOROBENZENE	NA	ug/L	0.04	0.00003	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	HEXACHLOROBUTADIENE	NA	ug/L	0.5	0.5	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	HEXACHLOROCYCLOPENTADIENE	NA	ug/L	5	0.45	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	HEXACHLOROETHANE	NA	ug/L	5	0.6	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	INDENO(1,2,3-C,D)PYRENE	NA	ug/L	0.002	0.002	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	ISOPHORONE	NA	ug/L	50	50	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	NAPHTHALENE	NA	ug/L	10	10	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	NITROBENZENE	NA	ug/L	0.4	0.4	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	N-NITROSODI-N-PROPYLAMINE	NA	ug/L			< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	N-NITROSODIPHENYLAMINE	NA	ug/L	50	50	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270D	PENTACHLOROPHENOL	NA	ug/L	1	1	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
SW8270D	PHENANTHRENE	NA	ug/L	**50**	**5.0**	< 5.0 U	< 5.2 U	< 5.0 U	**0.59 J**
SW8270D	PHENOL	NA	ug/L	**1**	**1**	< 5.0 U	< 5.2 U	< 5.0 U	**0.55 J**
SW8270D	PYRENE	NA	ug/L	50	4.6	< 5.0 U	< 5.2 U	< 5.0 U	< 5.0 U
SW8270DSIM	1,4-DIOXANE (P-DIOXANE)	NA	ug/L	0.35	0.35	--	< 0.20 U	< 0.20 U	--
Pesticides									
SW8081B	ALDRIN	NA	ug/L	ND	0.002	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
SW8081B	ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	NA	ug/L	0.01	0.002	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
SW8081B	ALPHA ENDOSULFAN	NA	ug/L			< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
SW8081B	ALPHA-CHLORDANE	NA	ug/L			< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
SW8081B	BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	NA	ug/L	0.04	0.007	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
SW8081B	BETA ENDOSULFAN	NA	ug/L			< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
SW8081B	BETA-CHLORDANE	NA	ug/L			< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
SW8081B	DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	NA	ug/L	**0.04**	**0.008**	< 0.050 U	**0.014 J**	< 0.050 U	< 0.050 U
SW8081B	DIELDRIN	NA	ug/L	0.004	6E-07	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
SW8081B	ENDOSULFAN SULFATE	NA	ug/L			< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
SW8081B	ENDRIN	NA	ug/L	ND	0.002	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
SW8081B	ENDRIN ALDEHYDE	NA	ug/L	**5**	**5**	**0.028 J**	< 0.050 U	< 0.050 U	< 0.050 U

Table 5-2
2024 Surface Water Analytical Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

					Location	SW-01-1	SW-01-2	SW-01-2	SW-01-3
					Sample Name	SW-01-1-20240603	SW-01-2-20240603	SW-01-2-FD-20240603	SW-01-3-20240603
					Sample Date	6/3/2024	6/3/2024	6/3/2024	6/3/2024
					Sample Depth (ft bws)	1	7	7	13
								Field Duplicate	
Method	Analyte	Fraction	Unit	Criteria (1)	Criteria (2)				
SW8081B	ENDRIN KETONE	NA	ug/L	**5**	**5**	< 0.050 U	**0.019 J**	< 0.050 U	< 0.050 U
SW8081B	GAMMA BHC (LINDANE, GAMMA HEXACHLOROCYCLOHEXANE)	NA	ug/L	0.05	0.008	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
SW8081B	HEPTACHLOR	NA	ug/L	0.04	0.0002	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
SW8081B	HEPTACHLOR EPOXIDE	NA	ug/L	0.03	0.0003	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
SW8081B	METHOXYCHLOR	NA	ug/L	**35**	**0.03**	< 0.050 U	**0.050 NJ**	< 0.050 U	**0.078 J**
SW8081B	P,P'-DDD	NA	ug/L	**0.3**	**0.00008**	**0.021 J**	< 0.050 U	**0.018 J**	**0.011 J**
SW8081B	P,P'-DDE	NA	ug/L	0.2	0.000007	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
SW8081B	P,P'-DDT	NA	ug/L	**0.2**	**0.00001**	< 0.050 U	**0.033 J**	**0.032 J**	< 0.050 U
SW8081B	TOXAPHENE	NA	ug/L	0.06	0.000006	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
Polychlorinated Biphenyls (PCBs)									
SW8082A	PCB-1016 (AROCLOR 1016)	NA	ug/L			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
SW8082A	PCB-1221 (AROCLOR 1221)	NA	ug/L			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
SW8082A	PCB-1232 (AROCLOR 1232)	NA	ug/L			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
SW8082A	PCB-1242 (AROCLOR 1242)	NA	ug/L			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
SW8082A	PCB-1248 (AROCLOR 1248)	NA	ug/L			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
SW8082A	PCB-1254 (AROCLOR 1254)	NA	ug/L			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
SW8082A	PCB-1260 (AROCLOR 1260)	NA	ug/L			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
--	Total PCBs	NA	ug/L	0.09	0.000001	ND	ND	ND	ND
Metals and Inorganics (Total [T] and Dissolved [D])									
SW6010C	ALUMINUM	T	ug/L		100	< 200 U	< 200 U	< 200 U	< 200 U
SW6010C	ALUMINUM	D	ug/L		100	< 200 U	< 200 U	< 200 U	< 200 U
SW6010C	ANTIMONY	T	ug/L	3	3	< 20 U	< 20 U	< 20 U	< 20 U
SW6010C	ANTIMONY	D	ug/L	3	3	< 20 U	< 20 U	< 20 U	< 20 U
SW6010C	ARSENIC	T	ug/L	25	50	< 15 U	< 15 U	< 15 U	< 15 U
SW6010C	ARSENIC	D	ug/L	25	150	< 15 U	< 15 U	< 15 U	< 15 U
SW6010C	BARIUM	T	ug/L	**1000**	**1000**	**26**	**27**	**24**	**61**
SW6010C	BARIUM	D	ug/L	**1000**	**1000**	**20**	**26**	**46**	**27**
SW6010C	BERYLLIUM	T	ug/L	3	3	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
SW6010C	BERYLLIUM	D	ug/L	3	3	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
SW6010C	CADMIUM	T	ug/L	5	5	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
SW6010C	CADMIUM	D	ug/L	5	5	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
SW6010C	CALCIUM	T	ug/L			**51100**	**52900**	**46300**	**52100**
SW6010C	CALCIUM	D	ug/L			**4600**	**50700**	**56000**	**52600**
SW6010C	CHROMIUM, TOTAL	T	ug/L	50	50	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U
SW6010C	CHROMIUM, TOTAL	D	ug/L	50	50	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U
SW6010C	COBALT	T	ug/L		5	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U
SW6010C	COBALT	D	ug/L		**5**	**1.4**	**0.83 J**	< 4.0 U	**0.65 J**
SW6010C	COPPER	T	ug/L	200	200	< 10 U	< 10 U	< 10 U	< 10 U
SW6010C	COPPER	D	ug/L	**200**	**200**	**91**	< 10 U	< 10 U	**1.8**
SW6010C	IRON	T	ug/L	**300**	**300**	**93**	**130 J**	**83 J**	**260**
SW6010C	IRON	D	ug/L	**300**	**300**	< 50 U	**52**	**64**	**66**
SW6010C	LEAD	T	ug/L	25	50	< 10 U	< 10 U	< 10 U	< 10 U
SW6010C	LEAD	D	ug/L	25	50	< 10 U	< 10 U	< 10 U	< 10 U

Table 5-2
2024 Surface Water Analytical Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

					Location	SW-01-1	SW-01-2	SW-01-2	SW-01-3
					Sample Name	SW-01-1-20240603	SW-01-2-20240603	SW-01-2-FD-20240603	SW-01-3-20240603
					Sample Date	6/3/2024	6/3/2024	6/3/2024	6/3/2024
					Sample Depth (ft bws)	1	7	7	13
Method	Analyte	Fraction	Unit	Criteria				Field Duplicate	
				(1)	(2)				
SW6010C	MAGNESIUM	T	ug/L	**35000**	**35000**	**10000**	**10300**	**9000**	**9800**
SW6010C	MAGNESIUM	D	ug/L	**35000**	**35000**	**4300**	**10300**	**11100**	**10600**
SW6010C	MANGANESE	T	ug/L	**300**	**300**	**18**	**29 J**	**18 J**	**1700**
SW6010C	MANGANESE	D	ug/L	**300**	**300**	**29**	< 3.0 U	**680**	**1.8 J**
SW7470A	MERCURY	T	ug/L	0.7	0.7	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
SW7470A	MERCURY	D	ug/L	0.7	0.7	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
SW6010C	NICKEL	T	ug/L	**100**	**100**	**1.3 J**	**2.1 J**	< 10 U	< 10 U
SW6010C	NICKEL	D	ug/L	**100**	**100**	**3.8 J**	< 10 U	< 10 U	< 10 U
SW6010C	POTASSIUM	T	ug/L			**2300**	**2400**	**2100**	**2500**
SW6010C	POTASSIUM	D	ug/L			**900**	**2300**	**2600**	**2400**
SW6010C	SELENIUM	T	ug/L	10	10	< 25 U	< 25 U	< 25 U	< 25 U
SW6010C	SELENIUM	D	ug/L	10	4.6	< 25 U	< 25 U	< 25 U	< 25 U
SW6010C	SILVER	T	ug/L	50	50	< 6.0 U	< 6.0 U	< 6.0 U	< 6.0 U
SW6010C	SILVER	D	ug/L	50	50	< 6.0 U	< 6.0 U	< 6.0 U	< 6.0 U
SW6010C	SODIUM	T	ug/L	**20000**		**7500**	**7800**	**7100**	**7900**
SW6010C	SODIUM	D	ug/L	**20000**		**1400**	**7500**	**8400**	**7900**
SW6010C	THALLIUM	T	ug/L	0.5	0.5	< 20 U	< 20 U	< 20 U	< 20 U
SW6010C	THALLIUM	D	ug/L	0.5	0.5	< 20 U	< 20 U	< 20 U	< 20 U
SW6010C	VANADIUM	T	ug/L		14	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
SW6010C	VANADIUM	D	ug/L		14	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
SW6010C	ZINC	T	ug/L	**2000**	**2000**	< 10 U	< 10 U	< 10 U	**2.8 J**
SW6010C	ZINC	D	ug/L	**2000**	**2000**	**190**	< 10 U	< 10 U	< 10 U
SW9012B	CYANIDE	T	mg/L	0.2	0.2	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U
SW9012B	CYANIDE	D	mg/L	0.2	0.2	< 0.010 U	< 0.010 U	< 0.010 U	< 0.010 U
Per- and Polyfluoroalkyl Substances (PFAS)									
E1633	11-CHLOROEICOSAFLUORO-3-OXAUNDECANE-1-SULFONIC ACID	NA	ng/L			--	< 6.7 U	< 5.9 U	--
E1633	1H,1H,2H,2H-PERFLUORODECANE SULFONIC ACID (8:2)	NA	ng/L			--	< 6.7 U	**5.3 J**	--
E1633	1H,1H,2H,2H-PERFLUOROHEXANE SULFONIC ACID (4:2)	NA	ng/L			--	< 6.7 U	< 5.9 U	--
E1633	1H,1H,2H,2H-PERFLUOROOCTANE SULFONIC ACID (6:2)	NA	ng/L			--	< 6.7 U	**1.8 J**	--
E1633	2-(N-ETHYL PERFLUORO-1-OCTANESULFONAMIDO)-ETHANOL	NA	ng/L			--	< 17 U	< 15 U	--
E1633	2-(N-METHYL PERFLUORO-1-OCTANESULFONAMIDO)-ETHANOL	NA	ng/L			--	< 17 U	< 15 U	--
E1633	2-(N-METHYL PERFLUOROOCTANESULFONAMIDO) ACETIC ACID	NA	ng/L			--	< 1.7 U	< 1.5 U	--
E1633	2H,2H,3H,3H-PERFLUOROOCTANOIC ACID	NA	ng/L			--	< 42 U	< 37 U	--
E1633	3-PERFLUOROHEPTYL PROPANOIC ACID	NA	ng/L			--	< 42 U	< 37 U	--
E1633	3-PERFLUOROPROPYL PROPANOIC ACID	NA	ng/L			--	< 8.3 U	< 7.4 U	--
E1633	4,8-DIOXA-3H-PERFLUORONONANOIC ACID (ADONA)	NA	ng/L			--	< 6.7 U	< 5.9 U	--
E1633	9-CHLOROHEXADECAFLUORO-3-OXANONANE-1-SULFONIC ACID	NA	ng/L			--	< 6.7 U	< 5.9 U	--
E1633	N-ETHYL PERFLUORO-1-OCTANESULFONAMIDE	NA	ng/L			--	< 1.7 U	< 1.5 U	--
E1633	N-ETHYL-N-((HEPTADECAFLUOROOCTYL)SULPHONYL) GLYCINE	NA	ng/L			--	< 1.7 U	< 1.5 U	--
E1633	N-METHYL PERFLUORO-1-OCTANESULFONAMIDE	NA	ng/L			--	< 1.7 U	< 1.5 U	--
E1633	NONAFLUORO-3,6-DIOXAHEPTANOIC ACID	NA	ng/L			--	< 3.3 U	< 2.9 U	--
E1633	PERFLUORO(2-ETHOXYETHANE)SULFONIC ACID	NA	ng/L			--	< 3.3 U	< 2.9 U	--
E1633	PERFLUORO(2-PROPOXYPROPANOIC) ACID	NA	ng/L			--	< 6.7 U	< 5.9 U	--

Table 5-2
2024 Surface Water Analytical Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

					Location	SW-01-1	SW-01-2	SW-01-2	SW-01-3
					Sample Name	SW-01-1-20240603	SW-01-2-20240603	SW-01-2-FD-20240603	SW-01-3-20240603
					Sample Date	6/3/2024	6/3/2024	6/3/2024	6/3/2024
					Sample Depth (ft bws)	1	7	7	13
								Field Duplicate	
Method	Analyte	Fraction	Unit	Criteria (1)	Criteria (2)				
E1633	PERFLUORO-3-METHOXYPROPANOIC ACID	NA	ng/L			--	< 3.3 U	< 2.9 U	--
E1633	PERFLUORO-4-METHOXYBUTANOIC ACID	NA	ng/L			--	< 3.3 U	< 2.9 U	--
E1633	PERFLUOROBUTANESULFONIC ACID (PFBS)	NA	ng/L			--	**2.1**	**2.2**	--
E1633	PERFLUOROBUTANOIC ACID (PFBA)	NA	ng/L			--	**6.0 J**	**5.8 J**	--
E1633	PERFLUORODECANE SULFONIC ACID (PFDS)	NA	ng/L			--	< 1.7 U	< 1.5 U	--
E1633	PERFLUORODECANOIC ACID (PFDA)	NA	ng/L			--	< 1.7 U	**0.48 J**	--
E1633	PERFLUORODODECANESULFONIC ACID (PFDOS)	NA	ng/L			--	< 1.7 U	< 1.5 U	--
E1633	PERFLUORODODECANOIC ACID (PFDOA)	NA	ng/L			--	< 1.7 U	< 1.5 U	--
E1633	PERFLUOROHEPTANE SULFONATE (PFHPS)	NA	ng/L			--	< 1.7 U	< 1.5 U	--
E1633	PERFLUOROHEPTANOIC ACID (PFHPA)	NA	ng/L			--	**1.3 J**	**1.3 J**	--
E1633	PERFLUOROHEXANESULFONIC ACID (PFHXS)	NA	ng/L			--	**0.75 JN**	**0.63 J**	--
E1633	PERFLUOROHEXANOIC ACID (PFHXA)	NA	ng/L			--	**1.9**	**1.7**	--
E1633	PERFLUORONONANESULFONIC ACID (PFNS)	NA	ng/L			--	< 1.7 U	< 1.5 U	--
E1633	PERFLUOROOCTANE SULFONAMIDE (PFOSA)	NA	ng/L			--	< 1.7 U	< 1.5 U	--
E1633	PERFLUOROOCTANESULFONIC ACID (PFOS)	NA	ng/L	**2.7**	**2.7**	--	**2.4**	**2.9**	--
E1633	PERFLUOROOCTANOIC ACID (PFOA)	NA	ng/L	**6.7**	**6.7**	--	**8.3**	**8.0**	--
E1633	PERFLUOROPENTANESULFONIC ACID (PFPES)	NA	ng/L			--	< 1.7 U	< 1.5 U	--
E1633	PERFLUOROPENTANOIC ACID (PFPEA)	NA	ng/L			--	< 3.3 U	< 2.9 U	--
E1633	PERFLUOROTETRADECANOIC ACID (PFTA)	NA	ng/L			--	< 1.7 U	< 1.5 U	--
E1633	PERFLUOROTRIDECANOIC ACID (PFTRIA)	NA	ng/L			--	< 1.7 U	< 1.5 U	--
E1633	PERFLUOROUNDECANOIC ACID (PFUNA)	NA	ng/L			--	< 1.7 U	< 1.5 U	--
E1633	PERFLUORONONANOIC ACID (PFNA)	NA	ng/L			--	**18 JN**	**19 JN**	--
Waste Characterization Parameters									
D240	PARR HV BTU	NA	btu/lb			DNF	DNF	--	DNF
E1664B	SGT HEM (OIL AND GREASE - NONPOLAR)	NA	mg/L			< 5 U	< 4.8 U	--	< 4.8 U
SW1010	FLASH POINT	NA	deg F			**>175**	**>175**	--	**>175**
SW8015D	ETHYLENE GLYCOL	NA	mg/L			< 10 U	< 10 U	--	< 10 U
SW9012	REACTIVE CYANIDE	NA	mg/L			< 10 U	< 10 U	--	< 10 U
SW9034	SULFIDE REACTIVE	NA	mg/L			< 10 U	< 10 U	--	< 10 U
SW9045D	PH	NA	SU			**8.28**	**8.25**	--	**7.95**
SW9045D	TEMPERATURE	NA	deg C			**19.9**	**19.9**	--	**19.7**

Notes:

Criteria = NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes addendums through 2/2023).

(1) - Class GA, Protection for Source of Drinking Water (groundwater)

(2) - Class A, Protection for Surface Water. Lowest value of Source of Drinking Water (surface water), Human Consumption of Fish (fresh waters), Fish Propagation

Definitions:

ft bws - feet below water surface

ug/L - micrograms per liter

mg/L - milligrams per liter

ng/L - nanograms per liter

"--" - Not analyzed

NA - Not applicable

btu/lb - BTU per pound

deg F - degrees Fahrenheit

SU - standard units

deg C - degrees Celsius

DNF - When prepped for Heat of Combustion/BTU analysis, the sample did not combust. The sample was run in duplicate to confirm. The result is reported as "Did Not Fire" (DNF).

J - Reported concentration is an estimated value.

JN - Reported concentration is an estimated value, that has been "tentatively identified".

U - Analyte was analyzed for but was not detected above the reported limit.

UJ - Analyte was analyzed for but was not detected above the reported limit, but the reported limit is approximate.

Bold	Analyte was detected
Highlight	Detected concentration exceeds Criteria (1)
Highlight	Detected concentration exceeds Criteria (2)

Table 5-3
2024 Sediment Analytical Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

					Location	SED-01	SED-02	SED-03	SED-04	SED-05	SED-06	SED-07	SED-08	SED-08	SED-09	SED-10	SED-11	SED-11
					Sample Name	SED-01-20240603	SED-02-20240603	SED-03-20240603	SED-04-20240603	SED-05-20240603	SED-06-20240604	SED-07-20240604	SED-08-20240604	SED-08-FD-20240604	SED-09-20240604	SED-10-20240604	SED-11-20240604	SED-11-FD-20240604
					Sample Date	6/3/2024	6/3/2024	6/3/2024	6/3/2024	6/3/2024	6/4/2024	6/4/2024	6/4/2024	6/4/2024	6/4/2024	6/4/2024	6/4/2024	6/4/2024
					Sample Depth Interval (ft bws)	11.1-13.3	17-19.8	17.1-17.9	17.8-20.8	16.8-18.3	19-21.7	13.2-14	15-17.4	15-17.4	16.6-17.4	15.9-17.6	16-17.7	16-17.7
					Sediment Consistency	Medium Stiff / Hard	Soft	Medium Stiff / Hard	Medium Stiff / Hard	Soft	Medium Stiff / Hard	Medium Stiff / Hard	Soft	Soft	Medium Stiff / Hard	Medium Stiff / Hard	Soft	Soft
Method	Analyte	Unit	Criteria											Field Duplicate				Field Duplicate
			(1)	(2)	(3)													
Volatile Organic Compounds (VOCs)																		
SW8260C	1,1,1-TRICHLOROETHANE (TCA)	mg/kg	0.68	1000	0.68	< 8 U	< 7.9 U	< 3.6 U	< 14 U	< 7 U	< 5.9 U	< 1.1 U	< 4.1 U	< 4.6 U	< 5 U	< 3.5 U	< 6.1 U	< 6.9 U
SW8260C	1,1,2,2-TETRACHLOROETHANE	mg/kg	0.6		0.6	< 8 U	< 7.9 U	< 3.6 U	< 14 U	< 7 U	< 5.9 U	< 1.1 U	< 4.1 U	< 4.6 U	< 5 U	< 3.5 U	< 6.1 U	< 6.9 U
SW8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	mg/kg	6		6	< 8 U	< 7.9 U	< 3.6 U	< 14 U	< 7 U	< 5.9 U	< 1.1 U	< 4.1 U	< 4.6 U	< 5 U	< 3.5 U	< 6.1 U	< 6.9 U
SW8260C	1,1,2-TRICHLOROETHANE	mg/kg				< 8 U	< 7.9 U	< 3.6 U	< 14 U	< 7 U	< 5.9 U	< 1.1 U	< 4.1 U	< 4.6 U	< 5 U	< 3.5 U	< 6.1 U	< 6.9 U
SW8260C	1,1-DICHLOROETHANE	mg/kg	0.27	480	0.27	< 8 U	< 7.9 U	< 3.6 U	< 14 U	< 7 U	< 5.9 U	< 1.1 U	< 4.1 U	< 4.6 U	< 5 U	< 3.5 U	< 6.1 U	< 6.9 U
SW8260C	1,1-DICHLOROETHENE	mg/kg	0.33	1000	0.33	< 8 U	< 7.9 U	< 3.6 U	< 14 U	< 7 U	< 5.9 U	< 1.1 U	< 4.1 U	< 4.6 U	< 5 U	< 3.5 U	< 6.1 U	< 6.9 U
SW8260C	1,2,4-TRICHLOROBENZENE	mg/kg	3.4		3.4	< 8 U	< 7.9 U	< 3.6 U	< 14 U	< 7 U	< 5.9 UJ	< 1.1 UJ	< 4.1 UJ	< 4.6 UJ	< 5 UJ	< 3.5 UJ	< 6.1 UJ	< 6.9 UJ
SW8260C	1,2-DIBROMO-3-CHLOROPROPANE	mg/kg				< 8 U	< 7.9 U	< 3.6 U	< 14 U	< 7 U	< 5.9 U	< 1.1 U	< 4.1 U	< 4.6 U	< 5 U	< 3.5 U	< 6.1 U	< 6.9 U
SW8260C	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	mg/kg				< 8 U	< 7.9 U	< 3.6 U	< 14 U	< 7 U	< 5.9 U	< 1.1 U	< 4.1 U	< 4.6 U	< 5 U	< 3.5 U	< 6.1 U	< 6.9 U
SW8260C	1,2-DICHLOROBENZENE	mg/kg	**1.1**	**1000**	**1.1**	< 8 U	< 7.9 U	< 3.6 U	< 14 U	< 7 U	< 5.9 U	**0.77 J**	< 4.1 U	< 4.6 U	< 5 U	< 3.5 U	**2 J**	**2 J**
SW8260C	1,2-DICHLOROETHANE	mg/kg	0.02	60	0.02	< 8 U	< 7.9 U	< 3.6 U	< 14 U	< 7 U	< 5.9 U	< 1.1 U	< 4.1 U	< 4.6 U	< 5 U	< 3.5 U	< 6.1 U	< 6.9 U
SW8260C	1,2-DICHLOROPROPANE	mg/kg	700			< 8 U	< 7.9 U	< 3.6 U	< 14 U	< 7 U	< 5.9 U	< 1.1 U	< 4.1 U	< 4.6 U	< 5 U	< 3.5 U	< 6.1 U	< 6.9 U
SW8260C	1,3-DICHLOROBENZENE	mg/kg	2.4	560	2.4	< 8 U	< 7.9 U	< 3.6 U	< 14 U	< 7 U	< 5.9 U	< 1.1 U	< 4.1 U	< 4.6 U	< 5 U	< 3.5 U	< 6.1 U	< 6.9 U
SW8260C	1,4-DICHLOROBENZENE	mg/kg	**1.8**	**250**	**1.8**	< 8 U	< 7.9 U	< 3.6 U	< 14 U	< 7 U	< 5.9 U	< 1.1 U	< 4.1 U	< 4.6 U	< 5 U	< 3.5 U	< 6.1 U	< 6.9 U
SW8260C	2-HEXANONE	mg/kg				< 40 U	< 40 U	< 18 U	< 70 U	< 35 U	< 29 U	< 5.3 U	< 20 U	< 23 U	< 25 U	< 17 U	< 31 U	< 34 U
SW8260C	ACETONE	mg/kg	0.05	1000	0.05	< 40 U	< 40 U	< 18 U	< 70 U	< 35 U	< 29 U	< 5.3 U	< 20 U	< 23 U	< 25 U	< 17 U	< 31 U	< 34 U
SW8260C	BENZENE	mg/kg	**0.06**	**89**	**0.06**	**290**	**73**	< 3.6 U	**500**	**250**	**99**	**74**	**180**	**200**	**6.1**	**97**	**150**	**170**
SW8260C	BROMODICHLOROMETHANE	mg/kg				< 8 U	< 7.9 U	< 3.6 U	< 14 U	< 7 U	< 5.9 U	< 1.1 U	< 4.1 U	< 4.6 U	< 5 U	< 3.5 U	< 6.1 U	< 6.9 U
SW8260C	BROMOFORM	mg/kg				< 8 U	< 7.9 U	< 3.6 U	< 14 U	< 7 U	< 5.9 U	< 1.1 U	< 4.1 U	< 4.6 U	< 5 U	< 3.5 U	< 6.1 U	< 6.9 U
SW8260C	BROMOMETHANE	mg/kg				< 8 U	< 7.9 U	< 3.6 U	< 14 U	< 7 U	< 5.9 U	< 1.1 U	< 4.1 U	< 4.6 U	< 5 U	< 3.5 U	< 6.1 U	< 6.9 U
SW8260C	CARBON DISULFIDE	mg/kg	2.7		2.7	< 8 U	< 7.9 U	< 3.6 U	< 14 U	< 7 U	< 5.9 U	< 1.1 U	< 4.1 U	< 4.6 U	< 5 U	< 3.5 U	< 6.1 U	< 6.9 U
SW8260C	CARBON TETRACHLORIDE	mg/kg	0.76	44	0.76	< 8 U	< 7.9 U	< 3.6 U	< 14 U	< 7 U	< 5.9 U	< 1.1 U	< 4.1 U	< 4.6 U	< 5 U	< 3.5 U	< 6.1 U	< 6.9 U
SW8260C	CHLOROBENZENE	mg/kg	**1.1**	**1000**	**1.1**	< 8 U	**3.5 J**	< 3.6 U	< 14 U	< 7 U	< 5.9 U	**0.37 J**	< 4.1 U	< 4.6 U	< 5 U	< 3.5 U	**2.2 J**	< 6.9 U
SW8260C	CHLOROETHANE	mg/kg	1.9		1.9	< 8 U	< 7.9 U	< 3.6 U	< 14 U	< 7 U	< 5.9 U	< 1.1 U	< 4.1 U	< 4.6 U	< 5 U	< 3.5 U	< 6.1 U	< 6.9 U
SW8260C	CHLOROFORM	mg/kg	0.37	700	0.37	< 8 U	< 7.9 U	< 3.6 U	< 14 U	< 7 U	< 5.9 U	< 1.1 U	< 4.1 U	< 4.6 U	< 5 U	< 3.5 U	< 6.1 U	< 6.9 U
SW8260C	CHLOROMETHANE	mg/kg				< 8 UJ	< 7.9 UJ	< 3.6 UJ	< 14 UJ	< 7 UJ	< 5.9 UJ	< 1.1 UJ	< 4.1 UJ	< 4.6 UJ	< 5 UJ	< 3.5 UJ	< 6.1 UJ	< 6.9 UJ
SW8260C	CIS-1,2-DICHLOROETHYLENE	mg/kg	0.25	1000	0.25	< 8 U	< 7.9 U	< 3.6 U	< 14 U	< 7 U	< 5.9 U	< 1.1 U	< 4.1 U	< 4.6 U	< 5 U	< 3.5 U	< 6.1 U	< 6.9 U
SW8260C	CIS-1,3-DICHLOROPROPENE	mg/kg				< 8 U	< 7.9 U	< 3.6 U	< 14 U	< 7 U	< 5.9 U	< 1.1 U	< 4.1 U	< 4.6 U	< 5 U	< 3.5 U	< 6.1 U	< 6.9 U
SW8260C	CYCLOHEXANE	mg/kg				< 8 U	**27**	**6.3**	**12 J**	**19**	**6.5 J**	**2.7 J**	**9 J**	**11 J**	**6.4 J**	**2.5 J**	**10 J**	**16 J**
SW8260C	DIBROMOCHLOROMETHANE	mg/kg	10			< 8 U	< 7.9 U	< 3.6 U	< 14 U	< 7 U	< 5.9 U	< 1.1 U	< 4.1 U	< 4.6 U	< 5 U	< 3.5 U	< 6.1 U	< 6.9 U
SW8260C	DICHLORODIFLUOROMETHANE	mg/kg				< 8 U	< 7.9 U	< 3.6 U	< 14 U	< 7 U	< 5.9 U	< 1.1 U	< 4.1 U	< 4.6 U	< 5 U	< 3.5 U	< 6.1 U	< 6.9 U
SW8260C	ETHYLBENZENE	mg/kg	**1**	**780**	**1**	**53**	**7.6 J**	< 3.6 U	**89**	**130**	**36**	**26**	**73**	**91**	< 5 U	**35**	**92**	**120**
SW8260C	ISOPROPYLBENZENE (CUMENE)	mg/kg	**2.3**		**2.3**	**3.2 J**	**15**	**3.8**	**7.6 J**	**12**	**3.3 J**	**2.7**	**6.5**	**8.4**	**4 J**	**3.5**	**8.9**	**13**
SW8260C	METHYL ACETATE	mg/kg				< 40 U	< 40 U	< 18 U	< 70 U	< 35 U	< 29 U	< 5.3 U	< 20 U	< 23 U	< 25 U	< 17 U	< 31 U	< 34 U
SW8260C	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	0.12	1000	0.12	< 40 U	< 40 U	< 18 U	< 70 U	< 35 U	< 29 U	< 5.3 U	< 20 U	< 23 U	< 25 U	< 17 U	< 31 U	< 34 U
SW8260C	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	mg/kg	1		1	< 40 U	< 40 U	< 18 U	< 70 U	< 35 U	< 29 U	< 5.3 U	< 20 U	< 23 U	< 25 U	< 17 U	< 31 U	< 34 U
SW8260C	METHYLCYCLOHEXANE	mg/kg				**11**	**46**	**12**	**19**	**30**	**14 J**	**7.9**	**18**	**25**	**13**	**6.6**	**29**	**50**
SW8260C	METHYLENE CHLORIDE	mg/kg	0.05	1000	0.05	< 8 U	< 7.9 U	< 3.6 U	< 14 U	< 7 U	< 5.9 U	< 1.1 U	< 4.1 U	< 4.6 U	< 5 U	< 3.5 U	< 6.1 U	< 6.9 U
SW8260C	STYRENE	mg/kg	**300**			**24**	< 7.9 U	< 3.6 U	< 14 U	< 7 U	< 5.9 U	< 1.1 U	**4.4**	**4.6**	< 5 U	**1.2 J**	< 6.1 U	< 6.9 U
SW8260C	TERT-BUTYL METHYL ETHER	mg/kg	0.93	1000	0.93	< 8 U	< 7.9 U	< 3.6 U	< 14 U	< 7 U	< 5.9 U	< 1.1 U	< 4.1 U	< 4.6 U	< 5 U	< 3.5 U	< 6.1 U	< 6.9 U
SW8260C	TETRACHLOROETHYLENE (PCE)	mg/kg	1.3	300	1.3	< 8 U	< 7.9 U	< 3.6 U	< 14 U	< 7 U	< 5.9 U	< 1.1 U	< 4.1 U	< 4.6 U	< 5 U	< 3.5 U	< 6.1 U	< 6.9 U
SW8260C	TOLUENE	mg/kg	**0.7**	**1000**	**0.7**	**300**	< 7.9 U	< 3.6 U	< 14 U	**2 J**	< 5.9 U	**3.1**	**60**	**61**	< 5 U	**16**	**2.9 J**	**4 J**
SW8260C	TRANS-1,2-DICHLOROETHENE	mg/kg	0.19	1000	0.19	< 8 U	< 7.9 U	< 3.6 U	< 14 U	< 7 U	< 5.9 U	< 1.1 U	< 4.1 U	< 4.6 U	< 5 U	< 3.5 U	< 6.1 U	< 6.9 U
SW8260C	TRANS-1,3-DICHLOROPROPENE	mg/kg				< 8 U	< 7.9 U	< 3.6 U	< 14 U	< 7 U	< 5.9 U	< 1.1 U	< 4.1 U	< 4.6 U	< 5 U	< 3.5 U	< 6.1 U	< 6.9 U
SW8260C	TRICHLOROETHYLENE (TCE)	mg/kg	0.47	400	0.47	< 8 U	< 7.9 U	< 3.6 U	< 14 U	< 7 U	< 5.9 U	< 1.1 U	< 4.1 U	< 4.6 U	< 5 U	< 3.5 U	< 6.1 U	< 6.9 U
SW8260C	TRICHLOROFLUOROMETHANE	mg/kg				< 8 U	< 7.9 U	< 3.6 U	< 14 U	< 7 U	< 5.9 U	< 1.1 U	< 4.1 U	< 4.6 U	< 5 U	< 3.5 U	< 6.1 U	< 6.9 U
SW8260C	VINYL CHLORIDE	mg/kg	0.02	27	0.02	< 8 U	< 7.9 U	< 3.6 U	< 14 U	< 7 U	< 5.9 U	< 1.1 U	< 4.1 U	< 4.6 U	< 5 U	< 3.5 U	< 6.1 U	< 6.9 U
SW8260C	XYLENES	mg/kg	**0.26**	**1000**	**1.6**	**420**	< 16 U	< 7.1 U	< 28 U	**6.1 J**	< 12 U	**50**	**140**	**150**	< 10 U	**83**	**29**	**46**

Table 5-3
2024 Sediment Analytical Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

						Location	SED-01	SED-02	SED-03	SED-04	SED-05	SED-06	SED-07	SED-08	SED-08	SED-09	SED-10	SED-11	SED-11
						Sample Name	SED-01-20240603	SED-02-20240603	SED-03-20240603	SED-04-20240603	SED-05-20240603	SED-06-20240604	SED-07-20240604	SED-08-20240604	SED-08-FD-20240604	SED-09-20240604	SED-10-20240604	SED-11-20240604	SED-11-FD-20240604
						Sample Date	6/3/2024	6/3/2024	6/3/2024	6/3/2024	6/3/2024	6/4/2024	6/4/2024	6/4/2024	6/4/2024	6/4/2024	6/4/2024	6/4/2024	6/4/2024
						Sample Depth Interval (ft bws)	11.1-13.3	17-19.8	17.1-17.9	17.8-20.8	16.8-18.3	19-21.7	13.2-14	15-17.4	15-17.4	16.6-17.4	15.9-17.6	16-17.7	16-17.7
						Sediment Consistency	Medium Stiff / Hard	Soft	Medium Stiff / Hard	Medium Stiff / Hard	Soft	Medium Stiff / Hard	Medium Stiff / Hard	Soft	Soft	Medium Stiff / Hard	Medium Stiff / Hard	Soft	Soft
Method	Analyte	Unit	Criteria												Field Duplicate				Field Duplicate
			(1)	(2)	(3)														
Semi Volatile Organic Compounds (SVOCs)																			
SW8270D	2,4,5-TRICHLOROPHENOL	mg/kg	0.1		0.1	< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	< 150 U	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	2,4,6-TRICHLOROPHENOL	mg/kg	10			< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	< 150 U	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	2,4-DICHLOROPHENOL	mg/kg	0.4		0.4	< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	< 150 U	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	2,4-DIMETHYLPHENOL	mg/kg				< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	< 150 UJ	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	2,4-DINITROPHENOL	mg/kg	0.2		0.2	< 1900 U	< 360 U	< 240 U	< 320 U	< 1800 U	< 1500 U	< 2900 U	< 420 U	< 3100 U	< 1600 U	< 2900 U	< 2800 U	< 2600 U
SW8270D	2,4-DINITROTOLUENE	mg/kg				< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	**56 J**	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	2,6-DINITROTOLUENE	mg/kg	1.0		1.0	< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	< 150 U	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	2-CHLORONAPHTHALENE	mg/kg				< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	< 150 U	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	2-CHLOROPHENOL	mg/kg	0.8			< 370 U	< 72 U	< 47 U	< 64 U	< 360 U	< 150 U	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	2-METHYLNAPHTHALENE	mg/kg	**0.41**		**36.4**	**1500**	**590**	**79**	**560**	**470**	**450 J**	**380**	**170 J**	**710 J**	**420**	**620**	**620**	**470**
SW8270D	2-METHYLPHENOL (O-CRESOL)	mg/kg	0.33	1000	0.33	< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	< 150 U	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	2-NITROANILINE	mg/kg	0.4		0.4	< 370 U	< 72 U	< 47 U	< 64 U	< 360 U	< 290 UJ	< 580 U	< 83 U	< 620 U	< 310 U	< 580 U	< 550 U	< 520 U
SW8270D	2-NITROPHENOL	mg/kg	0.3		0.3	< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	< 150 U	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	3,3'-DICHLOROBENZIDINE	mg/kg				< 370 U	< 72 U	< 47 U	< 64 U	< 360 U	< 290 U	< 580 U	< 83 U	< 620 U	< 310 U	< 580 U	< 550 U	< 520 U
SW8270D	3-NITROANILINE	mg/kg	0.5		0.5	< 370 U	< 72 U	< 47 U	< 64 U	< 360 U	< 290 U	< 580 U	< 83 U	< 620 U	< 310 U	< 580 U	< 550 U	< 520 U
SW8270D	4,6-DINITRO-2-METHYLPHENOL	mg/kg				< 370 U	< 72 U	< 47 U	< 64 U	< 360 U	< 290 U	< 580 U	< 83 U	< 620 U	< 310 U	< 580 U	< 550 U	< 520 U
SW8270D	4-BROMOPHENYL PHENYL ETHER	mg/kg				< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	< 150 U	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	4-CHLORO-3-METHYLPHENOL	mg/kg				< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	< 150 U	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	4-CHLOROANILINE	mg/kg	0.22		0.22	< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	< 150 U	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	4-CHLOROPHENYL PHENYL ETHER	mg/kg				< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	< 150 U	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	4-METHYLPHENOL (P-CRESOL)	mg/kg	0.33	1000	0.33	< 370 U	< 72 U	< 47 U	< 64 U	< 360 U	< 290 U	< 580 U	< 83 U	< 620 U	< 310 U	< 580 U	< 550 U	< 520 U
SW8270D	4-NITROANILINE	mg/kg				< 370 U	< 72 U	< 47 U	< 64 U	< 360 U	< 290 U	< 580 U	< 83 U	< 620 U	< 310 U	< 580 U	< 550 U	< 520 U
SW8270D	4-NITROPHENOL	mg/kg	0.1		0.1	< 370 U	< 72 U	< 47 U	< 64 U	< 360 U	< 290 U	< 580 U	< 83 U	< 620 U	< 310 U	< 580 U	< 550 U	< 520 U
SW8270D	ACENAPHTHENE	mg/kg	**20**	**1000**	**98**	**82 J**	**32 J**	**4.5 J**	**27 J**	< 180 U	**26 J**	< 300 U	**18 J**	**69 J**	< 160 U	**63 J**	< 280 U	< 270 U
SW8270D	ACENAPHTHYLENE	mg/kg	**100**	**1000**	**107**	< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	< 150 U	< 300 U	**15 J**	**57 J**	< 160 U	**110 J**	**38 J**	< 270 U
SW8270D	ACETOPHENONE	mg/kg				< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	< 150 U	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	ANTHRACENE	mg/kg	**100**	**1000**	**1000**	**94 J**	**25 J**	< 24 U	**23 J**	< 180 U	< 150 U	< 300 U	**46 J**	**140 J**	< 160 U	**220 J**	**71 J**	< 270 U
SW8270D	ATRAZINE	mg/kg				< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	< 150 U	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	BENZALDEHYDE	mg/kg				< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	< 150 U	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	BENZO(A)ANTHRACENE	mg/kg	**1**	**11**	**1**	**120 J**	**25 J**	< 24 U	**23 J**	< 180 U	**35 J**	< 300 U	**45 J**	**150 J**	< 160 U	**200 J**	**84 J**	**47 J**
SW8270D	BENZO(A)PYRENE	mg/kg	**1**	**1.1**	**22**	**74 J**	**13 J**	**4.4 J**	**14 J**	< 180 U	< 150 U	< 300 U	**36 J**	**120 J**	< 160 U	**130 J**	**56 J**	< 270 U
SW8270D	BENZO(B)FLUORANTHENE	mg/kg	**1**	**11**	**1.7**	**39 J**	**9 J**	< 24 U	**6.6 J**	< 180 U	< 150 U	< 300 U	**32 J**	**100 J**	< 160 U	**150 J**	**62 J**	< 270 U
SW8270D	BENZO(G,H,I)PERYLENE	mg/kg	**100**	**1000**	**1000**	< 190 U	**7 J**	< 24 U	**8.4 J**	< 180 U	< 150 U	< 300 U	**19 J**	**73 J**	< 160 U	**74 J**	**37 J**	< 270 U
SW8270D	BENZO(K)FLUORANTHENE	mg/kg	**0.8**	**110**	**1.7**	< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	< 150 U	< 300 U	**15 J**	**49 J**	< 160 U	**71 J**	< 280 U	< 270 U
SW8270D	BENZYL BUTYL PHTHALATE	mg/kg	100		122	< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	< 150 U	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	BIPHENYL (DIPHENYL)	mg/kg	**60**			**62 J**	< 37 U	< 24 U	< 33 U	< 180 U	< 150 U	< 300 U	**15 J**	< 320 UJ	< 160 U	**60 J**	< 280 U	< 270 U
SW8270D	BIS(2-CHLOROETHOXY) METHANE	mg/kg				< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	< 150 U	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	BIS(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER)	mg/kg				< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	< 150 U	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	BIS(2-CHLOROISOPROPYL) ETHER	mg/kg				< 190 UJ	< 37 UJ	< 24 UJ	< 33 UJ	< 180 UJ	< 150 U	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	50		435	< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	< 150 UJ	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	CAPROLACTAM	mg/kg				< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	< 150 U	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	CARBAZOLE	mg/kg				**50 J**	**10 J**	< 24 U	**12 J**	< 180 U	< 150 U	< 300 U	**24 J**	**84 J**	< 160 U	**130 J**	**36 J**	< 270 U
SW8270D	CHRYSENE	mg/kg	**1**	**110**	**1**	**270**	**49**	**11 J**	**49**	< 180 U	**59 J**	< 300 U	**60 J**	**180 J**	**50 J**	**210 J**	**93 J**	< 270 U
SW8270D	DIBENZ(A,H)ANTHRACENE	mg/kg	0.33	1.1	1000	< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	< 150 U	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	DIBENZOFURAN	mg/kg	**7**	**1000**	**210**	< 190 U	**31 J**	< 24 U	**21 J**	< 180 U	< 150 U	< 300 U	**46 J**	**140 J**	< 160 U	**270 J**	**67 J**	**41 J**
SW8270D	DIETHYL PHTHALATE	mg/kg	7.1		7.1	< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	< 150 U	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	DIMETHYL PHTHALATE	mg/kg	27		27	< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	< 150 U	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	DI-N-BUTYL PHTHALATE	mg/kg	0.014		8.1	< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	< 150 U	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	DI-N-OCTYLPHTHALATE	mg/kg	**100**		**120**	< 190 U	< 37 U	< 24 U	**5.6 J**	< 180 U	**24 J**	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	FLUORANTHENE	mg/kg	**100**	**1000**	**1000**	**57 J**	**21 J**	**4.3 J**	**16 J**	**22 J**	**24 J**	< 300 U	**120 J**	**350 J**	**43 J**	**550**	**180 J**	**95 J**

Table 5-3
2024 Sediment Analytical Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

						Location	SED-01	SED-02	SED-03	SED-04	SED-05	SED-06	SED-07	SED-08	SED-08	SED-09	SED-10	SED-11	SED-11
						Sample Name	SED-01-20240603	SED-02-20240603	SED-03-20240603	SED-04-20240603	SED-05-20240603	SED-06-20240604	SED-07-20240604	SED-08-20240604	SED-08-FD-20240604	SED-09-20240604	SED-10-20240604	SED-11-20240604	SED-11-FD-20240604
						Sample Date	6/3/2024	6/3/2024	6/3/2024	6/3/2024	6/3/2024	6/4/2024	6/4/2024	6/4/2024	6/4/2024	6/4/2024	6/4/2024	6/4/2024	6/4/2024
						Sample Depth Interval (ft bws)	11.1-13.3	17-19.8	17.1-17.9	17.8-20.8	16.8-18.3	19-21.7	13.2-14	15-17.4	15-17.4	16.6-17.4	15.9-17.6	16-17.7	16-17.7
						Sediment Consistency	Medium Stiff / Hard	Soft	Medium Stiff / Hard	Medium Stiff / Hard	Soft	Medium Stiff / Hard	Medium Stiff / Hard	Soft	Soft	Medium Stiff / Hard	Medium Stiff / Hard	Soft	Soft
Method	Analyte	Unit	Criteria												Field Duplicate				Field Duplicate
			(1)	(2)	(3)														
SW8270D	FLUORENE	mg/kg	**30**	**1000**	**386**	**160 J**	**64**	**10 J**	**59**	**52 J**	**52 J**	**62 J**	**75 J**	**230 J**	**56 J**	**390**	**130 J**	**90 J**
SW8270D	HEXACHLOROBENZENE	mg/kg	0.33	12	3.2	< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	< 150 U	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	HEXACHLOROBUTADIENE	mg/kg				< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	< 150 U	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	HEXACHLOROCYCLOPENTADIENE	mg/kg	10			< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	< 150 UJ	< 300 UJ	< 43 U	< 320 U	< 160 UJ	< 300 U	< 280 U	< 270 UJ
SW8270D	HEXACHLOROETHANE	mg/kg				< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	< 150 U	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	INDENO(1,2,3-C,D)PYRENE	mg/kg	**0.5**	**11**	**8.2**	< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	< 150 U	< 300 U	**13 J**	**52 J**	< 160 U	**55 J**	< 280 U	< 270 U
SW8270D	ISOPHORONE	mg/kg	4.4		4.4	< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	< 150 U	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	NAPHTHALENE	mg/kg	**12**	**1000**	**12**	**1000**	< 37 U	< 24 U	**150**	< 180 U	**150**	**200 J**	**410 J**	**1400 J**	< 160 U	**2400**	**540**	**380**
SW8270D	NITROBENZENE	mg/kg	0.17	140	0.17	< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	< 150 U	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	N-NITROSODI-N-PROPYLAMINE	mg/kg				< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	< 150 U	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	N-NITROSODIPHENYLAMINE	mg/kg	20			**280**	< 37 U	< 24 U	**110**	< 180 U	< 150 U	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	PENTACHLOROPHENOL	mg/kg	0.8	55	0.8	< 370 U	< 72 U	< 47 U	< 64 U	< 360 U	< 290 U	< 580 U	< 83 U	< 620 U	< 310 U	< 580 U	< 550 U	< 520 U
SW8270D	PHENANTHRENE	mg/kg	**100**	**1000**	**1000**	**840**	**220**	**38**	**230**	**200**	**220 J**	**330**	**260 J**	**860 J**	**220**	**1100**	**440**	**280**
SW8270D	PHENOL	mg/kg	0.33	1000	0.33	< 190 U	< 37 U	< 24 U	< 33 U	< 180 U	< 150 U	< 300 U	< 43 U	< 320 U	< 160 U	< 300 U	< 280 U	< 270 U
SW8270D	PYRENE	mg/kg	**100**	**1000**	**1000**	**200**	**48**	**11 J**	**43**	**54 J**	**56 J**	**92 J**	**98 J**	**310 J**	**53 J**	**370**	**130 J**	**78 J**
SW8270D	1,4-DIOXANE (P-DIOXANE)	mg/kg	0.1	250	0.1	--	--	--	< 19 U	--	< 180 U	--	< 50 U	< 380 U	--	< 350 U	--	--
Pesticides																			
SW8081B	ALDRIN	mg/kg	0.005	1.4	0.19	< 2 U	< 1.3 U	< 0.95 U	< 1.6 U	< 1.2 U	< 2.8 U	< 3.1 U	< 2.8 U	< 3.1 U	< 2.6 U	< 2.8 U	< 3.6 U	< 2.8 U
SW8081B	ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	mg/kg	0.02	6.8	0.02	< 2 U	< 1.3 U	< 0.95 U	< 1.6 U	< 1.2 U	< 2.8 U	< 3.1 U	< 2.8 U	< 3.1 U	< 2.6 U	< 2.8 U	< 3.6 U	< 2.8 U
SW8081B	ALPHA ENDOSULFAN	mg/kg	2.4	920	102	< 2 U	< 1.3 U	< 0.95 U	< 1.6 U	< 1.2 U	< 2.8 U	< 3.1 U	< 2.8 U	< 3.1 U	< 2.6 U	< 2.8 U	< 3.6 U	< 2.8 U
SW8081B	ALPHA-CHLORDANE	mg/kg	0.094	47	2.9	< 2 U	< 1.3 U	< 0.95 U	< 1.6 U	< 1.2 U	< 2.8 U	< 3.1 U	< 2.8 U	< 3.1 U	< 2.6 U	< 2.8 U	< 3.6 U	< 2.8 U
SW8081B	BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	mg/kg	0.036	14	0.09	< 2 U	< 1.3 U	< 0.95 U	< 1.6 U	< 1.2 U	< 2.8 U	< 3.1 U	< 2.8 U	< 3.1 U	< 2.6 U	< 2.8 U	< 3.6 U	< 2.8 U
SW8081B	BETA ENDOSULFAN	mg/kg	2.4	920	102	< 2 U	< 1.3 U	< 0.95 U	< 1.6 U	< 1.2 U	< 2.8 U	< 3.1 U	< 2.8 U	< 3.1 U	< 2.6 U	< 2.8 U	< 3.6 U	< 2.8 U
SW8081B	BETA-CHLORDANE	mg/kg				< 2 U	< 1.3 U	< 0.95 U	< 1.6 U	< 1.2 U	< 2.8 U	< 3.1 U	< 2.8 U	< 3.1 U	< 2.6 U	< 2.8 U	< 3.6 U	< 2.8 U
SW8081B	DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	mg/kg	0.04	1000	0.25	< 2 U	< 1.3 U	< 0.95 U	< 1.6 U	< 1.2 U	< 2.8 U	< 3.1 U	< 2.8 U	< 3.1 U	< 2.6 U	< 2.8 U	< 3.6 U	< 2.8 U
SW8081B	DIELDRIN	mg/kg	0.005	2.8	0.1	< 2 U	< 1.3 U	< 0.95 U	< 1.6 U	< 1.2 U	< 2.8 U	< 3.1 U	< 2.8 U	< 3.1 U	< 2.6 U	< 2.8 U	< 3.6 U	< 2.8 U
SW8081B	ENDOSULFAN SULFATE	mg/kg	2.4	920	1000	< 2 U	< 1.3 U	< 0.95 U	< 1.6 U	< 1.2 U	< 2.8 U	< 3.1 U	< 2.8 U	< 3.1 U	< 2.6 U	< 2.8 U	< 3.6 U	< 2.8 U
SW8081B	ENDRIN	mg/kg	0.014	410	0.06	< 2 U	< 1.3 U	< 0.95 U	< 1.6 U	< 1.2 U	< 2.8 U	< 3.1 U	< 2.8 U	< 3.1 U	< 2.6 U	< 2.8 U	< 3.6 U	< 2.8 U
SW8081B	ENDRIN ALDEHYDE	mg/kg				< 2 U	< 1.3 U	< 0.95 U	< 1.6 U	< 1.2 U	< 2.8 U	< 3.1 U	< 2.8 U	< 3.1 U	< 2.6 U	< 2.8 U	< 3.6 U	< 2.8 U
SW8081B	ENDRIN KETONE	mg/kg				< 2 U	< 1.3 U	< 0.95 U	< 1.6 U	< 1.2 U	< 2.8 U	< 3.1 U	< 2.8 U	< 3.1 U	< 2.6 U	< 2.8 U	< 3.6 U	< 2.8 U
SW8081B	GAMMA BHC (LINDANE)	mg/kg	0.1	23	0.1	< 2 U	< 1.3 U	< 0.95 U	< 1.6 U	< 1.2 U	< 2.8 U	< 3.1 U	< 2.8 U	< 3.1 U	< 2.6 U	< 2.8 U	< 3.6 U	< 2.8 U
SW8081B	HEPTACHLOR	mg/kg	0.042	29	0.38	< 2 U	< 1.3 U	< 0.95 U	< 1.6 U	< 1.2 U	< 2.8 U	< 3.1 U	< 2.8 U	< 3.1 U	< 2.6 U	< 2.8 U	< 3.6 U	< 2.8 U
SW8081B	HEPTACHLOR EPOXIDE	mg/kg	0.02		0.02	< 2 U	< 1.3 U	< 0.95 U	< 1.6 U	< 1.2 U	< 2.8 U	< 3.1 U	< 2.8 U	< 3.1 U	< 2.6 U	< 2.8 U	< 3.6 U	< 2.8 U
SW8081B	METHOXYCHLOR	mg/kg	1.2		900	< 2 U	< 1.3 U	< 0.95 U	< 1.6 U	< 1.2 U	< 2.8 U	< 3.1 U	< 2.8 U	< 3.1 U	< 2.6 U	< 2.8 U	< 3.6 U	< 2.8 U
SW8081B	P,P'-DDD	mg/kg	0.0033	180	14	< 2 U	< 1.3 U	< 0.95 U	< 1.6 U	< 1.2 U	< 2.8 U	< 3.1 U	< 2.8 U	< 3.1 U	< 2.6 U	< 2.8 U	< 3.6 U	< 2.8 U
SW8081B	P,P'-DDE	mg/kg	0.0033	120	17	< 2 U	< 1.3 U	< 0.95 U	< 1.6 U	< 1.2 U	< 2.8 U	< 3.1 U	< 2.8 U	< 3.1 U	< 2.6 U	< 2.8 U	< 3.6 U	< 2.8 U
SW8081B	P,P'-DDT	mg/kg	0.0033	94	136	< 2 U	< 1.3 U	< 0.95 U	< 1.6 U	< 1.2 U	< 2.8 U	< 3.1 U	< 2.8 U	< 3.1 U	< 2.6 U	< 2.8 U	< 3.6 U	< 2.8 U
SW8081B	TOXAPHENE	mg/kg				< 20 U	< 13 U	< 9.5 U	< 16 U	< 12 U	< 28 U	< 31 U	< 28 U	< 31 U	< 26 U	< 28 U	< 36 U	< 28 U
Polychlorinated Biphenyls (PCBs)																			
SW8082A	PCB-1016 (AROCLOR 1016)	mg/kg				< 0.76 U	< 1.4 U	< 2.5 U	< 1.2 U	< 1.3 U	< 21 U	< 13 U	< 4.5 U	< 18 U	< 4.2 U	< 4.5 U	< 15 U	< 13 U
SW8082A	PCB-1221 (AROCLOR 1221)	mg/kg				< 0.76 U	< 1.4 U	< 2.5 U	< 1.2 U	< 1.3 U	< 21 U	< 13 U	< 4.5 U	< 18 U	< 4.2 U	< 4.5 U	< 15 U	< 13 U
SW8082A	PCB-1232 (AROCLOR 1232)	mg/kg				< 0.76 U	< 1.4 U	< 2.5 U	< 1.2 U	< 1.3 U	< 21 U	< 13 U	< 4.5 U	< 18 U	< 4.2 U	< 4.5 U	< 15 U	< 13 U
SW8082A	PCB-1242 (AROCLOR 1242)	mg/kg				< 0.76 U	< 1.4 U	< 2.5 U	< 1.2 U	< 1.3 U	< 21 U	< 13 U	< 4.5 U	< 18 U	< 4.2 U	< 4.5 U	< 15 U	< 13 U
SW8082A	PCB-1248 (AROCLOR 1248)	mg/kg				< 0.76 U	< 1.4 U	**4**	< 1.2 U	< 1.3 U	< 21 U	< 13 U	< 4.5 U	< 18 U	< 4.2 U	< 4.5 U	< 15 U	< 13 U
SW8082A	PCB-1254 (AROCLOR 1254)	mg/kg				< 0.76 U	< 1.4 U	< 2.5 U	< 1.2 U	< 1.3 U	< 21 U	< 13 U	< 4.5 U	< 18 U	< 4.2 U	< 4.5 U	< 15 U	< 13 U
SW8082A	PCB-1260 (AROCLOR 1260)	mg/kg				< 0.76 U	< 1.4 U	< 2.5 U	< 1.2 U	< 1.3 U	< 21 U	< 13 U	< 4.5 U	< 18 U	< 4.2 U	< 4.5 U	< 15 U	< 13 U
--	TOTAL PCBs	mg/kg	**0.1**	**25**	**3.2**	ND	ND	**4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals and Inorganics																			
SW6010C	ALUMINUM	mg/kg	**10000**			**49600 J**	**14700**	**13300**	**17000**	**15700**	**7710**	**128000**	**12900**	**12300**	**18600**	**12500**	**12800**	**16600**
SW6010C	ANTIMONY	mg/kg	**12**			< 15.6 UJ	**6.2 J**	**2.5 J**	**1.8 J**	**13.2 J**	< 27.2 UJ	< 16.3 U	< 33.8 U	< 33.2 U	< 24.3 U	< 32.2 U	< 27.6 U	< 26.4 U
SW6010C	ARSENIC	mg/kg	**13**	**16**	**16**	**91.4 J**	**31.9**	**10.8**	**39.7**	**29**	**76.2**	**108**	**53.7**	**67.4**	**57.9**	**75.2**	**40.2**	**64.8**

Table 5-3
2024 Sediment Analytical Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

						Location	SED-01	SED-02	SED-03	SED-04	SED-05	SED-06	SED-07	SED-08	SED-08	SED-09	SED-10	SED-11	SED-11
						Sample Name	SED-01-20240603	SED-02-20240603	SED-03-20240603	SED-04-20240603	SED-05-20240603	SED-06-20240604	SED-07-20240604	SED-08-20240604	SED-08-FD-20240604	SED-09-20240604	SED-10-20240604	SED-11-20240604	SED-11-FD-20240604
						Sample Date	6/3/2024	6/3/2024	6/3/2024	6/3/2024	6/3/2024	6/4/2024	6/4/2024	6/4/2024	6/4/2024	6/4/2024	6/4/2024	6/4/2024	6/4/2024
						Sample Depth Interval (ft bws)	11.1-13.3	17-19.8	17.1-17.9	17.8-20.8	16.8-18.3	19-21.7	13.2-14	15-17.4	15-17.4	16.6-17.4	15.9-17.6	16-17.7	16-17.7
						Sediment Consistency	Medium Stiff / Hard	Soft	Medium Stiff / Hard	Medium Stiff / Hard	Soft	Medium Stiff / Hard	Medium Stiff / Hard	Soft	Soft	Medium Stiff / Hard	Medium Stiff / Hard	Soft	Soft
Method	Analyte	Unit	Criteria												Field Duplicate				Field Duplicate
			(1)	(2)	(3)														
SW6010C	BARIUM	mg/kg	350	10000	820	26.3 J	247	110	790	428	1080 J	40.7	442	289	250	315	423	609
SW6010C	BERYLLIUM	mg/kg	7.2	2700	47	0.26 J	0.49	0.32	0.65	0.7	0.5	0.38	0.58	0.59	0.89	0.55	0.61	0.67
SW6010C	CADMIUM	mg/kg	2.5	60	7.5	< 0.21 U	2.9	0.92	5.5	3.6	4.5	< 0.22 U	4.4	4.9	3.1	5.2	4.5	5
SW6010C	CALCIUM	mg/kg	10000			2320 J	25500	45100	48000	20900	218000	8780	36900	41800	41800	49800	28300	48700
SW6010C	CHROMIUM, TOTAL	mg/kg	1	800	19	31.7 J	1860	1150	8490	2560	8210	54.3	7090	9180	6320	9650	4650	8690
SW6010C	COBALT	mg/kg	20			2.7	14.6	5.4	22.8	21.3	23.8	5.2	13.6	10.1	14.8	10.8	18.9	19.1
SW6010C	COPPER	mg/kg	50	10000	1720	13.4	302	93.9	464	349	450 J	116	404	487	601	505	300	513
SW6010C	IRON	mg/kg	2000			3800 J	45500	24200	26800	39700	39500	6000	28300	30300	38400	31800	27900	32000
SW6010C	LEAD	mg/kg	63	3900	450	40.2 J+	4660	662	5480	11300	2300	80.9	3670	3370	3040	3560	6950	5610
SW6010C	MAGNESIUM	mg/kg				634 J	7370	13600	8840	6980	14200	1480	7760	8260	9210	8200	7170	9150
SW6010C	MANGANESE	mg/kg	1600	10000	2000	15.8 J	351	270	497	328	547 J	149	397	449	604	463	344	458
SW7471B	MERCURY	mg/kg	0.18	5.7	0.73	0.020 J	6.4	1.1	4.3	3	4.6	< 0.022 U	4.6	4.6	3.9	5.8	3.8	< 0.035 U
SW6010C	NICKEL	mg/kg	30	10000	130	90.5 J	311	73.2	377	325	192 J	71.8	365 J	185 J	163	148	460	542
SW6010C	POTASSIUM	mg/kg				98.5	2620	3660	2160	2540	1410	215	2300	2130	2580	1930	2360	2220
SW6010C	SELENIUM	mg/kg	3.9	6800	4	< 4.2 UJ	5.8 J	2.2 J	10.6	8.0 J	25.1	< 4.3 U	8.7 J	10.3	12.1	12.2	7.7	9.5
SW6010C	SILVER	mg/kg	2	6800	8.3	< 0.62 UJ	0.63 J	< 0.80 U	0.46 J	0.56 J	0.62 J	< 3.3 U	< 1.4 U	0.47 J	< 0.97 U	0.55 J	0.46 J	0.35 J
SW6010C	SODIUM	mg/kg				1100	962	492	508	1280	914	807	352	346	384	501	1890	2400
SW6010C	THALLIUM	mg/kg	5			< 31.5 U	< 11.7 U	< 8.0 U	< 11.3 U	< 12.2 U	3.1 J	< 32.5 U	2.8 J	2.8 J	< 9.7 U	< 12.9 U	< 11.0 U	2.1 J
SW6010C	VANADIUM	mg/kg	39			95.6 J+	151	31.2	252	205	139	107	179 J	103 J	104	82.5	314	388
SW6010C	ZINC	mg/kg	109	10000	2480	20.5 J+	1940	481	3050	1720	2930	73.2	3070	4140	2120	4840	2260	2720
SW9012	CYANIDE	mg/kg	27	10000	40	< 0.90 U	6.7	0.62 J	8.3	4.7	5.2 J	< 1.1 U	11	10.4	3.4	13	7.3 J	7.9 J
Per- and Polyfluoroalkyl Substances (PFAS)																			
E1633	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid	mg/kg				--	--	--	< 0.0024 U	--	< 0.011 U	--	< 0.0014 U	< 0.0014 U	--	< 0.0013 U	--	--
E1633	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2)	mg/kg				--	--	--	< 0.0024 U	--	< 0.0011 U	--	< 0.0014 U	< 0.0014 U	--	< 0.0013 U	--	--
E1633	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2)	mg/kg				--	--	--	< 0.0024 U	--	< 0.011 U	--	< 0.0014 U	< 0.0014 U	--	< 0.0013 U	--	--
E1633	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2)	mg/kg				--	--	--	< 0.0024 U	--	**0.0010 JN**	--	< 0.0014 U	< 0.0014 U	--	< 0.0013 U	--	--
E1633	2-(N-ethyl perfluoro-1-octanesulfonamido)-ethanol	mg/kg				--	--	--	< 0.0060 U	--	< 0.0028 U	--	< 0.0035 U	< 0.0034 U	--	< 0.0034 U	--	--
E1633	2-(N-methyl perfluoro-1-octanesulfonamido)-ethanol	mg/kg				--	--	--	< 0.0060 U	--	< 0.0028 U	--	< 0.0035 U	< 0.0034 U	--	< 0.0034 U	--	--
E1633	2-(N-methyl perfluorooctanesulfonamido) acetic acid	mg/kg				--	--	--	< 0.00060 U	--	**0.000085 J**	--	< 0.00035 U	< 0.00034 U	--	< 0.00034 U	--	--
E1633	2H,2H,3H,3H-Perfluorooctanoic acid	mg/kg				--	--	--	< 0.015 U	--	< 0.069 U	--	< 0.0087 U	< 0.0085 U	--	< 0.0084 U	--	--
E1633	3-Perfluoroheptyl propanoic acid	mg/kg				--	--	--	< 0.015 U	--	< 0.069 U	--	< 0.0087 U	< 0.0085 U	--	< 0.0084 U	--	--
E1633	3-Perfluoropropyl propanoic acid	mg/kg				--	--	--	< 0.0030 U	--	< 0.014 U	--	< 0.0017 U	< 0.0017 U	--	< 0.0017 U	--	--
E1633	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	mg/kg				--	--	--	< 0.0024 U	--	< 0.011 U	--	< 0.0014 U	< 0.0014 U	--	< 0.0013 U	--	--
E1633	9-Chlorohexadecafluoro-3-Oxanonane-1-Sulfonic Acid	mg/kg				--	--	--	< 0.0024 U	--	< 0.011 U	--	< 0.0014 U	< 0.0014 U	--	< 0.0013 U	--	--
E1633	N-ethyl perfluoro-1-octanesulfonamide	mg/kg				--	--	--	< 0.00060 U	--	< 0.00028 U	--	< 0.00035 U	< 0.00034 U	--	< 0.00034 U	--	--
E1633	N-ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine	mg/kg				--	--	--	**0.00046 J**	--	**0.00017 J**	--	**0.00021 J**	**0.00021 J**	--	**0.00010 J**	--	--
E1633	N-methyl perfluoro-1-octanesulfonamide	mg/kg				--	--	--	< 0.00060 U	--	< 0.00028 U	--	< 0.00035 U	< 0.00034 U	--	< 0.00034 U	--	--
E1633	Nonafluoro-3,6-dioxaheptanoic acid	mg/kg				--	--	--	< 0.0012 U	--	< 0.0055 U	--	< 0.00069 U	< 0.00068 U	--	< 0.00067 U	--	--
E1633	Perfluoro(2-ethoxyethane)sulfonic acid	mg/kg				--	--	--	< 0.0012 U	--	< 0.0055 U	--	< 0.00069 U	< 0.00068 U	--	< 0.00067 U	--	--
E1633	Perfluoro(2-Propoxypropanoic) acid	mg/kg				--	--	--	< 0.0024 U	--	< 0.011 U	--	< 0.0014 U	< 0.0014 U	--	< 0.0013 U	--	--
E1633	Perfluoro-3-methoxypropanoic acid	mg/kg				--	--	--	< 0.0012 U	--	< 0.0055 U	--	< 0.00069 U	< 0.00068 U	--	< 0.00067 U	--	--
E1633	Perfluoro-4-methoxybutanoic acid	mg/kg				--	--	--	< 0.0012 U	--	< 0.0055 U	--	< 0.00069 U	< 0.00068 U	--	< 0.00067 U	--	--
E1633	Perfluorobutanesulfonic acid (PFBS)	mg/kg				--	--	--	< 0.00060 U	--	< 0.00028 U	--	< 0.00035 U	< 0.00034 U	--	< 0.00034 U	--	--
E1633	Perfluorobutanoic acid	mg/kg				--	--	--	< 0.0024 U	--	< 0.011 U	--	< 0.0014 U	< 0.0014 U	--	< 0.0013 U	--	--
E1633	Perfluorodecane sulfonic acid (PFDS)	mg/kg				--	--	--	< 0.00060 U	--	**0.00084 JN**	--	**0.0011 JN**	**0.00097 JN**	--	**0.00095 JN**	--	--
E1633	Perfluorodecanoic acid (PFDA)	mg/kg				--	--	--	< 0.00060 U	--	< 0.00028 U	--	< 0.00035 U	< 0.00034 U	--	< 0.00034 U	--	--
E1633	Perfluorododecanesulfonic acid (PFDOS)	mg/kg				--	--	--	< 0.00060 U	--	< 0.00028 U	--	< 0.00035 U	< 0.00034 U	--	< 0.00034 U	--	--
E1633	Perfluorododecanoic acid (PFDoA)	mg/kg				--	--	--	< 0.00060 U	--	< 0.00028 U	--	< 0.00035 U	< 0.00034 U	--	< 0.00034 U	--	--
E1633	Perfluoroheptane sulfonate (PFHPS)	mg/kg				--	--	--	< 0.00060 U	--	< 0.00028 U	--	< 0.00035 U	< 0.00034 U	--	< 0.00034 U	--	--
E1633	Perfluoroheptanoic acid (PFHpA)	mg/kg				--	--	--	< 0.00060 U	--	< 0.0028 U	--	< 0.00035 U	**0.00018 J**	--	< 0.00034 U	--	--
E1633	Perfluorohexanesulfonic acid (PFHxS)	mg/kg				--	--	--	< 0.00060 U	--	< 0.00028 U	--	< 0.00035 U	< 0.00034 U	--	< 0.00034 U	--	--

Table 5-3
2024 Sediment Analytical Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

					Location	SED-01	SED-02	SED-03	SED-04	SED-05	SED-06	SED-07	SED-08	SED-08	SED-09	SED-10	SED-11	SED-11
					Sample Name	SED-01-20240603	SED-02-20240603	SED-03-20240603	SED-04-20240603	SED-05-20240603	SED-06-20240604	SED-07-20240604	SED-08-20240604	SED-08-FD-20240604	SED-09-20240604	SED-10-20240604	SED-11-20240604	SED-11-FD-20240604
					Sample Date	6/3/2024	6/3/2024	6/3/2024	6/3/2024	6/3/2024	6/4/2024	6/4/2024	6/4/2024	6/4/2024	6/4/2024	6/4/2024	6/4/2024	6/4/2024
					Sample Depth Interval (ft bws)	11.1-13.3	17-19.8	17.1-17.9	17.8-20.8	16.8-18.3	19-21.7	13.2-14	15-17.4	15-17.4	16.6-17.4	15.9-17.6	16-17.7	16-17.7
					Sediment Consistency	Medium Stiff / Hard	Soft	Medium Stiff / Hard	Medium Stiff / Hard	Soft	Medium Stiff / Hard	Medium Stiff / Hard	Soft	Soft	Medium Stiff / Hard	Medium Stiff / Hard	Soft	Soft
Method	Analyte	Unit	Criteria											Field Duplicate				Field Duplicate
			(1)	(2)	(3)													
E1633	Perfluorohexanoic acid (PFHxA)	mg/kg				--	--	--	< 0.00060 U	--	< 0.0028 U	--	< 0.00035 U	< 0.00034 U	--	< 0.00034 U	--	--
E1633	Perfluorononanesulfonic acid (PFNS)	mg/kg				--	--	--	< 0.00060 U	--	< 0.00028 U	--	< 0.00035 U	< 0.00034 U	--	**0.00030 J**	--	--
E1633	Perfluorooctane sulfonamide (PFOSA)	mg/kg				--	--	--	< 0.00060 U	--	< 0.00028 U	--	< 0.00035 U	< 0.00034 U	--	< 0.00034 U	--	--
E1633	Perfluorooctanesulfonic acid (PFOS)	mg/kg	**0.00088**	**0.44**	**0.001**	--	--	--	< 0.00060 U	--	< 0.00028 U	--	< 0.00035 U	< 0.00034 U	--	**0.00060 JN**	--	--
E1633	Perfluorooctanoic acid (PFOA)	mg/kg	**0.00066**	**0.6**	**0.0008**	--	--	--	**0.00067**	--	**0.0024 JN**	--	**0.00073**	**0.00074**	--	**0.00046**	--	--
E1633	Perfluoropentanesulfonic acid (PFPeS)	mg/kg				--	--	--	< 0.00060 U	--	< 0.00028 U	--	< 0.00035 U	< 0.00034 U	--	< 0.00034 U	--	--
E1633	Perfluoropentanoic acid (PFPeA)	mg/kg				--	--	--	< 0.0012 U	--	< 0.0055 U	--	< 0.00069 U	< 0.00068 U	--	< 0.00067 U	--	--
E1633	Perfluorotetradecanoic acid (PFTA)	mg/kg				--	--	--	< 0.00060 U	--	< 0.00028 U	--	< 0.00035 U	< 0.00034 U	--	< 0.00034 U	--	--
E1633	Perfluorotridecanoic acid (PFTriA)	mg/kg				--	--	--	**0.0085 JN**	--	< 0.00028 U	--	< 0.00035 U	< 0.00034 U	--	< 0.00034 U	--	--
E1633	Perfluoroundecanoic acid (PFUnA)	mg/kg				--	--	--	< 0.00060 U	--	< 0.00028 U	--	< 0.00035 U	< 0.00034 U	--	< 0.00034 U	--	--
E1633	Perfuorononanoic acid (PFNA)	mg/kg				--	--	--	**0.01 JN**	--	**0.009**	--	**0.011**	**0.012**	--	**0.0058**	--	--
Waste Characterization Parameters																		
D240	PARR HV BTU	btu/lb				**5050**	**3030**	DNF	**3110**	DNF	**3900**	**5430**	**4310**	--	**3280**	**3090**	**3930**	--
E1664B	SGT HEM (OIL AND GREASE - NONPOLAR)	mg/kg				**4380**	**12800**	**4930**	**11700**	**13300**	**45000**	**19700**	**10400**	--	**19000**	**18000**	**27200**	--
LLOYDKAHN	TOTAL ORGANIC CARBON	mg/kg				**266000**	**403000**	**140000**	**280000**	**447000**	**231000 J**	**263000**	**324000**	**291000**	**216000**	**355000**	**255000**	**302000**
SW1010	FLASH POINT	deg F				**>175**	**>175**	**>175**	**>175**	**>175**	**>175**	**>175**	**>175**	--	**>175**	**>175**	**>175**	--
SW8015D	ETHYLENE GLYCOL	mg/kg				< 62 U	< 93 U	< 69 U	< 48 U	< 98 U	< 93 U	< 61 U	< 100 U	--	< 85 U	< 97 U	< 100 U	--
SW9012	REACTIVE CYANIDE	mg/kg				< 9.4 U	< 9.7 U	< 9.9 U	< 9.7 U	< 9.9 U	< 9.9 U	< 9.6 U	< 9.9 U	--	< 9.7 U	< 10 U	< 9.7 U	--
SW9034	SULFIDE REACTIVE	mg/kg				< 9.4 U	**175**	**99.5**	**155**	**377**	**79.1**	< 9.6 U	**119**	--	**156**	**180**	**291**	--
SW9045D	PH	SU				**7.6**	**7.6**	**7.7**	**7.9**	**7.3**	**7.5**	**7.6**	**8**	--	**7.5**	**7.1**	**7.0**	--
SW9045D	TEMPERATURE	deg C				**20.0**	**20.0**	**20.1**	**20.1**	**20.1**	**18.5**	**18.4**	**18.4**	--	**18.3**	**18.4**	**18.6**	--
SW9095B	FREE LIQUIDS	ml/100g				**Passed**	**Passed**	**Passed**	**Passed**	**Passed**	**Passed**	**Passed**	**Passed**	--	**Passed**	**Passed**	**Passed**	--

Notes:
Criteria = 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives (SCOs), Effective 12/14/06. Where there were no Part 375.6 SCOs, the NYSDEC CP-51 Table 1 Supplemental SCOs, Effective 12/2/10, and the NYSDEC April 2023 PFAS guidance values, were provided. Where there were no Unrestricted Use SCOs, the lowest of the Supplemental SCOs was selected.
(1) - Unrestricted Use SCOs
(2) - Industrial Use SCOs
(3) - Protection of Groundwater SCOs

Definitions:
ft bws - feet below water surface
mg/kg - milligrams per kilogram
"--" - Not analyzed
btu/lb - BTU per pound
deg F - degrees Fahrenheit
SU - standard units
deg C - degrees Celsius
ml/100g - milters per 100 grams

DNF - When prepped for Heat of Combustion/BTU analysis, the sample did not combust. The sample was run in duplicate to confirm. The result is reported as "Did Not Fire" (DNF).

J - Reported concentration is an estimated value.
J+ - Reported concentration is an estimated value, and may be biased high.
JN - Reported concentration is an estimated value, that has been "tentatively identified".
U - Analyte was analyzed for but was not detected above the reported limit.
UJ - Analyte was analyzed for but was not detected above the reported limit, but the reported limit is approximate.

Bold	Analyte was detected
Underline	Detected concentration exceeds Criteria (1)
Highlight	Detected concentration exceeds Criteria (2)
Highlight	Detected concentration exceeds Criteria (3)

Table 5-3
2024 Sediment Analytical Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

					Location	SED-12	SED-13	SED-14	SED-15
					Sample Name	SED-12-20240604	SED-13-20240604	SED-14-20240604	SED-15-20240604
					Sample Date	6/4/2024	6/4/2024	6/4/2024	6/4/2024
					Sample Depth Interval (ft bws)	12.5-15.2	16.7-18.8	15.8-19	8.4-10.4
					Sediment Consistency	Medium Stiff / Hard	Soft	Medium Stiff / Hard	Soft
Method	Analyte	Unit	Criteria						
			(1)	(2)	(3)				
Volatile Organic Compounds (VOCs)									
SW8260C	1,1,1-TRICHLOROETHANE (TCA)	mg/kg	0.68	1000	0.68	< 15 U	< 31 U	< 3.8 U	< 2.5 U
SW8260C	1,1,2,2-TETRACHLOROETHANE	mg/kg	0.6		0.6	< 15 U	< 31 U	< 3.8 U	< 2.5 U
SW8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	mg/kg	6		6	< 15 U	< 31 U	< 3.8 U	< 2.5 U
SW8260C	1,1,2-TRICHLOROETHANE	mg/kg				< 15 U	< 31 U	< 3.8 U	< 2.5 U
SW8260C	1,1-DICHLOROETHANE	mg/kg	0.27	480	0.27	< 15 U	< 31 U	< 3.8 U	< 2.5 U
SW8260C	1,1-DICHLOROETHENE	mg/kg	0.33	1000	0.33	< 15 U	< 31 U	< 3.8 U	< 2.5 U
SW8260C	1,2,4-TRICHLOROBENZENE	mg/kg	3.4		3.4	< 15 UJ	< 31 UJ	< 3.8 UJ	< 2.5 UJ
SW8260C	1,2-DIBROMO-3-CHLOROPROPANE	mg/kg				< 15 U	< 31 U	< 3.8 U	< 2.5 U
SW8260C	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	mg/kg				< 15 U	< 31 U	< 3.8 U	< 2.5 U
SW8260C	1,2-DICHLOROBENZENE	mg/kg	**1.1**	**1000**	**1.1**	**13 J**	< 31 U	**1.4 J**	**1.4 J**
SW8260C	1,2-DICHLOROETHANE	mg/kg	0.02	60	0.02	< 15 U	< 31 U	< 3.8 U	< 2.5 U
SW8260C	1,2-DICHLOROPROPANE	mg/kg	700			< 15 U	< 31 U	< 3.8 U	< 2.5 U
SW8260C	1,3-DICHLOROBENZENE	mg/kg	2.4	560	2.4	< 15 U	< 31 U	< 3.8 U	< 2.5 U
SW8260C	1,4-DICHLOROBENZENE	mg/kg	**1.8**	**250**	**1.8**	**9.3 J**	< 31 U	< 3.8 U	**1.3 J**
SW8260C	2-HEXANONE	mg/kg				< 73 U	< 150 U	< 19 U	< 13 U
SW8260C	ACETONE	mg/kg	0.05	1000	0.05	< 73 U	< 150 U	< 19 U	< 13 U
SW8260C	BENZENE	mg/kg	**0.06**	**89**	**0.06**	**320**	**180**	**170**	**3.5**
SW8260C	BROMODICHLOROMETHANE	mg/kg				< 15 U	< 31 U	< 3.8 U	< 2.5 U
SW8260C	BROMOFORM	mg/kg				< 15 U	< 31 U	< 3.8 U	< 2.5 U
SW8260C	BROMOMETHANE	mg/kg				< 15 U	< 31 U	< 3.8 U	< 2.5 U
SW8260C	CARBON DISULFIDE	mg/kg	2.7		2.7	< 15 U	< 31 U	< 3.8 U	< 2.5 U
SW8260C	CARBON TETRACHLORIDE	mg/kg	0.76	44	0.76	< 15 U	< 31 U	< 3.8 U	< 2.5 U
SW8260C	CHLOROBENZENE	mg/kg	**1.1**	**1000**	**1.1**	**61**	< 31 U	< 3.8 U	**12**
SW8260C	CHLOROETHANE	mg/kg	1.9		1.9	< 15 U	< 31 U	< 3.8 U	< 2.5 U
SW8260C	CHLOROFORM	mg/kg	0.37	700	0.37	< 15 U	< 31 U	< 3.8 U	< 2.5 U
SW8260C	CHLOROMETHANE	mg/kg				< 15 UJ	< 31 UJ	< 3.8 UJ	< 2.5 UJ
SW8260C	CIS-1,2-DICHLOROETHYLENE	mg/kg	0.25	1000	0.25	< 15 U	< 31 U	< 3.8 U	< 2.5 U
SW8260C	CIS-1,3-DICHLOROPROPENE	mg/kg				< 15 U	< 31 U	< 3.8 U	< 2.5 U
SW8260C	CYCLOHEXANE	mg/kg				**17 J**	**11 J**	**9.5 J**	**5.3 J**
SW8260C	DIBROMOCHLOROMETHANE	mg/kg	10			< 15 U	< 31 U	< 3.8 U	< 2.5 U
SW8260C	DICHLORODIFLUOROMETHANE	mg/kg				< 15 U	< 31 U	< 3.8 U	< 2.5 U
SW8260C	ETHYLBENZENE	mg/kg	**1**	**780**	**1**	**230**	**130**	**71**	< 2.5 U
SW8260C	ISOPROPYLBENZENE (CUMENE)	mg/kg	**2.3**		**2.3**	**24**	**15 J**	**6.8**	**3.7**
SW8260C	METHYL ACETATE	mg/kg				< 73 U	< 150 U	< 19 U	< 13 U
SW8260C	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	0.12	1000	0.12	< 73 U	< 150 U	< 19 U	< 13 U
SW8260C	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	mg/kg	1		1	< 73 U	< 150 U	< 19 U	< 13 U
SW8260C	METHYLCYCLOHEXANE	mg/kg				**52**	**47**	**24**	**18**
SW8260C	METHYLENE CHLORIDE	mg/kg	0.05	1000	0.05	< 15 U	< 31 U	< 3.8 U	< 2.5 U
SW8260C	STYRENE	mg/kg	**300**			< 15 U	< 31 U	< 3.8 U	< 2.5 U
SW8260C	TERT-BUTYL METHYL ETHER	mg/kg	0.93	1000	0.93	< 15 U	< 31 U	< 3.8 U	< 2.5 U
SW8260C	TETRACHLOROETHYLENE (PCE)	mg/kg	1.3	300	1.3	< 15 U	< 31 U	< 3.8 U	< 2.5 U
SW8260C	TOLUENE	mg/kg	**0.7**	**1000**	**0.7**	< 15 U	< 31 U	**1 J**	< 2.5 U
SW8260C	TRANS-1,2-DICHLOROETHENE	mg/kg	0.19	1000	0.19	< 15 U	< 31 U	< 3.8 U	< 2.5 U
SW8260C	TRANS-1,3-DICHLOROPROPENE	mg/kg				< 15 U	< 31 U	< 3.8 U	< 2.5 U
SW8260C	TRICHLOROETHYLENE (TCE)	mg/kg	0.47	400	0.47	< 15 U	< 31 U	< 3.8 U	< 2.5 U
SW8260C	TRICHLOROFLUOROMETHANE	mg/kg				< 15 U	< 31 U	< 3.8 U	< 2.5 U
SW8260C	VINYL CHLORIDE	mg/kg	0.02	27	0.02	< 15 U	< 31 U	< 3.8 U	< 2.5 U
SW8260C	XYLENES	mg/kg	**0.26**	**1000**	**1.6**	**11 J**	< 61 U	**3.9 J**	< 5.1 U

Table 5-3
2024 Sediment Analytical Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

						Location	SED-12	SED-13	SED-14	SED-15
						Sample Name	SED-12-20240604	SED-13-20240604	SED-14-20240604	SED-15-20240604
						Sample Date	6/4/2024	6/4/2024	6/4/2024	6/4/2024
						Sample Depth Interval (ft bws)	12.5-15.2	16.7-18.8	15.8-19	8.4-10.4
						Sediment Consistency	Medium Stiff / Hard	Soft	Medium Stiff / Hard	Soft
Method	Analyte	Unit	Criteria							
			(1)	(2)	(3)					
Semi Volatile Organic Compounds (SVOCs)										
SW8270D	2,4,5-TRICHLOROPHENOL	mg/kg	0.1		0.1		< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	2,4,6-TRICHLOROPHENOL	mg/kg	10				< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	2,4-DICHLOROPHENOL	mg/kg	0.4		0.4		< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	2,4-DIMETHYLPHENOL	mg/kg					< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	2,4-DINITROPHENOL	mg/kg	0.2		0.2		< 360 U	< 2800 U	< 2600 U	< 260 U
SW8270D	2,4-DINITROTOLUENE	mg/kg					< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	2,6-DINITROTOLUENE	mg/kg	1.0		1.0		< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	2-CHLORONAPHTHALENE	mg/kg					< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	2-CHLOROPHENOL	mg/kg	0.8				< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	2-METHYLNAPHTHALENE	mg/kg	**0.41**		**36.4**		**710**	**460**	**470**	**67**
SW8270D	2-METHYLPHENOL (O-CRESOL)	mg/kg	0.33	1000	0.33		< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	2-NITROANILINE	mg/kg	0.4		0.4		< 71 U	< 550 U	< 520 U	< 52 U
SW8270D	2-NITROPHENOL	mg/kg	0.3		0.3		< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	3,3'-DICHLOROBENZIDINE	mg/kg					< 71 U	< 550 U	< 520 U	< 52 U
SW8270D	3-NITROANILINE	mg/kg	0.5		0.5		< 71 U	< 550 U	< 520 U	< 52 U
SW8270D	4,6-DINITRO-2-METHYLPHENOL	mg/kg					< 71 U	< 550 U	< 520 U	< 52 U
SW8270D	4-BROMOPHENYL PHENYL ETHER	mg/kg					< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	4-CHLORO-3-METHYLPHENOL	mg/kg					< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	4-CHLOROANILINE	mg/kg	0.22		0.22		< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	4-CHLOROPHENYL PHENYL ETHER	mg/kg					< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	4-METHYLPHENOL (P-CRESOL)	mg/kg	0.33	1000	0.33		< 71 U	< 550 U	< 520 U	< 52 U
SW8270D	4-NITROANILINE	mg/kg					< 71 U	< 550 U	< 520 U	< 52 U
SW8270D	4-NITROPHENOL	mg/kg	0.1		0.1		< 71 U	< 550 U	< 520 U	< 52 U
SW8270D	ACENAPHTHENE	mg/kg	**20**	**1000**	**98**		**37**	< 280 U	< 270 U	< 27 U
SW8270D	ACENAPHTHYLENE	mg/kg	**100**	**1000**	**107**		< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	ACETOPHENONE	mg/kg					< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	ANTHRACENE	mg/kg	**100**	**1000**	**1000**		**20 J**	< 280 U	< 270 U	< 27 U
SW8270D	ATRAZINE	mg/kg					< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	BENZALDEHYDE	mg/kg					< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	BENZO(A)ANTHRACENE	mg/kg	**1**	**11**	**1**		**11 J**	**65 J**	< 270 U	< 27 U
SW8270D	BENZO(A)PYRENE	mg/kg	**1**	**1.1**	**22**		< 36 U	**42 J**	< 270 U	< 27 U
SW8270D	BENZO(B)FLUORANTHENE	mg/kg	**1**	**11**	**1.7**		< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	BENZO(G,H,I)PERYLENE	mg/kg	**100**	**1000**	**1000**		< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	BENZO(K)FLUORANTHENE	mg/kg	**0.8**	**110**	**1.7**		< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	BENZYL BUTYL PHTHALATE	mg/kg	100		122		< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	BIPHENYL (DIPHENYL)	mg/kg	**60**				< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	BIS(2-CHLOROETHOXY) METHANE	mg/kg					< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	BIS(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER)	mg/kg					< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	BIS(2-CHLOROISOPROPYL) ETHER	mg/kg					< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	50		435		< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	CAPROLACTAM	mg/kg					< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	CARBAZOLE	mg/kg					**6.9 J**	< 280 U	< 270 U	< 27 U
SW8270D	CHRYSENE	mg/kg	**1**	**110**	**1**		**20 J**	**78 J**	**91 J**	< 27 U
SW8270D	DIBENZ(A,H)ANTHRACENE	mg/kg	0.33	1.1	1000		< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	DIBENZOFURAN	mg/kg	**7**	**1000**	**210**		**36**	**51 J**	< 270 U	< 27 U
SW8270D	DIETHYL PHTHALATE	mg/kg	7.1		7.1		< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	DIMETHYL PHTHALATE	mg/kg	27		27		< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	DI-N-BUTYL PHTHALATE	mg/kg	0.014		8.1		< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	DI-N-OCTYLPHTHALATE	mg/kg	**100**		**120**		< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	FLUORANTHENE	mg/kg	**100**	**1000**	**1000**		**11 J**	**130 J**	**110 J**	**3.7 J**

Table 5-3
2024 Sediment Analytical Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

					Location	SED-12	SED-13	SED-14	SED-15
					Sample Name	SED-12-20240604	SED-13-20240604	SED-14-20240604	SED-15-20240604
					Sample Date	6/4/2024	6/4/2024	6/4/2024	6/4/2024
					Sample Depth Interval (ft bws)	12.5-15.2	16.7-18.8	15.8-19	8.4-10.4
					Sediment Consistency	Medium Stiff / Hard	Soft	Medium Stiff / Hard	Soft
Method	Analyte	Unit	Criteria						
			(1)	(2)	(3)				
SW8270D	FLUORENE	mg/kg	**30**	**1000**	**386**	**66**	**100 J**	**83 J**	**7.9 J**
SW8270D	HEXACHLOROBENZENE	mg/kg	0.33	12	3.2	< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	HEXACHLOROBUTADIENE	mg/kg				< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	HEXACHLOROCYCLOPENTADIENE	mg/kg	10			< 36 UJ	< 280 U	< 270 U	< 27 UJ
SW8270D	HEXACHLOROETHANE	mg/kg				< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	INDENO(1,2,3-C,D)PYRENE	mg/kg	**0.5**	**11**	**8.2**	< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	ISOPHORONE	mg/kg	4.4		4.4	< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	NAPHTHALENE	mg/kg	**12**	**1000**	**12**	**120**	**440**	**300**	< 27 U
SW8270D	NITROBENZENE	mg/kg	0.17	140	0.17	< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	N-NITROSODI-N-PROPYLAMINE	mg/kg				< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	N-NITROSODIPHENYLAMINE	mg/kg	20			**140**	< 280 U	< 270 U	< 27 U
SW8270D	PENTACHLOROPHENOL	mg/kg	0.8	55	0.8	< 71 U	< 550 U	< 520 U	< 52 U
SW8270D	PHENANTHRENE	mg/kg	**100**	**1000**	**1000**	**190**	**350**	**270**	**27**
SW8270D	PHENOL	mg/kg	0.33	1000	0.33	< 36 U	< 280 U	< 270 U	< 27 U
SW8270D	PYRENE	mg/kg	**100**	**1000**	**1000**	**23 J**	**110 J**	**92 J**	**5.8 J**
SW8270D	1,4-DIOXANE (P-DIOXANE)	mg/kg	0.1	250	0.1	< 43 U	--	--	--
Pesticides									
SW8081B	ALDRIN	mg/kg	0.005	1.4	0.19	< 3.8 U	< 3.3 U	< 2.9 U	< 2.6 U
SW8081B	ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	mg/kg	0.02	6.8	0.02	< 3.8 U	< 3.3 U	< 2.9 U	< 2.6 U
SW8081B	ALPHA ENDOSULFAN	mg/kg	2.4	920	102	< 3.8 U	< 3.3 U	< 2.9 U	< 2.6 U
SW8081B	ALPHA-CHLORDANE	mg/kg	0.094	47	2.9	< 3.8 U	< 3.3 U	< 2.9 U	< 2.6 U
SW8081B	BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	mg/kg	0.036	14	0.09	< 3.8 U	< 3.3 U	< 2.9 U	< 2.6 U
SW8081B	BETA ENDOSULFAN	mg/kg	2.4	920	102	< 3.8 U	< 3.3 U	< 2.9 U	< 2.6 U
SW8081B	BETA-CHLORDANE	mg/kg				< 3.8 U	< 3.3 U	< 2.9 U	< 2.6 U
SW8081B	DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	mg/kg	0.04	1000	0.25	< 3.8 U	< 3.3 U	< 2.9 U	< 2.6 U
SW8081B	DIELDRIN	mg/kg	0.005	2.8	0.1	< 3.8 U	< 3.3 U	< 2.9 U	< 2.6 U
SW8081B	ENDOSULFAN SULFATE	mg/kg	2.4	920	1000	< 3.8 U	< 3.3 U	< 2.9 U	< 2.6 U
SW8081B	ENDRIN	mg/kg	0.014	410	0.06	< 3.8 U	< 3.3 U	< 2.9 U	< 2.6 U
SW8081B	ENDRIN ALDEHYDE	mg/kg				< 3.8 U	< 3.3 U	< 2.9 U	< 2.6 U
SW8081B	ENDRIN KETONE	mg/kg				< 3.8 U	< 3.3 U	< 2.9 U	< 2.6 U
SW8081B	GAMMA BHC (LINDANE)	mg/kg	0.1	23	0.1	< 3.8 U	< 3.3 U	< 2.9 U	< 2.6 U
SW8081B	HEPTACHLOR	mg/kg	0.042	29	0.38	< 3.8 U	< 3.3 U	< 2.9 U	< 2.6 U
SW8081B	HEPTACHLOR EPOXIDE	mg/kg	0.02		0.02	< 3.8 U	< 3.3 U	< 2.9 U	< 2.6 U
SW8081B	METHOXYCHLOR	mg/kg	1.2		900	< 3.8 U	< 3.3 U	< 2.9 U	< 2.6 U
SW8081B	P,P'-DDD	mg/kg	0.0033	180	14	< 3.8 U	< 3.3 U	< 2.9 U	< 2.6 U
SW8081B	P,P'-DDE	mg/kg	0.0033	120	17	< 3.8 U	< 3.3 U	< 2.9 U	< 2.6 U
SW8081B	P,P'-DDT	mg/kg	0.0033	94	136	< 3.8 U	< 3.3 U	< 2.9 U	< 2.6 U
SW8081B	TOXAPHENE	mg/kg				< 38 U	< 33 U	< 29 U	< 26 U
Polychlorinated Biphenyls (PCBs)									
SW8082A	PCB-1016 (AROCLOR 1016)	mg/kg				< 3.3 U	< 17 U	< 18 U	< 2.9 U
SW8082A	PCB-1221 (AROCLOR 1221)	mg/kg				< 3.3 U	< 17 U	< 18 U	< 2.9 U
SW8082A	PCB-1232 (AROCLOR 1232)	mg/kg				< 3.3 U	< 17 U	< 18 U	< 2.9 U
SW8082A	PCB-1242 (AROCLOR 1242)	mg/kg				< 3.3 U	< 17 U	< 18 U	< 2.9 U
SW8082A	PCB-1248 (AROCLOR 1248)	mg/kg				< 3.3 U	< 17 U	< 18 U	< 2.9 U
SW8082A	PCB-1254 (AROCLOR 1254)	mg/kg				< 3.3 U	< 17 U	< 18 U	< 2.9 U
SW8082A	PCB-1260 (AROCLOR 1260)	mg/kg				< 3.3 U	< 17 U	< 18 U	< 2.9 U
--	TOTAL PCBs	mg/kg	**0.1**	**25**	**3.2**	ND	ND	ND	ND
Metals and Inorganics									
SW6010C	ALUMINUM	mg/kg	**10000**			**15900**	**19300**	**41000**	**7080**
SW6010C	ANTIMONY	mg/kg	**12**			< 31.1 U	< 34.4 U	< 22.9 U	**2.4 J**
SW6010C	ARSENIC	mg/kg	**13**	**16**	**16**	**49.2**	**60.1**	**103**	**31.3**

Table 5-3
2024 Sediment Analytical Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

					Location	SED-12	SED-13	SED-14	SED-15
					Sample Name	SED-12-20240604	SED-13-20240604	SED-14-20240604	SED-15-20240604
					Sample Date	6/4/2024	6/4/2024	6/4/2024	6/4/2024
					Sample Depth Interval (ft bws)	12.5-15.2	16.7-18.8	15.8-19	8.4-10.4
					Sediment Consistency	Medium Stiff / Hard	Soft	Medium Stiff / Hard	Soft
Method	Analyte	Unit	Criteria						
			(1)	(2)	(3)				
SW6010C	BARIUM	mg/kg	350	10000	820	553	406	300	148
SW6010C	BERYLLIUM	mg/kg	7.2	2700	47	0.76	0.73	0.73	0.41
SW6010C	CADMIUM	mg/kg	2.5	60	7.5	6	4.3	3	1.5
SW6010C	CALCIUM	mg/kg	10000			41900	34700	33600	40300
SW6010C	CHROMIUM, TOTAL	mg/kg	1	800	19	9550	7760	2830	182
SW6010C	COBALT	mg/kg	20			21.6	17.1	13.5	17.8
SW6010C	COPPER	mg/kg	50	10000	1720	369	362	406	11700
SW6010C	IRON	mg/kg	2000			32100	32200	28100	48100
SW6010C	LEAD	mg/kg	63	3900	450	16400	4270	2630	472
SW6010C	MAGNESIUM	mg/kg				7610	9090	7170	13300
SW6010C	MANGANESE	mg/kg	1600	10000	2000	460	416	405	539
SW7471B	MERCURY	mg/kg	0.18	5.7	0.73	5.3	3.5	12.8	1.4
SW6010C	NICKEL	mg/kg	30	10000	130	443	356	358	375
SW6010C	POTASSIUM	mg/kg				2350	3070	1670	1210
SW6010C	SELENIUM	mg/kg	3.9	6800	4	10.3	8.6 J	5.1 J	8
SW6010C	SILVER	mg/kg	2	6800	8.3	0.62 J	< 1.4 U	< 0.91 U	0.74
SW6010C	SODIUM	mg/kg				846	732	1220	394
SW6010C	THALLIUM	mg/kg	5			< 12.4 U	< 13.8 U	< 9.1 U	< 7.3 U
SW6010C	VANADIUM	mg/kg	39			497	226	354	59.3
SW6010C	ZINC	mg/kg	109	10000	2480	3100	2860	1220	2390
SW9012	CYANIDE	mg/kg	27	10000	40	9.9	6.2	3.6 J	6.6
Per- and Polyfluoroalkyl Substances (PFAS)									
E1633	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid	mg/kg				< 0.0013 U	--	--	--
E1633	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2)	mg/kg				< 0.0013 U	--	--	--
E1633	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2)	mg/kg				< 0.0013 U	--	--	--
E1633	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2)	mg/kg				< 0.0013 U	--	--	--
E1633	2-(N-ethyl perfluoro-1-octanesulfonamido)-ethanol	mg/kg				< 0.0033 U	--	--	--
E1633	2-(N-methyl perfluoro-1-octanesulfonamido)-ethanol	mg/kg				< 0.0033 U	--	--	--
E1633	2-(N-methyl perfluorooctanesulfonamido) acetic acid	mg/kg				0.00041	--	--	--
E1633	2H,2H,3H,3H-Perfluorooctanoic acid	mg/kg				< 0.0084 U	--	--	--
E1633	3-Perfluoroheptyl propanoic acid	mg/kg				< 0.0084 U	--	--	--
E1633	3-Perfluoropropyl propanoic acid	mg/kg				< 0.0017 U	--	--	--
E1633	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	mg/kg				< 0.0013 U	--	--	--
E1633	9-Chlorohexadecafluoro-3-Oxanonane-1-Sulfonic Acid	mg/kg				< 0.0013 U	--	--	--
E1633	N-ethyl perfluoro-1-octanesulfonamide	mg/kg				0.00012 JN	--	--	--
E1633	N-ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine	mg/kg				0.002	--	--	--
E1633	N-methyl perfluoro-1-octanesulfonamide	mg/kg				< 0.00033 U	--	--	--
E1633	Nonafluoro-3,6-dioxaheptanoic acid	mg/kg				< 0.00067 U	--	--	--
E1633	Perfluoro(2-ethoxyethane)sulfonic acid	mg/kg				< 0.00067 U	--	--	--
E1633	Perfluoro(2-Propoxypropanoic) acid	mg/kg				< 0.0013 U	--	--	--
E1633	Perfluoro-3-methoxypropanoic acid	mg/kg				< 0.00067 U	--	--	--
E1633	Perfluoro-4-methoxybutanoic acid	mg/kg				< 0.00067 U	--	--	--
E1633	Perfluorobutanesulfonic acid (PFBS)	mg/kg				< 0.00033 U	--	--	--
E1633	Perfluorobutanoic acid	mg/kg				< 0.0013 U	--	--	--
E1633	Perfluorodecane sulfonic acid (PFDS)	mg/kg				0.00043 JN	--	--	--
E1633	Perfluorodecanoic acid (PFDA)	mg/kg				< 0.00033 U	--	--	--
E1633	Perfluorododecanesulfonic acid (PFDOS)	mg/kg				< 0.00033 U	--	--	--
E1633	Perfluorododecanoic acid (PFDoA)	mg/kg				< 0.00033 U	--	--	--
E1633	Perfluoroheptane sulfonate (PFHPS)	mg/kg				< 0.00033 U	--	--	--
E1633	Perfluoroheptanoic acid (PFHpA)	mg/kg				< 0.00033 U	--	--	--
E1633	Perfluorohexanesulfonic acid (PFHxS)	mg/kg				< 0.00033 U	--	--	--

Table 5-3
2024 Sediment Analytical Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

					Location	**SED-12**	**SED-13**	**SED-14**	**SED-15**
					Sample Name	**SED-12-20240604**	**SED-13-20240604**	**SED-14-20240604**	**SED-15-20240604**
					Sample Date	**6/4/2024**	**6/4/2024**	**6/4/2024**	**6/4/2024**
					Sample Depth Interval (ft bws)	**12.5-15.2**	**16.7-18.8**	**15.8-19**	**8.4-10.4**
					Sediment Consistency	**Medium Stiff / Hard**	**Soft**	**Medium Stiff / Hard**	**Soft**
Method	**Analyte**	**Unit**	**Criteria**						
			(1)	**(2)**	**(3)**				
E1633	Perfluorohexanoic acid (PFHxA)	mg/kg				< 0.00033 U	--	--	--
E1633	Perfluorononanesulfonic acid (PFNS)	mg/kg				< 0.00033 U	--	--	--
E1633	Perfluorooctane sulfonamide (PFOSA)	mg/kg				**0.0018 JN**	--	--	--
E1633	Perfluorooctanesulfonic acid (PFOS)	mg/kg	**0.00088**	**0.44**	**0.001**	**0.00058**	--	--	--
E1633	Perfluorooctanoic acid (PFOA)	mg/kg	**0.00066**	**0.6**	**0.0008**	**0.0011**	--	--	--
E1633	Perfluoropentanesulfonic acid (PFPeS)	mg/kg				< 0.00033 U	--	--	--
E1633	Perfluoropentanoic acid (PFPeA)	mg/kg				**0.00082**	--	--	--
E1633	Perfluorotetradecanoic acid (PFTA)	mg/kg				< 0.00033 U	--	--	--
E1633	Perfluorotridecanoic acid (PFTriA)	mg/kg				< 0.00033 U	--	--	--
E1633	Perfluoroundecanoic acid (PFUnA)	mg/kg				**0.00027 JN**	--	--	--
E1633	Perfuorononanoic acid (PFNA)	mg/kg				**0.0025**	--	--	--
Waste Characterization Parameters									
D240	PARR HV BTU	btu/lb				**2660**	DNF	**3090**	**1400**
E1664B	SGT HEM (OIL AND GREASE - NONPOLAR)	mg/kg				**16600**	**45600**	**31700**	**13500**
LLOYDKAHN	TOTAL ORGANIC CARBON	mg/kg				**203000**	**390000**	**211000**	**155000**
SW1010	FLASH POINT	deg F				**>175**	**>175**	**>175**	**>175**
SW8015D	ETHYLENE GLYCOL	mg/kg				< 93 U	< 120 U	< 82 U	< 67 U
SW9012	REACTIVE CYANIDE	mg/kg				< 9.4 U	< 9.5 U	< 9.9 U	< 9.2 U
SW9034	SULFIDE REACTIVE	mg/kg				**132**	**152**	**79.4**	**18.5**
SW9045D	PH	SU				**7.3**	**7.2**	**7.3**	**7.7**
SW9045D	TEMPERATURE	deg C				**18.5**	**18.4**	**18.6**	**18.3**
SW9095B	FREE LIQUIDS	ml/100g				**Passed**	**Passed**	**Passed**	**Passed**

Notes:
Criteria = 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives (SCOs), Effective 12/14/06. Where there were no Part 375.6 SCOs, the NYSDEC CP-51 Table 1 Supplemental SCOs, Effective 12/2/10, and the NYSDEC April 2023 PFAS guidance values, were provided. Where there were no Unrestricted Use SCOs, the lowest of the Supplemental SCOs was selected.
(1) - Unrestricted Use SCOs
(2) - Industrial Use SCOs
(3) - Protection of Groundwater SCOs

Definitions:
ft bws - feet below water surface
mg/kg - milligrams per kilogram
"--" - Not analyzed
btu/lb - BTU per pound
deg F - degrees Fahrenheit
SU - standard units
deg C - degrees Celsius
ml/100g - milters per 100 grams

DNF - When prepped for Heat of Combustion/BTU analysis, the sample did not combust. The sample was run in duplicate to confirm. The result is reported as "Did Not Fire" (DNF).

J - Reported concentration is an estimated value.
J+ - Reported concentration is an estimated value, and may be biased high.
JN - Reported concentration is an estimated value, that has been "tentatively identified".
U - Analyte was analyzed for but was not detected above the reported limit.
UJ - Analyte was analyzed for but was not detected above the reported limit, but the reported limit is approximate.

Bold	Analyte was detected
Underline	Detected concentration exceeds Criteria (1)
Highlight	Detected concentration exceeds Criteria (2)
Highlight	Detected concentration exceeds Criteria (3)

Table 5-4.1
2024 Surface Soil Analytical Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

						Location	HA-01	HA-02	HA-03	HA-04	HA-04	HA-05	HA-06	HA-07	HA-08	SB-01	SB-02	SB-02	SB-03	SB-04
						Sample Name	HA-01-0-0.2-20240710	HA-02-0.0-0.2-20240711	HA-03-0.0-0.2-20240711	HA-04-0.0-0.2-20240711	HA-04-0.0-0.2-FD-20240711	HA-05-0.0-0.2-20240711	HA-06-0.0-0.2-20240711	HA-07-0-0.2-20240710	HA-08-0-0.2-20240710	SB-01-0-0.2-20240709	SB-02-0.0-0.2-20240808	SB-02-0.0-0.2-FD-20240808	SB-03-0.0-0.2-20240715	SB-04-0.0-0.2-20240711
						Sample Date	7/10/2024	7/11/2024	7/11/2024	7/11/2024	7/11/2024	7/11/2024	7/11/2024	7/10/2024	7/10/2024	7/9/2024	8/8/2024	8/8/2024	7/15/2024	7/11/2024
						Sample Depth Interval (ft bgs)	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2
Method	**Analyte**	**Unit**	**Criteria**								**Field Duplicate**							**Field Duplicate**		
			(1)	**(2)**	**(3)**															
Semi Volatile Organic Compounds (SVOCs)																				
SW8270D	2,4,5-TRICHLOROPHENOL	mg/kg	0.1		0.1	< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	2,4,6-TRICHLOROPHENOL	mg/kg	10			< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	2,4-DICHLOROPHENOL	mg/kg	0.4		0.4	< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	2,4-DIMETHYLPHENOL	mg/kg				< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	2,4-DINITROPHENOL	mg/kg	0.2		0.2	< 380 U	< 220 U	< 360 U	< 210 U	< 210 U	< 11 U	< 10 U	< 20 U	< 21 U	< 17 U	< 230 U	< 220 U	< 18 U	< 220 U
SW8270D	2,4-DINITROTOLUENE	mg/kg				< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	2,6-DINITROTOLUENE	mg/kg	1.0		1.0	< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	2-CHLORONAPHTHALENE	mg/kg				< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	2-CHLOROPHENOL	mg/kg	0.8			< 75 U	< 43 U	< 71 U	< 42 U	< 41 U	< 2.2 U	< 2.1 U	< 3.9 U	< 4.2 U	< 3.3 U	< 46 U	< 44 U	< 3.7 U	< 44 U
SW8270D	2-METHYLNAPHTHALENE	mg/kg	0.41		36.4	< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	2-METHYLPHENOL (O-CRESOL)	mg/kg	0.33	1000	0	< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	2-NITROANILINE	mg/kg	0.4		0.4	< 75 U	< 43 U	< 71 U	< 42 U	< 41 U	< 2.2 U	< 2.1 U	< 3.9 U	< 4.2 U	< 3.3 U	< 46 U	< 44 U	< 3.7 U	< 44 U
SW8270D	2-NITROPHENOL	mg/kg	0.3		0.3	< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	3,3'-DICHLOROBENZIDINE	mg/kg				< 75 U	< 43 U	< 71 U	< 42 U	< 41 U	< 2.2 U	< 2.1 U	< 3.9 U	< 4.2 U	< 3.3 U	< 46 U	< 44 U	< 3.7 U	< 44 U
SW8270D	3-NITROANILINE	mg/kg	0.5		0.5	< 75 U	< 43 U	< 71 U	< 42 U	< 41 U	< 2.2 U	< 2.1 U	< 3.9 U	< 4.2 U	< 3.3 U	< 46 U	< 44 U	< 3.7 U	< 44 U
SW8270D	4,6-DINITRO-2-METHYLPHENOL	mg/kg				< 75 U	< 43 U	< 71 U	< 42 U	< 41 U	< 2.2 U	< 2.1 U	< 3.9 U	< 4.2 U	< 3.3 U	< 46 U	< 44 U	< 3.7 U	< 44 U
SW8270D	4-BROMOPHENYL PHENYL ETHER	mg/kg				< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	4-CHLORO-3-METHYLPHENOL	mg/kg				< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	4-CHLOROANILINE	mg/kg	0.22		0.22	< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	4-CHLOROPHENYL PHENYL ETHER	mg/kg				< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	4-METHYLPHENOL (P-CRESOL)	mg/kg	0.33	1000	0	< 75 U	< 43 U	< 71 U	< 42 U	< 41 U	< 2.2 U	< 2.1 U	< 3.9 U	< 4.2 U	< 3.3 U	< 46 U	< 44 U	< 3.7 U	< 44 U
SW8270D	4-NITROANILINE	mg/kg				< 75 U	< 43 U	< 71 U	< 42 U	< 41 U	< 2.2 U	< 2.1 U	< 3.9 U	< 4.2 U	< 3.3 U	< 46 U	< 44 U	< 3.7 U	< 44 U
SW8270D	4-NITROPHENOL	mg/kg	0.1		0.1	< 75 U	< 43 U	< 71 U	< 42 U	< 41 U	< 2.2 U	< 2.1 U	< 3.9 U	< 4.2 U	< 3.3 U	< 46 U	< 44 U	< 3.7 U	< 44 U
SW8270D	ACENAPHTHENE	mg/kg	20	1000	98	< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	ACENAPHTHYLENE	mg/kg	**100**	**1000**	**107**	< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	**0.3 J**	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	ACETOPHENONE	mg/kg				< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	ANTHRACENE	mg/kg	100	1000	1000	< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	ATRAZINE	mg/kg				< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	BENZALDEHYDE	mg/kg				< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	BENZO(A)ANTHRACENE	mg/kg	**1**	**11**	**1**	< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	**0.18 J**	< 1.1 U	**0.2 J**	**0.44 J**	< 1.7 U	< 24 U	< 23 U	**0.49 J**	< 23 U
SW8270D	BENZO(A)PYRENE	mg/kg	**1**	**1.1**	**22**	< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	**0.22 J**	< 1.1 U	< 2 U	**0.38 J**	< 1.7 U	< 24 U	< 23 U	**0.57 J**	< 23 U
SW8270D	BENZO(B)FLUORANTHENE	mg/kg	**1**	**11**	**2**	< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	**0.3 J**	< 1.1 U	**0.37 J**	**0.49 J**	< 1.7 U	< 24 U	< 23 U	**0.91 J**	< 23 U
SW8270D	BENZO(G,H,I)PERYLENE	mg/kg	**100**	**1000**	**1000**	< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	**0.21 J**	**0.13 J**	**0.4 J**	**0.36 J**	< 1.7 U	< 24 U	< 23 U	**0.43 J**	< 23 U
SW8270D	BENZO(K)FLUORANTHENE	mg/kg	**0.8**	**110**	**2**	< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	**0.16 J**	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	**0.33 J**	< 23 U
SW8270D	BENZYL BUTYL PHTHALATE	mg/kg	100		122	< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	BIPHENYL (DIPHENYL)	mg/kg	60			< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	BIS(2-CHLOROETHOXY) METHANE	mg/kg				< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	BIS(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER)	mg/kg				< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	BIS(2-CHLOROISOPROPYL) ETHER	mg/kg				< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	50		435	< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	CAPROLACTAM	mg/kg				< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	CARBAZOLE	mg/kg				< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	CHRYSENE	mg/kg	**1**	**110**	**1**	< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	**0.61 J**	< 23 U
SW8270D	DIBENZ(A,H)ANTHRACENE	mg/kg	0.33	1.1	1000	< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	DIBENZOFURAN	mg/kg	7	1000	210	< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	DIETHYL PHTHALATE	mg/kg	7.1		7.1	< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	DIMETHYL PHTHALATE	mg/kg	27		27	< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	DI-N-BUTYL PHTHALATE	mg/kg	0.014		8.1	< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	DI-N-OCTYLPHTHALATE	mg/kg	100		120	< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	FLUORANTHENE	mg/kg	**100**	**1000**	**1000**	< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	**0.69 J**	< 1.1 U	**0.22 J**	**0.5 J**	< 1.7 U	< 24 U	< 23 U	**0.97 J**	< 23 U
SW8270D	FLUORENE	mg/kg	30	1000	386	< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	HEXACHLOROBENZENE	mg/kg	0.33	12	3	< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	HEXACHLOROBUTADIENE	mg/kg				< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	HEXACHLOROCYCLOPENTADIENE	mg/kg	10			< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	HEXACHLOROETHANE	mg/kg				< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	INDENO(1,2,3-C,D)PYRENE	mg/kg	**0.5**	**11**	**8**	< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	**0.16 J**	< 1.1 U	**0.25 J**	**0.28 J**	< 1.7 U	< 24 U	< 23 U	**0.4 J**	< 23 U
SW8270D	ISOPHORONE	mg/kg	4.4		4.4	< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	NAPHTHALENE	mg/kg	12	1000	12	< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	NITROBENZENE	mg/kg	0.17	140	0.17	< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	N-NITROSODI-N-PROPYLAMINE	mg/kg				< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	N-NITROSODIPHENYLAMINE	mg/kg	20			< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U

Table 5-4.1
2024 Surface Soil Analytical Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

						Location	HA-01	HA-02	HA-03	HA-04	HA-04	HA-05	HA-06	HA-07	HA-08	SB-01	SB-02	SB-02	SB-03	SB-04
						Sample Name	HA-01-0-0.2-20240710	HA-02-0.0-0.2-20240711	HA-03-0.0-0.2-20240711	HA-04-0.0-0.2-20240711	HA-04-0.0-0.2-FD-20240711	HA-05-0.0-0.2-20240711	HA-06-0.0-0.2-20240711	HA-07-0-0.2-20240710	HA-08-0-0.2-20240710	SB-01-0-0.2-20240709	SB-02-0.0-0.2-20240808	SB-02-0.0-0.2-FD-20240808	SB-03-0.0-0.2-20240715	SB-04-0.0-0.2-20240711
						Sample Date	7/10/2024	7/11/2024	7/11/2024	7/11/2024	7/11/2024	7/11/2024	7/11/2024	7/10/2024	7/10/2024	7/9/2024	8/8/2024	8/8/2024	7/15/2024	7/11/2024
						Sample Depth Interval (ft bgs)	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2
Method	**Analyte**	**Unit**	**Criteria**								**Field Duplicate**							**Field Duplicate**		
			(1)	**(2)**	**(3)**															
SW8270D	PENTACHLOROPHENOL	mg/kg	0.8	55	1	< 75 U	< 43 U	< 71 U	< 42 U	< 41 U	< 2.2 U	< 2.1 U	< 3.9 U	< 4.2 U	< 3.3 U	< 46 U	< 44 U	< 3.7 U	< 44 U
SW8270D	PHENANTHRENE	mg/kg	**100**	**1000**	**1000**	< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	**0.17 J**	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	**0.45 J**	< 23 U
SW8270D	PHENOL	mg/kg	0.33	1000	0	< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	< 1.1 U	< 1.1 U	< 2 U	< 2.1 U	< 1.7 U	< 24 U	< 23 U	< 1.9 U	< 23 U
SW8270D	PYRENE	mg/kg	**100**	**1000**	**1000**	< 39 U	< 22 U	< 37 U	< 21 U	< 21 U	**0.45 J**	< 1.1 U	< 2 U	**0.43 J**	< 1.7 U	< 24 U	< 23 U	**0.73 J**	< 23 U
SW8270D	1,4-DIOXANE (P-DIOXANE)	mg/kg	0.1	250	0	< 23 U	--	--	--	--	--	--	--	--	< 1 U	--	--	--	--
Pesticides																				
SW8081B	ALDRIN	mg/kg	0.005	1.4	0.19	< 0.19 U	< 0.043 U	< 0.093 U	< 0.11 U	< 0.1 U	< 0.022 U	< 0.021 U	< 0.041 U	< 0.042 U	< 0.034 U	< 0.12 U	< 0.11 U	< 0.037 U	< 0.11 U
SW8081B	ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	mg/kg	0.02	6.8	0.02	< 0.19 U	< 0.043 U	< 0.093 U	< 0.11 U	< 0.1 U	< 0.022 U	< 0.021 U	< 0.041 U	< 0.042 U	< 0.034 U	< 0.12 U	< 0.11 U	< 0.037 U	< 0.11 U
SW8081B	ALPHA ENDOSULFAN	mg/kg	2.4	920	102	< 0.19 U	< 0.043 U	< 0.093 U	< 0.11 U	< 0.1 U	< 0.022 U	< 0.021 U	< 0.041 U	< 0.042 U	< 0.034 U	< 0.12 U	< 0.11 U	< 0.037 U	< 0.11 U
SW8081B	ALPHA-CHLORDANE	mg/kg	0.094	47	2.9	< 0.19 U	< 0.043 U	< 0.093 U	< 0.11 U	< 0.1 U	< 0.022 U	< 0.021 U	< 0.041 U	< 0.042 U	< 0.034 U	< 0.12 U	< 0.11 U	< 0.037 U	< 0.11 U
SW8081B	BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	mg/kg	0.036	14	0.09	< 0.19 U	< 0.043 U	< 0.093 U	< 0.11 U	< 0.1 U	< 0.022 U	< 0.021 U	< 0.041 U	< 0.042 U	< 0.034 U	< 0.12 U	< 0.11 U	< 0.037 U	< 0.11 U
SW8081B	BETA ENDOSULFAN	mg/kg	2.4	920	102	< 0.19 U	< 0.043 U	< 0.093 U	< 0.11 U	< 0.1 U	< 0.022 U	< 0.021 U	< 0.041 U	< 0.042 U	< 0.034 U	< 0.12 U	< 0.11 U	< 0.037 U	< 0.11 U
SW8081B	BETA-CHLORDANE	mg/kg				< 0.19 U	< 0.043 U	< 0.093 U	< 0.11 U	< 0.1 U	< 0.022 U	< 0.021 U	< 0.041 U	< 0.042 U	< 0.034 U	< 0.12 U	< 0.11 U	< 0.037 U	< 0.11 U
SW8081B	DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	mg/kg	0.04	1000	0.25	< 0.19 U	< 0.043 U	< 0.093 U	< 0.11 U	< 0.1 U	< 0.022 U	< 0.021 U	< 0.041 U	< 0.042 U	< 0.034 U	< 0.12 U	< 0.11 U	< 0.037 U	< 0.11 U
SW8081B	DIELDRIN	mg/kg	0.005	2.8	0.1	< 0.19 U	< 0.043 U	< 0.093 U	< 0.11 U	< 0.1 U	< 0.022 U	< 0.021 U	< 0.041 U	< 0.042 U	< 0.034 U	< 0.12 U	< 0.11 U	< 0.037 U	< 0.11 U
SW8081B	ENDOSULFAN SULFATE	mg/kg	2.4	920	1000	< 0.19 U	< 0.043 U	< 0.093 U	< 0.11 U	< 0.1 U	< 0.022 U	< 0.021 U	< 0.041 U	< 0.042 U	< 0.034 U	< 0.12 U	< 0.11 U	< 0.037 U	< 0.11 U
SW8081B	ENDRIN	mg/kg	0.014	410	0.06	< 0.19 U	< 0.043 U	< 0.093 U	< 0.11 U	< 0.1 U	< 0.022 U	< 0.021 U	< 0.041 U	< 0.042 U	< 0.034 U	< 0.12 U	< 0.11 U	< 0.037 U	< 0.11 U
SW8081B	ENDRIN ALDEHYDE	mg/kg				< 0.19 U	< 0.043 U	< 0.093 U	< 0.11 U	< 0.1 U	< 0.022 U	< 0.021 U	< 0.041 U	< 0.042 U	< 0.034 U	< 0.12 U	< 0.11 U	< 0.037 U	< 0.11 U
SW8081B	ENDRIN KETONE	mg/kg				< 0.19 U	< 0.043 U	< 0.093 U	< 0.11 U	< 0.1 U	< 0.022 U	< 0.021 U	**0.03 J**	< 0.042 U	< 0.034 U	< 0.12 U	< 0.11 U	< 0.037 U	< 0.11 U
SW8081B	GAMMA BHC (LINDANE)	mg/kg	0.1	23	0.1	< 0.19 U	< 0.043 U	< 0.093 U	< 0.11 U	< 0.1 U	< 0.022 U	< 0.021 U	< 0.041 U	< 0.042 U	< 0.034 U	< 0.12 U	< 0.11 U	< 0.037 U	< 0.11 U
SW8081B	HEPTACHLOR	mg/kg	0.042	29	0.38	< 0.19 U	< 0.043 U	< 0.093 U	< 0.11 U	< 0.1 U	< 0.022 U	< 0.021 U	< 0.041 U	< 0.042 U	< 0.034 U	< 0.12 U	< 0.11 U	< 0.037 U	< 0.11 U
SW8081B	HEPTACHLOR EPOXIDE	mg/kg	0.02		0.02	< 0.19 U	< 0.043 U	< 0.093 U	< 0.11 U	< 0.1 U	< 0.022 U	< 0.021 U	< 0.041 U	< 0.042 U	< 0.034 U	< 0.12 U	< 0.11 U	< 0.037 U	< 0.11 U
SW8081B	METHOXYCHLOR	mg/kg	1.2		900	< 0.19 U	< 0.043 U	< 0.093 U	< 0.11 U	< 0.1 U	< 0.022 U	< 0.021 U	< 0.041 U	< 0.042 U	< 0.034 U	< 0.12 U	< 0.11 U	< 0.037 U	< 0.11 U
SW8081B	P,P'-DDD	mg/kg	**0.0033**	**180**	**14**	< 0.19 U	< 0.043 U	< 0.093 U	< 0.11 U	< 0.1 U	< 0.022 U	< 0.021 U	< 0.041 U	< 0.042 U	< 0.034 U	< 0.12 U	< 0.11 U	< 0.037 U	< 0.11 U
SW8081B	P,P'-DDE	mg/kg	0.0033	120	17	< 0.19 U	< 0.043 U	< 0.093 U	< 0.11 U	< 0.1 U	< 0.022 U	< 0.021 U	< 0.041 U	< 0.042 U	< 0.034 U	< 0.12 U	< 0.11 U	< 0.037 U	< 0.11 U
SW8081B	P,P'-DDT	mg/kg	**0.0033**	**94**	**136**	**0.16 J**	< 0.043 U	< 0.093 U	< 0.11 U	< 0.1 U	< 0.022 U	< 0.021 U	**0.094**	< 0.042 U	< 0.034 U	< 0.12 U	< 0.11 U	< 0.037 U	< 0.11 U
SW8081B	TOXAPHENE	mg/kg				< 1.9 U	< 0.43 U	< 0.93 U	< 1.1 U	< 1 U	< 0.22 U	< 0.21 U	< 0.41 U	< 0.42 U	< 0.34 U	< 1.2 U	< 1.1 U	< 0.37 U	< 1.1 U
Polychlorinated Biphenyls (PCBs)																				
SW8082A	PCB-1016 (AROCLOR 1016)	mg/kg				< 0.55 U	< 0.28 U	< 0.24 U	< 0.27 U	< 0.27 U	< 0.32 U	< 0.25 U	< 0.21 U	< 0.28 U	< 0.18 U	< 0.34 U	< 0.28 U	< 0.22 U	< 0.31 U
SW8082A	PCB-1221 (AROCLOR 1221)	mg/kg				< 0.55 U	< 0.28 U	< 0.24 U	< 0.27 U	< 0.27 U	< 0.32 U	< 0.25 U	< 0.21 U	< 0.28 U	< 0.18 U	< 0.34 U	< 0.28 U	< 0.22 U	< 0.31 U
SW8082A	PCB-1232 (AROCLOR 1232)	mg/kg				< 0.55 U	< 0.28 U	< 0.24 U	< 0.27 U	< 0.27 U	< 0.32 U	< 0.25 U	< 0.21 U	< 0.28 U	< 0.18 U	< 0.34 U	< 0.28 U	< 0.22 U	< 0.31 U
SW8082A	PCB-1242 (AROCLOR 1242)	mg/kg				< 0.55 U	< 0.28 U	< 0.24 U	< 0.27 U	< 0.27 U	< 0.32 U	< 0.25 U	< 0.21 U	< 0.28 U	< 0.18 U	< 0.34 U	< 0.28 U	< 0.22 U	< 0.31 U
SW8082A	PCB-1248 (AROCLOR 1248)	mg/kg				< 0.55 U	< 0.28 U	< 0.24 U	< 0.27 U	< 0.27 U	< 0.32 U	< 0.25 U	< 0.21 U	< 0.28 U	< 0.18 U	< 0.34 U	< 0.28 U	< 0.22 U	< 0.31 U
SW8082A	PCB-1254 (AROCLOR 1254)	mg/kg				< 0.55 U	< 0.28 U	< 0.24 U	< 0.27 U	< 0.27 U	< 0.32 U	< 0.25 U	< 0.21 U	< 0.28 U	< 0.18 U	< 0.34 U	< 0.28 U	< 0.22 U	< 0.31 U
SW8082A	PCB-1260 (AROCLOR 1260)	mg/kg				**0.51 J**	< 0.28 U	< 0.24 U	**0.38**	**0.25 J**	< 0.32 U	< 0.25 U	**0.48**	< 0.28 U	< 0.18 U	**0.29 J**	**0.27 J**	< 0.22 U	< 0.31 U
--	Total PCBs	mg/kg	**0.1**	**25**	**3.2**	**0.51**			**0.38**	**0.25**			**0.48**			**0.29**	**0.27**		
Metals and Inorganics																				
SW6010C	ALUMINUM	mg/kg	**10000**			**9430**	**13900**	**16700**	**24700**	**19900**	**14500**	**19600**	**19300**	**19400**	**5290**	**13700**	**13700**	**17000**	**14400**
SW6010C	ANTIMONY	mg/kg	**12**			**2.3 J**	**0.89 J**	**2.6 J**	**1.3 J**	**1.9 J**	< 20.0 U	< 19.9 U	**0.79 J**	**0.72 J**	< 15.7 U	**1.8 J**	**2.4 J**	**1.8 J**	**2.5 J**
SW6010C	ARSENIC	mg/kg	**13**	**16**	**16**	**5.2**	**8.2**	**14**	**7.1**	**7.6**	**4.4**	**4.1**	**3.9**	**5.2**	**59.2**	**9.6**	**8.1**	**4.6**	**11.4**
SW6010C	BARIUM	mg/kg	**350**	**10000**	**820**	**76.1**	**127**	**118**	**154**	**132**	**115**	**122**	**125**	**129**	**111**	**109**	**105**	**132**	**94.2**
SW6010C	BERYLLIUM	mg/kg	**7.2**	**2700**	**47**	**0.76**	**1**	**2.2**	**1.3**	**1.3**	**2.4**	**0.88**	**0.9**	**1.5**	**0.93**	**1.2**	**1.1**	**0.97**	**2.1**
SW6010C	CADMIUM	mg/kg	**2.5**	**60**	**7.5**	**0.59**	**0.88**	**0.74**	**0.94**	**1.1**	**0.24 J**	**0.27**	**0.34**	**0.43**	**0.63**	**1.1**	**1**	**0.56**	**0.8**
SW6010C	CALCIUM	mg/kg	**10000**			**30800**	**32500**	**29400**	**33300**	**19100**	**61700**	**52100**	**35800**	**47000**	**2950**	**68600**	**58900**	**71500**	**54600**
SW6010C	CHROMIUM, TOTAL	mg/kg	**1**	**800**	**19**	**32.3**	**35.7**	**35**	**38.3**	**41.1**	**13.5**	**27.4**	**28.1**	**27**	**190**	**41.3**	**39.1**	**28.6**	**32**
SW6010C	COBALT	mg/kg	**20**			**4.6**	**9.4**	**11.6**	**14.6**	**12.6**	**6.7**	**11.8**	**10.8**	**14.1**	**15.8**	**9.1**	**8.3**	**10.7**	**9.6**
SW6010C	COPPER	mg/kg	**50**	**10000**	**1720**	**32.7**	**38.2**	**46.4**	**39.9**	**43.9**	**14**	**23**	**29.5**	**40.3**	**47.3**	**49.1**	**45.3**	**45.2**	**41.1**
SW6010C	IRON	mg/kg	**2000**			**12700**	**19100**	**25400**	**27500**	**26400**	**11700**	**21000**	**19600**	**21300**	**10600**	**19500 J**	**18900**	**23100**	**22100**
SW6010C	LEAD	mg/kg	**63**	**3900**	**450**	**113**	**98.8**	**54.9**	**61.7**	**72.1**	**41.1**	**39.7**	**39.9**	**61.9**	**577**	**376 J**	**347 T**	**62.1**	**80.5**
SW6010C	MAGNESIUM	mg/kg				**9220**	**12300**	**11400**	**10900**	**10800**	**19700**	**16100**	**11900**	**14200**	**1380**	**21800 T**	**19900**	**15000**	**31400**
SW6010C	MANGANESE	mg/kg	**1600**	**10000**	**2000**	**410**	**639**	**387**	**832**	**567**	**769**	**552**	**492**	**784**	**90.8**	**710**	**627**	**763**	**527**
SW7471B	MERCURY	mg/kg	**0.18**	**5.7**	**0.73**	**0.19**	**0.42**	**0.062**	**0.10**	**0.079**	**0.069**	**0.024 J**	**0.64**	**0.85**	**0.37**	**0.22**	**0.24**	**0.14**	**0.041**
SW6010C	NICKEL	mg/kg	**30**	**10000**	**130**	**22.1**	**43**	**40.1**	**38.6**	**36.9**	**17.6**	**30.3**	**23.8**	**32**	**873**	**62.1**	**52.3**	**24.7**	**34**
SW6010C	POTASSIUM	mg/kg				**2490**	**3530**	**2960**	**5330**	**4150**	**2370**	**6080**	**5130**	**4350**	**425**	**2570**	**2840**	**4020**	**2660**
SW6010C	SELENIUM	mg/kg	**3.9**	**6800**	**4**	< 9.3 U	< 5.2 U	< 4.4 U	< 5.1 U	< 5.2 U	< 5.3 U	< 5.3 U	< 4.7 U	< 5.4 U	< 4.2 U	< 5.4 U	**1.3 J**	**1.2 J**	< 5.3 U
SW6010C	SILVER	mg/kg	**2**	**6800**	**8.3**	< 1.4 U	**0.35 J**	**0.23 J**	**0.28 J**	< 0.78 U	< 0.80 U	**0.38 J**	**0.24 J**	< 0.81 U	**1**	< 0.82 U	< 0.83 U	**0.34 J**	< 0.80 U
SW6010C	SODIUM	mg/kg				**169 J**	**227**	**326**	**266**	**280**	**471**	**274**	**198**	**247**	**234**	**253**	**263**	**225**	**325**
SW6010C	THALLIUM	mg/kg	5			< 14.0 U	< 7.7 U	< 6.6 U	< 7.7 U	< 7.8 U	< 8.0 U	< 8.0 U	< 7.0 U	< 8.1 U	**0.95 J**	< 8.2 U	< 8.3 U	< 6.5 U	< 8.0 U
SW6010C	VANADIUM	mg/kg	**39**			**30.0**	**41.7**	**47.1**	**55.6**	**50.9**	**15.8**	**44.1**	**37.7**	**36.1**	**107**	**154 J**	**113**	**32.7**	**45.7**
SW6010C	ZINC	mg/kg	**109**	**10000**	**2480**	**158**	**301**	**159**	**166**	**190**	**75.1**	**75.3**	**73.4**	**115**	**65.1**	**291 J-**	**290**	**117**	**185**
SW9012	CYANIDE	mg/kg	**27**	**10000**	**40**	**1.7 J**	< 1.2 U	**0.60 J**	< 1.1 U	< 1.2 U	**4.7**	< 1.3 U	< 1.2 U	**2.9**	< 0.99 U	< 1.4 R	< 1.2 U	**2.1**	< 1.3 U

Table 5-4.1
2024 Surface Soil Analytical Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

						Location	HA-01	HA-02	HA-03	HA-04	HA-04	HA-05	HA-06	HA-07	HA-08	SB-01	SB-02	SB-02	SB-03	SB-04
						Sample Name	HA-01-0-0.2-20240710	HA-02-0.0-0.2-20240711	HA-03-0.0-0.2-20240711	HA-04-0.0-0.2-20240711	HA-04-0.0-0.2-FD-20240711	HA-05-0.0-0.2-20240711	HA-06-0.0-0.2-20240711	HA-07-0-0.2-20240710	HA-08-0-0.2-20240710	SB-01-0-0.2-20240709	SB-02-0.0-0.2-20240808	SB-02-0.0-0.2-FD-20240808	SB-03-0.0-0.2-20240715	SB-04-0.0-0.2-20240711
						Sample Date	7/10/2024	7/11/2024	7/11/2024	7/11/2024	7/11/2024	7/11/2024	7/11/2024	7/10/2024	7/10/2024	7/9/2024	8/8/2024	8/8/2024	7/15/2024	7/11/2024
						Sample Depth Interval (ft bgs)	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2
Method	**Analyte**	**Unit**	**Criteria**								**Field Duplicate**							**Field Duplicate**		
			(1)	**(2)**	**(3)**															
Per- and Polyfluoroalkyl Substances (PFAS)																				
E1633	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid	mg/kg				< 0.0015 U	--	--	--	--	--	--	--	--	< 0.00067 U	--	--	--	--
E1633	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2)	mg/kg				< 0.0015 U	--	--	--	--	--	--	--	--	< 0.00067 U	--	--	--	--
E1633	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2)	mg/kg				< 0.0015 U	--	--	--	--	--	--	--	--	< 0.00067 U	--	--	--	--
E1633	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2)	mg/kg				< 0.0015 U	--	--	--	--	--	--	--	--	< 0.00067 U	--	--	--	--
E1633	2-(N-ethyl perfluoro-1-octanesulfonamido)-ethanol	mg/kg				< 0.0037 U	--	--	--	--	--	--	--	--	< 0.0017 U	--	--	--	--
E1633	2-(N-methyl perfluoro-1-octanesulfonamido)-ethanol	mg/kg				< 0.0037 U	--	--	--	--	--	--	--	--	< 0.0017 U	--	--	--	--
E1633	2-(N-methyl perfluorooctanesulfonamido) acetic acid	mg/kg				< 0.00037 U	--	--	--	--	--	--	--	--	< 0.00017 U	--	--	--	--
E1633	2H,2H,3H,3H-Perfluorooctanoic acid	mg/kg				< 0.0094 U	--	--	--	--	--	--	--	--	< 0.0042 U	--	--	--	--
E1633	3-Perfluoroheptyl propanoic acid	mg/kg				< 0.0094 U	--	--	--	--	--	--	--	--	< 0.0042 U	--	--	--	--
E1633	3-Perfluoropropyl propanoic acid	mg/kg				< 0.0019 U	--	--	--	--	--	--	--	--	< 0.00084 U	--	--	--	--
E1633	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	mg/kg				< 0.0015 U	--	--	--	--	--	--	--	--	< 0.00067 U	--	--	--	--
E1633	9-Chlorohexadecafluoro-3-Oxanonane-1-Sulfonic Acid	mg/kg				< 0.0015 U	--	--	--	--	--	--	--	--	< 0.00067 U	--	--	--	--
E1633	N-ethyl perfluoro-1-octanesulfonamide	mg/kg				< 0.00037 U	--	--	--	--	--	--	--	--	< 0.00017 U	--	--	--	--
E1633	N-ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine	mg/kg				< 0.00037 U	--	--	--	--	--	--	--	--	< 0.00017 U	--	--	--	--
E1633	N-methyl perfluoro-1-octanesulfonamide	mg/kg				< 0.00037 U	--	--	--	--	--	--	--	--	< 0.00017 U	--	--	--	--
E1633	Nonafluoro-3,6-dioxaheptanoic acid	mg/kg				< 0.00075 U	--	--	--	--	--	--	--	--	< 0.00034 U	--	--	--	--
E1633	Perfluoro(2-ethoxyethane)sulfonic acid	mg/kg				< 0.00075 U	--	--	--	--	--	--	--	--	< 0.00034 U	--	--	--	--
E1633	Perfluoro(2-Propoxypropanoic) acid	mg/kg				< 0.0015 U	--	--	--	--	--	--	--	--	< 0.00067 U	--	--	--	--
E1633	Perfluoro-3-methoxypropanoic acid	mg/kg				< 0.00075 U	--	--	--	--	--	--	--	--	< 0.00034 U	--	--	--	--
E1633	Perfluoro-4-methoxybutanoic acid	mg/kg				< 0.00075 U	--	--	--	--	--	--	--	--	< 0.00034 U	--	--	--	--
E1633	Perfluorobutanesulfonic acid (PFBS)	mg/kg				< 0.00037 U	--	--	--	--	--	--	--	--	< 0.00017 U	--	--	--	--
E1633	Perfluorobutanoic acid	mg/kg				< 0.0015 U	--	--	--	--	--	--	--	--	< 0.00067 U	--	--	--	--
E1633	Perfluorodecane sulfonic acid (PFDS)	mg/kg				< 0.00037 U	--	--	--	--	--	--	--	--	< 0.00017 U	--	--	--	--
E1633	Perfluorodecanoic acid (PFDA)	mg/kg				< 0.00037 U	--	--	--	--	--	--	--	--	< 0.00017 U	--	--	--	--
E1633	Perfluorododecanesulfonic acid (PFDOS)	mg/kg				< 0.00037 U	--	--	--	--	--	--	--	--	< 0.00017 U	--	--	--	--
E1633	Perfluorododecanoic acid (PFDoA)	mg/kg				< 0.00037 U	--	--	--	--	--	--	--	--	< 0.00017 U	--	--	--	--
E1633	Perfluoroheptane sulfonate (PFHPS)	mg/kg				< 0.00037 U	--	--	--	--	--	--	--	--	< 0.00017 U	--	--	--	--
E1633	Perfluoroheptanoic acid (PFHpA)	mg/kg				< 0.00037 U	--	--	--	--	--	--	--	--	< 0.00017 U	--	--	--	--
E1633	Perfluorohexanesulfonic acid (PFHxS)	mg/kg				< 0.00037 U	--	--	--	--	--	--	--	--	< 0.00017 U	--	--	--	--
E1633	Perfluorohexanoic acid (PFHxA)	mg/kg				**0.00063 JN**	--	--	--	--	--	--	--	--	< 0.00017 U	--	--	--	--
E1633	Perfluorononanesulfonic acid (PFNS)	mg/kg				< 0.00037 U	--	--	--	--	--	--	--	--	< 0.00017 U	--	--	--	--
E1633	Perfluorooctane sulfonamide (PFOSA)	mg/kg				< 0.00037 U	--	--	--	--	--	--	--	--	< 0.00017 U	--	--	--	--
E1633	Perfluorooctanesulfonic acid (PFOS)	mg/kg	**0.00088**	**0.44**	**0.001**	< 0.00037 U	--	--	--	--	--	--	--	--	**0.00016 J**	--	--	--	--
E1633	Perfluorooctanoic acid (PFOA)	mg/kg	0.00066	0.6	0.0008	< 0.00037 U	--	--	--	--	--	--	--	--	< 0.00017 U	--	--	--	--
E1633	Perfluoropentanesulfonic acid (PFPeS)	mg/kg				< 0.00037 U	--	--	--	--	--	--	--	--	< 0.00017 U	--	--	--	--
E1633	Perfluoropentanoic acid (PFPeA)	mg/kg				< 0.00075 U	--	--	--	--	--	--	--	--	< 0.00034 U	--	--	--	--
E1633	Perfluorotetradecanoic acid (PFTA)	mg/kg				< 0.00037 U	--	--	--	--	--	--	--	--	< 0.00017 U	--	--	--	--
E1633	Perfluorotridecanoic acid (PFTriA)	mg/kg				< 0.00037 U	--	--	--	--	--	--	--	--	< 0.00017 U	--	--	--	--
E1633	Perfluoroundecanoic acid (PFUnA)	mg/kg				< 0.00037 U	--	--	--	--	--	--	--	--	< 0.00017 U	--	--	--	--
E1633	Perfuorononanoic acid (PFNA)	mg/kg				< 0.00037 U	--	--	--	--	--	--	--	--	**0.000050 J**	--	--	--	--

Notes:
Criteria = 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives (SCOs), Effective 12/14/06. Where there were no Part 375.6 SCOs, the NYSDEC CP-51 Table 1 Supplemental SCOs, Effective 12/2/10, and the NYSDEC April 2023 PFAS guidance values, were provided. Where there were no Unrestricted Use SCOs, the lowest of the Supplemental SCOs was selected.
(1) - Unrestricted Use SCOs
(2) - Industrial Use SCOs
(3) - Protection of Groundwater SCOs

Definitions:
ft bgs - feet below water surface
mg/kg - milligrams per kilogram
"--" - Not analyzed
J - Reported concentration is an estimated value.
J+ - Reported concentration is an estimated value, and may be biased high.
J- - Reported concentration is an estimated value, and may be biased low.
JN - Reported concentration is an estimated value, that has been "tentatively identified".
U - Analyte was analyzed for but was not detected above the reported limit.
UJ - Analyte was analyzed for but was not detected above the reported limit, but the reported limit is approximate.

Bold	Analyte was detected
Underline	Detected concentration exceeds Criteria (1)
Highlight	Detected concentration exceeds Criteria (2)
Highlight	Detected concentration exceeds Criteria (3)

Table 5-4.1
2024 Surface Soil Analytical Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

						Location	SB-05	SB-07	SB-08	SB-09	SB-10
						Sample Name	SB-05-0.0-0.2-20240715	SB-07-0.0-0.2-20240808	SB-08-0.0-0.2-20240808	SB-09-0.0-0.2-20240808	SB-10-0-0.2-20240708
						Sample Date	7/15/2024	8/8/2024	8/8/2024	8/8/2024	7/8/2024
						Sample Depth Interval (ft bgs)	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2
Method	Analyte	Unit	Criteria								
			(1)	(2)	(3)						
Semi Volatile Organic Compounds (SVOCs)											
SW8270D	2,4,5-TRICHLOROPHENOL	mg/kg	0.1		0.1		< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	2,4,6-TRICHLOROPHENOL	mg/kg	10				< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	2,4-DICHLOROPHENOL	mg/kg	0.4		0.4		< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	2,4-DIMETHYLPHENOL	mg/kg					< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	2,4-DINITROPHENOL	mg/kg	0.2		0.2		< 170 U	< 18 U	< 180 U	< 20 U	< 40 U
SW8270D	2,4-DINITROTOLUENE	mg/kg					< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	2,6-DINITROTOLUENE	mg/kg	1.0		1.0		< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	2-CHLORONAPHTHALENE	mg/kg					< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	2-CHLOROPHENOL	mg/kg	0.8				< 35 U	< 3.7 U	< 36 U	< 4 U	< 8 U
SW8270D	2-METHYLNAPHTHALENE	mg/kg	0.41		36.4		< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	2-METHYLPHENOL (O-CRESOL)	mg/kg	0.33	1000	0		< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	2-NITROANILINE	mg/kg	0.4		0.4		< 35 U	< 3.7 U	< 36 U	< 4 U	< 8 U
SW8270D	2-NITROPHENOL	mg/kg	0.3		0.3		< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	3,3'-DICHLOROBENZIDINE	mg/kg					< 35 U	< 3.7 U	< 36 U	< 4 U	< 8 U
SW8270D	3-NITROANILINE	mg/kg	0.5		0.5		< 35 U	< 3.7 U	< 36 U	< 4 U	< 8 U
SW8270D	4,6-DINITRO-2-METHYLPHENOL	mg/kg					< 35 U	< 3.7 U	< 36 U	< 4 U	< 8 U
SW8270D	4-BROMOPHENYL PHENYL ETHER	mg/kg					< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	4-CHLORO-3-METHYLPHENOL	mg/kg					< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	4-CHLOROANILINE	mg/kg	0.22		0.22		< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	4-CHLOROPHENYL PHENYL ETHER	mg/kg					< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	4-METHYLPHENOL (P-CRESOL)	mg/kg	0.33	1000	0		< 35 U	< 3.7 U	< 36 U	< 4 U	< 8 U
SW8270D	4-NITROANILINE	mg/kg					< 35 U	< 3.7 U	< 36 U	< 4 U	< 8 U
SW8270D	4-NITROPHENOL	mg/kg	0.1		0.1		< 35 U	< 3.7 U	< 36 U	< 4 U	< 8 U
SW8270D	ACENAPHTHENE	mg/kg	20	1000	98		< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	ACENAPHTHYLENE	mg/kg	**100**	**1000**	**107**		< 18 U	< 1.9 U	< 19 U	**0.34 J**	< 4.1 U
SW8270D	ACETOPHENONE	mg/kg					< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	ANTHRACENE	mg/kg	100	1000	1000		< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	ATRAZINE	mg/kg					< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	BENZALDEHYDE	mg/kg					< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	BENZO(A)ANTHRACENE	mg/kg	**1**	**11**	**1**		< 18 U	< 1.9 U	< 19 U	**0.6 J**	< 4.1 U
SW8270D	BENZO(A)PYRENE	mg/kg	**1**	**1.1**	**22**		< 18 U	< 1.9 U	< 19 U	**0.68 J**	< 4.1 U
SW8270D	BENZO(B)FLUORANTHENE	mg/kg	**1**	**11**	**2**		< 18 U	< 1.9 U	< 19 U	**0.8 J**	< 4.1 U
SW8270D	BENZO(G,H,I)PERYLENE	mg/kg	**100**	**1000**	**1000**		< 18 U	< 1.9 U	**5.3 J**	**0.57 J**	< 4.1 U
SW8270D	BENZO(K)FLUORANTHENE	mg/kg	**0.8**	**110**	**2**		< 18 U	< 1.9 U	< 19 U	**0.42 J**	< 4.1 U
SW8270D	BENZYL BUTYL PHTHALATE	mg/kg	100		122		< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	BIPHENYL (DIPHENYL)	mg/kg	60				< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	BIS(2-CHLOROETHOXY) METHANE	mg/kg					< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	BIS(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER)	mg/kg					< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	BIS(2-CHLOROISOPROPYL) ETHER	mg/kg					< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	50		435		< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	CAPROLACTAM	mg/kg					< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	CARBAZOLE	mg/kg					< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	CHRYSENE	mg/kg	**1**	**110**	**1**		< 18 U	< 1.9 U	< 19 U	**0.64 J**	< 4.1 U
SW8270D	DIBENZ(A,H)ANTHRACENE	mg/kg	0.33	1.1	1000		< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	DIBENZOFURAN	mg/kg	7	1000	210		< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	DIETHYL PHTHALATE	mg/kg	7.1		7.1		< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	DIMETHYL PHTHALATE	mg/kg	27		27		< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	DI-N-BUTYL PHTHALATE	mg/kg	0.014		8.1		< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	DI-N-OCTYLPHTHALATE	mg/kg	100		120		< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	FLUORANTHENE	mg/kg	**100**	**1000**	**1000**		< 18 U	**0.21 J**	< 19 U	**0.99 J**	< 4.1 U
SW8270D	FLUORENE	mg/kg	30	1000	386		< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	HEXACHLOROBENZENE	mg/kg	0.33	12	3		< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	HEXACHLOROBUTADIENE	mg/kg					< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	HEXACHLOROCYCLOPENTADIENE	mg/kg	10				< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 UJ
SW8270D	HEXACHLOROETHANE	mg/kg					< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	INDENO(1,2,3-C,D)PYRENE	mg/kg	**0.5**	**11**	**8**		< 18 U	< 1.9 U	< 19 U	**0.44 J**	< 4.1 U
SW8270D	ISOPHORONE	mg/kg	4.4		4.4		< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	NAPHTHALENE	mg/kg	12	1000	12		< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	NITROBENZENE	mg/kg	0.17	140	0.17		< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	N-NITROSODI-N-PROPYLAMINE	mg/kg					< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	N-NITROSODIPHENYLAMINE	mg/kg	20				< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U

Table 5-4.1
2024 Surface Soil Analytical Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

					Location	**SB-05**	**SB-07**	**SB-08**	**SB-09**	**SB-10**
					Sample Name	**SB-05-0.0-0.2-20240715**	**SB-07-0.0-0.2-20240808**	**SB-08-0.0-0.2-20240808**	**SB-09-0.0-0.2-20240808**	**SB-10-0-0.2-20240708**
					Sample Date	**7/15/2024**	**8/8/2024**	**8/8/2024**	**8/8/2024**	**7/8/2024**
					Sample Depth Interval (ft bgs)	**0-0.2**	**0-0.2**	**0-0.2**	**0-0.2**	**0-0.2**
Method	**Analyte**	**Unit**	**Criteria**							
			(1)	**(2)**	**(3)**					
SW8270D	PENTACHLOROPHENOL	mg/kg	0.8	55	1	< 35 U	< 3.7 U	< 36 U	< 4 U	< 8 U
SW8270D	PHENANTHRENE	mg/kg	**100**	**1000**	**1000**	< 18 U	< 1.9 U	< 19 U	**0.42 J**	< 4.1 U
SW8270D	PHENOL	mg/kg	0.33	1000	0	< 18 U	< 1.9 U	< 19 U	< 2.1 U	< 4.1 U
SW8270D	PYRENE	mg/kg	**100**	**1000**	**1000**	< 18 U	< 1.9 U	< 19 U	**0.75 J**	< 4.1 U
SW8270D	1,4-DIOXANE (P-DIOXANE)	mg/kg	0.1	250	0	--	< 1.1 U	--	--	--
Pesticides										
SW8081B	ALDRIN	mg/kg	0.005	1.4	0.19	< 0.087 U	< 0.019 U	< 0.091 U	< 0.041 U	< 0.071 U
SW8081B	ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	mg/kg	0.02	6.8	0.02	< 0.087 U	< 0.019 U	< 0.091 U	< 0.041 U	< 0.071 U
SW8081B	ALPHA ENDOSULFAN	mg/kg	2.4	920	102	< 0.087 U	< 0.019 U	< 0.091 U	< 0.041 U	< 0.071 U
SW8081B	ALPHA-CHLORDANE	mg/kg	0.094	47	2.9	< 0.087 U	< 0.019 U	< 0.091 U	< 0.041 U	< 0.071 U
SW8081B	BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	mg/kg	0.036	14	0.09	< 0.087 U	< 0.019 U	< 0.091 U	< 0.041 U	< 0.071 U
SW8081B	BETA ENDOSULFAN	mg/kg	2.4	920	102	< 0.087 U	< 0.019 U	< 0.091 U	< 0.041 U	< 0.071 U
SW8081B	BETA-CHLORDANE	mg/kg				< 0.087 U	< 0.019 U	< 0.091 U	< 0.041 U	< 0.071 U
SW8081B	DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	mg/kg	0.04	1000	0.25	< 0.087 U	< 0.019 U	< 0.091 U	< 0.041 U	< 0.071 U
SW8081B	DIELDRIN	mg/kg	0.005	2.8	0.1	< 0.087 U	< 0.019 U	< 0.091 U	< 0.041 U	< 0.071 U
SW8081B	ENDOSULFAN SULFATE	mg/kg	2.4	920	1000	< 0.087 U	< 0.019 U	< 0.091 U	< 0.041 U	< 0.071 U
SW8081B	ENDRIN	mg/kg	0.014	410	0.06	< 0.087 U	< 0.019 U	< 0.091 U	< 0.041 U	< 0.071 U
SW8081B	ENDRIN ALDEHYDE	mg/kg				< 0.087 U	< 0.019 U	< 0.091 U	< 0.041 U	< 0.071 U
SW8081B	ENDRIN KETONE	mg/kg				< 0.087 U	< 0.019 U	< 0.091 U	< 0.041 U	< 0.071 U
SW8081B	GAMMA BHC (LINDANE)	mg/kg	0.1	23	0.1	< 0.087 U	< 0.019 U	< 0.091 U	< 0.041 U	< 0.071 U
SW8081B	HEPTACHLOR	mg/kg	0.042	29	0.38	< 0.087 U	< 0.019 U	< 0.091 U	< 0.041 U	< 0.071 U
SW8081B	HEPTACHLOR EPOXIDE	mg/kg	0.02		0.02	< 0.087 U	< 0.019 U	< 0.091 U	< 0.041 U	< 0.071 U
SW8081B	METHOXYCHLOR	mg/kg	1.2		900	< 0.087 U	< 0.019 U	< 0.091 U	< 0.041 U	< 0.071 U
SW8081B	P,P'-DDD	mg/kg	**0.0033**	**180**	**14**	< 0.087 U	< 0.019 U	< 0.091 U	< 0.041 U	**0.025 J**
SW8081B	P,P'-DDE	mg/kg	0.0033	120	17	< 0.087 U	< 0.019 U	< 0.091 U	< 0.041 U	< 0.071 U
SW8081B	P,P'-DDT	mg/kg	**0.0033**	**94**	**136**	< 0.087 U	< 0.019 U	< 0.091 U	< 0.041 U	**0.068 J**
SW8081B	TOXAPHENE	mg/kg				< 0.87 U	< 0.19 U	< 0.91 U	< 0.41 U	< 0.71 U
Polychlorinated Biphenyls (PCBs)										
SW8082A	PCB-1016 (AROCLOR 1016)	mg/kg				< 0.23 U	< 0.27 U	< 0.26 U	< 0.29 U	< 0.26 U
SW8082A	PCB-1221 (AROCLOR 1221)	mg/kg				< 0.23 U	< 0.27 U	< 0.26 U	< 0.29 U	< 0.26 U
SW8082A	PCB-1232 (AROCLOR 1232)	mg/kg				< 0.23 U	< 0.27 U	< 0.26 U	< 0.29 U	< 0.26 U
SW8082A	PCB-1242 (AROCLOR 1242)	mg/kg				< 0.23 U	< 0.27 U	< 0.26 U	< 0.29 U	< 0.26 U
SW8082A	PCB-1248 (AROCLOR 1248)	mg/kg				< 0.23 U	< 0.27 U	< 0.26 U	< 0.29 U	< 0.26 U
SW8082A	PCB-1254 (AROCLOR 1254)	mg/kg				< 0.23 U	< 0.27 U	< 0.26 U	< 0.29 U	< 0.26 U
SW8082A	PCB-1260 (AROCLOR 1260)	mg/kg				< 0.23 U	< 0.27 U	**0.31**	< 0.29 U	< 0.26 U
--	Total PCBs	mg/kg	**0.1**	**25**	**3.2**			**0.31**		
Metals and Inorganics										
SW6010C	ALUMINUM	mg/kg	**10000**			**12300**	**13400**	**15000**	**19000**	**18800**
SW6010C	ANTIMONY	mg/kg	**12**			**2.1 J-**	< 17.1 U	**0.62 J**	< 19.1 U	**0.88 J**
SW6010C	ARSENIC	mg/kg	**13**	**16**	**16**	**8.6**	**4.7**	**12.3**	**5.4**	**5.8**
SW6010C	BARIUM	mg/kg	**350**	**10000**	**820**	**78.2**	**121**	**98.6**	**119**	**139**
SW6010C	BERYLLIUM	mg/kg	**7.2**	**2700**	**47**	**1.1**	**3.4**	**0.99**	**1.1**	**1.1**
SW6010C	CADMIUM	mg/kg	**2.5**	**60**	**7.5**	**1.2**	< 0.23 U	**1.1**	**0.38**	**0.31**
SW6010C	CALCIUM	mg/kg	**10000**			**55200**	**64900**	**61900**	**37600**	**38900 J**
SW6010C	CHROMIUM, TOTAL	mg/kg	**1**	**800**	**19**	**24.5**	**15.7**	**110**	**33.7**	**36.1**
SW6010C	COBALT	mg/kg	**20**			**7.9**	**4.6**	**10.4**	**11.3**	**10.8**
SW6010C	COPPER	mg/kg	**50**	**10000**	**1720**	**27.3**	**11**	**146**	**38.1**	**54.2**
SW6010C	IRON	mg/kg	**2000**			**20800**	**10400**	**20300**	**20700**	**22500 J**
SW6010C	LEAD	mg/kg	**63**	**3900**	**450**	**93.6 J-**	**13.7**	**591 T**	**52.2 T**	**60.4**
SW6010C	MAGNESIUM	mg/kg				**31900**	**11400**	**23300**	**12400**	**12400**
SW6010C	MANGANESE	mg/kg	**1600**	**10000**	**2000**	**465**	**872**	**671**	**605**	**658 J**
SW7471B	MERCURY	mg/kg	**0.18**	**5.7**	**0.73**	**0.031**	**0.024**	**0.77**	**0.21**	**3.3**
SW6010C	NICKEL	mg/kg	**30**	**10000**	**130**	**19.7**	**15.2**	**74.3**	**30.9**	**27.4 J**
SW6010C	POTASSIUM	mg/kg				**2540**	**791**	**2960**	**4420**	**4640**
SW6010C	SELENIUM	mg/kg	**3.9**	**6800**	**4**	**1.3 J**	< 4.6 U	**1.2 J**	< 5.1 U	**1.2 J**
SW6010C	SILVER	mg/kg	**2**	**6800**	**8.3**	< 0.62 U	< 0.69 U	**0.21 J**	< 0.77 U	**0.25 J**
SW6010C	SODIUM	mg/kg				**293**	**788**	**246**	**190**	**211**
SW6010C	THALLIUM	mg/kg	5			< 6.2 U	< 6.9 U	< 6.4 U	< 7.7 U	< 7.1 U
SW6010C	VANADIUM	mg/kg	**39**			**31**	**6.1**	**131**	**37.1**	**35.6**
SW6010C	ZINC	mg/kg	**109**	**10000**	**2480**	**223 J+**	**70.3**	**262**	**102**	**114 J**
SW9012	CYANIDE	mg/kg	**27**	**10000**	**40**	< 1.1 UJ	**0.85 J**	**4.3**	**4.7 J-**	< 1.2 U

Table 5-4.1
2024 Surface Soil Analytical Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

						Location	SB-05	SB-07	SB-08	SB-09	SB-10
						Sample Name	SB-05-0.0-0.2-20240715	SB-07-0.0-0.2-20240808	SB-08-0.0-0.2-20240808	SB-09-0.0-0.2-20240808	SB-10-0-0.2-20240708
						Sample Date	7/15/2024	8/8/2024	8/8/2024	8/8/2024	7/8/2024
						Sample Depth Interval (ft bgs)	0-0.2	0-0.2	0-0.2	0-0.2	0-0.2
Method	Analyte	Unit	Criteria								
			(1)	(2)	(3)						
Per- and Polyfluoroalkyl Substances (PFAS)											
E1633	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid	mg/kg					--	< 0.00078 U	--	--	--
E1633	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2)	mg/kg					--	< 0.00078 U	--	--	--
E1633	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2)	mg/kg					--	< 0.00078 U	--	--	--
E1633	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2)	mg/kg					--	< 0.00078 U	--	--	--
E1633	2-(N-ethyl perfluoro-1-octanesulfonamido)-ethanol	mg/kg					--	< 0.0020 U	--	--	--
E1633	2-(N-methyl perfluoro-1-octanesulfonamido)-ethanol	mg/kg					--	< 0.0020 U	--	--	--
E1633	2-(N-methyl perfluorooctanesulfonamido) acetic acid	mg/kg					--	< 0.00020 U	--	--	--
E1633	2H,2H,3H,3H-Perfluorooctanoic acid	mg/kg					--	< 0.0049 U	--	--	--
E1633	3-Perfluoroheptyl propanoic acid	mg/kg					--	< 0.0049 U	--	--	--
E1633	3-Perfluoropropyl propanoic acid	mg/kg					--	< 0.00098 U	--	--	--
E1633	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	mg/kg					--	< 0.00078 U	--	--	--
E1633	9-Chlorohexadecafluoro-3-Oxanonane-1-Sulfonic Acid	mg/kg					--	< 0.00078 U	--	--	--
E1633	N-ethyl perfluoro-1-octanesulfonamide	mg/kg					--	< 0.00020 U	--	--	--
E1633	N-ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine	mg/kg					--	< 0.00020 U	--	--	--
E1633	N-methyl perfluoro-1-octanesulfonamide	mg/kg					--	< 0.00020 U	--	--	--
E1633	Nonafluoro-3,6-dioxaheptanoic acid	mg/kg					--	< 0.00039 U	--	--	--
E1633	Perfluoro(2-ethoxyethane)sulfonic acid	mg/kg					--	< 0.00039 U	--	--	--
E1633	Perfluoro(2-Propoxypropanoic) acid	mg/kg					--	< 0.00078 U	--	--	--
E1633	Perfluoro-3-methoxypropanoic acid	mg/kg					--	< 0.00039 U	--	--	--
E1633	Perfluoro-4-methoxybutanoic acid	mg/kg					--	< 0.00039 U	--	--	--
E1633	Perfluorobutanesulfonic acid (PFBS)	mg/kg					--	< 0.00020 U	--	--	--
E1633	Perfluorobutanoic acid	mg/kg					--	< 0.00078 U	--	--	--
E1633	Perfluorodecane sulfonic acid (PFDS)	mg/kg					--	< 0.00020 U	--	--	--
E1633	Perfluorodecanoic acid (PFDA)	mg/kg					--	**0.00012 J**	--	--	--
E1633	Perfluorododecanesulfonic acid (PFDOS)	mg/kg					--	< 0.00020 U	--	--	--
E1633	Perfluorododecanoic acid (PFDoA)	mg/kg					--	**0.000070 J**	--	--	--
E1633	Perfluoroheptane sulfonate (PFHPS)	mg/kg					--	< 0.00020 U	--	--	--
E1633	Perfluoroheptanoic acid (PFHpA)	mg/kg					--	< 0.00020 U	--	--	--
E1633	Perfluorohexanesulfonic acid (PFHxS)	mg/kg					--	< 0.00020 U	--	--	--
E1633	Perfluorohexanoic acid (PFHxA)	mg/kg					--	< 0.00020 U	--	--	--
E1633	Perfluorononanesulfonic acid (PFNS)	mg/kg					--	< 0.00020 U	--	--	--
E1633	Perfluorooctane sulfonamide (PFOSA)	mg/kg					--	< 0.00020 U	--	--	--
E1633	Perfluorooctanesulfonic acid (PFOS)	mg/kg	**0.00088**	**0.44**	**0.001**		--	**0.00019 J**	--	--	--
E1633	Perfluorooctanoic acid (PFOA)	mg/kg	0.00066	0.6	0.0008		--	< 0.00020 U	--	--	--
E1633	Perfluoropentanesulfonic acid (PFPeS)	mg/kg					--	< 0.00020 U	--	--	--
E1633	Perfluoropentanoic acid (PFPeA)	mg/kg					--	< 0.00039 U	--	--	--
E1633	Perfluorotetradecanoic acid (PFTA)	mg/kg					--	< 0.00020 U	--	--	--
E1633	Perfluorotridecanoic acid (PFTriA)	mg/kg					--	**0.000057 J**	--	--	--
E1633	Perfluoroundecanoic acid (PFUnA)	mg/kg					--	**0.00016 JN**	--	--	--
E1633	Perfuorononanoic acid (PFNA)	mg/kg					--	**0.000073 JN**	--	--	--

Notes:
Criteria = 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives (SCOs), Effective 12/14/06. Where there were no Part 375.6 SCOs, the NYSDEC CP-51 Table 1 Supplemental SCOs, Effective 12/2/10, and the NYSDEC April 2023 PFAS guidance values, were provided. Where there were no Unrestricted Use SCOs, the lowest of the Supplemental SCOs was selected.
(1) - Unrestricted Use SCOs
(2) - Industrial Use SCOs
(3) - Protection of Groundwater SCOs

Definitions:
ft bgs - feet below water surface
mg/kg - milligrams per kilogram
"--" - Not analyzed
J - Reported concentration is an estimated value.
J+ - Reported concentration is an estimated value, and may be biased high.
J- - Reported concentration is an estimated value, and may be biased low.
JN - Reported concentration is an estimated value, that has been "tentatively identified".
U - Analyte was analyzed for but was not detected above the reported limit.
UJ - Analyte was analyzed for but was not detected above the reported limit, but the reported limit is approximate.

Bold	Analyte was detected
Underline	Detected concentration exceeds Criteria (1)
Highlight	Detected concentration exceeds Criteria (2)
Highlight	Detected concentration exceeds Criteria (3)

Table 5-4.2
2024 Subsurface Soil Analytical Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

						Location	HA-01	HA-02	HA-02	HA-03	HA-04	HA-05	HA-06	HA-06	HA-07	HA-08	SB-01	SB-01	SB-02	SB-02	SB-03
						Sample Name	HA-01-2.5-3.5-20240710	HA-02-3.0-4.0-20240711	HA-02-3.0-4.0-FD-20240711	HA-03-2.3-2.5-20240711	HA-04-1.3-1.5-20240711	HA-05-3.0-4.0-20240711	HA-06-3.0-4.0-20240711	HA-06-3.0-4.0-FD-20240711	HA-07-3.0-4.0-20240710	HA-08-3.5-4.0-20240710	SB-01-26.0-31.7-20240711	SB-01-43.0-45.0-20240711	SB-02-10.0-11.0-20240808	SB-02-28.0-30.0-20240808	SB-03-5.0-7.0-20240808
						Sample Date	7/10/2024	7/11/2024	7/11/2024	7/11/2024	7/11/2024	7/11/2024	7/11/2024	7/11/2024	7/10/2024	7/10/2024	7/11/2024	7/11/2024	8/8/2024	8/8/2024	8/8/2024
						Sample Depth Interval (ft bgs)	2.5-3.5	3-4	3-4	2.3-2.5	1.3-1.5	3-4	3-4	3-4	3-4	3.5-4	26-31.7	43-45	10-11	28-30	5-7
Method	Analyte	Unit	Criteria (1)	Criteria (2)	Criteria (3)				Field Duplicate					Field Duplicate							
Volatile Organic Compounds (VOCs)																					
SW8260C	1,1,1-TRICHLOROETHANE (TCA)	mg/kg	0.68	1000	0.68	< 0.0040 U	< 1.1 U	< 0.0033 U	< 0.48 U	< 0.0048 U	< 0.0041 U	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	1,1,2,2-TETRACHLOROETHANE	mg/kg	0.6		0.6	< 0.0040 UJ	< 1.1 UJ	< 0.0033 U	< 0.48 UJ	< 0.0048 U	< 0.0041 UJ	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	mg/kg	6		6	< 0.0040 UJ	< 1.1 U	< 0.0033 U	< 0.48 U	< 0.0048 U	< 0.0041 U	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	1,1,2-TRICHLOROETHANE	mg/kg				< 0.0040 UJ	< 1.1 U	< 0.0033 U	< 0.48 U	< 0.0048 U	< 0.0041 UJ	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	1,1-DICHLOROETHANE	mg/kg	**0.27**	**480**	**0.27**	**0.00073 J**	< 1.1 U	< 0.0033 U	< 0.48 U	< 0.0048 U	< 0.0041 U	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	1,1-DICHLOROETHENE	mg/kg	0.33	1000	0.33	< 0.0040 U	< 1.1 U	< 0.0033 U	< 0.48 U	< 0.0048 U	< 0.0041 U	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	1,2,4-TRICHLOROBENZENE	mg/kg	3.4		3.4	< 0.0040 UJ	< 1.1 U	< 0.0033 U	< 0.48 U	< 0.0048 U	< 0.0041 UJ	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	1,2-DIBROMO-3-CHLOROPROPANE	mg/kg				< 0.0040 UJ	< 1.1 U	< 0.0033 U	< 0.48 U	< 0.0048 U	< 0.0041 UJ	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	mg/kg				< 0.0040 UJ	< 1.1 U	< 0.0033 U	< 0.48 U	< 0.0048 U	< 0.0041 UJ	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	1,2-DICHLOROBENZENE	mg/kg	1.1	1000	1.1	< 0.0040 UJ	< 1.1 U	< 0.0033 U	< 0.48 U	< 0.0048 U	< 0.0041 UJ	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	1,2-DICHLOROETHANE	mg/kg	0.02	60	0.02	< 0.0040 U	< 1.1 U	< 0.0033 U	< 0.48 U	< 0.0048 U	< 0.0041 U	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	1,2-DICHLOROPROPANE	mg/kg	700			< 0.0040 U	< 1.1 U	< 0.0033 U	< 0.48 U	< 0.0048 U	< 0.0041 U	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	1,3-DICHLOROBENZENE	mg/kg	2.4	560	2.4	< 0.0040 UJ	< 1.1 U	< 0.0033 U	< 0.48 U	< 0.0048 U	< 0.0041 UJ	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	1,4-DICHLOROBENZENE	mg/kg	1.8	250	1.8	< 0.0040 UJ	< 1.1 U	< 0.0033 U	< 0.48 U	< 0.0048 U	< 0.0041 UJ	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	2-HEXANONE	mg/kg				< 0.02 U	< 5.3 U	< 0.016 U	< 2.4 U	< 0.024 U	< 0.02 UJ	< 0.015 U	< 0.017 U	< 0.025 U	< 0.023 U	< 0.019 U	< 0.025 U	< 0.021 U	< 0.019 U	< 0.024 U
SW8260C	ACETONE	mg/kg	**0.05**	**1000**	**0.05**	**0.019 J**	< 5.3 U	< 0.016 U	< 2.4 U	**0.061**	< 0.02 UJ	< 0.015 U	**0.0052 J**	< 0.025 U	**0.021 J**	**0.01 J**	**0.011 J**	< 0.021 U	**0.016 J**	**0.11**
SW8260C	BENZENE	mg/kg	**0.06**	**89**	**0.06**	**0.00091 J**	< 1.1 U	< 0.0033 U	**13**	**0.0022 J**	< 0.0041 U	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	BROMODICHLOROMETHANE	mg/kg				< 0.0040 UJ	< 1.1 U	< 0.0033 U	< 0.48 U	< 0.0048 U	< 0.0041 U	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	BROMOFORM	mg/kg				< 0.0040 UJ	< 1.1 U	< 0.0033 U	< 0.48 U	< 0.0048 U	< 0.0041 U	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	BROMOMETHANE	mg/kg				< 0.0040 U	< 1.1 U	< 0.0033 U	< 0.48 U	< 0.0048 U	< 0.0041 U	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	CARBON DISULFIDE	mg/kg	2.7		2.7	< 0.0040 U	< 1.1 U	< 0.0033 U	< 0.48 U	< 0.0048 U	< 0.0041 U	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	CARBON TETRACHLORIDE	mg/kg	0.76	44	0.76	< 0.0040 UJ	< 1.1 U	< 0.0033 U	< 0.48 U	< 0.0048 U	< 0.0041 U	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	CHLOROBENZENE	mg/kg	1.1	1000	1.1	< 0.0040 UJ	< 1.1 U	< 0.0033 U	< 0.48 U	< 0.0048 U	< 0.0041 UJ	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	CHLOROETHANE	mg/kg	1.9		1.9	< 0.0040 U	< 1.1 U	< 0.0033 U	< 0.48 U	< 0.0048 U	< 0.0041 U	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	CHLOROFORM	mg/kg	0.37	700	0.37	< 0.0040 U	< 1.1 U	< 0.0033 U	< 0.48 U	< 0.0048 U	< 0.0041 U	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	CHLOROMETHANE	mg/kg				< 0.0040 U	< 1.1 U	< 0.0033 U	< 0.48 U	< 0.0048 U	< 0.0041 U	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	CIS-1,2-DICHLOROETHYLENE	mg/kg	0.25	1000	0.25	< 0.0040 U	< 1.1 U	< 0.0033 U	< 0.48 U	< 0.0048 U	< 0.0041 UJ	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	CIS-1,3-DICHLOROPROPENE	mg/kg				< 0.0040 UJ	< 1.1 U	< 0.0033 U	< 0.48 U	< 0.0048 U	< 0.0041 U	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	CYCLOHEXANE	mg/kg				**0.0020 J**	< 1.1 U	< 0.0033 U	< 0.48 U	**0.0012 J**	< 0.0041 UJ	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	DIBROMOCHLOROMETHANE	mg/kg	10			< 0.0040 U	< 1.1 U	< 0.0033 U	< 0.48 U	< 0.0048 U	< 0.0041 U	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	DICHLORODIFLUOROMETHANE	mg/kg				< 0.0040 U	< 1.1 U	< 0.0033 U	< 0.48 U	< 0.0048 U	< 0.0041 U	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	ETHYLBENZENE	mg/kg	**1**	**780**	**1**	**0.00079 J**	< 1.1 U	< 0.0033 U	**5.4**	**0.00073 J**	< 0.0041 UJ	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	ISOPROPYLBENZENE (CUMENE)	mg/kg	**2.3**		**2.3**	**0.0017 J**	< 1.1 U	< 0.0033 U	**0.74**	< 0.0048 U	< 0.0041 UJ	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	METHYL ACETATE	mg/kg				< 0.02 UJ	< 5.3 U	< 0.016 U	**1.9 J**	< 0.024 U	< 0.02 U	< 0.015 U	< 0.017 U	< 0.025 U	< 0.023 U	< 0.019 U	< 0.025 U	< 0.021 U	< 0.019 U	< 0.024 U
SW8260C	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	**0.12**	**1000**	**0.12**	**0.0037 J**	< 5.3 U	< 0.016 U	< 2.4 U	**0.012 J**	< 0.02 UJ	< 0.015 U	< 0.017 U	< 0.025 U	**0.0033 J**	< 0.019 U	< 0.025 U	< 0.021 U	< 0.019 U	**0.021 J**
SW8260C	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE	mg/kg	1		1	< 0.02 U	< 5.3 U	< 0.016 U	< 2.4 U	< 0.024 U	< 0.02 UJ	< 0.015 U	< 0.017 U	< 0.025 U	< 0.023 U	< 0.019 U	< 0.025 U	< 0.021 U	< 0.019 U	< 0.024 U
SW8260C	METHYLCYCLOHEXANE	mg/kg				**0.0039 J**	< 1.1 U	< 0.0033 U	**1.9**	**0.0021 J**	< 0.0041 UJ	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	METHYLENE CHLORIDE	mg/kg	**0.05**	**1000**	**0.05**	< 0.0040 U	< 1.1 U	< 0.0033 U	< 0.48 U	< 0.0048 U	< 0.0041 U	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	**0.0025 J**	**0.0036 J**
SW8260C	STYRENE	mg/kg	300			< 0.0040 UJ	< 1.1 U	< 0.0033 U	< 0.48 U	< 0.0048 U	< 0.0041 UJ	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	METHYL TERT-BUTYL ETHER	mg/kg	0.93	1000	0.93	< 0.0040 U	< 1.1 U	< 0.0033 U	< 0.48 U	< 0.0048 U	< 0.0041 U	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	TETRACHLOROETHYLENE (PCE)	mg/kg	**1.3**	**300**	**1.3**	**0.00077 J**	< 1.1 U	< 0.0033 U	< 0.48 U	< 0.0048 U	< 0.0041 UJ	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	TOLUENE	mg/kg	**0.7**	**1000**	**0.7**	**0.00038 J**	< 1.1 U	< 0.0033 U	**0.94**	**0.0015 J**	< 0.0041 UJ	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	TRANS-1,2-DICHLOROETHENE	mg/kg	0.19	1000	0.19	< 0.0040 U	< 1.1 U	< 0.0033 U	< 0.48 U	< 0.0048 U	< 0.0041 UJ	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	TRANS-1,3-DICHLOROPROPENE	mg/kg				< 0.0040 U	< 1.1 U	< 0.0033 U	< 0.48 U	< 0.0048 U	< 0.0041 U	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	TRICHLOROETHYLENE (TCE)	mg/kg	0.47	400	0.47	< 0.0040 UJ	< 1.1 U	< 0.0033 U	< 0.48 U	< 0.0048 U	< 0.0041 U	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	TRICHLOROFLUOROMETHANE	mg/kg				< 0.0040 U	< 1.1 U	< 0.0033 U	< 0.48 U	< 0.0048 U	< 0.0041 U	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	VINYL CHLORIDE	mg/kg	0.02	27	0.02	< 0.0040 U	< 1.1 U	< 0.0033 U	< 0.48 U	< 0.0048 U	< 0.0041 U	< 0.0031 U	< 0.0035 U	< 0.0049 U	< 0.0045 U	< 0.0038 U	< 0.0049 U	< 0.0042 U	< 0.0039 U	< 0.0047 U
SW8260C	XYLENES	mg/kg	**0.26**	**1000**	**1.6**	**0.0012 J**	< 2.1 U	< 0.0066 U	**15**	**0.0086 J**	< 0.0081 U	< 0.0061 U	< 0.0069 U	< 0.0099 U	< 0.0090 U	< 0.0077 U	< 0.0099 U	< 0.0084 U	< 0.0078 U	< 0.0095 U
Semi Volatile Organic Compounds (SVOCs)																					
SW8270D	2,4,5-TRICHLOROPHENOL	mg/kg	0.1		0.1	< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	2,4,6-TRICHLOROPHENOL	mg/kg	10			< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	2,4-DICHLOROPHENOL	mg/kg	0.4		0.4	< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	2,4-DIMETHYLPHENOL	mg/kg				< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	2,4-DINITROPHENOL	mg/kg	0.2		0.2	< 10 U	< 2 U	< 2 U	< 1000 U	< 400 U	< 2 U	< 2 U	< 2.1 U	< 1.9 U	< 2.3 U	< 2.1 U	< 2.2 U	< 200 U	< 2.1 U	< 2.1 U
SW8270D	2,4-DINITROTOLUENE	mg/kg				< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	2,6-DINITROTOLUENE	mg/kg	1.0		1.0	< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	2-CHLORONAPHTHALENE	mg/kg				< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	2-CHLOROPHENOL	mg/kg	0.8			< 2.1 U	< 0.39 U	< 0.39 U	< 210 U	< 80 U	< 0.4 U	< 0.4 U	< 0.41 U	< 0.38 U	< 0.46 U	< 0.42 U	< 0.44 U	< 39 U	< 0.43 U	< 0.43 U
SW8270D	2-METHYLNAPHTHALENE	mg/kg	**0.41**		**36.4**	< 1.1 U	< 0.2 U	< 0.2 U	**470**	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	2-METHYLPHENOL (O-CRESOL)	mg/kg	0.33	1000	0	< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U

Table 5-4.2
2024 Subsurface Soil Analytical Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

						Location	HA-01	HA-02	HA-02	HA-03	HA-04	HA-05	HA-06	HA-06	HA-07	HA-08	SB-01	SB-01	SB-02	SB-02	SB-03
						Sample Name	HA-01-2.5-3.5-20240710	HA-02-3.0-4.0-20240711	HA-02-3.0-4.0-FD-20240711	HA-03-2.3-2.5-20240711	HA-04-1.3-1.5-20240711	HA-05-3.0-4.0-20240711	HA-06-3.0-4.0-20240711	HA-06-3.0-4.0-FD-20240711	HA-07-3.0-4.0-20240710	HA-08-3.5-4.0-20240710	SB-01-26.0-31.7-20240711	SB-01-43.0-45.0-20240711	SB-02-10.0-11.0-20240808	SB-02-28.0-30.0-20240808	SB-03-5.0-7.0-20240808
						Sample Date	7/10/2024	7/11/2024	7/11/2024	7/11/2024	7/11/2024	7/11/2024	7/11/2024	7/11/2024	7/10/2024	7/10/2024	7/11/2024	7/11/2024	8/8/2024	8/8/2024	8/8/2024
						Sample Depth Interval (ft bgs)	2.5-3.5	3-4	3-4	2.3-2.5	1.3-1.5	3-4	3-4	3-4	3-4	3.5-4	26-31.7	43-45	10-11	28-30	5-7
Method	**Analyte**	**Unit**	**Criteria**						Field Duplicate					Field Duplicate							
			(1)	(2)	(3)																
SW8270D	2-NITROANILINE	mg/kg	0.4		0.4	< 2.1 U	< 0.39 U	< 0.39 U	< 210 U	< 80 U	< 0.4 U	< 0.4 U	< 0.41 U	< 0.38 U	< 0.46 U	< 0.42 U	< 0.44 U	< 39 U	< 0.43 U	< 0.43 U
SW8270D	2-NITROPHENOL	mg/kg	0.3		0.3	< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	3,3'-DICHLOROBENZIDINE	mg/kg				< 2.1 U	< 0.39 U	< 0.39 U	< 210 U	< 80 U	< 0.4 U	< 0.4 U	< 0.41 U	< 0.38 U	< 0.46 U	< 0.42 U	< 0.44 U	< 39 U	< 0.43 U	< 0.43 U
SW8270D	3-NITROANILINE	mg/kg	0.5		0.5	< 2.1 U	< 0.39 U	< 0.39 U	< 210 U	< 80 U	< 0.4 U	< 0.4 U	< 0.41 U	< 0.38 U	< 0.46 U	< 0.42 U	< 0.44 U	< 39 U	< 0.43 U	< 0.43 U
SW8270D	4,6-DINITRO-2-METHYLPHENOL	mg/kg				< 2.1 U	< 0.39 U	< 0.39 U	< 210 U	< 80 U	< 0.4 U	< 0.4 U	< 0.41 U	< 0.38 U	< 0.46 U	< 0.42 U	< 0.44 U	< 39 U	< 0.43 U	< 0.43 U
SW8270D	4-BROMOPHENYL PHENYL ETHER	mg/kg				< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	4-CHLORO-3-METHYLPHENOL	mg/kg				< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	4-CHLOROANILINE	mg/kg	0.22		0.22	< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	4-CHLOROPHENYL PHENYL ETHER	mg/kg				< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	4-METHYLPHENOL (P-CRESOL)	mg/kg	0.33	1000	0	< 2.1 U	< 0.39 U	< 0.39 U	< 210 U	< 80 U	< 0.4 U	< 0.4 U	< 0.41 U	< 0.38 U	< 0.46 U	< 0.42 U	< 0.44 U	< 39 U	< 0.43 U	< 0.43 U
SW8270D	4-NITROANILINE	mg/kg				< 2.1 U	< 0.39 U	< 0.39 U	< 210 U	< 80 U	< 0.4 U	< 0.4 U	< 0.41 U	< 0.38 U	< 0.46 U	< 0.42 U	< 0.44 U	< 39 U	< 0.43 U	< 0.43 U
SW8270D	4-NITROPHENOL	mg/kg	0.1		0.1	< 2.1 U	< 0.39 U	< 0.39 U	< 210 U	< 80 U	< 0.4 U	< 0.4 U	< 0.41 U	< 0.38 U	< 0.46 U	< 0.42 U	< 0.44 U	< 39 U	< 0.43 U	< 0.43 U
SW8270D	ACENAPHTHENE	mg/kg	**20**	**1000**	**98**	< 1.1 U	< 0.2 U	< 0.2 U	**47 J**	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	ACENAPHTHYLENE	mg/kg	100	1000	107	< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	ACETOPHENONE	mg/kg				< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	ANTHRACENE	mg/kg	**100**	**1000**	**1000**	< 1.1 U	< 0.2 U	< 0.2 U	**61 J**	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	ATRAZINE	mg/kg				< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	BENZALDEHYDE	mg/kg				< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	BENZO(A)ANTHRACENE	mg/kg	**1**	**11**	**1**	< 1.1 U	< 0.2 U	< 0.2 U	**90 J**	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	BENZO(A)PYRENE	mg/kg	**1**	**1.1**	**22**	**0.17 J**	< 0.2 U	< 0.2 U	**46 J**	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	BENZO(B)FLUORANTHENE	mg/kg	**1**	**11**	**2**	< 1.1 U	< 0.2 U	< 0.2 U	**24 J**	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	BENZO(G,H,I)PERYLENE	mg/kg	**100**	**1000**	**1000**	**0.2 J**	< 0.2 U	< 0.2 U	**20 J**	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	BENZO(K)FLUORANTHENE	mg/kg	0.8	110	2	< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	BENZYL BUTYL PHTHALATE	mg/kg	100		122	< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	BIPHENYL (DIPHENYL)	mg/kg	**60**			< 1.1 U	< 0.2 U	< 0.2 U	**23 J**	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	BIS(2-CHLOROETHOXY) METHANE	mg/kg				< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	BIS(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHE	mg/kg				< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	BIS(2-CHLOROISOPROPYL) ETHER	mg/kg				< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	50		435	< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	CAPROLACTAM	mg/kg				< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	CARBAZOLE	mg/kg				< 1.1 U	< 0.2 U	< 0.2 U	**27 J**	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	CHRYSENE	mg/kg	**1**	**110**	**1**	**0.25 J**	< 0.2 U	< 0.2 U	**170**	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	DIBENZ(A,H)ANTHRACENE	mg/kg	0.33	1.1	1000	< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	DIBENZOFURAN	mg/kg	**7**	**1000**	**210**	< 1.1 U	< 0.2 U	< 0.2 U	**31 J**	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	DIETHYL PHTHALATE	mg/kg	7.1		7.1	< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	DIMETHYL PHTHALATE	mg/kg	27		27	< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	DI-N-BUTYL PHTHALATE	mg/kg	0.014		8.1	< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	DI-N-OCTYLPHTHALATE	mg/kg	100		120	< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	FLUORANTHENE	mg/kg	**100**	**1000**	**1000**	< 1.1 U	< 0.2 U	< 0.2 U	**36 J**	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	FLUORENE	mg/kg	**30**	**1000**	**386**	< 1.1 U	< 0.2 U	< 0.2 U	**89 J**	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	HEXACHLOROBENZENE	mg/kg	0.33	12	3	< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	HEXACHLOROBUTADIENE	mg/kg				< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	HEXACHLOROCYCLOPENTADIENE	mg/kg	10			< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	HEXACHLOROETHANE	mg/kg				< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	INDENO(1,2,3-C,D)PYRENE	mg/kg	0.5	11	8	< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	ISOPHORONE	mg/kg	4.4		4.4	< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	NAPHTHALENE	mg/kg	**12**	**1000**	**12**	< 1.1 U	< 0.2 U	< 0.2 U	**170**	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	NITROBENZENE	mg/kg	0.17	140	0.17	< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	N-NITROSODI-N-PROPYLAMINE	mg/kg				< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	N-NITROSODIPHENYLAMINE	mg/kg	**20**			< 1.1 U	< 0.2 U	< 0.2 U	**180**	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	PENTACHLOROPHENOL	mg/kg	0.8	55	1	< 2.1 U	< 0.39 U	< 0.39 U	< 210 U	< 80 U	< 0.4 U	< 0.4 U	< 0.41 U	< 0.38 U	< 0.46 U	< 0.42 U	< 0.44 U	< 39 U	< 0.43 U	< 0.43 U
SW8270D	PHENANTHRENE	mg/kg	**100**	**1000**	**1000**	< 1.1 U	< 0.2 U	< 0.2 U	**570**	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	PHENOL	mg/kg	0.33	1000	0	< 1.1 U	< 0.2 U	< 0.2 U	< 110 U	< 41 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	PYRENE	mg/kg	**100**	**1000**	**1000**	**0.65 J**	< 0.2 U	< 0.2 U	**170**	**6.1 J**	< 0.21 U	< 0.21 U	< 0.21 U	< 0.19 U	< 0.24 U	< 0.22 U	< 0.23 U	< 20 U	< 0.22 U	< 0.22 U
SW8270D	1,4-DIOXANE (P-DIOXANE)	mg/kg	0.1	250	0.1	--	--	--	--	--	< 0.12 U	--	--	--	--	< 0.13 U	--	--	--	--
Pesticides																				
SW8081B	ALDRIN	mg/kg	0.005	1.4	0.19	< 0.042 U	< 0.0020 U	< 0.0020 U	< 0.51 U	< 0.1 U	< 0.0020 U	< 0.0021 U	< 0.0021 U	< 0.0019 U	< 0.0023 U	< 0.0021 U	< 0.0023 U	< 0.098 U	< 0.0022 U	< 0.0022 U
SW8081B	ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	mg/kg	0.02	6.8	0.02	< 0.042 U	< 0.0020 U	< 0.0020 U	< 0.51 U	< 0.1 U	< 0.0020 U	< 0.0021 U	< 0.0021 U	< 0.0019 U	< 0.0023 U	< 0.0021 U	< 0.0023 U	< 0.098 U	< 0.0022 U	< 0.0022 U
SW8081B	ALPHA ENDOSULFAN	mg/kg	2.4	920	102	< 0.042 U	< 0.0020 U	< 0.0020 U	< 0.51 U	< 0.1 U	< 0.0020 U	< 0.0021 U	< 0.0021 U	< 0.0019 U	< 0.0023 U	< 0.0021 U	< 0.0023 U	< 0.098 U	< 0.0022 U	< 0.0022 U
SW8081B	ALPHA-CHLORDANE	mg/kg	0.094	47	2.9	< 0.042 UJ	< 0.0020 U	< 0.0020 U	< 0.51 U	< 0.1 U	< 0.0020 U	< 0.0021 U	< 0.0021 U	< 0.0019 U	< 0.0023 U	< 0.0021 U	< 0.0023 U	< 0.098 U	< 0.0022 U	< 0.0022 U
SW8081B	BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	mg/kg	0.036	14	0.09	< 0.042 U	< 0.0020 U	< 0.0020 U	< 0.51 U	< 0.1 U	< 0.0020 U	< 0.0021 U	< 0.0021 U	< 0.0019 U	< 0.0023 U	< 0.0021 U	< 0.0023 U	< 0.098 U	< 0.0022 U	< 0.0022 U

Table 5-4.2
2024 Subsurface Soil Analytical Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

						Location	HA-01	HA-02	HA-02	HA-03	HA-04	HA-05	HA-06	HA-06	HA-07	HA-08	SB-01	SB-01	SB-02	SB-02	SB-03
						Sample Name	HA-01-2.5-3.5-20240710	HA-02-3.0-4.0-20240711	HA-02-3.0-4.0-FD-20240711	HA-03-2.3-2.5-20240711	HA-04-1.3-1.5-20240711	HA-05-3.0-4.0-20240711	HA-06-3.0-4.0-20240711	HA-06-3.0-4.0-FD-20240711	HA-07-3.0-4.0-20240710	HA-08-3.5-4.0-20240710	SB-01-26.0-31.7-20240711	SB-01-43.0-45.0-20240711	SB-02-10.0-11.0-20240808	SB-02-28.0-30.0-20240808	SB-03-5.0-7.0-20240808
						Sample Date	7/10/2024	7/11/2024	7/11/2024	7/11/2024	7/11/2024	7/11/2024	7/11/2024	7/11/2024	7/10/2024	7/10/2024	7/11/2024	7/11/2024	8/8/2024	8/8/2024	8/8/2024
						Sample Depth Interval (ft bgs)	2.5-3.5	3-4	3-4	2.3-2.5	1.3-1.5	3-4	3-4	3-4	3-4	3.5-4	26-31.7	43-45	10-11	28-30	5-7
Method	**Analyte**	**Unit**	**Criteria**						Field Duplicate					Field Duplicate							
			(1)	**(2)**	**(3)**																
SW8081B	BETA ENDOSULFAN	mg/kg	2.4	920	102	< 0.042 UJ	< 0.0020 U	< 0.0020 U	< 0.51 U	< 0.1 U	< 0.0020 U	< 0.0021 U	< 0.0021 U	< 0.0019 U	< 0.0023 U	< 0.0021 U	< 0.0023 U	< 0.098 U	< 0.0022 U	< 0.0022 U
SW8081B	BETA-CHLORDANE	mg/kg				< 0.042 U	< 0.0020 U	< 0.0020 U	< 0.51 U	< 0.1 U	< 0.0020 U	< 0.0021 U	< 0.0021 U	< 0.0019 U	< 0.0023 U	< 0.0021 U	< 0.0023 U	< 0.098 U	< 0.0022 U	< 0.0022 U
SW8081B	DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	mg/kg	0.04	1000	0.25	< 0.042 U	< 0.0020 U	< 0.0020 U	< 0.51 U	< 0.1 U	< 0.0020 U	< 0.0021 U	< 0.0021 U	< 0.0019 U	< 0.0023 U	< 0.0021 U	< 0.0023 U	< 0.098 U	< 0.0022 U	< 0.0022 U
SW8081B	DIELDRIN	mg/kg	0.005	2.8	0.1	< 0.042 UJ	< 0.0020 U	< 0.0020 U	< 0.51 U	< 0.1 U	< 0.0020 U	< 0.0021 U	< 0.0021 U	< 0.0019 U	< 0.0023 U	< 0.0021 U	< 0.0023 U	< 0.098 U	< 0.0022 U	< 0.0022 U
SW8081B	ENDOSULFAN SULFATE	mg/kg	2.4	920	1000	< 0.042 U	< 0.0020 U	< 0.0020 U	< 0.51 U	< 0.1 U	< 0.0020 U	< 0.0021 U	< 0.0021 U	< 0.0019 U	< 0.0023 U	< 0.0021 U	< 0.0023 U	< 0.098 U	< 0.0022 U	< 0.0022 U
SW8081B	ENDRIN	mg/kg	0.014	410	0.06	< 0.042 UJ	< 0.0020 U	< 0.0020 U	< 0.51 U	< 0.1 U	< 0.0020 U	< 0.0021 U	< 0.0021 U	< 0.0019 U	< 0.0023 U	< 0.0021 U	< 0.0023 U	< 0.098 U	< 0.0022 U	< 0.0022 U
SW8081B	ENDRIN ALDEHYDE	mg/kg				< 0.042 UJ	< 0.0020 U	< 0.0020 U	**0.17 J**	**0.03 J**	< 0.0020 U	< 0.0021 U	< 0.0021 U	< 0.0019 U	< 0.0023 U	< 0.0021 U	< 0.0023 U	< 0.098 U	< 0.0022 U	< 0.0022 U
SW8081B	ENDRIN KETONE	mg/kg				< 0.042 U	< 0.0020 U	< 0.0020 U	< 0.51 U	< 0.1 U	< 0.0020 U	< 0.0021 U	< 0.0021 U	< 0.0019 U	< 0.0023 U	< 0.0021 U	< 0.0023 U	< 0.098 U	< 0.0022 U	< 0.0022 U
SW8081B	GAMMA BHC (LINDANE)	mg/kg	0.1	23	0.1	< 0.042 UJ	< 0.0020 U	< 0.0020 U	< 0.51 U	< 0.1 U	< 0.0020 U	< 0.0021 U	< 0.0021 U	< 0.0019 U	< 0.0023 U	< 0.0021 U	< 0.0023 U	< 0.098 U	< 0.0022 U	< 0.0022 U
SW8081B	HEPTACHLOR	mg/kg	0.042	29	0.38	< 0.042 UJ	< 0.0020 U	< 0.0020 U	< 0.51 U	< 0.1 U	< 0.0020 U	< 0.0021 U	< 0.0021 U	< 0.0019 U	< 0.0023 U	< 0.0021 U	< 0.0023 U	< 0.098 U	< 0.0022 U	< 0.0022 U
SW8081B	HEPTACHLOR EPOXIDE	mg/kg	0.02		0.02	< 0.042 UJ	< 0.0020 U	< 0.0020 U	< 0.51 U	< 0.1 U	< 0.0020 U	< 0.0021 U	< 0.0021 U	< 0.0019 U	< 0.0023 U	< 0.0021 U	< 0.0023 U	< 0.098 U	< 0.0022 U	< 0.0022 U
SW8081B	METHOXYCHLOR	mg/kg	**1.2**		**900**	< 0.042 U	< 0.0020 U	< 0.0020 U	< 0.51 U	< 0.1 U	< 0.0020 U	< 0.0021 U	< 0.0021 U	< 0.0019 U	**0.0029**	< 0.0021 U	< 0.0023 U	< 0.098 U	< 0.0022 U	< 0.0022 U
SW8081B	P,P'-DDD	mg/kg	0.0033	180	14	< 0.042 U	< 0.0020 U	< 0.0020 U	< 0.51 U	< 0.1 U	< 0.0020 U	< 0.0021 U	< 0.0021 U	< 0.0019 U	< 0.0023 U	< 0.0021 U	< 0.0023 U	< 0.098 U	< 0.0022 U	< 0.0022 U
SW8081B	P,P'-DDE	mg/kg	0.0033	120	17	< 0.042 U	< 0.0020 U	< 0.0020 U	< 0.51 U	< 0.1 U	< 0.0020 U	< 0.0021 U	< 0.0021 U	< 0.0019 U	< 0.0023 U	< 0.0021 U	< 0.0023 U	< 0.098 U	< 0.0022 U	< 0.0022 U
SW8081B	P,P'-DDT	mg/kg	**0.0033**	**94**	**136**	**0.029 J**	< 0.0020 U	< 0.0020 U	**0.14 J**	**0.033 J**	**0.00061 J**	< 0.0021 U	< 0.0021 U	< 0.0019 U	**0.0016 J**	< 0.0021 U	< 0.0023 U	< 0.098 U	< 0.0022 U	< 0.0022 U
SW8081B	TOXAPHENE	mg/kg				< 0.42 U	< 0.02 U	< 0.02 U	< 5.1 U	< 1 U	< 0.02 U	< 0.021 U	< 0.021 U	< 0.019 U	< 0.023 U	< 0.021 U	< 0.023 U	< 0.98 U	< 0.022 U	< 0.022 U
Polychlorinated Biphenyls (PCBs)																					
SW8082A	PCB-1016 (AROCLOR 1016)	mg/kg				< 0.23 U	< 0.25 U	< 0.25 U	< 1.1 U	< 0.26 U	< 0.22 U	< 0.23 U	< 0.22 U	< 0.22 U	< 0.25 U	< 0.28 U	< 0.28 U	< 0.26 U	< 0.31 U	< 0.32 U
SW8082A	PCB-1221 (AROCLOR 1221)	mg/kg				< 0.23 U	< 0.25 U	< 0.25 U	< 1.1 U	< 0.26 U	< 0.22 U	< 0.23 U	< 0.22 U	< 0.22 U	< 0.25 U	< 0.28 U	< 0.28 U	< 0.26 U	< 0.31 U	< 0.32 U
SW8082A	PCB-1232 (AROCLOR 1232)	mg/kg				< 0.23 U	< 0.25 U	< 0.25 U	< 1.1 U	< 0.26 U	< 0.22 U	< 0.23 U	< 0.22 U	< 0.22 U	< 0.25 U	< 0.28 U	< 0.28 U	< 0.26 U	< 0.31 U	< 0.32 U
SW8082A	PCB-1242 (AROCLOR 1242)	mg/kg				< 0.23 U	< 0.25 U	< 0.25 U	< 1.1 U	< 0.26 U	< 0.22 U	< 0.23 U	< 0.22 U	< 0.22 U	< 0.25 U	< 0.28 U	< 0.28 U	< 0.26 U	< 0.31 U	< 0.32 U
SW8082A	PCB-1248 (AROCLOR 1248)	mg/kg				< 0.23 U	< 0.25 U	< 0.25 U	< 1.1 U	< 0.26 U	< 0.22 U	< 0.23 U	< 0.22 U	< 0.22 U	< 0.25 U	< 0.28 U	< 0.28 U	< 0.26 U	< 0.31 U	< 0.32 U
SW8082A	PCB-1254 (AROCLOR 1254)	mg/kg				< 0.23 U	< 0.25 U	< 0.25 U	< 1.1 U	< 0.26 U	< 0.22 U	< 0.23 U	< 0.22 U	< 0.22 U	< 0.25 U	< 0.28 U	< 0.28 U	< 0.26 U	< 0.31 U	< 0.32 U
SW8082A	PCB-1260 (AROCLOR 1260)	mg/kg				< 0.23 U	< 0.25 U	< 0.25 U	< 1.1 U	< 0.26 U	< 0.22 U	< 0.23 U	< 0.22 U	< 0.22 U	< 0.25 U	< 0.28 U	< 0.28 U	**0.34**	< 0.31 U	< 0.32 U
--	Total PCBs	mg/kg	**0.1**	**25**	**3.2**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.34**	ND	ND
Metals and Inorganics																					
SW6010C	ALUMINUM	mg/kg	**10000**			**19700**	**17900**	**19500**	**43500**	**21400**	**26900 J**	**15500**	**16700**	**18700**	**21500**	**19700**	**22700**	**13700**	**27500**	**32500**
SW6010C	ANTIMONY	mg/kg	**12**			< 18.7 UJ	**0.76 J**	< 18.1 U	< 16.5 U	**0.82 J**	< 18.1 UJ	**0.79 J**	< 18.7 U	< 17.7 U	< 21.9 U	< 18.6 U	< 21.1 U	**4.9 J**	< 19.4 U	< 20.7 U
SW6010C	ARSENIC	mg/kg	**13**	**16**	**16**	**3.4**	**4.2**	**3.6**	**64.3**	**3.3**	**4.1 J-**	**2.8**	**2.4 J**	**3.8**	**4.9**	**3.7**	**3.5**	**7.2**	**3.6**	**4.3**
SW6010C	BARIUM	mg/kg	**350**	**10000**	**820**	**114**	**107**	**122**	**55.3**	**138**	**162 J-**	**90.1**	**133**	**112**	**109**	**120**	**143**	**104**	**166**	**180**
SW6010C	BERYLLIUM	mg/kg	**7.2**	**2700**	**47**	**0.84**	**0.83**	**0.87**	**0.49**	**1.2**	**2.0 J**	**0.7**	**0.73**	**0.82**	**0.79**	**0.88**	**1**	**0.99**	**1.2**	**1.2**
SW6010C	CADMIUM	mg/kg	**2.5**	**60**	**7.5**	**0.27**	**0.18 J**	**0.18 J**	< 0.22 U	**0.71**	**0.20 J**	**0.14 J**	**0.16 J**	**0.27**	**0.56**	**0.18 J**	**0.13 J**	**0.79**	< 0.26 U	**0.4**
SW6010C	CALCIUM	mg/kg	**10000**			**47500 J**	**53400**	**53600**	**7880**	**16900**	**27500 J**	**38100**	**42900**	**45900**	**2900**	**44400**	**49900**	**60700**	**50700**	**4100**
SW6010C	CHROMIUM, TOTAL	mg/kg	**1**	**800**	**19**	**24.0 J**	**22.3**	**23.5**	**54.4**	**25.8**	**28.3 J**	**18.9**	**20.6**	**22**	**23.6**	**27.6**	**29.6**	**38.3**	**34.8**	**36.6**
SW6010C	COBALT	mg/kg	**20**			**10.9**	**10.7**	**10.6**	**7.6**	**12.9**	**14.9**	**7.2**	**9.8**	**11.9**	**12.3**	**11.9**	**15.3**	**9.5**	**17.3**	**16.6**
SW6010C	COPPER	mg/kg	**50**	**10000**	**1720**	**18**	**19.3**	**17.9**	**32.2**	**26.2**	**14.9**	**16.8**	**16.3**	**18.2**	**11.6**	**18.4**	**23**	**37.7**	**25.1**	**11.3**
SW6010C	IRON	mg/kg	**2000**			**19300 J**	**19000**	**20100**	**19800**	**21000**	**20500 J**	**17500**	**18000**	**18900**	**20100**	**20900**	**25000**	**18600**	**27700**	**37000**
SW6010C	LEAD	mg/kg	**63**	**3900**	**450**	**12.7**	**17.2**	**11.7**	**74.0**	**27.9**	**15.1**	**14.3**	**11.8**	**12.5**	**26.5**	**10**	**9.5**	**394 T**	**11.3**	**22.4**
SW6010C	MAGNESIUM	mg/kg				**14300**	**15200**	**17400**	**2750**	**7720**	**9980 J**	**12400**	**13200**	**13300**	**4260**	**14800**	**13500**	**19300**	**16000**	**5910**
SW6010C	MANGANESE	mg/kg	**1600**	**10000**	**2000**	**467 J**	**522**	**434**	**208**	**617**	**512 J-**	**360**	**511**	**534**	**374**	**515**	**591**	**591**	**625**	**2770**
SW7471B	MERCURY	mg/kg	**0.18**	**5.7**	**0.73**	**0.012 J**	**0.043**	**0.020 J**	**0.034**	**0.053**	**0.010 J**	**0.010 J**	**0.011 J**	**0.015 J**	**0.2**	**0.020 J**	**0.0091 J**	**0.055**	**0.016 J**	**0.048**
SW6010C	NICKEL	mg/kg	**30**	**10000**	**130**	**22.0 J**	**26.9**	**26.6**	**113**	**30.3**	**32.1**	**19.4**	**23.3**	**21.8**	**20.1**	**28.4**	**35.1**	**42.2**	**39.1**	**23.6**
SW6010C	POTASSIUM	mg/kg				**6070**	**5750**	**6330**	**705**	**3840**	**4880 J**	**4450**	**4840**	**5130**	**2700**	**6530**	**6860**	**3070**	**8370**	**5280**
SW6010C	SELENIUM	mg/kg	**3.9**	**6800**	**4**	< 5.0 UJ	< 4.6 U	< 4.8 U	< 4.4 U	< 4.7 U	< 4.8 UJ	< 5.0 U	< 5.0 U	< 4.7 U	< 5.8 U	< 5.0 U	< 5.6 U	< 5.0 U	< 5.2 U	**1.6 J**
SW6010C	SILVER	mg/kg	**2**	**6800**	**8.3**	**0.29 J**	< 0.70 U	**0.32 J**	< 0.66 U	**0.36 J**	**0.34 J**	**0.34 J**	**0.34 J**	< 0.71 U	< 0.87 U	**0.37 J**	**0.37 J**	< 0.75 U	**0.27 J**	**0.50 J**
SW6010C	SODIUM	mg/kg				**239**	**288**	**296**	**840**	**127 J**	**277**	**276**	**277**	**218**	**112 J**	**340**	**390**	**220**	**368**	**174 J**
SW6010C	THALLIUM	mg/kg	5			< 7.5 U	< 7.0 U	< 7.2 U	< 6.6 U	< 7.0 U	< 7.3 U	< 7.5 U	< 7.5 U	< 7.1 U	< 8.7 U	< 7.4 U	< 8.4 U	< 7.5 U	< 7.8 U	< 8.3 U
SW6010C	VANADIUM	mg/kg	**39**			**37.0**	**35.1**	**37**	**106**	**39**	**41.0 J**	**32.1**	**32.6**	**33.7**	**40.7**	**38.3**	**43.5**	**77.3**	**51.4**	**63.3**
SW6010C	ZINC	mg/kg	**109**	**10000**	**2480**	**57.7 J**	**69.8**	**58.8**	**46.9**	**105**	**59.6 J**	**44.8**	**48.5**	**57.3**	**107**	**54.1**	**58.4**	**173**	**70.5**	**109**
SW9012	CYANIDE	mg/kg	27	10000	40	< 1.2 UJ	< 1.2 U	< 1.2 U	< 1.0 U	< 1.2 U	< 1.2 U	< 1.2 U	< 1.2 U	< 1.1 U	< 1.2 U	< 1.1 U	< 1.2 U	< 1.2 U	< 1.3 U	< 1.2 U
Per- and Polyfluoroalkyl Substances (PFAS)																					
E1633	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid	mg/kg				--	--	--	--	--	< 0.00080 U	--	--	--	--	< 0.00082 U	--	--	--	--
E1633	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2)	mg/kg				--	--	--	--	--	< 0.00080 U	--	--	--	--	< 0.00082 U	--	--	--	--
E1633	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2)	mg/kg				--	--	--	--	--	< 0.00080 U	--	--	--	--	< 0.00082 U	--	--	--	--
E1633	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2)	mg/kg				--	--	--	--	--	< 0.00080 U	--	--	--	--	< 0.00082 U	--	--	--	--
E1633	2-(N-ethyl perfluoro-1-octanesulfonamido)-ethanol	mg/kg				--	--	--	--	--	< 0.0020 U	--	--	--	--	< 0.0021 U	--	--	--	--
E1633	2-(N-methyl perfluoro-1-octanesulfonamido)-ethanol	mg/kg				--	--	--	--	--	< 0.0020 U	--	--	--	--	< 0.0021 U	--	--	--	--
E1633	2-(N-methyl perfluorooctanesulfonamido) acetic acid	mg/kg				--	--	--	--	--	< 0.00020 U	--	--	--	--	< 0.00021 U	--	--	--	--
E1633	2H,2H,3H,3H-Perfluorooctanoic acid	mg/kg				--	--	--	--	--	< 0.0050 U	--	--	--	--	< 0.0052 U	--	--	--	--
E1633	3-Perfluoroheptyl propanoic acid	mg/kg				--	--	--	--	--	< 0.0050 U	--	--	--	--	< 0.0052 U	--	--	--	--
E1633	3-Perfluoropropyl propanoic acid	mg/kg				--	--	--	--	--	< 0.00099 U	--	--	--	--	< 0.0010 U	--	--	--	--

Table 5-4.2
2024 Subsurface Soil Analytical Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

						Location	HA-01	HA-02	HA-02	HA-03	HA-04	HA-05	HA-06	HA-06	HA-07	HA-08	SB-01	SB-01	SB-02	SB-02	SB-03
						Sample Name	HA-01-2.5-3.5-20240710	HA-02-3.0-4.0-20240711	HA-02-3.0-4.0-FD-20240711	HA-03-2.3-2.5-20240711	HA-04-1.3-1.5-20240711	HA-05-3.0-4.0-20240711	HA-06-3.0-4.0-20240711	HA-06-3.0-4.0-FD-20240711	HA-07-3.0-4.0-20240710	HA-08-3.5-4.0-20240710	SB-01-26.0-31.7-20240711	SB-01-43.0-45.0-20240711	SB-02-10.0-11.0-20240808	SB-02-28.0-30.0-20240808	SB-03-5.0-7.0-20240808
						Sample Date	7/10/2024	7/11/2024	7/11/2024	7/11/2024	7/11/2024	7/11/2024	7/11/2024	7/11/2024	7/10/2024	7/10/2024	7/11/2024	7/11/2024	8/8/2024	8/8/2024	8/8/2024
						Sample Depth Interval (ft bgs)	2.5-3.5	3-4	3-4	2.3-2.5	1.3-1.5	3-4	3-4	3-4	3-4	3.5-4	26-31.7	43-45	10-11	28-30	5-7
Method	**Analyte**	**Unit**	**Criteria**						**Field Duplicate**					**Field Duplicate**							
			(1)	**(2)**	**(3)**																
E1633	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	mg/kg				--	--	--	--	--	< 0.00080 U	--	--	--	--	< 0.00082 U	--	--	--	--
E1633	9-Chlorohexadecafluoro-3-Oxanonane-1-Sulfonic Acid	mg/kg				--	--	--	--	--	< 0.00080 U	--	--	--	--	< 0.00082 U	--	--	--	--
E1633	N-ethyl perfluoro-1-octanesulfonamide	mg/kg				--	--	--	--	--	< 0.00020 U	--	--	--	--	< 0.00021 U	--	--	--	--
E1633	N-ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine	mg/kg				--	--	--	--	--	< 0.00020 U	--	--	--	--	< 0.00021 U	--	--	--	--
E1633	N-methyl perfluoro-1-octanesulfonamide	mg/kg				--	--	--	--	--	< 0.00020 U	--	--	--	--	< 0.00021 U	--	--	--	--
E1633	Nonafluoro-3,6-dioxaheptanoic acid	mg/kg				--	--	--	--	--	< 0.00040 U	--	--	--	--	< 0.00041 U	--	--	--	--
E1633	Perfluoro(2-ethoxyethane)sulfonic acid	mg/kg				--	--	--	--	--	< 0.00040 U	--	--	--	--	< 0.00041 U	--	--	--	--
E1633	Perfluoro(2-Propoxypropanoic) acid	mg/kg				--	--	--	--	--	< 0.00080 U	--	--	--	--	< 0.00082 U	--	--	--	--
E1633	Perfluoro-3-methoxypropanoic acid	mg/kg				--	--	--	--	--	< 0.00040 U	--	--	--	--	< 0.00041 U	--	--	--	--
E1633	Perfluoro-4-methoxybutanoic acid	mg/kg				--	--	--	--	--	< 0.00040 U	--	--	--	--	< 0.00041 U	--	--	--	--
E1633	Perfluorobutanesulfonic acid (PFBS)	mg/kg				--	--	--	--	--	< 0.00020 U	--	--	--	--	< 0.00021 U	--	--	--	--
E1633	Perfluorobutanoic acid	mg/kg				--	--	--	--	--	< 0.00080 U	--	--	--	--	< 0.00082 U	--	--	--	--
E1633	Perfluorodecane sulfonic acid (PFDS)	mg/kg				--	--	--	--	--	< 0.00020 U	--	--	--	--	< 0.00021 U	--	--	--	--
E1633	Perfluorodecanoic acid (PFDA)	mg/kg				--	--	--	--	--	< 0.00020 U	--	--	--	--	< 0.00021 U	--	--	--	--
E1633	Perfluorododecanesulfonic acid (PFDOS)	mg/kg				--	--	--	--	--	< 0.00020 U	--	--	--	--	< 0.00021 U	--	--	--	--
E1633	Perfluorododecanoic acid (PFDoA)	mg/kg				--	--	--	--	--	< 0.00020 U	--	--	--	--	< 0.00021 U	--	--	--	--
E1633	Perfluoroheptane sulfonate (PFHPS)	mg/kg				--	--	--	--	--	< 0.00020 U	--	--	--	--	< 0.00021 U	--	--	--	--
E1633	Perfluoroheptanoic acid (PFHpA)	mg/kg				--	--	--	--	--	< 0.00020 U	--	--	--	--	< 0.00021 U	--	--	--	--
E1633	Perfluorohexanesulfonic acid (PFHxS)	mg/kg				--	--	--	--	--	< 0.00020 U	--	--	--	--	< 0.00021 U	--	--	--	--
E1633	Perfluorohexanoic acid (PFHxA)	mg/kg				--	--	--	--	--	< 0.00020 U	--	--	--	--	< 0.00021 U	--	--	--	--
E1633	Perfluorononanesulfonic acid (PFNS)	mg/kg				--	--	--	--	--	< 0.00020 U	--	--	--	--	< 0.00021 U	--	--	--	--
E1633	Perfluorooctane sulfonamide (PFOSA)	mg/kg				--	--	--	--	--	< 0.00020 U	--	--	--	--	< 0.00021 U	--	--	--	--
E1633	Perfluorooctanesulfonic acid (PFOS)	mg/kg	**0.00088**	**0.44**	**0.001**	--	--	--	--	--	**0.000089 J**	--	--	--	--	< 0.00021 U	--	--	--	--
E1633	Perfluorooctanoic acid (PFOA)	mg/kg	0.00066	0.6	0.0008	--	--	--	--	--	< 0.00020 U	--	--	--	--	< 0.00021 U	--	--	--	--
E1633	Perfluoropentanesulfonic acid (PFPeS)	mg/kg				--	--	--	--	--	< 0.00020 U	--	--	--	--	< 0.00021 U	--	--	--	--
E1633	Perfluoropentanoic acid (PFPeA)	mg/kg				--	--	--	--	--	< 0.00040 U	--	--	--	--	< 0.00041 U	--	--	--	--
E1633	Perfluorotetradecanoic acid (PFTA)	mg/kg				--	--	--	--	--	< 0.00020 U	--	--	--	--	< 0.00021 U	--	--	--	--
E1633	Perfluorotridecanoic acid (PFTriA)	mg/kg				--	--	--	--	--	< 0.00020 U	--	--	--	--	< 0.00021 U	--	--	--	--
E1633	Perfluoroundecanoic acid (PFUnA)	mg/kg				--	--	--	--	--	< 0.00020 U	--	--	--	--	< 0.00021 U	--	--	--	--
E1633	Perfuorononanoic acid (PFNA)	mg/kg				--	--	--	--	--	< 0.00020 U	--	--	--	--	< 0.00021 U	--	--	--	--

Notes:
Criteria = 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives (SCOs), Effective 12/14/06. Where there were no Part 375.6 SCOs, the NYSDEC CP-51 Table 1 Supplemental SCOs, Effective 12/2/10, and the NYSDEC April 2023 PFAS guidance values, were provided. Where there were no Unrestricted Use SCOs, the lowest of the Supplemental SCOs was selected.
(1) - Unrestricted Use SCOs
(2) - Industrial Use SCOs
(3) - Protection of Groundwater SCOs

Definitions:
ft bgs - feet below water surface
mg/kg - milligrams per kilogram
"--" - Not analyzed
J - Reported concentration is an estimated value.
J+ - Reported concentration is an estimated value, and may be biased high.
J- - Reported concentration is an estimated value, and may be biased low.
JN - Reported concentration is an estimated value, that has been "tentatively identified".
R - The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.
U - Analyte was analyzed for but was not detected above the reported limit.
UJ - Analyte was analyzed for but was not detected above the reported limit, but the reported limit is approximate.

Bold	Analyte was detected
Underline	Detected concentration exceeds Criteria (1)
Highlight	Detected concentration exceeds Criteria (2)
Highlight	Detected concentration exceeds Criteria (3)

Table 5-4.2
2024 Subsurface Soil Analytical Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

						Location	SB-03	SB-04	SB-04	SB-04	SB-05	SB-05	SB-07	SB-07	SB-08	SB-08	SB-09	SB-09	SB-10	SB-10
						Sample Name	SB-03-28.0-30.0-20240808	SB-04-0.5-2.0-20240712	SB-04-0.5-2.0-FD-20240712	SB-04-38.0-42.0-20240712	SB-05-27.0-29.0-20240715	SB-05-32.0-33.0-20240715	SB-07-1.0-2.0-20240809	SB-07-33.0-35.0-20240809	SB-08-26.0-28.0-20240809	SB-08-28.0-30.0-20240809	SB-09-4.0-5.0-20240808	SB-09-28.0-30.0-20240808	SB-10-39-42-20240709	SB-10-48-49-20240709
						Sample Date	8/8/2024	7/12/2024	7/12/2024	7/12/2024	7/15/2024	7/15/2024	8/9/2024	8/9/2024	8/9/2024	8/9/2024	8/8/2024	8/8/2024	7/9/2024	7/9/2024
						Sample Depth Interval (ft bgs)	28-30	0.5-2	0.5-2	38-42	27-29	32-33	1-2	33-35	26-28	28-30	4-5	28-30	39-42	48-49
Method	Analyte	Unit	Criteria						Field Duplicate											
			(1)	(2)	(3)															
Volatile Organic Compounds (VOCs)																				
SW8260C	1,1,1-TRICHLOROETHANE (TCA)	mg/kg	0.68	1000	0.68		< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	1,1,2,2-TETRACHLOROETHANE	mg/kg	0.6		0.6		< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	mg/kg	6		6		< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	1,1,2-TRICHLOROETHANE	mg/kg					< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	1,1-DICHLOROETHANE	mg/kg	**0.27**	**480**	**0.27**		< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	1,1-DICHLOROETHENE	mg/kg	0.33	1000	0.33		< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	1,2,4-TRICHLOROBENZENE	mg/kg	3.4		3.4		< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	1,2-DIBROMO-3-CHLOROPROPANE	mg/kg					< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	mg/kg					< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	1,2-DICHLOROBENZENE	mg/kg	1.1	1000	1.1		< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	1,2-DICHLOROETHANE	mg/kg	0.02	60	0.02		< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	1,2-DICHLOROPROPANE	mg/kg	700				< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	1,3-DICHLOROBENZENE	mg/kg	2.4	560	2.4		< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	1,4-DICHLOROBENZENE	mg/kg	1.8	250	1.8		< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	2-HEXANONE	mg/kg					< 0.036 U	< 0.034 U	< 0.024 U	< 0.026 U	< 0.018 U	< 0.024 U	< 0.043 U	< 0.026 U	< 0.02 U	< 0.021 U	< 0.023 U	< 0.032 U	< 0.028 U	< 0.022 U
SW8260C	ACETONE	mg/kg	**0.05**	**1000**	**0.05**		**0.02 J**	< 0.034 U	< 0.024 U	**0.013 J**	**0.0074 J**	**0.0087 J**	< 0.043 U	**0.02 J**	< 0.02 U	**0.022**	**0.026**	**0.017 J**	**0.0089 J**	**0.0054 J**
SW8260C	BENZENE	mg/kg	**0.06**	**89**	**0.06**		< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	BROMODICHLOROMETHANE	mg/kg					< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	BROMOFORM	mg/kg					< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	BROMOMETHANE	mg/kg					< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	CARBON DISULFIDE	mg/kg	2.7		2.7		< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	CARBON TETRACHLORIDE	mg/kg	0.76	44	0.76		< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	CHLOROBENZENE	mg/kg	1.1	1000	1.1		< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	CHLOROETHANE	mg/kg	1.9		1.9		< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	CHLOROFORM	mg/kg	0.37	700	0.37		< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	CHLOROMETHANE	mg/kg					< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	CIS-1,2-DICHLOROETHYLENE	mg/kg	0.25	1000	0.25		< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	CIS-1,3-DICHLOROPROPENE	mg/kg					< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	CYCLOHEXANE	mg/kg					< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	DIBROMOCHLOROMETHANE	mg/kg	10				< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	DICHLORODIFLUOROMETHANE	mg/kg					< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	ETHYLBENZENE	mg/kg	**1**	**780**	**1**		< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	ISOPROPYLBENZENE (CUMENE)	mg/kg	**2.3**		**2.3**		< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	METHYL ACETATE	mg/kg					< 0.036 U	< 0.034 U	< 0.024 U	< 0.026 U	< 0.018 U	< 0.024 U	< 0.043 U	< 0.026 U	< 0.02 U	< 0.021 U	< 0.023 U	< 0.032 U	< 0.028 U	< 0.022 U
SW8260C	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	**0.12**	**1000**	**0.12**		< 0.036 U	< 0.034 U	< 0.024 U	< 0.026 U	< 0.018 U	< 0.024 U	< 0.043 U	< 0.026 U	< 0.02 U	< 0.021 U	**0.0067 J**	< 0.032 U	< 0.028 U	< 0.022 U
SW8260C	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE	mg/kg	1		1		< 0.036 U	< 0.034 U	< 0.024 U	< 0.026 U	< 0.018 U	< 0.024 U	< 0.043 U	< 0.026 U	< 0.02 U	< 0.021 U	< 0.023 U	< 0.032 U	< 0.028 U	< 0.022 U
SW8260C	METHYLCYCLOHEXANE	mg/kg					< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	METHYLENE CHLORIDE	mg/kg	**0.05**	**1000**	**0.05**		**0.0038 J**	**0.0047 J**	< 0.0048 U	**0.0064**	**0.0029 J**	**0.0050**	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	**0.0034 J**	**0.0061 J**	< 0.0056 U	< 0.0044 U
SW8260C	STYRENE	mg/kg	300				< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	METHYL TERT-BUTYL ETHER	mg/kg	0.93	1000	0.93		< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	TETRACHLOROETHYLENE (PCE)	mg/kg	**1.3**	**300**	**1.3**		< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	TOLUENE	mg/kg	**0.7**	**1000**	**0.7**		< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	TRANS-1,2-DICHLOROETHENE	mg/kg	0.19	1000	0.19		< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	TRANS-1,3-DICHLOROPROPENE	mg/kg					< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	TRICHLOROETHYLENE (TCE)	mg/kg	0.47	400	0.47		< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	TRICHLOROFLUOROMETHANE	mg/kg					< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	VINYL CHLORIDE	mg/kg	0.02	27	0.02		< 0.0072 U	< 0.0067 U	< 0.0048 U	< 0.0053 U	< 0.0037 U	< 0.0048 U	< 0.0086 U	< 0.0052 U	< 0.0039 U	< 0.0043 U	< 0.0046 U	< 0.0063 U	< 0.0056 U	< 0.0044 U
SW8260C	XYLENES	mg/kg	**0.26**	**1000**	**1.6**		< 0.014 U	< 0.013 U	< 0.0096 U	< 0.011 U	< 0.0073 U	< 0.0096 U	< 0.017 U	< 0.01 U	< 0.0079 U	< 0.0085 U	< 0.0092 U	< 0.013 U	< 0.011 U	< 0.0088 U
Semi Volatile Organic Compounds (SVOCs)																				
SW8270D	2,4,5-TRICHLOROPHENOL	mg/kg	0.1		0.1		< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	2,4,6-TRICHLOROPHENOL	mg/kg	10				< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	2,4-DICHLOROPHENOL	mg/kg	0.4		0.4		< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	2,4-DIMETHYLPHENOL	mg/kg					< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	2,4-DINITROPHENOL	mg/kg	0.2		0.2		< 2.3 U	< 98 U	< 99 U	< 2.2 U	< 1.9 U	< 2 U	< 1.9 U	< 2.1 U	< 2 U	< 2.2 U	< 2.2 U	< 2.3 U	< 2.2 U	< 2.2 U
SW8270D	2,4-DINITROTOLUENE	mg/kg					< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	2,6-DINITROTOLUENE	mg/kg	1.0		1.0		< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	2-CHLORONAPHTHALENE	mg/kg					< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	2-CHLOROPHENOL	mg/kg	0.8				< 0.46 U	< 19 U	< 20 U	< 0.44 U	< 0.39 U	< 0.39 U	< 0.38 U	< 0.43 U	< 0.4 U	< 0.44 U	< 0.43 U	< 0.46 U	< 0.45 U	< 0.43 U
SW8270D	2-METHYLNAPHTHALENE	mg/kg	**0.41**		**36.4**		< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	2-METHYLPHENOL (O-CRESOL)	mg/kg	0.33	1000	0		< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U

Table 5-4.2
2024 Subsurface Soil Analytical Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

						Location	SB-03	SB-04	SB-04	SB-04	SB-05	SB-05	SB-07	SB-07	SB-08	SB-08	SB-09	SB-09	SB-10	SB-10
						Sample Name	SB-03-28.0-30.0-20240808	SB-04-0.5-2.0-20240712	SB-04-0.5-2.0-FD-20240712	SB-04-38.0-42.0-20240712	SB-05-27.0-29.0-20240715	SB-05-32.0-33.0-20240715	SB-07-1.0-2.0-20240809	SB-07-33.0-35.0-20240809	SB-08-26.0-28.0-20240809	SB-08-28.0-30.0-20240809	SB-09-4.0-5.0-20240808	SB-09-28.0-30.0-20240808	SB-10-39-42-20240709	SB-10-48-49-20240709
						Sample Date	8/8/2024	7/12/2024	7/12/2024	7/12/2024	7/15/2024	7/15/2024	8/9/2024	8/9/2024	8/9/2024	8/9/2024	8/8/2024	8/8/2024	7/9/2024	7/9/2024
						Sample Depth Interval (ft bgs)	28-30	0.5-2	0.5-2	38-42	27-29	32-33	1-2	33-35	26-28	28-30	4-5	28-30	39-42	48-49
Method	Analyte	Unit	Criteria						Field Duplicate											
			(1)	(2)	(3)															
SW8270D	2-NITROANILINE	mg/kg	0.4		0.4		< 0.46 U	< 19 U	< 20 U	< 0.44 U	< 0.39 U	< 0.39 U	< 0.38 U	< 0.43 U	< 0.4 U	< 0.44 U	< 0.43 U	< 0.46 U	< 0.45 U	< 0.43 U
SW8270D	2-NITROPHENOL	mg/kg	0.3		0.3		< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	3,3'-DICHLOROBENZIDINE	mg/kg					< 0.46 U	< 19 U	< 20 U	< 0.44 U	< 0.39 U	< 0.39 U	< 0.38 U	< 0.43 U	< 0.4 U	< 0.44 U	< 0.43 U	< 0.46 U	< 0.45 U	< 0.43 U
SW8270D	3-NITROANILINE	mg/kg	0.5		0.5		< 0.46 U	< 19 U	< 20 U	< 0.44 U	< 0.39 U	< 0.39 U	< 0.38 U	< 0.43 U	< 0.4 U	< 0.44 U	< 0.43 U	< 0.46 U	< 0.45 U	< 0.43 U
SW8270D	4,6-DINITRO-2-METHYLPHENOL	mg/kg					< 0.46 U	< 19 U	< 20 U	< 0.44 U	< 0.39 U	< 0.39 U	< 0.38 U	< 0.43 U	< 0.4 U	< 0.44 U	< 0.43 U	< 0.46 U	< 0.45 U	< 0.43 U
SW8270D	4-BROMOPHENYL PHENYL ETHER	mg/kg					< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	4-CHLORO-3-METHYLPHENOL	mg/kg					< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	4-CHLOROANILINE	mg/kg	0.22		0.22		< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	4-CHLOROPHENYL PHENYL ETHER	mg/kg					< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	4-METHYLPHENOL (P-CRESOL)	mg/kg	0.33	1000	0		< 0.46 U	< 19 U	< 20 U	< 0.44 U	< 0.39 U	< 0.39 U	< 0.38 U	< 0.43 U	< 0.4 U	< 0.44 U	< 0.43 U	< 0.46 U	< 0.45 U	< 0.43 U
SW8270D	4-NITROANILINE	mg/kg					< 0.46 U	< 19 U	< 20 U	< 0.44 U	< 0.39 U	< 0.39 U	< 0.38 U	< 0.43 U	< 0.4 U	< 0.44 U	< 0.43 U	< 0.46 U	< 0.45 U	< 0.43 U
SW8270D	4-NITROPHENOL	mg/kg	0.1		0.1		< 0.46 U	< 19 U	< 20 U	< 0.44 U	< 0.39 U	< 0.39 U	< 0.38 U	< 0.43 U	< 0.4 U	< 0.44 U	< 0.43 U	< 0.46 U	< 0.45 U	< 0.43 U
SW8270D	ACENAPHTHENE	mg/kg	**20**	**1000**	**98**		< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	ACENAPHTHYLENE	mg/kg	100	1000	107		< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	ACETOPHENONE	mg/kg					< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	ANTHRACENE	mg/kg	**100**	**1000**	**1000**		< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	ATRAZINE	mg/kg					< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	BENZALDEHYDE	mg/kg					< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	BENZO(A)ANTHRACENE	mg/kg	**1**	**11**	**1**		< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	BENZO(A)PYRENE	mg/kg	**1**	**1.1**	**22**		< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	**0.03 J**	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	BENZO(B)FLUORANTHENE	mg/kg	**1**	**11**	**2**		< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	**0.041 J**	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	BENZO(G,H,I)PERYLENE	mg/kg	**100**	**1000**	**1000**		< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	**0.03 J**	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	BENZO(K)FLUORANTHENE	mg/kg	0.8	110	2		< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	BENZYL BUTYL PHTHALATE	mg/kg	100		122		< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	BIPHENYL (DIPHENYL)	mg/kg	**60**				< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	BIS(2-CHLOROETHOXY) METHANE	mg/kg					< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	BIS(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHE	mg/kg					< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	BIS(2-CHLOROISOPROPYL) ETHER	mg/kg					< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	50		435		< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	CAPROLACTAM	mg/kg					< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	CARBAZOLE	mg/kg					< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	CHRYSENE	mg/kg	**1**	**110**	**1**		< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	DIBENZ(A,H)ANTHRACENE	mg/kg	0.33	1.1	1000		< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	DIBENZOFURAN	mg/kg	**7**	**1000**	**210**		< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	DIETHYL PHTHALATE	mg/kg	7.1		7.1		< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	DIMETHYL PHTHALATE	mg/kg	27		27		< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	DI-N-BUTYL PHTHALATE	mg/kg	0.014		8.1		< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	DI-N-OCTYLPHTHALATE	mg/kg	100		120		< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	FLUORANTHENE	mg/kg	**100**	**1000**	**1000**		< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	**0.036 J**	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	FLUORENE	mg/kg	**30**	**1000**	**386**		< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	HEXACHLOROBENZENE	mg/kg	0.33	12	3		< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	HEXACHLOROBUTADIENE	mg/kg					< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	HEXACHLOROCYCLOPENTADIENE	mg/kg	10				< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	HEXACHLOROETHANE	mg/kg					< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	INDENO(1,2,3-C,D)PYRENE	mg/kg	0.5	11	8		< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	ISOPHORONE	mg/kg	4.4		4.4		< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	NAPHTHALENE	mg/kg	**12**	**1000**	**12**		< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	NITROBENZENE	mg/kg	0.17	140	0.17		< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	N-NITROSODI-N-PROPYLAMINE	mg/kg					< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	N-NITROSODIPHENYLAMINE	mg/kg	**20**				< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	PENTACHLOROPHENOL	mg/kg	0.8	55	1		< 0.46 U	< 19 U	< 20 U	< 0.44 U	< 0.39 U	< 0.39 U	< 0.38 U	< 0.43 U	< 0.4 U	< 0.44 U	< 0.43 U	< 0.46 U	< 0.45 U	< 0.43 U
SW8270D	PHENANTHRENE	mg/kg	**100**	**1000**	**1000**		< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	PHENOL	mg/kg	0.33	1000	0		< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	PYRENE	mg/kg	**100**	**1000**	**1000**		< 0.23 U	< 10 U	< 10 U	< 0.23 U	< 0.2 U	< 0.2 U	**0.029 J**	< 0.22 U	< 0.2 U	< 0.23 U	< 0.22 U	< 0.24 U	< 0.23 U	< 0.22 U
SW8270D	1,4-DIOXANE (P-DIOXANE)	mg/kg	0.1	250	0.1		--	< 5.9 U	< 5.9 U	< 0.13 U	--	--	--	< 0.13 U	--	--	--	--	--	--
Pesticides																				
SW8081B	ALDRIN	mg/kg	0.005	1.4	0.19		< 0.0023 U	< 0.099 U	< 0.097 U	< 0.0022 U	< 0.0019 U	< 0.0020 U	< 0.0020 U	< 0.0022 U	< 0.0020 U	< 0.0022 U	< 0.0022 U	< 0.0023 U	< 0.0023 U	< 0.0022 U
SW8081B	ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	mg/kg	0.02	6.8	0.02		< 0.0023 U	< 0.099 U	< 0.097 U	< 0.0022 U	< 0.0019 U	< 0.0020 U	< 0.0020 U	< 0.0022 U	< 0.0020 U	< 0.0022 U	< 0.0022 U	< 0.0023 U	< 0.0023 U	< 0.0022 U
SW8081B	ALPHA ENDOSULFAN	mg/kg	2.4	920	102		< 0.0023 U	< 0.099 U	< 0.097 U	< 0.0022 U	< 0.0019 U	< 0.0020 U	< 0.0020 U	< 0.0022 U	< 0.0020 U	< 0.0022 U	< 0.0022 U	< 0.0023 U	< 0.0023 U	< 0.0022 U
SW8081B	ALPHA-CHLORDANE	mg/kg	0.094	47	2.9		< 0.0023 U	< 0.099 U	< 0.097 U	< 0.0022 U	< 0.0019 U	< 0.0020 U	< 0.0020 U	< 0.0022 U	< 0.0020 U	< 0.0022 U	< 0.0022 U	< 0.0023 U	< 0.0023 U	< 0.0022 U
SW8081B	BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	mg/kg	0.036	14	0.09		< 0.0023 U	< 0.099 U	< 0.097 U	< 0.0022 U	< 0.0019 U	< 0.0020 U	< 0.0020 U	< 0.0022 U	< 0.0020 U	< 0.0022 U	< 0.0022 U	< 0.0023 U	< 0.0023 U	< 0.0022 U

Table 5-4.2
2024 Subsurface Soil Analytical Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

						Location	SB-03	SB-04	SB-04	SB-04	SB-05	SB-05	SB-07	SB-07	SB-08	SB-08	SB-09	SB-09	SB-10	SB-10
						Sample Name	SB-03-28.0-30.0-20240808	SB-04-0.5-2.0-20240712	SB-04-0.5-2.0-FD-20240712	SB-04-38.0-42.0-20240712	SB-05-27.0-29.0-20240715	SB-05-32.0-33.0-20240715	SB-07-1.0-2.0-20240809	SB-07-33.0-35.0-20240809	SB-08-26.0-28.0-20240809	SB-08-28.0-30.0-20240809	SB-09-4.0-5.0-20240808	SB-09-28.0-30.0-20240808	SB-10-39-42-20240709	SB-10-48-49-20240709
						Sample Date	8/8/2024	7/12/2024	7/12/2024	7/12/2024	7/15/2024	7/15/2024	8/9/2024	8/9/2024	8/9/2024	8/9/2024	8/8/2024	8/8/2024	7/9/2024	7/9/2024
						Sample Depth Interval (ft bgs)	28-30	0.5-2	0.5-2	38-42	27-29	32-33	1-2	33-35	26-28	28-30	4-5	28-30	39-42	48-49
Method	Analyte	Unit	Criteria (1)	Criteria (2)	Criteria (3)				Field Duplicate											
SW8081B	BETA ENDOSULFAN	mg/kg	2.4	920	102		< 0.0023 U	< 0.099 U	< 0.097 U	< 0.0022 U	< 0.0019 U	< 0.0020 U	< 0.0020 U	< 0.0022 U	< 0.0020 U	< 0.0022 U	< 0.0022 U	< 0.0023 U	< 0.0023 U	< 0.0022 U
SW8081B	BETA-CHLORDANE	mg/kg					< 0.0023 U	< 0.099 U	< 0.097 U	< 0.0022 U	< 0.0019 U	< 0.0020 U	< 0.0020 U	< 0.0022 U	< 0.0020 U	< 0.0022 U	< 0.0022 U	< 0.0023 U	< 0.0023 U	< 0.0022 U
SW8081B	DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	mg/kg	0.04	1000	0.25		< 0.0023 U	< 0.099 U	< 0.097 U	< 0.0022 U	< 0.0019 U	< 0.0020 U	< 0.0020 U	< 0.0022 U	< 0.0020 U	< 0.0022 U	< 0.0022 U	< 0.0023 U	< 0.0023 U	< 0.0022 U
SW8081B	DIELDRIN	mg/kg	0.005	2.8	0.1		< 0.0023 U	< 0.099 U	< 0.097 U	< 0.0022 U	< 0.0019 U	< 0.0020 U	< 0.0020 U	< 0.0022 U	< 0.0020 U	< 0.0022 U	< 0.0022 U	< 0.0023 U	< 0.0023 U	< 0.0022 U
SW8081B	ENDOSULFAN SULFATE	mg/kg	2.4	920	1000		< 0.0023 U	< 0.099 U	< 0.097 U	< 0.0022 U	< 0.0019 U	< 0.0020 U	< 0.0020 U	< 0.0022 U	< 0.0020 U	< 0.0022 U	< 0.0022 U	< 0.0023 U	< 0.0023 U	< 0.0022 U
SW8081B	ENDRIN	mg/kg	0.014	410	0.06		< 0.0023 U	< 0.099 U	< 0.097 U	< 0.0022 U	< 0.0019 U	< 0.0020 U	< 0.0020 U	< 0.0022 U	< 0.0020 U	< 0.0022 U	< 0.0022 U	< 0.0023 U	< 0.0023 U	< 0.0022 U
SW8081B	ENDRIN ALDEHYDE	mg/kg					< 0.0023 U	< 0.099 U	< 0.097 U	< 0.0022 U	< 0.0019 U	< 0.0020 U	< 0.0020 U	< 0.0022 U	< 0.0020 U	< 0.0022 U	< 0.0022 U	< 0.0023 U	< 0.0023 U	< 0.0022 U
SW8081B	ENDRIN KETONE	mg/kg					< 0.0023 U	< 0.099 U	< 0.097 U	< 0.0022 U	< 0.0019 U	< 0.0020 U	< 0.0020 U	< 0.0022 U	< 0.0020 U	< 0.0022 U	< 0.0022 U	< 0.0023 U	< 0.0023 U	< 0.0022 U
SW8081B	GAMMA BHC (LINDANE)	mg/kg	0.1	23	0.1		< 0.0023 U	< 0.099 U	< 0.097 U	< 0.0022 U	< 0.0019 U	< 0.0020 U	< 0.0020 U	< 0.0022 U	< 0.0020 U	< 0.0022 U	< 0.0022 U	< 0.0023 U	< 0.0023 U	< 0.0022 U
SW8081B	HEPTACHLOR	mg/kg	0.042	29	0.38		< 0.0023 U	< 0.099 U	< 0.097 U	< 0.0022 U	< 0.0019 U	< 0.0020 U	< 0.0020 U	< 0.0022 U	< 0.0020 U	< 0.0022 U	< 0.0022 U	< 0.0023 U	< 0.0023 U	< 0.0022 U
SW8081B	HEPTACHLOR EPOXIDE	mg/kg	0.02		0.02		< 0.0023 U	< 0.099 U	< 0.097 U	< 0.0022 U	< 0.0019 U	< 0.0020 U	< 0.0020 U	< 0.0022 U	< 0.0020 U	< 0.0022 U	< 0.0022 U	< 0.0023 U	< 0.0023 U	< 0.0022 U
SW8081B	METHOXYCHLOR	mg/kg	**1.2**		**900**		< 0.0023 U	< 0.099 U	< 0.097 U	< 0.0022 U	< 0.0019 U	< 0.0020 U	< 0.0020 U	< 0.0022 U	< 0.0020 U	< 0.0022 U	< 0.0022 U	< 0.0023 U	**0.00096 J**	< 0.0022 U
SW8081B	P,P'-DDD	mg/kg	0.0033	180	14		< 0.0023 U	< 0.099 U	< 0.097 U	< 0.0022 U	< 0.0019 U	< 0.0020 U	< 0.0020 U	< 0.0022 U	< 0.0020 U	< 0.0022 U	< 0.0022 U	< 0.0023 U	< 0.0023 U	< 0.0022 U
SW8081B	P,P'-DDE	mg/kg	0.0033	120	17		< 0.0023 U	< 0.099 U	< 0.097 U	< 0.0022 U	< 0.0019 U	< 0.0020 U	< 0.0020 U	< 0.0022 U	< 0.0020 U	< 0.0022 U	< 0.0022 U	< 0.0023 U	< 0.0023 U	< 0.0022 U
SW8081B	P,P'-DDT	mg/kg	**0.0033**	**94**	**136**		< 0.0023 U	< 0.099 U	< 0.097 U	< 0.0022 U	< 0.0019 U	< 0.0020 U	< 0.0020 U	< 0.0022 U	< 0.0020 U	< 0.0022 U	< 0.0022 U	< 0.0023 U	< 0.0023 U	< 0.0022 U
SW8081B	TOXAPHENE	mg/kg					< 0.023 U	< 0.99 U	< 0.97 U	< 0.022 U	< 0.019 U	< 0.02 U	< 0.02 U	< 0.022 U	< 0.02 U	< 0.022 U	< 0.022 U	< 0.023 U	< 0.023 U	< 0.022 U
Polychlorinated Biphenyls (PCBs)																				
SW8082A	PCB-1016 (AROCLOR 1016)	mg/kg					< 0.31 U	< 0.26 U	< 0.22 U	< 0.25 U	< 0.22 U	< 0.21 U	< 0.29 U	< 0.28 U	< 0.25 U	< 0.28 U	< 0.28 U	< 0.33 U	< 0.32 U	< 0.31 U
SW8082A	PCB-1221 (AROCLOR 1221)	mg/kg					< 0.31 U	< 0.26 U	< 0.22 U	< 0.25 U	< 0.22 U	< 0.21 U	< 0.29 U	< 0.28 U	< 0.25 U	< 0.28 U	< 0.28 U	< 0.33 U	< 0.32 U	< 0.31 U
SW8082A	PCB-1232 (AROCLOR 1232)	mg/kg					< 0.31 U	< 0.26 U	< 0.22 U	< 0.25 U	< 0.22 U	< 0.21 U	< 0.29 U	< 0.28 U	< 0.25 U	< 0.28 U	< 0.28 U	< 0.33 U	< 0.32 U	< 0.31 U
SW8082A	PCB-1242 (AROCLOR 1242)	mg/kg					< 0.31 U	< 0.26 U	< 0.22 U	< 0.25 U	< 0.22 U	< 0.21 U	< 0.29 U	< 0.28 U	< 0.25 U	< 0.28 U	< 0.28 U	< 0.33 U	< 0.32 U	< 0.31 U
SW8082A	PCB-1248 (AROCLOR 1248)	mg/kg					< 0.31 U	< 0.26 U	< 0.22 U	< 0.25 U	< 0.22 U	< 0.21 U	< 0.29 U	< 0.28 U	< 0.25 U	< 0.28 U	< 0.28 U	< 0.33 U	< 0.32 U	< 0.31 U
SW8082A	PCB-1254 (AROCLOR 1254)	mg/kg					< 0.31 U	< 0.26 U	< 0.22 U	< 0.25 U	< 0.22 U	< 0.21 U	< 0.29 U	< 0.28 U	< 0.25 U	< 0.28 U	< 0.28 U	< 0.33 U	< 0.32 U	< 0.31 U
SW8082A	PCB-1260 (AROCLOR 1260)	mg/kg					< 0.31 U	< 0.26 U	< 0.22 U	< 0.25 U	< 0.22 U	< 0.21 U	< 0.29 U	< 0.28 U	< 0.25 U	< 0.28 U	< 0.28 U	< 0.33 U	< 0.32 U	< 0.31 U
--	Total PCBs	mg/kg	**0.1**	**25**	**3.2**		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals and Inorganics																				
SW6010C	ALUMINUM	mg/kg	**10000**				**24800**	**18300**	**21700**	**27600**	**19000**	**19500**	**13200 J**	**23900**	**19200**	**25500**	**24400**	**32000**	**32500**	**22600**
SW6010C	ANTIMONY	mg/kg	**12**				< 20.8 U	< 18.2 U	**1.3 J**	< 19.6 U	< 18.8 U	**1.0 J**	< 18.6 R	< 19.9 U	< 17.5 U	< 20.3 U	< 19.1 U	< 21.8 U	< 20.1 U	< 19.0 U
SW6010C	ARSENIC	mg/kg	**13**	**16**	**16**		**3.9**	**4.8**	**4.9**	**3.5**	**2.8**	**2.8**	**5.1 J-**	**5.6**	**3.6**	**9.1**	**4**	**4.1**	**4.6**	**3.7**
SW6010C	BARIUM	mg/kg	**350**	**10000**	**820**		**143**	**123**	**132**	**170**	**122**	**123**	**102 J-**	**132**	**124**	**101**	**129**	**163**	**191**	**148**
SW6010C	BERYLLIUM	mg/kg	**7.2**	**2700**	**47**		**1.1**	**1**	**1.1**	**1.2**	**0.82**	**0.84**	**3.3 J-**	**1.1**	**0.85**	**1.1**	**1**	**1.5**	**1.4**	**1**
SW6010C	CADMIUM	mg/kg	**2.5**	**60**	**7.5**		< 0.28 U	**1.2**	**0.79**	**0.31**	**0.25**	**0.25**	< 0.25 UJ	< 0.27 U	< 0.23 U	< 0.27 U	**0.33**	< 0.29 U	**0.27**	**0.28**
SW6010C	CALCIUM	mg/kg	**10000**				**45900**	**23300**	**28400**	**46100**	**48000**	**48600**	**66100 J**	**42100**	**41900**	**34100**	**7020**	**45400**	**46800**	**47800**
SW6010C	CHROMIUM, TOTAL	mg/kg	**1**	**800**	**19**		**32.7**	**23**	**30.5**	**33.1**	**23.2**	**23.7**	**8.7 J-**	**32.1**	**24.5**	**32.5**	**27.4**	**40.1**	**38.3**	**26.1**
SW6010C	COBALT	mg/kg	**20**				**16.1**	**11.9**	**12.6**	**15**	**12.2**	**11.2**	**4.5**	**14.9**	**13.2**	**15.9**	**15.4**	**18.9**	**17**	**13.2**
SW6010C	COPPER	mg/kg	**50**	**10000**	**1720**		**23.9**	**24.5**	**37.1**	**22**	**16.8**	**16.2**	**3.8 J-**	**29.3**	**18.2**	**24.5**	**14.5**	**26.4**	**24.2**	**22.1**
SW6010C	IRON	mg/kg	**2000**				**26500**	**20700**	**23300**	**26100**	**20400**	**19700**	**6580 J**	**24100**	**20300**	**25200**	**24200**	**31000**	**28700**	**23000**
SW6010C	LEAD	mg/kg	**63**	**3900**	**450**		**10.9**	**36.1**	**37.5**	**10.2**	**10.4**	**10**	**5.8**	**13.4**	**10**	**12.8**	**19.2 T**	**11.5**	**12.8**	**13.9**
SW6010C	MAGNESIUM	mg/kg					**14600**	**8980**	**10700**	**15500**	**15800**	**16600**	**12200 J**	**17700**	**14800**	**17500**	**6630**	**16400**	**16300**	**17200**
SW6010C	MANGANESE	mg/kg	**1600**	**10000**	**2000**		**555**	**693**	**712**	**568**	**538**	**512**	**919 J**	**484**	**488**	**440**	**1110**	**604**	**592**	**550**
SW7471B	MERCURY	mg/kg	**0.18**	**5.7**	**0.73**		**0.017 J**	**0.06**	**0.063**	**0.019 J**	**0.011 J**	**0.010 J**	**0.013 J**	**0.021 J**	**0.016 J**	**0.020 J**	**0.047**	**0.018 J**	**0.013 J**	**0.011 J**
SW6010C	NICKEL	mg/kg	**30**	**10000**	**130**		**36.4**	**24.8**	**26.5**	**30**	**23.1**	**22**	**2.1 J-**	**31**	**25.2**	**33.1**	**26.8**	**43.1**	**33.1**	**26.1**
SW6010C	POTASSIUM	mg/kg					**7560**	**3690**	**4640**	**9120**	**6300**	**6740**	**625**	**7540**	**6320**	**8150**	**3840**	**9790**	**11300**	**7750**
SW6010C	SELENIUM	mg/kg	**3.9**	**6800**	**4**		**1.1 J**	**1.4 J**	**1.2 J**	< 5.2 U	**1.4 J**	< 5.1 U	< 4.9 UJ	< 5.3 U	< 4.7 U	< 5.4 U	< 5.1 U	**1.2 J**	**1.4 J**	< 5.1 U
SW6010C	SILVER	mg/kg	**2**	**6800**	**8.3**		< 0.83 U	< 0.73 U	**0.29 J**	**0.32 J**	< 0.75 U	< 0.76 U	**0.38 J-**	**0.34 J**	**0.29 J**	**0.37 J**	< 0.77 U	< 0.87 U	**0.35 J**	**0.35 J**
SW6010C	SODIUM	mg/kg					**384**	**163 J**	**167 J**	**567**	**383**	**501**	**861**	**374**	**287**	**365**	**122 J**	**434**	**728**	**458**
SW6010C	THALLIUM	mg/kg	5				< 8.3 U	< 7.3 U	< 7.6 U	< 7.8 U	< 7.5 U	< 7.6 U	< 7.4 U	< 8.0 U	< 7.0 U	< 8.1 U	< 7.7 U	< 8.7 U	< 8.0 U	< 7.6 U
SW6010C	VANADIUM	mg/kg	**39**				**47.9**	**40.3**	**41**	**50.3**	**35.9**	**34.7**	**2.8 J-**	**44.4**	**36.3**	**47.9**	**44.2**	**59.9**	**58.3**	**41.1**
SW6010C	ZINC	mg/kg	**109**	**10000**	**2480**		**68.1**	**113**	**136**	**61.2**	**58.1**	**55.5**	**6.6 J-**	**69.3**	**55.5**	**71**	**96.3**	**75.2**	**76.7**	**62.6**
SW9012	CYANIDE	mg/kg	27	10000	40		< 1.2 U	< 1.1 U	< 1.1 U	< 1.3 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.2 U	< 1.2 U	< 1.2 R	< 1.4 U	< 1.4 U	< 1.2 U
Per- and Polyfluoroalkyl Substances (PFAS)																				
E1633	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid	mg/kg					--	< 0.00079 U	< 0.00076 U	< 0.00087 U	--	--	--	< 0.00091 U	--	--	--	--	--	--
E1633	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2)	mg/kg					--	< 0.00079 U	< 0.00076 U	< 0.00087 U	--	--	--	< 0.00091 U	--	--	--	--	--	--
E1633	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2)	mg/kg					--	< 0.00079 U	< 0.00076 U	< 0.00087 U	--	--	--	< 0.00091 U	--	--	--	--	--	--
E1633	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2)	mg/kg					--	< 0.00079 U	< 0.00076 U	< 0.00087 U	--	--	--	< 0.00091 U	--	--	--	--	--	--
E1633	2-(N-ethyl perfluoro-1-octanesulfonamido)-ethanol	mg/kg					--	< 0.0020 U	< 0.0019 U	< 0.0022 U	--	--	--	< 0.0023 U	--	--	--	--	--	--
E1633	2-(N-methyl perfluoro-1-octanesulfonamido)-ethanol	mg/kg					--	< 0.0020 U	< 0.0019 U	< 0.0022 U	--	--	--	< 0.0023 U	--	--	--	--	--	--
E1633	2-(N-methyl perfluorooctanesulfonamido) acetic acid	mg/kg					--	< 0.00020 U	< 0.00019 U	< 0.00022 U	--	--	--	< 0.00023 U	--	--	--	--	--	--
E1633	2H,2H,3H,3H-Perfluorooctanoic acid	mg/kg					--	< 0.0049 U	< 0.0047 U	< 0.0055 U	--	--	--	< 0.0057 U	--	--	--	--	--	--
E1633	3-Perfluoroheptyl propanoic acid	mg/kg					--	< 0.0049 U	< 0.0047 U	< 0.0055 U	--	--	--	< 0.0057 U	--	--	--	--	--	--
E1633	3-Perfluoropropyl propanoic acid	mg/kg					--	< 0.00098 U	< 0.00094 U	< 0.0011 U	--	--	--	< 0.0011 U	--	--	--	--	--	--

Table 5-4.2
2024 Subsurface Soil Analytical Results
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

						Location	SB-03	SB-04	SB-04	SB-04	SB-05	SB-05	SB-07	SB-07	SB-08	SB-08	SB-09	SB-09	SB-10	SB-10
						Sample Name	SB-03-28.0-30.0-20240808	SB-04-0.5-2.0-20240712	SB-04-0.5-2.0-FD-20240712	SB-04-38.0-42.0-20240712	SB-05-27.0-29.0-20240715	SB-05-32.0-33.0-20240715	SB-07-1.0-2.0-20240809	SB-07-33.0-35.0-20240809	SB-08-26.0-28.0-20240809	SB-08-28.0-30.0-20240809	SB-09-4.0-5.0-20240808	SB-09-28.0-30.0-20240808	SB-10-39-42-20240709	SB-10-48-49-20240709
						Sample Date	8/8/2024	7/12/2024	7/12/2024	7/12/2024	7/15/2024	7/15/2024	8/9/2024	8/9/2024	8/9/2024	8/9/2024	8/8/2024	8/8/2024	7/9/2024	7/9/2024
						Sample Depth Interval (ft bgs)	28-30	0.5-2	0.5-2	38-42	27-29	32-33	1-2	33-35	26-28	28-30	4-5	28-30	39-42	48-49
Method	Analyte	Unit	Criteria						Field Duplicate											
			(1)	(2)	(3)															
E1633	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	mg/kg				--	< 0.00079 U	< 0.00076 U	< 0.00087 U	--	--	--	< 0.00091 U	--	--	--	--	--	--
E1633	9-Chlorohexadecafluoro-3-Oxanonane-1-Sulfonic Acid	mg/kg				--	< 0.00079 U	< 0.00076 U	< 0.00087 U	--	--	--	< 0.00091 U	--	--	--	--	--	--
E1633	N-ethyl perfluoro-1-octanesulfonamide	mg/kg				--	< 0.00020 U	< 0.00019 U	< 0.00022 U	--	--	--	< 0.00023 U	--	--	--	--	--	--
E1633	N-ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine	mg/kg				--	< 0.00020 U	< 0.00019 U	< 0.00022 U	--	--	--	< 0.00023 U	--	--	--	--	--	--
E1633	N-methyl perfluoro-1-octanesulfonamide	mg/kg				--	< 0.00020 U	< 0.00019 U	< 0.00022 U	--	--	--	< 0.00023 U	--	--	--	--	--	--
E1633	Nonafluoro-3,6-dioxaheptanoic acid	mg/kg				--	< 0.00039 U	< 0.00038 U	< 0.00044 U	--	--	--	< 0.00045 U	--	--	--	--	--	--
E1633	Perfluoro(2-ethoxyethane)sulfonic acid	mg/kg				--	< 0.00039 U	< 0.00038 U	< 0.00044 U	--	--	--	< 0.00045 U	--	--	--	--	--	--
E1633	Perfluoro(2-Propoxypropanoic) acid	mg/kg				--	< 0.00079 U	< 0.00076 U	< 0.00087 U	--	--	--	< 0.00091 U	--	--	--	--	--	--
E1633	Perfluoro-3-methoxypropanoic acid	mg/kg				--	< 0.00039 U	< 0.00038 U	< 0.00044 U	--	--	--	< 0.00045 U	--	--	--	--	--	--
E1633	Perfluoro-4-methoxybutanoic acid	mg/kg				--	< 0.00039 U	< 0.00038 U	< 0.00044 U	--	--	--	< 0.00045 U	--	--	--	--	--	--
E1633	Perfluorobutanesulfonic acid (PFBS)	mg/kg				--	< 0.00020 U	< 0.00019 U	< 0.00022 U	--	--	--	< 0.00023 U	--	--	--	--	--	--
E1633	Perfluorobutanoic acid	mg/kg				--	< 0.00079 U	< 0.00076 U	< 0.00087 U	--	--	--	< 0.00091 U	--	--	--	--	--	--
E1633	Perfluorodecane sulfonic acid (PFDS)	mg/kg				--	< 0.00020 U	< 0.00019 U	< 0.00022 U	--	--	--	< 0.00023 U	--	--	--	--	--	--
E1633	Perfluorodecanoic acid (PFDA)	mg/kg				--	< 0.00020 U	< 0.00019 U	< 0.00022 U	--	--	--	< 0.00023 U	--	--	--	--	--	--
E1633	Perfluorododecanesulfonic acid (PFDOS)	mg/kg				--	< 0.00020 U	< 0.00019 U	< 0.00022 U	--	--	--	< 0.00023 U	--	--	--	--	--	--
E1633	Perfluorododecanoic acid (PFDoA)	mg/kg				--	< 0.00020 U	< 0.00019 U	< 0.00022 U	--	--	--	< 0.00023 U	--	--	--	--	--	--
E1633	Perfluoroheptane sulfonate (PFHPS)	mg/kg				--	< 0.00020 U	< 0.00019 U	< 0.00022 U	--	--	--	< 0.00023 U	--	--	--	--	--	--
E1633	Perfluoroheptanoic acid (PFHpA)	mg/kg				--	< 0.00020 U	< 0.00019 U	< 0.00022 U	--	--	--	< 0.00023 U	--	--	--	--	--	--
E1633	Perfluorohexanesulfonic acid (PFHxS)	mg/kg				--	< 0.00020 U	< 0.00019 U	< 0.00022 U	--	--	--	< 0.00023 U	--	--	--	--	--	--
E1633	Perfluorohexanoic acid (PFHxA)	mg/kg				--	< 0.00020 U	< 0.00019 U	< 0.00022 U	--	--	--	< 0.00023 U	--	--	--	--	--	--
E1633	Perfluorononanesulfonic acid (PFNS)	mg/kg				--	< 0.00020 U	< 0.00019 U	< 0.00022 U	--	--	--	< 0.00023 U	--	--	--	--	--	--
E1633	Perfluorooctane sulfonamide (PFOSA)	mg/kg				--	< 0.00020 U	< 0.00019 U	< 0.00022 U	--	--	--	< 0.00023 U	--	--	--	--	--	--
E1633	Perfluorooctanesulfonic acid (PFOS)	mg/kg	**0.00088**	**0.44**	**0.001**	--	< 0.00020 U	< 0.00019 U	< 0.00022 U	--	--	--	< 0.00023 U	--	--	--	--	--	--	--
E1633	Perfluorooctanoic acid (PFOA)	mg/kg	0.00066	0.6	0.0008	--	< 0.00020 U	< 0.00019 U	< 0.00022 U	--	--	--	< 0.00023 U	--	--	--	--	--	--	--
E1633	Perfluoropentanesulfonic acid (PFPeS)	mg/kg				--	< 0.00020 U	< 0.00019 U	< 0.00022 U	--	--	--	< 0.00023 U	--	--	--	--	--	--	--
E1633	Perfluoropentanoic acid (PFPeA)	mg/kg				--	< 0.00039 U	< 0.00038 U	< 0.00044 U	--	--	--	< 0.00045 U	--	--	--	--	--	--	--
E1633	Perfluorotetradecanoic acid (PFTA)	mg/kg				--	< 0.00020 U	< 0.00019 U	< 0.00022 U	--	--	--	< 0.00023 U	--	--	--	--	--	--	--
E1633	Perfluorotridecanoic acid (PFTriA)	mg/kg				--	< 0.00020 U	< 0.00019 U	< 0.00022 U	--	--	--	< 0.00023 U	--	--	--	--	--	--	--
E1633	Perfluoroundecanoic acid (PFUnA)	mg/kg				--	< 0.00020 U	< 0.00019 U	< 0.00022 U	--	--	--	< 0.00023 U	--	--	--	--	--	--	--
E1633	Perfuorononanoic acid (PFNA)	mg/kg				--	< 0.00020 U	< 0.00019 U	< 0.00022 U	--	--	--	< 0.00023 U	--	--	--	--	--	--	--

Notes:

Criteria = 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives (SCOs), Effective 12/14/06. Where there were no Part 375.6 SCOs, the NYSDEC CP-51 Table 1 Supplemental SCOs, Effective 12/2/10, and the NYSDEC April 2023 PFAS guidance values, were provided. Where there were no Unrestricted Use SCOs, the lowest of the Supplemental SCOs was selected.

(1) - Unrestricted Use SCOs

(2) - Industrial Use SCOs

(3) - Protection of Groundwater SCOs

Definitions:

ft bgs - feet below water surface

mg/kg - milligrams per kilogram

"--" - Not analyzed

J - Reported concentration is an estimated value.

J+ - Reported concentration is an estimated value, and may be biased high.

J- - Reported concentration is an estimated value, and may be biased low.

JN - Reported concentration is an estimated value, that has been "tentatively identified".

R - The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

U - Analyte was analyzed for but was not detected above the reported limit.

UJ - Analyte was analyzed for but was not detected above the reported limit, but the reported limit is approximate.

Bold	Analyte was detected
Underline	Detected concentration exceeds Criteria (1)
Highlight	Detected concentration exceeds Criteria (2)
Highlight	Detected concentration exceeds Criteria (3)

Table 7-1
Summary of Contaminants of Concern
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

	Media of Concern					
Contaminant of Concern	**Surface Soil (0-0.2')**	**Subsurface Soil (>0.2')**	**Groundwater (~1-9')**	**Sediment (in Tank 75)**	**Surface Water (in Tank 75)**	**Vapor**
VOCs						
Acetone		X				*
1,2-Dichlorobenzene		*		X		*
1,4-Dichlorobenzene		*		X		*
Chlorobenzene		*		X		*
Benzene		X		X		*
Toluene		X		X		*
Ethylbenzene		*		X		*
Xylenes		X		X		*
Styrene		*		X		*
Isopropylbenzene (cumene)		X		X		*
SVOCs						
2-Methylnaphthalene		X		X		*
Acenaphthene		X		X		
Acenaphthylene				X		
Anthracene				X		
Benzo(a)anthracene		X		X		
Benzo(a)pyrene		X		X		
Benzo(b)fluoranthene		X		X		
Benzo(k)fluoranthene				X		
Chrysene		X		X		
Fluoranthene				X		
Fluorene		X		X		
Indeno(1,2,3-cd)pyrene				X		

Table 7-1
Summary of Contaminants of Concern
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

	Media of Concern					
Contaminant of Concern	**Surface Soil (0-0.2')**	**Subsurface Soil (>0.2')**	**Groundwater (~1-9')**	**Sediment (in Tank 75)**	**Surface Water (in Tank 75)**	**Vapor**
Naphthalene		X		X		*
Phenanthrene		X		X		
Pyrene		X		X		
Biphenyl				X		
Dibenzofuran		X		X		
n-Nitrosodiphenylamine		X		X		
Pesticides						
p,p'-DDD	X				X	
p,p'-DDT	X	X			X	
delta-BHC					X	
Methoxychlor					X	
PCBs						
PCB-1260	X	X				
PCB-1248				X		
Metals						
Aluminum	X	X		X		
Antimony				X		
Arsenic	X	X		X		
Barium				X		
Cadmium				X		
Calcium	X	X		X		
Chromium (total)	X	X		X		
Cobalt				X		
Copper				X		

Table 7-1
Summary of Contaminants of Concern
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

	Media of Concern					
Contaminant of Concern	**Surface Soil (0-0.2')**	**Subsurface Soil (>0.2')**	**Groundwater (~1-9')**	**Sediment (in Tank 75)**	**Surface Water (in Tank 75)**	**Vapor**
Iron	X	X	X	X		
Lead	X	X		X		
Magnesium			X			
Manganese		X	X		X	
Mercury	X	X		X		*
Nickel	X	X		X		
Selenium				X		
Sodium			X			
Vanadium	X	X		X		
Zinc	X	X		X		
PFAS						
PFOS			X		X	
PFOA				X	X	

Notes:

X - Known contaminant

* - Potential contaminant

Table 7-2
Human Health Exposure Assessment
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

		Human Receptors				
Media of Concern	**Exposure Pathway**	**Long-Term Worker**	**Short-Term Construction Worker**	**Visitor / Trespasser**	**Neighboring Worker**	**Human Health Exposure Assessment**
Surface Soil	Direct Contact (including Incidental Ingestion)	X	X	X		- There are known surface soil impacts at the Site. - All on-site human receptors may come into direct contact with surface soils who walk across the Site. However, the vegetative cover is substantial which would reduce the amount of soil erosion. - Construction workers may come into direct contact with surface soils during ground intrusive work. However, it is standard industry practice for construction workers to follow a health and safety plan (HASP) during ground intrusive work, including the use of personal protective equipment (PPE).
	Dust Inhalation	X	X	X	X	- All human receptors may come into indirect contact with surface soils via dust inhalation during ground distrurbance such as strong winds and heavy machinery movement. However, the surface has significant vegetative cover which would limit the amount of soil erosion.
Subsurface Soil	Direct Contact (including Incidental Ingestion)		X			- There are known subsurface soil impacts at the Site. - Construction workers may come into direct contact with subsurface soils during ground intrusive work. However, it is standard industry practice for construction workers to follow a health and safety plan (HASP) during ground intrusive work, including the use of personal protective equipment (PPE).
	Dust Inhalation	X	X	X	X	- All human receptors may come into indirect contact with subsurface soils via dust inhalation during ground intrusive work. However, it is standard industry practice to control volatilization, erosion, and/or fugitive dust during construction activities.
Groundwater	Direct Contact		X			- There are known groundwater impacts at the Site, although likely associated with background levels. - Construction workers may come into direct contact with groundwater during ground intrusive work. However, it is standard industry practice for construction workers to follow a HASP during ground intrusive work, including the use of PPE.
	Ingestion (as drinking water)					- Contaminated groundwater is not being used for drinking water. The site and surrounding properties are serviced by the municipal water supply which sources drinking water from the Niagara River. - There are no known domestic water supply wells in the area.
Sediment	Direct Contact (including Incidental Ingestion)		X			- There are no natural surface water bodies on or within vicinity of the Site. - There is sediment (i.e., sludge) within Tank 75. Construction workers may come into contact with sediment / sludge impacts during disruptive work at Tank 75. However, it is standard industry practice for construction workers to follow a HASP during intrusive work, including the use of PPE.
Surface Water	Direct Contact (including Incidental Ingestion)		X			- There are no natural surface water bodies on or within vicinity of the Site. - There is surface water (i.e., accumulated rainwater) within Tank 75. Construction workers may come into contact with surface water impacts during disruptive work at Tank 75. However, it is standard industry practice for construction workers to follow a HASP during intrusive work, including the use of PPE.

Table 7-2
Human Health Exposure Assessment
Remedial Investigation
Ashland Tank 75, Tonawanda, NY

		Human Receptors				
Media of Concern	**Exposure Pathway**	**Long-Term Worker**	**Short-Term Construction Worker**	**Visitor / Trespasser**	**Neighboring Worker**	**Human Health Exposure Assessment**
Vapor	Indoor Air Inhalation					- There may be vapor impacts at the Site sourced from known subsurface soil and sediment impacts. - However, there are no buildings on-site and none are expected to be erected in the foreseeable future.
	Trench Air Inhalation		X			- Construction workers may inhale contaminated trench air sourced from the subsurface soil impacts during ground intrusive work. However, it is standard industry practice for construction workers to follow a HASP during ground intrusive work, including the use of PPE.
	Outdoor Air Inhalation		X			- Vapor contaminants released into ambient air from subsurface soil and sediment are low in concentration and would be quickly dispersed and diluted. - Construction workers may inhale contaminated outdoor air sourced from the sediment impacts during disruptive work at Tank 75. However, it is standard industry practice for construction workers to follow a HASP during intrusive work, including the use of PPE.
Vegetation, Fish or Wildlife	Consumption					- The site and surrounding properties are zoned industrial whereby foraging, fishing and hunting is restricted. - The nearest surface water body, Niagara River, is located more than 3100’ northwest of the Site, which is sufficiently distant such that on-site contaminants would be unlikely to discharge to the waterbody and be consumed by people fishing.

Note:
Shaded - indicates a potentially complete exposure pathway for the relevant receptor

Appendix A Field Notes

Location Tank 75 Site RI Date 4-16-24

Project / Client Ashland - 60730037

NYSDEC Site No. 915008B

0750 - ESmith on Site w/ C. Wasteneys (AECOM) and Rick Brant (United Refining Co.)
GATE CODE [redacted]

0800 - OSC on-site
- Dan Flanagan
- Brian Rudnick
- Hunter Hehir
- Shawn Hehir
- Matt Reardon
- Mike Richey (Manages Non-OSC attachment on excavator)
↳ Raymond Fisher

0815 - Crew drives to Site area proximate Tank 75, north corner

0830 - Begin kickoff and safety meeting, cover general Site hazards and plan of attack w/ crew listed above

Conditions AM: 50°, wind WNW 3mph, mostly clear, no precip
PM: 60°, wind WNW 4mph, clear, no precip

0900 - Raymond Fisher and Matt Reardon off-site
0930 - Dan Flanagan and Brian Rudnick off-site

Location Tank 75 Site RI Date 4-16-24

Project / Client AsWand - 60730037

NYSDEC Site No. 9150083

1000 - Shawn H. (OSC) moving Link-Belt 210x4 to southeast corner of permeter fence where he will enter to clear inside fence OSC crew prepping to begin clearing C. Wasteneys (AECOM) remains on-site to meet w/ Rick Brent E. Smith (AECOM) to go inside fence perimeter and mark wells w/ tape and mark piping w/ tape and paint

1015 - Shawn H. (OSC) begins clearing in ~~south~~east corner of Site
Hunter H. (OSC) running handtools clearing around MWs and in north of Site
- E. Smith and M. Richey (OSC) marking any above grade obstacles to clearing (MWs, metal piping, concrete)

1030 - C. Wasteneys off-site

1145 - Site clearing on-going along east side of Tank 75 w/ Link-Belt 210x4, no issues

Location Tank 75 RI Date 4-16-24

Project / Client Ashland 60730037

NYSDEC Site No. 9150083

1200 - Break for lunch. Hunter H. off-site to get food, to return shortly

1215 - Mike R. off-site for supplies, to return shortly

1220 - Hunter H. returns to Site

1230 - Shawn and Hunter H. resume work

1300 - Work ongoing (clearing/grubbing)
Shawn H. exits Tank 75 enclosure via south access, moving to north access

1310 - Mike R. returns to site
- Clearing and grubbing ongoing along northern perimeter

1410 - Electrical line on boom of excavator broke during clearing, SH and MR replacing it. Not a live line, does not connect to anything

1415 - Dan Flanigan (OSC) on-site

1430 - Dan Flanigan off-site. Work ongoing

1440 - Clearing/grubbing work done for the day. OSC, patching fence in south

1510 - OSC crew leaving Site
R. Brant (URC) notified

1515 - E. Smith off-site
Site secure

Location Tank 75 Site RI Date 4-17-24

Project / Client Ashland / Tonawanda, NY 60730037
NYSDEC Site No. 915008B

0720 - E. Smith (AECOM) on-site waiting for OSC crew

Conditions AM: 46°, wind ENE 10 mph, cloudy, no precip
PM: 51°, wind E 11 mph, rain

0730 - OSC crew on-site
Personnel includes:
- Hunter Hehr
- Shawn Hehir
- Mike Richey

0740 - E. Smith holds safety meeting w/ crew prior to start of work. Rick Brand (URC) rolled crew is on site
- Rain begins, forecasted on/off all day

0800 - Commence clearing/grubbing work along norther perimeter of tank 75
- Shawn Hehir running Link-Belt 210X4 w/ attachment, Hunter Hehir using hand ~~tools~~ tools in hand to reach areas

Location Tank 75 RI Date 4-17-24

Project / Client Ashland / Tonawanda, NY 60730037
NYSDEC Site No 915008B

0835 - Brian Rudnick (OSC) visits Site
0857 - Complete Site walkaround w/ crew to scope out remaining clearing work around west perimeter
0900 - Brian Rudnick off site
0945 - All clearing that can be done using Link-Belt 210x4 is complete Remainder of work includes clearing vegetation by hand along western Site perimeter (Hunter H. completing)
- Colin Wastenays provided w/ update and current photos via text
- Mike R. patched access area / fence in south Site perimeter
1100 - Clearing / grubbing work complete All areas safe / accessible for clearing have been cleared OSC crew off-site to retrieve trailer to put the mulching attachment on in order to de-mob from Site E. Smith (AECOM) remains on-site
1310 - Shawn H. and Hunter H. back on-site w/ trailer
1335 - Mike Ricley back on-site Crew working on detaching attachment

Location Tank 75 Site RI Date 4/17/24

Project / Client Ashland / Tonawanda, NY 60730037

NYSDEC Site No. 915008B

1430 - OSC crew off-site to return mulch head attachment to owner. Noted that Link-Belt machine is to be picked up for demob from Site tomorrow, 4-18-24

1440 - John w/ OSC visits Site

1450 - Above off-site Rick Brant (URC) notified all personel leaving Site

1500 - E. Smith (AECOM) off-site

Location Tank 75 Site RI Date 4-18-24

Project / Client Ashland / Tonawanda, NY 60730037
NYSDEC Site No. 915008B

0645 - E. Smith on-site

Conditions AM: 47°, wind SW 8 mph, cloudy, no precip.
PM: 55°, wind SW 11 mph, cloudy, no precip

0700 - Informed by M. Richey (OSC) that excavator is now scheduled to be picked up from Site at 11am as opposed to 7am as informed yesterday. E. Smith to leave Site and return for demob R. Brant (URC) informed

0705 - E. Smith off-site

1045 - E. Smith on-site
Awaiting arrival of M. Richey (OSC) and trucking company to demob excavator

1050 - M. Richey (OSC) on-site

Location Tank 75 Site RI Date 4-18-24

Project / Client Ashland / Tonawanda, NY 60730037
NYSDEC Site No. 915008B

1140 - M. Richey notified that low boy truck will not be on-site until ~1pm Will remain on-site until then

1300 - M. Richey informed that truck for demob will now not be on-site until ~1:30, pm. E. Smith, M. Richey remain on-site

1336 - Redwood Heavy Transport on-site

1355 - Link-Belt 210x4 getting loaded onto trailer
- C. Wasteneys (AECOM) informed of discharge from concrete sumps north of Tank 75 Site to asphalt pad north of Site. Sump and discharge (via submersible pump) all off-site

1410 - Redwood Heavy Transport off-site w/ equipment

1415 - E. Smith (AECOM) and M. Richey (OSC) leaving Site

Rite in the Rain

Location Tank 75 Site RI Date 4-22-24

Project / Client Ashland / Tonawanda, NY 60730037
NYSDEC Site No. 915008B

0730 - E. Smith (AECOM) on-site w/ M. Rozeski (AECOM)

Conditions AM: 36°, wind WNW 5 mph, clear, sunny, no precip
PM: 50°, wind W 7 mph, clear, sunny, no precip

Tasks: - Complete Site survey to note property corners and survey in monitoring well locations
- Complete gamma walkover survey of property

0755 - K. Beherry (AECOM) on-site to complete GWS

0830 - E. Smith held safety meeting prior to start of work

0900 - M. Rozeski completing Site survey, K. Beherry establishing background survey prior to starting GWS proximate grassy area where River Rd. meets the 190 (Location 1)

Location Tank 75 Site RI Date 4-22-24

Project / Client Ashland / Tonawanda, NY 60730037
NYSDEC Site No. 915008B

On-site Personnel: Ethan Smith (AECOM)
Mike Rozeski (AECOM)
Kara Beharry (AECOM)

0930 - Derick Dietrich (DEC) on-site

0940 - Met w/ D. Dietrich at site entrance. Introduced to K. Beharry who is establishing background at location 1 of 2

0955 - K. Beharry begins establishing background at 2nd location in grassy area northwest of site
- R. Brant visits site

1020 - Begin site walk to survey monitoring wells starting w/
MW-4D -> 4S -> 05-02 -> 05-01
-> MW-2S -> 2D -> 05-04 ->
MW-3 -> 05-03

1035 - C. Wasteneys (AECOM) on-site

Location Tank 75 Site RI Date 4-22-24

Project / Client Ashland / Tonawanda, NY 607300037

NYSDEC Site No 915008B

1100 - M. Rozek, off-site
Site survey work complete
- K. Behery processing background GWS data, then to begin GWS on Tank 75 property

1115 - Average reading from both background locations combined approx 7600 cpm

1150 - Begin GWS - K. Behery (AECOM) surveying, beginning in northeast corner
Derick Dietrich (NYSEC) working w/ Kara in tandem

1155 - C. Waslenchys (AECOM) off-site

1225 - Approx. location of RR spike located within access road: 6'10" east from west end of first panel ~~to~~ adjacent to northern access gate, 28'10" northeast of this point (perpendicular w/ fence)

Location Tank 75 Site RI Date 4-22-24

Project / Client Ashland / Tonawanda, NY 60730037
NYSDEC Site No. 9150083

1250 - Elevated readings in southeast corner (1)
12k-14.8k cpm. Flagged (within fence)

1330 - Elevated readings up to 17k cpm noted in southwest corner of Site (2)
K. Behany also noted a single reading in southeast corner of Site reached approx. 16k cpm. Material emitting elevated readings is a gray, porous slag material exposed on the southern berm. Readings are not being emitted from soils

1405 - Elevated reading at flagged location (3) noted at 18.4 k cpm

1500 - GWS continues around outside of Tank 75 fence. No elevated readings noted outside of what was found along southern portion of Site

1510 - GWS complete
E Smith and K. Behany to reconvene w/ C. Wasteneys

Location Tank 75 Site RI Date 4-22-24

Project / Client Ashland / Tonawanda, NY 60730037
NYSDEC Site No. 9150083

1545 - Meeting w/ C. Wasteneys via phone w/ K. Behamy
CW sent figure showing elevated readings along south side of property. Discussed slag like material in 3 areas noted within figure emitting elevated readings

1620 - CW sent photos of slag like material from each of the 3 locations in south of Site
- Work complete for the day

1630 - E. Smith and K. Behamy off-site

AECOM Imagine it. Delivered.

JOB TITLE Tank 75 Site RI NYSDEC Site No. 915008B
PROJECT/JOB NO. 60730037 - 04 CALCULATION NO. —
COMPUTED BY E. Smith DATE 4-25-24
VERIFIED BY DATE
SCALE SHEET NO. 1 OF 1

0730 - E. Smith (AECOM) on-site w/ C. Horrocks (AECOM). No other personel to be on-site. Conditions AM: 32°, wind E 6 mph, fair, no precip. PM: 46°, wind E 7 mph, fair, no precip.

0745 - Completed daily tailgate meeting w/ AECOM app.
- All equipment calibration OK (Horiba U-52)
- Plan is to begin redevelopment activities at MW05-04 location

1024 - Following inspection of MW-03 it was realized that 5 / 9 of the wells to be developed / sampled are 4" wells. No surge blocks included in order Pine Env. Pine Env notified that at least 2" surge blocks are needed

1036 - C. Fischer (Pine Env.) notified of missing surge blocks C. Horrocks able to pickup surge blocks tonight for use tomorrow on 4" wells. 2" wells to be redeveloped today w/ no surge blocks.

1254 - Development at MW05-04 and MW05-01 complete. Currently getting setup at MW05-02

1359 - MW05-02 dry, setup at MW05-03

1452 - MW05-03 dry, return to MW05-02

1513 - Development at MW05-02 complete

1522 - Return to MW05-03

1542 - MW05-03 dry following purge of 16 gal.

1600 - MW05-03 dry following purge of 16.5 gal.

1605 - Development at MW05-03 complete

1645 - E. Smith and C. Horrocks leaving Site
- Five (5) wells remain for redevelopment tomorrow 4-26-24

4x4 = 1 in

AECOM Imagine it. Delivered.

JOB TITLE Ashland Tank 75 Site RI NYSDEC Site No. 915008B
PROJECT/JOB NO. 60730037-4 CALCULATION NO. -
COMPUTED BY E. Smith DATE 4-26-24
VERIFIED BY DATE
SCALE SHEET NO. 1 OF 1

0630 - E. Smith on-site Conditions AM: 31°, wind E 6 mph, clear, no precip
Task - Continue redevelopment of on-site monitoring wells. Five (5) monitoring wells remain PM: 57°, wind ESE 7 mph, clear, no precip.
0645 - D. VanMarter (AECOM) on-site to assist
- Team moving to Tank 75 Site to prepare for the day
0700 - Daily tailgate complete
- Calibration on Horiba U-52 OK
0735 - Setup and begin redevelopment at MW-03
0900 - MW-03 dry, team moving to MW-02S and MW-02D
0910 - Team setting up Waterra at MW-02S to begin redevelopment
1125 - Return to MW-03 following MW-02S going dry
1136 - MW-03 dry following purge of additional gallon
1148 - Setup at MW-02D
1230 - MW-02D dry following purge of 14 gal. Moving back to MW-02S location
1244 - D. VanMarter off-site momentarily
1313 - Development at MW-02S complete
1325 - D. VanMarter returns to Site
1340 - Development complete at MW-02D. Moving to MW-04S and MW-04D
1456 - MW-04D dry following purge of 10 gal. Moving to MW-04S
1548 - MW-04S dry following purge of 2 gal. Moving back to MW-04D
1559 - MW-04D dry, moving back to MW-04S. Dev complete
1636 - MW-04S dry following purge of additional 12 gal. Development complete
1715 - Work complete Team leaving Site

4x4 = 1 in

AECOM Imagine it. Delivered.

JOB TITLE Tank 75 Site RI NYSDEC Site No. 9150083
PROJECT/JOB NO 60730037-04 CALCULATION NO –
COMPUTED BY E. Smith DATE 4-29-24
VERIFIED BY _____ DATE _____
SCALE _____ SHEET NO. 1 OF 1

0740 - E. Smith (AECOM) on-site Conditions AM: 56°, wind ENE 7mph, cloudy, no precip.
Task - Begin sampling of nine (9) monitoring wells PM: 72°, wind ENE 4mph, cloudy, no precip.
0755 - D. VanMarter (AECOM) on-site to assist in sampling. Peri pumps to be used
0810 - Daily tailgate meeting complete
- All equipment calibration ok (Horiba U-52)
- Sampling to begin at MW-03. Analysis is full list except PFAS and 1,4-Dioxane
0920 - MW-03 sample collected
Sample ID: MW-03-042924
0945 - Begin setup at MW05-04. Analysis is full list
1045 - MW05-04-042924 sample collected. MS/MSD collected at this location
1050 - MW05-04-042924-MS
1055 - MW05-04-042924-MSD
1225 - Begin setup at MW-02S
1306 - MW-02S-042924 sample collected
Corresponds w/ MW-02S-042924-FD
1355 - Setup at MW05-01 location. Analysis is full list.
1430 - MW05-01-042924 collected
1450 - Setting up at MW-02D location. Analysis is full list.
1524 - Too little water in MW-02D to collect parameters
Plan is to allow for recharge and collect sample tomorrow.
- Setting up at MW05-03 location. Analysis is full list except 1,4-Dioxane and PFAS
1600 - MW05-03-042924 collected
1650 - Work complete for the day
Team leaving Site

4x4 = 1 in

AECOM Imagine it. Delivered.

JOB TITLE Tank 75 Site RI NYSDEC Site No. 915008B
PROJECT/JOB NO. 60730037-04 CALCULATION NO. —
COMPUTED BY Ethan Smith DATE 4-30-24
VERIFIED BY DATE
SCALE SHEET NO. 1 OF 1

0745 - E. Smith on-site w/ D. VanMaster to complete GW sampling
Conditions AM: 54°, wind E 4 mph, cloudy, no precip.
PM: 57°, wind SW 6 mph, cloudy, light rain
0830 - Daily tailgate complete via AECOM app.
- All equipment calibration OK (Horiba U-52)
- Setup at MW05-02 location. Analysis includes full list except 1,4-Dioxane and PFAS
0905 - MW05-02-043024 collected
0950 - Minimal water within MW-02D. E. Smith pulled water for 1 round of parameters w/ bailer. Will allow to recharge to collect sample w/ bailer later this afternoon
1000 - Begin setup at MW-04S. Analysis is full list except 1,4-Dioxane and PFAS
1035 - MW-04S-043024 collected
1105 - Setup at MW-04D location. Analysis includes all parameters except 1,4-Dioxane and PFAS
1135 - MW-04D-043024 sample collected
- First half of sample bottles filled using low flow technique, remaining bottles filled using bailer due to lack of and depth of water. C. Wasteneys (AECOM PM) notified Lab to filter sample for dissolved metals analysis
1300 - MW-02D-043024 sample collected w/ bailer
1330 - RB-043024 sample collected
1420 - Samples prepared for drop off to lab E. Smith and D. VanMaster leaving Site

4x4 = 1 in

AECOM Imagine it. Delivered.

JOB TITLE Tank 75 Site RI NYSDEC Site No 915008B
PROJECT/JOB NO. 60730037 CALCULATION NO. —
COMPUTED BY E. Smith DATE 5-20-24
VERIFIED BY — DATE —
SCALE — SHEET NO. 1 OF 1

0745 - E. Smith (AECOM) on-site
- Called R. Brant (URC) to notify him of field presence

Conditions AM: 64°, wind SW 2 mph, partly cloudy, no precip
PM: —

Task: Duradeck mats and links drop off for upcoming bathymetry survey work this week and sediment/surface water sampling work to occur week of June 3

0900 - SunBelt rentals on-site w/ mats

0915 - SunBelt rentals off-site. Mats and links received
- Waiting for R Brant to show where water spigot is

1009 - Conversation w/ R. Brant - Water source located. Hose to be ran as far as possible to northeast corner of site to allow for decon of boat on Wednesday
- E Smith leaving Site

4x4 = 1 in

AECOM Imagine it. Delivered.

JOB TITLE Tank 75 Site RI NYSDEC Site No. 915008B
PROJECT/JOB NO. 60730037 CALCULATION NO. —
COMPUTED BY E. Smith DATE 5-21-24
VERIFIED BY — DATE —
SCALE — SHEET NO. 1 OF 1

0745 - E. Smith (AECOM) on-site Conditions AM: 71°, wind SSW 7mph, partly cloudy, no precip
PM: 82°, wind SW 18 mph, clear, no precip

Task: Prepare Site for bathymetry survey scheduled for tomorrow (5-22-24)

0750 - S. Connely (AECOM) on-site

0930 - Duradeck mats setup w/ links
12 mats in place
12 links in place (only 12 received)
4 anchors in place

0945 - Decon pad set up

1100 - Hose laid out for use tomorrow
E. Smith and S. Connely leaving Site
E. Smith running to get more supplies for tomorrow
S. Connely permanently off site
R. Bricht (JRC) notified

1220 - E. Smith returns to Site
- Caution tape placed around waste staging area
- Duradeck better secured

1315 - E. Smith off-site

4x4 = 1 in

AECOM Imagine it Delivered

JOB TITLE Tank 75 Site RI NYSDEC Site No 915008B
PROJECT/JOB NO. 60730037 CALCULATION NO. -
COMPUTED BY E. Smith DATE 5-22-24
VERIFIED BY - DATE -
SCALE - SHEET NO. OF

0650 - E. Smith (AECOM) on-site Conditions AM: 72°, wind 9 mph, clear, no precip
PM: 83°, wind SSW 17 mph, cloudy, no precip.

Task: Complete bathymetry survey (Thew Associates) of Tank 75

Personnel: Ethan Smith (AECOM) Shannon Lloyd (Ashland)
Colin Wasteneys (AECOM) Kyle Crispens (Thew Associates)
Edyta Charostowska (AECOM) Cody Hossman (Thew Associates)

0730 - E. Smith conducts daily tailgate w/ all personnel on-site
- Following meeting crew begins prep for bathymetry survey
0915 - Water craft (small boat) launched into Tank 75. Thew Associates only members on board. Begin survey/calibration
0920 - Ben McPherson (NYSDEC) on-site. Survey ongoing.
0938 - Clark Rigging rep. on-site. Discussing logistics of surface water/sediment sampling, water craft launch w/ C. Wasteneys
1000 - Clark Rigging representative off-site
ASIDE: Edyta Charostkowska off-site @ 0820
1038 - Bathymetry survey complete. Crew beginning decon of all equipment. Drums staged on poly in decontamination area for disposal off PPE.
1100 - B. McPherson (NYSDEC) off-site
- Decon of water craft and equipment ongoing. Boat and equipment staged on poly proximate waters edge - All decon water running back into Tank
1230 - Decon of all equipment complete
- Shannon Lloyd (Ashland) off-site
- Bath crew members of Thew Associates off-site
1300 - C. Wasteneys off-site
- E. Smith finalizing clean up
1315 - E. Smith off-site

Rental Equipment:
Pressure Washer from Home Depot for decon

4x4 = 1 in

AECOM Imagine it. Delivered.

JOB TITLE Tank 75 Site RI NYSDEC Site No 915008B
PROJECT/JOB NO. 60730037 CALCULATION NO. -
COMPUTED BY E. Smith DATE 5-23-24
VERIFIED BY - DATE -
SCALE - SHEET NO. 1 OF 2

0750 + E. Smith (AECOM) on-site Conditions AM: 63°, wind WSW 6 mph, clear
0805 + R. Murphy (AECOM) on-site PM: 72°, wind SW 11 mph, clear

Task: Aquifer / Slug Testing
Above to be completed at the following wells: MW-02S, MW-03, MW-04S and MW-02D or MW-04D
→ Deep well to be chosen dependent on water level
Slug in and slug out test to be completed at each (Rising head) (Falling head)

0830 - Begin setup at MW-03

Equipment: Level Troll 700 Pixie # 48855 SN: 774282
Level Troll 700 Pixie # 220163 SN: 1044330 *
Rugged Reader Pixie # 028863
50' cables x2

← Star indicates location where specific level troll was used. No star means other level troll used

[MW-03] Slug 2'L x 1.5"D
DTW : 4.20 ftTOR
DTB : 30.01 ftTOR
0848 Start
Static DTW = 4.08 ftTOR
Water to return to 25.72' (water above probe)
Initial level following immersion of slug = 3.86 ftTOR (25.94' water above probe) - Ending test

1503: As per call w/ C. Wasteneys, decision made to end test here. Current water level = 3.89 (25.95' water above probe)

0900 - Moving to begin setup at MW-02S, 2D

[MW-02S] * Measured from top of casing
DTW 5.25 ftTOC 27.61' water above probe
DTB 33.17 ftTOC
Slug dimensions: 2'L x 1.25"D PVC
0926 Start test → 27.83' water above probe
1038 Water above probe = 27.62
1038 Begin casing head test → 27.38' water above probe
1241 DTW = 5.29 ftTOC Water level above probe flatlined - Ending test

4x4 = 1 in

AECOM Imagine it. Delivered.

JOB TITLE Tank 75 Site RI NYSDEC Site No 915008B
PROJECT/JOB NO. 60730037 CALCULATION NO. —
COMPUTED BY E. Smith DATE 5-23-24
VERIFIED BY — DATE
SCALE — SHEET NO. 2 OF 2

[MW-02D] ~~E~~ DTW = 24.15 fbTOR (w/ transducer 24.08 fbTOR)
Slug: 2'L x 1.5D DTB = 35.80 fbTOR (Soft bottom)
Water above transducer = ~~11.33'~~ 11.34'
1558 Begin slug in test Water above transducer 11.68, DTW = 23.79 fb
↳ Test to be completed overnight

1150 - Status update: Currently running falling head test at MW-03 (started at 0848 - Slow movement) and rising head test at MW-03 Remaining tests are rising test at MW-03 and rising/falling head at MW-02D & 04S C. Wasteneys (AECOM) updated

1250 - Begin setup at MW-04S

[MW-4S]* DTW = 4.32 fbTOR 21.39' above probe
Slug 2'L x 1.25D DTB = 25.79 fbTOR
Begin test (Slug in) at 1320 4.12 fbTOR 21.59' above prob
↳ Test running over night

1445 - Call to C. Wasteneys via R. Murphy → Considering slow rate of recharge in monitoring wells (MW-03 falling head running for 6+ hours w/ little change in head and minimal change in head at MW-04S (Hd is currently only at 21.58' above probe i.e. Δ = 0.01') it is decided test will be completed at MW-03, transducer will be moved to MW-02D, and pulled in AM, MW-04S test to continue until AM and all tests will be concluded then
1534 - Begin setup at MW-02D

1615 - Slug in tests at MW-04S and MW-02D and will run overnight. Test to be completed upon arrival in AM as per conversation w/ C. Wasteneys
- R. Murphy off-site

1630 - E. Smith off-site

4x4 = 1 in

AECOM Imagine it. Delivered.

JOB TITLE Tank 75 Site RI NYSDEC Site No 915008B
PROJECT/JOB NO. 60730037-04 CALCULATION NO. —
COMPUTED BY E. Smith DATE 5-24-24
VERIFIED BY — DATE —
SCALE — SHEET NO. 1 OF 1

0735 - E. Smith (AECOM) on-site Conditions AM: 61°, wind W 5mph, clear, no precip.
PM: —

Task: Retrieve pressure transducers from MW-045 and MW-04Δ to complete falling head (slug-in) test. As per conversation w/ C. Wasteneys yesterday (5-23-24), no other tests (ie rising head test) will be conducted on the wells. Aquifer testing to be concluded.

[MW-045] - 0800 ES returns to MW location (Test began yesterday @ ~1330)
Current water level - DTW = 4.15 ftTOR
- Water above probe = 21.56'
↳ Δ Water level = 0.03'
0809 - Downloading data, complete @ 0812 - Log stopped

[MW-02Δ] - 0830 Arrive at MW location (Test began yesterday @ ~1558
Current water level - DTW = 23.60 ftTOR
- Water above probe = 11.83'
0835 - Downloading data, complete @ 0836 - Log stopped

0900 - E. Smith off-site

4x4 = 1 in

AECOM Imagine it. Delivered.

JOB TITLE Tank 75 Site RI NYSDEC Site No. 915008B
PROJECT/JOB NO. 60730037-07B CALCULATION NO. –
COMPUTED BY E. Smith DATE 6-3-24
VERIFIED BY DATE –
SCALE – SHEET NO. 1 OF 3

0745 - E. Smith (AECOM) on-site w/ Clark Rigging
- Clark to begin setup of crane at northeast corner of tank

Personnel and arrival time
- E. Smith (AECOM, 0745)
- ~~Tim Gavin (Atl Testing)~~
- ~~Shannon Lloyd~~
- D. VanMarter (AECOM, 0800)
- K. Beharry (AECOM, 0800)
- C. Horracks (AECOM, 0900)
- C. Westerveys (AECOM, 1045)
- Alex Torres (Clark Rigging, 0745)
- Nick A. (Clark Rigging, 1030)
- Cory D (Atlantic Testing, 1030)
- Tim Gavin (Atlantic Testing, 1030)
- Shannon Lloyd (Ashland, 1230)
- Edyta Chorostkowska (AECOM)

Conditions AM: 65°, wind SSE 3mph, cloudy, no precip.
PM: 74°, wind NW 3 mph, clear

0950 - K. Beharry taking bkgd readings in field northwest of site
- Clark crane setup, Crew off-site until later this AM
- D. VanMarter & C. Horracks prepping bottleware

1010 - Call to C. Fischer (Pine Environmental) to confirm delivery of PIDs to Site. He noted delivery will occur ~ 11am
- K. Beharry back on-site

1023 - Clark back on-site

1040 - Atlantic Testing on-site (Tim Gavin, Cory D)

1110 - Calibration of Hanna 3.66 pH, 4.55 Cond, 90 mV, 1207 ORP

- Boat getting placed in water. E. Smith and C. Horracks to complete surface water sampling

1147 - E. Smith and C. Horracks on boat w/ Atl Testing
All SW samples collected @ center of tank @ varying depths

1155 - Samples SW-01-2, SW-01-2-MS, SW-01-2-MSD, SW-01-2-FD collected at SW-01 at 7' ~~bls~~ bws, (below water surface)

1200 - Sample SW-01-2-WC collected at 7' bws.

Water Qual SW-01-2
pH: 6.97
ORP: 232 mV
Cond: 0.296 mS/cm
Turb.: 1.6 NTU
DO: 6.83 mg/L
Temp: 21.9°C

Note @ SED-08 Top sed ~14' bws, bottom sed / refusal ~19' bws

4x4 = 1 in

AECOM Imagine it. Delivered.

JOB TITLE Tank 75 Site RI NYSDEC Site No. 915008B
PROJECT/JOB NO 60730037 CALCULATION NO
COMPUTED BY E. Smith DATE 6/13/24
VERIFIED BY DATE
SCALE SHEET NO 2 OF 3

1320 - SW-01-3 collected at 13' bws (~1' above sediment)
1325 - Collect SW-01-3-WC at same depth as above
Water Quality SW-01-3
pH: 7.36 Turb: 23.0 NTU
ORP: 48 mV DO: 1.91 mg/L
Cond: 0.284 mS/cm Temp: 21.84°C
1345 - SW-01-1 collected at 1' bws
Water Qual:
pH: 7.84 Turb: 2.2 NTU
ORP: 126 mV DO: 5.44 mg/L
Cond: 0.261 mS/cm Temp. 22.66°C
1356 - SW sampling complete
1436 - Begin sediment sampling - E. Smith in boat w/ Atlantic Testing team. Remainder of crew on-site to complete roof screening, log sediment cores and complete sampling

1437 - SED-01
Top Sed: ~~8~~ 8'3" bws (below water surface)
Bottom via hand probe: 13' bws
Vertical recovery to refusal: 5'

1456 - SED-02
Top Sed: 17' bws
Bottom via hand probe: ~~3~~ 20'3" bws
Vertical recovery to refusal: 3'10"

1513 - SED-03
Top Sed: 15'2" bws
Bottom via hand probe: 16'8" bws
Vertical recovery to refusal: 2'6"

4x4 = 1 in

AECOM Imagine it. Delivered.

JOB TITLE Tank 75 Site RI DEC Site No 915008B
PROJECT/JOB NO 60730037 CALCULATION NO
COMPUTED BY E. Smith DATE 6-3-24
VERIFIED BY DATE
SCALE SHEET NO 3 OF 3

1548 - SED-04
Top Sed: 16'10" bws
Bottom via hand probe: 17'11" bws
Vertical recovery to refusal: 3'10"

1601 - SED-05
Top Sed: 16'9" bws
Bottom via hand probe: 20' bws
Vertical recovery to refusal: 4'6" ~~bws~~

1620 - Sediment sampling completed for the day. Atl team off-site shortly. Remaining work is logging sediment cores and packaging samples

1834 - Work complete for the day. All teams off-site w/ no issue. E. Smith cleaning up.

1845 - E. Smith off-site

4x4 = 1 in

AECOM Imagine it. Delivered.

JOB TITLE Ashland Tank 75 WSDEC Site 9150083
PROJECT/JOB NO. 60730037 CALCULATION NO.
COMPUTED BY DV/CH/ES DATE 6/3/24
VERIFIED BY DATE
SCALE SHEET NO. 1 OF 2

Tank 75 Soil Loss

6/3/24
SED-01 - @ 1500 - DEEP

Depth	Description	PID	Recovery
8.3-13.3	8.3-11.1 DB soft oily sludge w/ petroleum odor	1.6	3.4
		26.7	
	11.1-13.3 B hard wet clayey sand	57.3	
		137.6	

6/3/24
SED-02: @ 1600 - TOP

Depth	Description	PID	Recovery
	0-2.8 soft black oily sludge w/ petroleum odor	55.7	4.2
		61.3	
	2.8-5 Black oily medium stiff sludge w/ petroleum odor	106.0	
		164.8	

6/3/24
SED-03: @ 1630 - DEEP

Depth	Description	PID	Recovery
	0-3.2 soft black oily sludge w/ petroleum odor	42.8	2.9
		43.9	
	3.2-4.6 Black oily medium stiff sludge w/ petroleum odor	15.8	
	4.6-5 Brown clayey silt	26.2	

4x4 = 1 in

AECOM Imagine it. Delivered.

JOB TITLE Ashland Tank 75 NYSDEC Site No 915008B

PROJECT/JOB NO. _____ CALCULATION NO. _____

COMPUTED BY DV DATE 6/3/24

VERIFIED BY _____ DATE _____

SCALE _____ SHEET NO. 2 OF 2

6/3/24

SED-04 : @ 1700 - DEEP

Depth	Description	PID	Recovery
0-0.9	DB soft oily sludge w/ petroleum odor	70.3	3.10
0.9-3.10	B hard wet clayey sand/ w/ sludge petroleum odor - jelly-like	94.2	

*Target 0.9 depth: 3.10

6/3/24

SED-05 : @ 1735 - TOP

Depth	Description	PID	Recovery
0 - 1.5	soft, wet black silty ~~oily~~ DV oily sludge w/ petroleum odor	86.2	4.5
1.5-4.5	Thick oily sludge, moist to wet, black, waxy/ jelly-like similar to previous	91.6	

*sample 0-1.15

4x4 = 1 in

Approximate top of water elevation 591.2' (as of 6/3/24)
Thew = 590.75' (as of 5/31/24)

Tank 75 Site RI — NYSDEC Site No. 130088
JOB NO. 60730037 — CALCULATION NO. —
E. Smith — DATE 6-4-24
— — DATE —
— — SHEET NO. 1 OF 3

w/ Team — AM: 63°, wind/ SSE 3mph, mostly cloudy, no precip

Personnel: Ethan Smith (AECOM) — PM:
Edyta Charostowska (AECOM) — Tim Gowin (All Testing) — Nick A. (Clark Rigging)
Colin Hamacks (AECOM) — Cory D (All Testing) — Alex Torres (Clark Rigging)
Kara Bohony (AECOM) — Shannon Lloyd (Ashland)
Matt Stevens (AECOM) — Colin Westerveys (AECOM)

Task: Sed sampling within Tank 75. Begin at SED-06
E. Smith on boat w/ All Testing - Remainder of crew ~~ashore~~ logging samples
0630 - E. Smith holds daily tailgate w/ all crew
0648 - SED-06 (2 cores to PVI, MS, MSD)
Top Sed: 17' 4"
Bottom probe: 19' 7"
Vertical recovery (to refusal): 4'4" (core 1)
" " : 3'6" (core 2)

0705 - SED-07
Top Sed: ~~15'~~ 13' bws
Bottom via hand probe: ~~16'3"~~ 15'3" bws
Vertical recovery to refusal: 2'3"

0721 - SED-08
Top Sed: 15' (Very soft) bws
Bottom via hand probe: 19'10" bws
Vertical recovery to refusal: 2'2" ~~bw~~

0730 - SED-09
Top Sed: 14'2" bws
Bottom via hand probe: 19' bws
Vertical recovery to refusal: 3'

0750 - SED-10
Top Sed: 14'7"
Bottom via hand probe: ~~15~~ 17'
Vertical recovery to refusal:

4x4 = 1 in

AECOM Imagine it. Delivered.

JOB TITLE Ashland Tank 75 Site RI NAVFEC Site No. 915008B
PROJECT/JOB NO. 60730037 CALCULATION NO. —
COMPUTED BY E. South DATE 6-4-24
VERIFIED BY — DATE —
SCALE — SHEET NO. 2 OF 3

~~SED-11~~

0800 - SED-11 ~~Top~~ Top of Sediment - 15' bws
Bottom via hand probe - 17' bws
Total vertical recovery to refusal - 4' 10"

0815 - SED-12 (Using ~~10'~~ 8' casing considering results of bathymetry survey)
Top of Sediment - 15-4' 4" 10'8" bws
Bottom - 20'-4' 16' bws
Total recovery to refusal - 5' (See 0832 note)

0821 - SawBelt rentals on-site w/ hot water pressure washer for decon
- Shannon Lloyd (Ashland) on-site

0832 - Attempted 8' ~~bar~~ casing to sample at SED-12 (5' of recovery) - B/c barrel broke and only 5' material @ bottom of tank, a 5' barrel will be used to recover a more representative sample

0846 - SED-13
Top of Sediment : 16'8"
Bottom via hand probe : ~~[illegible]~~ 17'10"
Total recovery to refusal : 3'10"

0919 - SED-14
Top of Sed : 12'9"
Bottom via hand : 18'2"
Total recovery to refusal : 5'6"

0935 - SED-15
Top of Sed : 8'
Bottom via hand : 12'6"
Total recovery to refusal : 3'6"

0945 - Clark Rigging on-site
1015 - Sediment sampling complete, decon next

AECOM Imagine it. Delivered.

JOB TITLE Ashland Tank 75 S.t. RI NYSDEC Site No. 9150088
PROJECT/JOB NO. 60730037 CALCULATION NO. 6-4-24
COMPUTED BY E. Smith DATE 6-4-24
VERIFIED BY - DATE -
SCALE - SHEET NO. 3 OF 3

1120 - B. McPherson (NYSDEC PM) on-site to observe progress. Meeting w/ S. Lloyd and C. Wasteneys as decon and sample logging/packaging is ongoing

1245 - Atlantic Testing off-site following completion of boat decon. Decon of remaining equipment including drumdeck mats and general site cleanup ongoing

1320 - E. Chorostkowska off-site. Clark Rigging demobing equipment - Crew off-site. Crane to be demobed tomorrow as per A. Torres (permits to drive on road not in hand)

1445 - C. Wasteneys ~~off~~ on-site following visit to Nixcot S.t.c w/ K. Behony
- Remainder of decon to occur tomorrow morning

1530 - E. Smith called Pine Env. and Sun-Belt to call off rental equipment
- ~~Off-site~~ w/ All teams/members off-site
- E. Smith and C. Hancock headed to lab to drop off samples

4x4 = 1 in

AECOM Imagine it. Delivered.

JOB TITLE Tank 75 NYSDEC Std No 9150083
PROJECT/JOB NO 60730037 CALCULATION NO
COMPUTED BY EC/CH DATE 6/4/24
VERIFIED BY DATE
SCALE SHEET NO 1 OF 3

4, 6, 8, 10, 12

Tank 75 Sed Loss

SED-06 @ 7:10 w/ MS/MSD DEEP w/ PIDs

Depth	Description	PID	Recovery
0.9 - 2.6	soft black oily sludge pet odor	33.3	4'
* 2.6 - 5		72.0	2.6'
	More cohesive, black oily sludge	76.0	
		35.3	

Sample *

SED-07 @ 7:45

Depth	Descrip.		PID	Recovery
0 - 0.2	soft sludge	black, oily pet. odor	13.0	2.2'
* 0.2 - 1	very dense sludge		51.3	
1 - 1.2	soft			
1.2 - 2.2	very dense sludge		120.5	

Sample *

SED-08 @ 8:15 w/ FD

Depth	Descrip.	PID	Recovery
0 - 2.4'	soft, oily sludge black, pet odor	19.1	2.4'
		58.3	
		59.9	

SED-09 @ 8:45

Depth	Descrip	PID	Recov.
		31.2	
0 - 3.2'	soft, oily sludge black, pet odor	59.2	3.2'
	2.4' becomes slightly denser	65.7	
* sample 2.4			

4x4 = 1 in

AECOM Imagine it. Delivered

JOB TITLE TANK 75 NYSEC Site No. 915008B
PROJECT/JOB NO 60730037 CALCULATION NO.
COMPUTED BY EC/CH DATE 6/4/24
VERIFIED BY DATE
SCALE SHEET NO. 2 OF 3

SED-10 @ 915

DEPTH	DESCRIP.		PID	RECOVERY
0 - 1.3'	soft black sludge	oily, pet odor	18.2	3.0'
* 1.3 - 3.0' (sample)	medium stiff black sludge		66.1 87.9 27.9	

SED-11 @ 950 - FD

DEPTH	DESCRIP.	PID	RECOVERY
		188.8	
0 - 1	very soft	69.2	5'
* 1 - 2.7 (sample)	soft	63.7	
2.7 - 4.7	dense	128.7	
4.7 - 5.	dense w/ gravel + sand type dryer (asphalt)	181.3	
	→ all black, oily, pet odor		

SED-12 @ 1030

DEPTH	DESCRIP.	PID	RECOVERY
0 - 0.7'	very soft to sand + gravel	100.9	4.1'
0.7 - 1.5'	soft	195.2	
* 1.5 - 3.7 (sample)	dense	112.0	
3.7 - 4.1	soft/medium to more liquid	161.6	
	→ all black, oily sludge pet odor		

SED-13 @ 1100

DEPTH	DESCRIP.	PID	RECOVERY
* 0 - 1.8' (sample (0.5-1.8'))	very soft to soft	48.7	3.3'
1.8 - 3.3'	medium stiff	55.9 45.9	
	→ all black, oily sludge pet odor		

4x4 = 1 in

AECOM Imagine it. Delivered.

JOB TITLE TANK 75 NYSDEC Site No. 915008B
PROJECT/JOB NO 60730053 CALCULATION NO
COMPUTED BY EC/CH DATE 6/4/24
VERIFIED BY DATE
SCALE SHEET NO 3 OF 3

SED-14 @ 1130

DEPTH	DESCRIP.	PID	RECOVERY
0 - 1.2'	very soft	86.4	6.2'
1.2 - 3.0'	soft	222.0	
3.0 - 6.2'	medium stiff	152.9	
	@ 5.6' layer of liquid	221.6	
	↳ all black, oily sludge	218.0	
	pet. oil	217.0	

sample (5-5.5') *

SED-15 @ 1200

DEPTH	DESCRIP.	PID	RECOVERY
0-0.4'	very soft	54.9	3.6'
* 0.4 - 2.4'	soft, gravelly sand (crushed asphalt)	1325	
	To rock @ 2.4'	91.6	
2.4' - 3.6'	silt, some gravel chunks	62.3	
	To rock @ 3.0'		
	stiff clay @ bottom dot begin black stain		
	↳ all black, oily sludge		
	pet. oil		

sample

4x4 = 1 in

AECOM Imagine it. Delivered.

JOB TITLE Ashland Tank 75 RI NYSDEC Site No. 915008B
PROJECT/JOB NO. 60730037 CALCULATION NO. –
COMPUTED BY Ethan Smith DATE 6-5-24
VERIFIED BY – DATE –
SCALE – SHEET NO. 1 OF 1

0930 - E. Smith (AECOM) on-site. Conditions AM: 76°, wind S 8mph, cloudy, no precip
1000 - C. Horrocks on-site to assist PM: 78°, wind SW 10mph, cloudy

Task: Complete decon / cleanup of remaining equipment on-site

1300 - Decon of equipment and general Site cleanup complete. Eight (8) 8' Duradeck mats cleaned for return to Sun-Belt rentals. 11 links also cleaned and prepped for return to Sun-Belt. Hot water pressure washer staged for return to Sun-Belt. Four (4) mats and one (1) link could not be decanned. Replacement cost to be absorbed. Mats not getting returned, plus one link staged on decon pad and covered w/ poly. Remaining equipment staged for return proximate fence northeast of Tank 75.
- C. Horrocks off-site

1400 - E. Smith leaving Site
- Clark Rigging crane still on-site, to be picked up tomorrow AM. Atl. Testing gas can to be dropped off at their Harrisburg location. Sun-Belt to pick up equipment later this week, day / time TBD

4x4 = 1 in

AECOM Imagine it. Delivered.

JOB TITLE Tank 75 Site RI NYSDEC Site No. 915008B
PROJECT/JOB NO. 60730037 CALCULATION NO. —
COMPUTED BY E. Smith (AECOM) DATE 6-27-24
VERIFIED BY — DATE —
SCALE — SHEET NO. 1 OF 2

0840 - E. Smith on-site Conditions AM: 60°, wind NNW 8 mph, clear, no precip
- Matrix to be on-site ~0900 PM: 70°, wind N 10 mph, partly cloudy, no precip

Task: Matrix Env. to complete second Site clearing (first completed in April) to manage phragmites and other vegetation that has grown since previous clearing in order to facilitate RI activities
E. Smith to mark out SB locations

0900 - Matrix Env on-site. Personnel includes:
- Steve Marchetti
- Pat Blick

0915 - ES completes tailgate w/ crew
Begin clearing w/ hand tools and Kubota L45 tractor w/ brush hog attachment

1100 - Clearing ongoing, ES marking out investigation locations

1230 - Site clearing work complete

1240 - Matrix off-site
- ES completing general site cleanup and to review marked locations

1310 - Review of marked out soil investigations

Hand Augers		Soil Borings	
HA-01	(Angled)	SB-01	Fence to top edge tank ≈ 28' Additional 14' N available to PL
HA-02		SB-02	*
HA-03		SB-03	
HA-04	(Angled)	SB-04	Fence to top edge tank ≈ 15' Additional 6' N available to PL
HA-05		SB-05	
↳ Adjusted location due to hard surface		↳ Scrap piping needs to be moved or location needs to be moved north	
HA-06	(Angled)	SB-06	Fence to top edge of tank ≈ 3' Additional 8' clearance S from fence due to terrain ~13' S to PL from fence
HA-07		SB-07	
		↳ Will need to be drilled at foot of small hill to be inside PL	

4x4 = 1 in

AECOM Imagine it. Delivered.

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SCALE - SHEET NO. 2 OF 2

1400 - SB and HA review cont.

HA-08

SB-08

SB-09
↳ Adjust appx 8' north due to soil mound

(Angled) SB-10
↳ adjusted northward to account for area where gunnite liner has been removed
~~Locatn~~ Location to top edge tank ≈ 15'
East fence to location 16'8"

1500 - E. Smith leaving Site
- All soil investigation locations marked

4x4 = 1 in

AECOM Imagine it. Delivered.

JOB TITLE Tank 75 Site RI NYSDEC Site No. 915008B
PROJECT/JOB NO. 60730037 CALCULATION NO. —
COMPUTED BY E. Smith DATE 07-08-24
VERIFIED BY — DATE
SCALE — SHEET NO. 1 OF 2

0800 - E Smith on site ✓ Conditions AM: 72°, wind SSW 3mph, sunny, no precip.
Chris Higgins (AECOM), PM: 83°, wind WSW 5mph,
Bill McCann (GPRS) sunny, no precip
and Collin Hancocks (AECOM)

0830 - Tailgate and Site walk complete
Parratt-Wolff (drilling sub arrives at 1000)
GPRS completing clearing

0915 - R. Brant (URC) on-site → PID S/N: 592-910536
→ DustTrak S/N: 8530092527

0922 - Downwind CAMP setup at NE corner → PID S/N: 592-910541

0929 - UPwind CAMP setup at SW corner → DustTrak S/N: 8530181802

0930 - E. Smith completes Site walk w/ R. Brant (URC) and B. McCann (GPRS) to assess identified subgrade utilities / p.p.ing. Some p.ping ID'd proximate boring locations. GPRS marked all locations w/ paint and informed us to stay min. 4' off marked-out

0950 - B. McCann (GPRS) off-site P.Wolff Team: Lee Pond
- AECOM crew awaiting Parratt Wolff Jordan Perkins
Taylor Kimball

1024 - Parratt Wolff on-Site

1125 - Location marked out prepared for hand clearing
- P Wolff on lunch

1145 - SB-10-0-0.2 sample taken

1200 - P Wolff back on-site

1218 - Begin hand clearing SB-10 via vac truck (Vacmasters 4000 System)

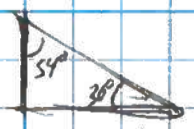
1230 - C. Wasteneys on-site. PW clearing around subgrade pipes

1300 - Adjustment made in field. Angle measured at east wall to be 36° as opposed to 23°

$\sin(30/x)^{-1} = 36$

~~36~~ $\sin(36) = 30/x$

$30/x = 0.58778$



via conversation w/ C Wasteneys
$x \approx 51$ ft

EC ran calc over, have to check, calculated 53 ft hypotenuse
∴ new target L at 54° ∠ = 53'

4x4 = 1 in

AECOM Imagine it. Delivered.

JOB TITLE Tank 75 Site RI NYSDEC Site No. 915008B

PROJECT/JOB NO. 60730037 CALCULATION NO. -

COMPUTED BY E. Smith DATE 7-8-24

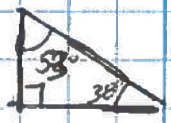
VERIFIED BY DATE

SCALE SHEET NO. 2 OF 2

1315 - PW filling in material from cleared hole SB location moved to 11' east of top edge of bank

1410 - PW hand clearing at SB-10 location
C. Wasteneys off-site at approx 1330

1430 - ~~Conc~~ C. Wasteneys on-site
- Concrete barrier identified running parallel to Tank 75. Moving boring location towards tank on other side of barrier. Re-calculating new estimated length of boring
Updated calc. using 53° angle



~~1527~~
~~1605~~ - Begin actual boring (hand clearing until now)
1522 - C. Wasteneys off-site ↳ Boring @ 53°
1530 - C. Wasteneys returns to Site
Angled boring SB-10 ongoing
1615 - C. Wasteneys off-site. PW continuing SB-10 boring
E. Smith and C. Hamaks logging/screening cores. C. Higgins screening cores for coal material, nothing to note
1645 - Conversation w/ Lee (PW) → Plan is to stop work for the day and continue tomorrow
1650 - PW off-site.
1658 - JW CAMP down C. Hamaks noted it did not run, no light/dust noted
1704 - DW CAMP down
- C. Higgins off-site. All fence secured
- E. Smith and C. Hamaks wrapping up
1730 - All team off-site

4x4 = 1 in

AECOM Imagine it. Delivered.

JOB TITLE Tank 75 Site RI NYSDEC Site 9150083
PROJECT/JOB NO. 60730037 CALCULATION NO. -
COMPUTED BY E. Smith DATE 7-9-24
VERIFIED BY - DATE -
SCALE - SHEET NO. 1 OF 2

0700 - E. Smith (AECOM) on-site Condition AM: 72°, wind SSW 4mph, cloudy
w/ team: C. Horrocks (AECOM) PM: 83°, wind SW 9mph, cloudy
C. Higgins (AECOM)
L. Penrod (Parratt Wolff)
J. Perkins (Parratt Wolff)
Taylor Kimball (Parratt Wolff)

0735 - Tailgate meeting conducted w/ team.
ASTSE: 0705 DW CAMP logging
0710 UW CAMP logging

PIN: 442.910536
Dust: 8530091527
PID: 582 - 910541
Dust: 8530181802

0752 - Continue Geoprobe investigation at SB-10 and sampling/logging w/ iPad

0841 - PW having issues retrieving core barrels from soil boring
Boring ongoing at SB-10

0935 - Boring continues at SB-10 following break beginning at 0920
Currently logged 17-21' interval via iPad

1028 - C. Horrocks checked UW CAMP - Continued logging. SB-10 ongoing
Last log interval ~~21-25'~~ ~~Test~~ 25-~~29~~ next 29-~~33~~'

1130 - PW taking lunch. Currently at 37 out of 50 total feet
- Call to C. Wasteneys to provide update. Briefed him on current status of SB-10 and anticipated ~~30~~ 60° angled boring at SB-01. Noted he was OK w/ not hand clearing angled borings (still hand clear vertical) where GPRS has cleared.
B. McPherson (NYSDEC) to be on-site ~~at~~ later this afternoon following phone conversation w/ him. To ask about the necessity for CAMP during rain events

1140 - C. Higgins off-site to grab lunch. Back on-site 1157

1210 - B. McPherson (NYSDEC) on-site w/ Derick Detmk (NYSDEC)

1230 - Geoprobe investigation resumes. PW off lunch at 1200.

1315 - SB-10 39-42 sampled. See log for description

1420 - NYSDEC reps off-site
- No recovery on 49-51' sleeve. Drill team let sleeve at bottom of hole. Lee Penrod (Lead Driller) noted there was ~40' of drill rod lost in hole

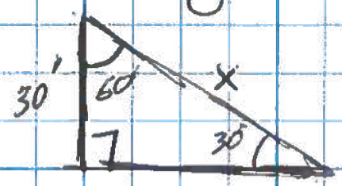
1425 - SB-10 - 48-49 sampled. Target depth of 50' not met due to lack of recovery and lost rods

4x4 = 1 in

AECOM Imagine it. Delivered.

JOB TITLE Tank 75 Site RI NYSDEC Site No 915008B
PROJECT/JOB NO. 60730037 CALCULATION NO. —
COMPUTED BY E. Smith DATE 7-9-24
VERIFIED BY — DATE —
SCALE — SHEET NO. 2 OF 2

1515 - Lee P. (PW) noted that a male end of the drill rod snapped while sub-grade. Thus why ~40' of rod are stuck in SB-10
- Team currently working on getting steps at SB-01 location (angled boring)
- SB-01 distance calculated based on 30° angle of tank slope determined in field (30° from horizontal / 60° vertical) and 30' target vertical depth



$\sin(30) = 30/x$

$x = 30/\sin(30) = 60'$

1545 - SB-01 0-0.2 sampled
Consists of fine light gray silty sand fill. No odors, no PID
PW begins positioning drill rig
1615 - Only way to achieve a 60° angle at SB-01 is to raise drill rig on 2 6x6 blocks horizontally. E. Smith made decision to ~~to~~ stop work and recassess due to safety concern w/ ~~for~~ diagonally raised drill rig and drill rod that would need to be exposed above grade. E. Smith called C. Wasteneys to explain and both agreed to attack boring at same angle as previous (53°) into tank and step closer to tank. Sacrificing overall horizontal distance but still achieving soil investigation under tank in a safer manner. Diagonal distance to be 50'
1636 - Begin SB-01 boring
1657 - Work complete for the day, begin cleanup. Currently at SB-01 final log is 5-9'
1708 - C. Higgins and PW team off-site
1730 - E. Smith and C. Hancock off site

4x4 = 1 in

AECOM Imagine it. Delivered.

JOB TITLE Task 75 Site RI NYSDEC Site No 9150083
PROJECT/JOB NO. 60730037 CALCULATION NO. -
COMPUTED BY E. Smith DATE 7-10-24
VERIFIED BY - DATE -
SCALE - SHEET NO 1 OF 2

0650 - E. Smith on-site w/ C. Horacks, C. Higgins, D. Vanmaster awaiting arrival of Parratt Wolff team
- Noted lightning to the north at 0646 heading to Site. i.e. no work until at least 0715

Conditions AM: 71°, wind E 8mph, on/off rain, T-storms occasion
PM: 80°, wind S 10mph, on/off rain, occasionally heavy

0700 - P. Wolff team on-site
0715 - NW CAMP Up (PID S/N: 592-910936, DustTrak S/N: 8530092527)
0722 - UW Camp Up (PID S/N: 592-910641, DustTrak SN: 653018 1802)
0725 - E. Smith conducts safety meeting w/ team
Given the potential for heavy incoming rain and the issues P. Wolff is having pulling rods out of the boring due to mushrooming of threaded end of rod, P. Wolff is going to use grinder to eliminate mushroomed end of rod this AM, prior to drilling. & Penrod to obtain concrete to fill angled borings
AECOM team to begin hand auger locations at HA-01
0730 - L. Penrod off-site
0740 - Begin HA-01 - Sampled HA-01-0-0.2
0745 - Thunder + lightning ISd to the north west. Haault work for 30 mins. Additional times to be logged below
0750 0800 0815 0820 0830
Heavy rain at 0822
0803 - E. Charostkowska visits Site
0820 - E. Charostkowska off-site
- L. Penrod on-site
0831 - Both upwind and downwind CAMS stopped logging due to intense rainfall. Will set back up when work resumes
0900 - Rain, thunder/lightning stopped. Attempting to resume work
- UW CAMP back online running
0904 - NW CAMP back online running
0930 - Sampled HA-01-2.5-3.5 → HA-01-2.5-3.5-MS
includes MS/MSD → HA-01-2.5-3.5-MSD
0941 - Resume drilling at SB-01 location
1015 - E. Smith logging SB-01. C. Horacks and D. Vanmaster working on ~~soil boring~~ hand augers. C. Higgins continues to screen all investigation material

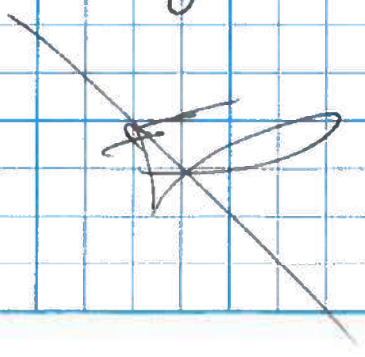
AECOM Imagine it Delivered

JOB TITLE Tank 75 Site RI NYSDEC Site No. 915008B
PROJECT/JOB NO. 60730037 CALCULATION NO. —
COMPUTED BY E. Smith (AECOM) DATE 7-10-24
VERIFIED BY — DATE —
SCALE — SHEET NO. 2 OF 2

1100 - Resume heavy rain. CAMP down until further notice
C. Higgins off-site to grab lunch
Drilling shut down until further notice, crew on lunch
1117 - C. Higgins back on-site

ASIDE - HA-08-0-0.2 sampled @ 1030
HA-08 ~~2.5-3.5~~ 3.5-4 sample @ 1050

1129 - Call to C. Wasteneys to update on progress
- Resume work → E. Smith working w/ drillers, C. Horracks and D. Vanmaster moving to HA-07, C. Higgins working between both crews to screen soils for radiological impacts
CAMPs logging
1230 - Following extraction of 25-29' core and conversation w/ L. Penrod (Lead driller) the day will be called
T. Kimball (PW) and J. Perkins (PW) will be driving back to PW Syracuse office to retrieve additional necessary equipment to complete angled borings and rain / thunderstorms have halted work again. A tornado ~~watch~~ warning has also been initiated for the area
1240 - Conversation w/ C. Wasteneys (AECOM) to update on progress, discuss tornado warning and plans for continuing work. Looking for an answer from PW regarding availability next week
- PW team off-site, AECOM team cleaning up
1300 - AECOM (except E. Smith) off-site
ASIDE - C. Horracks and D. Vanmaster sampled:
HA-07-0-0.2 @ 1200
HA-07-3.0-4.0 @ 1220
1340 - E. Smith leaving Site to laboratory to drop-off samples



4x4 = 1 in

AECOM Imagine it. Delivered.

JOB TITLE Tank 75 Site RI NJSDEC Site No. 915008B
PROJECT/JOB NO. 60730037 CALCULATION NO. —
COMPUTED BY E. Smith DATE 7-11-24
VERIFIED BY — DATE —
SCALE — SHEET NO. 1 OF 3

0700 - E. Smith on-site w/ team. Conditions AM: 67°, wind WNW 7 mph, light rain
Personell: - Ethan Smith (AECOM) - Chris Higgins (AECOM) - Collin Horacks (AECOM) - Dennis Vanmarke (AECOM) - Lee Penrod (P. Wolff) PM: 67°, wind NNW 9 mph, cloudy, no precip.
0710 - DV CAMP logging (PID SN: 592-910536, DustTrak: 8530092527)
0720 - UW CAMP logging (PID SN: 592-910541, DustTrak: 8530181802)
0725 - Remainder of drill team on-site
0749 - Begin drilling at SB-01. CH and DV to continue hand augers when rain stops. Left off yesterday at 25-29'
0835 - SB-01-26-31.7 sampled (No contamination, directly above observed water table)
↳ Analysis: VOCs, SVOCs + 1,4-Dioxane, Pests, PCBs, Metals + Hg + Cr, PFAS
0911 - Conversation w/ Lee Penrod: Rods still catching even after adjustments w/ additional equipment. Will need to grind out inside of rod ends that are mushrooming to continue ⇒ Drilling haulted
- C. Horacks and D. Vanmarke starting hand auger locations at ~~SB-06~~ HA-06
0930 - HA-06-0.0-0.2 sampled
0950 - HA-06-3.0-4.0 sampled
↳ corresponds w/ field duplicate HA-06-3.0-4.0-FD) from same time
1045 - Drill rig still down. Last core logged 33-37'
Hand auger work ongoing, currently at HA-05
1025 - HA-05-0.0-0.2 sampled (Metals, Cr(VI), Pests, PCB, SVOC)
1050 - HA-05-3.0-4.0 sampled (includes MS/MSD see below HA-05-3.0-4.0-MS and HA-05-3.0-4.0-MSD)
Subsurface sample analysis: Full list including PFAS and 1,4-dioxane
1110 - C. Higgins off-site grabbing lunch
- E. Smith called Pine Environmental to inform them CAMP rentals + PIDs will still be needed on Monday
1118 - Drill team putting rods back into hole at SB-01
1133 - Resume drilling following fixes to rods
- 37-41' received. Drillers breaking for lunch
ASIDE - HA-04-0.0-0.2 sampled @ 1130
HA-04-0.0-0.2-FD sampled @ 1130
HA-04-1.3-1.5 sampled @ 1150

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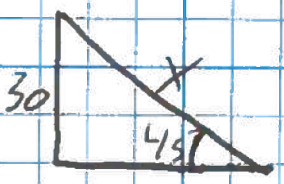
JOB TITLE Tank 75 Site RI NYSDEC Site No 915008B
PROJECT/JOB NO. 60730037 CALCULATION NO. -
COMPUTED BY E. South DATE 7-11-24
VERIFIED BY - DATE -
SCALE - SHEET NO. 2 OF 3

1240 - Drillers return from lunch
- C. Horrocks and D. Vanmeter continue w/ hand auger work currently at HA-03 location. Only remaining hand auger location is HA-02
1300 - Resume drilling
1306 - Call to C. Wasteneys to discuss progress. Noted the time it is taking to complete this boring. He noted that if at any point the drillers feel the rods will get stuck like at SB-10, stop the boring. Also suggested using a more suitable angle for the drillers at the next boring (SB-04) suggest 45°
ASIDE - HA-03 - 0.0 - 0.2 sampled @ 1215
- HA-03 - 2.3 - 2.5 sampled @ 1300
1346 - Sampled SB-01 - 43.0 - 45.0
ASIDE: HA-02 - 0.0 - 0.2 @ 1330
HA-02 - 3.0 - 4.0 @ 1340, associated w/ 1
HA-02 - 3.0 - 4.0 ~~@ 1330~~ @ 1340
1346 con. - SB-01 completed - No gross contamination. D'd standing to setup at SB-04 location (angled)
1425 - Setting up @ SB-04 location. As per conversation w/ C. Wasteneys, attempting 45° angle at this location to increase probability of simpler boring given setbacks



$\sin 45 = \frac{30}{x}$

$x = \frac{30}{\sin 45} = 43\text{ ft}$

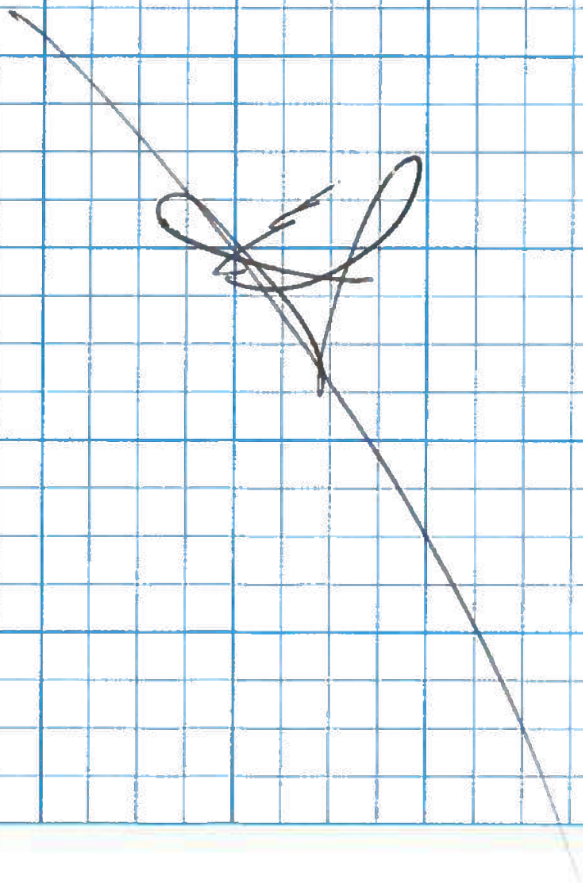
1433 - Danielle and Celia starting round of water levels
1441 - 45° angle at SB-04 will be used
1455 - SB-04 - 0.0 - 0.2 taken
↳ Consists of dark brown, moist, loose silty soil w/ trace sand. Some subangular gravel throughout, as well as vegetable roots from phragmites
1504 - Begin SB-04
1550 - Met refusal at 4 locations while attempting to move laterally east west at 2' for first 3 locations and 4' at 4th

4x4 = 1 in

AECOM Imagine it. Delivered.

JOB TITLE Tank 75 Site RI NJDEC Site No. 9150083
PROJECT/JOB NO. 60730037 CALCULATION NO. -
COMPUTED BY E. Smith DATE 7-11-24
VERIFIED BY - DATE -
SCALE - SHEET NO. 3 OF 3

1550 - Attempting to move closer to tank and steepen angle Refusal being met at what appears to be concrete
1601 - Refusal met at at SB-04 attempt 5 closest to tank at 36° ∠
- Attempt 6 just outside of fence being made at 45°
1631 - No refusal met at 6th attempt at SB-04. Logging continues Currently at 10'
Aside - Rinse blank RB-87112024 taken off of hand auger CH and DV took
1700 - Work complete for the day. Currently at 14' @ SB-04
- C. Higgins and part of P. Wolff team off-site
1705 - UW CAMP down
1710 - DV CAMP down
1711 - D. Vanmeter and L. Penrod off-site
1730 - E. Smith and C. Horrocks off site



4x4 = 1 in

AECOM Imagine it. Delivered.

JOB TITLE Ashland Tank 75 Water Levels

PROJECT/JOB NO. 60730037 CALCULATION NO.

COMPUTED BY D. VanMarter, C. Horrocks DATE 7/11/24

VERIFIED BY DATE

SCALE SHEET NO. OF

Well ID	DTW (ft) Water Level
MW-0501	4.29
MW-02S	5.11
MW-02D	14.77
MW-0504	3.61
MW-03	4.27
MW-0503	7.13
MW-0502	5.18
MW-04S	4.02
MW-04D	12.38

4x4 = 1 in

AECOM Imagine it. Delivered.

JOB TITLE Tank 75 Site RI NYSDEC Site No. 915008B
PROJECT/JOB NO. 60730037 CALCULATION NO. -
COMPUTED BY E. Smith DATE 7-12-24
VERIFIED BY - DATE
SCALE SHEET NO. 1 OF 2

0700 - E. Smith onsite w/ team Conditions AM: 68°, wind SSW 3 mph, sunny
Personnel includes: PM: 80°, wind SW 5 mph, sunny
Collin Horrocks (AECOM)
Chris Higgins (AECOM)
Lee Penrod (P. Wolff)
Taylib Kimball (P. Wolff)
Jordan Perkins (P. Wolff)
0707 - DW CAMP up and logging
0715 - UW CAMP up and logging
0730 - Currently setting up at SB-04 (Aglod 45°) location. Plan is to complete this location today and grout borings to date (SB-10, SB-01 and SB-04)
0740 - Daily tailgate completed w/ team
0750 - Begin drilling at SB-04 location.
0815 - Sleeve slip catching on inner rod while trying to pull core sample out → Drill team has to pull inner rods + outer rods to retrieve sample like previous holes
0830 - Texted R. Brant (URC) to notify him that we will be continuing the soil boring investigation work on Monday (7-15-24) w/ only vertical borings. Plan is to start inside the fence at SB-08 move to SB-09 → SB-02 → SB-03 → SB-05 → SB-07 and complete as many as possible
Also confirmed that we are unable to move piping proximate SB-05 (See text from R. Brant). Boring to be moved north parallel w/ tank just north of ~~pipe~~ piping appx 15 ft.
1103 - Cores may appear wet in photos due to spraying/decon of rocks w/ water as the come up but so far all core centers are dry
0930 - RB-07122024 taken off of acetate liner
Aside - C. Horrocks noted DI water was used for metals RB instead of metals rinse water. Metals rinse water used today for RB-07112024

4x4 = 1 in

AECOM Imagine it. Delivered.

JOB TITLE Tank 75 Site RI NYSDEC Site No 915008B
PROJECT/JOB NO. 60730037 CALCULATION NO. -
COMPUTED BY E. Smith DATE 07-12-24
VERIFIED BY - DATE -
SCALE - SHEET NO. 2 OF 2

1128 - Drillers taking lunch. E. Smith and C. Horrocks to use hand auger to grab additional fill from 1' off-set of current hole to supplement volume for sample. 0.5-2.0 mos visibly contaminated (See log)
1145 - SB-04-0.5-2.0 sampled. Associated w/ SB-04-0.5-2.0-FD @ same time
1200 - E. Smith and C. Horrocks filling hand auger locations from which grossly contaminated soil came from w/ bentonite chips to surface (HA-01, HA-04, and HA-03) 2 bags bentonite used
1215 - Drillers off lunch resume work @ SB-04 Next core SB-04 (34-38 ft)
1247 - Drillers noted they were better able to retrieve cores w/o hammer
1250 - Drilling complete at SB-04. Begin cleanup
- SB-04-38.0-42.0 sampled
→ Max depth 42.0 feet
1255 - Call from C. Wisteneys. Updated him on progress and plan for next week
1300 - C. Higgins off-site until next week
- Drillers begin grouting SB-04 and SB-10 SB-04 filled w/ chips due to water infiltration from use of hose
1312 - C. Horrocks off-site to Home Depot to get supplies (fence, wire, couplings, 4x4)
1330 - SB-01 and SB-10 grouted to surface T. Kimball & S. Perkins off-site
1357 - Call from Mark Faus (PM/driller for Monday AM) Confirmed ~9:00 AM arrival and need for 3 drums and bentonite chips
1408 - C. Horrocks back on-site. Continue cleanup
1440 - Lee Penrod off-site
1458 - C. Horrocks off-site
1515 - Site secure for weekend. C. Horrocks purchased fence repair equipment for next week. Waste properly staged. E. Smith off-site

ASIDE: 1420 UW CAMP down
1425 DW CAMP down

4x4 = 1 In

AECOM Imagine it. Delivered.

JOB TITLE Tank 75 Site RI NYSDEC Site No. 915008B
PROJECT/JOB NO. 60730037 CALCULATION NO. –
COMPUTED BY E. Smith DATE 07-15-24
VERIFIED BY – DATE –
SCALE – SHEET NO. 1 OF 2

0815 - E. Smith (AECOM) awaiting arrival of remaining AECOM team and Parratt-Wolff drill team
0830 - C. Horrocks (AECOM) on-site. C. Higgins (AECOM) on-site ~0800
0857 - Downwind CAMP logging
089 - Parratt Wolff team on-site
0902 - Upwind CAMP logging
0927 - Tailgate meeting conducted w/ team
- Begin setup @ SB-05
S. Perkins hand clearing to 5'
0935 - SB-05-0.0-0.2 sampled (Associated w/ MS/MSD)
↳ Dark brown topsoil consists of ~~silt~~ sandy silt w/ fine subangular gravel - No odors, no PID, no gross contamination
1030 - Receive first core from SB-05
1037 - P Wolff team using water and alconox to decon rods
↳ Cores may appear wet in photos
- Potential for inclement weather including thunder and lightning later today, team monitoring
1115 - C. Higgins sampled SB-01-C (C = Composite) to be analyzed for gamma emitters/spec as per Work Plan
- Drilling at SB-05 ongoing. Next interval >21-25'
1145 - SB-05-27.0-29.0 sampled
- Drillers taking lunch
- ~~EB~~ SB-05-C sampled by C. Higgins
1200 - Resume work
1210 - Complete SB-05 to 33'
- Sampled SB-05-32.0-33.0
1220 - Collect surface soil sample at SB-03 location
↳ SB-03-0.0-~~2.0~~-0.2
↳ Consists of light brown, dry ~~SILT SAND~~ silty soil w/ subangular gravel strewn throughout and little fine sand. No evidence of inputs (PID signature, staining, odor, etc.)

Conditions AM: 75°, wind SW 10 mph, cloudy
PM: 83°, wind SW 11 mph, on/off thunderstorm

Personnel
Ethan Smith (AECOM)
Collin Horrocks (AECOM)
Chris Higgins (AECOM)
Mark Evans (PW)
Seeban Perkins (PW)

4x4 = 1 in

AECOM Imagine it. Delivered.

JOB TITLE Tank 75 Site RI NYSDEC Site No 915008B
PROJECT/JOB NO. 60730037 CALCULATION NO. —
COMPUTED BY E Smith DATE 07-15-24
VERIFIED BY — DATE —
SCALE — SHEET NO. 2 OF 2

1230 - Thunder noted just west of Site. Shutting down work for 30 minutes
1245 - Noted thunder again.
1251 - Call to C. Wasteneys to update him on the current situation on-site
1300 - Thunder => New start time @ 1330
1320 - Heavy rain and thunderstorm
1400 - Call to C. Wasteneys to inform him that severe weather is incoming and will shut us down for the remainder of the day. Crews cleaning up Site
1424 - Parratt Wolff team off site
1445 - NW CAMP down
1530 - E. Smith, C. Horrocks, C. Higgins (AECOM) leaving Site

4x4 = 1 in

Ashland Tanks

7/7/2024

- Check in hotel 12PM. Get Instruments.

- Set up 44-9, 44-10, M19, Not 43-93. Notsure we need 43-93. Finish 2:15PM

- Got to Home Depot for Sharpies, Baggies, and Bins 5:30.

- 5:30 Found Site for tomorrow. Easy.

7/8/24

- 0730 Travel to/arrive onsite
- 0900 Site Safety / Tailgate Meeting
- 0915 Side walk
- 0830 Set up
- 0830 BK + SC + MDCR
  * Slight b higher BKs. Not an issue
  * MDCR 44.9 = 95
  * MDCR 44-10 = 3569

- 0915 MDCR used over 200
- 1130 Ken Leaves Cedar Aid @ Toll
- 12 Lunch

Ashland Tank
7/9/cont

1230 - Begin Drilling Set-up
1532 - Actual Start

Loc ; ft	Scan 44.9	Scan 44-10
SB-10-1	51	2307
2	44	2500
3	53	2313
4	59	2618
5	52	2242
6	55	2268
7	52	2472
8	53	2354
9	42	2599
10	53	2260
11	42	2117
12	49	2230
13	58	2248
14	66	2319
15	62	2217
16	68	2354
17	53	2393
18	59	2116
19	54	2239
20	59	2201
21	46	2223
22	33	2491
23	41	2541
24	52	2487
25	24	2440

Nox Full Recovery

NFR

FR

FR

Ashland Tank
7/8 cont

GO TO NEXT Page

Loc/ft	Scan 44.9	Scan 44-10
26	48 +	2356
27	48 +	2441
FR 28	55	2320
29	52	2477
30	38	2657
31	35	2475
FR 32	43	2528
33	26	2353
34	46	2139
FR 35	78	2255
36	39	2149 +
37	54	2542 *
38	43	2342
FR 39	36	2315
40	41	2237
41	46	2506
42	43	2542
FR 43	73	2378
44	39	2286
45	48	2477
46	50	2324
FR 47	46	2439
48	53	2625
49	62	2449
50		
NR 51		

Ashland 7/8/24

1540: NGI BK Much Lower Than this Morning. Radar? New Spot?
1650: Start Shut Down
- Fence
- Materials
- Instruments
: Need Supplies Tonight
Ice
Water
Storage Bin
: Send Pics
1724 Leave Site
1740: Check Marks. No Storage Bin
1915: Download Pics
1930: Send Pics

7/9/24

: 0647 Arrive
- 0700 - SC + BK + MDCR
0730: Meeting + BEES EVER WHERE
Derick Dietrich DEC
1430 DEC Left. Did Side-by-Side->
1445 Finish SB-10. Not Count
1500: Set up on new Site.
I think its SB-01.

Ashland Temp
7/9/24 cont

1530. Hand dig 1 ft.
1700 → Leave

	Loc	ft	44-9	44-10
SB-01		1	50	2365
		2	54	2209
NFR		3	46	2174
		4	51	1995
7/9/24		5	49	1916
		6	50	2228
		7	43	2091
NFR		8	48	2313
		9	54	2046
		10	33	1879
7/10/24		11	44	2024
NER		12	45	1889
		13	45	1763
FR		14	29	1880
		15	35	1833
		16	47	2151
		17	39	2157
		18	48	2158
		19	39	1745
FR		20	51	1672
		21	26	2144
		22	40	1739
FR		23	44	1818
		24	40	1874
		25	43	2050

7/10/24 Ash Tank

0630 - Arrive - T-Storm
0700 - SC, BF, MDCR
44-9 = 143
44-10 = 2777
0715 - 0910 T-storm
0910 HA-01 Scan Material
BK = 8784 cpm

Loc	44-10
HA01	~~4480~~ 10,397
HA08	9337
HA09	10,023
HA06	8832
HA05	9820
HA04	8514
HA03	6378
HA02	8865

7/11/24

1045 - RAIN!!
1130 - C→ start
1245 - TORNADO!!

Ash Tank 7/10/24

Col	St	44-9	44-10
SD-01		44-9	44-10
	25	34	1732
FR	27	17	1054
	28	34	2020
	29	39	1913
FR	30	64	1771
	31	52	1640
	32	51	1762
	33	44	1827
	34	51	1607
FR	35	41	1731
	36	56	1581
	37	63	1652
	38	61	1645
FR	39	49	1793
	40	52	1603
	41	58	1782
	42	45	1665
FR	43	39	1699
	44	39	1774
	45	34	1637
	46		
Stopped	47		
	48		
	49		
	50		

7/11/24

Ash Camb
7/11/24

-0630 Arrive
-0700 SC + BK + MOCR
44-9=433
44-10 - 2900
- 0800 Start Drilling
- 1015 Scan Sample Coolers

	Cooler	wR/hr
7/11/24	1	7
	2	6
	3	7
	4	8
	5	5
	6	7
	7	5
	8	8
7/12/24	9	8
	10	6

1700 - Lease.

Ash Camb
7/11/24

	Loc	44-9	44-18
SB-04	0	38	1785
NFK	1	34	1420
	2	42	1655
	3	40	1731
	4	43	1637
NFR	5	42	1621
	6	39	1709
	7	39	1774
WFR	8	40	1617
	9	46	1442
	10	29	1749
	11	42	1623
FK	12	39	1428
	13	46	1705
	14	39	1642
	15	44	1470
7/12/24 PR	16	44	1434
	17	62	1323
	18	47	1347
	19	35	1630
	20	39	1542
FR	21	41	1405
	22	44	1324
	23	31	1343
	24	30	1351
	25	47	1380
	26	44	1471

ASM Tour

Loc	ft	44-9
SB-04	27	33
FR	28	32
	29	24
	30	24
	31	40
	32	32
FR	33	45
	34	40
	35	43
FR	36	40
	37	33
	38	40
FR	39	32
	40	54
Limit	41	41
	42	37

7/12/24 ASM Tour

44-10	-0630 Arrive SC, BK + MDCR
	44-10 ~2150
1391	
1344	44-9 108
1470	-0700 Ready + Waiting on Driller
1465	Set up
1464	- 0800 - Drilling Starts
1394	
1448	-1245 Drilling Stop.
1355	Conn + 2 took 5 min!
1544	(of course
1593	
1470	
1405	7/15/24
1491	-0700 - Arrive, SC + BK + MDCR
1571	4410=602 353K 44-9 45.7 97
1608	44-10 2097 2443
1544	-0930 - Drillers Arrive
	-1030 -> 1230 SB-05
	- 1245: RAIN + Lightning
	- We wanted to do 584 ft
	- We got 184.
	- 1400 -> Called IT a Day!
	- 1430 -> Packing in garage
	RAIN is Intense!

Ashtown 9/15/24

Loc	ft	44-9	44-9	44-20
	0-5	Unsuitable	NA	#993
	5		47	1622
	6		51	1494
FR	7		58	1502
	8		63	1484
	9		53	1439
	10		55	1459
PFR	11		58	1510
	12		44	1465
	13		42	1503
	14		52	1517
	15		49	1457
NFR	16		54	1407
	17		40	1488
	18		48	1354
NFR	19		39	1508
	20		45	1419
	21		40	1432
	22		53	1460
	23		43	1545
	24		45	1467
	25		51	1369
	26		51	1510
VF	27	55	NA	NA 1524
VF	28	52	NA	NA 1545
	29	47	NA	NA 1538
	30	46		1496
	31	47		1457
	32	41		1420
	33	45		1501

AECOM Imagine it. Delivered.

JOB TITLE Tank 75 Site RI/FS/EC Slab 9/8/2015

PROJECT/JOB NO. 6073 0037 CALCULATION NO. —

COMPUTED BY C. Horrocks DATE 7/18/24

VERIFIED BY — DATE —

SCALE — SHEET NO. 1 OF 1

7/18/24 61° AM

6 MPH NW wind

0745- C. Horrocks onsite

0750 - D. VanHorter onsite

0800 - tailgate meeting

0810 - start fence repair

0930 - complete fence repair

0945 - all offsite

CH 7/18/24

4x4 = 1 in

AECOM Imagine it. Delivered.

JOB TITLE Tank 75 Site RI NYSDEC Site No. 915008B
PROJECT/JOB NO. 60730037 CALCULATION NO. —
COMPUTED BY E. Smith DATE 08-08-24
VERIFIED BY — DATE —
SCALE — SHEET NO. 1 OF 2

0725 - E. Smith on-site w/ C. Higgins, C. Horrocks, and C. Finn (All AECOM personnel) Awaiting arrival of Matrix Environmental to complete soil borings around tank
Conditions AM: 67°, wind ESE 6 mph, mostly cloudy, no p.p.
PM: 76°, wind SSE 7 mph, mostly cloudy
0740 - AECOM team headed back to Site (Tank 75), E. Smith awaiting Matrix arrival off of River Rd.
Task - Complete soil borings SB-03, SB-02, SB-09, SB-08 and SB-07 between today (8/8) and tomorrow (8/9). Soil samples to be taken from each location (surface, middle (water table or greatest contamination) and bottom. Air monitoring to be employed for all work
0753 - Matrix Env. on-site w/ drill rig - Rick Regan (Matrix)
0759 - Upwind CAMP started (DustTrak: 8530102616, PID: 592-602803)
0803 - ~~Downwind CA~~ Additional Matrix personnel on-site - Jason Kuchey (Matrix)
0808 - Downwind CAMP started (DustTrak: 8530162403, PID: 592-910636)
0820 - E. Smith held safety meeting w/ team
- Begin mob to SB-03 location
0847 - Hand clearing w/ hand auger at SB-03 underway
0915 - Begin drilling at SB-03 w/ Geoprobe 7822DT using 5' foot cores, starting w/ 5-10 ft core following hand clear to 5'
0926 - C/H inputting data to iPad (Equis collect). Photos show top of core at left
1005 - Sample SB-03-5.0-7.0
1015 - Sample SB-03-28.0-30.0
- SB-03 complete
ASIDE: 1009 call received from C. Westerneys (AECOM) noting he had a conversation w/ B. McPherson (NYSDEC) concerning final angled boring. He noted B. McPherson was agreeable to omitting final angled boring which was originally planned @ SB-06 and potentially moved to SB-08. The plan to complete the angled boring at either of these locations is no longer in effect. All remaining borings (SB-02, -08, -09, -07) planned to be vertical

4x4 = 1 in

AECOM Imagine it. Delivered.

JOB TITLE Tank 75 Site RI NYSDEC Site No. 9150088
PROJECT/JOB NO. 60730037 CALCULATION NO. —
COMPUTED BY E. Smith DATE 08-08-24
VERIFIED BY — DATE —
SCALE — SHEET NO. 2 OF 2

~~100~~ 1045 - Begin setup at SB-02 Associated w/ dup
1050 - SB-02 - 0.0 - 0.2 sampled → SB-02-0.0-0.2-FD
↳ Brown silty sand topsoil, 50% fine sand, 40% silt, 10% coarse subrounded gravel. Trace roots from surface veg., moist, no odors or impacts
- Begin hand auger at SB-02
1145 - Drilling ongoing at SB-02 w/ no issue
1220 - SB-02 boring complete
1225 - SB-02 - 10.8 - 11.0 sampled
1235 - SB-02 - 28.0 - 30.0 sampled
1240 - Begin move to SB-09 location
1250 - Begin hand auger at SB-09
- SB-09 - 0.0 - 0.2 sample collected
↳ Brown silty clay topsoil w/ organics (roots) throughout, trace ~~sa~~ fine subrounded gravel w/ trace very fine brick and concrete. Dry, no odors, no evidence of impacts
1340 - C. Wasteneys (AECOM) on-site
- SB-09 ongoing
1415 - C. Wasteneys off-site
1450 - SB-09 - 4.0 - 5.0 sampled
1456 - SB-09 boring completed. Conversation w/ Rich (Matrix) Plan is to hand clear SB-08 and SB-07 locations to 5 ft for tomorrow to complete w/ Geoprobe
1500 - SB-09 - 28.0 - 30.0 sampled
1510 - SB-08 - 0.0 - 0.2 sampled
↳ Dark brown sandy silt topsoil w/ coarse and fine subangular gravel. Includes organics (roots). No impacts
1525 - SB-07 - 0.0 - 0.2 sampled
↳ Brown fine sandy soil fill w/ angular and subangular ~~fill~~ gravel. Veg noted at surface
1530 - C. Higgins (AECOM) off-site
1540 - Matrix completed hand clearing to 5' at SB-08 and is working on SB-07
1626 - DW CAMP down. 1630 DW CAMP down
1645 - All teams off-site. Work complete for the day

4x4 = 1 in

1 of 2

AECOM Imagine it. Delivered.

JOB TITLE Tank 75 Site RI NYSDEC Site No 9150083
PROJECT/JOB NO. 60730037 CALCULATION NO. —
COMPUTED BY E. Smith DATE 8-9-24
VERIFIED BY — DATE —
SCALE — SHEET NO 1 OF 2

0700 - E. Smith (AECOM) on-site w/ C. Higgins (AECOM), C. Finn (AECOM), C. Horrocks (AECOM) Rick Reagan and Tyson Kuckley (Matrix) Conditions AM: 70°, wind SE 4 mph, cloudy PM: 75°, wind N 7 mph, cloudy

Task: Complete SB-08, and SB-07. Screen and ~~soil samples~~ sample soils. Complete hazardous waste inspection.

0720 - Tailgate completed w/ team

0725 - Downwind CAMP up (DustTrak: 8530162403; PID: 592-910536)

0729 - Upwind CAMP up (DustTrak: 8530102616; PID: 592-602803)

0754 - Drilling at SB-08 ongoing. Just received 10-15 ft core

0815 - E. Chorostkowska (AECOM) on-site
Discussed requirements for hazardous waste staging area inspection considering she will be covering next two Fridays
- Begin light rain

0840 - E. Chorostkowska off-site

0850 - SB-08-26.0-28.0 sampled

0900 - SB-08-28.0-30.0 Sampled

0915 - Begin SB-07 (Hand augured to 5' previously)

0920 - SB-07-1.0-2.0 sampled

0930 - SB-07 ongoing, no containment outside of that noted to 5.3 ft ~~bgs~~ visibly contaminated soils will be drummed. Also grabbed sample from SB-07-2.0-5.0 and bagged if needed. Will remain in drum on-site
- Rain ended appx 0900

1045 - SB-07 ~~co~~ drilling ongoing Currently waiting on final core -> SB-07-30-35 ft
- Resume light rain

1060 - SB-07 boring complete. Matrix trying remove soil from final core

1053 - UW CAMP down

1100 - DW CAMP down

1125 - SB-07-33.0-35.0 sampled

1130 - C. Higgins off site

1210 - Matrix off-site. AECOM team completing general site cleanup

1230 - C. Finn off-site

4x4 = 1 in

AECOM Imagine it. Delivered.

JOB TITLE Tank B Site RI NYSDEC Site No 915008B

PROJECT/JOB NO. 60730037 CALCULATION NO. –

COMPUTED BY E. Smith DATE 8-9-24

VERIFIED BY – DATE –

SCALE – SHEET NO. 2 OF 2

1245 - All work completed for the day and Site secured
All drums containing IDW properly closed
E. Smith and C. Horrocks off-site

4x4 = 1 in

Ash Tank 7/15/24

Loc ft	44-9	44-9	44-20
0-5 unshield	NA		#993
5	47		1622
6	51		1496
FR 7	58		1502
8	63		1484
9	53		1439
10	55		1459
NFR 11	58		1510
12	44		1465
13	42		1503
14	52		1517
15	49		1457
NFR 16	54		1405
17	40		1488
18	48		1354
NFR 19	39		1508
20	45		1419
21	40		1432
22	53		1460
23	43		1545
24	45		1465
25	51		1364
26	51		1510
NR 27	55 NA		NA 1524
28	52 NA		NA 1545
29	47 NA		NA 1538
30	46		1490
31	47		1457
32	41		1420
33	45		1501

Ashland Tank 75

8/8/24

-0700 Arrive On Site
BK + SC + MPCR
Instrument Set-up

	2902		3310
44-10	[redacted]	1118760	[redacted]
44-9	49	833	102

JB-03

Loc ft	44-9	44-10
JB [redacted] 0-5	46	2701
5	49	2951
FR 6	45	2819
7	42	2611
0917 8	37	2924
9	40	3059
10	24	2403
11	36	2355
FR 12	41	2965
0930 13	33	2957
14	34	2939
15	44	2432
FR 16	40	2548
0940 17	25	3099
18	44	3191
19	52	2795
20	41	2313
FR 21	61	2383
0955 22	46	2522
23	36	2477
24	50	3129
25	46	3037

SB-03 Loc Gt	44-9	44-10
26	35	2902
27	48	2868
28	51	3033
29	30	2892
30	43	2911

SB-02 Loc St	44-9	44-10
1110 1	45	2240
2	34	2924
3	41	2830
4	36	2814
5	49	2813
6	46	3136
1115 7	41	2968
FB 8	51	3034
9	32	2652
10	36	2461
1125 11	54	2438
FB 12	37	2832
13	44	3109
14	43	3026
15	55	2951
1130 16	41	3199
17	59	2642
18	44	2959
FB 19	45	2950
20	39	2123

SD-02 Loc St	44-9	44-10
1150 21	36	2419
22	48	3196
FB 23	41	3020
FB 24	35	2663
25	42	2950
26	37	2643
FB 27	40	2842
28	36	2833
29	54	2799
30	48	3046

SD-09	44-9	4411
1310 0-5	41	2638
6	54	2929
1400 7	30	2662
FB 8	32	2944
9	55	2826
10	47	2407
11	47	2883
FB 12	54	2611
13	47	3070
1405 14	35	2091
15	42	2816
16	33	2955
FB 17	39	2743
1415 18	42	2511
19	41	2995
20	47	2815

Ash 8/8/24

SB-09		
Loc St	44-9	44-10
21	25	2373
22	53	2414
23	32	3012
24	41	2926
25	35	2823
26	41	2825
27	43	2611
28	50	2980
29	48	2408
30	42	2418
left Site	1530	

Ashland Tank 95 8/9/24

TOO: Arrive

	Bk	SC	MDCR
44-10	3099.4	89	3519
44-9	49.2	863	102

SB-09		
Loc St	44-9	44-10
0-5	39	2209
6	49	2758
FR 7	38	2451
8	34	3018
0740 9	41	2973
10	55	2791
11	38	2409
FR 12	59	3013
13	48	2919
0800 14	28	2414
15	35	2137
16	36	2355
FR 17	51	2396
0825 18	50	2921
19	45	2794
20	24	2399
0840 21	36	2525
22	41	2515
23	33	2548
FR 24	47	3157
25	46	3181

9/19/24

SB-08 Loc St	44-9	44-10
24	29	2499
0827	21	3037
0827 28	42	2423
29	33	3126
TR 30	50	3054

SD-07 Loc St	44-9	44-10
05 1	37	2462
2		
3		
4		
5		
6	47	2065
FL 7	45	2200
8	50	2898
0920 9	44	2648
10	22	3091
11	40	2857
12	46	2484
0930 13	42	2991
FR 14	49	3442
15	418	2440
0940 16	40	2331
17	44	2083
18	51	3187
FR 19	24	3082
20	51	2034

SD-07 Loc St	44-9	44-10
21	45	2275
FR 22	42	2217
23	43	2987
0927	46	3104
25	55	2828
26	49	2308
27	41	3105
28	43	2404
29	41	2957
30	49	2096
31	52	2128
32	36	2082
33	42	3101
34	43	2522
35	53	2336

Location Tank 75 Site RI, Tonawanda, NY Date 09-11-24

Project / Client NYSDEC Site No. 915008B

AECOM Project # 60730037

0750 - E. Smith (AECOM) and Mike Rozeski (Surveyor) meet at URC terminal off of River Rd.

Task: - Complete final survey of all investigation locations from RI including hand augers, soil borings and monitoring wells
- E. Smith to assess IDW staging area

Conditions AM: 60°, calm, partly cloudy no precip

PM: N/A

0810 - Daily tailgate meeting completed between E. Smith and M. Rozeski
- Begin survey of investigation pts.

0903 - Call to Edyta Chorostkowska (AECOM) confirming we do not need anymore pts surveyed - Survey complete

0915 - M. Rozeski off-site
- E. Smith remains to assess IDW area

Location Tank 75 Site, Tonawanda, NY Date 09-11-24

Project / Client NYSDEC Site No. 915008B

AECOM Project # 60730037

MW-05-01*	3.06' concrete to top of casing -0.21' riser below top of casing
MW-02S*	3.20' concrete to top of casing -2.75' riser below top casing
MW-02D*	1.64' concrete to top of casing -0.25' riser below TOC
MW-03	2.38' ground to TOC (top of casing) -0.31' riser below TOC
MW-05-04	2.99' ground to TOC -0.24' riser below TOC
MW-04D	0.55' ground to TOC -0.30' riser below TOC
MW-04S*	1.11' concrete to TOC -0.25' riser below TOC
MW-05-02	2.93' ground to TOC -0.07' riser below TOC

Rite in the Rain

Location Tank 75 Site RI, Tonawanda, NY Date 09-11-24

Project / Client NYSDEC Site No 915008B
AECOM Project # 60730037

MW-05-03 3.05' ground to TOC
-0.15' riser below TOC

* Locations where top of concrete base of MW sat above ground surface. M Rozeski surveyed both top of concrete and ground to assess differences. Will revise to 2 diffrent elevations

10/5 - E Smith completed drum inventory and made adjustments to staging area (More to be made during weekly inspection 9/13)
- Leaving Site

Location Tank 75 Site RI, Tonawanda, NY Date 09-11-24

Project / Client NYSDEC Site No 915008B
AECOM Project # 60730037

	ID	Drum Date	Matrix	Contents / Origin
NON-HAZ / NON-GROSS CONTAMINATION	1	4/25/24	Water	Recovered purge water MW-05-01 through -04
	2	4/25-4/26	Water	Recovered purge water MW05-03, MW-03, MW-02S, MW-02D
	3	4/26	Water	Recovered purge water MW-02D, MW-04S, MW-04D
	4	4/29	Water	Sampling purge water MW-03, MW05-04, MW-02S, -02D, MW-06-01, -03
	5	4/30	Water	Sampling purge water -04S, -06-02, -04D, -02D
	11	07/15	PPE + plastic sheeting + soil liners	SBs completed w/ PW
	12	08/08	PPE + plastic sheeting + soil liners	SBs completed w/ Matrix
HAZ / GROSS CONTAMINATION	6	5/22	PPE + plastic sheeting	Tank 75 bathymetry
	7	6/14	"	T-75 SW/SED sampling
	8	6/14	" "	T-75 SW/SED sampling
	9	6/15	" "	T-75 SW/sed sampling
	10	7/12	Soil cuttings, PPE, plastic	HA-01, -03, -04
	13	8/8	" "	SB-07

Rite in the Rain

Location Tank 75 Site RI Date 09-20-24

Project / Client Ashland Inc / Tonawanda, NY

60730037

0830 - E. Smith (AECOM) on-site to complete IDW inspection (occurs weekly) and collect additional round of water levels from monitoring wells

Conditions: AM: 67°, wind ESE 4 mph, clear, no precip

PM: —

Equipment: Heron Instruments Dipper-T (URS #248)

9/20/24

Location Tank 75 Site RI Date 09-20-24

Project / Client Ashland Inc / Tonawanda, NY

60730037

Location	Time	ΔTW*
MW-02S	0858	5.90
↳ Measure from top of metal casing		
MW-02D	0900	10.81
MW-03	0903	5.44
MW-04S	0913	5.08 ~~9.20~~
MW-04D	0911	9.20
MW05-01	0856	5.81
MW05-02	0915	6.33
MW05-03	0920	11.30
MW05-04	0905	5.38

* All monitoring wells measured from top of interior PVC riser EXCEPT MW-02S which was measured from top of exterior metal casing (PVC riser out of reach)

Rite in the Rain

DAILY WORK LOG

IDW Purge Water Disposal
PROJECT # 60608603
Ashland Tank 75 – Tonawanda, NY

Weather: 50s partly cloudy

Personnel Onsite:

Name	Company	ARR	DEP
Christopher Finn	**AECOM**	**0800**	**1500**
Matt Stevener	**AECOM**	**0800**	**1500**

Field Notes/Description of Work:

Task: Empty purge water in five (5) 55-gallon drums into the tank in-ground tank per DEC approval.

0800: AECOM arrives on-site, tailgate meeting completed.
0830: Drums opened and waterra pump setup. Approximately 130 feet of ½ ID tubing was run from the drums to the tank.
0845: Pumping started.
0915: Pump not strong enough to get water full distance to the tank. Looking up potential solutions.
0930: All drums covered. AECOM offsite to purchase a small submersible fountain pump.
1000: Purchased fountain pump from Lowe's, heading back to Site.
1030: AECOM back on-site. New pump setup and turned on.
1105: First drum emptied beginning to pump down second drum.
1145: Second drum emptied.
1225: Third drum emptied.
1345: Fourth and fifth drums emptied.
1400: Cleanup started, tubing and gloves to be properly disposed of. Pump cleaned with Alconox & water solution.
1430: Cleanup completed. Drums covered with lids tightened down. C. Finn completing IDW weekly inspection.
1500: AECOM off-site

Safety Observations:

AECOM Employees wearing proper PPE including nitrile gloves, steel-toe boots, and hi-vis vests.
Potential for slips, trips, falls on-site.

Field Changes:

Rental pump was not able to get water the distance needed. Purchased pump from Lowe's to complete task.

Location Tank 75 Site Tonawanda, NY Date 11-13-24

Project / Client Ashland Inc. (NEC Site No. 9150088)

0700 - E. Smith (AECOM) on-site
M. Stevenes (AECOM)

Conditions: AM: 32°, wind E
5 mph, mostly clear
PM: ——

Task: Provide oversight for disposal of IDW from 2024 remedial investigation activities. Clean Harbors picking up drums from Site for disposal

Personnel: Ethan Smith (AECOM)
Matt Stevener (AECOM)
Clean Harbors Driver (Richard)

0710 - Tailgate meeting completed
Team to begin clean-up of IDW staging area and begin staging drums for removal from Site

Location Tank 75 Site Tonawanda, NY Date 11-13-24

Project / Client Ashland Inc. (NEC Site No. 9150088)

Disposal to include following:

- 9 empty drums Profile BU172466-MT
- 1 drum solids from SB-02, -03, -07, -08, -09 Profile CH2853762
- 1 drum soil/solids from HA-01, -03, -04 Profile: CH2853653
- 1 drum solids from SB-01, -04, -05, -10 Profile: CH2853675
- 1 drum soil/solids from SB-07 Profile: SB-07
- 4 drums solids that came in contact w/ tank contents Profile: CH2853799

0820 - All drums staged for pick up by Clean Harbors. All poly sheeting and municipal soil/waste bagged

0840 - Clean Harbors rep. on-site to take drums

0900 - 9 empty drums loaded

0910 - 4 Tank contents drums loaded

Location Tank 75 Site Tonawanda, NY Date 11/13/24

Project / Client Ashland Inc. (DEC Site No 915008B)

0925 - Remaining drums loaded onto Clean Harbors box truck

0945 - Clean Harbors rep off-site w/ all drums
M. Steiner and E. Smith completing general cleanup. Spoke w/ R. Brent (URC) earlier today @ 0806. He asked me can store 4 5-gallon buckets in garage on-site

1045 - 4 5-gallon buckets stored in URC garage. Spoke w/ Rick Rd w/ approval from URC rep. Rick Brent

1115 - Site left in good condition E. Smith and M. Steiner leaving site

11/13/24

Location Tank 75 Site Tonawanda, NY Date 11/13/24

Project / Client Ashland Inc. (DEC Site No 915008B)

11/13/24

Appendix B Photo Log

AECOM 50 Lakefront Blvd Suite 111 Buffalo, NY 14202	**PHOTOGRAPHIC LOG**
Client: Ashland Inc. **Project No.:** 60730037	**Site Location:** Ashland Tank 75 Site (NYSDEC Site ID: 915008B) 4625 River Road, Tonawanda, New York

Photo No. 1	**Date:** 04/16/2024

Description:

View of initial Site clearing activities completed using mulching attachment to excavator.

Direction Photo Taken:

Northwest

Photo No. 2	**Date:** 06/28/2024

Description:

View of secondary Site clearing to facilitate remainder of RI activities following rapid growth of vegetation.

Direction Photo Taken:

Northwest

AECOM 50 Lakefront Blvd Suite 111 Buffalo, NY 14202	**PHOTOGRAPHIC LOG**
Client: Ashland Inc. **Project No.:** 60730037	**Site Location:** Ashland Tank 75 Site (NYSDEC Site ID: 915008B) 4625 River Road, Tonawanda, New York

Photo No. 3	**Date:** 04/22/2024

Description:

AECOM personnel with NYSDEC oversight completing a gamma walkover survey (GWS) to assess the potential presence of radiologically impacted material from the adjacent Seaway Landfill and Ashland 1 Site immediately north and east of the Tank 75 Site. No FUSRAP material associated with these adjacent Sites was identified.

Direction Photo Taken:

South

Photo No. 4	**Date:** 04/22/2024

Description:

Slag-like material located along the southern border of the Tank 75 Site which displayed readings above 16,000 cpm noted during the GWS.

Direction Photo Taken:

Not applicable

AECOM 50 Lakefront Blvd Suite 111 Buffalo, NY 14202	**PHOTOGRAPHIC LOG**
Client: Ashland Inc. **Project No.:** 60730037	**Site Location:** Ashland Tank 75 Site (NYSDEC Site ID: 915008B) 4625 River Road, Tonawanda, New York

Photo No. 5	**Date:** 04/29/2024

Description:

Groundwater sampling setup, here at MW-03 (typical).

Direction Photo Taken:

East

Photo No. 6	**Date:** 05/23/2024

Description:

Slug testing setup following removal of the slug, here at MW-04S (typical).

Direction Photo Taken:

West

AECOM 50 Lakefront Blvd Suite 111 Buffalo, NY 14202	**PHOTOGRAPHIC LOG**
Client: Ashland Inc. **Project No.:** 60730037	**Site Location:** Ashland Tank 75 Site (NYSDEC Site ID: 915008B) 4625 River Road, Tonawanda, New York

Photo No. 7	**Date:** 05/21/2024

Description:

View of ongoing bathymetry survey (Thew Associates in vessel on water) with AECOM oversight at launch location (northeast corner of Tank 75). Duradeck mats used to more safely access water and launch vessel.

Direction Photo Taken:

South

Photo No. 8	**Date:** 05/21/2024

Description:

Decontamination of Thew Associates boat used for bathymetry survey. Boat placed on plastic sheeting and decontamination liquid allowed to run back to Tank 75.

Direction Photo Taken:

South

AECOM 50 Lakefront Blvd Suite 111 Buffalo, NY 14202	**PHOTOGRAPHIC LOG**
Client: Ashland Inc. **Project No.:** 60730037	**Site Location:** Ashland Tank 75 Site (NYSDEC Site ID: 915008B) 4625 River Road, Tonawanda, New York

Photo No. 9	**Date:** 06/03/2024

Description:

View of crane subcontractor (Clark Rigging) maneuvering Atlantic Testing's boat into Tank 75 to complete surface water and sediment sampling. Boat launched from northeast corner of Tank 75, same as bathymetry survey.

Direction Photo Taken:

West

Photo No. 10	**Date:** 06/03/2024

Description:

Atlantic Testing team completing sampling of sediment located at the bottom of Tank 75 with AECOM oversight using vibracore sampler.

Direction Photo Taken:

South

AECOM 50 Lakefront Blvd Suite 111 Buffalo, NY 14202	**PHOTOGRAPHIC LOG**
Client: Ashland Inc. **Project No.:** 60730037	**Site Location:** Ashland Tank 75 Site (NYSDEC Site ID: 915008B) 4625 River Road, Tonawanda, New York

Photo No. 11	**Date:** 06/04/2024

Description:

View of sediment sampling via vibracore from within Atlantic Testing's boat with AECOM oversight.

Direction Photo Taken:

Northeast

Photo No. 12	**Date:** 06/03/2024

Description:

Example of sediment composition from within Tank 75. Material consisted of a top layer of wet, soft, oily sludge followed by medium stiff layer of oily sludge, both layers with distinct petroleum odors.

Direction Photo Taken:

Not applicable

AECOM 50 Lakefront Blvd Suite 111 Buffalo, NY 14202	**PHOTOGRAPHIC LOG**
Client: Ashland Inc. **Project No.:** 60730037	**Site Location:** Ashland Tank 75 Site (NYSDEC Site ID: 915008B) 4625 River Road, Tonawanda, New York

Photo No. 13	**Date:** 06/04/2024

Description:

View of Atlantic Testing completing decontamination of boat using hot water pressure washer. Boat raised over plastic sheeting and decontamination liquid allowed to run back to Tank 75.

Direction Photo Taken:

South

Photo No. 14	**Date:** 07/08/2024

Description:

View of GPRS completing subsurface utility survey and AECOM representation meeting with Site contacts to confirm the presence or lack thereof of unmarked subsurface utilities prior to intrusive soil investigation work.

Direction Photo Taken:

South

AECOM 50 Lakefront Blvd Suite 111 Buffalo, NY 14202	**PHOTOGRAPHIC LOG**
Client: Ashland Inc. **Project No.:** 60730037	**Site Location:** Ashland Tank 75 Site (NYSDEC Site ID: 915008B) 4625 River Road, Tonawanda, New York

Photo No. 15	**Date:** 07/08/2024

Description:

View of downwind CAMP setup to detect the presence of VOCs and particulates in ambient air. CAMP monitoring was implemented during all intrusive work completed on-site.

Direction Photo Taken:

South

Photo No. 16	**Date:** 07/08/2024

Description:

View of Parratt-Wolff drilling team completing hand clearing at SB-10 location via industrial vacuum truck.

Direction Photo Taken:

Southeast

AECOM 50 Lakefront Blvd Suite 111 Buffalo, NY 14202	**PHOTOGRAPHIC LOG**
Client: Ashland Inc. **Project No.:** 60730037	**Site Location:** Ashland Tank 75 Site (NYSDEC Site ID: 915008B) 4625 River Road, Tonawanda, New York

Photo No. 17	**Date:** 07/08/2024

Description:

View of angled boring setup at SB-10 location. This setup is typical of the angled borings completed on the Site. Here, the AECOM team is providing insight to the Parratt-Wolff team regarding the anticipated drilling angle.

Direction Photo Taken:

Southeast

Photo No. 18	**Date:** 07/08/2024

Description:

View of full boring core from SB-10 location, top of each core from right to left. The stratigraphy of red/brown clay is typical of all borings completed on-site.

Direction Photo Taken:

Not applicable

AECOM 50 Lakefront Blvd Suite 111 Buffalo, NY 14202	**PHOTOGRAPHIC LOG**
Client: Ashland Inc. **Project No.:** 60730037	**Site Location:** Ashland Tank 75 Site (NYSDEC Site ID: 915008B) 4625 River Road, Tonawanda, New York

Photo No. 19	**Date:** 07/10/2024

Description:

View of AECOM radiological technician completing screening of soil core as per work plan. This setup is typical of all soil boring work completed.

Direction Photo Taken:

East

Photo No. 20	**Date:** 08/08/2024

Description:

View of Matrix completing hand clearing at SB-03 location to 5 feet below ground surface. All vertical borings were hand cleared to 5 feet below ground surface to minimize potential risk to subgrade utilities.

Direction Photo Taken:

North

AECOM 50 Lakefront Blvd Suite 111 Buffalo, NY 14202	**PHOTOGRAPHIC LOG**
Client: Ashland Inc. **Project No.:** 60730037	**Site Location:** Ashland Tank 75 Site (NYSDEC Site ID: 915008B) 4625 River Road, Tonawanda, New York

Photo No. 21	**Date:** 08/09/2024

Description:

View of fill material excavated from SB-07 (0-5 feet below ground surface) overlaying red/brown clay.

Direction Photo Taken:

Not applicable

Photo No. 22	**Date:** 08/09/2024

Description:

View of Matrix completing SB-07 at southern perimeter of Tank 75.

Direction Photo Taken:

North

AECOM 50 Lakefront Blvd Suite 111 Buffalo, NY 14202	**PHOTOGRAPHIC LOG**
Client: Ashland Inc. **Project No.:** 60730037	**Site Location:** Ashland Tank 75 Site (NYSDEC Site ID: 915008B) 4625 River Road, Tonawanda, New York

Photo No. 23	**Date:** 9/06/2024

Description:

View of staged IDW in waste containment area.

Direction Photo Taken:

East

Photo No. 24	**Date:** 11/07/2024

Description:

View of monitoring well purge water getting discharged to Tank 75.

Direction Photo Taken:

East

AECOM 50 Lakefront Blvd Suite 111 Buffalo, NY 14202	**PHOTOGRAPHIC LOG**
Client: Ashland Inc. **Project No.:** 60730037	**Site Location:** Ashland Tank 75 Site (NYSDEC Site ID: 915008B) 4625 River Road, Tonawanda, New York

Photo No. 25	**Date:** 11/07/2024

Description:

View of monitoring well purge water getting discharged to Tank 75.

Direction Photo Taken:

North

Photo No. 26	**Date:** 11/13/2024

Description:

View of IDW prepared for pickup by Clean Harbors.

Direction Photo Taken:

East

AECOM 50 Lakefront Blvd Suite 111 Buffalo, NY 14202	**PHOTOGRAPHIC LOG**
Client: Ashland Inc. **Project No.:** 60730037	**Site Location:** Ashland Tank 75 Site (NYSDEC Site ID: 915008B) 4625 River Road, Tonawanda, New York

Photo No. 27	**Date:** 11/13/2024

Description:

View of IDW drums getting loaded into Clean Harbors box truck (typical).

Direction Photo Taken:

Southwest

Photo No. 28	**Date:** 11/13/2024

Description:

View of IDW drum containing hazardous waste (typical).

Direction Photo Taken:

South

AECOM 50 Lakefront Blvd Suite 111 Buffalo, NY 14202	**PHOTOGRAPHIC LOG**
Client: Ashland Inc. **Project No.:** 60730037	**Site Location:** Ashland Tank 75 Site (NYSDEC Site ID: 915008B) 4625 River Road, Tonawanda, New York

Photo No. 29	**Date:** 11/13/2024

Description:

View of former IDW staging area following removal of IDW drums.

Direction Photo Taken:

Southeast

Photo No. 30	**Date:** 11/13/2024

Description:

View of former IDW staging area following removal of IDW drums.

Direction Photo Taken:

Northeast

Appendix C Gamma Walkover Survey

N

Legend

Gamma Count Rate (CPM)

- < 8,621
- 8,622-10,825
- 10,826 - 13,030
- 13,031 - 15,999
- ≥ 16,000
- One-minute Static Count Location

0 20 40 Meters

ASHLAND TANK 75, TONAWANDA, NY
REMEDIAL INVESTIGATION
GAMMA WALKOVER SURVEY RESULTS
APRIL 22, 2024

AECOM

FIGURE C-1

L:\DCS\Projects\37679411.00000\DB\GIS\RI Report\04-01.2 CROSS SECTION A-A'.mxd 11/10/2024

AECOM 50 Lakefront Blvd Suite 111 Buffalo, NY 14202	**PHOTOGRAPHIC LOG**
Client: Ashland Inc. **Project No.:** 60730037	**Site Location:** Ashland Tank 75 Site (NYSDEC Site ID: 915008B) 4625 River Road, Tonawanda, New York

Photo No. 1	**Date:** 04/22/2024

Description:

View of slag-like material located in southwestern portion of Tank 75 Site.

Direction Photo Taken:

Not applicable.

Photo No. 2	**Date:** 04/22/2024

Description:

View of slag-like material located in southwestern portion of Tank 75 Site.

Direction Photo Taken:

Not applicable.

Environmental Restoration Group, Inc.
8809 Washington NE, Suite #150
Albuquerque, NM 87113

office: (505) 298-4224
fax: (505) 797-1404
web: www.ERGOffice.com

EQUIPMENT PACKING SLIP

Company Name: AECOM
Contact Name:
Contact Telephone:

Order Number: 5691
P.O. or Reference Number: 60730037

Date Ordered: 4/15/2024
Date Shipped: 4/11/2024
Date of Delivery: 4/12/2024

Shipping Method: n/a
Shipping Number:

Ship To Information:

AECOM

Billing Address:
AECOM - Buffalo
Accounts Payable
50 Lakefront Blvd
Suite 111
Buffalo, NY 14202

Equipment Enclosed:

Instrument	*Serial Number*	*Tested*
Ludlum 12	223414	☐
Ludlum 19	87139	☐
Ludlum 3000	25018576	☐
Ludlum 44-10	PR375290	☐
Ludlum 44-9	PR073107	☐
The Source Cs-137	333-94	☐
Juniper Geode	221774	☐
Juniper Mesa2	194818	☐

Special Instructions:

AECOM
Edyta Chorostkowska
50 Lakefront Blvd
Suite 111
Buffalo, NY, 14202 USA

Order continued on next page

Environmental Restoration Group, Inc.
8809 Washington NE, Suite #150
Albuquerque, NM 87113

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fax: (505) 797-1404
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EQUIPMENT PACKING SLIP

Order Number: 5691

Note:
(a) By accepting and using ERG rental equipment, the Renter indemnifies and holds harmless ERG against any and all claims, actions, proceedings, costs, expenses, damages, and liabilities (including attorney's fees and costs) arising out of Renter's use of equipment.

www.ludlums.com

Designer and Manufacturer of Scientific and Industrial Instruments

CERTIFICATE OF CALIBRATION

LUDLUM MEASUREMENTS, INC.
501 Oak Street
325-235-5494
Sweetwater, TX 79556, U.S.A.

ilac-MRA A2LA ACCREDITED CERT # 4084.01

Customer ENVIRONMENTAL RESTORATION GROUP ORDER NO. 20465440/553594

Mfg. Ludlum Measurements, Inc. Model 3000 Serial No. 25018576

Mfg. Ludlum Measurements, Inc. Model 44-10 Serial No. PA375290

Cal. Date 27-Feb-24 Cal Due Date 27-Feb-25 Cal. Interval 1 Year Meterface 44-10 R

heck mark ☑ applies to applicable instr. and/or detector IAW mfg. spec. T. 73 °F RH 28 % Alt 699.3 mm Hg

☐ New Instrument Instrument Received ☐ Within Toler. +-10% ☑ 10-20% ☐ Out of Tol. ☐ Requiring Repair ☐ Other-See comments

☑ Mechanical ck. ☐ Meter Zeroed ☐ Background Subtract ☐ Input Sens. Linearity
☑ F/S Resp. ck ☑ Reset ck. ☐ Window Operation ☐ Geotropism
☑ Audio ck. ☑ Alarm Setting ck. ☑ Batt. ck. (Min. Volt) 4.4 VDC
☑ Calibrated in accordance with LMI SOP 14.8 ☑ Calibrated in accordance with LMI SOP 14.9

strument Volt Set 850 V Input Sens. 10 mV Det. Oper. 850 V at 10 mV Threshold Dial Ratio = mV

☑ HV Readout (2 points) Ref./Inst. 500 / 501 V Ref./Inst. 1500 / 1516 V

COMMENTS:

```
Deadtime: 8.8 µSec Firmware: 5LC-N42.4885
Calibration Constant: 508 e+8  Overload checked but not set.
Primary Units: cpm             Pulser calibration performed without deadtime.
Secondary Units: R/hr          Pulser calibration SCALER READOUT reflects 6 second count.
                               Alarms disabled.
                               Calibrated using 5' C-cable.
```

Gamma Calibration: GM detectors positioned perpendicular to source except for M 44-9 in which the front of probe faces source.

RANGE MULTIPLIER	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING	RANGE MULTIPLIER	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING
Digital	5 mR/hr	4.49 mR/hr	4.99 mR/hr				
Digital	1 mR/hr	884 µR/hr	985 µR/hr				
	800 µR/hr	705	786				
	200 µR/hr	174	198				

Range(s) Calibrated Electronically

Multimeter uncertainty within 1.3% of reading, Gamma uncertainty within 5.0% of reading, Neutron uncertainty within 7.0% of reading, Count rate uncertainty within 5.4% of reading

	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING		REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING
Digital Readout	800K cpm	799 kcpm	799 kcpm	Scaler	800K cpm	79.9K	79.9K
	200K cpm	200	200		200K cpm	20.0K	20.0K
	80K cpm	79.9	79.9		80K cpm	7.99K	7.99K
	20K cpm	20.0	20.0		20K cpm	2.00K	2.00K
	8K cpm	7.99	7.99		8K cpm	800	800
	2K cpm	1.99	1.99		2K cpm	201	201
	800 cpm	801 cpm	801 cpm		800 cpm	80	80
	200 cpm	200	200		200 cpm	20	20

Ludlum Measurements, Inc. certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology, or to the calibration facilities of other International Standards Organization members, or have been derived from accepted values of natural physical constants or have been derived by the ratio type of calibration techniques.
All pass/fail determinations are based on the manufacturer's specifications without considering uncertainty factors.
Measurement results represent expanded uncertainties expressed at approximately the 95% level of confidence, using a coverage factor of k=2.
The calibration system conforms to the requirements of ANSI/NCSL Z540-1-1994 and ANSI N323AB-2013
ISO/IEC 17025:2017(E)
State of Texas Calibration License No. LO-1963

Reference Instruments and/or Sources: Cs-137 S/N: ☐ 059 ☐ 2171CP ☐ 2261CP ☐ 720 ☐ 734 ☐ 781 ☐ 1131 ☐ 1616 ☐ 1696 ☐ 1909 ☐ 1916CP ☐ 2324/2521
☐ 5717CO ☐ 5719CO ☐ 60646 ☐ 70897 ☐ 73410 ☐ E552 ☐ G112 ☑ 2168CP ☐ S-394 ☐ S-1054 ☐ T10081 ☐ T10082 Neutron Am-241 Be ☐ T-304 Ra-226 ☐ Y982
☐ E551 ☐ 5105 ☐ CSV280

☐ Alpha S/N ☐ Beta S/N ☑ Other Am241(~0.66µCi)

☑ m 500 S/N 251106 ☐ Oscilloscope S/N ☑ Multimeter S/N 15060230

Calibrator James McBeth James McBeth Title Calibrator Date 27FEB24

QC'd By Title Final QC Date 27Feb24

AC Inst. Only ☐ Passed Dielectric (Hi-Pot) and Continuity Test ☐ Failed:

Order #: 20465440/553594

Customer: ENVIRONMENTAL RESTORATION GROUP

Detector: 44-10 **Serial No.:** PR375290

Instrument: Model 3000 **Serial No.:** 25018576

BKG Time: 6

Distance: Surface

Selected HV: 850

Date: Tuesday, February 27, 2024

Notes:

Signature: James Mabson

Channel(s)

Name	Threshold
Channel 1	10 mV

Source(s)

Name	ID	Activity	Time	Type
Am241		0.66 µCi	6	γ

High Voltage	Background	Am241
	Reading	Reading
600	258	9,868
650	283	11,640
700	297	11,842
750	276	11,928
800	268	12,003
- 850	302	11,989
900	352	12,043
950	310	12,014
1,000	438	12,375
1,050	645	13,556
1,100	1,394	15,979

Dev

SN	25018576
Mdl	Model 3000
Aud Lvl	Single
Sleep	0
Setup Prtct	Normal
Rate Reset Btn	Off
Temp	56
LB	0
Conv R To Sv	0.0106
Fw	5LC-N42.4885
V Bat	4.674

RTC

Day	27
Hr	11
Mins	24
Mo	2
Sec	9
Yr	2024

Ext 1

Meas

Cur	22.1203

Cnt

Audio Mode	Off
Display Mode	Timer

Btn

Handle

Cnt Map 1	Take Log
Cnt Map 2	Do Nothing
Cnt Map 3	Do Nothing
Rate Map 1	Take Log
Rate Map 2	Do Nothing
Rate Map 3	Do Nothing

BklThr

Sensitivity	Low

High

Light Turn Off	0
Light Turn On	0

Low

Light Turn Off	0
Light Turn On	0

AuxCom

Crypto En	Off
Enable	On

Mode	LMI Direct
Write Prtct	Off

AutoMode

Interval	1

Pwr

Auto Off Tm	0
Mode	On At Boot

DetMem 1

Mdl	44-10
SN	PR375290
Aud Sigma	Off
Count Tm	60
HV	850
Op Mode	Rate/Count
Over Cur	500

Ch 1

CPS Offset	0
DTC 1	8.8E-06
DTC 2	0
Eff	15
LO Cnt Tm	0
R Cal Const	5.08E+10
Thr	0.01

Response

Rate	Fast
Time	4

Unit 1

Count

Alrm 1	0
Alrm 2	0
Min Exp	000E0
Unit	counts

Rate

Alrm 1	0
Alrm 2	0
Max Val	999000
Min Exp	000E-2
Unit	cpm

Unit 2

Count

Alrm 1	0
Alrm 2	0
Min Exp	000E0
Unit	counts

Rate

Alrm 1	0
Alrm 2	0
Max Val	0.007
Min Exp	000E-8
Unit	R/h

LOG

- ENABLE
- MODE
- NOTES
- USER

AUTO

- TM

NUM

- MAX
- REC

Environmental Restoration Group, Inc.
8809 Washington St NE, Suite #150
Albuquerque, NM 87113
(505) 298-4224
www.ERGoffice.com

Certificate of Calibration

Meter Calibration

ACCREDITED
CERT #6688.01

Customer: Environmental Restoration Group, Inc. *See address above.* Calibration Report No.: 5180

Calibration performed in accordance with ERG SOP Meter ITC.101.R1 2/6/2023 Detector ITC.102.R2 2/6/2023

Meter:	Manufacturer:	Ludlum	Model Number:	12	Serial Number:	223414
Detector:	Manufacturer:	Ludlum	Model Number:	44-9	Serial Number:	PR073107

Barometric Pressure: 24.27 inches Hg Temperature: 77 °F Relative Humidity: 20 %

Pulser Ludlum 500-1 sn 347243 Multimeter n/a Calibration Cable Length: ☑ 39-inch ☐ 60-inch ☐ Other:

☑ Mechanical Check	☑ Battery Check	HV Check:
☑ Audio Check	☑ THR/WIN Operation	☑ 500 V
☑ Meter Zero Check	☑ F/S Response Check	☑ 1000 V
☑ Meter Reset Check	☑ Geotropism	☑ 1500 V

Comments or Compliance Statement(s):

Additional Comments:

Meter Firmware Version:

Calibrated with Window in OUT mode: ☑

Set Voltage 900 V DC Set Threshold: 40 mV

Instrument Within Tolerance (+/- 10% on THR/WIN values and Meter Reading counts, and +/-2.5% on HV values): ☑ Yes ☐ No

Range/Multiplier	Reference Setting	"As Found Reading"		Meter Reading		Integrated 1-Min. Count	Log Scale Count	
x 1000	400	400	kcpm	400	kcpm			kcpm
x 1000	100	100	kcpm	100	kcpm			kcpm
x 100	400	400	kcpm	400	kcpm			kcpm
x 100	100	100	kcpm	100	kcpm			kcpm
x 10	400	400	kcpm	400	kcpm			kcpm
x 10	100	100	kcpm	100	kcpm			kcpm
x 1	400	400	cpm	400	cpm			cpm
x 1	100	100	cpm	100	cpm			cpm

Note:In case of repair, "As Found Reading" contains the pre-repair measurements and the "Meter Reading" contains the post-repair measurements.

Notes: Multimeter uncertainty within 1.1% of reading (volts, amps). Count rate uncertainty is within 3% of reading. Measurement results represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2. The calibration results presented on this ERG Calibration Certificate relate only to the items calibrated by ERG. ERG certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology (NIST) or to the calibration facilities of other International Standards Organization members, or have been derived from accepted values of natural physical constants or have been derived by the ratio type of calibration techniques. The calibration system conforms to the requirements of ANSI N323A-1997 and ISO/IEC 17025:2017.
DECISION RULE: Measurements from the meter, adjusted for the measurement uncertainty, must be within tolerance limits as stated in the Comments or Compliance Statement section. Otherwise the calibration is rejected.

ERG
Environmental Restoration Group, Inc.
8809 Washington St NE, Suite #150
Albuquerque, NM 87113
(505) 298-4224
www.ERGoffice.com

Certificate of Calibration

Detector Voltage Plateau

Customer: Environmental Restoration Group, Inc. *See address above.* Calibration Report No.: 5180

Voltage plateau performed in accordance with ERG SOP Meter ITC.101.R1 2/6/2023 Detector ITC.102.R2 2/6/2023

Meter: Manufacturer:	Ludlum	Model Number:	12	Serial Number:	223414
Detector: Manufacturer:	Ludlum	Model Number:	44-9	Serial Number:	PR073107

Voltage Plateau Calibration Cable Length: ☑ 39-inch ☐ 60-inch ☐ Other:

Recommended Operating HV (V DC) **900** Threshold: 40 mV Window:

Source Distance: ☑ Contact ☐ 6 inches ☐ Other:

Source Geometry: ☐ Side ☑ Below ☐ Other:

Count Time (min): 1.0

Background Counts 80

	Gross Counts	Net Counts	Total Efficiency	4π Efficiency
Source 1 Tc-99 sn:U9-060 16,817dpm/9,250cpm (4/11/22) 47 mm disk	1800	1720	0.046	0.102
Source 2			n/a	n/a

NOTE: The total efficiency provided is calculated per ISO-7503/NUREG 1575 (MARSSIM): Total Efficiency = Instrument Efficiency × Source Efficiency; where Instrument Efficiency is calculated as net counts ÷ source 2π emission rate. The 4π efficiency is calculated as net counts ÷ source 4π activity. The provided efficiencies are radionuclide specific and are calculated using source counts and background counts at the recommended operating HV. The provided efficiencies are for general information purposes only and are not intended to replace user efficiency calculation method or results.

Calibrated By: _____ Calibration Date: 4/15/24 Calibration Due: 4/15/25

Reviewed By: T. _____ Date: Apr - 15, 2024

Designer and Manufacturer of Scientific and Industrial Instruments

www.ludlums.com

CERTIFICATE OF CALIBRATION

LUDLUM MEASUREMENTS, INC.
501 Oak Street
325-235-5494
Sweetwater, TX 79556, U.S.A.

ilac-MRA A2LA ACCREDITED CERT # 4084.01

Customer ENVIRONMENTAL RESTORATION GROUP ORDER NO. 20457869/548365

Mfg. Ludlum Measurements, Inc. Model 19 Serial No. 87139

Mfg. _____ Model _____ Serial No. _____

Cal. Date 7-Nov-23 Cal Due Date 7-Nov-24 Cal. Interval 1 Year Meterface 202-016

Check mark ☑ applies to applicable instr. and/or detector IAW mfg. spec. T. 72 °F RH 39 % Alt 703.8 mm Hg

☐ New Instrument Instrument Received ☑ Within Toler. +-10% ☐ 10-20% ☐ Out of Tol. ☐ Requiring Repair ☐ Other-See comments

☑ Mechanical ck. ☑ Meter Zeroed ☐ Background Subtract ☐ Input Sens. Linearity
☑ F/S Resp. ck ☑ Reset ck. ☐ Window Operation ☑ Geotropism
☑ Audio ck. ☐ Alarm Setting ck. ☑ Batt. ck.

☐ Calibrated in accordance with LMI SOP 14.8 ☑ Calibrated in accordance with LMI SOP 14.9

Instrument Volt Set 650 V Input Sens. 37 mV Det. Oper. _____ V at _____ mV Threshold Dial Ratio _____ = _____ mV

☑ HV Readout (2 points) Ref./Inst. 500 / _____ V Ref./Inst. 1000 / _____ V

COMMENTS:

Gamma Calibration: GM detectors positioned perpendicular to source except for M 44-9 in which the front of probe faces source.
Multimeter uncertainty within 1.3% of reading, Gamma uncertainty within 5.0% of reading, Neutron uncertainty within 7.0% of reading, Count rate uncertainty within 5.4% of reading

RANGE/MULTIPLIER	REFERENCE CAL. POINT	INSTRUMENT REC'D "AS FOUND READING"	INSTRUMENT METER READING
5000	4000 µR/hr	4,000 uR/hr	4,000 uR/hr
5000	1000 µR/hr	1,000	1,000
500	400 µR/hr= 7690 cpm	400	400
500	100 µR/hr	100	100
250	200 µR/hr= 3860 cpm	200	200
250	100 µR/hr	100	100
50	7690 cpm	40	40
50	1920 cpm	10	10
25	3860 cpm	20	20
25	970 cpm	5	5

50,25 **Range(s) Calibrated Electronically**

Digital Readout	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING

Log Scale	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING

Ludlum Measurements, Inc. certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology, or to the calibration facilities of other International Standards Organization members, or have been derived from accepted values of natural physical constants or have been derived by the ratio type of calibration techniques.
All pass/fail determinations are based on the manufacturer's specifications without considering uncertainty factors.
Measurement results represent expanded uncertainties expressed at approximately the 95% level of confidence, using a coverage factor of k=2.
The calibration system conforms to the requirements of ANSI/NCSL Z540-1-1994 and ANSI N323AB-2013

ISO/IEC 17025:2017(E)
State of Texas Calibration License No. LO-1963

Reference Instruments and/or Sources: Cs-137 S/N: ☐ 059 ☐ 2171CP ☐ 2261CP ☐ 720 ☐ 734 ☐ 781 ☐ 1131 ☐ 1616 ☐ 1696 ☐ 1909 ☐ 1916CP ☐ 2324/2521
☐ 5717CO ☐ 5719CO ☐ 60646 ☐ 70897 ☐ 73410 ☐ E552 ☐ G112 ☑ 2168CP ☐ S-394 ☐ S-1054 ☐ T10081 ☐ T10082 Neutron Am-241 Be ☐ T-304 Ra-226 ☐ Y982
☐ E551 ☐ 5105 ☐ CSV280

☐ Alpha S/N _____ ☐ Beta S/N _____ ☐ Other _____

☑ m 500 S/N 189509 ☐ Oscilloscope S/N _____ ☑ Multimeter S/N 50970100

Calibrator Heather Crain Heather Crain Title Calibrator Date 7-Nov-23

QC'd By _____ Title Final QC Date 8 Nov 23

AC Inst. Only ☐ Passed Dielectric (Hi-Pot) and Continuity Test ☐ Failed: _____

After printing this label:
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Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

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3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Instrument Setup Form

AECOM

INSTRUMENT/DETECTOR INFORMATION		Reading	Beta				Gamma			
Detection Type:	Gamma		BKG Reading (Counts)	BKG Reading (cpm)	Gross Source Reading (cpm)	Source Net Reading (cpm)	BKG Reading (Counts)	BKG Reading (cpm)	Gross Source Reading (cpm)	Source Net Reading (cpm)
Instrument S/N:										
Instrument Model:	12	1	60	60			60	60	20000	19940
Detector S/N:		2	40	40			40	40	18000	17960
Detector Model:	44-9	3	60	60			60	60	18000	17940
Calibration Due Date:	12/22/2024	4	40	40			40	40	26000	25960
Units (cpm, dpm, or µRem/hr):	cpm	5	80	80			80	80	24000	23920
Gamma Cal Efficiency (%):	NA	6	60	60			60	60	24000	23940
Alpha Surface Correction Factor:	NA	7	60	60			60	60	25000	24940
Beta Cal Efficiency (%):	20.0%	8	40	40			40	40	24000	23960
Beta Surface Correction Factor:	NA	9	40	40			40	40	26000	25960
SOURCE INFORMATION		10	60	60			60	60	24000	23940
Gamma		11								
Source ID:	S/N 333-94	12								
Certificate date:	1/22/2018	13								
Nuclide:	Cs-137	14								
Activity:	2.97 µCi	15								
Beta		16								
Source ID:		17								
Certificate date:		18								
Nuclide:		19								
Activity:		20								
BKG Count Time (min):	1.0									
Sample Count Time (min):	1.0									
ACCEPTABLE RESPONSE CRITERIA	**Date :** **2/6/2024**									
	-20%:			43.2	#DIV/0!	**#DIV/0!**		43	18320	**18277**
	Average:			**54.0**	**#DIV/0!**	**#DIV/0!**		**54**	**22900**	**22846**
	+20%:			64.8	#DIV/0!	**#DIV/0!**		65	27480	**27415**
	Standard Deviation			13.5	#DIV/0!	#DIV/0!		13	3071	3072
INSTRUMENT DETECTION CAPABILITIES					**Total Efficiency:**	20.00%	0 cpm per mR/hr			NA
Detector Area (cm^2)	**15.5**				**Gross MDCR**	82.4				NA
					MDA (dpm/100 cm^2)	915				NA

Instrument Notes/Comments

For gross count (Cs-137) multiplier at x100

Performed by:	**Kara Beharry**	**Date:**	**4/21/2024**
Reviewed by:		**Date:**	

AECOM

Survey Instrumentation Daily QA Response Check

Detection Type:	**Gamma**		
Instrument S/N:	**0**		
Instrument Model:	**12**		
Detector S/N:	**0**		
Detector Model:	**44-9**		
Calibration Due:	**12/22/2024**		
Source	**Cs-137**	**1µCi**	**1/1/2020**

Date	-20%	Reference Average	+20%	Count Time (min)	BKG Counts (cpm)	Gross Source (cpm)	Net Source (cpm)	Pass/Fail	HP Inits
2/5/2024	18277	22846	27415	1.0	60	24000	23940	Pass	KNB
2/6/2024	18277	22846	27415	1.0	40	19000	18960	Pass	KNB
4/22/2024 (PM)	18277	22846	27415	1.0	60	19000	18940	Pass	KNB

Environmental Restoration Group, Inc.
8809 Washington St NE, Suite #150
Albuquerque, NM 87113
(505) 298-4224
www.ERGoffice.com

Certificate of Calibration

Detector Voltage Plateau

Customer: Environmental Restoration Group, Inc. *See address above.* Calibration Report No.: 5180

Voltage plateau performed in accordance with ERG SOP Meter ITC.101.R1 2/6/2023 Detector ITC.102.R2 2/6/2023

Meter: Manufacturer:	Ludlum	Model Number:	12	Serial Number:	223414
Detector: Manufacturer:	Ludlum	Model Number:	44-9	Serial Number:	PR073107

Voltage Plateau Calibration Cable Length: ☑ 39-inch ☐ 60-inch ☐ Other:

Recommended Operating HV (V DC) **900** Threshold: 40 mV Window:

Source Distance: ☑ Contact ☐ 6 inches ☐ Other:

Source Geometry: ☐ Side ☑ Below ☐ Other:

Count Time (min): 1.0

Background Counts 80

	Gross Counts	Net Counts	Total Efficiency	4π Efficiency
Source 1 Tc-99 sn:U9-060 16,817dpm/9,250cpm (4/11/22) 47 mm disk	1800	1720	0.046	0.102
Source 2			n/a	n/a

NOTE: The total efficiency provided is calculated per ISO-7503/NUREG 1575 (MARSSIM): Total Efficiency = Instrument Efficiency × Source Efficiency; where Instrument Efficiency is calculated as net counts ÷ source 2π emission rate. The 4π efficiency is calculated as net counts ÷ source 4π activity. The provided efficiencies are radionuclide specific and are calculated using source counts and background counts at the recommended operating HV. The provided efficiencies are for general information purposes only and are not intended to replace user efficiency calculation method or results.

Calibrated By: _____ Calibration Date: 4/15/24 Calibration Due: 4/15/25

Reviewed By: T. _____ Date: Apr - 15, 2024

Instrument Setup Form

AECOM

INSTRUMENT/DETECTOR INFORMATION		Reading	Gamma			NA			
Detection Type:	Gamma		BKG Reading (µR/hr)	Gross Source Reading (µR/hr)	Source Net Reading (µR/hr)	BKG Reading (Counts)	BKG Reading (cpm)	Gross Source Reading (cpm)	Source Net Reading (cpm)
Instrument S/N:	87139								
Instrument Model:	Model 19	1	10-12	1400	1389	NA	NA	NA	NA
Detector S/N:	NA					NA	NA	NA	NA
Detector Model:	NA					NA	NA	NA	NA
Calibration Due Date:	November 07 2024					NA	NA	NA	NA
Units (cpm, dpm, or µRem/hr):	µRem/hr					NA	NA	NA	NA
Gamma Cal Efficiency (%):	NA					NA	NA	NA	NA
Alpha Surface Correction Factor:	NA					NA	NA	NA	NA
Beta Cal Efficiency (%):	NA					NA	NA	NA	NA
Beta Surface Correction Factor:	NA					NA	NA	NA	NA
SOURCE INFORMATION						NA	NA	NA	NA
Gamma						NA	NA	NA	NA
Source ID:	S/N 333-94					NA	NA	NA	NA
Certificate date:	1/22/2018					NA	NA	NA	NA
Nuclide:	Cs-137					NA	NA	NA	NA
Activity:	2.97 µCi					NA	NA	NA	NA
Beta						NA	NA	NA	NA
Source ID:	NA					NA	NA	NA	NA
Certificate date:	NA					NA	NA	NA	NA
Nuclide:	NA					NA	NA	NA	NA
Activity:	NA					NA	NA	NA	NA
BKG Count Time (min):	Until Needle Stable								
Sample Count Time (min):	Until Needle Stable								
ACCEPTABLE RESPONSE CRITERIA	**Date : 2/12/2024**								
	-20%:		9		1111		NA		NA
	Average:		**11**		**1389**		NA		NA
	+20%:		13		1667		NA		NA
	Standard Deviation		N/A		N/A		NA		NA
INSTRUMENT DETECTION CAPABILITIES				**Total Efficiency:**	N/A				NA
				MDCR	N/A				NA
				$MDCR_{scan}$	N/A				NA

Instrument Notes/Comments

Instrument background near site was 15 uR/hr and ranged from 8-20 uR/hr

Performed by:	**Kara Beharry**	**Date:**	**4/21/2024**
Reviewed by:		**Date:**	

AECOM

Survey Instrumentation Daily QA Response Check

Detection Type:	Gamma
Instrument S/N:	87139
Instrument Model:	Model 19
Detector S/N:	NA
Detector Model:	NA
Calibration Due:	November 07 2024
Source	Cs-137 2.97 µCi 1/22/2018

Date	-20%	Reference Average	+20%	Count Time (min)	BKG Counts (µR/hr)	Gross Source (µR/hr)	Net Source (µR/hr)	Pass/Fail	HP Inits
4/21/2024	1111	1389	1667	Until Needle Stable	12	1250	1238	Pass	KNB
4/22/2024 (AM)	1111	1389	1667	Until Needle Stable	11	1200	1189	Pass	KNB
4/22/2024 (PM)	1111	1389	1667	Until Needle Stable	12	1200	1188	Pass	KNB

www.ludlums.com

Designer and Manufacturer of Scientific and Industrial Instruments

CERTIFICATE OF CALIBRATION

LUDLUM MEASUREMENTS, INC.
501 Oak Street
325-235-5494
Sweetwater, TX 79556, U.S.A.

ilac-MRA ACCREDITED CERT # 4084.01

Customer ENVIRONMENTAL RESTORATION GROUP ORDER NO. 20457869/548365

Mfg. Ludlum Measurements, Inc. Model 19 Serial No. 87139

Mfg. _____ Model _____ Serial No. _____

Cal. Date 7-Nov-23 Cal Due Date 7-Nov-24 Cal. Interval 1 Year Meterface 202-016

Check mark ☑ applies to applicable instr. and/or detector IAW mfg. spec. T. 72 °F RH 39 % Alt 703.8 mm Hg

☐ New Instrument Instrument Received ☑ Within Toler. +-10% ☐ 10-20% ☐ Out of Tol. ☐ Requiring Repair ☐ Other-See comments

☑ Mechanical ck. ☑ Meter Zeroed ☐ Background Subtract ☐ Input Sens. Linearity
☑ F/S Resp. ck ☑ Reset ck. ☐ Window Operation ☑ Geotropism
☑ Audio ck. ☐ Alarm Setting ck. ☑ Batt. ck.

☐ Calibrated in accordance with LMI SOP 14.8 ☑ Calibrated in accordance with LMI SOP 14.9

Instrument Volt Set 650 V Input Sens. 37 mV Det. Oper. _____ V at _____ mV Threshold Dial Ratio _____ = _____ mV

☑ HV Readout (2 points) Ref./Inst. 500 / _____ V Ref./Inst. 1000 / _____ V

COMMENTS:

Gamma Calibration: GM detectors positioned perpendicular to source except for M 44-9 in which the front of probe faces source.

Multimeter uncertainty within 1.3% of reading, Gamma uncertainty within 5.0% of reading, Neutron uncertainty within 7.0% of reading, Count rate uncertainty within 5.4% of reading

RANGE/MULTIPLIER	REFERENCE CAL. POINT	INSTRUMENT REC'D "AS FOUND READING"	INSTRUMENT METER READING
5000	4000 µR/hr	4,000 uR/hr	4,000 uR/hr
5000	1000 µR/hr	1,000	1,000
500	400 µR/hr= 71900 cpm	400	400
500	100 µR/hr	100	100
250	200 µR/hr= 38600 cpm	200	200
250	100 µR/hr	100	100
50	7190 cpm	40	40
50	1920 cpm	10	10
25	3860 cpm	20	20
25	970 cpm	5	5

50,25 **Range(s) Calibrated Electronically**

Digital Readout	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING

Log Scale	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING

Ludlum Measurements, Inc. certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology, or to the calibration facilities of other International Standards Organization members, or have been derived from accepted values of natural physical constants or have been derived by the ratio type of calibration techniques.
All pass/fail determinations are based on the manufacturer's specifications without considering uncertainty factors.
Measurement results represent expanded uncertainties expressed at approximately the 95% level of confidence, using a coverage factor of k=2.
The calibration system conforms to the requirements of ANSI/NCSL Z540-1-1994 and ANSI N323AB-2013
ISO/IEC 17025:2017(E)
State of Texas Calibration License No. LO-1963

Reference Instruments and/or Sources: Cs-137 S/N: ☐ 059 ☐ 2171CP ☐ 2261CP ☐ 720 ☐ 734 ☐ 781 ☐ 1131 ☐ 1616 ☐ 1696 ☐ 1909 ☐ 1916CP ☐ 2324/2521
☐ 5717CO ☐ 5719CO ☐ 60646 ☐ 70897 ☐ 73410 ☐ E552 ☐ G112 ☑ 2168CP ☐ S-394 ☐ S-1054 ☐ T10081 ☐ T10082 Neutron Am-241 Be ☐ T-304 Ra-226 ☐ Y982
☐ E551 ☐ 5105 ☐ CSV280

☐ Alpha S/N _____ ☐ Beta S/N _____ ☐ Other _____

☑ m 500 S/N 189509 ☐ Oscilloscope S/N _____ ☑ Multimeter S/N 50970100

Calibrator Heather Crain Heather Crain Title Calibrator Date 7-Nov-23

QC'd By _____ Title Final QC Date 8 Nov 23

AC Inst. Only ☐ Passed Dielectric (Hi-Pot) and Continuity Test ☐ Failed: _____

Instrument Setup Form

AECOM

INSTRUMENT/DETECTOR INFORMATION		Reading	Gamma				NA			
Detection Type:	Gamma		BKG Reading (Counts)	BKG Reading (cpm)	Gross Source Reading (cpm)	Source Net Reading (cpm)	BKG Reading (Counts)	BKG Reading (cpm)	Gross Source Reading (cpm)	Source Net Reading (cpm)
Instrument S/N:	25018576									
Instrument Model:	3000	1	8890	8890	826000	817140				
Detector S/N:	PR375290	2	8790	8790	812000	803140				
Detector Model:	44-10	3	8880	8880	755000	746140				
Calibration Due Date:	2/27/2025	4	8910	8910	832000	823140				
Units (cpm, dpm, or µRem/hr):	cpm	5	8910	8910	834000	825140				
Gamma Cal Efficiency (%):	NA	6	8840	8840	834000	825140				
Alpha Surface Correction Factor:	NA	7	8950	8950	832000	823140				
Beta Cal Efficiency (%):	NA	8	8850	8850	833000	824140				
Beta Surface Correction Factor:	NA	9	8790	8790	830000	821140				
SOURCE INFORMATION		10	8790	8790	829000	820140				
Gamma										
Source ID:	S/N 333-94									
Certificate date:	1/22/2018									
Nuclide:	Cs-137									
Activity:	2.97 µCi									
Beta										
Source ID:										
Certificate date:										
Nuclide:										
Activity:										
BKG Count Time (min):	1.0									
Sample Count Time (min):	1.0									
ACCEPTABLE RESPONSE CRITERIA	**Date : 2/12/2024**									
	-20%:			7088.0	657360	650272				
	Average:		8860	**8860.0**	**821700**	**812840**				
	+20%:			10632.0	986040	975408				
	Standard Deviation			57.3	24327	24327				
INSTRUMENT DETECTION CAPABILITIES					**Total Efficiency:**	NA				
					MDCR	17105.6				
					MDA (dpm/100 cm^2)	NA				

Instrument Notes/Comments

Gamma walkover survey background is based on surveys conducted in background locations adjacent to site

Performed by:	**Kara Beharry**	**Date:**	**4/21/2024**
Reviewed by:		**Date:**	

AECOM

Survey Instrumentation Daily QA Response Check

Detection Type:	**Gamma**		
Instrument S/N:	**25018576**		
Instrument Model:	**3000**		
Detector S/N:	**PR375290**		
Detector Model:	**44-10**		
Calibration Due:	**2/27/2025**		
Source	**Cs-137**	**2.97 µCi**	**1/22/2018**

Date	-20%	Reference Average	+20%	Count Time (min)	BKG Counts (cpm)	Gross Source (cpm)	Net Source (cpm)	Pass/Fail	HP Inits
4/21/2024	650272	812840	975408	1.0	8940	828000	819060	Pass	KNB
4/22/2024 (AM)	650272	812840	975408	1.0	9290	828000	818710	Pass	KNB
2/22/2024 (PM)	650272	812840	975408	1.0	9300	863000	853700	Pass	KNB

www.ludlums.com

Designer and Manufacturer of Scientific and Industrial Instruments

CERTIFICATE OF CALIBRATION

LUDLUM MEASUREMENTS, INC.
501 Oak Street
325-235-5494
Sweetwater, TX 79556, U.S.A.

ILAC-MRA A2LA ACCREDITED CERT # 4084.01

Customer ENVIRONMENTAL RESTORATION GROUP ORDER NO. 20465440/553594

Mfg. Ludlum Measurements, Inc. Model 3000 Serial No. 25018576

Mfg. Ludlum Measurements, Inc. Model 44-10 Serial No. PA375290

Cal. Date 27-Feb-24 Cal Due Date 27-Feb-25 Cal. Interval 1 Year Meterface 44-10 R

heck mark ☑ applies to applicable instr. and/or detector IAW mfg. spec. T. 73 °F RH 28 % Alt 699.3 mm Hg

☐ New Instrument Instrument Received ☐ Within Toler. +-10% ☑ 10-20% ☐ Out of Tol. ☐ Requiring Repair ☐ Other-See comments

☑ Mechanical ck. ☐ Meter Zeroed ☐ Background Subtract ☐ Input Sens. Linearity
☑ F/S Resp. ck ☑ Reset ck. ☐ Window Operation ☐ Geotropism
☑ Audio ck. ☑ Alarm Setting ck. ☑ Batt. ck. (Min. Volt) 4.4 VDC

☑ Calibrated in accordance with LMI SOP 14.8 ☑ Calibrated in accordance with LMI SOP 14.9

strument Volt Set 850 V Input Sens. 10 mV Det. Oper. 850 V at 10 mV Threshold Dial Ratio = mV

☑ HV Readout (2 points) Ref./Inst. 500 / 501 V Ref./Inst. 1500 / 1516 V

COMMENTS:

```
      Deadtime: 8.8 µSec  Firmware: 5LC-N42.4885
Calibration Constant: 508 e+8  Overload checked but not set.
     Primary Units: cpm     Pulser calibration performed without deadtime.
   Secondary Units: R/hr    Pulser calibration SCALER READOUT reflects 6 second count.
                            Alarms disabled.
                            Calibrated using 5' C-cable.
```

Gamma Calibration: GM detectors positioned perpendicular to source except for M 44-9 in which the front of probe faces source.

RANGE MULTIPLIER	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING	RANGE MULTIPLIER	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING
Digital	5 mR/hr	4.49 mR/hr	4.99 mR/hr				
Digital	1 mR/hr	884 µR/hr	985 µR/hr				
	800 µR/hr	705	786				
	200 µR/hr	174	198				

Range(s) Calibrated Electronically

Multimeter uncertainty within 1.3% of reading, Gamma uncertainty within 5.0% of reading, Neutron uncertainty within 7.0% of reading, Count rate uncertainty within 5.4% of reading

	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING		REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING
Digital Readout	800K cpm	799 kcpm	799 kcpm	Scaler	800K cpm	79.9K	79.9K
	200K cpm	200	200		200K cpm	20.0K	20.0K
	80K cpm	79.9	79.9		80K cpm	7.99K	7.99K
	20K cpm	20.0	20.0		20K cpm	2.00K	2.00K
	8K cpm	7.99	7.99		8K cpm	800	800
	2K cpm	1.99	1.99		2K cpm	201	201
	800 cpm	801 cpm	801 cpm		800 cpm	80	80
	200 cpm	200	200		200 cpm	20	20

Ludlum Measurements, Inc. certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology, or to the calibration facilities of other International Standards Organization members, or have been derived from accepted values of natural physical constants or have been derived by the ratio type of calibration techniques.
All pass/fail determinations are based on the manufacturer's specifications without considering uncertainty factors.
Measurement results represent expanded uncertainties expressed at approximately the 95% level of confidence, using a coverage factor of k=2.
The calibration system conforms to the requirements of ANSI/NCSL Z540-1-1994 and ANSI N323AB-2013

ISO/IEC 17025:2017(E)
State of Texas Calibration License No. LO-1963

Reference Instruments and/or Sources: Cs-137 S/N: ☐ 059 ☐ 2171CP ☐ 2261CP ☐ 720 ☐ 734 ☐ 781 ☐ 1131 ☐ 1616 ☐ 1696 ☐ 1909 ☐ 1916CP ☐ 2324/2521
☐ 5717CO ☐ 5719CO ☐ 60646 ☐ 70897 ☐ 73410 ☐ E552 ☐ G112 ☑ 2168CP ☐ S-394 ☐ S-1054 ☐ T10081 ☐ T10082 Neutron Am-241 Be ☐ T-304 Ra-226 ☐ Y982
☐ E551 ☐ 5105 ☐ CSV280

☐ Alpha S/N ☐ Beta S/N ☑ Other Am241(~0.66µCi)

☑ m 500 S/N 251106 ☐ Oscilloscope S/N ☑ Multimeter S/N 15060230

Calibrator James McBeth James McBeth Title Calibrator Date 27FEB24

QC'd By [signature] Title Final QC Date 27FebL4

AC Inst. Only ☐ Passed Dielectric (Hi-Pot) and Continuity Test ☐ Failed:

Order #: 20465440/553594

Customer: ENVIRONMENTAL RESTORATION GROUP

Detector: 44-10 **Serial No.:** PR375290

Instrument: Model 3000 **Serial No.:** 25018576

BKG Time: 6

Distance: Surface

Selected HV: 850

Date: Tuesday, February 27, 2024

Notes:

Signature: James Mabrito

Channel(s)

Name	Threshold
Channel 1	10 mV

Source(s)

Name	ID	Activity	Time	Type
Am241		0.66 µCi	6	γ

High Voltage	Background	Am241
	Reading	Reading
600	258	9,868
650	283	11,640
700	297	11,842
750	276	11,928
800	268	12,003
– 850	302	11,989
900	352	12,043
950	310	12,014
1,000	438	12,375
1,050	645	13,556
1,100	1,394	15,979

Dev

SN	25018576
Mdl	Model 3000
Aud Lvl	Single
Sleep	0
Setup Prtct	Normal
Rate Reset Btn	Off
Temp	56
LB	0
Conv R To Sv	0.0106
Fw	5LC-N42.4885
V Bat	4.674

RTC

Day	27
Hr	11
Mins	24
Mo	2
Sec	9
Yr	2024

Ext 1

Meas

Cur	22.1203

Cnt

Audio Mode	Off
Display Mode	Timer

Btn

Handle

Cnt Map 1	Take Log
Cnt Map 2	Do Nothing
Cnt Map 3	Do Nothing
Rate Map 1	Take Log
Rate Map 2	Do Nothing
Rate Map 3	Do Nothing

BklThr

Sensitivity	Low

High

Light Turn Off	0
Light Turn On	0

Low

Light Turn Off	0
Light Turn On	0

AuxCom

Crypto En	Off
Enable	On

Mode	LMI Direct
Write Prtct	Off

AutoMode

Interval	1

Pwr

Auto Off Tm	0
Mode	On At Boot

DetMem 1

Mdl	44-10
SN	PR375290
Aud Sigma	Off
Count Tm	60
HV	850
Op Mode	Rate/Count
Over Cur	500

Ch 1

CPS Offset	0
DTC 1	8.8E-06
DTC 2	0
Eff	15
LO Cnt Tm	0
R Cal Const	5.08E+10
Thr	0.01

Response

Rate	Fast
Time	4

Unit 1

Count

Alrm 1	0
Alrm 2	0
Min Exp	000E0
Unit	counts

Rate

Alrm 1	0
Alrm 2	0
Max Val	999000
Min Exp	000E-2
Unit	cpm

Unit 2

Count

Alrm 1	0
Alrm 2	0
Min Exp	000E0
Unit	counts

Rate

Alrm 1	0
Alrm 2	0
Max Val	0.007
Min Exp	000E-8
Unit	R/h

LOG

ENABLE
MODE
NOTES
USER

AUTO

TM

NUM

MAX
REC

Appendix D Well Development and Groundwater Sampling Logs

WELL DEVELOPMENT LOG

Client:	Ashland Inc.	Project #:	60730037
Site:	Tank 75 Site, Tonawanda, NY	Event:	2024 RI MW Development

Sample Information			
Sample ID:		Date:	4/26/2024 11:50:00 AM
Well ID:	MW-02D	Location Type:	
Duplicate ID:		Sampler:	Ethan Smith
Equipment:	Field param meter: Horiba U-52 # TLNL3253 WL/int meter: Solinist Interface 122 # 349215		
Analysis:			
Comments:	Redevelopment only.		

Water Level			
Date:	4/26/2024 11:50:00 AM	Measured Well Depth:	35.90
Screen Interval:	-	Total Depth:	
Is Well Dry?	No	Depth to DNAPL:	NE
Depth to Water:	9.35	Depth to LNAPL:	NE
Notes:			

Purge Information			
Begin Date and Time:	4/26/2024 11:52:00 AM	End Date and Time:	4/26/2024 1:39:00 PM
Purge Method:	Waterra Hydrolift	Sample Method:	
Notes:			

Time	DTW (ft)	Purge Rate (ml/min)	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temperature (deg c)	pH (su)	ORP (millivolts)	SC (ms/cm)	Dissolved Oxygen (mg/l)	Turbidity (ntu)	Color (none)	Odor (none)
11:52 AM	9.35	7500	0.00	0.00	14.10	8.35	-72	1.210	0.33	689.00	Dark gray	Sulfur odor
12:02 PM	24.31	7500	8.00	8.00	12.97	8.59	-60	1.130	0.19	101.00	Clear	None
1:39 PM	35.90	3250	6.15	14.15	12.54	8.61	-78	1.260	0.24	91.00	Clear	None

WELL DEVELOPMENT LOG

Client: Ashland Inc. Project #: 60730037

Site: Tank 75 Site, Tonawanda, NY Event: 2024 RI MW Development

Sample Information			
Sample ID:		Date:	4/26/2024 9:25:00 AM
Well ID:	MW-02S	Location Type:	
Duplicate ID:		Sampler:	Ethan Smith
Equipment:	Field param meter: Horiba U-52 # TLNL3253 WL/int meter: Solinist Interface 122 # 349215		
Analysis:			
Comments:	Redevelopment only		

Water Level			
Date:	4/26/2024 9:25:00 AM	Measured Well Depth:	28.31
Screen Interval:	-	Total Depth:	
Is Well Dry?	No	Depth to DNAPL:	NE
Depth to Water:	5.82	Depth to LNAPL:	NE
Notes:	Measured from top of casing		

Purge Information			
Begin Date and Time:	4/26/2024 9:28:00 AM	End Date and Time:	4/26/2024 1:17:00 PM
Purge Method:	Waterra Hydrolift	Sample Method:	
Notes:			

Time	DTW (ft)	Purge Rate (ml/min)	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temperature (deg c)	pH (su)	ORP (millivolts)	SC (ms/cm)	Dissolved Oxygen (mg/l)	Turbidity (ntu)	Color (none)	Odor (none)
9:28 AM	5.82	7500	0.00	0.00	10.58	8.04	127	2.800	2.44	37.50	Clear	None
9:38 AM	16.13	7500	8.00	8.00	11.38	7.84	133	2.740	1.46	29.80	Clear	None
10:01 AM	22.80	7500	8.00	16.00	14.45	7.69	130	2.780	1.47	20.50	Clear	None
10:31 AM	22.99	7500	8.00	24.00	13.43	7.70	128	2.870	2.71	28.40	Clear	None
10:53 AM	25.50	7500	8.00	32.00	13.10	7.69	133	2.800	1.66	14.10	Clear	None
11:14 AM	28.31	7500	6.00	38.00	13.05	7.68	137	2.810	2.20	6.07	Clear	None
12:57 PM	23.20	7500	8.00	46.00	13.80	7.88	67	2.850	4.00	78.10	Clear	None
1:17 PM	28.31	7500	4.00	50.00	13.80	7.65	105	2.990	4.12	41.40	Clear	None

WELL DEVELOPMENT LOG

Client:	Ashland Inc.	Project #:	60730037
Site:	Tank 75 Site, Tonawanda, NY	Event:	2024 RI MW Development

Sample Information			
Sample ID:		Date:	4/26/2024 7:19:00 AM
Well ID:	MW-03	Location Type:	
Duplicate ID:		Sampler:	Ethan Smith
Equipment:	Field param meter: Horiba U-52 # TLNL3253 WL/int meter: Solinist Interface 122 # 349215		
Analysis:			
Comments:	Redevelopment only.		

Water Level			
Date:	4/26/2024 7:19:00 AM	Measured Well Depth:	30.25
Screen Interval:	-	Total Depth:	
Is Well Dry?	No	Depth to DNAPL:	NE
Depth to Water:	4.30	Depth to LNAPL:	NE
Notes:			

Purge Information			
Begin Date and Time:	4/26/2024 7:35:00 AM	End Date and Time:	4/26/2024 11:33:00 AM
Purge Method:	Waterra Hydrolift	Sample Method:	
Notes:			

Time	DTW (ft)	Purge Rate (ml/min)	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temperature (deg c)	pH (su)	ORP (millivolts)	SC (ms/cm)	Dissolved Oxygen (mg/l)	Turbidity (ntu)	Color (none)	Odor (none)
7:35 AM	4.30	7500	0.00	0.00	7.26	7.39	137	4.260	2.98	2.98	Clear	None
7:43 AM	11.09	7500	4.00	4.00	8.01	7.80	118	4.070	2.88	59.90	Clear	None
7:59 AM	16.53	7500	4.00	8.00	7.90	7.88	125	3.960	3.92	87.60	Clear	None
8:15 AM	20.40	7500	4.00	12.00	8.00	7.88	120	3.950	3.89	75.20	Clear	None
8:30 AM	21.89	7500	8.00	20.00	8.86	7.89	126	4.020	3.72	115.00	Very light brown	None
8:55 AM	27.87	7500	8.00	28.00	9.59	7.71	131	3.990	2.90	93.20	Clear	None
11:33 AM	30.25	7500	3.00	31.00	13.12	7.71	140	3.810	4.00	79.80	Clear	None

WELL DEVELOPMENT LOG

Client: Ashland Inc. Project #: 60730037

Site: Tank 75 Site, Tonawanda, NY Event: 2024 RI MW Development

Sample Information			
Sample ID:		Date:	4/26/2024 2:05:00 PM
Well ID:	MW-04D	Location Type:	
Duplicate ID:		Sampler:	Ethan Smith
Equipment:	Field param meter: Horiba U-52 # TLNL3253 WL/int meter: Solinist Interface 122 # 349215		
Analysis:			
Comments:	Redevelopment only		

Water Level			
Date:	4/26/2024 2:05:00 PM	Measured Well Depth:	34.62
Screen Interval:	-	Total Depth:	
Is Well Dry?	No	Depth to DNAPL:	NE
Depth to Water:	7.66	Depth to LNAPL:	NE
Notes:			

Purge Information			
Begin Date and Time:	4/26/2024 2:18:00 PM	End Date and Time:	4/26/2024 4:28:00 PM
Purge Method:	Waterra Hydrolift	Sample Method:	
Notes:			

Time	DTW (ft)	Purge Rate (ml/min)	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temperature (deg c)	pH (su)	ORP (millivolts)	SC (ms/cm)	Dissolved Oxygen (mg/l)	Turbidity (ntu)	Color (none)	Odor (none)
2:19 PM	7.66	7500	0.00	0.00	14.58	9.89	45	0.915	4.54	103.00	Clear	None
2:38 PM	22.83	7500	8.00	8.00	13.26	10.56	39	0.826	5.85	26.80	Clear	None
4:28 PM	34.62	7500	0.15	8.15	12.84	9.16	28	1.060	4.89	125.00	Clear	None

WELL DEVELOPMENT LOG

Client:	Ashland Inc.	Project #:	60730037
Site:	Tank 75 Site, Tonawanda, NY	Event:	2024 RI MW Development

Sample Information			
Sample ID:		Date:	4/26/2024 2:06:00 PM
Well ID:	MW-04S	Location Type:	
Duplicate ID:		Sampler:	Ethan Smith
Equipment:	Field param meter: Horiba U-52 # TLNL3253 WL/int meter: Solinist Interface 122 # 349215		
Analysis:			
Comments:	Redevelopment only		

Water Level			
Date:	4/26/2024 2:06:00 PM	Measured Well Depth:	26.11
Screen Interval:	-	Total Depth:	
Is Well Dry?	No	Depth to DNAPL:	NE
Depth to Water:	4.00	Depth to LNAPL:	NE
Notes:			

Purge Information			
Begin Date and Time:	4/26/2024 2:08:00 PM	End Date and Time:	4/26/2024 4:39:00 PM
Purge Method:	Waterra Hydrolift	Sample Method:	
Notes:			

Time	DTW (ft)	Purge Rate (ml/min)	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temperature (deg c)	pH (su)	ORP (millivolts)	SC (ms/cm)	Dissolved Oxygen (mg/l)	Turbidity (ntu)	Color (none)	Odor (none)
3:07 PM	4.00	7500	0.00	0.00	11.99	9.22	93	2.920	1.24	12.90	Clear	No odor
3:28 PM	15.98	7500	8.00	8.00	12.39	8.05	81	3.190	1.05	12.70	Clear	No odor
4:10 PM	22.60	7500	8.00	16.00	11.91	8.16	62	3.280	2.92	20.00	Clear	No odor
4:39 PM	26.11	7500	8.00	24.00	12.21	8.65	25	3.050	2.23	29.80	Clear	No odor

WELL DEVELOPMENT LOG

Client: Ashland Inc. Project #: 60730037

Site: Tank 75 Site, Tonawanda, NY Event: 2024 RI MW Development

Sample Information			
Sample ID:		Date:	4/25/2024 10:31:00 AM
Well ID:	MW05-01	Location Type:	
Duplicate ID:		Sampler:	Ethan Smith
Equipment:	Field param meter: Horiba U-52 # TLNL3253 WL/int meter: Solinist Interface 122 # 349215		
Analysis:			
Comments:	Redevelopment only. Well dry at 1127 following purge of 15 gal. Returned to well at 1217.		

Water Level			
Date:	4/25/2024 10:31:00 AM	Measured Well Depth:	26.08
Screen Interval:	-	Total Depth:	
Is Well Dry?	No	Depth to DNAPL:	NE
Depth to Water:	5.76	Depth to LNAPL:	NE
Notes:	None		

Purge Information			
Begin Date and Time:	4/25/2024 10:34:00 AM	End Date and Time:	4/25/2024 12:34:00 PM
Purge Method:	Waterra Hydrolift	Sample Method:	
Notes:			

Time	DTW (ft)	Purge Rate (ml/min)	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temperature (deg c)	pH (su)	ORP (millivolts)	SC (ms/cm)	Dissolved Oxygen (mg/l)	Turbidity (ntu)	Color (none)	Odor (none)
10:42 AM	5.76	7500	0.00	0.00	10.52	8.24	-54	0.462	0.73	1000.00	Brown	None
10:46 AM	14.76	7500	4.00	4.00	9.55	7.89	-27	0.446	16.91	1000.00	Brown	None
10:58 AM	15.91	7500	4.00	8.00	10.17	7.63	27	0.505	11.38	1000.00	Light brown	None
11:17 AM	22.80	7500	4.00	12.00	10.24	7.80	59	0.478	5.21	636.00	Light brown	None
12:25 PM	17.41	7500	4.00	16.00	11.41	8.21	79	0.539	5.61	1000.00	Light brown	None
12:34 PM	24.75	7500	1.00	17.00	11.72	8.14	86	0.622	10.62	1000.00	Light brown	None

WELL DEVELOPMENT LOG

Client: Ashland Inc. Project #: 60730037

Site: Tank 75 Site, Tonawanda, NY Event: 2024 RI MW Development

Sample Information			
Sample ID:		Date:	4/25/2024 12:51:00 PM
Well ID:	MW05-02	Location Type:	
Duplicate ID:		Sampler:	Ethan Smith
Equipment:	Field param meter: Horiba U-52 # TLNL3253 WL/int meter: Solinist Interface 122 # 349215		
Analysis:			
Comments:	Redevelopment only.		

Water Level			
Date:	4/25/2024 12:51:00 PM	Measured Well Depth:	26.16
Screen Interval:	-	Total Depth:	
Is Well Dry?	No	Depth to DNAPL:	NE
Depth to Water:	5.36	Depth to LNAPL:	NE
Notes:			

Purge Information			
Begin Date and Time:	4/25/2024 12:54:00 PM	End Date and Time:	4/25/2024 3:09:00 PM
Purge Method:	Waterra Hydrolift	Sample Method:	
Notes:			

Time	DTW (ft)	Purge Rate (ml/min)	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temperature (deg c)	pH (su)	ORP (millivolts)	SC (ms/cm)	Dissolved Oxygen (mg/l)	Turbidity (ntu)	Color (none)	Odor (none)
1:00 PM	5.36	7500	0.00	0.00	11.03	7.74	-33	0.831	1.21	1000.00	Brown	None
1:06 PM	14.67	7500	4.00	4.00	9.40	7.80	-25	0.842	1.22	1000.00	Brown	None
1:20 PM	21.03	7500	4.00	8.00	9.51	8.18	13	0.899	2.33	1000.00	Brown	None
1:34 PM	24.63	7500	4.00	12.00	10.49	7.75	4	0.903	4.10	1000.00	Brown	None
3:01 PM	23.31	3250	4.00	16.00	10.55	7.76	72	0.950	7.12	1000.00	Brown	None
3:09 PM	25.10	3250	1.00	17.00	10.81	7.78	70	0.754	7.00	1000.00	Brown	None

WELL DEVELOPMENT LOG

Client:	Ashland Inc.	Project #:	60730037
Site:	Tank 75 Site, Tonawanda, NY	Event:	2024 RI MW Development

Sample Information			
Sample ID:		Date:	4/25/2024 2:01:00 PM
Well ID:	MW05-03	Location Type:	
Duplicate ID:		Sampler:	Ethan Smith
Equipment:	Field param meter: Horiba U-52 # TLNL3253 WL/int meter: Solinist Interface 122 # 349215		
Analysis:			
Comments:	Redevelopment only.		

Water Level			
Date:	4/25/2024 2:01:00 PM	Measured Well Depth:	31.17
Screen Interval:	-	Total Depth:	
Is Well Dry?	No	Depth to DNAPL:	NE
Depth to Water:	7.97	Depth to LNAPL:	NE
Notes:			

Purge Information			
Begin Date and Time:	4/25/2024 2:09:00 PM	End Date and Time:	4/25/2024 4:04:00 PM
Purge Method:	Waterra Hydrolift	Sample Method:	
Notes:			

Time	DTW (ft)	Purge Rate (ml/min)	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temperature (deg c)	pH (su)	ORP (millivolts)	SC (ms/cm)	Dissolved Oxygen (mg/l)	Turbidity (ntu)	Color (none)	Odor (none)
2:09 PM	7.97	7500	0.00	0.00	10.00	7.78	23	1.750	6.60	6.57	Clear	None
2:15 PM	14.20	7500	4.00	4.00	9.73	7.90	15	1.800	2.40	1000.00	Brown	None
2:25 PM	22.40	7500	4.00	8.00	9.50	7.78	44	1.860	1.61	1000.00	Brown	None
2:39 PM	30.60	7500	4.00	12.00	10.50	7.74	45	1.910	5.37	1000.00	Brown	None
3:42 PM	31.00	3250	4.00	16.00	11.86	7.81	37	1.840	7.38	1000.00	Brown	None
4:04 PM	31.00	3250	0.50	16.50	12.50	7.91	91	1.860	9.50	1000.00	Brown	None

WELL DEVELOPMENT LOG

Client: Ashland Inc. Project #: 60730037

Site: Tank 75 Site, Tonawanda, NY Event: 2024 RI MW Development

Sample Information			
Sample ID:		Date:	4/25/2024 8:42:00 AM
Well ID:	MW05-04	Location Type:	
Duplicate ID:		Sampler:	Ethan Smith
Equipment:	Field param meter: Horiba U-52 # TLNL3253 WL/int meter: Solinist Interface 122 # 349215		
Analysis:			
Comments:	Redevelopment only. Well dry at 9:43 after purging 15 gal. Returned at 1143 for remaining vol.		

Water Level			
Date:	4/25/2024 8:42:00 AM	Measured Well Depth:	26.42
Screen Interval:	-	Total Depth:	
Is Well Dry?	No	Depth to DNAPL:	NE
Depth to Water:	4.76	Depth to LNAPL:	NE
Notes:	None		

Purge Information			
Begin Date and Time:	4/25/2024 8:48:00 AM	End Date and Time:	4/25/2024 12:03:00 PM
Purge Method:	Waterra Hydrolift	Sample Method:	
Notes:			

Time	DTW (ft)	Purge Rate (ml/min)	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temperature (deg c)	pH (su)	ORP (millivolts)	SC (ms/cm)	Dissolved Oxygen (mg/l)	Turbidity (ntu)	Color (none)	Odor (none)
8:48 AM	4.76	7500	0.00	0.00	8.05	7.10	0	0.652	2.81	1000.00	Dark brown	None
8:55 AM	12.70	7500	4.00	4.00	8.42	7.41	-15	0.564	16.73	1000.00	Brown	None
9:02 AM	21.00	7500	4.00	8.00	8.65	7.26	-11	0.623	2.41	1000.00	Brown	None
9:27 AM	22.93	7500	4.00	12.00	9.09	7.40	-10	0.748	16.73	1000.00	Dark brown	None
11:47 AM	22.36	7500	4.00	16.00	11.05	8.16	73	0.644	7.45	1000.00	Dark brown	None
12:03 PM	25.22	7500	2.00	18.00	11.86	7.98	67	0.592	8.07	1000.00	Dark brown	None

GROUNDWATER SAMPLING LOG

Client:	Ashland Inc.	Project #:	60730037
Site:	Tank 75 Site, Tonawanda, NY	Event:	2024 RI GW Sampling

Sample Information			
Sample ID:	MW-02D-043024	Date:	4/30/2024 1:00:00 PM
Well ID:	MW-02D	Location Type:	
Duplicate ID:		Sampler:	Ethan Smith
Equipment:	Field param meter: Horiba U-52 # TLNL3253 WL/int meter: Solinist Interface # 349215		
Analysis:	TCL VOCs + TICs, TCL SVOCs + TICs, PFAS, 1,4-Dioxane, PCBs, Pesticides, TAL Metals + Hg + Cn + dissolved		
Comments:	Collected immediately following recharge after collecting parameters this morning due to low volume		

Water Level			
Date:	4/30/2024 12:51:00 PM	Measured Well Depth:	34.62
Screen Interval:	-	Total Depth:	
Is Well Dry?	No	Depth to DNAPL:	NE
Depth to Water:	32.60	Depth to LNAPL:	NE
Notes:	Minimal water not allowing for use of pump to sample. Bailer used.		

Purge Information			
Begin Date and Time:		End Date and Time:	
Purge Method:		Sample Method:	Bailer
Notes:			

Time	DTW (ft)	Purge Rate (ml/min)	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temperature (deg c)	pH (su)	ORP (millivolts)	SC (ms/cm)	Dissolved Oxygen (mg/l)	Turbidity (ntu)	Color (none)	Odor (none)
9:54 AM	32.60	400	0.0	0.0	11.20	8.40	-41	1.070	3.25	223.0	Clear to light brow	None

GROUNDWATER SAMPLING LOG

Client:	Ashland Inc.	Project #:	60730037
Site:	Tank 75 Site, Tonawanda, NY	Event:	2024 RI GW Sampling

Sample Information			
Sample ID:	MW-02S-042924	Date:	4/29/2024 1:06:00 PM
Well ID:	MW-02S	Location Type:	
Duplicate ID:	MW-02S-042924-FD	Sampler:	Ethan Smith
Equipment:	Field param meter: Horiba U-52 # TLNL3253 WL/int meter: Solinist Interface # 349215		
Analysis:	TCL VOCs + TICs, TCL SVOCs + TICs, PFAS, 1,4-Dioxane, PCBs, Pesticides, TAL Metals + Hg + Cn + dissolved		
Comments:	Coordinates with field duplicate MW-02S-042924-FD		

Water Level			
Date:	4/29/2024 12:27:00 PM	Measured Well Depth:	28.31
Screen Interval:	-	Total Depth:	
Is Well Dry?	No	Depth to DNAPL:	NE
Depth to Water:	5.26	Depth to LNAPL:	NE
Notes:			

Purge Information			
Begin Date and Time:	4/29/2024 12:35:00 PM	End Date and Time:	4/29/2024 1:05:00 PM
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:			

Time	DTW (ft)	Purge Rate (ml/min)	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temperature (deg c)	pH (su)	ORP (millivolts)	SC (ms/cm)	Dissolved Oxygen (mg/l)	Turbidity (ntu)	Color (none)	Odor (none)
12:35 PM	5.26	400	0.0	0.0	14.26	7.82	134	3.140	4.95	21.8	Clear	None
12:40 PM	6.35	400	0.5	0.5	14.90	7.89	125	2.950	6.92	11.0	Clear	None
12:45 PM	6.73	400	0.5	1.0	14.36	7.85	152	2.940	5.52	7.5	Clear	None
12:50 PM	6.91	400	0.5	1.5	14.05	7.86	148	2.950	5.60	6.2	Clear	None
12:55 PM	7.16	400	0.5	2.0	14.03	7.84	156	2.950	5.65	5.3	Clear	None
1:00 PM	7.69	400	0.5	2.5	14.02	7.84	157	2.960	5.50	5.0	Clear	None
1:05 PM	7.68	400	0.5	3.0	14.01	7.85	155	2.970	5.53	5.1	Clear	None

GROUNDWATER SAMPLING LOG

Client:	Ashland Inc.	Project #:	60730037
Site:	Tank 75 Site, Tonawanda, NY	Event:	2024 RI GW Sampling

Sample Information			
Sample ID:	MW-03-042924	Date:	4/29/2024 9:20:00 AM
Well ID:	MW-03	Location Type:	
Duplicate ID:		Sampler:	Ethan Smith
Equipment:	Field param meter: Horiba U-52 # TLNL3253 WL/int meter: Solinist Interface # 349215		
Analysis:	TCL VOCs + TICs, TCL SVOCs + TICs, PCBs, Pesticides, TAL Metals + Hg + Cn + dissolved		
Comments:			

Water Level			
Date:	4/29/2024 8:23:00 AM	Measured Well Depth:	30.25
Screen Interval:	-	Total Depth:	
Is Well Dry?	No	Depth to DNAPL:	NE
Depth to Water:	14.74	Depth to LNAPL:	NE
Notes:			

Purge Information			
Begin Date and Time:	4/29/2024 8:41:00 AM	End Date and Time:	4/29/2024 9:11:00 AM
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:			

Time	DTW (ft)	Purge Rate (ml/min)	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temperature (deg c)	pH (su)	ORP (millivolts)	SC (ms/cm)	Dissolved Oxygen (mg/l)	Turbidity (ntu)	Color (none)	Odor (none)
8:37 AM	14.74	500	0.0	0.0	12.60	8.61	119	4.120	6.42	23.0	Clear	None
8:45 AM	15.57	500	1.0	1.0	11.92	8.55	117	4.020	6.00	12.1	Clear	None
8:50 AM	15.78	400	0.5	1.5	12.90	8.54	123	3.890	5.48	8.7	Clear	None
8:55 AM	16.01	400	0.5	2.0	12.66	8.55	121	3.930	5.62	8.3	Clear	None
9:00 AM	16.74	400	0.5	2.5	12.61	8.58	124	3.990	5.84	14.7	Clear	None
9:05 AM	17.81	400	0.5	3.0	12.70	8.56	126	4.020	5.61	5.7	Clear	None
9:11 AM	17.53	400	0.5	3.5	12.66	8.49	125	3.970	6.13	8.0	Clear	None

GROUNDWATER SAMPLING LOG

Client:	Ashland Inc.	Project #:	60730037
Site:	Tank 75 Site, Tonawanda, NY	Event:	2024 RI GW Sampling

Sample Information			
Sample ID:	MW-04D-043024	Date:	4/30/2024 11:35:00 AM
Well ID:	MW-04D	Location Type:	
Duplicate ID:		Sampler:	Ethan Smith
Equipment:	Field param meter: Horiba U-52 # TLNL3253 WL/int meter: Solinist Interface # 349215		
Analysis:	TCL VOCs + TICs, TCL SVOCs + TICs, PCBs, Pesticides, TAL Metals + Hg + Cn + dissolved		
Comments:	Switched to bailer midway through sample collection. Lab to filter necessary samples.		

Water Level			
Date:	4/30/2024 11:04:00 AM	Measured Well Depth:	34.62
Screen Interval:	-	Total Depth:	
Is Well Dry?	No	Depth to DNAPL:	NE
Depth to Water:	30.29	Depth to LNAPL:	NE
Notes:			

Purge Information			
Begin Date and Time:	4/30/2024 11:06:00 AM	End Date and Time:	4/30/2024 11:25:00 AM
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow / bailer
Notes:			

Time	DTW (ft)	Purge Rate (ml/min)	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temperature (deg c)	pH (su)	ORP (millivolts)	SC (ms/cm)	Dissolved Oxygen (mg/l)	Turbidity (ntu)	Color (none)	Odor (none)
11:10 AM	30.29	400	0.0	0.0	11.07	8.08	100	0.834	5.17	5.8	Clear	None
11:15 AM	30.68	400	0.5	0.5	11.40	8.13	116	1.490	3.61	28.9	Clear	None
11:20 AM	30.87	400	0.5	1.0	11.48	8.12	112	1.470	3.38	27.4	Clear	None
11:25 AM	32.31	400	0.5	1.5	11.27	8.17	114	1.400	3.20	26.9	Clear	None

GROUNDWATER SAMPLING LOG

Client:	Ashland Inc.	Project #:	60730037
Site:	Tank 75 Site, Tonawanda, NY	Event:	2024 RI GW Sampling

Sample Information			
Sample ID:	MW-04S-043024	Date:	4/30/2024 10:35:00 AM
Well ID:	MW-04S	Location Type:	
Duplicate ID:		Sampler:	Ethan Smith
Equipment:	Field param meter: Horiba U-52 # TLNL3253 WL/int meter: Solinist Interface # 349215		
Analysis:	TCL VOCs + TICs, TCL SVOCs + TICs, PCBs, Pesticides, TAL Metals + Hg + Cn + dissolved		
Comments:			

Water Level			
Date:	4/30/2024 10:05:00 AM	Measured Well Depth:	26.11
Screen Interval:	-	Total Depth:	
Is Well Dry?	No	Depth to DNAPL:	NE
Depth to Water:	8.48	Depth to LNAPL:	NE
Notes:			

Purge Information			
Begin Date and Time:	4/30/2024 10:06:00 AM	End Date and Time:	4/30/2024 10:30:00 AM
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:			

Time	DTW (ft)	Purge Rate (ml/min)	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temperature (deg c)	pH (su)	ORP (millivolts)	SC (ms/cm)	Dissolved Oxygen (mg/l)	Turbidity (ntu)	Color (none)	Odor (none)
10:05 AM	8.48	400	0.0	0.0	10.38	7.98	54	3.140	4.14	13.6	Clear	None
10:10 AM	8.47	400	0.5	0.5	10.12	8.01	52	3.340	5.50	3.5	Clear	None
10:15 AM	8.75	400	0.5	1.0	9.36	7.88	50	3.370	5.46	2.5	Clear	None
10:20 AM	9.23	400	0.5	1.5	10.03	7.94	87	3.380	4.26	3.6	Clear	None
10:25 AM	9.69	400	0.5	2.0	10.00	7.93	81	3.380	4.35	3.1	Clear	None
10:30 AM	10.12	400	0.5	2.5	9.94	7.93	88	3.370	4.41	3.4	Clear	None

GROUNDWATER SAMPLING LOG

Client:	Ashland Inc.	Project #:	60730037
Site:	Tank 75 Site, Tonawanda, NY	Event:	2024 RI GW Sampling

Sample Information			
Sample ID:	MW05-01-042924	Date:	4/29/2024 2:30:00 PM
Well ID:	MW05-01	Location Type:	
Duplicate ID:		Sampler:	Ethan Smith
Equipment:	Field param meter: Horiba U-52 # TLNL3253 WL/int meter: Solinist Interface # 349215		
Analysis:	TCL VOCs + TICs, TCL SVOCs + TICs, PFAS, 1,4-Dioxane, PCBs, Pesticides, TAL Metals + Hg + Cn + dissolved		
Comments:			

Water Level			
Date:	4/29/2024 1:55:00 PM	Measured Well Depth:	26.08
Screen Interval:	-	Total Depth:	
Is Well Dry?	No	Depth to DNAPL:	NE
Depth to Water:	5.53	Depth to LNAPL:	NE
Notes:			

Purge Information			
Begin Date and Time:	4/29/2024 2:00:00 PM	End Date and Time:	4/29/2024 2:25:00 PM
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:			

Time	DTW (ft)	Purge Rate (ml/min)	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temperature (deg c)	pH (su)	ORP (millivolts)	SC (ms/cm)	Dissolved Oxygen (mg/l)	Turbidity (ntu)	Color (none)	Odor (none)
2:00 PM	5.53	400	0.0	0.0	14.00	7.54	120	1.260	3.00	1000.0	Brown	No odor
2:05 PM	5.83	400	0.5	0.5	15.26	7.58	127	1.050	4.00	98.9	Clear	None
2:10 PM	6.23	400	0.5	1.0	13.64	7.58	135	0.962	4.20	24.3	Clear	None
2:15 PM	7.19	400	0.5	1.5	13.17	7.48	145	0.963	4.50	25.1	Clear	None
2:20 PM	7.86	400	0.5	2.0	13.11	7.49	154	0.947	4.88	24.3	Clear	None
2:25 PM	8.82	400	0.5	2.5	13.10	7.49	154	0.940	4.83	22.2	Clear	None

GROUNDWATER SAMPLING LOG

Client:	Ashland Inc.	Project #:	60730037
Site:	Tank 75 Site, Tonawanda, NY	Event:	2024 RI GW Sampling

Sample Information			
Sample ID:	MW05-02-043024	Date:	4/30/2024 9:05:00 AM
Well ID:	MW05-02	Location Type:	
Duplicate ID:		Sampler:	Ethan Smith
Equipment:	Field param meter: Horiba U-52 # TLNL3253 WL/int meter: Solinist Interface # 349215		
Analysis:	TCL VOCs + TICs, TCL SVOCs + TICs, PCBs, Pesticides, TAL Metals + Hg + Cn + dissolved		
Comments:			

Water Level			
Date:	4/30/2024 8:15:00 AM	Measured Well Depth:	26.16
Screen Interval:	-	Total Depth:	
Is Well Dry?	No	Depth to DNAPL:	NE
Depth to Water:	6.95	Depth to LNAPL:	NE
Notes:			

Purge Information			
Begin Date and Time:	4/30/2024 8:20:00 AM	End Date and Time:	4/30/2024 9:55:00 AM
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:			

Time	DTW (ft)	Purge Rate (ml/min)	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temperature (deg c)	pH (su)	ORP (millivolts)	SC (ms/cm)	Dissolved Oxygen (mg/l)	Turbidity (ntu)	Color (none)	Odor (none)
8:20 AM	6.95	400	0.0	0.0	13.36	10.14	60	3.070	10.01	68.2	Clear	None
8:25 AM	7.56	400	0.5	0.5	13.09	10.35	32	2.830	6.93	24.7	Clear	None
8:30 AM	8.01	400	0.5	1.0	10.88	9.59	69	3.240	5.26	20.8	Clear	None
8:35 AM	8.63	400	0.5	1.5	10.29	9.34	82	3.250	396.00	14.2	Clear	None
8:40 AM	9.18	400	0.5	2.0	9.93	9.54	70	3.310	5.17	23.2	Clear	None
8:45 AM	9.62	400	0.5	2.5	9.75	7.88	123	3.310	3.62	29.0	Clear	None
8:50 AM	10.22	400	0.5	3.0	9.60	7.74	123	3.300	5.17	35.4	Clear	None
9:55 AM	10.56	400	0.5	3.5	9.50	7.94	54	3.240	5.69	44.2	Clear	None

GROUNDWATER SAMPLING LOG

Client:	Ashland Inc.	Project #:	60730037
Site:	Tank 75 Site, Tonawanda, NY	Event:	2024 RI GW Sampling

Sample Information			
Sample ID:	MW05-03-042924	Date:	4/29/2024 4:00:00 PM
Well ID:	MW05-03	Location Type:	
Duplicate ID:		Sampler:	Ethan Smith
Equipment:	Field param meter: Horiba U-52 # TLNL3253 WL/int meter: Solinist Interface # 349215		
Analysis:	TCL VOCs + TICs, TCL SVOCs + TICs, PCBs, Pesticides, TAL Metals + Hg + Cn + dissolved		
Comments:			

Water Level			
Date:	4/29/2024 3:28:00 PM	Measured Well Depth:	31.17
Screen Interval:	-	Total Depth:	
Is Well Dry?	No	Depth to DNAPL:	NE
Depth to Water:	20.04	Depth to LNAPL:	NE
Notes:			

Purge Information			
Begin Date and Time:	4/29/2024 3:30:00 PM	End Date and Time:	4/29/2024 3:55:00 PM
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:			

Time	DTW (ft)	Purge Rate (ml/min)	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temperature (deg c)	pH (su)	ORP (millivolts)	SC (ms/cm)	Dissolved Oxygen (mg/l)	Turbidity (ntu)	Color (none)	Odor (none)
3:35 PM	20.04	400	0.0	0.0	14.52	7.70	151	4.390	7.26	10.3	Clear	None
3:40 PM	21.17	400	0.5	0.5	15.00	7.67	162	4.310	5.92	21.3	Clear	None
3:45 PM	21.77	400	0.5	1.0	14.48	7.68	167	4.420	6.00	45.2	Clear	None
3:50 PM	22.32	400	0.5	1.5	14.89	7.67	164	4.410	5.89	48.4	Clear	None
3:55 PM	22.99	400	0.5	2.0	14.80	7.70	166	4.380	5.97	48.6	Clear	None

GROUNDWATER SAMPLING LOG

Client:	Ashland Inc.	Project #:	60730037
Site:	Tank 75 Site, Tonawanda, NY	Event:	2024 RI GW Sampling

Sample Information			
Sample ID:	MW05-04-042924	Date:	4/29/2024 10:45:00 AM
Well ID:	MW05-04	Location Type:	
Duplicate ID:		Sampler:	Ethan Smith
Equipment:	Field param meter: Horiba U-52 # TLNL3253 WL/int meter: Solinist Interface # 349215		
Analysis:	TCL VOCs + TICs, TCL SVOCs + TICs, PFAS, 1,4-Dioxane, PCBs, Pesticides, TAL Metals + Hg + Cn + dissolved		
Comments:	MS/MSD taken at this location		

Water Level			
Date:	4/29/2024 9:45:00 AM	Measured Well Depth:	26.42
Screen Interval:	-	Total Depth:	
Is Well Dry?	No	Depth to DNAPL:	NE
Depth to Water:	4.64	Depth to LNAPL:	NE
Notes:			

Purge Information			
Begin Date and Time:	4/29/2024 9:59:00 AM	End Date and Time:	4/29/2024 10:35:00 AM
Purge Method:	Low flow (pump type: Peristaltic)	Sample Method:	Low flow
Notes:			

Time	DTW (ft)	Purge Rate (ml/min)	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temperature (deg c)	pH (su)	ORP (millivolts)	SC (ms/cm)	Dissolved Oxygen (mg/l)	Turbidity (ntu)	Color (none)	Odor (none)
10:00 AM	4.64	400	0.0	0.0	14.00	7.79	102	3.540	2.45	939.0	Light brown	None
10:05 AM	5.95	400	0.5	0.5	13.71	7.61	105	3.410	1.50	56.9	Clear	None
10:15 AM	7.12	400	0.5	1.0	12.25	7.77	103	3.340	2.13	46.8	Clear	None
10:20 AM	7.63	400	0.5	1.5	12.71	7.73	122	3.400	2.88	47.1	Clear	None
10:25 AM	8.21	400	0.5	2.0	12.99	7.77	117	3.320	2.39	43.6	Clear	None
10:30 AM	8.57	400	0.5	2.5	13.27	7.70	115	3.260	2.66	47.8	Clear	None
10:35 AM	7.63	400	0.5	3.0	12.88	7.72	117	3.300	2.65	45.4	Clear	None

Tank 75 Site - Slug Tests
Well Construction Details

Well ID	Formation	Ground Elevation	MP Elevation	Depth to Ground-water (below MP)	Screen Length		Radii			Aquifer Thickness	Depth from Aquifer Top	
					Total	Submerged	Screen (*)	Casing			to Top of Screen	to Bottom of Screen
								Actual	Equivalent			
				(below MP)	L_e	$L_{e\text{-}sub}$	r_w	r_c	$r_{c\text{-}eq}$ (**)	b	d	H
		[ft]	[ft]	[ft]	[ft]	[ft]	[in]	[in]	[in]	[ft]	[ft]	[ft]
MW-02S	Overburden	596.31	599.68	5.25	10.0	10.00	5.25	2.00	2.00	28.12	17.12	27.12
MW-02D	Overburden	596.19	597.87	24.15	5.0	5.00	5.25	2.00	2.00	13.53	8.03	13.03
MW-03	Overburden	595.70	597.97	4.20	10.0	10.00	5.25	2.00	2.00	28.07	15.57	25.57
MW-04S	Overburden	597.62	598.87	4.32	10.0	10.00	5.25	2.00	2.00	21.93	10.93	20.93

Notes:
(*) - sand pack (overburden wells)
(**) - $r_{c\text{-}eq} = [(1 - n)\, r_c^2 + n\, r_w^2]^{1/2}$ if $L_{e\text{-}sub} < L_e$
$r_{c\text{-}eq} = r_c$ if $L_{e\text{-}sub} = L_e$
MP - measuring point
ft - feet
in - inch

Assumptions:
(1) AQTESOLV ver. 4.50 was used for slug test analyses.
(2) Sandpack porosity of 0.32 was used for wells that were not fully submerged during testing.
(3) Bouwer and Rice (1976) solution was used for unconfined aquifers.
(4) Formulas and parameters used for this slug test analysis can be found in:
Bouwer, H., 1989. The Bouwer and Rice slug test--an update, Ground Water, vol. 27, no. 3, pp. 304-309.
(5) Used depth to water below ground surface (ft) and depth to bottom of borehole below ground surface (ft) to determine aquifer thickness.

Summary of Results
Tank 75 Site
Slug Tests

Well ID	Hydraulic Conductivity [cm/sec]			
	FH1	RH1	N(**)	Mean (***)
MW-02S	5.76E-05	1.03E-05	2	2.44E-05
MW-02D	-	-	-	-
MW-03	6.90E-07	-	1	6.90E-07
MW-04S	2.27E-07	-	1	2.27E-07

(**) - number of valid tests
(***) - geometric mean

FH - Falling Head test
RH - Rising Head test

Note:
-For all graphs, normalized head is defined as H(t)/Ho, where H(t) is the displacement measured at time t and Ho is the initial displacement at time t=0.

-While the geometric mean for both the falling and rising head tests are given, it is understood that the rising head tests more accurately describe the overall hydraulic characteristics of the aquifer.
(See attached reference, *The Bouwer and Rice Slug Test - An Update*)

-Falling head test data collected at MW-02D indicated that hydraulic head increased during the duration of the test. It is believed that hydraulic head at this monitoring well was still recovering from purge and sampling activities completed between April 29 and 30, 2024.

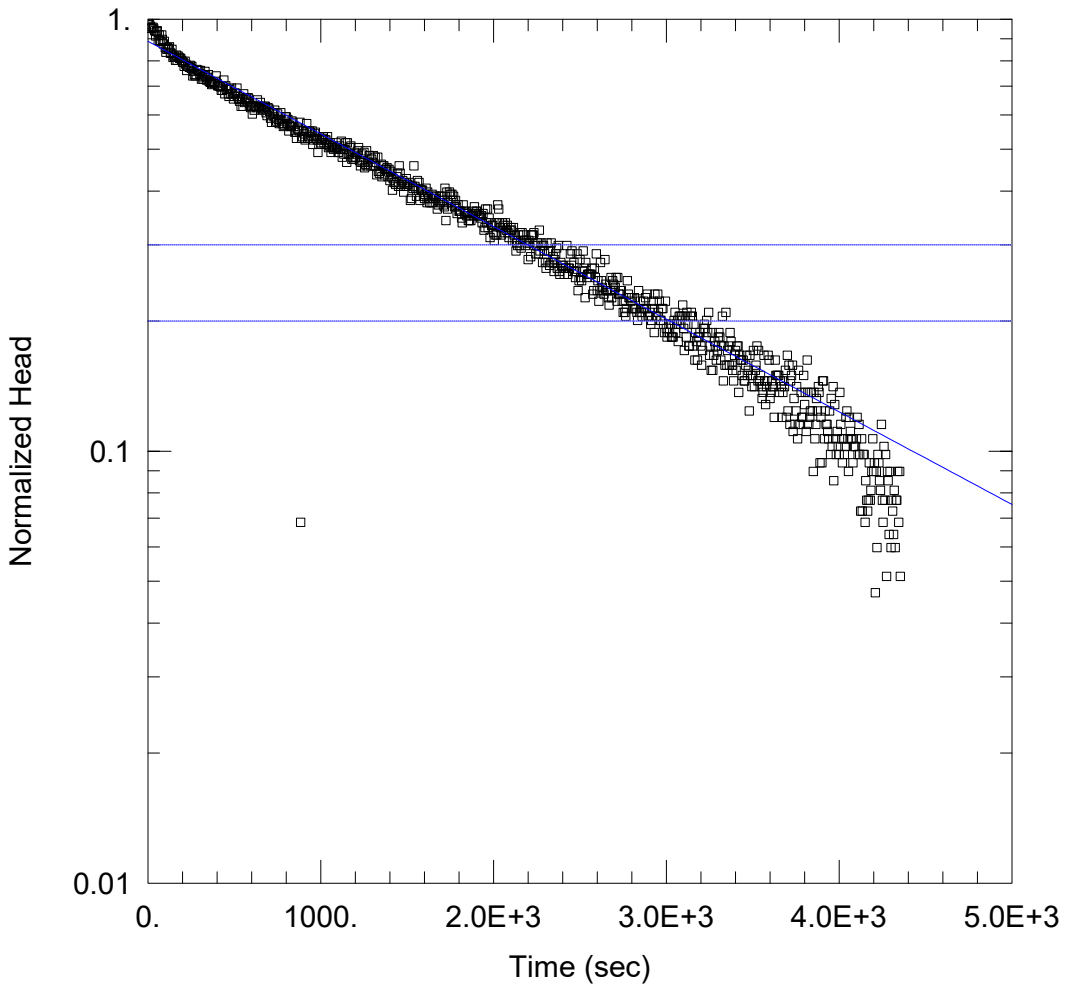
-Due to extremely low rates of hydraulic head recovery, only one (1) falling head test was completed at monitoring well MW-03 and MW-04S.

Tank 75 Site - Slug Tests
Useability of Data

Well ID	Remarks	
	FH1	RH1
MW-02S	OK	OK
MW-02D	INVALID[1]	-
MW-03	OK[2]	-
MW-04S	OK[2]	-

1. Falling head test data collected at MW-02D indicated that hydraulic head increased during the duration of the test. It is believed that hydraulic head at this monitoring well was still recovering from purge and sampling activities completed between April 29 and 30, 2024.

2. Due to exremely low rates of hydraulic head recovery, only one (1) falling head test was completed at the monitoring well.



WELL TEST ANALYSIS

Data Set: D:\Tank75SlugTests\MW02S-In.aqt
Date: 07/25/24 Time: 19:25:38

PROJECT INFORMATION

Company: AECOM
Client: Ashland Inc.
Project: 60730037
Location: Tonawanda, NY
Test Well: MW-02S
Test Date: 5/23/24

AQUIFER DATA

Saturated Thickness: 28.12 ft Anisotropy Ratio (Kz/Kr): 1.

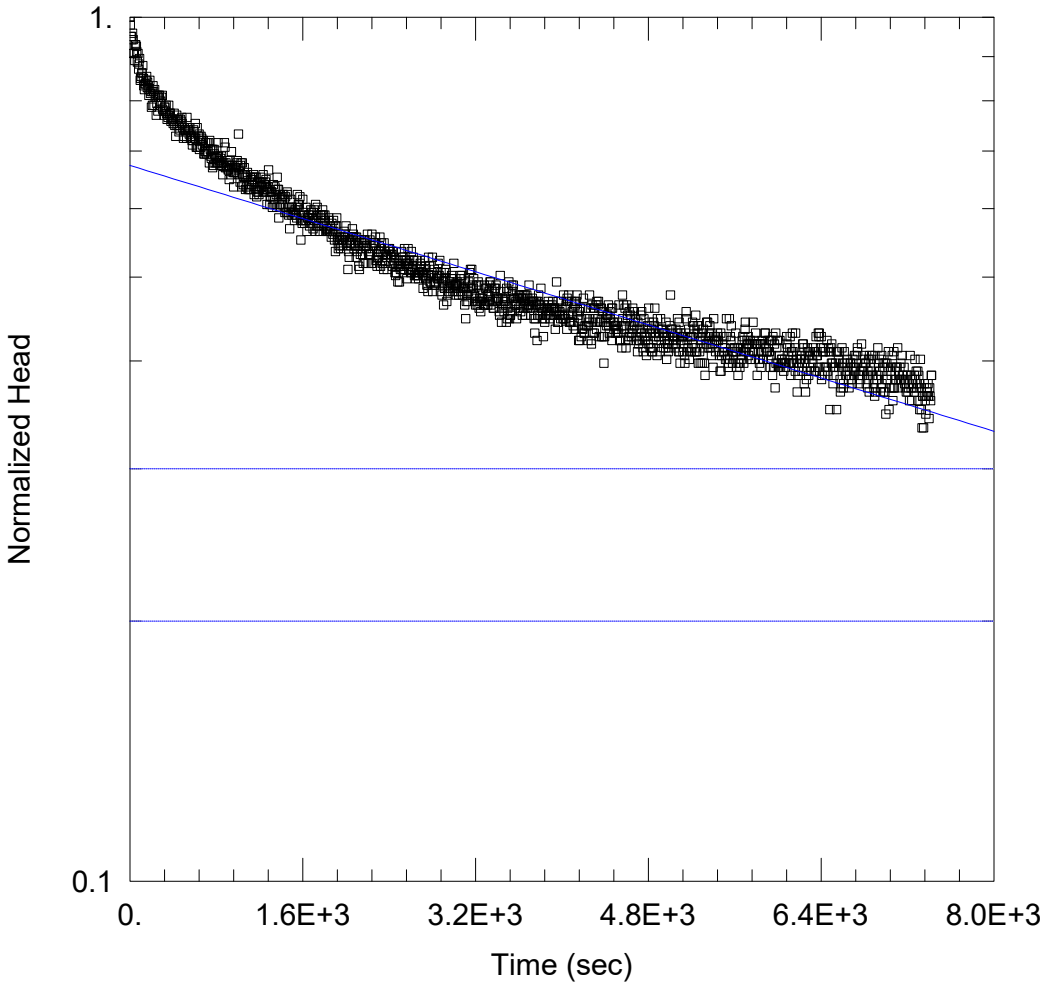
WELL DATA (MW-02S)

Initial Displacement: 1. ft
Static Water Column Height: 27.12 ft
Total Well Penetration Depth: 27.12 ft
Screen Length: 10. ft
Casing Radius: 0.17 ft
Well Radius: 0.44 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 5.758E-5 cm/sec
y0 = 0.8886 ft



WELL TEST ANALYSIS

Data Set: D:\Tank75SlugTests\MW02S-out.aqt
Date: 07/25/24 Time: 19:31:14

PROJECT INFORMATION

Company: AECOM
Client: Ashland Inc.
Project: 60730037
Location: Tonawanda, NY
Test Well: MW-02S
Test Date: 5/23/24

AQUIFER DATA

Saturated Thickness: 28.12 ft Anisotropy Ratio (Kz/Kr): 1.

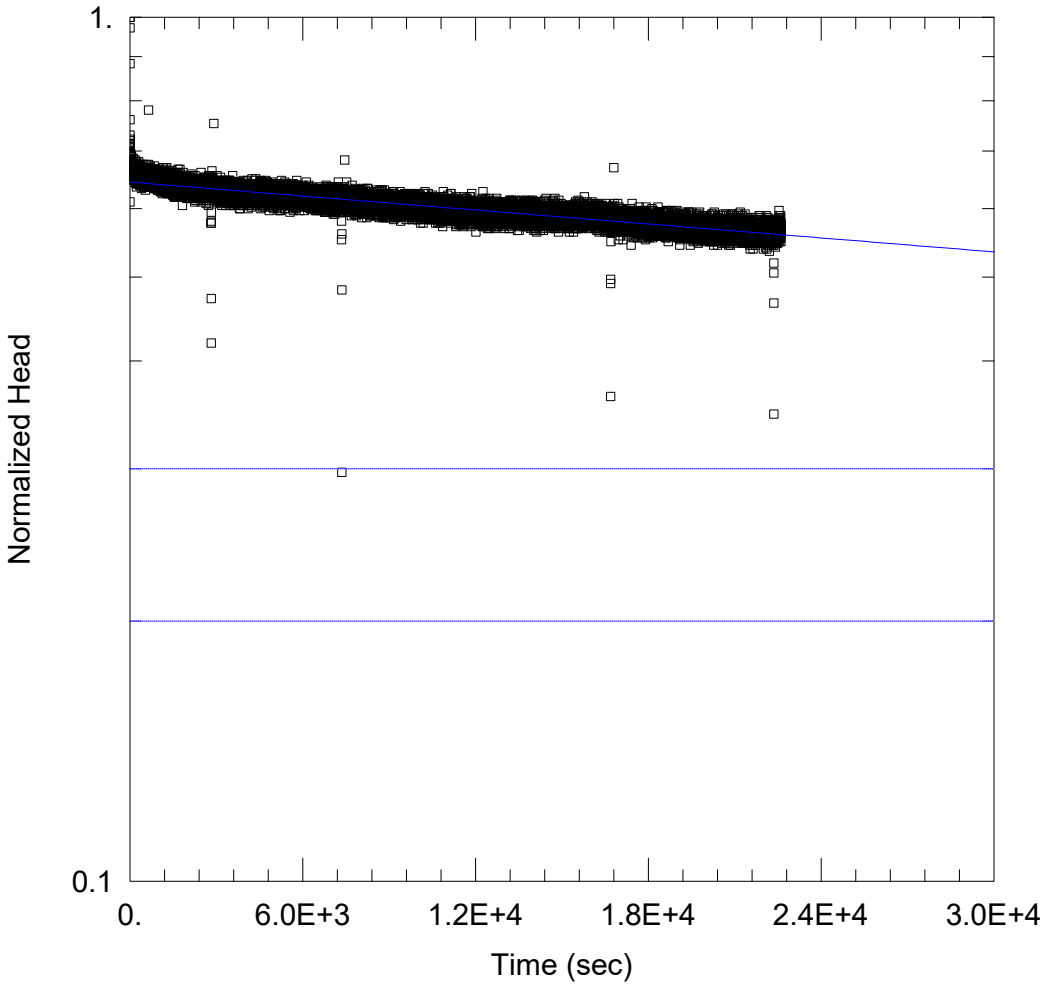
WELL DATA (MW-02S)

Initial Displacement: 1. ft
Total Well Penetration Depth: 27.12 ft
Casing Radius: 0.17 ft
Static Water Column Height: 27.12 ft
Screen Length: 10. ft
Well Radius: 0.44 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 1.032E-5 cm/sec y0 = 0.6735 ft



WELL TEST ANALYSIS

Data Set: D:\Tank75SlugTests\MW03in.aqt
Date: 07/25/24 Time: 19:42:07

PROJECT INFORMATION

Company: AECOM
Client: Ashland Inc.
Project: 60730037
Location: Tonawanda, NY
Test Well: MW-03
Test Date: 5/23/24

AQUIFER DATA

Saturated Thickness: 28.07 ft Anisotropy Ratio (Kz/Kr): 1.

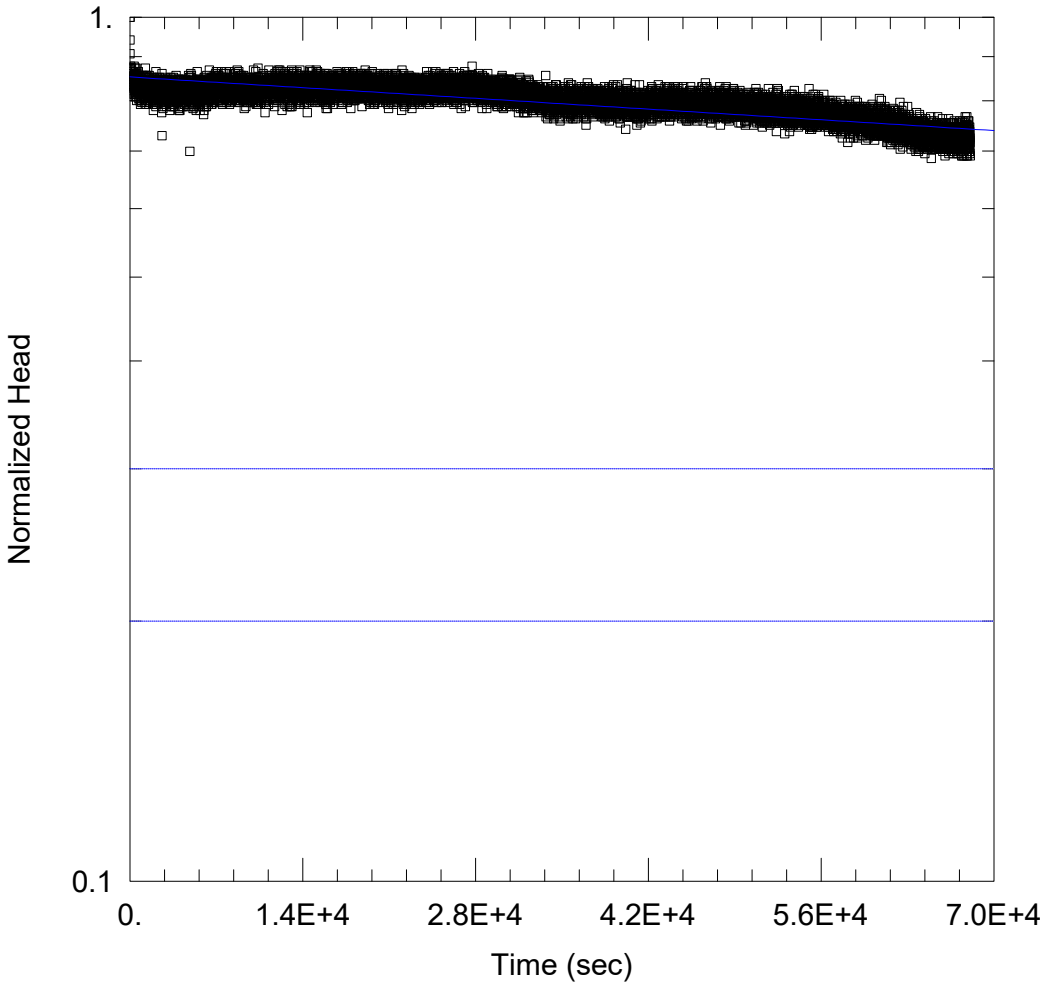
WELL DATA (MW-03)

Initial Displacement: 1. ft
Total Well Penetration Depth: 25.57 ft
Casing Radius: 0.17 ft
Static Water Column Height: 25.57 ft
Screen Length: 10. ft
Well Radius: 0.44 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 6.901E-7 cm/sec
y0 = 0.6443 ft



WELL TEST ANALYSIS

Data Set: D:\Tank75SlugTests\MW04S-in.aqt
Date: 07/25/24 Time: 19:52:55

PROJECT INFORMATION

Company: AECOM
Client: Ashland Inc.
Project: 60730037
Location: Tonawanda, NY
Test Well: MW-04S
Test Date: 5/23/24

AQUIFER DATA

Saturated Thickness: 21.93 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-04S)

Initial Displacement: 1. ft
Static Water Column Height: 20.93 ft
Total Well Penetration Depth: 20.93 ft
Screen Length: 10. ft
Casing Radius: 0.17 ft
Well Radius: 0.44 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 2.271E-7 cm/sec
y0 = 0.8526 ft

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC
1057 East Henrietta Rd.
Rochester NY 14623
Phone: 585-424-2140

Pine Environmental Services, Inc.

Instrument ID 20803
Description Horiba U-52 Sonde
Calibrated 4/23/2024 3:32:17PM

Manufacturer Horiba
Model Number U-52
Serial Number/ Lot Number L8OCTHPY
Location Rochester NY
Department

State Certified
Status Pass
Temp °C 20
Humidity % 23

Calibration Specifications

Group # 1
Group Name PH
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
7.00 / 7.00	PH	7.00	PH	7.40	7.00	0.00%	Pass
4.00 / 4.00	PH	4.00	PH	4.84	4.10	2.50%	Pass

Group # 2
Group Name Turbidity
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
0.00 / 0.00	NTU	0.00	NTU	0.00	0.00	0.00%	Pass
800.00 / 800.00	NTU	800.00	NTU	789.00	801.00	0.13%	Pass

Group # 3
Group Name Conductivity
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.000

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
0.000 / 0.000	ms/cm	0.000	ms/cm	0.000	0.000	0.00%	Pass
0.718 / 0.718	ms/cm	0.718	ms/cm	0.715	0.718	0.00%	Pass
5.000 / 5.000	ms/cm	5.000	ms/cm	4.500	5.000	0.00%	Pass
80.000 / 80.000	ms/cm	80.000	ms/cm	81.000	80.000	0.00%	Pass

Group # 4
Group Name Redox (ORP)
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
240.00 / 240.00	mv	240.00	mv	231.00	241.00	0.42%	Pass

Group # 5
Group Name Disolved Oxygen Zero
Range Acc % 0.0000
Reading Acc % 3.0000

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC
1057 East Henrietta Rd.
Rochester NY 14623
Phone: 585-424-2140

Pine Environmental Services, Inc.

Instrument ID 20803
Description Horiba U-52 Sonde
Calibrated 4/23/2024 3:32:17PM

Group # 5 — **Range Acc %** 0.0000
Group Name Disolved Oxygen Zero — **Reading Acc %** 3.0000
Stated Accy Pct of Reading — **Plus/Minus** 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
0.00 / 0.00	%	0.00	%	0.00	0.00	0.00%	Pass

Group # 6 — **Range Acc %** 0.0000
Group Name Temperature DO Span — **Reading Acc %** 0.0000
Stated Accy Plus / Minus — **Plus/Minus** 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
21.00 / 21.00	degrees C	8.68	mg/L	8.81	8.68	0.00%	Pass

Test Instruments Used During the Calibration (As Of Cal Entry Date)

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Next Cal Date / Last Cal Date/ Expiration Date Opened Date
NY, ROC - .718 US/CM, 2GC1368	.718 Conductivity Sandard	AquaPhoenix Scientific	32088	2GC1368	8/30/2024
NY, ROC - 0.0NTU, 22140172	Autocal, 0 NTU Solution	AMCOCLEAR	32101	22140172	9/30/2024
NY, ROC - 240 ORP, 2GL022	240mV ORP Solution	AquaPhoenix Scientific			9/30/2024
NY, ROC - 5000 US/CM, 2GD1050	5000 Conductivity Sandard	AquaPhoenix Scientific	31997	2gd1050	8/30/2024
NY, ROC - 80,000U S/CM, 2GC1366	80,000 Conductivity Sandard	AquaPhoenix Scientific	31997		8/30/2024
NY, ROC - 800 NTU, 2GJ1050	800 Turbidity Standard	AquaPhoenix Scientific	33039	2gj1050	10/30/2024
NY, ROC - PH7, 2GC933	Buffer Solution pH7	AquaPhoenix Scientific	32025		4/30/2024

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Ian Wright

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC
1057 East Henrietta Rd.
Rochester NY 14623
Phone: 585-424-2140

Pine Environmental Services, Inc.

Instrument ID 22190
Description Horiba U-52
Calibrated 4/23/2024 3:29:48PM

Manufacturer Horiba
Model Number U-5000
Serial Number/ Lot Number TLNL3253
Location Rochester NY
Department

State Certified
Status Pass
Temp °C 20
Humidity % 23

Calibration Specifications

Group # 1
Group Name DISPLAY
Test Performed: N/A **As Found Result:** **As Left Result:**

Test Instruments Used During the Calibration **(As Of Cal Entry Date)**

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Next Cal Date / Last Cal Date/ Expiration Date Opened Date

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Ian Wright

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC
1057 East Henrietta Rd.
Rochester NY 14623
Phone: 585-424-2140

Pine Environmental Services, Inc.

Instrument ID 33114
Description Horiba U-52
Calibrated 4/23/2024 3:39:24PM

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC
1057 East Henrietta Rd.
Rochester NY 14623
Phone: 585-424-2140

Pine Environmental Services, Inc.

Instrument ID 33114
Description Horiba U-52
Calibrated 4/23/2024 3:39:24PM

Manufacturer Horiba
Model Number U-52
Serial Number/ Lot Number TL6KX253
Location Rochester NY
Department

State Certified
Status Pass
Temp °C 20
Humidity % 23

Calibration Specifications

Group # 1
Group Name PH
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 5.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
7.00 / 7.00	PH	7.00	PH	6.70	7.00	0.00%	Pass
4.00 / 4.00	PH	4.00	PH	4.10	4.00	0.00%	Pass

Group # 2
Group Name Turbidity
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 5.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
0.00 / 0.00	NTU	0.00	NTU	0.00	0.00	0.00%	Pass
800.00 / 800.00	NTU	800.00	NTU	805.00	801.00	0.13%	Pass

Group # 3
Group Name Conductivity
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 5.0000
Plus/Minus 0.000

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
0.718 / 0.718	ms/cm	0.718	ms/cm	0.723	0.717	-0.14%	Pass
5.000 / 5.000	ms/cm	5.000	ms/cm	4.500	5.100	2.00%	Pass
80.000 / 80.000	ms/cm	80.000	ms/cm	80.000	82.000	2.50%	Pass

Group # 4
Group Name Redox (ORP)
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 5.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
240.00 / 240.00	mv	240.00	mv	239.00	241.00	0.42%	Pass

Group # 5
Group Name Disolved Oxygen Zero
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC
1057 East Henrietta Rd.
Rochester NY 14623
Phone: 585-424-2140

Pine Environmental Services, Inc.

Instrument ID 33114
Description Horiba U-52
Calibrated 4/23/2024 3:39:24PM

Group # 5 — **Range Acc %** 0.0000
Group Name Disolved Oxygen Zero — **Reading Acc %** 3.0000
Stated Accy Pct of Reading — **Plus/Minus** 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
0.00 / 0.00	mg/L	0.00	mg/L	0.00	0.00	0.00%	Pass

Group # 6 — **Range Acc %** 0.0000
Group Name Temperature DO Span — **Reading Acc %** 5.0000
Stated Accy Pct of Reading — **Plus/Minus** 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
21.50 / 21.50	degrees C	8.70	mg/L	8.54	8.71	0.11%	Pass

Test Instruments Used During the Calibration (As Of Cal Entry Date)

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Last Cal Date / Opened Date	Next Cal Date / Expiration Date
NY, ROC - .718 US/CM, 2GC1368	.718 Conductivity Sandard	AquaPhoenix Scientific	32088	2GC1368		8/30/2024
NY, ROC - 0.0NTU, 22140172	Autocal, 0 NTU Solution	AMCOCLEAR	32101	22140172		9/30/2024
NY, ROC - 240 ORP, 2GL022	240mV ORP Solution	AquaPhoenix Scientific				9/30/2024
NY, ROC - 5000 US/CM, 2GD1050	5000 Conductivity Sandard	AquaPhoenix Scientific	31997	2gd1050		8/30/2024
NY, ROC - 80,000U S/CM, 2GC1366	80,000 Conductivity Sandard	AquaPhoenix Scientific	31997			8/30/2024
NY, ROC - 800 NTU, 2GJ1050	800 Turbidity Standard	AquaPhoenix Scientific	33039	2gj1050		10/30/2024
NY, ROC - PH7, 2GC933	Buffer Solution pH7	AquaPhoenix Scientific	32025			4/30/2024

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Ian Wright

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC
1057 East Henrietta Rd.
Rochester NY 14623
Phone: 585-424-2140

Pine Environmental Services, Inc.

Instrument ID 220163
Description LevelTROLL 700 30psig
Calibrated 5/21/2024 1:01:43PM

Manufacturer	In-Situ	**State Certified**	
Model Number	LevelTROLL 700 30psig	**Status**	Pass
Serial Number/ Lot Number	1044330	**Temp °C**	25
Location	Rochester, NY	**Humidity %**	41
Department			

Calibration Specifications

Group # 1
Group Name Function/Connection Test
Test Performed: Yes **As Found Result: Pass** **As Left Result: Pass**

Test Instruments Used During the Calibration **(As Of Cal Entry Date)**

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Next Cal Date / Last Cal Date/ Expiration Date Opened Date

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Ian Wright

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

1057 East Henrietta Rd.
Rochester NY 14623
Phone: 585-424-2140

Pine Environmental Services, Inc.

Instrument ID 48855
Description LevelTROLL 700 30psig
Calibrated 5/21/2024 1:07:41PM

Manufacturer In-Situ
Model Number LevelTROLL 700 30psig
Serial Number/ Lot Number 774232
Location Rochester, NY
Department

State Certified
Status Pass
Temp °C 26
Humidity % 44

Calibration Specifications

Group # 1
Group Name Pressure
Test Performed: Yes **As Found Result: Pass** **As Left Result: Pass**

Group # 2
Group Name Temperature
Test Performed: Yes **As Found Result: Pass** **As Left Result: Pass**

Test Instruments Used During the Calibration (As Of Cal Entry Date)

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Next Cal Date / Last Cal Date/ Expiration Date Opened Date

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Ian Wright

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC
1057 East Henrietta Rd.
Rochester NY 14623
Phone: 585-424-2140

Pine Environmental Services, Inc.

Instrument ID 48855
Description LevelTROLL 700 30psig
Calibrated 5/21/2024 1:07:41PM

Manufacturer In-Situ
Model Number LevelTROLL 700 30psig
Serial Number/ Lot Number 774232
Location Rochester, NY
Department

State Certified
Status Pass
Temp °C 26
Humidity % 44

Calibration Specifications

Group # 1
Group Name Pressure
Test Performed: Yes **As Found Result: Pass** **As Left Result: Pass**

Group # 2
Group Name Temperature
Test Performed: Yes **As Found Result: Pass** **As Left Result: Pass**

Test Instruments Used During the Calibration (As Of Cal Entry Date)

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Next Cal Date / Last Cal Date/ Expiration Date Opened Date

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Ian Wright

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

1057 East Henrietta Rd.
Rochester NY 14623
Phone: 585-424-2140

Pine Environmental Services, Inc.

Instrument ID 28863
Description In-Situ Rugged Reader
Calibrated 5/21/2024 1:08:45PM

Manufacturer	In-Situ	**State Certified**	NJ Cert#: 11034
Model Number	700	**Status**	Pass
Serial Number/ Lot Number	N/A	**Temp °C**	24
Location	Rochester, NY	**Humidity %**	41
Department			

Calibration Specifications

Group # **Range Acc %**
Group Name **Reading Acc %**
Stated Accy **Plus/Minus**

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail

Test Instruments Used During the Calibration (As Of Cal Entry Date)

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Next Cal Date / Last Cal Date/ Expiration Date Opened Date

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Ian Wright

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

1057 East Henrietta Rd.
Rochester NY 14623
Phone: 585-424-2140

Pine Environmental Services, Inc.

Instrument ID A04308
Description In-Situ TrollCom
Calibrated 5/21/2024 1:09:19PM

Manufacturer In-Situ
Model Number Serial Trollcom
Serial Number/ Lot Number na
Location Rochester, NY
Department

State Certified
Status Pass
Temp °C 24
Humidity % 41

Calibration Specifications

Group #
Group Name
Stated Accy
Range Acc %
Reading Acc %
Plus/Minus

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail

Test Instruments Used During the Calibration (As Of Cal Entry Date)

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Next Cal Date / Last Cal Date/ Expiration Date Opened Date

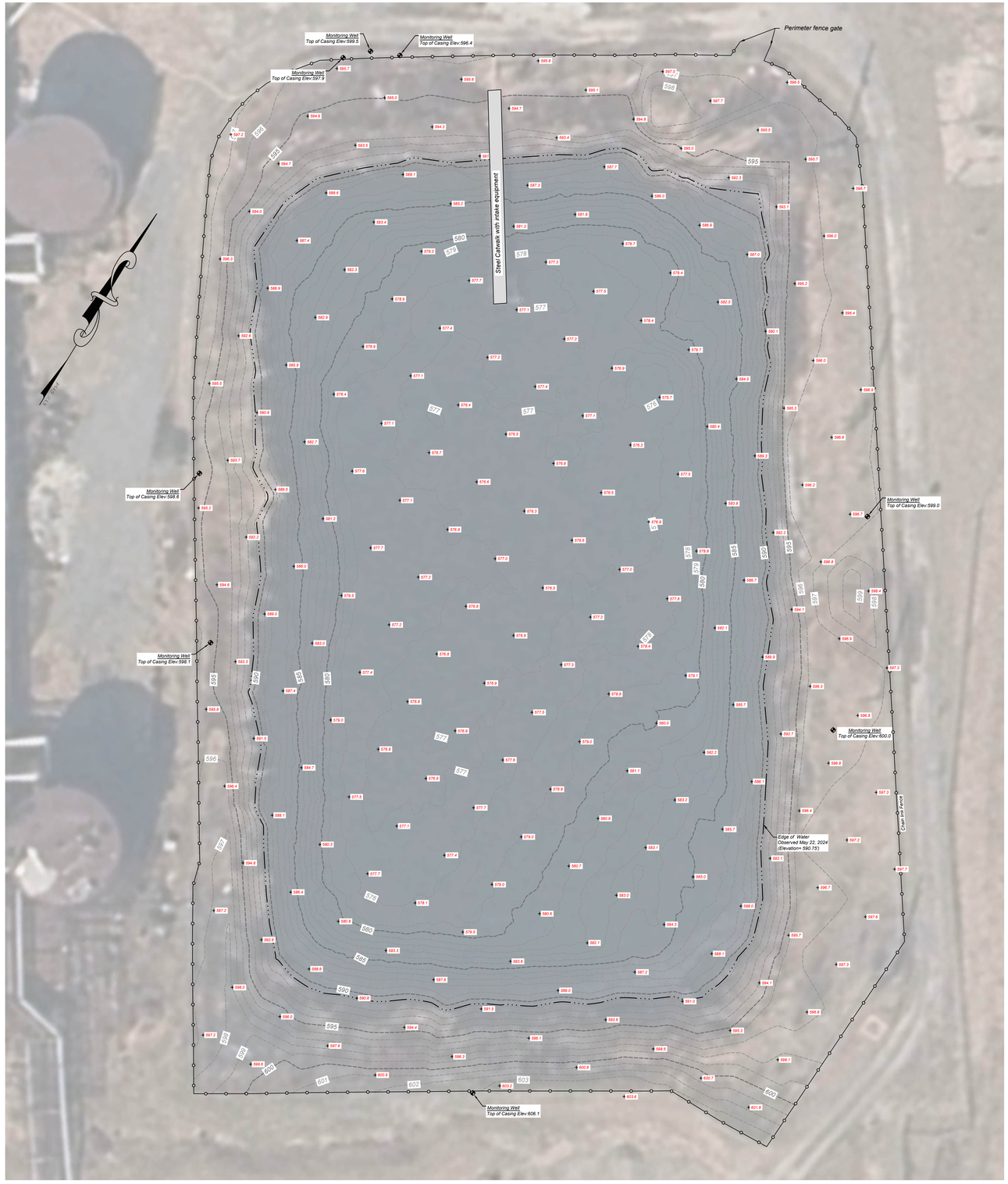
Notes about this calibration

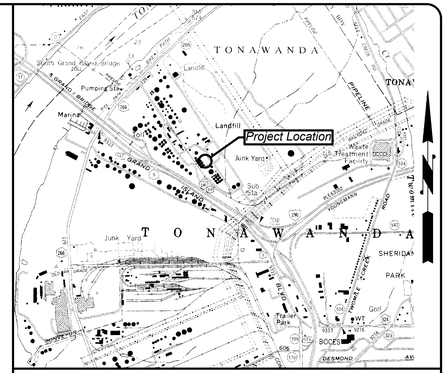
Calibration Result Calibration Successful
Who Calibrated Ian Wright

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance

Appendix E Bathymetric Survey





U.S.G.S. Quadrangle
Buffalo Northwest, New York
1" = 2000' +/-

Plan Legend:

- *Major Contour Line*
- *Minor Contour Line*
- *Chain Link Fence*
- *Observed Water Surface Elevation*
- *Spot Elevation and Location*
- *Steel Catwalk*
- *Monitor Well*

General Notes:

1. *The survey on which this map is based is referenced horizontally to the North American Datum of 1983, 2011 adjustment (NAD83/2011), projected on the New York State Plane Coordinate System (West Zone), and vertically to the North American Vertical Datum of 1988 (NAVD88).*
2. *North arrow as shown indicates Grid North referenced to (NAD83/2011), projected on the New York State Plane Coordinate System (West Zone).*
3. *The reference horizontal and vertical control station is a GPS Continuously Operating Reference Station (CORS) designated as "Lockport CORS ARP" (NYLP). NYLP is a Control Station established by The New York State Department of Transportation and last adjusted by National Geodetic Survey (NGS) in April 2022. Elevation 545.60 feet*
4. *RTK GNSS surveying techniques were utilized to determine the coordinates and elevations of the on-site horizontal and vertical control points.*
5. *Contours and elevations shown hereon are referenced to the North American Vertical Datum of 1988 (NAVD88).*
6. *Contours shown hereon were generated from a Digital Terrain Model utilizing Autodesk Civil 3D Surveying and Engineering software.*
7. *The topographic information shown hereon is based on an instrument survey completed on May 22, 2024.*
8. *The lagoon bottom bathymetric information shown hereon was collected utilizing multi-beam acoustic surveying techniques on May 22, 2024. Soundings meet accuracy standards for New Work as specified in Table 3-1 of the United States Army Corps of Engineers Hydrographic Surveying Manual (EM 1110-2-1003: November 30, 2013).*
9. *The water surface elevation at the time of the bathymetric survey was 590.75 feet.*
10. *The multi-beam acoustic data was thinned by selecting the median sounding in 3-foot square cells.*

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

REV	DESCRIPTION	DATE

DRAWN: KEC
CHECKED: JLS
SCALE: 1" = 20'
DATE: 05/31/2024
PROJECT NUMBER: 4749-04-24

Map of Survey
Existing Bathymetric Conditions
Buffalo Tank 75
United Refining Terminal Facility

Town of Tonawanda
County of Erie
State of New York

P.O. Box 463
6431 US Highway 11
Canton, New York 13617
T: 315/386-2778
F: 315/386-1012

Thew Associates LAND SURVEYORS
www.ThewAssociates.com

9478 River Road
Marcy, New York 13403
T: 315/733-7278
F: 315/797-1957

Appendix F NYSDOH Reciprocity Approvals

STATE OF NEW YORK
DEPARTMENT OF HEALTH
ESP Corning Towers, Room 1245
Albany, New York 12237
Phone: 518-402-7590
Fax: 518-402-7585

FOR OFFICAL USE ONLY
Registration No.
Date Issued:
Request Approved: Y N
Initials:

NOTICE OF PROPOSED USE OF RADIOACTIVE MATERIAL UNDER RECIPROCITY

1. NAME OF LICENSEE REQUESTING RECIPROCITY
AECOM Technical Services, Inc

2. FEIN NO. 95-2661922

3. [X] INITIAL REQUEST
[ ] SUBSEQUENT REQUEST

4. LICENSEE MAILING ADDRESS
10 Patewood Drive
Building 6, Suite 500
Greenville, SC 29615

5. CONTACT PERSON FOR LICENSEE
Kevin Taylor, RSO

6. TELEPHONE NO. 864-234-3005

7. FACSIMILE NO. N/A

8. ACTIVITIES TO BE CONDUCTED IN NEW YORK STATE

	WELL LOGGING		MOISTURE/ DENSITY GAUGES		TELETHERAPY/IRRRADIATOR SERVICE
	OTHER PORTABLE GAUGES		LEAK TESTING AND/OR CALIBRATIONS		OTHER (specify) Sediment/sludge and soil screening
	RADIOGRAPHY		REGISTERED AS USER OF PACKAGING (CERTIFICATES OF COMPLIANCE NO.s)		

9. CLIENT NAME, MAILING ADDRESS
Shannon Lloyd, Ashland Inc
1979 Atlas Street
Hilliard, Ohio 43228

10. ADDRESS OF WORK LOCATION (BE AS SPECIFIC AS POSSIBLE)
4625 River Road
Tonawanda, New York 14150

11. CLIENT TELEPHONE NO. 614-315-7401

12. CONTACT PERSON ON SITE Ethan Smith

13. SITE TELEPHONE NO. 716-912-4456

14. DATES SCHEDULED:
FROM June 3rd 2024 TO July 26th 2024

15. NUMBER OF WORK DAYS 10

16. TOTAL NUMBER OF DAYS USED TO DATE IN NEW YORK STATE (THE MAXIMUM IS 30 CALENDAR DAYS IN ONE YEAR)
0 as of date of this application

17. LIST THE RADIOACTIVE MATERIAL WHICH YOU WILL BRING, USE, INSTALL OR TEST IN NEW YORK STATE:

TENORM			

18. LIST THE SPECIFIC LICENSE YOU CURRENTLY HOLD THAT AUTHORIZES YOU TO PERFORM SUCH ACTIVITIES AS PROPOSED TO BE PERFORMED IN NEW YORK STATE. IF YOUR LICENSE HAS BEEN AMENDED SINCE YOUR LAST RECIPROCITY REQUEST YOU **MUST** SUBMIT A COPY OF THE AMENDED LICENSE.

a. LICENSE NUMBER	b. LICENSING AUTHORITY/STATE	c. EXPIRATION DATE
39-35587-01	U.S. Nuclear Regulatory Commission	May 31, 2035

19. I hereby certify that the information contained on this form is true and correct to the best of my knowledge and belief and that any changes to this information will be reported immediately.

Name (Print or Type)	Title
Kevin Taylor, CHP	RSO
Signature	Date
Kevin E Taylor	May 20, 2024

FOR OFFICIAL USE ONLY

NEW YORK
state department of
HEALTH

Nirav R. Shah, M.D., M.P.H.
Commissioner

Sue Kelly
Executive Deputy Commissioner

NOTICE TO RECIPROCITY APPLICANTS

Pursuant to Industrial Code Rule 38 (12 NYCRR Part 38), Section 38.15, the New York State Department of Health will grant reciprocity to licensees of other Agreement States or the United States Nuclear Regulatory Commission authorizing the use of radioactive materials in New York State for a period of 30 days in a calendar year. While working under reciprocity in New York State, a licensee shall comply with all relevant provisions of 12 NYCRR Part 38 and shall insure that all radioactive sources brought into this state remain under the constant supervision of the licensee's authorized personnel and are secured against unauthorized removal from transport vehicles or temporary storage facilities.

Licensees wishing to use radioactive materials in this state for longer than 30 days must apply for a Department of Health radioactive materials license. Once a complete application has been submitted, along with the required licensing fee, the 30-day time limit will be waived pending completion of the application review process.

Companies that exceed the 30-day limit without submitting such an application may not be considered eligible for reciprocity in the future, and their licensing agency will be so notified.

Initial requests for reciprocity must be accompanied by a copy of the license (with all current amendments) under which work is to be performed. Also, unless specifically named on the license, any staff that will be using sources in New York State must carry evidence of training and/or authorization to use radiation sources under the license.

A Notice of Intent should be filed at least seven days prior to each entry into the state. In lieu of this filing requirement, oral notification or notification less than seven days in advance may be accepted in emergency situations at the discretion of the Department. In no event shall a licensee enter the state to perform activities with radioactive materials without prior notice to the Department. Also, the Department should be notified immediately of any subsequent changes (including cancellation) to a Notice of Intent filed with this office.

Requests for reciprocity and Notices of Intent should be directed to our Albany office at:

NYS Department of Health
Bureau of Environmental Radiation Protection
Radioactive Material Section
ESP – Corning Towers Room 1245
Albany, New York 12237
Office (518) 402-7590
Fax (518) 402-7585

Remember that you must call to confirm receipt of mailed or faxed requests, and confirm that they have been approved.

STATE OF NEW YORK
DEPARTMENT OF HEALTH
BERP- Radioactive Material Section

Reciprocity Approval

Request Approval Date: ***5/24/2024***

NYS Temporary Registration No. ***16252***

AECOM Technical Services, Inc
10 Patewood Drive
Bldg 6, Suite 500
Greenville SC 29615

Telephone Number: ***864-234-3005***
Fax Number:

Attention Radiation Safety Officer ***Kevin Taylor, CHP***

Your Request for Reciprocity is approved. Below are the specific dates and temporary jobsite location in New York State. You must keep a copy of this approved Reciprocity Request along with a copy of your Agreement State/NRC Specific License. Please note that temporary storage in New York State is only authorized for 5 consecutive nights after which the RAM must be returned to its permanent storage location.

Jobsite Information

Dates Scheduled:	*From:*	*To*	*Number of days at jobsite*	Year to Date
	6/3/2024	***6/5/2024***	***3***	**3**

Client Name Address
Ashland, Inc.
1979 Atlas Street

Hillard, Ohio 43228

Client Contact
Shannon Lloyd
614-315-7401

Work site:
4625 River Road, Tonawanda, New York 14150, site phone 716-912-4456

Activity to be conducted:
Other (Specify)
Sediment/sludge, and soil screening

Comment:
Ashland Ohio rep Shannon Lloyd phone 614-315-7401; contact person on site is Ethan Smith 716-912-4456

Approved by: ***MCF***

Licensing State/agency: ***USNRC***
License Number: ***39-35587-01***
Expiration Date: ***5/31/2035***

STATE OF NEW YORK
DEPARTMENT OF HEALTH
ESP Corning Towers, Room 1245
Albany, New York 12237
Phone: 518-402-7590
Fax: 518-402-7585

FOR OFFICAL USE ONLY
Registration No.
Date Issued:
Request Approved: Y N
Initials:

NOTICE OF PROPOSED USE OF RADIOACTIVE MATERIAL UNDER RECIPROCITY

1. NAME OF LICENSEE REQUESTING RECIPROCITY
AECOM Technical Services, Inc

2. FEIN NO. 95-2661922

3. ☐ INITIAL REQUEST
☒ SUBSEQUENT REQUEST

4. LICENSEE MAILING ADDRESS
10 Patewood Drive
Building 6, Suite 500
Greenville, SC 29615

5. CONTACT PERSON FOR LICENSEE
Kevin Taylor, RSO

6. TELEPHONE NO. 864-234-3005

7. FACSIMILE NO. N/A

8. ACTIVITIES TO BE CONDUCTED IN NEW YORK STATE

	WELL LOGGING		MOISTURE/ DENSITY GAUGES		TELETHERAPY/IRRRADIATOR SERVICE
	OTHER PORTABLE GAUGES		LEAK TESTING AND/OR CALIBRATIONS		OTHER (specify) Soil screening
	RADIOGRAPHY		REGISTERED AS USER OF PACKAGING (CERTIFICATES OF COMPLIANCE NO.s)		

9. CLIENT NAME, MAILING ADDRESS
Shannon Lloyd, Ashland Inc
1979 Atlas Street
Hilliard, Ohio 43228

10. ADDRESS OF WORK LOCATION (BE AS SPECIFIC AS POSSIBLE)
4625 River Road
Tonawanda, New York 14150

11. CLIENT TELEPHONE NO. 614-315-7401

12. CONTACT PERSON ON SITE Ethan Smith

13. SITE TELEPHONE NO. 716-912-4456

14. DATES SCHEDULED:
FROM July 8th 2024
TO July 12th 2024

15. NUMBER OF WORK DAYS 5

16. TOTAL NUMBER OF DAYS USED TO DATE IN NEW YORK STATE (THE MAXIMUM IS 30 CALENDAR DAYS IN ONE YEAR)
2 as of date of this application

17. LIST THE RADIOACTIVE MATERIAL WHICH YOU WILL BRING, USE, INSTALL OR TEST IN NEW YORK STATE:

TENORM			

18. LIST THE SPECIFIC LICENSE YOU CURRENTLY HOLD THAT AUTHORIZES YOU TO PERFORM SUCH ACTIVITIES AS PROPOSED TO BE PERFORMED IN NEW YORK STATE. IF YOUR LICENSE HAS BEEN AMENDED SINCE YOUR LAST RECIPROCITY REQUEST YOU **MUST** SUBMIT A COPY OF THE AMENDED LICENSE.

a. LICENSE NUMBER	b. LICENSING AUTHORITY/STATE	c. EXPIRATION DATE
39-35587-01	U.S. Nuclear Regulatory Commission	May 31, 2035

19. I hereby certify that the information contained on this form is true and correct to the best of my knowledge and belief and that any changes to this information will be reported immediately.

Kevin Taylor, CHP — Name (Print or Type)

RSO — Title

Signature

June 17, 2024 — Date

FOR OFFICIAL USE ONLY

NEW YORK
state department of
HEALTH

Nirav R. Shah, M.D., M.P.H.
Commissioner

Sue Kelly
Executive Deputy Commissioner

NOTICE TO RECIPROCITY APPLICANTS

Pursuant to Industrial Code Rule 38 (12 NYCRR Part 38), Section 38.15, the New York State Department of Health will grant reciprocity to licensees of other Agreement States or the United States Nuclear Regulatory Commission authorizing the use of radioactive materials in New York State for a period of 30 days in a calendar year. While working under reciprocity in New York State, a licensee shall comply with all relevant provisions of 12 NYCRR Part 38 and shall insure that all radioactive sources brought into this state remain under the constant supervision of the licensee's authorized personnel and are secured against unauthorized removal from transport vehicles or temporary storage facilities.

Licensees wishing to use radioactive materials in this state for longer than 30 days must apply for a Department of Health radioactive materials license. Once a complete application has been submitted, along with the required licensing fee, the 30-day time limit will be waived pending completion of the application review process.

Companies that exceed the 30-day limit without submitting such an application may not be considered eligible for reciprocity in the future, and their licensing agency will be so notified.

Initial requests for reciprocity must be accompanied by a copy of the license (with all current amendments) under which work is to be performed. Also, unless specifically named on the license, any staff that will be using sources in New York State must carry evidence of training and/or authorization to use radiation sources under the license.

A Notice of Intent should be filed at least seven days prior to each entry into the state. In lieu of this filing requirement, oral notification or notification less than seven days in advance may be accepted in emergency situations at the discretion of the Department. In no event shall a licensee enter the state to perform activities with radioactive materials without prior notice to the Department. Also, the Department should be notified immediately of any subsequent changes (including cancellation) to a Notice of Intent filed with this office.

Requests for reciprocity and Notices of Intent should be directed to our Albany office at:

NYS Department of Health
Bureau of Environmental Radiation Protection
Radioactive Material Section
ESP – Corning Towers Room 1245
Albany, New York 12237
Office (518) 402-7590
Fax (518) 402-7585

Remember that you must call to confirm receipt of mailed or faxed requests, and confirm that they have been approved.

STATE OF NEW YORK
DEPARTMENT OF HEALTH
BERP- Radioactive Material Section

Reciprocity Approval

Request Approval Date: ***6/21/2024***

NYS Temporary Registration No. ***16252***

AECOM Technical Services, Inc
10 Patewood Drive
Bldg 6, Suite 500
Greenville SC 29615

Telephone Number: ***864-234-3005***
Fax Number:

Attention Radiation Safety Officer ***Kevin Taylor, CHP***

Your Request for Reciprocity is approved. Below are the specific dates and temporary jobsite location in New York State. You must keep a copy of this approved Reciprocity Request along with a copy of your Agreement State/NRC Specific License. Please note that temporary storage in New York State is only authorized for 5 consecutive nights after which the RAM must be returned to its permanent storage location.

Jobsite Information

Dates Scheduled:	*From:*	*To*	*Number of days at jobsite*	Year to Date
	7/8/2024	***7/12/2024***	***5***	**7**

Client Name Address
Ashland Inc
1979 Atlas Street

Hillard, Ohio 43228

Client Contact
Ethan Smith
614-315-7401

Work site:
4625 River Road, Tonawanda 14150; site phone 716-912-4456

Activity to be conducted:
Other (Specify)
Soil Screening TENORM

Comment:

Approved by: ***MCF***

Licensing State/agency: ***USNRC***
License Number: ***39-35587-01***
Expiration Date: ***5/31/2035***

STATE OF NEW YORK
DEPARTMENT OF HEALTH
ESP Corning Towers, Room 1245
Albany, New York 12237
Phone: 518-402-7590
Fax: 518-402-7585

FOR OFFICAL USE ONLY
Registration No.
Date Issued:
Request Approved: Y N
Initials:

NOTICE OF PROPOSED USE OF RADIOACTIVE MATERIAL UNDER RECIPROCITY

1. NAME OF LICENSEE REQUESTING RECIPROCITY
AECOM Technical Services, Inc

2. FEIN NO. 95-2661922

3. ☐ INITIAL REQUEST
☒ SUBSEQUENT REQUEST

4. LICENSEE MAILING ADDRESS
10 Patewood Drive
Building 6, Suite 500
Greenville, SC 29615

5. CONTACT PERSON FOR LICENSEE
Kevin Taylor, RSO

6. TELEPHONE NO. 864-234-3005

7. FACSIMILE NO. N/A

8. ACTIVITIES TO BE CONDUCTED IN NEW YORK STATE

	WELL LOGGING		MOISTURE/ DENSITY GAUGES		TELETHERAPY/IRRRADIATOR SERVICE
	OTHER PORTABLE GAUGES		LEAK TESTING AND/OR CALIBRATIONS		OTHER (specify) Soil screening
	RADIOGRAPHY		REGISTERED AS USER OF PACKAGING (CERTIFICATES OF COMPLIANCE NO.s)		

9. CLIENT NAME, MAILING ADDRESS
Shannon Lloyd, Ashland Inc
1979 Atlas Street
Hilliard, Ohio 43228

10. ADDRESS OF WORK LOCATION (BE AS SPECIFIC AS POSSIBLE)
4625 River Road
Tonawanda, New York 14150

11. CLIENT TELEPHONE NO. 614-315-7401

12. CONTACT PERSON ON SITE Ethan Smith

13. SITE TELEPHONE NO. 716-912-4456

14. DATES SCHEDULED:
FROM July 15th 2024 TO July 15th 2024

15. NUMBER OF WORK DAYS 1

16. TOTAL NUMBER OF DAYS USED TO DATE IN NEW YORK STATE (THE MAXIMUM IS 30 CALENDAR DAYS IN ONE YEAR)
7 as of July 12, 2024

17. LIST THE RADIOACTIVE MATERIAL WHICH YOU WILL BRING, USE, INSTALL OR TEST IN NEW YORK STATE:

TENORM			

18. LIST THE SPECIFIC LICENSE YOU CURRENTLY HOLD THAT AUTHORIZES YOU TO PERFORM SUCH ACTIVITIES AS PROPOSED TO BE PERFORMED IN NEW YORK STATE. IF YOUR LICENSE HAS BEEN AMENDED SINCE YOUR LAST RECIPROCITY REQUEST YOU **MUST** SUBMIT A COPY OF THE AMENDED LICENSE.

a. LICENSE NUMBER	b. LICENSING AUTHORITY/STATE	c. EXPIRATION DATE
39-35587-01	U.S. Nuclear Regulatory Commission	May 31, 2035

19. I hereby certify that the information contained on this form is true and correct to the best of my knowledge and belief and that any changes to this information will be reported immediately.

Kevin Taylor, CHP — Name (Print or Type)

RSO — Title

Kevin Taylor — Signature

July 10, 2024 — Date

FOR OFFICIAL USE ONLY

NEW YORK
state department of
HEALTH

Nirav R. Shah, M.D., M.P.H.
Commissioner

Sue Kelly
Executive Deputy Commissioner

NOTICE TO RECIPROCITY APPLICANTS

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Bureau of Environmental Radiation Protection
Radioactive Material Section
ESP – Corning Towers Room 1245
Albany, New York 12237
Office (518) 402-7590
Fax (518) 402-7585

Remember that you must call to confirm receipt of mailed or faxed requests, and confirm that they have been approved.

STATE OF NEW YORK
DEPARTMENT OF HEALTH
BERP- Radioactive Material Section

Reciprocity Approval

Request Approval Date: ***7/15/2024***

NYS Temporary Registration No. ***16252***

AECOM Technical Services, Inc
10 Patewood Drive
Bldg 6, Suite 500
Greenville SC 29615

Telephone Number: ***864-234-3005***
Fax Number:

Attention Radiation Safety Officer ***Kevin Taylor, CHP***

Your Request for Reciprocity is approved. Below are the specific dates and temporary jobsite location in New York State. You must keep a copy of this approved Reciprocity Request along with a copy of your Agreement State/NRC Specific License. Please note that temporary storage in New York State is only authorized for 5 consecutive nights after which the RAM must be returned to its permanent storage location.

Jobsite Information

Dates Scheduled:	*From:*	*To*	*Number of days at jobsite*	Year to Date
	7/15/2024	***7/15/2024***	***1***	**8**

Client Name Address
Ashland Inc
1979 Atlas Street

Hillard, Ohio 43228

Client Contact
Shannon Lloyd
614-315-7401

Work site:
4625 River Road, Tonawanda 14150, Site phone 716-912-4456 contact on site Ethan Smith

Activity to be conducted:
Other (Specify)
Soil screening TENORM

Comment:

Approved by: ***MCF***

Licensing State/agency: ***USNRC***
License Number: ***39-35587-01***
Expiration Date: ***5/31/2035***

STATE OF NEW YORK
DEPARTMENT OF HEALTH
ESP Corning Towers, Room 1245
Albany, New York 12237
Phone: 518-402-7590
Fax: 518-402-7585

FOR OFFICAL USE ONLY
Registration No.
Date Issued:
Request Approved: Y N
Initials:

NOTICE OF PROPOSED USE OF RADIOACTIVE MATERIAL UNDER RECIPROCITY

1. NAME OF LICENSEE REQUESTING RECIPROCITY
AECOM Technical Services, Inc

2. FEIN NO. 95-2661922

3. ☐ INITIAL REQUEST
☒ SUBSEQUENT REQUEST

4. LICENSEE MAILING ADDRESS
10 Patewood Drive
Building 6, Suite 500
Greenville, SC 29615

5. CONTACT PERSON FOR LICENSEE
Kevin Taylor, RSO

6. TELEPHONE NO. 864-234-3005

7. FACSIMILE NO. N/A

8. ACTIVITIES TO BE CONDUCTED IN NEW YORK STATE

	WELL LOGGING		MOISTURE/ DENSITY GAUGES		TELETHERAPY/IRRRADIATOR SERVICE
	OTHER PORTABLE GAUGES		LEAK TESTING AND/OR CALIBRATIONS		OTHER (specify) Soil screening
	RADIOGRAPHY		REGISTERED AS USER OF PACKAGING (CERTIFICATES OF COMPLIANCE NO.s)		

9. CLIENT NAME, MAILING ADDRESS
Shannon Lloyd, Ashland Inc
1979 Atlas Street
Hilliard, Ohio 43228

10. ADDRESS OF WORK LOCATION (BE AS SPECIFIC AS POSSIBLE)
4625 River Road
Tonawanda, New York 14150

11. CLIENT TELEPHONE NO. 614-315-7401

12. CONTACT PERSON ON SITE Ethan Smith

13. SITE TELEPHONE NO. 716-912-4456

14. DATES SCHEDULED:
FROM August 8th 2024 TO August 9th 2024

15. NUMBER OF WORK DAYS 2

16. TOTAL NUMBER OF DAYS USED TO DATE IN NEW YORK STATE (THE MAXIMUM IS 30 CALENDAR DAYS IN ONE YEAR)
8 as of July 15, 2024

17. LIST THE RADIOACTIVE MATERIAL WHICH YOU WILL BRING, USE, INSTALL OR TEST IN NEW YORK STATE:

TENORM			

18. LIST THE SPECIFIC LICENSE YOU CURRENTLY HOLD THAT AUTHORIZES YOU TO PERFORM SUCH ACTIVITIES AS PROPOSED TO BE PERFORMED IN NEW YORK STATE. IF YOUR LICENSE HAS BEEN AMENDED SINCE YOUR LAST RECIPROCITY REQUEST YOU **MUST** SUBMIT A COPY OF THE AMENDED LICENSE.

a. LICENSE NUMBER	b. LICENSING AUTHORITY/STATE	c. EXPIRATION DATE
39-35587-01	U.S. Nuclear Regulatory Commission	May 31, 2035

19. I hereby certify that the information contained on this form is true and correct to the best of my knowledge and belief and that any changes to this information will be reported immediately.

Kevin Taylor, CHP — Name (Print or Type)

RSO — Title

Signature

July 31, 2024 — Date

FOR OFFICIAL USE ONLY

NEW YORK
state department of
HEALTH

Nirav R. Shah, M.D., M.P.H.
Commissioner

Sue Kelly
Executive Deputy Commissioner

NOTICE TO RECIPROCITY APPLICANTS

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Requests for reciprocity and Notices of Intent should be directed to our Albany office at:

NYS Department of Health
Bureau of Environmental Radiation Protection
Radioactive Material Section
ESP – Corning Towers Room 1245
Albany, New York 12237
Office (518) 402-7590
Fax (518) 402-7585

Remember that you must call to confirm receipt of mailed or faxed requests, and confirm that they have been approved.

STATE OF NEW YORK
DEPARTMENT OF HEALTH
BERP- Radioactive Material Section

Reciprocity Approval

Request Approval Date: ***8/1/2024***

NYS Temporary Registration No. ***16252***

AECOM Technical Services, Inc
10 Patewood Drive
Bldg 6, Suite 500
Greenville SC 29615

Telephone Number: ***864-234-3005***
Fax Number:

Attention Radiation Safety Officer ***Kevin Taylor, CHP***

Your Request for Reciprocity is approved. Below are the specific dates and temporary jobsite location in New York State. You must keep a copy of this approved Reciprocity Request along with a copy of your Agreement State/NRC Specific License. Please note that temporary storage in New York State is only authorized for 5 consecutive nights after which the RAM must be returned to its permanent storage location.

Jobsite Information

Dates Scheduled:	*From:*	*To*	*Number of days at jobsite*	Year to Date
	8/8/2024	***8/9/2024***	***2***	**10**

Client Name Address
Ashland Inc.
1979 Atlas Street

Hilliard, Ohio 43228

Client Contact
Shannon Lloyd
614-315-7401

Work site:
4625 River Road, Tonawanda 14150;
site contact Ethan Smith 716-912-4456

Activity to be conducted:
Other (Specify)
Soil Screening TENORM

Comment:

Approved by: ***MCF***

Licensing State/agency: ***USNRC***
License Number: ***39-35587-01***
Expiration Date: ***5/31/2035***

Appendix G Surface Water and Sediment Sampling Logs

SURFACE WATER SAMPLING LOG

Project: Ashland Tank 75 Site RI - 60730037 Site: Tank 75 Site Location I.D.: SW-01-1

Date: 6/3/2024 Sampling Personnel: Ethan Smith, Collin Horrocks Company: AECOM

Purging/ Sampling Device: Geotech Series II Peristaltic Pump Tubing Type: HDPE/silicone tubing Pump/Tubing Inlet Location: See Notes

Measuring Point: Water Surface Sample Depth: 1' Depth to Bottom: 14' Well Diameter: NA Screen Length: NA

Casing Type: NA Volume in 1 Well Casing (liters): NA Estimated Purge Volume (liters): NA

Sample ID: SW-01-1 Sample Time: 13:45 QA/QC: None

Sample Parameters: TCL VOCs + TICs, TCL SVOCs + TICs, PCBs, Pesticides, and Metals (Total and Dissolved, includes Hg and Cn)

Other Information:

PURGE PARAMETERS

TIME	pH	TEMP (^{o}C)	COND. (mS/cm)	DISS. O_2 (mg/l)	TURB. (NTU)	ORP (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (btor)
13:45	7.84	22.66	0.261	5.44	2.2	126	--	--

Notes: Water quality parameters obtained following collection of sample via Horiba U-52 Multiparameter Water Quality Meter (S/N: L8OCTHPY).

SURFACE WATER SAMPLING LOG

Project: Ashland Tank 75 Site RI - 60730037 Site: Tank 75 Site Location I.D.: SW-01-2

Date: 6/3/2024 Sampling Personnel: Ethan Smith, Collin Horrocks Company: AECOM

Purging/Sampling Device: Geotech Series II Peristaltic Pump Tubing Type: HDPE/silicone tubing Pump/Tubing Inlet Location: See Notes

Measuring Point: Water Surface Sample Depth: 7' Depth to Bottom: 14' Well Diameter: NA Screen Length: NA

Casing Type: NA Volume in 1 Well Casing (liters): NA Estimated Purge Volume (liters): NA

Sample ID: SW-01-2 Sample Time: 11:55 QA/QC: Field Duplicate, MS/MSD

Sample Parameters: TCL VOCs + TICs, TCL SVOCs + TICs, PCBs, Pesticides, and Metals (Total and Dissolved, includes Hg and Cn), PFAS, 1,4-Dioxane

Other Information: Field Duplicate Sample I.D.: SW-01-2-FD
MS/MSD Sample I.D.: SW-01-2-MS and SW-01-2-MSD

PURGE PARAMETERS

TIME	pH	TEMP (^{0}C)	COND. (mS/cm)	DISS. O_2 (mg/l)	TURB. (NTU)	ORP (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (btor)
12:00	6.97	21.9	0.296	6.83	1.6	232	--	--

Notes: Water quality parameters obtained following collection of sample via Horiba U-52 Multiparameter Water Quality Meter (S/N: L8OCTHPY).

SURFACE WATER SAMPLING LOG

Project: Ashland Tank 75 Site RI - 60730037 Site: Tank 75 Site Location I.D.: SW-01-3

Date: 6/3/2024 Sampling Personnel: Ethan Smith, Collin Horrocks Company: AECOM

Purging/ Sampling Device: Geotech Series II Peristaltic Pump Tubing Type: HDPE/silicone tubing Pump/Tubing Inlet Location: See Notes

Measuring Point: Water Surface Sample Depth: 13' Depth to Bottom: 14' Well Diameter: NA Screen Length: NA

Casing Type: NA Volume in 1 Well Casing (liters): NA Estimated Purge Volume (liters): NA

Sample ID: SW-01-3 Sample Time: 13:20 QA/QC: None

Sample Parameters: TCL VOCs + TICs, TCL SVOCs + TICs, PCBs, Pesticides, and Metals (Total and Dissolved, includes Hg and Cn)

Other Information:

PURGE PARAMETERS

TIME	pH	TEMP (^{0}C)	COND. (mS/cm)	DISS. O_2 (mg/l)	TURB. (NTU)	ORP (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (btor)
13:25	7.36	21.87	0.284	1.91	23	48	--	--

Notes: Water quality parameters obtained following collection of sample via Horiba U-52 Multiparameter Water Quality Meter (S/N: L8OCTHPY).

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Boring Log

Boring No.: SED-01

Client: Ashland Inc.		**Sheet:** 1 **of** 1
Project/Project Location: Tank 75 Site RI, 4625 River Road, Tonawanda, NY		**Drilling Company:** Atlantic Testing Labratories
Project #: 60730037	**Northing:** 1090814.702 **Easting:** 1057694.681	**Driller:** T. Gavin
Start Date: 6/3/2024	**Surface Water Elev (msl):** 591.2	**Drill Equipment:** Vibracore
Finish Date: 6/3/2024	**Drilling Method:** Vibracore	**Sample Method:** Vibracore
Logged By: C. Horrocks	**Reviewed By:** E. Chorostkowska	**Total Depth (ft bws):** 13.3

Depth (ft bws)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Lab Sample ID
0						
2						
4					Water	
6						
8					8.3	
10	5.0	1.6			Dark Brown, wet, soft, oily sludge with petroleum odor.	
		26.7				
		57.3			11.1	
12		137.6	SC		Black, wet, hard Clayey SAND.	SED-01 @ 1500
					13.3	
14					End of boring at 13.3 ft. bws.	
16						
18						
20						

Remarks: Boring Terminated (ft. bws.): 13.3

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Boring Log

Boring No.: SED-02

Client: Ashland Inc.		**Sheet:** 1 **of** 1
Project/Project Location: Tank 75 Site RI, 4625 River Road, Tonawanda, NY		**Drilling Company:** Atlantic Testing Labratories
Project #: 60730037	**Northing:** 1090841.567 **Easting:** 1057736.850	**Driller:** T. Gavin
Start Date: 6/3/2024	**Surface Water Elev (msl):** 591.2	**Drill Equipment:** Vibracore
Finish Date: 6/3/2024	**Drilling Method:** Vibracore	**Sample Method:** Vibracore
Logged By: C. Horrocks	**Reviewed By:** E. Chorostkowska	**Total Depth (ft bws):** 20.8

Depth (ft bws)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Lab Sample ID
0						
2						
4						
6						
8					Water	
10						
12						
14						
16					17.0	
18	3.8	55.7			Black, wet, soft oily sludge with petroleum odor.	SED-02 @ 1600
		61.3				
20		106.0			19.7	
		164.8			Black, wet, medium stiff oily sludge with petroleum odor. 20.8	

End of boring at 20.8 ft. bws.

Remarks: Boring Terminated (ft. bws.): 20.8

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Boring Log

Boring No.: SED-03

Client: Ashland Inc.		**Sheet:** 1 **of** 1
Project/Project Location: Tank 75 Site RI, 4625 River Road, Tonawanda, NY		**Drilling Company:** Atlantic Testing Labratories
Project #: 60730037	**Northing:** 1090868.432 **Easting:** 1057779.020	**Driller:** T. Gavin
Start Date: 6/3/2024	**Surface Water Elev (msl):** 591.2	**Drill Equipment:** Vibracore
Finish Date: 6/3/2024	**Drilling Method:** Vibracore	**Sample Method:** Vibracore
Logged By: C. Horrocks	**Reviewed By:** E. Chorostkowska	**Total Depth (ft bws):** 17.7

Depth (ft bws)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Lab Sample ID
0						
2						
4						
6						
8					Water	
10						
12						
14						
15.2						
16	2.5	42.8			Black, wet, soft oily sludge with petroleum odor.	
		43.9				
17.0						
17.5		26.2			Black, wet, medium stiff oily sludge with petroleum odor.	
17.7			MH		Brown, wet, Clayey SILT.	SED-03 @ 1630
18					End of boring at 17.7 ft. bws.	
20						

Remarks: Boring Terminated (ft. bws.): 17.7

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Boring Log

Boring No.: SED-04

Client: Ashland Inc.		**Sheet:** 1 **of** 1
Project/Project Location: Tank 75 Site RI, 4625 River Road, Tonawanda, NY		**Drilling Company:** Atlantic Testing Labratories
Project #: 60730037	**Northing:** 1090772.532 **Easting:** 1057721.546	**Driller:** T. Gavin
Start Date: 6/3/2024	**Surface Water Elev (msl):** 591.2	**Drill Equipment:** Vibracore
Finish Date: 6/3/2024	**Drilling Method:** Vibracore	**Sample Method:** Vibracore
Logged By: C. Horrocks	**Reviewed By:** E. Chorostkowska	**Total Depth (ft bws):** 20.6

Depth (ft bws)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Lab Sample ID
0						
2						
4						
6						
8					Water	
10						
12						
14						
16					16.8	
					17.7 Dark Brown, wet, soft oily sludge with petroleum odor.	
18	3.8	70.3	SC		Black, wet, hard Clayey SAND with sludge and petroleum odor.	SED-04 @ 1700
20		94.2			20.6	
					End of boring at 20.6 ft. bws.	

Remarks: Boring Terminated (ft. bws.): 20.6

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Boring Log

Boring No.: SED-05

Client: Ashland Inc.		**Sheet:** 1 **of** 1
Project/Project Location: Tank 75 Site RI, 4625 River Road, Tonawanda, NY		**Drilling Company:** Atlantic Testing Labratories
Project #: 60730037	**Northing:** 1090799.397 **Easting:** 1057763.715	**Driller:** T. Gavin
Start Date: 6/3/2024	**Surface Water Elev (msl):** 591.2	**Drill Equipment:** Vibracore
Finish Date: 6/3/2024	**Drilling Method:** Vibracore	**Sample Method:** Vibracore
Logged By: C. Horrocks	**Reviewed By:** E. Chorostkowska	**Total Depth (ft bws):** 21.3

Depth (ft bws)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Lab Sample ID
0						
2						
4						
6						
8					Water	
10						
12						
14						
16					16.8	
18	4.5	86.2			Black, wet, soft silty oily sludge with petroleum odor (jelly-like). 18.3	SED-05 @ 1735
20		91.6			Black, moist to wet, waxy, jelly-like, stiff oily sludge. 21.3	
22					End of boring at 21.3 ft. bws.	

Remarks: Boring Terminated (ft. bws.): 21.3

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Boring Log

Boring No.: SED-06

Client: Ashland Inc.		**Sheet:** 1 **of** 1
Project/Project Location: Tank 75 Site RI, 4625 River Road, Tonawanda, NY		**Drilling Company:** Atlantic Testing Labratories
Project #: 60730037	**Northing:** 1090826.262 **Easting:** 1057805.885	**Driller:** T. Gavin
Start Date: 6/4/2024	**Surface Water Elev (msl):** 591.2	**Drill Equipment:** Vibracore
Finish Date: 6/4/2024	**Drilling Method:** Vibracore	**Sample Method:** Vibracore
Logged By: C. Horrocks	**Reviewed By:** E. Chorostkowska	**Total Depth (ft bws):** 21.6

Depth (ft bws)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Lab Sample ID
0						
2						
4						
6						
8					Water	
10						
12						
14						
16						
18	4.3	33.3			17.3 Black, wet, soft oily sludge with petroleum odor.	
		72.0			18.9	
20		76.0			Black, wet, cohesive oily sludge with petroleum odor.	SED-06 @ 0710 w/ MS/MSD
		35.3			21.6	
22					End of boring at 21.6 ft. bws.	

Remarks: Boring Terminated (ft. bws.): 21.6

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Boring Log

Boring No.: SED-07

Client: Ashland Inc.		**Sheet:** 1 **of** 1
Project/Project Location: Tank 75 Site RI, 4625 River Road, Tonawanda, NY		**Drilling Company:** Atlantic Testing Labratories
Project #: 60730037	**Northing:** 1090730.362 **Easting:** 1057748.411	**Driller:** T. Gavin
Start Date: 6/4/2024	**Surface Water Elev (msl):** 591.2	**Drill Equipment:** Vibracore
Finish Date: 6/4/2024	**Drilling Method:** Vibracore	**Sample Method:** Vibracore
Logged By: C. Horrocks	**Reviewed By:** E. Chorostkowska	**Total Depth (ft bws):** 15.3

Depth (ft bws)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Lab Sample ID
0						
2						
4						
6					Water	
8						
10						
12						
13.0						
13.2					Black, wet soft oily sludge with petroleum odor.	
14	2.3	13.0			Black, wet, very dense oily sludge with petroleum odor.	SED-07 @ 0745
14.0						
14.2					Black, wet soft oily sludge with petroleum odor.	
		51.3			Black, wet, very dense oily sludge with petroleum odor.	
15.3		120.5				
16					End of boring at 15.3 ft. bws.	
18						
20						

Remarks: Boring Terminated (ft. bws.): 15.3

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Boring Log

Boring No.: SED-08

Client: Ashland Inc.		**Sheet:** 1 **of** 1
Project/Project Location: Tank 75 Site RI, 4625 River Road, Tonawanda, NY		**Drilling Company:** Atlantic Testing Labratories
Project #: 60730037	**Northing:** 1090757.227 **Easting:** 1057790.580	**Driller:** T. Gavin
Start Date: 6/4/2024	**Surface Water Elev (msl):** 591.2	**Drill Equipment:** Vibracore
Finish Date: 6/4/2024	**Drilling Method:** Vibracore	**Sample Method:** Vibracore
Logged By: C. Horrocks	**Reviewed By:** E. Chorostkowska	**Total Depth (ft bws):** 19.8

Depth (ft bws)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Lab Sample ID
0						
2						
4						
6						
8					Water	
10						
12						
14						
15.0						
16		19.1			Black, wet, soft, oily sludge with petroleum odor.	SED-08 @ 0815 w/ FD
		58.3				
17.2		59.9				
18	2.2				Black, wet, dense, medium stiff to hard oily sludge with petroleum odor inferred to 19.8 ft. bws. based on hand probe.	
19.8						
20						

End of boring at 19.8 ft. bws.

Remarks: Boring Terminated (ft. bws.): 19.8

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Boring Log

Boring No.: SED-09

Client: Ashland Inc.		**Sheet:** 1 **of** 1
Project/Project Location: Tank 75 Site RI, 4625 River Road, Tonawanda, NY		**Drilling Company:** Atlantic Testing Labratories
Project #: 60730037	**Northing:** 1090784.092 **Easting:** 1057832.750	**Driller:** T. Gavin
Start Date: 6/4/2024	**Surface Water Elev (msl):** 591.2	**Drill Equipment:** Vibracore
Finish Date: 6/4/2024	**Drilling Method:** Vibracore	**Sample Method:** Vibracore
Logged By: C. Horrocks	**Reviewed By:** E. Chorostkowska	**Total Depth (ft bws):** 19.0

Depth (ft bws)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Lab Sample ID
0						
2						
4						
6					Water	
8						
10						
12						
14					14.2	
16	3.0	31.2 59.2 65.7			Black, wet, soft oily sludge with petroleum odor. 16.4	
18					Black, wet, medium stiff oily sludge with petroleum odor inferred to 19.0 ft. bws. based on hand probe. 19.0	SED-09 @ 0845
20					End of boring at 19.0 ft. bws.	

Remarks: Boring Terminated (ft. bws.): 19.0

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Boring Log

Boring No.: SED-10

Client: Ashland Inc.		**Sheet:** 1 **of** 1
Project/Project Location: Tank 75 Site RI, 4625 River Road, Tonawanda, NY		**Drilling Company:** Atlantic Testing Labratories
Project #: 60730037	**Northing:** 1090688.193 **Easting:** 1057775.276	**Driller:** T. Gavin
Start Date: 6/4/2024	**Surface Water Elev (msl):** 591.2	**Drill Equipment:** Vibracore
Finish Date: 6/4/2024	**Drilling Method:** Vibracore	**Sample Method:** Vibracore
Logged By: C. Horrocks	**Reviewed By:** E. Chorostkowska	**Total Depth (ft bws):** 17.6

Depth (ft bws)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Lab Sample ID
0						
2						
4						
6						
8					Water	
10						
12						
14					14.6	
16	3.0	18.2 66.1 87.9 27.9			Black, wet, soft oily sludge with petroleum odor. 15.9 Black, wet, medium stiff oily sludge with petroleum odor. 17.6	SED-10 @ 0915
18					End of boring at 17.6 ft. bws.	
20						

Remarks: Boring Terminated (ft. bws.): 17.6

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Boring Log

Boring No.: SED-11

Client: Ashland Inc.		**Sheet:** 1 **of** 1
Project/Project Location: Tank 75 Site RI, 4625 River Road, Tonawanda, NY		**Drilling Company:** Atlantic Testing Labratories
Project #: 60730037	**Northing:** 1090715.058 **Easting:** 1057817.445	**Driller:** T. Gavin
Start Date: 6/4/2024	**Surface Water Elev (msl):** 591.2	**Drill Equipment:** Vibracore
Finish Date: 6/4/2024	**Drilling Method:** Vibracore	**Sample Method:** Vibracore
Logged By: C. Horrocks	**Reviewed By:** E. Chorostkowska	**Total Depth (ft bws):** 19.8

Depth (ft bws)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Lab Sample ID
0						
2						
4						
6						
8					Water	
10						
12						
14						
					15.0	
16	4.8	188.8			15.8 Black, wet, very soft oily sludge with petroleum odor.	
		69.2			Black, wet, soft oily sludge with petroleum odor.	SED-11 @ 0950 w/ FD
18		63.7			17.5	
		128.7			Black, wet, dense oily sludge with petroleum odor.	
		181.3			19.5	
20					19.8 Black, moist, dense oily sludge with sand and gravel (asphalt) and petroleum odor.	
					End of boring at 19.8 ft. bws.	

Remarks: Boring Terminated (ft. bws.): 19.8

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Boring Log

Boring No.: SED-12

Client: Ashland Inc.		**Sheet:** 1 **of** 1
Project/Project Location: Tank 75 Site RI, 4625 River Road, Tonawanda, NY		**Drilling Company:** Atlantic Testing Labratories
Project #: 60730037	**Northing:** 1090741.923 **Easting:** 1057859.615	**Driller:** T. Gavin
Start Date: 6/4/2024	**Surface Water Elev (msl):** 591.2	**Drill Equipment:** Vibracore
Finish Date: 6/4/2024	**Drilling Method:** Vibracore	**Sample Method:** Vibracore
Logged By: C. Horrocks	**Reviewed By:** E. Chorostkowska	**Total Depth (ft bws):** 16.0

Depth (ft bws)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Lab Sample ID
0						
2						
4						
6					Water	
8						
10					10.7	
12	5.0	100.9			Black, wet, very soft oily sludge with sand and gravel, petroleum odor. 11.5	
					Black, wet, soft oily sludge with petroleum odor. 12.5	
		195.2				
14		112.0			Black, wet, dense oily sludge with petroleum odor.	SED-12 @ 1030
		161.6			15.2	
16					Black, wet, soft to medium dense oily sludge with petroleum odor and free liquid inferred to 16.0 ft. bws. based on hand probe. 16.0	
					End of boring at 16.0 ft. bws.	
18						
20						

Remarks: Boring Terminated (ft. bws.): 16.0

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Boring Log

Boring No.: SED-13

Client: Ashland Inc.		**Sheet:** 1 **of** 1
Project/Project Location: Tank 75 Site RI, 4625 River Road, Tonawanda, NY		**Drilling Company:** Atlantic Testing Labratories
Project #: 60730037	**Northing:** 1090646.023 **Easting:** 1057802.141	**Driller:** T. Gavin
Start Date: 6/4/2024	**Surface Water Elev (msl):** 591.2	**Drill Equipment:** Vibracore
Finish Date: 6/4/2024	**Drilling Method:** Vibracore	**Sample Method:** Vibracore
Logged By: C. Horrocks	**Reviewed By:** E. Chorostkowska	**Total Depth (ft bws):** 20.5

Depth (ft bws)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Lab Sample ID
0						
2						
4						
6						
8					Water	
10						
12						
14						
16					16.7	
18	3.8	48.7			Black, wet, very soft to soft oily sludge with petroleum odor.	SED-13 @ 1100
		55.9			18.8	
20		45.9			Black, wet, medium stiff oily sludge with petroleum odor.	
					20.5	
					End of boring at 20.5 ft. bws.	

Remarks: Boring Terminated (ft. bws): 20.5

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Boring Log

Boring No.: SED-14

Client: Ashland Inc.		**Sheet:** 1 **of** 1
Project/Project Location: Tank 75 Site RI, 4625 River Road, Tonawanda, NY		**Drilling Company:** Atlantic Testing Labratories
Project #: 60730037	**Northing:** 1090672.888 **Easting:** 1057844.310	**Driller:** T. Gavin
Start Date: 6/4/2024	**Surface Water Elev (msl):** 591.2	**Drill Equipment:** Vibracore
Finish Date: 6/4/2024	**Drilling Method:** Vibracore	**Sample Method:** Vibracore
Logged By: C. Horrocks	**Reviewed By:** E. Chorostkowska	**Total Depth (ft bws):** 18.3

Depth (ft bws)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Lab Sample ID
0						
2						
4						
6					Water	
8						
10						
12					12.8	
14	5.5	86.4			Black, wet, very soft oily sludge with petroleum odor. 14.0	
		222.0			Black, wet, soft oily sludge with petroleum odor. 15.1	
16		152.9				
		221.6			Black, wet, medium stiff oily sludge with petroleum odor.	
		218.0				SED-14 @ 1130
18		217.0			18.3	
					End of boring at 18.3 ft. bws.	
20						

Remarks: Boring Terminated (ft. bws.): 18.3

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Boring Log

Boring No.: SED-15

Client: Ashland Inc.		**Sheet:** 1 **of** 1
Project/Project Location: Tank 75 Site RI, 4625 River Road, Tonawanda, NY		**Drilling Company:** Atlantic Testing Labratories
Project #: 60730037	**Northing:** 1090699.753 **Easting:** 1057886.480	**Driller:** T. Gavin
Start Date: 6/4/2024	**Surface Water Elev (msl):** 591.2	**Drill Equipment:** Vibracore
Finish Date: 6/4/2024	**Drilling Method:** Vibracore	**Sample Method:** Vibracore
Logged By: C. Horrocks	**Reviewed By:** E. Chorostkowska	**Total Depth (ft bws):** 12.5

Depth (ft bws)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Lab Sample ID
0						
2						
4					Water	
6						
8					8.0	
					8.4 Black, wet, very soft oily sludge with petroleum odor.	
		54.9				
10		132.5			Black, wet, soft oily sludge with gravelly sand, petroleum odor.	SED-15 @ 1200
	3.5				10.4	
		91.6			Black, wet, stiff oily sludge with some gravel, petroleum odor.	
					11.5	
12		62.3	CL		Dark brown, moist, stiff clay with black stains inferred to 12.5 ft. bws. based on hand probe.	
					12.5	
					End of boring at 12.5 ft. bws.	
14						
16						
18						
20						

Remarks: Boring Terminated (ft. bws.): 12.5

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Kara Beharry (Print/Sign)	Kara Beharry	6/3/2024 (Date)
Kevin Taylor (Print/Sign)	KEJ	6/3/2024 (Date)

Scan Beta		Scan Gamma	
Instrument #	223414	**Instrument #**	25035865
Meter Model #	L12	Meter Model #	L3000
Meter Serial #	223414	Meter Serial #	25035865
Detector Model #	44-9	Detector Model #	44-10
Detector Serial #	PR 306458	Detector Serial #	PR422254
Cal Due	5/2/2025	Cal Due	4/16/2025
Detector Efficiency (ε_i)	10.9%	Detector Efficiency (ε_i)	NA
Sample Time (T_s) (min)	1	Sample Time (T_s) (min)	1
Background Time (T_b) (min)	10	Background Time (T_b) (min)	10
BKG (R_b) (cpm)	58.0	ShieldedBKG (R_b) (cpm)	1858.0
Scan Interval (sec.)	1	Scan Interval (sec.)	2
MDCR (cpm) surveyor	115	MDCR (cpm)	467
MDCR + BK (cpm)	173	MDCR + BK (cpm)	2325

Ashland Tank 75 Sediment Samples

Note: Conducted on June 3, 2024

Sediment	1 ft Scan Max β/γ - 44-9 (cpm)	1 ft Scan Max γ - 44-10 (shielded) (cpm)
SED-01	≤ 40	1040≤R≤1450
SED-02	≤ 30	1130≤R≤2020
SED-03	≤ 30	1170≤R≤1870
SED-04	≤ 40	1330≤R≤1720
SED-05	≤ 40	1120≤R≤1650

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Kara Beharry	Kara Beharry	6/4/2024
Print/Sign		Date
Kevin Taylor		6/4/2024
Print/Sign		Date

Scan Beta		Scan Gamma	
Instrument #	223414	**Instrument #**	25035865
Meter Model #	L12	Meter Model #	L3000
Meter Serial #	223414	Meter Serial #	25035865
Detector Model #	44-9	Detector Model #	44-10
Detector Serial #	PR 306458	Detector Serial #	PR422254
Cal Due	5/2/2025	Cal Due	4/16/2025
Detector Efficiency (ε_i)	10.9%	Detector Efficiency (ε_i)	NA
Sample Time (T_s) (min)	1	Sample Time (T_s) (min)	1
Background Time (T_b) (min)	10	Background Time (T_b) (min)	10
BKG (R_b) (cpm)	86.0	ShieldedBKG (R_b) (cpm)	1858.0
Scan Interval (sec.)	1	Scan Interval (sec.)	2
MDCR (cpm) surveyor	140	MDCR (cpm)	467
MDCR + BK (cpm)	226	MDCR + BK (cpm)	2325

Ashland Tank 75 Sediment Samples

Note: Conducted on June 4, 2024

Sediment	1 ft Scan Max β/γ - 44-9 (cpm)	1 ft Scan Max γ - 44-10 (shielded) (cpm)
SED-06	≤ 80	1400≤R≤1860
SED-07	≤ 80	1200≤R≤1900
SED-08	≤ 100	1380≤R≤1880
SED-09	≤ 100	1140≤R≤1750
SED-10	≤ 80	1370≤R≤1870
SED-11	≤ 80	1360≤R≤1740
SED-12	≤ 60	1260≤R≤2000
SED-13	≤ 60	1220≤R≤1710
SED-14	≤ 100	1240≤R≤1820
SED-15	≤ 80	1190≤R≤1940

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

1057 East Henrietta Rd.
Rochester NY 14623
Phone: 585-424-2140

Pine Environmental Services, Inc.

Instrument ID 20803
Description Horiba U-52 Sonde
Calibrated 5/31/2024 12:41:09PM

Manufacturer Horiba
Model Number U-52
Serial Number/ Lot Number L8OCTHPY
Location Rochester, NY
Department

State Certified
Status Pass
Temp °C 23
Humidity % 48

Calibration Specifications

Group # 1
Group Name PH
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
7.00 / 7.00	PH	7.00	PH	6.80	7.00	0.00%	Pass
4.00 / 4.00	PH	4.00	PH	4.00	4.00	0.00%	Pass

Group # 2
Group Name Turbidity
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
0.00 / 0.00	NTU	0.00	NTU	0.00	0.00	0.00%	Pass
800.00 / 800.00	NTU	800.00	NTU	789.00	801.00	0.13%	Pass

Group # 3
Group Name Conductivity
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.000

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
0.000 / 0.000	ms/cm	0.000	ms/cm	0.000	0.000	0.00%	Pass
0.718 / 0.718	ms/cm	0.718	ms/cm	0.717	0.719	0.14%	Pass
5.000 / 5.000	ms/cm	5.000	ms/cm	4.800	5.000	0.00%	Pass
80.000 / 80.000	ms/cm	80.000	ms/cm	81.000	80.000	0.00%	Pass

Group # 4
Group Name Redox (ORP)
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
240.00 / 240.00	mv	240.00	mv	234.00	241.00	0.42%	Pass

Group # 5
Group Name Disolved Oxygen Zero
Range Acc % 0.0000
Reading Acc % 3.0000

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

1057 East Henrietta Rd.
Rochester NY 14623
Phone: 585-424-2140

Pine Environmental Services, Inc.

Instrument ID 20803
Description Horiba U-52 Sonde
Calibrated 5/31/2024 12:41:09PM

Group # 5
Group Name Disolved Oxygen Zero
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
0.00 / 0.00	%	0.00	%	0.00	0.00	0.00%	Pass

Group # 6
Group Name Temperature DO Span
Stated Accy Plus / Minus
Range Acc % 0.0000
Reading Acc % 0.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
21.00 / 21.00	degrees C	8.68	mg/L	8.67	8.68	0.00%	Pass

Test Instruments Used During the Calibration **(As Of Cal Entry Date)**

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Last Cal Date/ Opened Date	Next Cal Date / Expiration Date
NY, ROC - .718 US/CM, 2GC1368	.718 Conductivity Sandard	AquaPhoenix Scientific	32088	2GC1368		8/30/2024
NY, ROC - 0.0NTU, 22140172	Autocal, 0 NTU Solution	AMCOCLEAR	32101	22140172		9/30/2024
NY, ROC - 1.413, 2GI642	1.413 Conductivity Standard	AquaPhoenix Scientific	31986			9/30/2024
NY, ROC - 240 ORP, 2GL022	240mV ORP Solution	AquaPhoenix Scientific				9/30/2024
NY, ROC - 5000 US/CM, 2GD1050	5000 Conductivity Sandard	AquaPhoenix Scientific	31997	2gd1050		8/30/2024
NY, ROC - 80,000U S/CM, 2GC1366	80,000 Conductivity Sandard	AquaPhoenix Scientific	31997			8/30/2024
NY, ROC - PH4, 2GI592	Potential of Hydrogen - 4	AquaPhoenix Scientific	32017	2gi592		9/30/2024
NY, ROC - PH7, 3GA508	Potential of Hydrogen - 7	AquaPhoenix Scientific	32025	3ga508		1/30/2025

Notes about this calibration

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

1057 East Henrietta Rd.
Rochester NY 14623
Phone: 585-424-2140

Pine Environmental Services, Inc.

Instrument ID 20803
Description Horiba U-52 Sonde
Calibrated 5/31/2024 12:41:09PM

Calibration Result Calibration Successful
Who Calibrated Ian Wright

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

11397 Slater Ave.
Fountain Valley, CA 92708
Toll-free: 888-620-7463

Pine Environmental Services, Inc.

Instrument ID 801183
Description MiniRAE 3000
Calibrated 5/30/2024 7:23:36PM

Manufacturer Rae Systems
Model Number MiniRAE 3000
Serial Number/ Lot Number 592-602185
Location California
Department

State Certified
Status Pass
Temp °C 17
Humidity % 50

Calibration Specifications

Group # 1
Group Name VOC
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.0

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
100.0 / 100.0	PPM	100.0	PPM	99.0	100.0	0.00%	Pass

Test Instruments Used During the Calibration (As Of Cal Entry Date)

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Last Cal Date/ Opened Date	Next Cal Date / Expiration Date
CA ISO 100PPM #304-402824018 -1	CA ISO 100PPM L#304-402824018-1	Gasco	31721A	304-402824018 -1		10/10/2027

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated George Gomez

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

11397 Slater Ave.
Fountain Valley, CA 92708
Toll-free: 888-620-7463

Pine Environmental Services, Inc.

Instrument ID 36968
Description MiniRae 3000
Calibrated 5/30/2024 7:24:57PM

Manufacturer Rae Systems
Model Number MiniRAE 3000
Serial Number/ Lot Number 592-918799
Location California
Department

State Certified
Status Pass
Temp °C 17
Humidity % 50

Calibration Specifications

Group # 1
Group Name VOC
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	End As	Lft As	Dev%	Pass/Fail
100.00 / 100.00	PPM	100.00	PPM	98.00	100.00	0.00%	Pass

Test Instruments Used During the Calibration

(As Of Cal Entry Date)

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Last Cal Date/ Opened Date	Next Cal Date / Expiration Date
CA ISO 100PPM #304-402824018 -1	CA ISO 100PPM L#304-402824018-1	Gasco	31721A	304-402824018 -1		10/10/2027

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated George Gomez

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance

Environmental Restoration Group, Inc.
8809 Washington St NE, Suite #150
Albuquerque, NM 87113
(505) 298-4224
www.ERGoffice.com

Certificate of Calibration

Meter Calibration

ACCREDITED
CERT #6688.01

Customer: Environmental Restoration Group, Inc. *See address above.* Calibration Report No.: 5204

Calibration performed in accordance with ERG SOP Meter ITC.101.R1 2/6/2023 Detector ITC.102.R2 2/6/2023

Meter:	Manufacturer:	Ludlum	Model Number:	12	Serial Number:	223414
Detector:	Manufacturer:	Ludlum	Model Number:	44-9	Serial Number:	PR306458

Barometric Pressure: 24.43 inches Hg Temperature: 74 °F Relative Humidity: 20 %

Pulser: Ludlum 500-1 sn 201932 Multimeter: n/a Calibration Cable Length: ☑ 39-inch ☐ 60-inch ☐ Other:

☑ Mechanical Check	☑ Battery Check	HV Check:
☑ Audio Check	☑ THR/WIN Operation	☑ 500 V
☑ Meter Zero Check	☑ F/S Response Check	☑ 1000 V
☑ Meter Reset Check	☑ Geotropism	☑ 1500 V

Comments or Compliance Statement(s):

Additional Comments:

Meter Firmware Version:

Calibrated with Window in OUT mode: ☑

Set Voltage 900 V Set Threshold: 40 mV

Instrument Within Tolerance (+/- 10% on THR/WIN values and Meter Reading counts, and +/-2.5% on HV values): ☑ Yes ☐ No

Range/Multiplier	Reference Setting	"As Found Reading"		Meter Reading		Integrated 1-Min. Count	Log Scale Count	
x 1000	400	400	kcpm	400	kcpm			kcpm
x 1000	100	100	kcpm	100	kcpm			kcpm
x 100	400	400	kcpm	400	kcpm			kcpm
x 100	100	100	kcpm	100	kcpm			kcpm
x 10	400	400	kcpm	400	kcpm			kcpm
x 10	100	100	kcpm	100	kcpm			kcpm
x 1	400	400	cpm	400	cpm			cpm
x 1	100	100	cpm	100	cpm			cpm

Note:In case of repair, "As Found Reading" contains the pre-repair measurements and the "Meter Reading" contains the post-repair measurements.

Notes: Multimeter uncertainty within 1.1% of reading (volts, amps). Count rate uncertainty is within 3% of reading. Measurement results represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2. The calibration results presented on this ERG Calibration Certificate relate only to the items calibrated by ERG. ERG certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology (NIST) or to the calibration facilities of other International Standards Organization members, or have been derived from accepted values of natural physical constants or have been derived by the ratio type of calibration techniques. The calibration system conforms to the requirements of ANSI N323A-1997 and ISO/IEC 17025:2017.
DECISION RULE: Measurements from the meter, adjusted for the measurement uncertainty, must be within tolerance limits as stated in the Comments or Compliance Statement section. Otherwise the calibration is rejected.

5/2/24

Environmental Restoration Group, Inc.
8809 Washington St NE, Suite #150
Albuquerque, NM 87113
(505) 298-4224
www.ERGoffice.com

Certificate of Calibration

Detector Voltage Plateau

Customer: Environmental Restoration Group, Inc. *See address above.* Calibration Report No.: 5204

Voltage plateau performed in accordance with ERG SOP Meter ITC.101.R1 2/6/2023 Detector ITC.102.R2 2/6/2023

Meter:	Manufacturer:	Ludlum	Model Number:	12	Serial Number:	223414
Detector:	Manufacturer:	Ludlum	Model Number:	44-9	Serial Number:	PR306458

Voltage Plateau Calibration Cable Length: ☑ 39-inch ☐ 60-inch ☐ Other:

Recommended Operating HV (V DC) **900 V** Threshold: 40 mV Window:

Source Distance: ☑ Contact ☐ 6 inches ☐ Other:

Source Geometry: ☐ Side ☑ Below ☐ Other:

Count Time (min): 1.0

Background Counts 60

	Gross Counts	Net Counts	Total Efficiency	4π Efficiency
Source 1 Tc-99 sn:U9-060 16,817dpm/9,250cpm (4/11/22) 47 mm disk	1900	1840	0.050	0.109
Source 2			n/a	n/a

NOTE: The total efficiency provided is calculated per ISO-7503/NUREG 1575 (MARSSIM): Total Efficiency = Instrument Efficiency × Source Efficiency; where Instrument Efficiency is calculated as net counts ÷ source 2π emission rate. The 4π efficiency is calculated as net counts ÷ source 4π activity. The provided efficiencies are radionuclide specific and are calculated using source counts and background counts at the recommended operating HV. The provided efficiencies are for general information purposes only and are not intended to replace user efficiency calculation method or results.

Calibrated By: [signature] Calibration Date: 5/2/24 Calibration Due: 5/2/25

Reviewed By: [signature] Date: 5/2/24

www.ludlums.com

ACCREDITED
CERT #4084.01

CALIBRATION CERTIFICATE

Order No: 20462990

LUDLUM MEASUREMENTS, INC.
501 Oak Street
325-235-5494
Sweetwater, TX 79556, USA

Customer: ERG (ENV RESTORATION GRP)
Address: 8809 WASHINGTON ST NE
ALBUQUERQUE, NM 87113-2715
USA

Temp: 74.3 °F
Rel. H: 32%
Alt: 701.8mm Hg

Cal Date: 16-Apr-24
Cal Due Date: 16-Apr-25
Cal Interval: 1 year

Mfg.: Ludlum Measurements, Inc. **Model: 3000** Desc.: survey meter Serial No.: 25035865
Mfg.: Ludlum Measurements, Inc. **Model: 44-10** Desc.: Scintillator Serial No.: PR422254

Model 3000 Parameters:
☑ New Instrument
Serial No.: 25035865
☑ Alarm Setting Ck.
☑ Audio Check
☑ Battery Check
☑ F/S Resp. Check
☑ HV Readout
☑ Mechanical Check
Firmware: 5LC-N42.4904
Input Sensitivity: 10 mV
Instrument Volt Set: 800 V
Ref./Inst.: 600 / 600 V
Ref./Inst.: 1300 / 1318 V
Scaler Count: 6 second(s)
☑ LMI SOP 14.8
☑ LMI SOP 14.9
Primary Units: Roentgen
Secondary Units: cpm

Ratemeter

Reference Point	Direct Reading
800 kcpm	801 kcpm
200 kcpm	200 kcpm
80 kcpm	80.1 kcpm
20 kcpm	20.0 kcpm
8 kcpm	8.00 kcpm
2 kcpm	1.99 kcpm
800 cpm	800 cpm
200 cpm	200 cpm

Scaler

Reference Point	Direct Reading
800 kcpm	80.1 kcount
200 kcpm	20.0 kcount
80 kcpm	8.01 kcount
20 kcpm	2.00 kcount
8 kcpm	801 count
2 kcpm	201 count
800 cpm	80 count
200 cpm	20 count

COMMENTS:
Pulser calibration "Ratemeter" and "Scaler" performed without deadtime.
See attachments for all other settings. Calibrated with 5 ft. Cable.

Model 44-10 Parameters:
Serial No.: PR422254
Detector Operation: 800 V at 10 mV
Overload: Checked but not set.

Digital

Reference Point	Direct Reading
5 mR/hr	5.08 mR/hr
1 mR/hr	1.01 mR/hr
800 µR/hr	833 µR/hr
200 µR/hr = 175 kcpm	199 µR/hr

Ludlum Measurements, Inc. certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology.
The pass/fail tolerance of 10% (unless otherwise noted) is based on the manufacturer's specifications without considering uncertainty factors.
Measurement results represent expanded uncertainties expressed at approximately the 95% level of confidence, using a coverage factor of k=2.
Measurement Uncertainties: Voltage measurements 1.2%, Gamma Exposure/Dose 5.6%, Neutron Dose 7.0%, Count rate 5.2%.
The calibration system conforms to the requirements of ANSI/NCSL Z540-1-1994 and ANSI N323AB-2013

ISO/IEC 17025: 2017 (E)
State of Texas Calibration License No. LO-1963

Form ID #: AC246516580403

Reference Instruments and/or Source(s):
Sources: Cs-137: 1616, 720
Pulser: 235943 Multimeter: 94890214

Calibrator: Tina Gonzales Tina Gonzales Title: Calibrator Date: 16-Apr-24

QC'd by: Diane Baldez Title: Final QC Date: 18 Apr 24

Order #: 20462990
Customer: ERG (ENV RESTORATION GRP)
Detector: 44-10 **Serial No.:** PR422254
Instrument: Model 3000 **Serial No.:** 25035865
BKG Time: 6
Distance: surface
Selected HV: 800
Date: Wednesday, April 17, 2024
Notes:
Signature: Ana Gonzales

Channel(s)

Name	Threshold
Channel 1	10 mV

Source(s)

Name	ID	Activity	Time	Type
Am241	E149	0.75 µCi	6	γ

High Voltage	Background	Am241: E149
	Reading	Reading
600	427	9,471
650	457	11,344
700	473	12,006
750	466	12,039
✓ 800	485	12,027
850	425	11,783
900	470	12,127
950	540	12,125
1000	1,009	12,931

Dev

SN	25035865
Mdl	Model 3000
Aud Lvl	Single
Sleep	0
Setup Prtct	Normal
Rate Reset Btn	Off
Temp	67
LB	0
Conv R To Sv	0.0106
Fw	5LC-N42.4904
V Bat	5.562

RTC

Day	8
Mo	1
Hr	14
Mins	7
Sec	38
Yr	2014

Ext 1

Act Det Mem	0

Ch 1

Cal Raw Cnt	134354
Raw Cnt	2859470

Meas

Cur	0.537241

Cnt

Audio Mode	Off
Display Mode	Timer

Btn

Handle

Cnt Map 1	Take Log
Cnt Map 2	Do Nothing
Cnt Map 3	Do Nothing
Rate Map 1	Take Log
Rate Map 2	Do Nothing
Rate Map 3	Do Nothing

BklThr

Sensitivity	High

High

Light Turn Off	100
Light Turn On	17

Low

Light Turn Off	120
Light Turn On	40

AuxCom

Crypto En	On
Enable	On
Mode	SLURM
Write Prtct	On

AutoMode

Interval	1

Pwr

Auto Off Tm	1
Mode	On At Boot

DetMem 1

Mdl	44-10
SN	PR422254
Aud Sigma	Off
Count Tm	60
HV	800
Op Mode	Rate/Max/Count
Over Cur	100

Ch 1

CPS Offset	0
DTC 1	9.7E-06
DTC 2	0
Eff	15
LO Cnt Tm	60
R Cal Const	5.31E+10
Thr	0.01

Response

Rate	Slow
Time	0

Unit 1

Count

Alrm 1	0.002
Alrm 2	0.005
Min Exp	000E-8
Unit	R

Rate

Alrm 1	0.002
Alrm 2	0.005
Max Val	0.007
Min Exp	000E-7
Unit	R/h

Unit 2

Count

Alrm 1	2000
Alrm 2	5000
Min Exp	000E0
Unit	counts

Rate

Alrm 1	2000
Alrm 2	5000
Max Val	999000
Min Exp	000E0
Unit	cpm

DevCal

Ext 1

Ch 1

Thr

Offset	4

HV

Offset	-50
Slope	36

LOG

MODE	1
NOTES	
USER	
ENABLE	0

AUTO

TM	60

NUM

MAX	1000
REC	0

Instrument Setup Form

AECOM

INSTRUMENT/DETECTOR INFORMATION		Reading	Bkgd		Alpha		Beta	
Detection Type:	Alpha/Beta		BKG Reading (Counts)	BKG Reading (cpm)	Gross Source Reading (cpm)	Net Source Reading (cpm)	Gross Source Reading (cpm)	Net Source Reading (cpm)
Instrument S/N:	274113							
Instrument Model:	12	1	60	60	10000	9900	2200	2140
Detector S/N:	PR251672	2	100	100	10000	9900	2400	2300
Detector Model:	44-9	3	140	140	10000	9900	2300	2160
Calibration Due Date:	12/22/2024	4	120	120	10000	9900	2200	2080
Units (cpm, dpm, or µRem/hr):	cpm	5	100	100	9000	8900	2300	2200
Gamma Cal Efficiency (%):	NA	6	80	80	10000	9900	2400	2320
Alpha Surface Correction Factor:	NA	7	100	100	11000	10900	2400	2300
Beta Cal Efficiency (%):	20.0%	8	120	120	9000	8900	2300	2180
Beta Surface Correction Factor:	NA	9	100	100	10000	9900	2200	2100
SOURCE INFORMATION		10	80	80	10000	9900	2300	2220
Gamma								
Source ID:	NA							
Certificate date:	1/1/2010							
Nuclide:	Cs-137							
Activity:	5 µCi							
Beta								
Source ID:	182-11, SO7085, dns-1							
Certificate date:	3/7/2011							
Nuclide:	Tc-99							
Activity:	15,000 dpm/9,920 cpm							
Alpha								
Source ID:								
Certificate date:	8/21/2023							
Nuclide:	Po-210							
Activity:	0.1 µCi							
BKG Count Time (min):	1.0							
Sample Count Time (min):	1.0							

	Date :				2/6/2024		
ACCEPTABLE RESPONSE CRITERIA	**-20%:**		80.0	7920	**7840**	1840	**1760**
	Average:		**100.0**	**9900**	**9800**	**2300**	**2200**
	+20%:		120.0	11880	**11760**	2760	**2640**
	Standard Deviation		23.1	568	568	82	85

INSTRUMENT DETECTION CAPABILITIES		**Total Efficiency:**	20.00%
Detector Area (cm^2)	**15.5**	**Gross MDCR**	137.5
		MDA (dpm/100 cm^2)	1210

Instrument Notes/Comments

For gross count (Sr-90) multiplier at x1000

Performed by:	**Kara Beharry**	**Date: June 3rd 2024**
Reviewed by:		**Date:**

Instrument Setup Form

AECOM

INSTRUMENT/DETECTOR INFORMATION		Reading	Gamma				NA			
Detection Type:	Gamma		BKG Reading (Counts)	BKG Reading (cpm)	Gross Source Reading (cpm)	Source Net Reading (cpm)	BKG Reading (Counts)	BKG Reading (cpm)	Gross Source Reading (cpm)	Source Net Reading (cpm)
Instrument S/N:	25035865									
Instrument Model:	3000	1	9000	9000	999000	990100				
Detector S/N:	PR422254	2	10000	10000	941000	932100				
Detector Model:	44-10	3	10000	10000	999000	990100				
Calibration Due Date:	4/16/2025	4	9000	9000	999000	990100				
Units (cpm, dpm, or µRem/hr):	cpm	5	8000	8000	999000	990100				
Gamma Cal Efficiency (%):	NA	6	9000	9000	999000	990100				
Alpha Surface Correction Factor:	NA	7	9000	9000	999000	990100				
Beta Cal Efficiency (%):	NA	8	8000	8000	999000	990100				
Beta Surface Correction Factor:	NA	9	8000	8000	999000	990100				
SOURCE INFORMATION		10	9000	9000	999000	990100				
Gamma										
Source ID:	NA									
Certificate date:	1/1/2010									
Nuclide:	Cs-137									
Activity:	5 µCi									
Beta										
Source ID:	NA									
Certificate date:	NA									
Nuclide:	NA									
Activity:	NA									
BKG Count Time (min):	1.0									
Sample Count Time (min):	1.0									
	Date :	**6/2/2024**								
ACCEPTABLE RESPONSE CRITERIA	**-20%:**			7120.0	794560	787440	NA	NA	NA	NA
	Average:		8900	**8900.0**	**993200**	**984300**	NA	NA	NA	NA
	+20%:			10680.0	1191840	1181160	NA	NA	NA	NA
	Standard Deviation			737.9	18341	18341	NA	NA	NA	NA
INSTRUMENT DETECTION CAPABILITIES					**Total Efficiency:**	NA				NA
					MDCR	17164.2				NA
					MDA (dpm/100 cm^2)	NA				NA

Instrument Notes/Comments

The MDCR noted in cell H32 pertains to the instrument response and performance check.

Performed by:	**Kara Beharry**	**Date:**	**6/2/2024**
Reviewed by:		**Date:**	

Appendix H Underground Utility Locating Documentation

JOB SUMMARY REPORT

Order Number:	Work Order #662322	**Job Date:**	Jul 9, 2024 6:22:00 AM
Customer:	49717 AECOM CORPORATE : AECOM	**Billing Address:**	AECOM 300 LAKESIDE DR SUITE 400 OAKLAND CA 94612 United States

JOB DETAILS

Jobsite Location	4545 River Road, Town of Tonawanda, New York, 14150
Work Order Number	Work Order #662322
Job Number	
PO Number	60730037-05
GPRS Project Manager:	William McCowan

Thank you for using GPRS on your project. We appreciate the opportunity to work with you. If you have questions regarding the results of this scanning, please contact the lead GPRS project manager on this project.

EQUIPMENT USED

The following equipment was used on this project:

- **Underground GPR Antenna:** This GPR Antenna uses frequencies ranging from 250 MHz to 450 MHz and is mounted in a stroller frame that rolls over the surface. Data is displayed on a screen and marked in the field in real time. The surface needs to be reasonably smooth and unobstructed to obtain readable scans. Obstructions such as curbs, landscaping, and vegetation will limit the efficacy of GPR. The total effective scan depth can be as much as 8’ or more with this antenna but can vary widely depending on the soil conditions and composition. Some soil types, such as clay, may limit maximum depths to 3’ or less. As depth increases, targets must be larger to be detected, and non-metallic targets can be challenging to locate. The depths provided should always be treated as estimates as their accuracy can be affected by multiple factors. For more information, please visit: Link
- **EM Pipe Locator:** Electromagnetic Pipe and Cable Locator. Detects electromagnetic fields. Used to actively trace conductive pipes and tracer wires, or passively detect power and radio signals traveling along conductive pipes and utilities. For more information, please visit: Link
- **GPS:** This handheld unit offers accuracy down to 4 inches; however, the accuracy achieved will depend on the satellite environment at the time of collection and is not considered survey-grade. Features can be collected as points, lines, or areas and then exported as a KML/KMZ or overlaid on a CAD drawing. For more information, please visit: Link

JOB SUMMARY REPORT

WORK PERFORMED

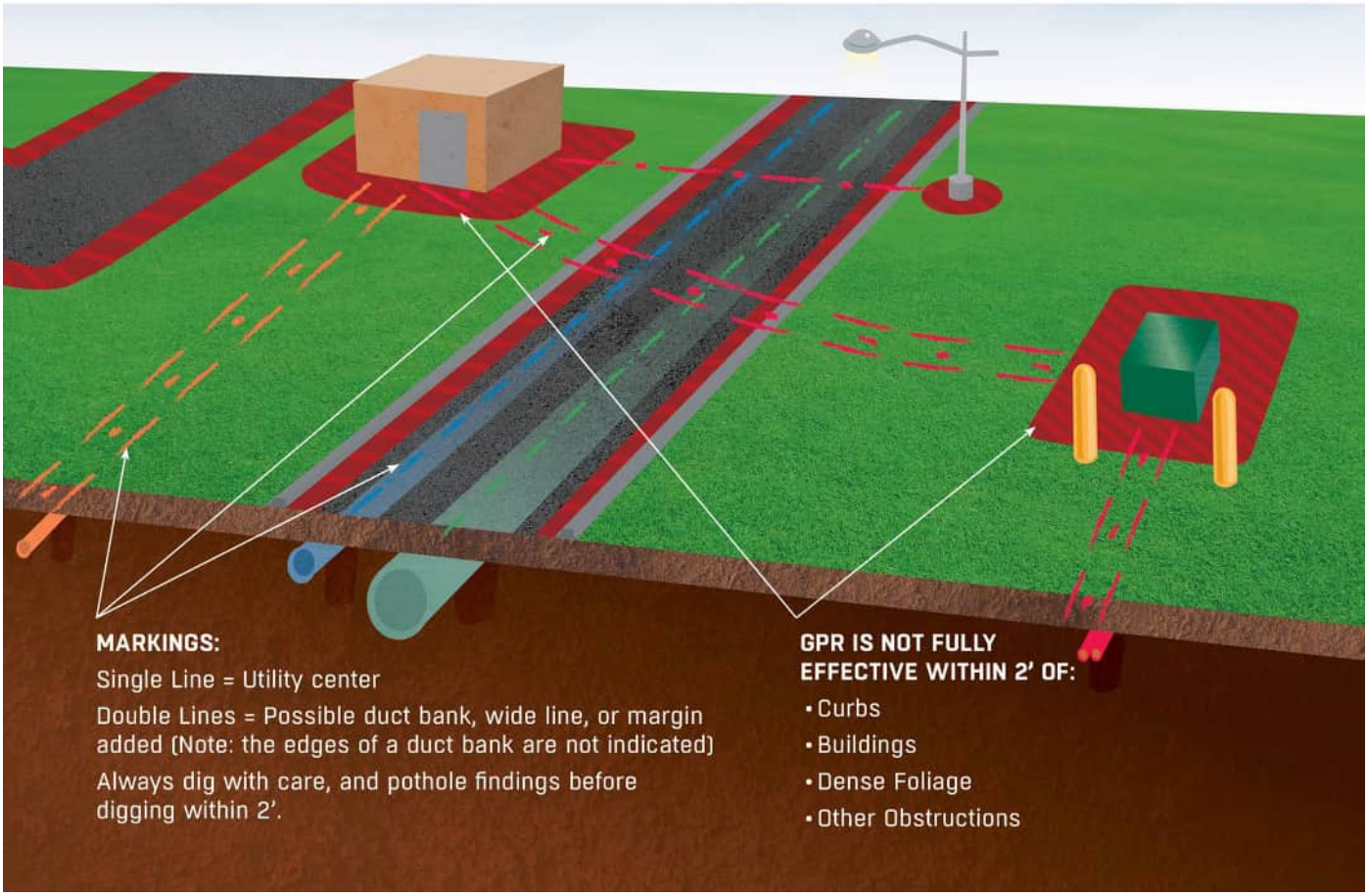
UNDERGROUND UTILITY	
Client Provided Drawings	Yes
Client completed 811 locate request	No
Scope of Work	Utility locate areas for 10 soil borings
Soil Borings (qty)	10
Approximate GPR Effective Depth (ft)	3
Utilities Located	- Unknown
Limitations Encountered	- Surface too rough - Overgrown vegetation
Marking Medium	- Spray Paint
Results Notes	Areas have been cleared. Recommend field verification for all markings. Recommend staying at least one foot from all markings.

JOB SUMMARY REPORT

SUPPLEMENTAL INFORMATION

COMMON UTILITY LOCATING LIMITATIONS

There are many limitations to locating utilities, due to a variety of factors, with several more common examples illustrated here.



JOB SUMMARY REPORT

JOBSITE IMAGES

Jobsite Photo #1

Jobsite Photo #2

Jobsite Photo #3

Jobsite Photo #4

Jobsite Photo #5

Jobsite Photo #6

JOB SUMMARY REPORT

CONTACT / SIGNATURE INFORMATION

Contact Information

Contact Name	Edyta Chorostkowska	**Email**	edyta.chorostkowska@aecom.com

TERMS & CONDITIONS

http://www.gprsinc.com/termsandconditions.html

GPRS

DISCLAIMERS

1. THIS PDF IS AN AUTOMATED OUTPUT CREATED DIRECTLY FROM DATA COLLECTED IN THE FIELD. IT IS INTENDED TO DOCUMENT MARKINGS AND COMMENTS COLLECTED BY GPRS, LLC. THE FIELD FINDINGS MAY BE CORRECTED AND/OR ADDITIONAL DELIVERABLES CREATED AFTER THE DATA IS FURTHER REVIEWED.
2. AERIAL IMAGERY IS SOMETIMES SHIFTED, OUTDATED, OR INACCURATE WHILE THE LINE AND POINT DATA REMAIN AS COLLECTED IN THE FIELD. IN THE EVENT THE AERIAL IMAGE LOCATION NEEDS CORRECTION, ADDITIONAL CAD SERVICES CAN BE ORDERED.
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6. PRIVATE UTILITY LOCATING IS NEVER A REPLACEMENT FOR ONE CALL/811 SERVICES. STATE LAW REQUIRES 811 TO BE CALLED PRIOR TO ANY AND ALL EXCAVATION ACTIVITIES.

LEGEND

- MISCELLANEOUS
- UNKNOWN
- SCAN LIMIT

0' 25' 50' 75' 100'

811 Know what's below. Call before you dig.

GPRS IS NOT AFFILIATED WITH 811 BUT DOES RECOMMEND THAT THE SERVICE IS USED ON EVERY PROJECT IN ADDITION TO OUR OWN. SEE NOTE #6 ABOVE.

FOR INFORMATION ONLY

GPRS FINDINGS MAP

PREPARED FOR:
AECOM

LOCATION:
4545 RIVER ROAD
4545 RIVER ROAD
TOWN OF TONAWANDA, NY

PROJECT MANAGER:
WILLIAM MCCOWAN
WILLIAM.MCCOWAN@GPRSINC.COM

DATE	2024 JUL 09		
DRAWING NO.	1	REV.	0

662322

Appendix I Soil Boring Logs

AECOM

HA-01

Total Depth 4 ft

Client Ashland Inc.
Project Name Ashland - Tank 75 Remedial Investigation
Project Number 60730037
Site Location 4625 River Road, Tonawanda, NY
Date Started 07/10/2024 **Completed** 07/10/2024
Survey By Mike Rozeski **Survey Date** 09/11/2024
Drilling Contractor AECOM
Northing 1090937.99 **Easting** 1057770.65
Drilling Equipment Hand auger
Ground Elevation 594.2 **Hole Size** 4 in
Drilling Method Hand auger
Logged By Collin Horrocks **Checked By** Ethan Smith

Depth	Sample	Recovery (%)	PID	Graphic	Material Description	Sample ID
0						
	HA	100	0		Elastic silt (MH), 35-45% clay [TOPSOIL] - brown to black, wet - hydrocarbon odor, hydrocarbon staining	HA-01-0.0-0.2
					Lean clay (CL), <10% silt, Red-brown color [NATIVE] - brown, wet, firm - hydrocarbon odor, hydrocarbon staining	
	HA	100	0			
2	HA	100	0.2			HA-01-2.5-3.5
	HA	100	0			
4						
6						

AECOM

HA-02

Total Depth 4 ft

Client Ashland Inc.
Project Name Ashland - Tank 75 Remedial Investigation
Project Number 60730037
Site Location 4625 River Road, Tonawanda, NY
Date Started 07/11/2024 **Completed** 07/11/2024
Survey By Mike Rozeski **Survey Date** 09/11/2024
Drilling Contractor AECOM
Northing 1090861.41 **Easting** 1057628.56
Drilling Equipment Hand auger
Ground Elevation 596.3 **Hole Size** 4 in
Drilling Method Hand auger
Logged By Collin Horrocks **Checked By** Ethan Smith

Depth	Sample	Recovery (%)	PID	Graphic	Material Description	Sample ID
0						
	HA	100	0		Silty sand (SM), fine to medium, subangular, 35-45% silt [FILL] - brown to black, dry, loose - no odor, no staining	HA-02-0.0-0.2
					Lean clay (CL), <10% silt, <10% fine gravel, Red-brown color. [NATIVE] - brown, dry, firm - no odor, no staining	
	HA	100	0			
2	HA	100	0			
	HA	100	0		Lean clay (CL), <10% silt, <10% fine gravel, Red-brown color [NATIVE] - brown, moist, firm - no odor, no staining	HA-02-3.0-4.0 HA-02-3.0-4.0-FD
4						
6						

AECOM

HA-03

Total Depth 4 ft

Client Ashland Inc.
Project Name Ashland - Tank 75 Remedial Investigation
Project Number 60730037
Site Location 4625 River Road, Tonawanda, NY
Date Started 07/11/2024 **Completed** 07/11/2024
Survey By Mike Rozeski **Survey Date** 09/11/2024
Drilling Contractor AECOM
Northing 1090725.64 **Easting** 1057676.44
Drilling Equipment Hand auger
Ground Elevation 595.5 **Hole Size** 4 in
Drilling Method Hand auger
Logged By Collin Horrocks **Checked By** Ethan Smith

Depth	Sample	Recovery (%)	PID	Graphic	Material Description	Sample ID
0						
	HA	100	0		Silty sand (SM), fine to medium, subrounded, 35-45% silt [FILL] - brown to black, dry, loose - no odor, no staining	HA-03-0.0-0.2
					Lean clay (CL), <10% silt, <10% fine gravel, Red-brown color. [REWORKED NATIVE/FLL] - brown, dry, firm - no odor, no staining	
	HA	100	0			
2						
	HA	100	2.5		Lean clay (CL), <10% silt, <10% fine gravel, Red-brown color. [REWORKED NATIVE/FILL] - brown, dry, firm - no odor, hydrocarbon staining	HA-03-2.3-2.5
					Asphalt, Black sludge, asphaltic material material, potentially tank bottom [FILL] - black, moist, dense - hydrocarbon odor, hydrocarbon staining	
	HA	100	10.5		Lean clay (CL), <10% silt, <10% fine gravel, Red-brown color. [NATIVE] - brown, dry, firm - no odor, hydrocarbon staining	
4						
6						

AECOM

HA-04

Total Depth 1.5 ft

Client Ashland Inc.
Project Name Ashland - Tank 75 Remedial Investigation
Project Number 60730037
Site Location 4625 River Road, Tonawanda, NY
Date Started 07/11/2024 **Completed** 07/11/2024
Survey By Mike Rozeski **Survey Date** 09/11/2024
Drilling Contractor AECOM
Northing 1090666.44 **Easting** 1057721.55
Drilling Equipment Hand auger
Ground Elevation 595.0 **Hole Size** 4 in
Drilling Method Hand auger
Logged By Collin Horrocks **Checked By** Ethan Smith

Depth	Sample	Recovery (%)	PID	Graphic	Material Description	Sample ID
0	HA	100	0		Organic matter, 35-45% fine to medium sand 15-25% silt, Dark brown color. [FILL] - brown, dry - no odor, no staining	HA-04-0.0-0.2 HA-04-0.0-0.2–FD
					Fat clay (CH), Dark brown color. [REWORKED NATIVE/FILL] - brown, moist - no odor, no staining	
	HA	100	0.4			
					Fat clay (CH), Concrete refusal met at 1.5' [REWORKED NATIVE/FILL] - black, moist - hydrocarbon odor, hydrocarbon staining	HA-04-1.3-1.5
2						
4						

AECOM

HA-05

Total Depth 4 ft

Client Ashland Inc.
Project Name Ashland - Tank 75 Remedial Investigation
Project Number 60730037
Site Location 4625 River Road, Tonawanda, NY
Date Started 07/11/2024 **Completed** 07/11/2024
Survey By Mike Rozeski **Survey Date** 09/11/2024
Drilling Contractor AECOM
Northing 1090550.46 **Easting** 1057796.00
Drilling Equipment Hand auger
Ground Elevation 599.6 **Hole Size** 4 in
Drilling Method Hand auger
Logged By Collin Horrocks **Checked By** Ethan Smith

Depth	Sample	Recovery (%)	PID	Graphic	Material Description	Sample ID
0						
	HA	100	0		Poorly graded sand with gravel (SP), fine to medium, subrounded, 15-25% fine gravel [FILL] - brown, dry - no odor, no staining	HA-05-0.0-0.2
	HA	100	0		Lean clay (CL), <10% silt, <10% fine gravel, Red-brown color [NATIVE] - brown, dry - no odor, no staining	
2	HA	100	0			
	HA	100	0			HA-05-3.0-4.0
4						
6						

AECOM

HA-06

Total Depth 4 ft

Client Ashland Inc.
Project Name Ashland - Tank 75 Remedial Investigation
Project Number 60730037
Site Location 4625 River Road, Tonawanda, NY
Date Started 07/11/2024 **Completed** 07/11/2024
Survey By Mike Rozeski **Survey Date** 09/11/2024
Drilling Contractor AECOM
Northing 1090671.67 **Easting** 1057952.89
Drilling Equipment Hand auger
Ground Elevation 597.2 **Hole Size** 4 in
Drilling Method Hand auger
Logged By Collin Horrocks **Checked By** Ethan Smith

Depth	Sample	Recovery (%)	PID	Graphic	Material Description	Sample ID
0	HA	100	0		Organic soil with gravel (OL), 10-20% fine gravel, Dark brown color. [TOPSOIL] - brown, wet - no odor, no staining	HA-06-0.0-0.2
					Fat clay (CH), <10% silt, <10% fine gravel, Red-brown color. [NATIVE] - brown, moist - no odor, no staining	
	HA	100	0			
2	HA	100	0			
	HA	100	0			HA-06-3.0-4.0 HA-06-3.0-4.0-FD
4						
6						

AECOM

HA-07

Total Depth 4 ft

Client Ashland Inc.
Project Name Ashland - Tank 75 Remedial Investigation
Project Number 60730037
Site Location 4625 River Road, Tonawanda, NY
Date Started 07/10/2024 **Completed** 07/10/2024
Survey By Mike Rozeski **Survey Date** 09/11/2024
Drilling Contractor AECOM
Northing 1090783.14 **Easting** 1057906.16
Drilling Equipment Hand auger
Ground Elevation 596.9 **Hole Size** 4 in
Drilling Method Hand auger
Logged By Collin Horrocks **Checked By** Ethan Smith

Depth	Sample	Recovery (%)	PID	Graphic	Material Description	Sample ID
0						
	HA	100	0		Organic soil (OL), 10-20% silt, 10-20% clay, Dark brown color. [TOPSOIL] - brown, moist - no odor, no staining	HA-07-0.0-0.2
					Lean clay (CL), <10% silt, <10% fine gravel, Red-brown color. Becomes more firm with increased depth. [NATIVE] - brown, dry, firm - no odor, no staining	
	HA	100	0			
2	HA	100	0			
	HA	100	0			HA-07-3.0-4.0
4						
6						

AECOM

HA-08

Total Depth 4 ft

Client Ashland Inc.
Project Name Ashland - Tank 75 Remedial Investigation
Project Number 60730037
Site Location 4625 River Road, Tonawanda, NY
Date Started 07/10/2024 **Completed** 07/10/2024
Survey By Mike Rozeski **Survey Date** 09/11/2024
Drilling Contractor AECOM
Northing 1090851.69 **Easting** 1057861.71
Drilling Equipment Hand auger
Ground Elevation 596.8 **Hole Size** 4 in
Drilling Method Hand auger
Logged By Collin Horrocks **Checked By** Ethan Smith

Depth	Sample	Recovery (%)	PID	Graphic	Material Description	Sample ID
0						
	HA	100	0		Organic soil (OL), Dark brown color. [TOPSOIL] - brown, moist - no odor, no staining	HA-08-0.0-0.2
					Lean clay (CL), <10% silt, <10% fine gravel, Red-brown color. [NATIVE] - brown, dry - no odor, no staining	
	HA	100	0			
2	HA	100	0			
	HA	100	0		Fat clay (CH) [NATIVE] - brown to black, wet, soft - no odor, no staining	HA-08-3.5-4.0
4						
6						

AECOM

SB-01

Total Depth 27 ft

Client Ashland Inc.
Project Name Ashland - Tank 75 Remedial Investigation
Project Number 60730037
Site Location 4625 River Road, Tonawanda, NY
Date Started 07/09/2024 **Completed** 07/11/2024
Survey By Mike Rozeski **Survey Date** 09/11/2024
Drilling Contractor Parratt Wolf Inc.
Northing 1090909.99 **Easting** 1057709.27
Drilling Equipment 7822 DT Geoprobe
Ground Elevation 596.2 **Hole Size** 2.25 in
Drilling Method Geoprobe
Logged By Ethan Smith **Checked By** Ethan Smith

Depth	Sample	Recovery (%)	PID	Graphic	Material Description	Sample ID
	DP	0	0		Poorly graded sand with silt (SW-SM), fine, angular, 5-15% silt, 5-15% fine gravel [FILL] - brown, dry, loose - no odor, no staining	SB-01-0.0-0.2
2	DP	40	0			
4					Lean clay (CL), <10% silt, Red-Brown [NATIVE] - brown, dry, hard - no odor, no staining	
6	DP	33	0			
8					Fat clay (CH), <10% silt, Gray - Red brown [NATIVE] - gray to brown, moist, soft - no odor, no staining	
10	DP	63	0			
12					Lean clay (CL), <10% fine gravel, Red-Brown [NATIVE] - brown, dry, hard - no odor, no staining	
14	DP	100	0			
16						
18	DP	100	0		Lean clay with gravel (CL), 5-15% fine gravel, <10% fine sand [NATIVE] - gray to brown, moist, soft - no odor, no staining	
20					Lean clay (CL), <10% fine gravel, Red-Brown [NATIVE] - brown, dry, hard - no odor, no staining	
22	DP	100	0		Fat clay (CH), <10% fine gravel, Red-Brown. Increasing moisture and becoming more soft with increased depth [NATIVE] - brown, moist, firm - no odor, no staining	
24						
26	DP	100	0		Fat clay (CH), <10% fine gravel, Red-Brown. Moisture continues to increase with depth, with softness [NATIVE] - brown, moist, soft - no odor, no staining	SB-01-26.0-31.7
28						
30	DP	100	0			
32					Fat clay (CH), Predominantly gray, some red brown coloration [NATIVE] - gray to brown, wet, soft - no odor, no staining	
34	DP	100	0			
36						
38					Fat clay (CH), Red-Brown [NATIVE] - brown, wet, very soft - no odor, no staining	

Angle set at 53° from vertical axis, total length is 45 ft

AECOM

SB-01

Total Depth 27 ft

Client Ashland Inc.
Project Name Ashland - Tank 75 Remedial Investigation
Project Number 60730037
Site Location 4625 River Road, Tonawanda, NY
Date Started 07/09/2024 **Completed** 07/11/2024
Survey By Mike Rozeski **Survey Date** 09/11/2024
Drilling Contractor Parratt Wolf Inc.
Northing 1090909.99 **Easting** 1057709.27
Drilling Equipment 7822 DT Geoprobe
Ground Elevation 596.2 **Hole Size** 2.25 in
Drilling Method Geoprobe
Logged By Ethan Smith **Checked By** Ethan Smith

Depth	Sample	Recovery (%)	PID	Graphic	Material Description	Sample ID
40	DP	100	0			
42	DP	100	0		Fat clay (CH), Gray to red-brown [NATIVE] - gray to brown, wet, soft - no odor, no staining	SB-01-43.0-45.0
44						
46						
48						
50						
52						
54						
56						
58						
60						
62						
64						
66						
68						
70						
72						
74						
76						

Angle set at 53° from vertical axis, total length is 45 ft

AECOM

SB-02

Total Depth 30 ft

Client Ashland Inc.
Project Name Ashland - Tank 75 Remedial Investigation
Project Number 60730037
Site Location 4625 River Road, Tonawanda, NY
Date Started 08/08/2024 **Completed** 08/08/2024
Survey By Mike Rozeski **Survey Date** 09/11/2024
Drilling Contractor Matrix Enivronmental
Northing 1090902.24 **Easting** 1057664.60
Drilling Equipment Geoprobe 7822 DT
Ground Elevation 596.1 **Hole Size** 2.25 in
Drilling Method Direct Push
Logged By Ethan Smith **Checked By** Ethan Smith

Depth	Sample	Recovery (%)	PID	Graphic	Material Description	Sample ID
0	HA	100	0		Silty sand with gravel (SM), fine to medium, subangular, 15-25% silt, 10-20% fine gravel, Asphalt like sub base at 0.3 on north side of hole [TOPSOIL] - brown, dry, medium dense - no odor, no staining	SB-02-0.0-0.2 SB-02-0.0-0.2-FD
4					Lean clay with gravel (CL), 10-20% fine to coarse gravel, 5-15% silt, Red-Brown [NATIVE] - brown, dry, hard - no odor, no staining	
6	DP	100	0		Sandy lean clay (CL), 15-25% fine sand 5-15% fine gravel [NATIVE] - brown, dry, hard - no odor, no staining	
8					Lean clay (CL), 5-15% silt, 5-15% fine gravel, Red-brown with trace grey-blue mottles [NATIVE] - brown, dry, hard - no odor, no staining	
10	DP	100	0			SB-02-10.0-11.0
12					Silty sand (SM), fine to medium, subangular, 15-25% silt, <10% clay, <10% fine gravel, Dark brown [NATIVE] - brown, moist, loose - no odor, no staining	
14						
16	DP	100	0		Lean clay (CL), 5-15% silt, 5-15% fine gravel, Red-brown with trace grey-blue mottles [NATIVE] - brown, dry, hard - no odor, no staining	
18						
20					Lean clay (CL), 5-15% silt, 5-15% fine gravel, Red-brown, trace grey-blue mottles, increasing plasticity and moisture with depth [NATIVE] - brown, moist, firm - no odor, no staining	
22	DP	100	0		Fat clay (CH), <10% silt, <10% fine gravel, Red-brown [NATIVE] - brown, moist, firm - no odor, no staining	
24						
26	DP	100	0		Fat clay (CH), <10% silt, Grey-brown [NATIVE] - gray, moist, soft - no odor, no staining	
28						SB-02-28.0-30.0
30						
32						
34						
36						
38						

Vertical boring

AECOM

SB-03

Total Depth 30 ft

Client Ashland Inc.
Project Name Ashland - Tank 75 Remedial Investigation
Project Number 60730037
Site Location 4625 River Road, Tonawanda, NY
Date Started 08/08/2024 **Completed** 08/08/2024
Survey By Mike Rozeski **Survey Date** 09/11/2024
Drilling Contractor Matrix Enivronmental
Northing 1090756.70 **Easting** 1057651.19
Drilling Equipment Geoprobe 7822 DT
Ground Elevation 596.9 **Hole Size** 2.25 in
Drilling Method Direct Push
Logged By Ethan Smith **Checked By** Ethan Smith

Depth	Sample	Recovery (%)	PID	Graphic	Material Description	Sample ID
0					Lean clay with gravel (CL), 15-25% silt, 10-20% fine gravel, 5-15% fine sand [TOPSOIL] - brown, dry, firm - no odor, no staining	SB-03-0.0-0.2
2	HA	100	0			
4					Lean clay (CL), 5-15% silt, <10% fine gravel, Red-brown [NATIVE] - brown, dry, firm - no odor, no staining	
6	DP	100	0		Fat clay (CH), 5-15% silt, <10% fine gravel [NATIVE] - gray to brown, moist, soft - no odor, no staining	SB-03-5.0-7.0
8					Lean clay (CL), 5-15% silt, <10% fine gravel, Red-brown, grey mottles [NATIVE] - brown, dry, hard - no odor, no staining	
10						
12	DP	100	0			
14						
16	DP	100	0		- lean clay with gravel (cl), 10-20% coarse gravel, red-brown, grey mottles, native, brown, dry, hard, no odor, no staining at 13.3 ft	
18					Lean clay (CL), <10% silt, <10% fine gravel, Red-brown, increasing plasticity, grey mottles [NATIVE] - brown, moist, firm - no odor, no staining	
20	DP	100	0			
22					Fat clay (CH), <10% silt, <10% fine gravel, Red-brown [NATIVE] - brown, moist, firm - no odor, no staining	
24					Fat clay (CH), <10% silt, <10% fine gravel, Red-brown [NATIVE] - brown, moist, soft - no odor, no staining	
26	DP	100	0		Fat clay (CH), <10% silt [NATIVE] - gray to brown, wet, soft - no odor, no staining	
28						SB-03-28.0-30.0
30						
32						
34						
36						
38						

Vertical boring

AECOM

SB-04

Total Depth 30 ft

Client Ashland Inc.
Project Name Ashland - Tank 75 Remedial Investigation
Project Number 60730037
Site Location 4625 River Road, Tonawanda, NY
Date Started 07/11/2024 **Completed** 07/12/2024
Survey By Mike Rozeski **Survey Date** 09/11/2024
Drilling Contractor Parratt Wolf Inc.
Northing 1090685.19 **Easting** 1057699.09
Drilling Equipment 7822 DT Geoprobe
Ground Elevation 596.1 **Hole Size** 2.25 in
Drilling Method Geoprobe
Logged By Ethan Smith **Checked By** Ethan Smith

Depth	Sample	Recovery (%)	PID	Graphic	Material Description	Sample ID
2	DP	100	0		Organic matter, <10% silt [TOPSOIL] - brown, wet, soft - no odor, no staining	SB-04-0.0-0.2 SB-04-0.5-2.0 SB-04-0.5-2.0-FD
4	DP	50	0		Silt with gravel (ML), <10% asphalt, 5-15% fine gravel, <10% fine sand [FILL] - brown to black, dry, soft - no odor, no staining	
6					Lean clay (CL), <10% silt, <10% fine gravel, Red-Brown [NATIVE] - brown, dry, hard - no odor, no staining	
8	DP	63	0			
10						
12	DP	73	0			
14						
16	DP	95	0			
18						
20	DP	80	0			
22						
24	DP	100	0			
26						
28	DP	100	0			
30					Fat clay (CH), <10% fine gravel, Red-Brown [NATIVE] - brown, moist, firm - no odor, no staining	
32	DP	75	0			
34					Fat clay (CH), Red-Brown [NATIVE] - gray to brown, wet, soft - no odor, no staining	
36	DP	100	0			
38						

Angle set at 45° from vertical axis, total length is 42 ft

AECOM

SB-04

Total Depth 30 ft

Client Ashland Inc.
Project Name Ashland - Tank 75 Remedial Investigation
Project Number 60730037
Site Location 4625 River Road, Tonawanda, NY
Date Started 07/11/2024 **Completed** 07/12/2024
Survey By Mike Rozeski **Survey Date** 09/11/2024
Drilling Contractor Parratt Wolf Inc.
Northing 1090685.19 **Easting** 1057699.09
Drilling Equipment 7822 DT Geoprobe
Ground Elevation 596.1 **Hole Size** 2.25 in
Drilling Method Geoprobe
Logged By Ethan Smith **Checked By** Ethan Smith

Depth	Sample	Recovery (%)	PID	Graphic	Material Description	Sample ID
40	DP	100	0			SB-04-38.0-42.0
42						
44						
46						
48						
50						
52						
54						
56						
58						
60						
62						
64						
66						
68						
70						
72						
74						
76						

Angle set at 45°, total length is 42 ft

AECOM

SB-05

Total Depth 33 ft

Client Ashland Inc.
Project Name Ashland - Tank 75 Remedial Investigation
Project Number 60730037
Site Location 4625 River Road, Tonawanda, NY
Date Started 07/15/2024 **Completed** 07/15/2024
Survey By Mike Rozeski **Survey Date** 09/11/2024
Drilling Contractor Parratt Wolf Inc.
Northing 1090646.54 **Easting** 1057719.25
Drilling Equipment 6712DT Geoprobe
Ground Elevation 596.3 **Hole Size** 2.25 in
Drilling Method Geoprobe
Logged By Ethan Smith **Checked By** Ethan Smith

Depth	Sample	Recovery (%)	PID	Graphic	Material Description	Sample ID
0					Well-graded gravel with sand (GW), fine to coarse, subangular, 25-35% fine to coarse sand Dark Brown [FILL] - brown, moist, loose - no odor, no staining	SB-05-0.0-0.2
2	HA	100	0			
4					Lean clay (CL), 5-15% silt, <10% fine gravel, Red-Brown, grey mottles [NATIVE] - brown, dry, hard - no odor, no staining	
6	DP	90	0			
8						
10	DP	78	0			
12						
14	DP	65	0			
16						
18	DP	75	0		Lean clay (CL), <10% fine gravel, Red-Brown [NATIVE] - brown, dry, firm - no odor, no staining	
20						
22	DP	100	0			
24					Fat clay (CH), <10% fine gravel, Red-Brown [NATIVE] - brown, moist, firm - no odor, no staining	
26	DP	100	0			
28					Fat clay (CH), <10% fine gravel, Red-brown, increasing moisture with depth, not wet [NATIVE] - brown, moist, soft - no odor, no staining	SB-05-27.0-29.0
30	DP	100	0			
32						SB-05-32.0-33.0
34						
36						
38						

Vertical boring

AECOM

SB-07

Total Depth 35 ft

Client Ashland Inc.
Project Name Ashland - Tank 75 Remedial Investigation
Project Number 60730037
Site Location 4625 River Road, Tonawanda, NY
Date Started 08/08/2024 **Completed** 08/09/2024
Survey By Mike Rozeski **Survey Date** 09/11/2024
Drilling Contractor Matrix Enivronmental
Northing 1090585.50 **Easting** 1057862.89
Drilling Equipment Geoprobe 7822 DT
Ground Elevation 602.6 **Hole Size** 2.25 in
Drilling Method Direct Push
Logged By Ethan Smith **Checked By** Ethan Smith

Depth	Sample	Recovery (%)	PID	Graphic	Material Description	Sample ID
0					Silty sand with gravel (SM), fine to coarse, subangular, 15-25% silt, 15-25% fine gravel, 5-15% slag, Slag at surface [TOPSOIL] - brown, dry, loose - no odor, no staining	SB-07-0.0-0.2
2	HA	100	0			SB-07-1.0-2.0
4					Silty sand with gravel (SM), medium to coarse, subangular, 15-25% fine gravel, 15-25% silt, 5-15% slag [FILL] - gray to brown, dry, loose - no odor, no staining	
6	DP	94	0		Lean clay (CL), 5-15% silt, 5-15% fine gravel, Red-brown, creosote odor [FILL] - brown to black, dry, hard - hydrocarbon odor, black staining from 2 to 5.4 ft bgs	
8						
10	DP	100	0		Lean clay (CL), 5-15% silt, 5-15% fine gravel, Red-brown, trace grey-blue mottles [NATIVE] - brown, dry, hard - no odor, no staining	
12						
14						
16	DP	100	0			
18					Lean clay (CL), 5-15% silt, <10% fine gravel, Red-brown, trace grey-blue mottles, gravel chunk at 19.2 [NATIVE] - brown, dry, firm - no odor, no staining	
20						
22	DP	100	0		Fat clay (CH), <10% silt, <10% fine gravel, Red-brown, coarse angular gravel lens from 21.11-21.3 [NATIVE] - brown, moist, firm - no odor, no staining	
24						
26	DP	100	0			
28						
30						
32	DP	100	0		Fat clay (CH) [NATIVE] - gray to brown, wet, soft - no odor, no staining	
34						SB-07-33.0-35.0
36						
38						

Vertical boring

AECOM

SB-08

Total Depth 30 ft

Client Ashland Inc.
Project Name Ashland - Tank 75 Remedial Investigation
Project Number 60730037
Site Location 4625 River Road, Tonawanda, NY
Date Started 08/08/2024 **Completed** 08/09/2024
Survey By Mike Rozeski **Survey Date** 09/11/2024
Drilling Contractor Matrix Enivronmental
Northing 1090738.28 **Easting** 1057937.17
Drilling Equipment Geoprobe 7822 DT
Ground Elevation 597.7 **Hole Size** 2.25 in
Drilling Method Direct Push
Logged By Ethan Smith **Checked By** Ethan Smith

Depth	Sample	Recovery (%)	PID	Graphic	Material Description	Sample ID
0					Silty sand with gravel (SM), fine to medium, subangular, 15-25% silt, 15-25% fine to coarse gravel [TOPSOIL] - brown, dry, loose - no odor, no staining	SB-08-0.0-0.2
2	HA	100	0			
4					Lean clay (CL), 5-15% silt, 5-15% fine gravel, Red-brown, trace grey-blue mottles, very slight increasing moisture and decreasing strength with depth [NATIVE] - brown, dry, hard - no odor, no staining	
6	DP	100	0			
8						
10	DP	100	0			
12						
14						
16	DP	100	0		Lean clay (CL), 5-15% silt, <10% fine gravel, Red-brown, trace grey-blue mottles [NATIVE] - brown, moist, firm - no odor, no staining	
18						
20					Fat clay (CH), <10% silt, <10% fine gravel, Red-brown [NATIVE] - brown, moist, firm - no odor, no staining	
22	DP	100	0			
24						
26						SB-08-26.0-28.0
28	DP	100	0			
30					Fat clay (CH), <10% silt [NATIVE] - gray to brown, wet, firm - no odor, no staining	SB-08-28.0-30.0
32						
34						
36						
38						

Vertical boring

AECOM

SB-09

Total Depth 30 ft

Client Ashland Inc.
Project Name Ashland - Tank 75 Remedial Investigation
Project Number 60730037
Site Location 4625 River Road, Tonawanda, NY
Date Started 08/08/2024 **Completed** 08/08/2024
Survey By Mike Rozeski **Survey Date** 09/11/2024
Drilling Contractor Matrix Enivronmental
Northing 1090826.62 **Easting** 1057878.78
Drilling Equipment Geoprobe 7822 DT
Ground Elevation 596.7 **Hole Size** 2.25 in
Drilling Method Direct Push
Logged By Ethan Smith **Checked By** Ethan Smith

Depth	Sample	Recovery (%)	PID	Graphic	Material Description	Sample ID
2	HA	100	0		Silty sand with gravel (SM), fine to coarse, subangular, 15-25% silt, 15-25% fine gravel, <10% brick and concrete [TOPSOIL] - brown, dry, loose - no odor, no staining	SB-09-0.0-0.2
4					Lean clay (CL), 5-15% brick and concrete, 5-15% silt, 5-15% fine gravel, Red-brown [REWORKED NATIVE/FILL] - brown, dry, hard - no odor, no staining	SB-09-4.0-5.0
6	DP	100	0		Lean clay (CL), 5-15% silt, 5-15% fine gravel, Red-brown [REWORKED NATIVE/FILL] - brown, dry, hard - no odor, no staining	
8					Fat clay with sand (CH), 15-25% silt, 15-25% fine to medium sand Standing water in hand clear hole [REWORKED NATIVE/FILL] - brown, moist, soft - no odor, no staining	
10	DP	100	0		Lean clay (CL), 5-15% silt, 5-15% fine gravel, Red-brown, trace grey-blue mottles [NATIVE] - brown, dry, hard - no odor, no staining	
12					Lean clay (CL), 5-15% silt, 5-15% fine gravel, Red-brown, trace grey-blue mottles [NATIVE] - brown, dry, firm - no odor, no staining	
14	DP	100	0		Fat clay (CH), <10% silt, <10% fine gravel, Red-brown, decreasing strength [NATIVE] - brown, moist, firm - no odor, no staining	
16						
18	DP	100	0			
20						
22	DP	100	0		Fat clay (CH), <10% silt, <10% fine gravel, Red-brown [NATIVE] - brown, moist, soft - no odor, no staining	
24						
26	DP	100	0			
28					Fat clay (CH), <10% silt [NATVE] - gray to brown, wet, soft - no odor, no staining	SB-09-28.0-30.0
30						
32						
34						
36						
38						

Vertical boring

AECOM

SB-10

Total Depth 29.5 ft

Client Ashland Inc.
Project Name Ashland - Tank 75 Remedial Investigation
Project Number 60730037
Site Location 4625 River Road, Tonawanda, NY
Date Started 07/08/2024 **Completed** 07/09/2024
Survey By Mike Rozeski **Survey Date** 09/11/2024
Drilling Contractor Parratt Wolf Inc.
Northing 1090897.01 **Easting** 1057824.46
Drilling Equipment 7822 DT Geoprobe
Ground Elevation 596.3 **Hole Size** 2.25 in
Drilling Method Geoprobe
Logged By Ethan Smith **Checked By** Ethan Smith

Depth	Sample	Recovery (%)	PID	Graphic	Material Description	Sample ID
	DP	70	0		Poorly graded sand with clay (SW-SC), fine, subangular, 5-15% clay [TOPSOIL] - brown, dry, loose - no odor, no staining	SB-10-0.0-0.2
2	DP	75	0		Lean clay (CL), 5-15% silt, <10% fine gravel, Red-brown [NATIVE] - brown, dry, hard - no odor, no staining	
4						
6	DP	38	0			
8						
10	DP	63	0			
12						
14	DP	20	0		Lean clay (CL), <10% fine gravel, Red-brown [NATIVE] - brown, dry, hard - no odor, no staining	
16						
18	DP	63	0		Fat clay (CH), <10% silt, <10% fine gravel, Red-Brown. [NATIVE] - brown, moist, firm - no odor, no staining	
20						
22	DP	100	0		Fat clay (CH), <10% silt, Red-brown. Becoming softer at 31.6'. [NATIVE] - brown, moist, firm - no odor, no staining	
24						
26	DP	75	0			
28						
30	DP	88	0			
32						
34	DP	100	0		Fat clay (CH), Red-Brown. Grey native streaking at 36'. [NATIVE] - brown, moist, soft - no odor, no staining	
36						
38						

Angle set at 53° from vertical axis, total length is 49 ft

AECOM

SB-10

Total Depth 30 ft

Client Ashland Inc.
Project Name Ashland - Tank 75 Remedial Investigation
Project Number 60730037
Site Location 4625 River Road, Tonawanda, NY
Date Started 07/08/2024 **Completed** 07/09/2024
Survey By Mike Rozeski **Survey Date** 09/11/2024
Drilling Contractor Parratt Wolf Inc.
Northing 1090897.01 **Easting** 1057824.46
Drilling Equipment 7822 DT Geoprobe
Ground Elevation 596.3 **Hole Size** 1.25 in
Drilling Method Geoprobe
Logged By Ethan Smith **Checked By** Ethan Smith

Depth	Sample	Recovery (%)	PID	Graphic	Material Description	Sample ID
40	DP	100	0		Fat clay (CH), Increased moisture. Red-Brown [NATIVE] - gray to brown, moist, soft - no odor, no staining	SB-10-39.0-42.0
42						
44	DP	100	0		Fat clay (CH), Red-Brown [NATIVE] - gray to brown, wet, soft - no odor, no staining	
46						
48	DP	100	0			
50					Fat clay (CH), Red-Brown [NATIVE] - brown, wet, soft - no odor, no staining	SB-10-48.0-49.0
52						
54						
56						
58						
60						
62						
64						
66						
68						
70						
72						
74						
76						

Angle set at 53° from vertical axis, total length is 49 ft

AECOM

Chris Higgins		**7/10/2024**	
Print/Sign		Date	
Kevin Taylor		**7/10/2024**	
Print/Sign		Date	

Scan Beta		**Scan Gamma**	
Instrument #	268251	**Instrument #**	117652
Meter Model #	L2221	**Meter Model #**	L2221
Meter Serial #	268251	**Meter Serial #**	117652
Detector Model #	44-9	**Detector Model #**	44-10
Detector Serial #	112191	**Detector Serial #**	373553
Cal Due	3/18/2025	**Cal Due**	5/31/2025
Detector Efficiency (ε_i)	21.8%	**Detector Efficiency (ε_i)**	NA
Sample Time (T_s) (min)	1	**Sample Time (T_s) (min)**	1
Background Time (T_b) (min)	10	**Background Time (T_b) (min)**	10
BKG (R_b) (cpm)	NA	**BKG (R_b) (cpm)**	8784.0
Scan Interval (sec.)	2	**Scan Interval (sec.)**	2
MDCR (cpm)	NA	**MDCR (cpm)**	708
MDCR + BK (cpm)	NA	**MDCR + BK (cpm)**	9492

Ashland Tank 75 Soil Samples

Hand Auger Scans

Note: Hand Auger spoil scans.

Note: The GM detector was

Note: NaI is unshielded.

Note: All results are under the 16,000 cpm limit.

Location	1 ft Scan Max β/γ - 44-9 (cpm)	1 ft Scan Max γ - 44-10 (cpm)	Location	1 ft Scan Max β/γ - 44-9 (cpm)	1 ft Scan Max γ - 44-10 (cpm)
1	NA	10,397			
2	NA	8,865			
3	NA	6,378			
4	NA	8,515			
5	NA	9,820			
6	NA	8,832			
7	NA	10,023			
8	NA	9,337			

AECOM

Chris Higgins		**7/10/2024**	
Print/Sign		Date	
Kevin Taylor		**7/10/2024**	
Print/Sign		Date	

Scan Beta		**Scan Gamma**	
Instrument #	268251	**Instrument #**	117652
Meter Model #	L2221	**Meter Model #**	L2221
Meter Serial #	268251	**Meter Serial #**	117652
Detector Model #	44-9	**Detector Model #**	44-10
Detector Serial #	112191	**Detector Serial #**	373553
Cal Due	3/18/2025	**Cal Due**	5/31/2025
Detector Efficiency (ε_i)	21.8%	**Detector Efficiency (ε_i)**	NA
Sample Time (T_s) (min)	1	**Sample Time (T_s) (min)**	1
Background Time (T_b) (min)	10	**Background Time (T_b) (min)**	10
BKG (R_b) (cpm)	38.0	**Shielded BKG (R_b) (cpm)**	2406.2
Scan Interval (sec.)	2	**Scan Interval (sec.)**	2
MDCR (cpm)	47	**MDCR (cpm)**	371
MDCR + BK (cpm)	85	**MDCR + BK (cpm)**	2777

Ashland Tank 75 Soil Samples

Core Location SB-01

Note: This core took 2 days (7/9-7/10) to acuire. The Background and MDCR used are the most restrictive and conservative.

Note: There was No Recovey beyond the 45 ft depth

Location (ft)	1 ft Scan Max β/γ - 44-9 (cpm)	1 ft Scan Max γ - 44-10 (shielded) (cpm)	Location (ft)	1 ft Scan Max β/γ - 44-9 (cpm)	1 ft Scan Max γ - 44-10 (shielded) (cpm)
1	50	2,365	26	36	1,782
2	55	2,209	27	17	1,854
3	46	2,174	28	34	2,020
4	51	1,993	29	39	1,913
5	49	1,916	30	64	1,771
6	50	2,228	31	52	1,647
7	43	2,691	32	51	1,762
8	48	2,313	33	44	1,827
9	56	2,046	34	51	1,607
10	33	1,879	35	41	1,731
11	44	2,024	36	56	1,581
12	45	1,889	37	63	1,652
13	41	1,763	38	61	1,645
14	29	1,880	39	48	1,793
15	35	1,833	40	52	1,603
16	47	2,151	41	58	1,782
17	39	2,157	42	45	1,663
18	48	2,158	43	39	1,689
19	39	1,745	44	39	1,774
20	51	1,672	45	34	1,637
21	26	2,144	46	NR	NR
22	40	1,739	47	NR	NR
23	44	1,818	48	NR	NR
24	40	1,876	49	NR	NR
25	43	2,050	50	NR	NR

AECOM

Chris Higgins		**8/8/2024**	
Print/Sign		Date	
Kevin Taylor		**8/8/2024**	
Print/Sign		Date	

Scan Beta		**Scan Gamma**	
Instrument #	262325	**Instrument #**	71235
Meter Model #	L2221	**Meter Model #**	L2221
Meter Serial #	262325	**Meter Serial #**	71235
Detector Model #	44-9	**Detector Model #**	44-10
Detector Serial #	112191	**Detector Serial #**	357743
Cal Due	7/29/2025	**Cal Due**	7/22/2025
Detector Efficiency (ε_i)	21.4%	**Detector Efficiency (ε_i)**	NA
Sample Time (T_s) (min)	1	**Sample Time (T_s) (min)**	1
Background Time (T_b) (min)	10	**Background Time (T_b) (min)**	10
BKG (R_b) (cpm)	49.0	**Shielded BKG (R_b) (cpm)**	2902.0
Scan Interval (sec.)	2	**Scan Interval (sec.)**	2
MDCR (cpm)	53	**MDCR (cpm)**	407
MDCR + BK (cpm)	102	**MDCR + BK (cpm)**	3309

Ashland Tank 75 Soil Samples

Core Location SB-02

Location (ft)	1 ft Scan Max β/γ - 44-9 (cpm)	1 ft Scan Max γ - 44-10 (shielded) (cpm)	**Location (ft)**	1 ft Scan Max β/γ - 44-9 (cpm)	1 ft Scan Max γ - 44-10 (shielded) (cpm)
0-5 done by hand clearing	49	2,830	**16**	41	3,199
			17	59	2,642
			18	46	2,959
			19	45	2,950
			20	39	2,123
6	46	3,136	**21**	38	2,619
7	41	2,968	**22**	48	3,198
8	51	3,034	**23**	49	3,020
9	32	2,652	**24**	35	2,663
10	36	2,661	**25**	42	2,950
11	56	2,438	**26**	37	2,643
12	34	2,832	**27**	40	2,882
13	44	3,109	**28**	36	2,833
14	43	3,026	**29**	54	2,799
15	55	2,951	**30**	48	3,046

AECOM

Chris Higgins		**8/8/2024**	
Print/Sign		Date	
Kevin Taylor		**8/8/2024**	
Print/Sign		Date	

Scan Beta		**Scan Gamma**	
Instrument #	262325	**Instrument #**	71235
Meter Model #	L2221	**Meter Model #**	L2221
Meter Serial #	262325	**Meter Serial #**	71235
Detector Model #	44-9	**Detector Model #**	44-10
Detector Serial #	112191	**Detector Serial #**	357743
Cal Due	7/29/2025	**Cal Due**	7/22/2025
Detector Efficiency (ε_i)	21.4%	**Detector Efficiency (ε_i)**	NA
Sample Time (T_s) (min)	1	**Sample Time (T_s) (min)**	1
Background Time (T_b) (min)	10	**Background Time (T_b) (min)**	10
BKG (R_b) (cpm)	49.0	**Shielded BKG (R_b) (cpm)**	2902.0
Scan Interval (sec.)	2	**Scan Interval (sec.)**	2
MDCR (cpm)	53	**MDCR (cpm)**	407
MDCR + BK (cpm)	102	**MDCR + BK (cpm)**	3309

Ashland Tank 75 Soil Samples

Core Location SB-03

Location (ft)	1 ft Scan Max β/γ - 44-9 (cpm)	1 ft Scan Max γ - 44-10 (shielded) (cpm)	Location (ft)	1 ft Scan Max β/γ - 44-9 (cpm)	1 ft Scan Max γ - 44-10 (shielded) (cpm)
0-5 done by hand clearing	46	2,761	16	40	2,548
			17	25	3,099
			18	44	3,191
			19	52	2,795
			20	41	2,313
6	45	2,819	21	61	2,383
7	42	2,611	22	46	2,522
8	37	2,924	23	36	2,677
9	40	3,059	24	50	3,129
10	24	2,603	25	46	3,037
11	36	2,355	26	36	2,902
12	41	2,965	27	48	2,868
13	33	2,957	28	51	3,033
14	34	2,939	29	30	2,892
15	44	2,432	30	43	2,911

AECOM

Chris Higgins		**7/12/2024**	
Print/Sign		Date	
Kevin Taylor		**7/12/2024**	
Print/Sign		Date	

Scan Beta		**Scan Gamma**	
Instrument #	268251	**Instrument #**	117652
Meter Model #	L2221	**Meter Model #**	L2221
Meter Serial #	268251	**Meter Serial #**	117652
Detector Model #	44-9	**Detector Model #**	44-10
Detector Serial #	112191	**Detector Serial #**	373553
Cal Due	3/18/2025	**Cal Due**	5/31/2025
Detector Efficiency (ε_i)	21.8%	**Detector Efficiency (ε_i)**	NA
Sample Time (T_s) (min)	1	**Sample Time (T_s) (min)**	1
Background Time (T_b) (min)	10	**Background Time (T_b) (min)**	10
BKG (R_b) (cpm)	53.1	**Shielded BKG (R_b) (cpm)**	1787.0
Scan Interval (sec.)	2	**Scan Interval (sec.)**	2
MDCR (cpm)	55	**MDCR (cpm)**	320
MDCR + BK (cpm)	108	**MDCR + BK (cpm)**	2107

Ashland Tank 75 Soil Samples

Core Location SB-04

Note: This core took 2 days (7/11-7/12) to acuire. The Background and MDCR used are the most restrictive and conservative.

Note: There was No Recovey beyond the 42 ft depth

Location (ft)	1 ft Scan Max β/γ - 44-9 (cpm)	1 ft Scan Max γ - 44-10 (shielded) (cpm)	Location (ft)	1 ft Scan Max β/γ - 44-9 (cpm)	1 ft Scan Max γ - 44-10 (shielded) (cpm)
1	36	1,620	26	44	1,571
2	42	1,655	27	33	1,391
3	40	1,731	28	32	1,346
4	43	1,637	29	26	1,470
5	42	1,621	30	45	1,465
6	39	1,707	31	40	1,464
7	39	1,774	32	32	1,396
8	40	1,615	33	45	1,448
9	46	1,648	34	40	1,355
10	29	1,749	35	43	1,544
11	42	1,623	36	40	1,593
12	39	1,628	37	33	1,470
13	46	1,705	38	40	1,605
14	39	1,642	39	32	1,491
15	44	1,470	40	56	1,531
16	48	1,634	41	41	1,608
17	62	1,323	42	37	1,544
18	47	1,347	43	NR	NR
19	35	1,630	44	NR	NR
20	39	1,542	45	NR	NR
21	41	1,608	46	NR	NR
22	44	1,324	47	NR	NR
23	31	1,348	48	NR	NR
24	30	1,351	49	NR	NR
25	47	1,380	50	NR	NR

AECOM

Chris Higgins		**7/9/2024**	
Print/Sign		Date	
Kevin Taylor		**7/9/2024**	
Print/Sign		Date	

Scan Beta		**Scan Gamma**	
Instrument #	268251	**Instrument #**	117652
Meter Model #	L2221	**Meter Model #**	L2221
Meter Serial #	268251	**Meter Serial #**	117652
Detector Model #	44-9	**Detector Model #**	44-10
Detector Serial #	112191	**Detector Serial #**	373553
Cal Due	3/18/2025	**Cal Due**	5/31/2025
Detector Efficiency (ε_i)	21.8%	**Detector Efficiency (ε_i)**	NA
Sample Time (T_s) (min)	1	**Sample Time (T_s) (min)**	1
Background Time (T_b) (min)	10	**Background Time (T_b) (min)**	10
BKG (R_b) (cpm)	45.7	**Shielded BKG (R_b) (cpm)**	2097.0
Scan Interval (sec.)	2	**Scan Interval (sec.)**	2
MDCR (cpm)	51	**MDCR (cpm)**	346
MDCR + BK (cpm)	97	**MDCR + BK (cpm)**	2443

Ashland Tank 75 Soil Samples

Core Location SB-05

Location (ft)	1 ft Scan Max β/γ - 44-9 (cpm)	1 ft Scan Max γ - 44-10 (shielded) (cpm)	Location (ft)	1 ft Scan Max β/γ - 44-9 (cpm)	1 ft Scan Max γ - 44-10 (shielded) (cpm)
1	NA	1,993 (Hand Cleared)	26	51	1,510
2	NA		27	55	1,524
3	NA		28	52	1,555
4	NA		29	47	1,538
5	47	1,622	30	46	1,496
6	51	1,496	31	47	1,457
7	58	1,502	32	41	1,420
8	63	1,484	33	45	1,501
9	53	1,439			
10	55	1,659			
11	58	1,510			
12	44	1,665			
13	42	1,503			
14	52	1,517			
15	49	1,457			
16	54	1,405			
17	40	1,488			
18	48	1,355			
19	39	1,508			
20	45	1,419			
21	40	1,432			
22	53	1,460			
23	43	1,565			
24	45	1,465			
25	51	1,359			

AECOM

Chris Higgins		**8/9/2024**	
Print/Sign		Date	
Kevin Taylor		**8/9/2024**	
Print/Sign		Date	

Scan Beta		**Scan Gamma**	
Instrument #	262325	**Instrument #**	71235
Meter Model #	L2221	**Meter Model #**	L2221
Meter Serial #	262325	**Meter Serial #**	71235
Detector Model #	44-9	**Detector Model #**	44-10
Detector Serial #	112191	**Detector Serial #**	357743
Cal Due	7/29/2025	**Cal Due**	7/22/2025
Detector Efficiency (ε_i)	21.4%	**Detector Efficiency (ε_i)**	NA
Sample Time (T_s) (min)	1	**Sample Time (T_s) (min)**	1
Background Time (T_b) (min)	10	**Background Time (T_b) (min)**	10
BKG (R_b) (cpm)	49.2	**Shielded BKG (R_b) (cpm)**	3099.1
Scan Interval (sec.)	2	**Scan Interval (sec.)**	2
MDCR (cpm)	53	**MDCR (cpm)**	421
MDCR + BK (cpm)	102	**MDCR + BK (cpm)**	3520

Ashland Tank 75 Soil Samples

Core Location SB-07

Location (ft)	1 ft Scan Max β/γ - 44-9 (cpm)	1 ft Scan Max γ - 44-10 (shielded) (cpm)	Location (ft)	1 ft Scan Max β/γ - 44-9 (cpm)	1 ft Scan Max γ - 44-10 (shielded) (cpm)
0-5 done by hand clearing	37	2,462	16	40	2,331
			17	46	3,083
			18	51	3,187
			19	26	3,082
			20	51	2,034
6	47	2,065	21	45	2,275
7	45	2,200	22	42	2,213
8	50	2,898	23	43	2,987
9	46	2,648	24	46	3,104
10	22	3,091	25	55	2,828
11	40	2,858	26	49	2,308
12	46	2,684	27	41	3,101
13	42	2,991	28	43	2,404
14	49	2,462	29	41	2,957
15	48	2,640	30	49	2,096
			31	52	2,128
			32	36	2,682
			33	42	3,101
			34	43	2,522
			35	53	2,336

AECOM

Chris Higgins		**8/9/2024**	
Print/Sign		Date	
Kevin Taylor		**8/9/2024**	
Print/Sign		Date	

Scan Beta		**Scan Gamma**	
Instrument #	262325	**Instrument #**	71235
Meter Model #	L2221	**Meter Model #**	L2221
Meter Serial #	262325	**Meter Serial #**	71235
Detector Model #	44-9	**Detector Model #**	44-10
Detector Serial #	112191	**Detector Serial #**	357743
Cal Due	7/29/2025	**Cal Due**	7/22/2025
Detector Efficiency (ε_i)	21.4%	**Detector Efficiency (ε_i)**	NA
Sample Time (T_s) (min)	1	**Sample Time (T_s) (min)**	1
Background Time (T_b) (min)	10	**Background Time (T_b) (min)**	10
BKG (R_b) (cpm)	49.2	**Shielded BKG (R_b) (cpm)**	3099.1
Scan Interval (sec.)	2	**Scan Interval (sec.)**	2
MDCR (cpm)	53	**MDCR (cpm)**	421
MDCR + BK (cpm)	102	**MDCR + BK (cpm)**	3520

Ashland Tank 75 Soil Samples

Core Location SB-08

Location (ft)	1 ft Scan Max β/γ - 44-9 (cpm)	1 ft Scan Max γ - 44-10 (shielded) (cpm)	Location (ft)	1 ft Scan Max β/γ - 44-9 (cpm)	1 ft Scan Max γ - 44-10 (shielded) (cpm)
0-5 done by hand clearing	39	2,209	16	36	2,355
			17	51	2,396
			18	50	2,921
			19	45	2,795
			20	24	2,399
6	49	2,758	21	36	2,825
7	38	2,451	22	41	2,515
8	36	3,018	23	33	2,548
9	41	2,973	24	47	3,187
10	55	2,491	25	46	3,181
11	38	2,409	26	29	2,699
12	59	3,013	27	21	3,033
13	48	2,919	28	42	2,623
14	28	2,414	29	33	3,126
15	35	2,133	30	50	3,055

AECOM

Chris Higgins		**8/8/2024**	
Print/Sign		Date	
Kevin Taylor		**8/8/2024**	
Print/Sign		Date	

Scan Beta		**Scan Gamma**	
Instrument #	262325	**Instrument #**	71235
Meter Model #	L2221	**Meter Model #**	L2221
Meter Serial #	262325	**Meter Serial #**	71235
Detector Model #	44-9	**Detector Model #**	44-10
Detector Serial #	112191	**Detector Serial #**	357743
Cal Due	7/29/2025	**Cal Due**	7/22/2025
Detector Efficiency (ε_i)	21.4%	**Detector Efficiency (ε_i)**	NA
Sample Time (T_s) (min)	1	**Sample Time (T_s) (min)**	1
Background Time (T_b) (min)	10	**Background Time (T_b) (min)**	10
BKG (R_b) (cpm)	49.0	**Shielded BKG (R_b) (cpm)**	2902.0
Scan Interval (sec.)	2	**Scan Interval (sec.)**	2
MDCR (cpm)	53	**MDCR (cpm)**	407
MDCR + BK (cpm)	102	**MDCR + BK (cpm)**	3309

Ashland Tank 75 Soil Samples

Core Location SB-09

Location (ft)	1 ft Scan Max β/γ - 44-9 (cpm)	1 ft Scan Max γ - 44-10 (shielded) (cpm)	Location (ft)	1 ft Scan Max β/γ - 44-9 (cpm)	1 ft Scan Max γ - 44-10 (shielded) (cpm)
0-5 done by hand clearing	41	2,638	16	33	2,955
			17	39	2,743
			18	42	2,511
			19	41	2,995
			20	47	2,315
6	54	2,929	21	25	2,373
7	30	2,662	22	53	2,414
8	32	2,945	23	37	3,012
9	55	2,826	24	41	2,926
10	47	2,407	25	35	2,823
11	47	2,883	26	41	2,825
12	54	2,611	27	43	2,611
13	47	3,070	28	50	2,980
14	35	2,091	29	48	2,408
15	42	2,816	30	42	2,618

AECOM

Chris Higgins		**7/9/2024**	
Print/Sign		Date	
Kevin Taylor		**7/9/2024**	
Print/Sign		Date	

Scan Beta		**Scan Gamma**	
Instrument #	268251	**Instrument #**	117652
Meter Model #	L2221	**Meter Model #**	L2221
Meter Serial #	268251	**Meter Serial #**	117652
Detector Model #	44-9	**Detector Model #**	44-10
Detector Serial #	112191	**Detector Serial #**	373553
Cal Due	3/18/2025	**Cal Due**	5/31/2025
Detector Efficiency (ε_i)	21.8%	**Detector Efficiency (ε_i)**	NA
Sample Time (T_s) (min)	1	**Sample Time (T_s) (min)**	1
Background Time (T_b) (min)	10	**Background Time (T_b) (min)**	10
BKG (R_b) (cpm)	38.0	**ShieldedBKG (R_b) (cpm)**	2456.8
Scan Interval (sec.)	2	**Scan Interval (sec.)**	2
MDCR (cpm)	47	**MDCR (cpm)**	375
MDCR + BK (cpm)	85	**MDCR + BK (cpm)**	2831

Ashland Tank 75 Soil Samples

Core Location SB-10

Note: This core took 2 days (7/8-7/9) to acuire. The Background and MDCR used are the most restrictive and conservative.

Note: There was No Recovey beyond the 49 ft depth

Location (ft)	1 ft Scan Max β/γ - 44-9 (cpm)	1 ft Scan Max γ - 44-10 (shielded) (cpm)	Location (ft)	1 ft Scan Max β/γ - 44-9 (cpm)	1 ft Scan Max γ - 44-10 (shielded) (cpm)
1	51	2,302	26	48	2,356
2	44	2,500	27	48	2,441
3	53	2,313	28	55	2,320
4	59	2,618	29	52	2,407
5	52	2,242	30	38	2,657
6	55	2,268	31	35	2,475
7	52	2,472	32	43	2,528
8	53	2,354	33	28	2,353
9	42	2,599	34	46	2,139
10	53	2,260	35	78	2,255
11	42	2,117	36	39	2,149
12	49	2,230	37	54	2,549
13	58	2,248	38	43	2,342
14	66	2,319	39	38	2,315
15	62	2,217	40	41	2,237
16	68	2,354	41	46	2,506
17	53	2,393	42	43	2,542
18	59	2,116	43	73	2,378
19	54	2,239	44	39	2,286
20	59	2,201	45	48	2,677
21	46	2,223	46	50	2,324
22	33	2,491	47	46	2,439
23	41	2,561	48	53	2,625
24	52	2,487	49	62	2,449
25	24	2,640	50	NR	NR

Environmental Restoration Group, Inc.
8809 Washington NE, Suite #150
Albuquerque, NM 87113

office: (505) 298-4224
fax: (505) 797-1404
web: www.ERGOffice.com

EQUIPMENT PACKING SLIP

Company Name: AECOM

Contact Name:

Contact Telephone:

Order Number: 5778

P.O. or Reference Number: 60730037

Date Ordered: 6/27/2024

Date Shipped: 7/5/2024

Date of Delivery: 7/6/2024

Shipping Method: n/a

Shipping Number:

Ship To Information:

AECOM

Billing Address:

AECOM - Buffalo
Accounts Payable
50 Lakefront Blvd
Suite 111
Buffalo, NY 14202

Equipment Enclosed:

Instrument	*Serial Number*	*Tested*
Ludlum 19	367247	☐
Ludlum 2221r	117652	☐
Ludlum 2221r	268651	☐
Ludlum 2360	245757	☐
Ludlum 43-93	PR399442	☐
Ludlum 44-10	PR373553	☐
Ludlum 44-9	PR112191	☐
Spectrum Techniques Cs-137	97	☐
Eberline Sr/Y-90	5443-05	☐

Special Instructions:

Chris Higgins (guest)
Holiday Inn Express
2400 Niagara Falls BLVD
Tonawanda, NY 14150
PH: 203-565-3272

Order continued on next page

Environmental Restoration Group, Inc.
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EQUIPMENT PACKING SLIP

Order Number: 5778

Note:
(a) By accepting and using ERG rental equipment, the Renter indemnifies and holds harmless ERG against any and all claims, actions, proceedings, costs, expenses, damages, and liabilities (including attorney's fees and costs) arising out of Renter's use of equipment.

www.ludlums.com

CERT #4084.01

CALIBRATION CERTIFICATE

LUDLUM MEASUREMENTS, INC.
501 Oak Street
325-235-5494
Sweetwater, TX 79556, USA

Customer: ERG (ENV RESTORATION GRP)

Address: 8809 WASHINGTON ST NE
SUITE 150
ALBUQUERQUE, NM 87113-2715
USA Meterface: 202-1070

Order No.: 20459520
Cal Date: 26-Jan-24
Cal Due Date: 26-Jan-25

Temp: 75 °F
Rel. H: 30%
Alt: 703.6 mm Hg

Cal Interval: 1 year

Mfg.: Ludlum Measurements, Inc. **Model: 19** Desc.: survey meter Serial No.: 367247

Calibration tolerance is 10%

Voltage measurements uncertainty 1.2%, Gamma Exposure/Dose uncertainty 5.6%, Neutron Dose uncertainty 7.0%, Count rate uncertainty 5.6%

Model 19 Parameters:

- ☑ New Instrument
- Serial No.: 367247
- ☑ Audio Check
- ☑ Battery Check
- ☑ F/S Resp. Check
- ☑ Geotropism
- ☑ HV Readout
- ☑ Mechanical Check
- ☑ Meter Zeroed
- ☑ Reset Check
- Input Sensitivity: 25 mV
- Instrument Volt Set: 700 V
- Ref./Inst.: 5 / 510 V
- Ref./Inst.: 10 / 999 V
- ☑ LMI SOP 14.9

Analog

Range/ Multiplier	Reference Point	Direct Reading
5000	4000 µR/hr	4000 µR/hr
5000	1000 µR/hr	1000 µR/hr
500	400 µR/hr = 73600 cpm	400 µR/hr
500	100 µR/hr	100 µR/hr
250	200 µR/hr = 36000 cpm	200 µR/hr
250	100 µR/hr	100 µR/hr
50	7360 cpm	40 µR/hr
50	1840 cpm	10 µR/hr
25	3600 cpm	20 µR/hr
25	900 cpm	5 µR/hr

50, 25 ranges calibrated electronically

Ludlum Measurments, Inc. certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology, or to the calibration facilities of other International Standards Organization members, or have been derived from accepted values of natural physical constants or have been derived by the ratio type of calibration techniques.
All pass/fail determinations are based on the manufacturer's specifications without considering uncertainty factors.
Measurement results represent expanded uncertainties expressed at approximately the 95% Level of confidence, using a coverage factor of k=2. ISO/IEC 17025: 2017 (E)
The calibration system conforms to the requirements of ANSI/NCSL Z540-1-1994 and ANSI N323AB-2013 State of Texas Calibration License No. LO-1963

Form ID #: AC244725720136

Reference Instruments and/or Source(s):

Sources: Cs-137: 2261CP

Pulser: 181548 Multimeter: 53950168

Calibrator: Madelyn Phillips M Phillips Title: Calibrator Date: 26-Jan-24

QC'd by: Diane Dalley Title: Final QC Date: 26 Jan 24

Designer and Manufacturer of Scientific and Industrial Instruments

www.ludlums.com

CERTIFICATE OF CALIBRATION

LUDLUM MEASUREMENTS, INC.
501 Oak Street
325-235-5494
Sweetwater, TX 79556, U.S.A.

ACCREDITED
CERT # 4084.01

Customer ENVIRONMENTAL RESTORATION GROUP ORDER NO. 20469440/556387

Mfg. Ludlum Measurements, Inc. Model 2221 Serial No. 117652

Mfg. Ludlum Measurements, Inc. Model 44-10 Serial No. PR372555

Cal. Date 7-May-24 Cal Due Date 7-May-25 Cal. Interval 1 Year Meterface 202-159

Check mark ☑ applies to applicable instr. and/or detector IAW mfg. spec. T. 73 °F RH 46 % Alt 701.0 mm Hg

☐ New Instrument Instrument Received ☑ Within Toler. +-10% ☐ 10-20% ☐ Out of Tol. ☐ Requiring Repair ☐ Other-See comments

☑ Mechanical ck. ☑ Meter Zeroed ☐ Background Subtract ☑ Input Sens. Linearity
☑ F/S Resp. ck ☑ Reset ck. ☑ Window Operation ☑ Geotropism
☑ Audio ck. ☑ Alarm Setting ck. ☑ Batt. ck.

☑ Calibrated in accordance with LMI SOP 14.8 ☐ Calibrated in accordance with LMI SOP 14.9

Instrument Volt Set Comments V Input Sens. Comment mV Det. Oper. Comments V at Comment mV Threshold Dial Ratio 100 = 10 mV

☑ HV Readout (2 points) Ref./Inst. 500 / 502 V Ref./Inst. 2000 / 2004 V

COMMENTS:

	Peak settings	Gross Counts	Model 2221 currently set for gross voltage. Firmware: 261054 ~~261015~~
High Voltage:	556 V	750 V	
Threshold dial:	642	100(10mv)	High voltage set with detector connected.
Window dial:	40	n/a	OL checked but not set.
Window Position:	"IN"	"OUT"	Calibrated with 5' cable.
Resolution for Cs137:	≈9.10%	n/a	

Gamma Calibration: GM detectors positioned perpendicular to source except for M 44-9 in which the front of probe faces source.

Multimeter uncertainty within 1.3% of reading. Gamma uncertainty within 5.0% of reading. Neutron uncertainty within 7.0% of reading. Count rate uncertainty within 5.4% of reading

RANGE/MULTIPLIER	REFERENCE CAL. POINT	INSTRUMENT REC'D "AS FOUND READING"	INSTRUMENT METER READING
x1K	400kcpm	400 cpm	400 cpm
x1K	100kcpm	100	100
x100	40kcpm	400	400
x100	10kcpm	100	100
x10	4kcpm	400	400
x10	1kcpm	100	100
x1	400cpm	400	400
x1	100cpm	100	100

ALL Range(s) Calibrated Electronically

Digital Readout	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING
	400kcpm	39976 (0)	39976 (0)
	40kcpm	3998	3998
	4kcpm	399	399
	400cpm	40	40
	40cpm	4	4

Log Scale	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING
	500kcpm	500X cpm	500X cpm
	50kcpm	50	50
	5kcpm	5	5
	500cpm	500	500
	50cpm	50	50

Ludlum Measurements, Inc. certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology, or to the calibration facilities of other International Standards Organization members, or have been derived from accepted values of natural physical constants or have been derived by the ratio type of calibration techniques.
All pass/fail determinations are based on the manufacturer's specifications without considering uncertainty factors.
Measurement results represent expanded uncertainties expressed at approximately the 95% level of confidence, using a coverage factor of k=2.
The calibration system conforms to the requirements of ANSI/NCSL Z540-1-1994 and ANSI N323AB-2013

ISO/IEC 17025:2017(E)
State of Texas Calibration License No. LO-1963

Reference Instruments and/or Sources: Cs-137 S/N: ☐ 059 ☐ 2171CP ☐ 2261CP ☐ 720 ☐ 734 ☐ 781 ☐ 1131 ☐ 1616 ☐ 1696 ☐ 1909 ☐ 1916CP ☐ 2324/2521
☐ 5717CO ☐ 5719CO ☐ 60646 ☐ 70897 ☐ 73410 ☐ E552 ☐ G112 ☐ 2168CP ☐ S-394 ☐ S-1054 ☐ T10081 ☐ T10082 Neutron Am-241 Be ☐ T-304 Ra-226 ☐ Y982
☐ E551 ☐ 5105 ☐ CSV280

☐ Alpha S/N ☐ Beta S/N ☐ Other

☑ m 500 S/N 289158 ☐ Oscilloscope S/N ☑ Multimeter S/N 18900314

Calibrator Jeramy Thompson Title Calibrator/Technician Date 7-May-24

QC'd By Title Final QC Date 7 May 24

AC Inst. Only ☐ Passed Dielectric (Hi-Pot) and Continuity Test ☐ Failed:

www.ludlums.com

Designer and Manufacturer
of
Scientific and Industrial
Instruments

LUDLUM MEASUREMENTS, INC.
501 Oak Street
325-235-5494
Sweetwater, TX 79556, U.S.A.

Bench Test Data For Detector

Detector 44-10 Serial No. PR373553

Customer ENVIRONMENTAL RESTORATION GROUP ORDER NO. 20469440/556387

Counter 2221 Serial No. 117652 Counter Input Sensitivity 10 mV

Count Time 6 seconds Distance Source to Detector Surface

Other

High Voltage	Background	Isotope Am241 Size 30.77μCi	Isotope ____ Size ____	Isotope ____ Size ____	Isotope ____ Size ____
650	594	11754			
700	612	12232			
* 750	642	12334			
800	654	12147			
850	664	12160			
900	675	12323			
950	766	12544			
1000	1173	13221			

Signature Jeramy Thompson Jeramy Thompson Date 7-May-24

Environmental Restoration Group, Inc.
8809 Washington St NE, Suite #150
Albuquerque, NM 87113
(505) 298-4224
www.ERGoffice.com

Certificate of Calibration

Meter Calibration

ACCREDITED
CERT #6488.01

Customer: Environmental Restoration Group, Inc. *See address above.* Calibration Report No.: 5166

Calibration performed in accordance with ERG SOP Meter ITC.101.R1 2/6/2023 Detector ITC.102.R2 2/6/2023

Meter:	Manufacturer:	Ludlum	Model Number:	2221r	Serial Number:	268651
Detector:	Manufacturer:	Ludlum	Model Number:	44-9	Serial Number:	PR112191

Barometric Pressure: 24.66 inches Hg Temperature: 75 °F Relative Humidity: 20 %

Pulser Ludlum 500-1 sn 347243 Multimeter n/a Calibration Cable Length: ☑ 39-inch ☐ 60-inch ☐ Other:

☑ Mechanical Check	☑ Battery Check	HV Check:
☑ Audio Check	☑ THR/WIN Operation	☑ 500 V
☑ Meter Zero Check	☑ F/S Response Check	☑ 1000 V
☑ Meter Reset Check	☑ Geotropism	☑ 1500 V

Comments or Compliance Statement(s):

Additional Comments:

Meter Firmware Version: 26102 - 13

Calibrated with Window in OUT mode: ☑

Set Voltage 900 V DC Set Threshold: 40 mV

Instrument Within Tolerance (+/- 10% on THR/WIN values and Meter Reading counts, and +/-2.5% on HV values): ☑ Yes ☐ No

Range/Multiplier	Reference Setting	"As Found Reading"		Meter Reading		Integrated 1-Min. Count	Log Scale Count	
x 1000	400	400	kcpm	400	kcpm	399191	400	kcpm
x 1000	100	100	kcpm	100	kcpm		100	kcpm
x 100	400	400	kcpm	400	kcpm	39917	400	kcpm
x 100	100	100	kcpm	100	kcpm		100	kcpm
x 10	400	100	kcpm	400	kcpm	3991	400	kcpm
x 10	100	400	kcpm	100	kcpm		100	kcpm
x 1	400	100	cpm	400	cpm	400	400	cpm
x 1	100	400	cpm	100	cpm		100	cpm

Note:In case of repair, "As Found Reading" contains the pre-repair measurements and the "Meter Reading" contains the post-repair measurements.

Notes: Multimeter uncertainty within 1.1% of reading (volts, amps). Count rate uncertainty is within 3% of reading. Measurement results represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2. The calibration results presented on this ERG Calibration Certificate relate only to the items calibrated by ERG. ERG certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology (NIST) or to the calibration facilities of other International Standards Organization members, or have been derived from accepted values of natural physical constants or have been derived by the ratio type of calibration techniques. The calibration system conforms to the requirements of ANSI N323A-1997 and ISO/IEC 17025:2017.
DECISION RULE: Measurements from the meter, adjusted for the measurement uncertainty, must be within tolerance limits as stated in the Comments or Compliance Statement section. Otherwise the calibration is rejected.

3/18/24

Environmental Restoration Group, Inc.
8809 Washington St NE, Suite #150
Albuquerque, NM 87113
(505) 298-4224
www.ERGoffice.com

Certificate of Calibration

Detector Voltage Plateau

Customer: Environmental Restoration Group, Inc. *See address above.* Calibration Report No.: 5166

Voltage plateau performed in accordance with ERG SOP Meter ITC.101.R1 2/6/2023 Detector ITC.102.R2 2/6/2023

Meter:	Manufacturer:	Ludlum	Model Number:	2221r	Serial Number:	268651
Detector:	Manufacturer:	Ludlum	Model Number:	44-9	Serial Number:	PR112191

Voltage Plateau Calibration Cable Length: ☑ 39-inch ☐ 60-inch ☐ Other:

Recommended Operating HV (V DC) 900 Threshold: 40 mV Window:

Source Distance: ☑ Contact ☐ 6 inches ☐ Other:

Source Geometry: ☐ Side ☑ Below ☐ Other:

Count Time (min): 1.0

Background Counts 67

	Gross Counts	Net Counts	Total Efficiency	4π Efficiency
Source 1 Tc-99 sn:U9-060 16,817dpm/9,250cpm (4/11/22) 47 mm disk	1902	1835	0.050	0.109
Source 2			n/a	n/a

NOTE: The total efficiency provided is calculated per ISO-7503/NUREG 1575 (MARSSIM): Total Efficiency = Instrument Efficiency × Source Efficiency; where Instrument Efficiency is calculated as net counts + source 2π emission rate. The 4π efficiency is calculated as net counts + source 4π activity. The provided efficiencies are radionuclide specific and are calculated using source counts and background counts at the recommended operating HV. The provided efficiencies are for general information purposes only and are not intended to replace user efficiency calculation method or results.

Calibrated By: _____ Calibration Date: 3/18/24 Calibration Due: 3/18/25

Reviewed By: _____ Date: 3/19/24

Environmental Restoration Group, Inc.
8809 Washington St NE, Suite #150
Albuquerque, NM 87113
(505) 298-4224
www.ERGoffice.com

Certificate of Calibration

Meter Calibration

ACCREDITED
CERT #6488.01

Customer: Environmental Restoration Group, Inc. *See address above.* Calibration Report No.: 5228

Calibration performed in accordance with ERG SOP Meter ITC.101.R1 2/6/2023 Detector ITC.102.R2 2/6/2023

Meter	Manufacturer:	Ludlum	Model Number:	2360	Serial Number:	245757
Detector	Manufacturer:	Ludlum	Model Number:	43-93	Serial Number:	PR399442

Barometric Pressure: 24.43 inches Hg Temperature: 74 °F Relative Humidity: 20 %

Pulser: Ludlum 500-1 sn 201932 Multimeter: Fluke 110 PLUS Calibration Cable Length: ☑ 39-inch ☐ 60-inch ☐ Other:

☑ Mechanical Check	☑ Battery Check	HV Check:
☑ Audio Check	☑ THR/WIN Operation	☑ 500 V
☑ Meter Zero Check	☐ F/S Response Check	☑ 1000 V
☑ Meter Reset Check	☑ Geotropism	☑ 1500 V

Comments or Compliance Statement(s):

Additional Comments:

Meter Firmware Version: 39010n20 Set Alpha Threshold: 120 mV

Set Voltage 575 V Pot. Setting Set Beta Threshold: 4 mV

Set Beta Window: 30 mV

Instrument Within Tolerance (+/- 10% on THR/WIN values and Meter Reading counts, and +/-2.5% on HV values): ☑ Yes ☐ No

Range/Multiplier	Reference Setting	"As Found Reading"	Meter Reading	Integrated 1-Min. Count α	Integrated 1-Min. Count β
x 1000	400 Kcpm	400	400	400078	400083
x 1000	100 Kcpm	100	100		
x 100	40 Kcpm	400	400	40009	40008
x 100	10 Kcpm	100	100		
x 10	4 Kcpm	400	400	4001	4001
x 10	1 Kcpm	100	100		
x 1	400 cpm	400	400	400	400
x 1	100 cpm	100	100		

Note:In case of repair, "As Found Reading" contains the pre-repair measurements and the "Meter Reading" contains the post-repair measurements.

Notes: Multimeter uncertainty within 1.1% of reading (volts, amps). Count rate uncertainty is within 3% of reading. Measurement results represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2. The calibration results presented on this ERG Calibration Certificate relate only to the items calibrated by ERG. ERG certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology (NIST) or to the calibration facilities of other International Standards Organization members, or have been derived from accepted values of natural physical constants or have been derived by the ratio type of calibration techniques. The calibration system conforms to the requirements of ANSI N323A-1997 and ISO/IEC 17025:2017.
DECISION RULE: Measurements from the meter, adjusted for the measurement uncertainty, must be within tolerance limits as stated in the Comments or Compliance Statement section. Otherwise the calibration is rejected.

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Albuquerque, NM 87113
(505) 298-4224
www.ERGoffice.com

Certificate of Calibration

Voltage Plateau

Customer: Environmental Restoration Group, Inc. *See address above.* Calibration Report No.: 5228

Voltage Plateau performed in accordance with ERG SOP Meter ITC.101.R1 2/6/2023 Detector ITC.102.R2 2/6/2023

Meter:	Manufacturer:	Ludlum	Model Number:	2360	Serial Number:	245757
Detector:	Manufacturer:	Ludlum	Model Number:	43-93	Serial Number:	PR399442

Voltage Plateau Calibration Cable Length: ☑ 39-inch ☐ 60-inch ☐ Other:

Alpha Threshold: 120 mV Beta Threshold: 4 Beta Window: 30

Source Distance: ☑ Contact ☐ 6 inches ☐ Other:

Source Geometry: ☐ Side ☑ Below ☐ Other:

Count Time (min) 1.0

High Voltage	Pot. Setting	Background Counts α	Background Counts β	Alpha Source Counts Gross α	Alpha Source Counts Gross β	Alpha Source Counts Net α	Alpha Source Counts Net β	Beta Source Counts Gross α	Beta Source Counts Gross β	Beta Source Counts Net α	Beta Source Counts Net β	Other Source Counts Gross α	Other Source Counts Gross β	Other Source Counts Net α	Other Source Counts Net β
500		0	38	766	443	766	405	0	182	0	144				
525		1	82	1756	310	1755	228	2	817	1	735				
550		1	170	2330	330	2329	160	5	1525	4	1355				
575		2	243	2694	403	2692	160	5	2187	3	1944				
600		5	324	2809	603	2804	279	6	2719	1	2395				

Recommended Operating HV: 575 Pot. Setting

Alpha Source: Th-230 sn:U9-059 18,759dpm/9,474cpm (4/8/22) 47 mm disk Total Efficiency: 0.071 4π Efficiency: 0.144

Beta Source: Tc-99 sn:U9-060 16,817dpm/9,250cpm (4/11/22) 47 mm disk Total Efficiency: 0.053 4π Efficiency: 0.116

Other Source: Total Efficiency: n/a 4π Efficiency: n/a

NOTE: The total efficiency provided is calculated per ISO-7503/NUREG 1575 (MARSSIM): Total Efficiency = Instrument Efficiency × Source Efficiency; where Instrument Efficiency is calculated as net counts + source 2π emission rate. The 4π efficiency is calculated as net counts + source 4π activity. The provided efficiencies are radionuclide specific and are calculated using source counts and background counts at the recommended operating HV. The provided efficiencies are for general information purposes only and are not intended to replace user efficiency calculation method or results.

Calibrated By: _____ Calibration Date: 5/31/24 Calibration Due: 5/31/25

Reviewed By: _____ Date: 5/31/24

EBERLINE
SERVICES

CERTIFICATE OF CALIBRATION

Electroplated Beta Standard

S.O.# 7197
P.O.# N/A

Description of Standard:

Model No. DNS-14 Serial No. 5443-05 Isotope SrY-90

Electroplated on polished Ni disc, 0.79 mm thick.

Total diameter of 4.77 cm and an active diameter of 4.45 cm.

The radioactive material is permanently fixed to the disc by heat treatment without any covering over the active surface.

Measurement Method:

The 2pi beta emission rate was measured using an internal gas flow proportional chamber. Absolute counting of beta particles emitted in the hemisphere above the active surface was verified by counting above, below, and at the operative voltage. The calibration is traceable to NIST by reference to an NIST calibrated beta source S/N 75323-201.

Measurement Result:

The observed beta count rate from the surface of the disc per minute (cpm) on the calibration date was:

2,410 ± 120

The total disintegration rate (dpm) assuming 40 % backscatter of beta particles from the surface of the disc, was:

3,450 ± 172 (0.00155 μCi)

The uncertainty of the measurement is 5 %, which is the sum of random counting error at the 99% confidence level, and the estimated upper limit of systematic error in this measurement.

Calibrated by: ART REUST Reviewed by:

Calibration Technician: Q.A. Manager:

Calibration Date: 1-04-2012 Reviewed Date: 1-4-2012

Source Manufacturing Lab
7021 Pan American Freeway NE
Albuquerque, New Mexico 87109-4238
(505) 761-5413 Fax (505) 761-5416
art.reust@eberlineservices.com

INSTRUMENT REFERENCE CHECK DETERMINATION

INSTRUMENT/DETECTOR INFORMATION			Beta				Alpha			
Detection Type:	Beta									
Instrument S/N:	268251	Reading	BKG Reading	BKG cpm	Gross Source Reading	CPM Net Reading (gross-avg bkg)	BKG Reading	BKG CPM	Gross Reading	CPM Net Reading (gross-avg bkg)
Instrument Model:	L2221	1	33	33	983	950	NA	NA	NA	NA
Detector S/N:	112191	2	32	32	1,084	1052	NA	NA	NA	NA
Detector Model:	Pacake (44-9)	3	35	35	910	875	NA	NA	NA	NA
Calibration Due Date:	3/18/2025	4	26	26	1,056	1030	NA	NA	NA	NA
Units (cpm, dpm, or µRem/hr):	cpm	5	38	38	999	961	NA	NA	NA	NA
Alpha Cal Efficiency (%):	NA	6	42	42	1,065	1023	NA	NA	NA	NA
Alpha Surface Correction Factor:	NA	7	27	27	993	966	NA	NA	NA	NA
Beta Cal Efficiency (%):	NA	8	33	33	912	879	NA	NA	NA	NA
Beta Surface Correction Factor:	NA	9	35	35	883	848	NA	NA	NA	NA
SOURCE INFORMATION		10	34	34	1,141	1107	NA	NA	NA	NA
	Beta									
Source ID:	5443-05									
Certificate date:	3/29/2005									
Nuclide:	Sr-90									
Activity:	3450 dpm									
Source ID:										
Certificate date:										
Nuclide:										
Activity:										
BKG Count Time (min):										
Sample Count Time (min):										
Variance Information										
Beta σ Value:	NA									
Beta 3σ Variance:	NA									
Alpha σ Value:	NA									
Alpha 3σ Variance:	NA									
ACCEPTABLE RESPONSE CRITERIA	**-20%:**			26.8		775				
	Average:			33.5		969				
	+20%:			40.2		1163				
NSTRUMENT DETECTION CAPABILITIES					**Total Efficiency:**	N/A				
					MDA (dpm/100cm^2):	N/A				
					MDC$_{scan}$ (dpm/100cm^2):	N/A				

Instrument Notes/Comments

Date	Time	-20%	Reference Average	+20%	Count Time (min)	BKG (cpm)	Gross Source (cpm)	Net Source (cpm)	HP Inits	MDCR		
7/7/2024	14:30:00 PM	775	969	1163	10.0	36.30	1,065.00	1028.7	csh		**Instrument S/N:**	**268251**
7/8/2024	7:30 AM	775	969	1163	10.0	44.80	864.00	819.2	csh	95	**Instrument Model:**	**L2221**
7/9/2024	7:30 AM	775	969	1163	10.0	38.00	874.00	836	csh	85	**Detector S/N:**	**112191**
7/10/2024	7:30 AM	775	969	1163	10.0	76.8	885	808.2	csh	143	**Detector Model:**	**Pacake (44-9)**
7/11/2024	7:30 AM	775	969	1163	10.0	69.7	817	747.3	csh	133	**Calibration Due Date:**	**3/18/2025**

Date	Time	-20%	Reference Average	+20%	Count Time (min)	BKG (cpm)	Gross Source (cpm)	Net Source (cpm)	HP Inits	MDCR		
7/7/2024	14:30:00 PM	775	969	1163	10.0	36.30	1,065.00	1028.7	csh		**Instrument S/N:**	**268251**
7/8/2024	7:30 AM	775	969	1163	10.0	44.80	864.00	819.2	csh	95	**Instrument Model:**	**L2221**
7/9/2024	7:30 AM	775	969	1163	10.0	38.00	874.00	836	csh	85	**Detector S/N:**	**112191**
7/10/2024	7:30 AM	775	969	1163	10.0	76.8	885	808.2	csh	143	**Detector Model:**	**Pacake (44-9)**
7/11/2024	7:30 AM	775	969	1163	10.0	69.7	817	747.3	csh	133	**Calibration Due Date:**	**3/18/2025**
7/12/2024	7:30 AM	775	969	1163	10.0	53.1	823	769.9	csh	108		
7/15/2024	7:30 AM	775	969	1163	10.0	45.7	843	797.3	csh	97		

INSTRUMENT REFERENCE CHECK DETERMINATION

INSTRUMENT/DETECTOR INFORMATION			Gamma				Alpha			
Detection Type:	Beta									
Instrument S/N:	117652	Reading	BKG Reading	BKG cpm	Gross Source Reading	CPM Net Reading (gross-avg bkg)	BKG Reading	BKG CPM	Gross Reading	CPM Net Reading (gross-avg bkg)
Instrument Model:	L2221	1	2,118	2,118	1,125,020	1122902	NA	NA	NA	NA
Detector S/N:	373553	2	2,283	2,283	1,129,220	1126937	NA	NA	NA	NA
Detector Model:	NaI (44-10)	3	2,026	2,026	1,130,970	1128944	NA	NA	NA	NA
Calibration Due Date:	5/31/2025	4	2,141	2,141	1,127,380	1125239	NA	NA	NA	NA
Units (cpm, dpm, or µRem/hr):	cpm	5	1,927	1,927	1,113,170	1111243	NA	NA	NA	NA
Alpha Cal Efficiency (%):	NA	6	2,164	2,164	1,130,460	1128296	NA	NA	NA	NA
Alpha Surface Correction Factor:	NA	7	2,354	2,354	1,129,560	1127206	NA	NA	NA	NA
Beta Cal Efficiency (%):	NA	8	2,226	2,226	1,137,620	1135394	NA	NA	NA	NA
Beta Surface Correction Factor:	NA	9	2,077	2,077	1,135,620	1133543	NA	NA	NA	NA
SOURCE INFORMATION		10	2,167	2,167	1,140,970	1138803	NA	NA	NA	NA
	Gamma									
Source ID:	97									
Certificate date:	3/1/2024									
Nuclide:	Cs-137									
Activity:	5 uCi									
Source ID:										
Certificate date:										
Nuclide:										
Activity:										
BKG Count Time (min):										
Sample Count Time (min):										
Variance Information										
Gamma σ Value:	NA									
Gamma 3σ Variance:	NA									
Alpha σ Value:	NA									
Alpha 3σ Variance:	NA									
ACCEPTABLE RESPONSE CRITERIA	**-20%:**			1718.6		902281				
	Average:			2148.3		1127851				
	+20%:			2578.0		1353421				
NSTRUMENT DETECTION CAPABILITIES					**Total Efficiency:**	N/A				
					MDA (dpm/100cm^2):	N/A				
					MDC$_{scan}$ (dpm/100cm^2):	N/A				

Instrument Notes/Comments

Date	Time	-20%	Reference Average	+20%	Count Time (min)	BKG (cpm)	Gross Source (cpm)	Net Source (cpm)	HP Inits	MDCR		
7/7/2024	14:30:00 PM	902281	1127851	1353421	10.0	2,039.00	1,129,160.00	1127121	CSH		**Instrument S/N:**	**117652**
7/8/2024	8:30 AM	902281	1127851	1353421	10.0	3,144.90	1,347,860.00	1344715.1	CSH	3569	**Instrument Model:**	**L2221**
7/9/2024	7:30 AM	902281	1127851	1353421	10.0	2,456.80	1,327,460.00	1325003.2	CSH	2832	**Detector S/N:**	**373553**
7/10/2024	7:30 AM	902281	1127851	1353421	10.0	2406.2	1378300	1375893.8	CSH	2777	**Detector Model:**	**NaI (44-10)**
7/11/2024	7:30 AM	902281	1127851	1353421	10.0	2468.5	1302280	1299811.5	CSH	2841	**Calibration Due Date:**	**5/31/2025**
7/12/2024	7:30 AM	902281	1127851	1353421	10.0	1787	1389620	1387833	CSH	2106		
7/15/2024	7:30 AM	902281	1127851	1353421	10.0	2097	1349760	1347663	CSH	2443		

Environmental Restoration Group, Inc.
8809 Washington NE, Suite #150
Albuquerque, NM 87113

office: (505) 298-4224
fax: (505) 797-1404
web: www.ERGOffice.com

EQUIPMENT PACKING SLIP

Company Name: AECOM

Contact Name:

Contact Telephone:

Order Number: 5818

P.O. or Reference Number: 60730037

Date Ordered: 7/29/2024

Date Shipped: 8/5/2024

Date of Delivery: 8/6/2024

Shipping Method: n/a

Shipping Number:

Ship To Information:

AECOM

Billing Address:

AECOM - Buffalo
Accounts Payable
50 Lakefront Blvd
Suite 111
Buffalo, NY 14202

Equipment Enclosed:

Instrument	*Serial Number*	*Tested*
Ludlum 2221r	262325	☐
Ludlum 2221r	71235	☐
Ludlum 44-10	PR357743	☐
Ludlum 44-9	PR112191	☐
Spectrum Techniques Cs-137	117	☐
Eberline Sr/Y-90	5443-05	☐

Special Instructions:

Chris Higgins (guest)
Holiday Inn Express
2400 Niagara Falls BLVD
Tonawanda, NY 14150
PH: 203-565-3272

Note:
(a) By accepting and using ERG rental equipment, the Renter indemnifies and holds harmless ERG against any and all claims, actions, proceedings, costs, expenses, damages, and liabilities (including attorney's fees and costs) arising out of Renter's use of equipment.

EBERLINE
SERVICES

CERTIFICATE OF CALIBRATION

Electroplated Beta Standard

S.O.# 7197
P.O.# N/A

Description of Standard:

Model No. DNS-14 Serial No. 5443-05 Isotope SrY-90

Electroplated on polished Ni disc, 0.79 mm thick.

Total diameter of 4.77 cm and an active diameter of 4.45 cm.

The radioactive material is permanently fixed to the disc by heat treatment without any covering over the active surface.

Measurement Method:

The 2pi beta emission rate was measured using an internal gas flow proportional chamber. Absolute counting of beta particles emitted in the hemisphere above the active surface was verified by counting above, below, and at the operative voltage. The calibration is traceable to NIST by reference to an NIST calibrated beta source S/N 75323-201.

Measurement Result:

The observed beta count rate from the surface of the disc per minute (cpm) on the calibration date was:

2,410 ± 120

The total disintegration rate (dpm) assuming 40 % backscatter of beta particles from the surface of the disc, was:

3,450 ± 172 (0.00155 μCi)

The uncertainty of the measurement is 5 %, which is the sum of random counting error at the 99% confidence level, and the estimated upper limit of systematic error in this measurement.

Calibrated by: ART REUST Reviewed by:

Calibration Technician: Art Reust Q.A. Manager:

Calibration Date: 1-04-2012 Reviewed Date: 1-4-2012

Source Manufacturing Lab
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Albuquerque, New Mexico 87109-4238
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Designer and Manufacturer of Scientific and Industrial Instruments

www.ludlums.com

CERTIFICATE OF CALIBRATION

LUDLUM MEASUREMENTS, INC.
501 Oak Street
325-235-5494
Sweetwater, TX 79556, U.S.A.

ilac-MRA ACCREDITED CERT # 4084.01

Customer ERG (ENV RESTORATION GRP) ORDER NO. 20473035/558803

Mfg. Ludlum Measurements, Inc. Model 2221 Serial No. 71235

Mfg. Ludlum Measurements, Inc. Model 44-10 Serial No. PR357743

Cal. Date 20-Jul-24 Cal Due Date 20-Jul-25 Cal. Interval 1 Year Meterface 202-159

Check mark ☑ applies to applicable instr. and/or detector IAW mfg. spec. T. 72 °F RH 32 % Alt 728.0 mm Hg

☐ New Instrument Instrument Received ☑ Within Toler. +-10% ☐ 10-20% ☐ Out of Tol. ☐ Requiring Repair ☐ Other-See comments

☑ Mechanical ck. ☑ Meter Zeroed ☐ Background Subtract ☑ Input Sens. Linearity
☑ F/S Resp. ck ☑ Reset ck. ☑ Window Operation ☑ Geotropism
☑ Audio ck. ☐ Alarm Setting ck. ☑ Batt. ck.

☑ Calibrated in accordance with LMI SOP 14.8 ☐ Calibrated in accordance with LMI SOP 14.9

Instrument Volt Set Comments V Input Sens. Comment mV Det. Oper. Comments V at Comment mV Threshold Dial Ratio 100 = 10 mV

☑ HV Readout (2 points) Ref./Inst. 500 / 501 V Ref./Inst. 2000 / 2002 V

COMMENTS:

Model:	44-10(Peak)	44-10(Gross)	Model 2221 currently set for Gross
HV:	605v	800v	Counts. Cal'd with 39" cable
Sens:	642	100(10mv)	HV set with detector connected.
Window:	40	n/a	Cal'd with WIN in 'OFF' position.
Window position:	'IN'	'OUT'	OL checked but not set.
Cs137 Resolution:	12.89%	n/a	Firmware:2610213

Gamma Calibration: GM detectors positioned perpendicular to source except for M 44-9 in which the front of probe faces source.

Multimeter uncertainty within 1.3% of reading. Gamma uncertainty within 5.0% of reading. Neutron uncertainty within 7.0% of reading. Count rate uncertainty within 5.4% of reading

RANGE/MULTIPLIER	REFERENCE CAL. POINT	INSTRUMENT REC'D "AS FOUND READING"	INSTRUMENT METER READING
x1K	400kcpm	360 dn	400 dn
x1K	100kcpm	90	100
x100	40kcpm	360	400
x100	10kcpm	90	100
x10	4kcpm	360	400
x10	1kcpm	90	100
x1	400cpm	360	400
x1	100cpm	90	100

ALL Range(s) Calibrated Electronically

	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING
Digital Readout	400kcpm	39966 (0)	39966 (0)
	40kcpm	3997	3997
	4kcpm	399	399
	400cpm	40	40
	40cpm	4	4

	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING
Log Scale	500kcpm	500K	500K
	50kcpm	50K	50K
	5kcpm	5K	5K
	500cpm	500	500
	50cpm	50	50

Ludlum Measurements, Inc. certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology, or to the calibration facilities of other International Standards Organization members, or have been derived from accepted values of natural physical constants or have been derived by the ratio type of calibration techniques.
All pass/fail determinations are based on the manufacturer's specifications without considering uncertainty factors.
Measurement results represent expanded uncertainties expressed at approximately the 95% level of confidence, using a coverage factor of k=2.
The calibration system conforms to the requirements of ANSI/NCSL Z540-1-1994 and ANSI N323AB-2013

ISO/IEC 17025:2017(E)
State of Texas Calibration License No. LO-1963

Reference Instruments and/or Sources: Cs-137 S/N: ☐ 059 ☐ 2171CP ☐ 2261CP ☐ 720 ☐ 734 ☐ 781 ☐ 1131 ☐ 1616 ☐ 1696 ☐ 1909 ☐ 1916CP ☐ 2324/2521
☐ 5717CO ☐ 5719CO ☐ 60646 ☐ 70897 ☐ 73410 ☐ E552 ☐ G112 ☐ 2168CP ☐ S-394 ☐ S-1054 ☐ T10081 ☐ T10082 Neutron Am-241 Be ☐ T-304 Ra-226 ☑ Y982
☐ E551 ☐ 5105 ☐ CSV280

☐ Alpha S/N ☐ Beta S/N ☐ Other

☑ m 500 S/N 190566 ☐ Oscilloscope S/N ☑ Multimeter S/N 86250390

Calibrator Jason Flores Title Calibrator Date 20-July-24

QC'd By Title Final QC Date 22 JUL 24

AC Inst. Only ☐ Passed Dielectric (Hi-Pot) and Continuity Test ☐ Failed:

www.ludlums.com

Designer and Manufacturer
of
Scientific and Industrial
Instruments

LUDLUM MEASUREMENTS, INC.
501 Oak Street
325-235-5494
Sweetwater, TX 79556, U.S.A.

CONVERSION CHART
FOR REFERENCE ONLY

Customer **ERG (ENV RESTORATION GRP)** ORDER NO. *20473035/558803*

Date 20-Jul-24

Model 2221 Serial No. 71235 Detector Model 44-10 Serial No. PR357243

Source Cs137, 4mCi High Voltage 500 V

Input Sensitivity 10 mV

Reference Point	"As Found" Readings (CPM): Analog	Range/Scale	After Adjustment Readings (CPM): Analog	Range/Scale
500 µR	400	x1K	420	x1K
400	315		330	
200	145		165	
150	110		120	
100	80		85	

Reference Point	"As Found" Readings: Digital	Count Time	After Adjustment Readings: Digital	Count Time
500 µR	39245	6sec.	40956	6sec.
400	31323		32987	
200	14581		17152	
150	11123		12515	
100	8247		8867	

Signature: **Jason Flores** Date 20-Jul-24

www.ludlums.com

Designer and Manufacturer
of
Scientific and Industrial
Instruments

LUDLUM MEASUREMENTS, INC.
501 Oak Street
325-235-5494
Sweetwater, TX 79556, U.S.A.

Bench Test Data For Detector

Detector 44-10 Serial No. PR357743

Customer ERG (ENV RESTORATION GRP) ORDER NO. 20473035/558803

Counter 2221 Serial No. 71235 Counter Input Sensitivity 10 mV

Count Time 1 sec. Distance Source to Detector Surface

Other

High Voltage	Background	Isotope Am241 Size ~0.79 uCi	Isotope ____ Size ____	Isotope ____ Size ____	Isotope ____ Size ____
650	411	10295			
700	478	12056			
750	511	12285			
800	529	12193			
850	540	12353			
900	531	12404			
950	543	12652			
1000	575	12554			
1050	1129	13070			

Signature Jason Flores Date 20-July-24

Environmental Restoration Group, Inc.
8809 Washington St NE, Suite #150
Albuquerque, NM 87113
(505) 298-4224
www.ERGoffice.com

Certificate of Calibration

Meter Calibration

ACCREDITED
CERT #4428.01

Customer: Environmental Restoration Group, Inc. *See address above.* Calibration Report No.: 5303

Calibration performed in accordance with ERG SOP Meter ITC.101.R1 2/6/2023 Detector ITC.102.R2 2/6/2023

Meter:	Manufacturer:	Ludlum	Model Number:	2221r	Serial Number:	262325
Detector:	Manufacturer:	Ludlum	Model Number:	44-9	Serial Number:	PR112191

Barometric Pressure: 24.63 inches Hg Temperature: 75 °F Relative Humidity: 20 %

Pulser: Ludlum 500-1 sn 347243 Multimeter: n/a Calibration Cable Length: ☑ 39-inch ☐ 60-inch ☐ Other:

☑ Mechanical Check	☑ Battery Check	HV Check:
☑ Audio Check	☑ THR/WIN Operation	☑ 500 V
☑ Meter Zero Check	☑ F/S Response Check	☑ 1000 V
☑ Meter Reset Check	☑ Geotropism	☑ 1500 V

Comments or Compliance Statement(s):

Additional Comments:

Meter Firmware Version: 26102 - 13

Calibrated with Window in OUT mode: ☑

Set Voltage 900 V Set Threshold: 40 mV

Instrument Within Tolerance (+/- 10% on THR/WIN values and Meter Reading counts, and +/-2.5% on HV values): ☑ Yes ☐ No

Range/Multiplier	Reference Setting	"As Found Reading"		Meter Reading		Integrated 1-Min. Count	Log Scale Count	
x 1000	400	400	kcpm	400	kcpm	399621	400	kcpm
x 1000	100	100	kcpm	100	kcpm		100	kcpm
x 100	400	400	kcpm	400	kcpm	39987	400	kcpm
x 100	100	100	kcpm	100	kcpm		100	kcpm
x 10	400	400	kcpm	400	kcpm	3999	400	kcpm
x 10	100	100	kcpm	100	kcpm		100	kcpm
x 1	400	400	cpm	400	cpm	400	400	cpm
x 1	100	100	cpm	100	cpm		100	cpm

Note:In case of repair, "As Found Reading" contains the pre-repair measurements and the "Meter Reading" contains the post-repair measurements.

Notes: Multimeter uncertainty within 1.1% of reading (volts, amps). Count rate uncertainty is within 3% of reading. Measurement results represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2. The calibration results presented on this ERG Calibration Certificate relate only to the items calibrated by ERG. ERG certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology (NIST) or to the calibration facilities of other International Standards Organization members, or have been derived from accepted values of natural physical constants or have been derived by the ratio type of calibration techniques. The calibration system conforms to the requirements of ANSI N323A-1997 and ISO/IEC 17025:2017.
DECISION RULE: Measurements from the meter, adjusted for the measurement uncertainty, must be within tolerance limits as stated in the Comments or Compliance Statement section. Otherwise the calibration is rejected.

Environmental Restoration Group, Inc.
8809 Washington St NE, Suite #150
Albuquerque, NM 87113
(505) 298-4224
www.ERGoffice.com

Certificate of Calibration

Detector Voltage Plateau

Customer: Environmental Restoration Group, Inc. *See address above.* Calibration Report No.: 5303

Voltage plateau performed in accordance with ERG SOP Meter ITC.101.R1 2/6/2023 Detector ITC.102.R2 2/6/2023

Meter:	Manufacturer:	Ludlum	Model Number:	2221r	Serial Number:	262325
Detector:	Manufacturer:	Ludlum	Model Number:	44-9	Serial Number:	PR112191

Voltage Plateau Calibration Cable Length: ☑ 39-inch ☐ 60-inch ☐ Other:

Recommended Operating HV (V DC)	**900 V**	Threshold:	40 mV	Window:	

Source Distance: ☑ Contact ☐ 6 inches ☐ Other:

Source Geometry: ☐ Side ☑ Below ☐ Other:

Count Time (min): 1.0

Background Counts 51

	Gross Counts	Net Counts	Total Efficiency	4π Efficiency
Source 1 Tc-99 sn:U9-060 16,817dpm/9,250cpm (4/11/22) 47 mm disk	1849	1798	0.049	0.107
Source 2			n/a	n/a

NOTE: The total efficiency provided is calculated per ISO-7503/NUREG 1575 (MARSSIM): Total Efficiency = Instrument Efficiency × Source Efficiency; where Instrument Efficiency is calculated as net counts ÷ source 2π emission rate. The 4π efficiency is calculated as net counts ÷ source 4π activity. The provided efficiencies are radionuclide specific and are calculated using source counts and background counts at the recommended operating HV. The provided efficiencies are for general information purposes only and are not intended to replace user efficiency calculation method or results.

Calibrated By: _____ Calibration Date: 7/29/24 Calibration Due: 7/29/25

Reviewed By: _____ Date: 7/29/24

Appendix J Community Air Monitoring Results

AECOM

WEEKLY CAMP REPORT

Project Construction Week: 06/03/24 – 06/07/24	Report Date: 07/29/2024

NYSDEC	Ashland Tank 75 Site, Tonawanda, New York	NYSDEC Site No. 915008B

Weather

Monday 06/03/2024: AM: Cloudy, 63º, Wind SSE 3 mph; PM: Clear, 74º, Wind NW 3 mph

Tuesday 06/04/2024: AM: Partly cloudy, 63º, Wind SSE 3 mph; PM: Mostly cloudy, 82º, Wind SSW 8 mph

Wednesday 06/05/2024: No surface water/sediment investigation work performed on-site.

Thursday 06/06/2024: No surface water/sediment investigation work performed on-site.

Friday 06/07/2024: No surface water/sediment investigation work performed on-site.

Air Monitoring Levels within limits: Yes

Comments/Responses: Upwind and downwind conditions monitored by hand with one of two PIDs at 15-minute intervals. Although work zone data is not available, no exceeding values were noted during investigation activities. Particulate monitoring was not required for this scope of work (surface water and sediment sampling).

Equipment	ID	Station	Last Calibration
MiniRAE 3000	592-602185	Upwind/Downwind	05/30/2024
MiniRAE 3000	592-918799	Upwind/Downwind	05/30/2024

Consultant's Verification: On behalf of the Consultant, I certify this report is complete and correct, and all materials and equipment used, and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

Ethan D. Smith

Ethan D. Smith

~~CAMP Review Personnel/ Signature~~

07/25/2024

Date

Project Construction Week:	06/03/24 – 06/07/24	Report Date:	07/29/2024

ATTACHMENT #1
CAMP DATA

Table 1: VOC Data

Date	VOC Action Level (ppm)	Upwind Peak VOC (ppm)	Downwind Peak VOC (ppm)	Work Zone Peak VOC (ppm)	Comments
06/03/2024	5.0	0.0	0.0	NA	No comments.
06/04/2024		0.9	0.9	NA	No comments.
06/05/2024		NA	NA	NA	No work performed on-site.
06/06/2024		NA	NA	NA	No work performed on-site.
06/07/2024		NA	NA	NA	No work performed on-site.

1. NA-Not Available.

2. All VOC data is presented as 15 minute peak averages.

3. **Bold** indicates recording in excess of alert level (5 ppm).

4. **Bold and highlighted** indicates recording in excess of stop work level (5 ppm).

ASHLAND TANK 75
REMEDIAL INVESTIGATION
UPWIND/DOWNWIND VOC MONITORING

Date:____6/3/24_____

RI ACTIVITY:___Surface water and sediment sampling__

Time (15 min intervals)	Wind Direction (from)	Upwind/Downwind (U/D)	Location	PID Reading (PPM)
11:00	S	D	Drums	0.00
11:00	S	U	S. Fence Corner	0.00
11:15	S	D	Drums	0.00
11:15	S	U	S. Fence Corner	0.00
11:30	S	D	Drums	0.00
11:30	S	U	S. Fence Corner	0.00
11:45	S	D	Drums	0.00
11:45	S	U	S. Fence Corner	0.00
12:00	S	D	Drums	0.00
12:00	S	U	S. Fence Corner	0.00
12:15	S	D	Drums	0.00
12:15	S	U	S. Fence Corner	0.00
12:30	S	D	Drums	0.00
12:30	S	U	S. Fence Corner	0.00
12:45	S	D	Drums	0.00
12:45	S	U	S. Fence Corner	0.00
13:00	S	D	Drums	0.00
13:00	S	U	S. Fence Corner	0.00
13:15	S	D	Drums	0.00
13:15	S	U	S. Fence Corner	0.00
13:30	S	D	Drums	0.00
13:30	S	U	S. Fence Corner	0.00
13:45	S	D	Drums	0.00
13:45	S	U	S. Fence Corner	0.00
14:00	S	D	Drums	0.00
14:00	S	U	S. Fence Corner	0.00

ASHLAND TANK 75
REMEDIAL INVESTIGATION
UPWIND/DOWNWIND VOC MONITORING

Date:____6/3/24_____

RI ACTIVITY:___Surface water and sediment sampling__

Time (15 min intervals)	Wind Direction (from)	Upwind/Downwind (U/D)	Location	PID Reading (PPM)
14:15	S	D	Drums	0.00
14:15	S	U	S. Fence Corner	0.00
14:30	S	D	Drums	0.00
14:30	S	U	S. Fence Corner	0.00
14:45	S	D	Drums	0.00
14:45	S	U	S. Fence Corner	0.00
15:00	S	D	Drums	0.00
15:00	S	U	S. Fence Corner	0.00
15:15	S	D	Drums	0.00
15:15	S	U	S. Fence Corner	0.00
15:30	S	D	Drums	0.00
15:30	S	U	S. Fence Corner	0.00
15:45	S	D	Drums	0.00
15:45	S	U	S. Fence Corner	0.00

ASHLAND TANK 75
REMEDIAL INVESTIGATION
UPWIND/DOWNWIND VOC MONITORING

Date:____6/4/24_____

RI ACTIVITY:___Surface water and sediment sampling__

Time (15 min intervals)	Wind Direction (from)	Upwind/Downwind (U/D)	Location	PID Reading (PPM)
6:40	SSE	U	SE Corner	0.8
6:45	SSE	D	N Middle	0.9
6:55	S	U	S Middle	0.9
7:00	S	D	N Corner	0.9
7:10	S	U	S Corner	0.9
7:15	S	D	N Corner	0.8
7:25	S	U	S Corner	0.8
7:30	S	D	N Corner	0.8
7:40	S	U	S Corner	0.8
7:45	S	D	N Corner	0.7
7:55	S	U	S Corner	0.8
8:00	S	D	N Corner	0.8
8:10	SSW	U	S Corner	0.7
8:15	SSW	D	N Corner	0.7
8:25	SSW	U	S Corner	0.7
8:30	SSW	D	N Corner	0.7
8:40	SSW	U	S Corner	0.7
8:45	SSW	D	N Corner	0.7
8:55	SSW	U	S Corner	0.6
9:00	SSW	D	N Corner	0.7
9:10	SSW	U	S Corner	0.7
9:15	SSW	D	N Corner	0.6
9:45	SSW	U	S Corner	0.7
9:50	SSW	D	N Corner	0.7
10:00	SSW	U	S Corner	0.7
10:05	SSW	D	N Corner	0.0

ASHLAND TANK 75
REMEDIAL INVESTIGATION
UPWIND/DOWNWIND VOC MONITORING

Date: 6/4/24

RI ACTIVITY: Surface water and sediment sampling

Time (15 min intervals)	Wind Direction (from)	Upwind/Downwind (U/D)	Location	PID Reading (PPM)
10:15	SSW	U	N Corner	0.6
10:20	SSW	D	S Corner	0.6

AECOM

WEEKLY CAMP REPORT

Project Construction Week: 07/08/24 – 07/12/24	Report Date: 07/25/2024

NYSDEC	Ashland Tank 75 Site, Tonawanda, New York	NYSDEC Site No. 915008B

Weather

Monday 07/08/2024: AM: Sunny, 72º, Wind SSW 3 mph; PM: Sunny, 84º, Wind WSW 5 mph

Tuesday 07/09/2024: AM: Cloudy, 72º, Wind SSW 4 mph; PM: Cloudy, 83º, Wind SW 9 mph

Wednesday 07/10/2024: AM: Cloudy, scattered thunderstorms, 71°, Wind E 8 mph; PM: Cloudy, scattered thunderstorms, 80º, wind S 10 mph

Thursday 07/11/2024: AM: Cloudy, light rain, 67º, Wind WNW 7 mph; PM: Cloudy, 67º, Wind NNW 9 mph

Friday 07/12/2024: AM: Sunny, 68º, Wind SSW 3 mph; PM: Sunny, 80º, Wind SW 5 mph

Air Monitoring Levels within limits: Yes

Comments/Responses: CAMP monitoring performed during soil boring installation work. Upwind DustTrak data did not properly log on 07/08/2024 due to technical error. No evidence of fugitive dust was identified. Dust for work zone monitored visually. No evidence of fugitive dust was identified.

Equipment	ID	Station	Last Calibration
DustTrak II	8530181802	Upwind	09/13/2023
DustTrak II	8530082527	Downwind	09/14/2023
MiniRAE 3000	592-910541	Upwind	06/27/2024
MiniRAE 3000	592-910536	Downwind	06/27/2024
MiniRAE 3000	592-602803	Work Zone	06/27/2024

Consultant's Verification: On behalf of the Consultant, I certify this report is complete and correct, and all materials and equipment used, and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

Ethan D. Smith

Ethan D. Smith

~~**CAMP Review Personnel/ Signature**~~

07/25/2024

Date

Project Construction Week:	07/08/24 – 07/12/24	Report Date:	07/25/2024

ATTACHMENT #1
CAMP DATA

Table 1: Particulate Data

Date	Particulate Action Level (µg/m^3)	Upwind Peak Particulates (µg/m^3)	Downwind Peak Particulates (µg/m^3)	Work Zone Particulates (µg/m^3)	Comments
07/08/2024	150	NA	63	NA	Dust for work zone was monitored visually.
07/09/2024		36	88	NA	Dust for work zone was monitored visually.
07/10/2024		56	54	NA	Dust for work zone was monitored visually.
07/11/2024		15	15	NA	Dust for work zone was monitored visually.
07/12/2024		35	26	NA	Dust for work zone was monitored visually.

1. NA-Not Available.

2. All particulate data is presented as 15 minute peak averages.

3. **Bold** indicates recording in excess of alert level (100 ug/m^3).

4. **Bold and highlighted** indicates recording in excess of stop work level (150 ug/m^3).

Table 2: VOC Data

Date	VOC Action Level (ppm)	Upwind Peak VOC (ppm)	Downwind Peak VOC (ppm)	Work Zone Peak VOC (ppm)	Comments
07/08/2024	5.0	0.4	0.0	0.0	No comments.
07/09/2024		0.2	0.0	0.0	No comments.
07/10/2024		0.0	0.0	0.0	No comments.
07/11/2024		0.2	0.0	0.0	No comments.
07/12/2024		0.7	0.0	0.0	No comments.

1. NA-Not Available.

2. All VOC data is presented as 15 minute peak averages.

3. **Bold** indicates recording in excess of alert level (5 ppm).

4. **Bold and highlighted** indicates recording in excess of stop work level (5 ppm).

AECOM

WEEKLY CAMP REPORT

Project Construction Week: 07/15/24 – 07/19/24	Report Date: 07/25/2024

NYSDEC	Ashland Tank 75 Site, Tonawanda, New York	NYSDEC Site No. 915008B

Weather

Monday 07/15/2024: AM: Cloudy, 75º, Wind SW 10 mph; PM: Cloudy, scattered thunderstorms, 83º, Wind SW 11 mph

Tuesday 07/16/2024: No work performed on-site.

Wednesday 07/17/2024: No work performed on-site.

Thursday 07/18/2024: No work performed on-site.

Friday 07/19/2024: No work performed on-site.

Air Monitoring Levels within limits: Yes

Comments/Responses: CAMP monitoring performed during soil boring installation work. Dust for work zone monitored visually. No evidence of fugitive dust was identified.

Equipment	ID	Station	Last Calibration
DustTrak II	8530181802	Upwind	09/13/2023
DustTrak II	8530082527	Downwind	09/14/2023
MiniRAE 3000	592-910541	Upwind	06/27/2024
MiniRAE 3000	592-910536	Downwind	06/27/2024
MiniRAE 3000	592-602803	Work Zone	06/27/2024

Consultant's Verification: On behalf of the Consultant, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

Ethan D. Smith

Ethan D. Smith

~~**CAMP Review Personnel/ Signature**~~

07/25/2024

Date

Project Construction Week:	07/15/24 – 07/19/24	Report Date:	07/25/2024

ATTACHMENT #1
CAMP DATA

Table 1: Particulate Data

Date	Particulate Action Level (µg/m^3)	Upwind Peak Particulates (µg/m^3)	Downwind Peak Particulates (µg/m^3)	Work Zone Particulates (µg/m^3)	Comments
07/15/2024	150	46	26	NA	Dust for work zone monitored visually.
07/16/2024		NA	NA	NA	No work performed on-site.
07/17/2024		NA	NA	NA	No work performed on-site.
07/18/2024		NA	NA	NA	No work performed on-site.
07/19/2024		NA	NA	NA	No work performed on-site.

1. NA-Not Available.

2. All particulate data is presented as 15 minute peak averages.

3. **Bold** indicates recording in excess of alert level (100 ug/m^3).

4. **Bold and highlighted** indicates recording in excess of stop work level (150 ug/m^3).

Table 2: VOC Data

Date	VOC Action Level (ppm)	Upwind Peak VOC (ppm)	Downwind Peak VOC (ppm)	Work Zone Peak VOC (ppm)	Comments
07/15/2024	5.0	0.1	0.0	0.0	No comments.
07/16/2024		NA	NA	NA	No work performed on-site.
07/17/2024		NA	NA	NA	No work performed on-site.
07/18/2024		NA	NA	NA	No work performed on-site.
07/19/2024		NA	NA	NA	No work performed on-site.

1. NA-Not Available.

2. All VOC data is presented as 15 minute peak averages.

3. **Bold** indicates recording in excess of alert level (5 ppm).

4. **Bold and highlighted** indicates recording in excess of stop work level (5 ppm).

AECOM

WEEKLY CAMP REPORT

Project Construction Week: 08/05/24 – 08/09/24	Report Date: 08/13/2024

NYSDEC	Ashland Tank 75 Site, Tonawanda, New York	NYSDEC Site No. 915008B

Weather

Monday 08/05/2024: No work performed on-site.

Tuesday 08/06/2024: No work performed on-site.

Wednesday 08/07/2024: No work performed on-site.

Thursday 08/08/2024: AM: Cloudy, 67º, Wind ESE 6 mph; PM: Cloudy, 76º, Wind SSE 7 mph

Friday 08/09/2024: AM: Cloudy, periodic light rain, 70º, wind SE 4 mph; Cloudy, periodic light rain, 75º, wind N 7 mph

Air Monitoring Levels within limits: Yes

Comments/Responses: CAMP monitoring performed during soil boring installation work. Upwind DustTrak data did not properly log on 08/08/2024 due to technical error after the initial 15-minutes of logging at startup. No evidence of fugitive dust was identified. Dust for work zone monitored visually. No evidence of fugitive dust was identified.

Equipment	ID	Station	Last Calibration
DustTrak II	8530102616	Upwind	08/01/2024
DustTrak II	8530162403	Downwind	08/01/2024
MiniRAE 3000	592-602803	Upwind	08/06/2024
MiniRAE 3000	592-910535	Downwind	08/06/2024
MiniRAE 3000	592-919946	Work Zone	08/07/2024

Consultant's Verification: On behalf of the Consultant, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

Ethan D. Smith

Ethan D. Smith

~~CAMP Review Personnel/ Signature~~

08/13/2024

Date

Project Construction Week:	08/05/24 – 08/09/24	Report Date:	08/13/2024

ATTACHMENT #1
CAMP DATA

Table 1: Particulate Data

Date	Particulate Action Level (µg/m^3)	Upwind Peak Particulates (µg/m^3)	Downwind Peak Particulates (µg/m^3)	Work Zone Particulates (µg/m^3)	Comments
08/05/2024	150	NA	NA	NA	No work performed on-site.
08/06/2024		NA	NA	NA	No work performed on-site.
08/07/2024		NA	NA	NA	No work performed on-site.
08/08/2024		32	8	NA	Dust for work zone was monitored visually.
08/09/2024		11	7	NA	Dust for work zone was monitored visually.

1. NA-Not Available.

2. All particulate data is presented as 15 minute peak averages.

3. **Bold** indicates recording in excess of alert level (100 ug/m^3).

4. **Bold and highlighted** indicates recording in excess of stop work level (150 ug/m^3).

Table 2: VOC Data

Date	VOC Action Level (ppm)	Upwind Peak VOC (ppm)	Downwind Peak VOC (ppm)	Work Zone Peak VOC (ppm)	Comments
08/05/2024	5.0	NA	NA	NA	No work performed on-site.
08/06/2024		NA	NA	NA	No work performed on-site.
08/07/2024		NA	NA	NA	No work performed on-site.
08/08/2024		0.0	0.0	0.0	No comments.
08/09/2024		0.0	0.0	0.0	No comments.

1. NA-Not Available.

2. All VOC data is presented as 15 minute peak averages.

3. **Bold** indicates recording in excess of alert level (5 ppm).

4. **Bold and highlighted** indicates recording in excess of stop work level (5 ppm).

Appendix K Investigation Derived Waste Inspection Forms and Manifests

Generator acknowledges that no material change has occurred either in the characteristics or in the process generating the material.

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYD987039716
2. Page 1 of: 1
3. Emergency Response Phone: (800) 483-3718
4. Manifest Tracking Number: 018627196 FLE

5. Generator's Name and Mailing Address
Buffalo Tank LLC
1979 Atlas Street
Hilliard OH 43228
Generator's Phone: (614) 348-7401 ATTN.Shannon Lloyd

Generator's Site Address (if different than mailing address)
4625 River Road
Tonawanda, NY 14150

6. Transporter 1 Company Name: Clean Harbors Environmental Services, Inc.
U.S. EPA ID Number: MAD039322250

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Spring Grove Resource Recovery Inc.
4879 Spring Grove Avenue
Cincinnati, OH 45232
Facility's Phone: (513) 681-5738
U.S. EPA ID Number: OHD000816629

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN3077, WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S., (CONTAMINATE DEBRIS), 9, PG III	1	DM	60	P	D008	L	
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1-CH2853762 E198171

Contract retained by generator confers agency authority on initial transporter to add or substitute additional transporters on generator's behalf for purposes of transportation efficiency, convenience, or safety

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Ethan Smith as agent for behalf of Ashland
Signature:
Month: 11 Day: 13 Year: 24

16. International Shipments ☐ Import to U.S. ☐ Export from U.S.
Transporter signature (for exports only):
Port of entry/exit:
Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Richard Granados
Signature:
Month: 11 Day: 13 Year: 24

Transporter 2 Printed/Typed Name: Carlos A. Solorzano
Signature:
Month: 11 Day: 15 Year: 24

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

18b. Alternate Facility (or Generator)
Manifest Reference Number:
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Jade Wohlf
Signature:
Month: 11 Day: 16 Year: 24

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

EPA Form 8700-22 (Rev. 3-12) Previous editions are obsolete.

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

Land Disposal Restriction Notification Form

Printed Date :Nov 12, 2024

MANIFEST INFORMATION

Generator : Buffalo Tank 75

Address: 4625 River Road
Tonawanda,NY 14150

EPA ID #: NYD987039716

Manifest Tracking Info.

018627196FLE

Sales Order No: 2406145369

LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category
1.	1	CH2853762	NON-WASTEWATER	3 (Alternate Debris Standard)

EPA Waste Code	EPA Waste SubCategory
D008	Toxicity Characteristic for Lead

LDR Chemical Data

Chemical	Underlying Hazardous Constituents	Constituents of Concern	Contaminants Subject to Treatment
BARIUM	Y	N	N
LEAD	N	N	N

Certification

	Applies to Manifest Line Items
This hazardous debris is subject to the Alternate Treatment Standards of 40 CFR 268.45.	1.

Waste analysis data, where available, is attached.

Signature : [signature]

Print Name: Ethan Smith as agent for behalf of Ashland

Title : Agent

Date : 11/13/24

Site Address: 4625 River Road
Tonawanda, NY 14150

SC PPW 10/1/2024
WORK ORDER NO. 72 2406145369

DOCUMENT NO. 2021008 **STRAIGHT BILL OF LADING**

TRANSPORTER 1 Clean Harbors Environmental Services, Inc. VEHICLE ID #

EPA ID # MAD039322250 TRANS. 1 PHONE (781) 792-5000

TRANSPORTER 2 VEHICLE ID #

EPA ID # TRANS. 2 PHONE

DESIGNATED FACILITY	SHIPPER
Spring Grove Resource Recovery Inc	ATTN: Shannon Lloyd Buffalo Tank 75
FACILITY EPA ID #	SHIPPER EPA ID #
OHD000816629	NYD987039716
ADDRESS	ADDRESS
4879 Spring Grove Avenue	1979 Atlas Street
CITY / STATE / ZIP	CITY / STATE / ZIP
Cincinnati / OH / 45232	Hilliard / OH / 43228

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
9x55	DM	X	A. RESIDUE LAST CONTAINED UN1263, PAINT RELATED MATERIAL, 3, PG II	360	P
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		

SPECIAL HANDLING INSTRUCTIONS EMERGENCY PHONE #: (800) 483-3718 GENERATOR: Buffalo Tank 75
A.BU172468-MTERG# 128

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

	PRINT	SIGN	DATE
SHIPPER	Ethan Smith as agent/on behalf of Ashland		11/13/24
TRANSPORTER 1	Richard Bruning Jr		11/13/24
TRANSPORTER 2	Carlos A. Solorzano		11/15/24
RECEIVED BY	Jade Wolff		11-18-24

Generator acknowledges that no material change has occurred either in the characteristics or in the process generating the material.

CHI 107

Generator acknowledges that no material change has occurred either in the characteristics or in the process generating the material.

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NYD987039716	1	(800) 483-3718	01862719 5 FLE

GENERATOR

5. Generator's Name and Mailing Address
Buffalo Tank 75
1979 Atlas Stree
Hilliard, OH 43223
Generator's Phone: (614) 315-7401 ATTN:Shannon Lloyd

Generator's Site Address (if different than mailing address)
4625 River Road
Tonawanda, NY 14150

6. Transporter 1 Company Name
Clean Harbors Environmental Services, Inc.

U.S. EPA ID Number
MAD039322250

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
Clean Harbors El Dorado LLC
309 American Circle
El Dorado, AR 71730
Facility's Phone: (870) 863-7173

U.S. EPA ID Number
ARD069748192

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN3077, WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S., (CONTAMINATED SOIL, DEBRIS), 9, PG III	1	DM	60	P	D008	K049	K052
						B		
X	2. UN3077, WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S., (CONTAMINATE DEBRIS), 9, PG III	1	DM	60	P	D007	D008	L
X	3. UN3077, WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S., (CONTAMINATED DEBRIS), 9, PG III	4	DM	240	P	K049	K052	B
X	4. UN3077, WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S., (CONTAMINATED SOIL, DEBRIS), 9, PG III	1	DM	60	P	K049	K052	B

14. Special Handling Instructions and Additional Information
1. CH2853675 ERG#171
2. CH2853675 ERG#171
3. CH2853799 ERG#171
4. SB-07 ERG#171

Contract retained by generator controls agency authority on initial transporter to add or substitute additional transporters on generator's behalf for purposes of transportation efficiency, convenience, or safety

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name	Signature	Month	Day	Year
Ethan Smith as agent for behalf of Abbott		11	13	24

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name	Signature	Month	Day	Year
Rubistel Gonzalez		11	13	24
Transporter 2 Printed/Typed Name	Signature	Month	Day	Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040	H040	H040	H040

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name	Signature	Month	Day	Year
Linda Goode	Linda Goode	12	3	24

EPA Form 8700-22 (Rev. 3-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA'S MANIFEST SYSTEM

Land Disposal Restriction Notification Form

Printed Date :Nov 12, 2024

Certification	Applies to Manifest Line Items
Pursuant to 40 CFR 268.7(a), I hereby notify that this shipment contains waste restricted under 40 CFR Part 268.	1. 2. 3. 4.

Waste analysis data, where available, is attached.

Signature : _____ Print Name Ethan Smith as agent for behalf of BAWard

Title : Agent Date : 11/13/24

Land Disposal Restriction Notification Form

Printed Date :Nov 12, 2024

MANIFEST INFORMATION

Generator : Buffalo Tank 75

Address: 4625 River Road
Tonawanda,NY 14150

EPA ID #: NYD987039716

Manifest Tracking Info.

018627195FLE

Sales Order No: 2406145368

LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category
1.	1	CH2853653	NON-WASTEWATER	2 (This is subject to LDR.)

EPA Waste Code	EPA Waste SubCategory
D008	Toxicity Characteristic for Lead
K049 K052	NONE

LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category
2.	1	CH2853675	NON-WASTEWATER	2 (This is subject to LDR.)

EPA Waste Code	EPA Waste SubCategory
D007	Toxicity Characteristic for Chromium
D008	Toxicity Characteristic for Lead

LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category
3.	1	CH2853799	NON-WASTEWATER	2 (This is subject to LDR.)

EPA Waste Code	EPA Waste SubCategory
K049 K052	NONE

LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category
4.	1	SE-07	NON-WASTEWATER	2 (This is subject to LDR.)

EPA Waste Code	EPA Waste SubCategory
K049 K052	NONE

90-Day – Accumulation Area Inspection Log
(Completed weekly when Hazardous Waste exists in 90-Day Storage Pad)

Site: Ashland Tank 75 4625 River Rd, Tonawanda, NY
Date: 05-31-24 Time: 0945
Inspector Name: Ethan Smith - Geologist II

Requirements	Meets Requirements (Yes or No)	Changes Needed	Date Corrected
Each container (as applicable) labeled with words "Hazardous Waste."	Yes - currently labeled w/paint pen	need official drum label	6-3-24
Each container (as applicable) has "Accumulation Start Date."	Yes	-	
Each container has applicable waste code and waste characteristic. (Toxic, Flammable, Corrosive, and Reactive)	No - waste pending characterization		
Container/stockpile labels legible.	Yes	-	
Containers/stockpile tightly closed/covered.	Yes	-	
No evidence of rust, dents, etc. on drums.	Yes	-	
No containers leaking.	Yes	-	
Aisle space is open and free of obstructions.	Yes	-	
Storage is less than 90 days (LQG).	Yes	-	
Waste (hazardous and non-hazardous) is segregated properly.	Yes	-	
Spill kit and materials are present and in good condition.	No - Waste staged on secondary containment	Need spill kit present	6-3-24
No strange smells are noted.	Yes	-	
Communication or warning devices are present and working properly.	Yes	-	

Comments

90-Day – Accumulation Area Inspection Log
(Completed weekly when Hazardous Waste exists in 90-Day Storage Pad)

Site: Ashland Tank 75 4625 River Rd, Tonawanda, NY
Date: 6-6-24 Time: 1330
Inspector Name: Ethan Smith - Geologist II

Requirements	Meets Requirements (Yes or No)	Changes Needed	Date Corrected
Each container (as applicable) labeled with words "Hazardous Waste."	Yes	-	
Each container (as applicable) has "Accumulation Start Date."	Yes	-	
Each container has applicable waste code and waste characteristic. (Toxic, Flammable, Corrosive, and Reactive)	No - waste pending characterization		
Container/stockpile labels legible.	Yes	-	
Containers/stockpile tightly closed/covered.	Yes	-	
No evidence of rust, dents, etc. on drums.	Yes	-	
No containers leaking.	Yes	-	
Aisle space is open and free of obstructions.	Yes	-	
Storage is less than 90 days (LQG).	Yes	-	
Waste (hazardous and non-hazardous) is segregated properly.	Yes	-	
Spill kit and materials are present and in good condition.	Yes	-	
No strange smells are noted.	Yes	-	
Communication or warning devices are present and working properly.			

Comments

90-Day – Accumulation Area Inspection Log
(Completed weekly when Hazardous Waste exists in 90-Day Storage Pad)

Site: Ashland Tank 75 4625 River Rd, Tonawanda, NY
Date: 6-14-24 Time: 0730
Inspector Name: Ethan Smith - Geologist II

Requirements	Meets Requirements (Yes or No)	Changes Needed	Date Corrected
Each container (as applicable) labeled with words "Hazardous Waste."	Yes	-	
Each container (as applicable) has "Accumulation Start Date."	Yes	-	
Each container has applicable waste code and waste characteristic. (Toxic, Flammable, Corrosive, and Reactive)	No - waste pending characterization	-	
Container/stockpile labels legible.	Yes	-	
Containers/stockpile tightly closed/covered.	Yes	-	
No evidence of rust, dents, etc. on drums.	Yes	-	
No containers leaking.	Yes	-	
Aisle space is open and free of obstructions.	Yes	-	
Storage is less than 90 days (LQG).	Yes	-	
Waste (hazardous and non-hazardous) is segregated properly.	Yes	-	
Spill kit and materials are present and in good condition.	Yes	-	
No strange smells are noted.	Yes	-	
Communication or warning devices are present and working properly.	Yes	-	

Comments

90-Day – Accumulation Area Inspection Log
(Completed weekly when Hazardous Waste exists in 90-Day Storage Pad)

Site: Ashland Tank 75 4625 River Rd, Tonawanda, NY
Date: 06-21-24 Time: 0815
Inspector Name: Ethan Smith - Geologist II

Requirements	Meets Requirements (Yes or No)	Changes Needed	Date Corrected
Each container (as applicable) labeled with words "Hazardous Waste."	Yes	—	
Each container (as applicable) has "Accumulation Start Date."	Yes	—	
Each container has applicable waste code and waste characteristic. (Toxic, Flammable, Corrosive, and Reactive)	No - waste pending characterization	—	
Container/stockpile labels legible.	yes	—	
Containers/stockpile tightly closed/covered.	yes	—	
No evidence of rust, dents, etc. on drums.	yes	—	
No containers leaking.	yes	—	
Aisle space is open and free of obstructions.	yes	—	
Storage is less than 90 days (LQG).	yes	—	
Waste (hazardous and non-hazardous) is segregated properly.	yes	—	
Spill kit and materials are present and in good condition.	yes	—	
No strange smells are noted.	yes	—	
Communication or warning devices are present and working properly.	yes	—	

Comments

90-Day – Accumulation Area Inspection Log
(Completed weekly when Hazardous Waste exists in 90-Day Storage Pad)

Site: Ashland Tank 75 4625 River Rd, Tonawanda, NY
Date: 06-27-2024 Time: 1400
Inspector Name: Ethan Smith - Geologist II

Requirements	Meets Requirements (Yes or No)	Changes Needed	Date Corrected
Each container (as applicable) labeled with words "Hazardous Waste."	Yes		
Each container (as applicable) has "Accumulation Start Date."	Yes		
Each container has applicable waste code and waste characteristic. (Toxic, Flammable, Corrosive, and Reactive)	No - waste pending characterization		
Container/stockpile labels legible.	Yes		
Containers/stockpile tightly closed/covered.	Yes		
No evidence of rust, dents, etc. on drums.	Yes		
No containers leaking.	Yes		
Aisle space is open and free of obstructions.	Yes		
Storage is less than 90 days (LQG).	Yes		
Waste (hazardous and non-hazardous) is segregated properly.	Yes		
Spill kit and materials are present and in good condition.	Yes		
No strange smells are noted.	Yes		
Communication or warning devices are present and working properly.	No - Caution tape torn and tattered	Need new caution tape around area	06-27-24

Comments

90-Day – Accumulation Area Inspection Log
(Completed weekly when Hazardous Waste exists in 90-Day Storage Pad)

Site: Ashland Tank 75 — 4625 River Rd, Tonawanda, NY
Date: 7-5-24 Time: 1100
Inspector Name: Ethan D. Smith - Geologist II

Requirements	Meets Requirements (Yes or No)	Changes Needed	Date Corrected
Each container (as applicable) labeled with words "Hazardous Waste."	yes		
Each container (as applicable) has "Accumulation Start Date."	yes		
Each container has applicable waste code and waste characteristic. (Toxic, Flammable, Corrosive, and Reactive)	No - Waste pending characterization		
Container/stockpile labels legible.	yes		
Containers/stockpile tightly closed/covered.	yes		
No evidence of rust, dents, etc. on drums.	yes		
No containers leaking.	yes		
Aisle space is open and free of obstructions.	yes		
Storage is less than 90 days (LQG).	yes		
Waste (hazardous and non-hazardous) is segregated properly.	yes		
Spill kit and materials are present and in good condition.	yes		
No strange smells are noted.	yes		
Communication or warning devices are present and working properly.	yes		

Comments Four (4) drums on-site w/ Haz. waste, five (5) w/ non-haz purge water

90-Day – Accumulation Area Inspection Log
(Completed weekly when Hazardous Waste exists in 90-Day Storage Pad)

Site: Ashland Tank 75 4625 River Rd, Tonawanda, NY
Date: 7-12-24 Time: 1030
Inspector Name: Ethan Smith - Geologist II

Requirements	Meets Requirements (Yes or No)	Changes Needed	Date Corrected
Each container (as applicable) labeled with words "Hazardous Waste."	Yes		
Each container (as applicable) has "Accumulation Start Date."	Yes		
Each container has applicable waste code and waste characteristic. (Toxic, Flammable, Corrosive, and Reactive)	Yes		Waste Codes Added 7-12-24
Container/stockpile labels legible.	Yes		
Containers/stockpile tightly closed/covered.	Yes		
No evidence of rust, dents, etc. on drums.	Yes		
No containers leaking.	Yes		
Aisle space is open and free of obstructions.	Yes		
Storage is less than 90 days (LQG).	Yes		
Waste (hazardous and non-hazardous) is segregated properly.	Yes		
Spill kit and materials are present and in good condition.	Yes		
No strange smells are noted.	Yes		
Communication or warning devices are present and working properly.	Yes		

Comments _____

90-Day – Accumulation Area Inspection Log
(Completed weekly when Hazardous Waste exists in 90-Day Storage Pad)

Site: Ashland Tank 75 4625 River Rd, Tonawanda, NY
Date: 7-19-24 Time: 0830
Inspector Name: Ethan Smith - Geologist I

Requirements	Meets Requirements (Yes or No)	Changes Needed	Date Corrected
Each container (as applicable) labeled with words "Hazardous Waste."	Yes		
Each container (as applicable) has "Accumulation Start Date."	Yes		
Each container has applicable waste code and waste characteristic. (Toxic, Flammable, Corrosive, and Reactive)	Yes		
Container/stockpile labels legible.	Yes		
Containers/stockpile tightly closed/covered.	Yes		
No evidence of rust, dents, etc. on drums.	Yes		
No containers leaking.	Yes		
Aisle space is open and free of obstructions.	Yes		
Storage is less than 90 days (LQG).	Yes		
Waste (hazardous and non-hazardous) is segregated properly.	Yes		
Spill kit and materials are present and in good condition.	Yes		
No strange smells are noted.	Yes		
Communication or warning devices are present and working properly.	Yes		

Comments Currently Staged Drums and Accumulation Start: (Also staged 2 empty drums)

5 drums + 3 5-gal buckets Hazardous Waste (Waste from Tank 75 or gross contamination): PPE + Plastic Sheeting - 05/22/24, PPE + Plastic Sheeting - 06/04/24, PPE + Plastic Sheeting - 06/04/24, PPE + Plastic Sheeting - 06/05/24, Soil + PPE/Plastic - 07/12/24
5-gal bucket Tank sludge (3 buckets) - 6/4/24 ; 4 DuraDeck mats
6 Drums Non-Haz. IDW: 5 drums monitoring well purge water from 04/25-04/26/24 and 04/29-04/30/24
1 drum PPE/plastic sheeting/soil boring liners (no gross contamination) from 07/15/24

90-Day – Accumulation Area Inspection Log
(Completed weekly when Hazardous Waste exists in 90-Day Storage Pad)

Site: Ashland Tank 75 — 4625 River Rd, Tonawanda, NY
Date: 07-26-24 Time: 0830
Inspector Name: Ethan D. Smith - Geologist II

Requirements	Meets Requirements (Yes or No)	Changes Needed	Date Corrected
Each container (as applicable) labeled with words "Hazardous Waste."	Yes		
Each container (as applicable) has "Accumulation Start Date."	Yes		
Each container has applicable waste code and waste characteristic. (Toxic, Flammable, Corrosive, and Reactive)	Yes		
Container/stockpile labels legible.	Yes		
Containers/stockpile tightly closed/covered.	Yes		
No evidence of rust, dents, etc. on drums.	Yes		
No containers leaking.	Yes		
Aisle space is open and free of obstructions.	Yes		
Storage is less than ~~90 days (LQG)~~: 180 day storage clock minimum*	Yes		
Waste (hazardous and non-hazardous) is segregated properly.	Yes		
Spill kit and materials are present and in good condition.	Yes		
No strange smells are noted.	Yes		
Communication or warning devices are present and working properly.	Yes		

Comments: Same drums as previous inspection. No changes or corrections

* As per meeting w/ waste specialist Lance Holman (AECOM) on Tuesday, July 23rd, 2024 at ~~0~~ 1430, on-site storage is a minimum of 180 days considering small quantity generator (SQG) characteristic

90-Day – Accumulation Area Inspection Log
(Completed weekly when Hazardous Waste exists in 90-Day Storage Pad)

Site: Ashland Tank 75 4625 River Rd, Tonawanda, NY
Date: 08-02-24 Time: 0800
Inspector Name: Ethan D. Smith - Geologist II

Requirements	Meets Requirements (Yes or No)	Changes Needed	Date Corrected
Each container (as applicable) labeled with words "Hazardous Waste."	Yes		
Each container (as applicable) has "Accumulation Start Date."	Yes		
Each container has applicable waste code and waste characteristic. (Toxic, Flammable, Corrosive, and Reactive)	Yes		
Container/stockpile labels legible.	Yes		
Containers/stockpile tightly closed/covered.	Yes		
No evidence of rust, dents, etc. on drums.	Yes		
No containers leaking.	Yes		
Aisle space is open and free of obstructions.	Yes		
Storage is less than ~~90 days (LQG)~~ 180 day storage clock minimum*	Yes		
Waste (hazardous and non-hazardous) is segregated properly.	Yes		
Spill kit and materials are present and in good condition.	Yes		
No strange smells are noted.	Yes		
Communication or warning devices are present and working properly.	No	Caution tape slightly faded / tattered, needs replacement	08-02-24

Comments Same drums as previous inspection. Replaced slightly faded/tattered caution tape

* See previous weeks comment regarding on-site storage time frame (Noted on report dated 07-26-24)

90-Day – Accumulation Area Inspection Log
(Completed weekly when Hazardous Waste exists in 90-Day Storage Pad)

Site: Ashland Tank 75 — 4625 River Rd, Tonawanda, NY
Date: 8-9-24 Time: 0830
Inspector Name: Ethan D. Smith - Geologist II

Requirements	Meets Requirements (Yes or No)	Changes Needed	Date Corrected
Each container (as applicable) labeled with words "Hazardous Waste."	Yes		
Each container (as applicable) has "Accumulation Start Date."	Yes		
Each container has applicable waste code and waste characteristic. (Toxic, Flammable, Corrosive, and Reactive)	Yes		
Container/stockpile labels legible.	Yes		
Containers/stockpile tightly closed/covered.	Yes		
No evidence of rust, dents, etc. on drums.	Yes		
No containers leaking.	Yes		
Aisle space is open and free of obstructions.	Yes		
Storage is less than ~~90 days~~ (LQG). 180 days storage clock minimum*	Yes		
Waste (hazardous and non-hazardous) is segregated properly.	Yes		
Spill kit and materials are present and in good condition.	Yes		
No strange smells are noted.	Yes		
Communication or warning devices are present and working properly.	Yes		

Comments - 2 drums added to staging area 08-08-24 - PPE + Plastic Sheeting + Liners (No gross contamination noted. Staged proximate purge water & 08-09-24 - Gross contaminated soils and plastic from SB-07-0-5 ft below surface staged proximate hazardous waste material
- No additional drums / changes since previous inspection outside of drums noted above (6 drums on hazardous waste staging plastic, 7 drums non-haz / no gross contamination IDW)

* See note on storage timeframe from 07-26-24 inspection log

90-Day – Accumulation Area Inspection Log
(Completed weekly when Hazardous Waste exists in 90-Day Storage Pad)

Site: Ashland Tank 75 4625 River Rd, Tonawanda, NY
Date: 8/16/2024 Time: 0830
Inspector Name: EDYTA CHOROSTKOWSKA

Requirements	Meets Requirements (Yes or No)	Changes Needed	Date Corrected
Each container (as applicable) labeled with words "Hazardous Waste."	YES		
Each container (as applicable) has "Accumulation Start Date."	YES		
Each container has applicable waste code and waste characteristic. (Toxic, Flammable, Corrosive, and Reactive)	YES		
Container/stockpile labels legible.	YES		
Containers/stockpile tightly closed/covered.	YES		
No evidence of rust, dents, etc. on drums.	YES		
No containers leaking.	YES		
Aisle space is open and free of obstructions.	YES		
Storage is less than ~~90~~ 180 days (LQG).	YES		
Waste (hazardous and non-hazardous) is segregated properly.	YES		
Spill kit and materials are present and in good condition.	YES		
No strange smells are noted.	YES		
Communication or warning devices are present and working properly.	YES		

Comments 6 HAZ + 7 NON-HAZ DRUMS

90-Day – Accumulation Area Inspection Log
(Completed weekly when Hazardous Waste exists in 90-Day Storage Pad)

Site: Ashland Tank 75 4625 River Rd, Tonawanda, NY
Date: 8/23/2024 Time: 0835
Inspector Name: EDYTA CHOROSTKOWSKA

Requirements	Meets Requirements (Yes or No)	Changes Needed	Date Corrected
Each container (as applicable) labeled with words "Hazardous Waste."	YES		
Each container (as applicable) has "Accumulation Start Date."	YES		
Each container has applicable waste code and waste characteristic. (Toxic, Flammable, Corrosive, and Reactive)	YES		
Container/stockpile labels legible.	YES		
Containers/stockpile tightly closed/covered.	YES		
No evidence of rust, dents, etc. on drums.	YES		
No containers leaking.	YES		
Aisle space is open and free of obstructions.	YES		
Storage is less than ~~90~~ 180 days (LQG).	YES		
Waste (hazardous and non-hazardous) is segregated properly.	YES		
Spill kit and materials are present and in good condition.	YES		
No strange smells are noted.	YES		
Communication or warning devices are present and working properly.	YES		

Comments 6 HAZ + 7 NON HAZ DRUMS

90-Day – Accumulation Area Inspection Log
(Completed weekly when Hazardous Waste exists in 90-Day Storage Pad)

Site: Ashland Tank 75 — 4625 River Rd, Tonawanda, NY
Date: 8/30/2024 Time: 0830
Inspector Name: Ethan Smith - Geologist II

Requirements	Meets Requirements (Yes or No)	Changes Needed	Date Corrected
Each container (as applicable) labeled with words "Hazardous Waste."	Yes		
Each container (as applicable) has "Accumulation Start Date."	Yes		
Each container has applicable waste code and waste characteristic. (Toxic, Flammable, Corrosive, and Reactive)	Yes		
Container/stockpile labels legible.	Yes		
Containers/stockpile tightly closed/covered.	Yes		
No evidence of rust, dents, etc. on drums.	Yes		
No containers leaking.	Yes		
Aisle space is open and free of obstructions.	Yes		
Storage is less than 90 days (LQG).	Yes		
Waste (hazardous and non-hazardous) is segregated properly.	Yes		
Spill kit and materials are present and in good condition.	Yes		
No strange smells are noted.	Yes		
Communication or warning devices are present and working properly.	Yes		

Comments 6 Haz + 7 Non-haz drums. Currently at 100 days since storage of first drum dated 05-22-24 (PPE + Plastic sheeting from badly melting survey)

90-Day – Accumulation Area Inspection Log
(Completed weekly when Hazardous Waste exists in 90-Day Storage Pad)

Site: Ashland Tank 75 4625 River Rd, Tonawanda, NY
Date: 09 - 06 - 2024 Time: 0830
Inspector Name: Ethan Smith - Geologist II

Requirements	Meets Requirements (Yes or No)	Changes Needed	Date Corrected
Each container (as applicable) labeled with words "Hazardous Waste."	Yes		
Each container (as applicable) has "Accumulation Start Date."	Yes		
Each container has applicable waste code and waste characteristic. (Toxic, Flammable, Corrosive, and Reactive)	Yes		
Container/stockpile labels legible.	Yes		
Containers/stockpile tightly closed/covered.	Yes		
No evidence of rust, dents, etc. on drums.	Yes		
No containers leaking.	Yes		
Aisle space is open and free of obstructions.	Yes		
Storage is less than ~~90 days (LQG).~~ 180 - days	Yes		
Waste (hazardous and non-hazardous) is segregated properly.	Yes		
Spill kit and materials are present and in good condition.	Yes		
No strange smells are noted.	Yes		
Communication or warning devices are present and working properly.	Yes		

Comments Same drum count as previous inspection. E. Smith adjusted poly sheeting to better cover staged drums. Currently 107 days since oldest accumulation start date (05-22-24)

90-Day – Accumulation Area Inspection Log
(Completed weekly when Hazardous Waste exists in 90-Day Storage Pad)

Site: Ashland Tank 75 4625 River Rd, Tonawanda, NY
Date: 09-13-2024 Time: 0830
Inspector Name: Ethan Smith - Geologist II

Requirements	Meets Requirements (Yes or No)	Changes Needed	Date Corrected
Each container (as applicable) labeled with words "Hazardous Waste."	Yes		
Each container (as applicable) has "Accumulation Start Date."	Yes		
Each container has applicable waste code and waste characteristic. (Toxic, Flammable, Corrosive, and Reactive)	Yes		
Container/stockpile labels legible.	No - Labels/paint pen slightly faded	Labels rewritten on various drums where faded	09-13-24
Containers/stockpile tightly closed/covered.	Yes		
No evidence of rust, dents, etc. on drums.	Yes		
No containers leaking.	Yes		
Aisle space is open and free of obstructions.	Yes		
Storage is less than ~~90 days (LQG)~~. 180 days storage	Yes		
Waste (hazardous and non-hazardous) is segregated properly.	Yes		
Spill kit and materials are present and in good condition.	Yes		
No strange smells are noted.	Yes		
Communication or warning devices are present and working properly.	Yes		

Comments Same drums as previous inspection (13 total). Rewrote faded labels on various drums (Noted above). Currently 114 days since oldest accumulation start date (05-22-24)

90-Day – Accumulation Area Inspection Log
(Completed weekly when Hazardous Waste exists in 90-Day Storage Pad)

Site: Ashland Tank 75 — 4625 River Rd, Tonawanda, NY
Date: 09-20-2024 Time: 0830
Inspector Name: Ethan Smith - Geologist II

Requirements	Meets Requirements (Yes or No)	Changes Needed	Date Corrected
Each container (as applicable) labeled with words "Hazardous Waste."	Yes		
Each container (as applicable) has "Accumulation Start Date."	Yes		
Each container has applicable waste code and waste characteristic. (Toxic, Flammable, Corrosive, and Reactive)	Yes		
Container/stockpile labels legible.	Yes		
Containers/stockpile tightly closed/covered.	Yes		
No evidence of rust, dents, etc. on drums.	Yes		
No containers leaking.	Yes		
Aisle space is open and free of obstructions.	Yes		
Storage is less than ~~90~~ 180 days (LQG).	Yes		
Waste (hazardous and non-hazardous) is segregated properly.	Yes		
Spill kit and materials are present and in good condition.	Yes		
No strange smells are noted.	Yes		
Communication or warning devices are present and working properly.	Yes		

Comments: Same drums as previous inspection (13 total). Currently 121 days since oldest accumulation start date (05-22-24).

90-Day – Accumulation Area Inspection Log
(Completed weekly when Hazardous Waste exists in 90-Day Storage Pad)

Site: Ashland Tank 75 4625 River Rd, Tonawanda, NY
Date: 09-27-2024 Time: 0830
Inspector Name: Ethan D. Smith - Geologist II

Requirements	Meets Requirements (Yes or No)	Changes Needed	Date Corrected
Each container (as applicable) labeled with words "Hazardous Waste."	Yes		
Each container (as applicable) has "Accumulation Start Date."	Yes		
Each container has applicable waste code and waste characteristic. (Toxic, Flammable, Corrosive, and Reactive)	Yes		
Container/stockpile labels legible.	Yes		
Containers/stockpile tightly closed/covered.	Yes		
No evidence of rust, dents, etc. on drums.	Yes		
No containers leaking.	Yes		
Aisle space is open and free of obstructions.	Yes		
Storage is less than ~~90 days (LQG)~~. 180 - days	Yes		
Waste (hazardous and non-hazardous) is segregated properly.	Yes		
Spill kit and materials are present and in good condition.	Yes		
No strange smells are noted.	Yes		
Communication or warning devices are present and working properly.			

Comments Same drums as previous inspection. Currently 128 days since oldest accumulation start date (05-22-24).

90-Day – Accumulation Area Inspection Log
(Completed weekly when Hazardous Waste exists in 90-Day Storage Pad)

Site: Ashland Tank 75 — 4625 River Rd, Tonawanda, NY
Date: 10-04-2024 Time: 0830
Inspector Name: Ethan D. Smith - Geologist II

Requirements	Meets Requirements (Yes or No)	Changes Needed	Date Corrected
Each container (as applicable) labeled with words "Hazardous Waste."	Yes		
Each container (as applicable) has "Accumulation Start Date."	Yes		
Each container has applicable waste code and waste characteristic. (Toxic, Flammable, Corrosive, and Reactive)	Yes		
Container/stockpile labels legible.	Yes		
Containers/stockpile tightly closed/covered.	Yes		
No evidence of rust, dents, etc. on drums.	Yes		
No containers leaking.	Yes		
Aisle space is open and free of obstructions.	Yes		
Storage is less than 90 days (LQG).	Yes		
Waste (hazardous and non-hazardous) is segregated properly.	Yes		
Spill kit and materials are present and in good condition.	Yes		
No strange smells are noted.	Yes		
Communication or warning devices are present and working properly.	Yes		

Comments Same drums as previous inspection. Currently 135 days since oldest accumulation start date.

90-Day – Accumulation Area Inspection Log
(Completed weekly when Hazardous Waste exists in 90-Day Storage Pad)

Site: Ashland Tank 75 4625 River Rd, Tonawanda, NY
Date: 10 - 11 - 2024 Time: 0830
Inspector Name: Ethan D. Smith - Geologist II

Requirements	Meets Requirements (Yes or No)	Changes Needed	Date Corrected
Each container (as applicable) labeled with words "Hazardous Waste."	Yes		
Each container (as applicable) has "Accumulation Start Date."	Yes		
Each container has applicable waste code and waste characteristic. (Toxic, Flammable, Corrosive, and Reactive)	Yes		
Container/stockpile labels legible.	Yes		
Containers/stockpile tightly closed/covered.	Yes		
No evidence of rust, dents, etc. on drums.	Yes		
No containers leaking.	Yes		
Aisle space is open and free of obstructions.	Yes		
Storage is less than ~~90 days (LQG)~~ 180 days	Yes		
Waste (hazardous and non-hazardous) is segregated properly.	Yes		
Spill kit and materials are present and in good condition.	Yes		
No strange smells are noted.	Yes		
Communication or warning devices are present and working properly.	Yes		

Comments Adjusted poly sheeting to fully cover drums. Same drums as previous inspection.
Currently 142 days since ~~previous~~ oldest accumulation start date.

90-Day – Accumulation Area Inspection Log
(Completed weekly when Hazardous Waste exists in 90-Day Storage Pad)

Site: Ashland Tank 75 4625 River Rd, Tonawanda, NY
Date: 10 / 18 / 2024 Time: 0830
Inspector Name: Ethan D. Smith

Requirements	Meets Requirements (Yes or No)	Changes Needed	Date Corrected
Each container (as applicable) labeled with words "Hazardous Waste."	Yes		
Each container (as applicable) has "Accumulation Start Date."	Yes		
Each container has applicable waste code and waste characteristic. (Toxic, Flammable, Corrosive, and Reactive)	Yes		
Container/stockpile labels legible.	Yes		
Containers/stockpile tightly closed/covered.	Yes		
No evidence of rust, dents, etc. on drums.	Yes		
No containers leaking.	Yes		
Aisle space is open and free of obstructions.	Yes		
Storage is less than ~~90-days (LQG)~~ 180 days (SQG)	Yes		
Waste (hazardous and non-hazardous) is segregated properly.	Yes		
Spill kit and materials are present and in good condition.	Yes		
No strange smells are noted.	Yes		
Communication or warning devices are present and working properly.	Yes		

Comments Adjusted poly sheeting to fully cover 4 duraderk mats stored on decon pad. Drums from previous (now 2024) investigations all confirmed empty outside of 1 drum w/ ~ 10 gallons of water inside. No changes to number of drums on-site. Currently 149 days since oldest accumulation start date.

90-Day – Accumulation Area Inspection Log
(Completed weekly when Hazardous Waste exists in 90-Day Storage Pad)

Site: Ashland Tank 75 4625 River Rd, Tonawanda, NY
Date: 10-25-24 Time: 0830
Inspector Name: Ethan Smith

Requirements	Meets Requirements (Yes or No)	Changes Needed	Date Corrected
Each container (as applicable) labeled with words "Hazardous Waste."	Yes		
Each container (as applicable) has "Accumulation Start Date."	Yes		
Each container has applicable waste code and waste characteristic. (Toxic, Flammable, Corrosive, and Reactive)	Yes		
Container/stockpile labels legible.	Yes		
Containers/stockpile tightly closed/covered.	Yes		
No evidence of rust, dents, etc. on drums.	Yes		
No containers leaking.	Yes		
Aisle space is open and free of obstructions.	Yes		
Storage is less than ~~90 days (LQG)~~: 180 days (SQG)	Yes		
Waste (hazardous and non-hazardous) is segregated properly.	Yes		
Spill kit and materials are present and in good condition.	Yes		
No strange smells are noted.	Yes		
Communication or warning devices are present and working properly.	Yes		

Comments Same drums as previous inspection. Currently 156 days since oldest accumulation start date

90-Day – Accumulation Area Inspection Log
(Completed weekly when Hazardous Waste exists in 90-Day Storage Pad)

Site: Ashland Tank 75 — 4625 River Rd, Tonawanda, NY
Date: 11/1/2024 Time: 0845
Inspector Name: Chris Finn

Requirements	Meets Requirements (Yes or No)	Changes Needed	Date Corrected
Each container (as applicable) labeled with words "Hazardous Waste."	Yes		
Each container (as applicable) has "Accumulation Start Date."	Yes		
Each container has applicable waste code and waste characteristic. (Toxic, Flammable, Corrosive, and Reactive)	Yes		
Container/stockpile labels legible.	Yes		
Containers/stockpile tightly closed/covered.	Yes		
No evidence of rust, dents, etc. on drums.	Yes		
No containers leaking.	Yes		
Aisle space is open and free of obstructions.	Yes		
Storage is less than ~~90 days (LQG)~~. 180 days (SQG)	Yes		
Waste (hazardous and non-hazardous) is segregated properly.	Yes		
Spill kit and materials are present and in good condition.	Yes		
No strange smells are noted.	Yes		
Communication or warning devices are present and working properly.	Yes		

Comments: Same drums as previous inspection. Currently 163 days since oldest accumulation start date.
* Add rocks to help hold down plastic cover in strong winds *

90-Day – Accumulation Area Inspection Log
(Completed weekly when Hazardous Waste exists in 90-Day Storage Pad)

Site: Ashland Tank 75 — 4625 River Rd, Tonawanda, NY
Date: 11/7/2024 Time: 1400
Inspector Name: Chris Finn

Requirements	Meets Requirements (Yes or No)	Changes Needed	Date Corrected
Each container (as applicable) labeled with words "Hazardous Waste."	Y		
Each container (as applicable) has "Accumulation Start Date."	Y		
Each container has applicable waste code and waste characteristic. (Toxic, Flammable, Corrosive, and Reactive)	Y		
Container/stockpile labels legible.	Y		
Containers/stockpile tightly closed/covered.	Y		
No evidence of rust, dents, etc. on drums.	Y		
No containers leaking.	Y		
Aisle space is open and free of obstructions.	Y		
Storage is less than ~~90 days (LQG).~~ 180 days (SQG)	Y		
Waste (hazardous and non-hazardous) is segregated properly.	Y		
Spill kit and materials are present and in good condition.	Y		
No strange smells are noted.	Y		
Communication or warning devices are present and working properly.	Y		

Comments: Same drums as previous inspections. Currently 169 days from accumulation start date
five drums of purge water were emptied back into tank on 11/7/24. Drums remain on-site and are empty.

Appendix L Data Usability Summary Reports

DATA USABILITY SUMMARY REPORT

ASHLAND TANK 75 INVESTIGATION
4625 RIVER ROAD
TONAWANDA, NEW YORK 14150

Analyses Performed by:

EUROFINS – AMHERST, NY and BARBERTON, OH

Prepared for:

NEW YORK STATE DEPARTMENT OF ENVIROMENTAL CONSERVATION
625 BROADWAY
ALBANY, NEW YORK 12233-0001

Prepared by:

AECOM
50 LAKEFRONT BOULEVARD
SUITE 111
BUFFALO, NY 14202

JUNE 2024

CONTENTS

I. INTRODUCTION

This Data Usability Summary Report (DUSR) has been prepared following the guidelines provided in New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation *DER-10, Technical Guidance for Site Investigation and Remediation, Appendix 2B - Guidance for Data Deliverables and the Development of Data Usability Summary Reports*, May 2010. Discussed in this DUSR are the analytical data for 9 groundwater samples, 1 matrix spike/matrix spike duplicate (MS/MSD) pair, 1 groundwater field duplicate (FD), 1 rinse blank (RB), and 2 trip blanks collected on April 29-30, 2024.

The samples were collected at the Ashland Tank 75 site located in Tonawanda, NY and sent to Eurofins [Amherst, NY and Barberton, OH] for analysis. Eurofins is a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory.

II. ANALYTICAL METHODOLOGIES AND DATA VALIDATION PROCEDURES

The samples were analyzed for the following parameters (not all samples were analyzed for all parameters):

Parameter	Method
Volatile Organic Compounds (VOCs)	SW8260C
Semi-Volatile Organic Compounds (SVOCs)	SW8270D
1,4-Dioxane	SW8270D Selective Ion Monitoring (SIM)
Pesticides	SW8081B
PCBs (Polychlorinated Biphenyls)	SW8082A
PFAS (Per- and Polyfluoroalkyl Substances)	EPA Draft Method 1633
Total/Dissolved Metals/Mercury	SW6010D/7470A
Total/Dissolved Cyanide	SW9012

A limited data validation was performed following the guidelines in the following USEPA Region II documents:

- *Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry, SW-846 Method 8260B & 8260C, SOP HW-24, Rev. 4,* October 2014;
- *Validating Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry,*

SW-846 Method 8270D, SOP HW-22, Rev. 5, December 2010;

- *Polychlorinated Biphenyl (PCB) Aroclor Data Validation, SOP HW-37A, Rev. 0*, February 2018;
- *Validating Pesticide Compounds Organochlorine Pesticides by Gas Chromatography, SW-846, Method 8081B, SOP HW-44, Rev. 3.1*, December 2010;
- *Sampling, Analysis, and Assessment of Per- and Perfluoroalkyl Substances under NYSDEC Part 375 Remedial Programs, Appendix H*, April 2023;
- *ICP-AES Data Validation, SOP HW-3a, Rev. 1*, September 2016; and
- *Mercury and Cyanide Data Validation, SOP HW-3c, Rev. 1*, September 2016.

The limited validation included a review of: completeness of all required deliverables; holding times; quality control (QC) results [blanks, instrument tunings, calibration standards, duplicate analyses, MS/MSD recoveries, surrogate/internal standard recoveries, and laboratory control sample (LCS) recoveries] to determine if the data are within the protocol-required limits and specifications; a determination that all samples were analyzed using established and agreed upon analytical protocols; an evaluation of the raw data to confirm the results provided in the data summary sheets; and laboratory data qualifiers.

Definitions of USEPA data qualifiers are presented at the end of this text. A summary of data qualifications has been presented in Table 1. Validated Form 1s have been presented in Attachment A. Documentation supporting the qualification of data is presented in Attachment B. Only analytical deviations affecting data usability are discussed in this report.

III. DATA DELIVERABLE COMPLETENESS

Full deliverable data packages (i.e., NYSDEC ASP Category B or equivalent) were provided by the laboratory and included all reporting forms and raw data necessary to fully evaluate and verify the reported analytical results.

IV. SAMPLE RECEIPT/PRESERVATION/HOLDING TIMES

All samples were received by the laboratory intact, properly preserved and under proper chain-of-custody (COC). All samples were analyzed within the required holding times (HT).

V. NON-CONFORMANCES

- **Calibration**

The percent difference (%D) between the initial calibration (ICAL) and the continuing calibration (CCAL) relative response factors (RRFs) exceeded 20% and showed a low bias for the following VOC compounds: methyl isobutyl ketone (4-methyl-2-pentanone) and/or vinyl chloride (VC). The results for these compounds in the associated samples listed on Table 1 have been qualified 'J' or 'UJ'.

The %D between the ICAL and the CCAL exceeded 20% and showed a low bias for the following SVOC compounds: 2,4-dinitrophenol and/or pentachlorophenol. The relative response factor (RRF) for pentachlorophenol was also slightly below the QC limit. The results for these compounds in the samples listed on Table 1 have been qualified 'UJ'.

- **Laboratory Control Sample (LCS)**

The VOC LCS associated with the samples listed on Table 1 showed the %R of dichlorodifluoromethane as being below the QC limits. The results for this compound has been qualified 'UJ' in the samples listed on Table 1.

- **Matrix Spike/Matrix Spike Duplicate**

The SVOC MS/MSD performed on sample MW05-04-042924-20240429 showed the %Rs of 3,3'-dichlorobenzidine as being below the QC limits. The %R of this compound was acceptable in the LCS. The results for 3,3'-dichlorobenzidine has been qualified 'UJ' in this sample.

The wet chemistry MS/MSD performed on sample MW05-04-042924-20240429 had %Rs less than the QC limit for total cyanide (Cn). The result for Cn in this sample has been qualified 'UJ.'

- **Method Blanks/Laboratory Blanks/Rinse Blanks**

The method blanks and/or continuing calibration blanks (CCBs) were detected for total and dissolved vanadium (V) and dissolved cyanide (Cn) at concentrations greater than the method detection limit (MDL) but less than the reporting limit (RL). The method blank/CCBs were detected for total Cn at a concentration greater than the RL. Those samples that were less than the RL have been qualified 'U' at the RL as listed on Table 1. Those total Cn samples greater than the RL but less than 10x the blank result have been qualified 'J+'.

The RB was detected for total sodium at a concentration greater than the RL. Those samples greater than the RL but less than 10x the RB result have been qualified 'J+'.

VI. SAMPLE RESULTS AND REPORTING

All sample results were reported in accordance with method requirements and were adjusted for sample volume. Results reported below the RL, but greater than the MDL, are qualified 'J' by the laboratory.

A field duplicate was collected at location MW-02S-042924-20240429. The samples exhibited good analytical/field precision (i.e., relative percent difference (RPD) between results < 50% if results > RL).

Several samples for VOCs were diluted due to foaming and/or sample matrix. The non-detect results represent the lowest achievable at the dilution.

The laboratory performed a TBA (tetrabutylammonium sulfite) cleanup due to the presence of sulfur for the pesticide analysis of samples MW-02S-042924-FD-20240429 and MW05-01-042924-20240429. The results for endrin aldehyde in these samples were reported from an extract that did not undergo the cleanup since it is believed the cleanup might affect the endrin aldehyde concentration.

The mass ion ratio of perfluoropentanoic acid (PFPeA) in sample MW05-01-042924-20240429 was outside of the QC limits for identification. Using analyst judgement this compound was reported as a hit and qualified 'I' by the laboratory. The 'I' qualifier has been changed to 'JN'. The result reported represents the estimated maximum possible concentration of this compound.

VII. SUMMARY

All sample analyses were found to be compliant with the method criteria, except where previously noted. Those results qualified 'J,' 'J+,' 'JN,' and 'UJ,' are considered conditionally usable. Those results qualified 'U' are considered non-detect. All other sample results are usable as reported. AECOM does not recommend the recollection of any samples at this time.

Prepared By: Ann Marie Kropovitch, Chemist **Date:** 6/14/2024

Reviewed By: Peter R. Fairbanks, Senior Chemist **Date:** 6/14/2024

Table 1

Summary of Sample Qualifications

VOCs			
SAMPLE	**COMPOUND**	**QUALIFIER**	**REASON**
MW-04D-043024-20240430 and TB-043024-20240430	methyl isobutyl ketone (4-methyl-2-pentanone)	UJ	CCAL%D > QC limit (20%), low bias
MW05-02-043024-20240430	vinyl chloride	J	CCAL%D > QC limit (20%), low bias
MW-02D-043024-20240430 and RB-043024-20240430	chloromethane	UJ	CCAL%D > QC limit (20%), low bias
MW-02D-043024-20240430 and RB-043024-20240430	dichlorodifluoromethane	UJ	LCS %R < QC limit
SVOCs			
MW05-04-042924-20240429	3,3'-dichlorobenzidine	UJ	MS/MSD %R < QC limit
MW-02S-042924-20240429, MW-02S-042924-FD-20240429, MW-03-042924-20240429, MW05-01-042924-20240429, MW05-03-042924-20240429, and MW05-04-042924-20240429	2,4-dinitrophenol and pentachlorophenol	UJ	CCAL%D > QC limit (20%), low bias
MW-02D-043024-20240430, RB-043024-20240430, MW-04D-043024-20240430, MW-04S-043024-20240430, and MW05-02-043024-20240430	2,4-dinotrophenol and hexachlorocyclopentadiene	UJ	CCAL%D > QC limit (20%), low bias
PFAS			
MW05-01-042924-20240429.	PFPeA	JN	Ion Ration > QC limits
Metals			
MW-02S-042924-20240429, MW05-01-042924-20240429, MW05-01-042924-20240429, MW05-03-042924-20240429, MW05-03-042924-20240429, MW05-04-042924-20240429, and MW05-04-042924-20240429	V (total/dissolved)	U at RL	MBLK/CCB contamination

Table 1

Summary of Sample Qualifications

SAMPLE	COMPOUND	QUALIFIER	REASON
MW-02D-043024-20240430, MW-04D-043024-20240430, MW-04S-043024-20240430, MW05-02-043024-20240430, MW-02S-042924-20240429, MW-02S-042924-FD-20240429, MW-03-042924-20240429, MW05-01-042924-20240429, MW05-03-042924-20240429, and MW05-04-042924-20240429	Na (total)	J+	RB contamination
Wet Chemistry			
MW05-03-042924-20240429 and MW05-04-042924-20240429	Cn (dissolved)	U at RL	MBLK/CCB contamination
MW05-02-043024-20240430	Cn (total)	J+	MBLK/CCB contamination
MW05-04-042924-20240429	Cn (total)	UJ	MS/MSD %R < QC limit.

DEFINITIONS OF USEPA REGION II DATA QUALIFIERS

U – The analyte was analyzed for but was not detected above the reported sample quantitation limit.

J – The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ – The result is an estimated quantity, but the result may be biased high.

J- – The result is an estimated quantity, but the result may be biased low.

UJ – The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

JN - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

R – The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

ATTACHMENT A

VALIDATED FORM 1s

Client Sample ID: MW-03-042924

Date Collected: 04/29/24 09:20
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-1

Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A		05/01/24 13:41	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		77 - 120		05/01/24 13:41	2
4-Bromofluorobenzene (Surr)	100		73 - 120		05/01/24 13:41	2
Dibromofluoromethane (Surr)	102		75 - 123		05/01/24 13:41	2
Toluene-d8 (Surr)	100		80 - 120		05/01/24 13:41	2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		05/01/24 09:25	05/02/24 16:41	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		05/01/24 09:25	05/02/24 16:41	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		05/01/24 09:25	05/02/24 16:41	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		05/01/24 09:25	05/02/24 16:41	1
2,4-Dinitrophenol	ND	UJ	10	2.2	ug/L		05/01/24 09:25	05/02/24 16:41	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		05/01/24 09:25	05/02/24 16:41	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		05/01/24 09:25	05/02/24 16:41	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		05/01/24 09:25	05/02/24 16:41	1
2-Chlorophenol	ND		5.0	0.53	ug/L		05/01/24 09:25	05/02/24 16:41	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		05/01/24 09:25	05/02/24 16:41	1
2-Methylphenol	ND		5.0	0.40	ug/L		05/01/24 09:25	05/02/24 16:41	1
2-Nitroaniline	ND		10	0.42	ug/L		05/01/24 09:25	05/02/24 16:41	1
2-Nitrophenol	ND		5.0	0.48	ug/L		05/01/24 09:25	05/02/24 16:41	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		05/01/24 09:25	05/02/24 16:41	1
3-Nitroaniline	ND		10	0.48	ug/L		05/01/24 09:25	05/02/24 16:41	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		05/01/24 09:25	05/02/24 16:41	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		05/01/24 09:25	05/02/24 16:41	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		05/01/24 09:25	05/02/24 16:41	1
4-Chloroaniline	ND		5.0	0.59	ug/L		05/01/24 09:25	05/02/24 16:41	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		05/01/24 09:25	05/02/24 16:41	1
4-Methylphenol	ND		10	0.36	ug/L		05/01/24 09:25	05/02/24 16:41	1
4-Nitroaniline	ND		10	0.25	ug/L		05/01/24 09:25	05/02/24 16:41	1
4-Nitrophenol	ND		10	1.5	ug/L		05/01/24 09:25	05/02/24 16:41	1
Acenaphthene	ND		5.0	0.41	ug/L		05/01/24 09:25	05/02/24 16:41	1
Acenaphthylene	ND		5.0	0.38	ug/L		05/01/24 09:25	05/02/24 16:41	1
Acetophenone	ND		5.0	0.54	ug/L		05/01/24 09:25	05/02/24 16:41	1
Anthracene	ND		5.0	0.28	ug/L		05/01/24 09:25	05/02/24 16:41	1
Atrazine	ND		5.0	0.46	ug/L		05/01/24 09:25	05/02/24 16:41	1
Benzaldehyde	ND		5.0	0.27	ug/L		05/01/24 09:25	05/02/24 16:41	1
Benzo(a)anthracene	ND		5.0	0.36	ug/L		05/01/24 09:25	05/02/24 16:41	1
Benzo(a)pyrene	ND		5.0	0.47	ug/L		05/01/24 09:25	05/02/24 16:41	1
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L		05/01/24 09:25	05/02/24 16:41	1
Benzo(g,h,i)perylene	ND		5.0	0.35	ug/L		05/01/24 09:25	05/02/24 16:41	1
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L		05/01/24 09:25	05/02/24 16:41	1
Biphenyl	ND		5.0	0.65	ug/L		05/01/24 09:25	05/02/24 16:41	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		05/01/24 09:25	05/02/24 16:41	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		05/01/24 09:25	05/02/24 16:41	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		05/01/24 09:25	05/02/24 16:41	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		05/01/24 09:25	05/02/24 16:41	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		05/01/24 09:25	05/02/24 16:41	1

Client Sample ID: MW-03-042924
Lab Sample ID: 480-219333-1

Date Collected: 04/29/24 09:20
Matrix: Water

Date Received: 04/29/24 17:15

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Caprolactam	ND		5.0	2.2	ug/L		05/01/24 09:25	05/02/24 16:41	1
Carbazole	ND		5.0	0.30	ug/L		05/01/24 09:25	05/02/24 16:41	1
Chrysene	ND		5.0	0.33	ug/L		05/01/24 09:25	05/02/24 16:41	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		05/01/24 09:25	05/02/24 16:41	1
Dibenzofuran	ND		10	0.51	ug/L		05/01/24 09:25	05/02/24 16:41	1
Diethyl phthalate	ND		5.0	0.22	ug/L		05/01/24 09:25	05/02/24 16:41	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		05/01/24 09:25	05/02/24 16:41	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		05/01/24 09:25	05/02/24 16:41	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		05/01/24 09:25	05/02/24 16:41	1
Fluoranthene	ND		5.0	0.40	ug/L		05/01/24 09:25	05/02/24 16:41	1
Fluorene	ND		5.0	0.36	ug/L		05/01/24 09:25	05/02/24 16:41	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		05/01/24 09:25	05/02/24 16:41	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		05/01/24 09:25	05/02/24 16:41	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		05/01/24 09:25	05/02/24 16:41	1
Hexachloroethane	ND		5.0	0.59	ug/L		05/01/24 09:25	05/02/24 16:41	1
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L		05/01/24 09:25	05/02/24 16:41	1
Isophorone	ND		5.0	0.43	ug/L		05/01/24 09:25	05/02/24 16:41	1
Naphthalene	ND		5.0	0.76	ug/L		05/01/24 09:25	05/02/24 16:41	1
Nitrobenzene	ND		5.0	0.29	ug/L		05/01/24 09:25	05/02/24 16:41	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		05/01/24 09:25	05/02/24 16:41	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		05/01/24 09:25	05/02/24 16:41	1
Pentachlorophenol	ND	UJ	10	2.2	ug/L		05/01/24 09:25	05/02/24 16:41	1
Phenanthrene	ND		5.0	0.44	ug/L		05/01/24 09:25	05/02/24 16:41	1
Phenol	ND		5.0	0.39	ug/L		05/01/24 09:25	05/02/24 16:41	1
Pyrene	ND		5.0	0.34	ug/L		05/01/24 09:25	05/02/24 16:41	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Furan, tetrahydro-	*330*	*T J N*	*ug/L*		*2.76*	*109-99-9*	*05/01/24 09:25*	*05/02/24 16:41*	*1*
Unknown	*6.4*	*T J*	*ug/L*		*2.89*	*N/A*	*05/01/24 09:25*	*05/02/24 16:41*	*1*
Unknown	*1.9*	*T J*	*ug/L*		*3.08*	*N/A*	*05/01/24 09:25*	*05/02/24 16:41*	*1*
Chloroiodomethane	*1.6*	*T J N*	*ug/L*		*3.95*	*593-71-5*	*05/01/24 09:25*	*05/02/24 16:41*	*1*
Unknown	*24*	*T J*	*ug/L*		*5.12*	*N/A*	*05/01/24 09:25*	*05/02/24 16:41*	*1*
Unknown	*3.2*	*T J*	*ug/L*		*5.52*	*N/A*	*05/01/24 09:25*	*05/02/24 16:41*	*1*
Unknown	*2.8*	*T J*	*ug/L*		*5.64*	*N/A*	*05/01/24 09:25*	*05/02/24 16:41*	*1*
Unknown	*2.9*	*T J*	*ug/L*		*5.91*	*N/A*	*05/01/24 09:25*	*05/02/24 16:41*	*1*
Unknown	*1.9*	*T J*	*ug/L*		*6.04*	*N/A*	*05/01/24 09:25*	*05/02/24 16:41*	*1*
Unknown	*1.7*	*T J*	*ug/L*		*11.93*	*N/A*	*05/01/24 09:25*	*05/02/24 16:41*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*81*		*41 - 120*	*05/01/24 09:25*	*05/02/24 16:41*	*1*
2-Fluorobiphenyl	*71*		*48 - 120*	*05/01/24 09:25*	*05/02/24 16:41*	*1*
2-Fluorophenol	*54*		*35 - 120*	*05/01/24 09:25*	*05/02/24 16:41*	*1*
Nitrobenzene-d5	*64*		*46 - 120*	*05/01/24 09:25*	*05/02/24 16:41*	*1*
Phenol-d5	*41*		*22 - 120*	*05/01/24 09:25*	*05/02/24 16:41*	*1*
p-Terphenyl-d14	*67*		*60 - 148*	*05/01/24 09:25*	*05/02/24 16:41*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.20	0.021	ug/L		05/02/24 08:53	05/07/24 17:57	1
4,4'-DDE	ND		0.20	0.017	ug/L		05/02/24 08:53	05/07/24 17:57	1

Client Sample ID: MW-03-042924
Lab Sample ID: 480-219333-1

Date Collected: 04/29/24 09:20
Matrix: Water

Date Received: 04/29/24 17:15

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDT	ND		0.20	0.019	ug/L		05/02/24 08:53	05/07/24 17:57	1
Aldrin	ND		0.20	0.026	ug/L		05/02/24 08:53	05/07/24 17:57	1
alpha-BHC	ND		0.20	0.021	ug/L		05/02/24 08:53	05/07/24 17:57	1
cis-Chlordane	ND		0.20	0.028	ug/L		05/02/24 08:53	05/07/24 17:57	1
beta-BHC	ND		0.20	0.037	ug/L		05/02/24 08:53	05/07/24 17:57	1
delta-BHC	ND		0.20	0.017	ug/L		05/02/24 08:53	05/07/24 17:57	1
Dieldrin	ND		0.20	0.026	ug/L		05/02/24 08:53	05/07/24 17:57	1
Endosulfan I	ND		0.20	0.015	ug/L		05/02/24 08:53	05/07/24 17:57	1
Endosulfan II	ND		0.20	0.025	ug/L		05/02/24 08:53	05/07/24 17:57	1
Endosulfan sulfate	ND		0.20	0.015	ug/L		05/02/24 08:53	05/07/24 17:57	1
Endrin	ND		0.20	0.026	ug/L		05/02/24 08:53	05/07/24 17:57	1
Endrin aldehyde	ND		0.20	0.018	ug/L		05/02/24 08:53	05/07/24 17:57	1
Endrin ketone	ND		0.20	0.016	ug/L		05/02/24 08:53	05/07/24 17:57	1
gamma-BHC (Lindane)	ND		0.20	0.024	ug/L		05/02/24 08:53	05/07/24 17:57	1
trans-Chlordane	ND		0.20	0.020	ug/L		05/02/24 08:53	05/07/24 17:57	1
Heptachlor	ND		0.20	0.033	ug/L		05/02/24 08:53	05/07/24 17:57	1
Heptachlor epoxide	ND		0.20	0.026	ug/L		05/02/24 08:53	05/07/24 17:57	1
Methoxychlor	ND		0.40	0.019	ug/L		05/02/24 08:53	05/07/24 17:57	1
Toxaphene	ND		8.0	0.23	ug/L		05/02/24 08:53	05/07/24 17:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*78*		*10 - 145*	*05/02/24 08:53*	*05/07/24 17:57*	*1*
DCB Decachlorobiphenyl	*75*		*10 - 145*	*05/02/24 08:53*	*05/07/24 17:57*	*1*
Tetrachloro-m-xylene	*64*		*10 - 123*	*05/02/24 08:53*	*05/07/24 17:57*	*1*
Tetrachloro-m-xylene	*60*		*10 - 123*	*05/02/24 08:53*	*05/07/24 17:57*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 22:42	1
PCB-1221	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 22:42	1
PCB-1232	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 22:42	1
PCB-1242	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 22:42	1
PCB-1248	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 22:42	1
PCB-1254	ND		0.50	0.25	ug/L		05/01/24 13:50	05/02/24 22:42	1
PCB-1260	ND		0.50	0.25	ug/L		05/01/24 13:50	05/02/24 22:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*77*		*19 - 120*	*05/01/24 13:50*	*05/02/24 22:42*	*1*
DCB Decachlorobiphenyl	*75*		*19 - 120*	*05/01/24 13:50*	*05/02/24 22:42*	*1*
Tetrachloro-m-xylene	*68*		*39 - 121*	*05/01/24 13:50*	*05/02/24 22:42*	*1*
Tetrachloro-m-xylene	*64*		*39 - 121*	*05/01/24 13:50*	*05/02/24 22:42*	*1*

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**93.4**	**J**	200	47.3	ug/L		05/16/24 16:30	05/18/24 10:35	1
Antimony	ND		20.0	7.5	ug/L		05/16/24 16:30	05/18/24 10:35	1
Arsenic	ND		15.0	4.1	ug/L		05/16/24 16:30	05/18/24 10:35	1
Barium	**43.7**	**J**	200	3.0	ug/L		05/16/24 16:30	05/18/24 10:35	1
Beryllium	ND		5.0	0.60	ug/L		05/16/24 16:30	05/18/24 10:35	1
Cadmium	**1.0**	**J**	5.0	0.45	ug/L		05/16/24 16:30	05/18/24 10:35	1

Client Sample ID: MW-03-042924
Lab Sample ID: 480-219333-1

Date Collected: 04/29/24 09:20
Matrix: Water

Date Received: 04/29/24 17:15

Method: SW846 6010D - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**77500**		5000	307	ug/L		05/16/24 16:30	05/18/24 10:35	1
Chromium	**0.93**	**J**	10.0	0.76	ug/L		05/16/24 16:30	05/18/24 10:35	1
Cobalt	**0.86**	**J**	10.0	0.75	ug/L		05/16/24 16:30	05/18/24 10:35	1
Copper	ND		25.0	3.5	ug/L		05/16/24 16:30	05/18/24 10:35	1
Iron	**180**	**J**	200	82.7	ug/L		05/16/24 16:30	05/18/24 10:35	1
Lead	ND		10.0	2.8	ug/L		05/16/24 16:30	05/18/24 10:35	1
Magnesium	**161000**		5000	259	ug/L		05/16/24 16:30	05/18/24 10:35	1
Manganese	**72.5**		15.0	2.6	ug/L		05/16/24 16:30	05/18/24 10:35	1
Nickel	**4.4**	**J**	40.0	2.2	ug/L		05/16/24 16:30	05/18/24 10:35	1
Potassium	**4090**	**J**	5000	557	ug/L		05/16/24 16:30	05/18/24 10:35	1
Selenium	ND		20.0	6.0	ug/L		05/16/24 16:30	05/18/24 10:35	1
Silver	ND		10.0	0.62	ug/L		05/16/24 16:30	05/18/24 10:35	1
Sodium	**76800**	J+	5000	2110	ug/L		05/16/24 16:30	05/18/24 10:35	1
Thallium	ND		20.0	2.7	ug/L		05/16/24 16:30	05/18/24 10:35	1
Vanadium	ND		50.0	5.6	ug/L		05/16/24 16:30	05/18/24 10:35	1
Zinc	ND		50.0	22.5	ug/L		05/16/24 16:30	05/18/24 10:35	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	47.3	ug/L		05/16/24 16:30	05/18/24 10:48	1
Antimony	ND		20.0	7.5	ug/L		05/16/24 16:30	05/18/24 10:48	1
Arsenic	**4.7**	**J**	15.0	4.1	ug/L		05/16/24 16:30	05/18/24 10:48	1
Barium	**18.8**	**J**	200	3.0	ug/L		05/16/24 16:30	05/18/24 10:48	1
Beryllium	ND		5.0	0.60	ug/L		05/16/24 16:30	05/18/24 10:48	1
Cadmium	**0.95**	**J**	5.0	0.45	ug/L		05/16/24 16:30	05/18/24 10:48	1
Calcium	**71200**		5000	307	ug/L		05/16/24 16:30	05/18/24 10:48	1
Chromium	**1.1**	**J**	10.0	0.76	ug/L		05/16/24 16:30	05/18/24 10:48	1
Cobalt	ND		10.0	0.75	ug/L		05/16/24 16:30	05/18/24 10:48	1
Copper	ND		25.0	3.5	ug/L		05/16/24 16:30	05/18/24 10:48	1
Iron	ND		200	82.7	ug/L		05/16/24 16:30	05/18/24 10:48	1
Lead	ND		10.0	2.8	ug/L		05/16/24 16:30	05/18/24 10:48	1
Magnesium	**175000**		5000	259	ug/L		05/16/24 16:30	05/18/24 10:48	1
Manganese	**15.7**		15.0	2.6	ug/L		05/16/24 16:30	05/18/24 10:48	1
Nickel	**2.4**	**J**	40.0	2.2	ug/L		05/16/24 16:30	05/18/24 10:48	1
Potassium	**4250**	**J**	5000	557	ug/L		05/16/24 16:30	05/18/24 10:48	1
Selenium	ND		20.0	6.0	ug/L		05/16/24 16:30	05/18/24 10:48	1
Silver	ND		10.0	0.62	ug/L		05/16/24 16:30	05/18/24 10:48	1
Sodium	**85600**		5000	2110	ug/L		05/16/24 16:30	05/18/24 10:48	1
Thallium	ND		20.0	2.7	ug/L		05/16/24 16:30	05/18/24 10:48	1
Vanadium	ND		50.0	5.6	ug/L		05/16/24 16:30	05/18/24 10:48	1
Zinc	ND		50.0	22.5	ug/L		05/16/24 16:30	05/18/24 10:48	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00040	0.000084	mg/L		05/02/24 11:04	05/02/24 17:00	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/02/24 11:04	05/02/24 17:36	1

Client Sample ID: MW-03-042924
Lab Sample ID: 480-219333-1

Date Collected: 04/29/24 09:20
Matrix: Water
Date Received: 04/29/24 17:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			05/02/24 23:27	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			05/03/24 00:00	1

Client Sample ID: MW05-04-042924
Lab Sample ID: 480-219333-2

Date Collected: 04/29/24 10:45
Matrix: Water
Date Received: 04/29/24 17:15

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.0	3.3	ug/L			05/01/24 14:03	4
1,1,2,2-Tetrachloroethane	ND		4.0	0.84	ug/L			05/01/24 14:03	4
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.0	1.2	ug/L			05/01/24 14:03	4
1,1,2-Trichloroethane	ND		4.0	0.92	ug/L			05/01/24 14:03	4
1,1-Dichloroethane	ND		4.0	1.5	ug/L			05/01/24 14:03	4
1,1-Dichloroethene	ND		4.0	1.2	ug/L			05/01/24 14:03	4
1,2,4-Trichlorobenzene	ND		4.0	1.6	ug/L			05/01/24 14:03	4
1,2-Dibromo-3-Chloropropane	ND		4.0	1.6	ug/L			05/01/24 14:03	4
1,2-Dibromoethane	ND		4.0	2.9	ug/L			05/01/24 14:03	4
1,2-Dichlorobenzene	ND		4.0	3.2	ug/L			05/01/24 14:03	4
1,2-Dichloroethane	ND		4.0	0.84	ug/L			05/01/24 14:03	4
1,2-Dichloropropane	ND		4.0	2.9	ug/L			05/01/24 14:03	4
1,3-Dichlorobenzene	ND		4.0	3.1	ug/L			05/01/24 14:03	4
1,4-Dichlorobenzene	ND		4.0	3.4	ug/L			05/01/24 14:03	4
2-Butanone (MEK)	ND		40	5.3	ug/L			05/01/24 14:03	4
2-Hexanone	ND		20	5.0	ug/L			05/01/24 14:03	4
4-Methyl-2-pentanone (MIBK)	ND		20	8.4	ug/L			05/01/24 14:03	4
Acetone	ND		40	12	ug/L			05/01/24 14:03	4
Benzene	ND		4.0	1.6	ug/L			05/01/24 14:03	4
Bromodichloromethane	ND		4.0	1.6	ug/L			05/01/24 14:03	4
Bromoform	ND		4.0	1.0	ug/L			05/01/24 14:03	4
Bromomethane	ND		4.0	2.8	ug/L			05/01/24 14:03	4
Carbon disulfide	ND		4.0	0.76	ug/L			05/01/24 14:03	4
Carbon tetrachloride	ND		4.0	1.1	ug/L			05/01/24 14:03	4
Chlorobenzene	ND		4.0	3.0	ug/L			05/01/24 14:03	4
Chloroethane	ND		4.0	1.3	ug/L			05/01/24 14:03	4
Chloroform	ND		4.0	1.4	ug/L			05/01/24 14:03	4
Chloromethane	ND		4.0	1.4	ug/L			05/01/24 14:03	4
cis-1,2-Dichloroethene	ND		4.0	3.2	ug/L			05/01/24 14:03	4
cis-1,3-Dichloropropene	ND		4.0	1.4	ug/L			05/01/24 14:03	4
Cyclohexane	ND		4.0	0.72	ug/L			05/01/24 14:03	4
Dibromochloromethane	ND		4.0	1.3	ug/L			05/01/24 14:03	4
Dichlorodifluoromethane	ND		4.0	2.7	ug/L			05/01/24 14:03	4
Ethylbenzene	ND		4.0	3.0	ug/L			05/01/24 14:03	4
Isopropylbenzene	ND		4.0	3.2	ug/L			05/01/24 14:03	4
Methyl acetate	ND		10	5.2	ug/L			05/01/24 14:03	4
Methyl tert-butyl ether	ND		4.0	0.64	ug/L			05/01/24 14:03	4
Methylcyclohexane	ND		4.0	0.64	ug/L			05/01/24 14:03	4

Client Sample ID: MW05-04-042924
Lab Sample ID: 480-219333-2

Date Collected: 04/29/24 10:45
Matrix: Water

Date Received: 04/29/24 17:15

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		4.0	1.8	ug/L			05/01/24 14:03	4
Styrene	ND		4.0	2.9	ug/L			05/01/24 14:03	4
Tetrachloroethene	ND		4.0	1.4	ug/L			05/01/24 14:03	4
Toluene	ND		4.0	2.0	ug/L			05/01/24 14:03	4
trans-1,2-Dichloroethene	ND		4.0	3.6	ug/L			05/01/24 14:03	4
trans-1,3-Dichloropropene	ND		4.0	1.5	ug/L			05/01/24 14:03	4
Trichloroethene	ND		4.0	1.8	ug/L			05/01/24 14:03	4
Trichlorofluoromethane	ND		4.0	3.5	ug/L			05/01/24 14:03	4
Vinyl chloride	ND		4.0	3.6	ug/L			05/01/24 14:03	4
Xylenes, Total	ND		8.0	2.6	ug/L			05/01/24 14:03	4

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*		*05/01/24 14:03*	*4*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*05/01/24 14:03*	*4*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*05/01/24 14:03*	*4*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*05/01/24 14:03*	*4*
Toluene-d8 (Surr)	*100*		*80 - 120*		*05/01/24 14:03*	*4*

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		04/30/24 13:54	05/02/24 21:08	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*34*		*15 - 110*	*04/30/24 13:54*	*05/02/24 21:08*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.2	0.50	ug/L		05/01/24 09:25	05/02/24 16:13	1
2,4,6-Trichlorophenol	ND		5.2	0.64	ug/L		05/01/24 09:25	05/02/24 16:13	1
2,4-Dichlorophenol	ND		5.2	0.53	ug/L		05/01/24 09:25	05/02/24 16:13	1
2,4-Dimethylphenol	ND		5.2	0.52	ug/L		05/01/24 09:25	05/02/24 16:13	1
2,4-Dinitrophenol	ND	UJ	10	2.3	ug/L		05/01/24 09:25	05/02/24 16:13	1
2,4-Dinitrotoluene	ND		5.2	0.47	ug/L		05/01/24 09:25	05/02/24 16:13	1
2,6-Dinitrotoluene	ND		5.2	0.42	ug/L		05/01/24 09:25	05/02/24 16:13	1
2-Chloronaphthalene	ND		5.2	0.48	ug/L		05/01/24 09:25	05/02/24 16:13	1
2-Chlorophenol	ND		5.2	0.55	ug/L		05/01/24 09:25	05/02/24 16:13	1
2-Methylnaphthalene	ND		5.2	0.63	ug/L		05/01/24 09:25	05/02/24 16:13	1
2-Methylphenol	ND		5.2	0.42	ug/L		05/01/24 09:25	05/02/24 16:13	1
2-Nitroaniline	ND		10	0.44	ug/L		05/01/24 09:25	05/02/24 16:13	1
2-Nitrophenol	ND		5.2	0.50	ug/L		05/01/24 09:25	05/02/24 16:13	1
3,3'-Dichlorobenzidine	ND	UJ	5.2	0.42	ug/L		05/01/24 09:25	05/02/24 16:13	1
3-Nitroaniline	ND		10	0.50	ug/L		05/01/24 09:25	05/02/24 16:13	1
4,6-Dinitro-2-methylphenol	ND		10	2.3	ug/L		05/01/24 09:25	05/02/24 16:13	1
4-Bromophenyl phenyl ether	ND		5.2	0.47	ug/L		05/01/24 09:25	05/02/24 16:13	1
4-Chloro-3-methylphenol	ND		5.2	0.47	ug/L		05/01/24 09:25	05/02/24 16:13	1
4-Chloroaniline	ND		5.2	0.61	ug/L		05/01/24 09:25	05/02/24 16:13	1
4-Chlorophenyl phenyl ether	ND		5.2	0.36	ug/L		05/01/24 09:25	05/02/24 16:13	1
4-Methylphenol	ND		10	0.38	ug/L		05/01/24 09:25	05/02/24 16:13	1
4-Nitroaniline	ND		10	0.26	ug/L		05/01/24 09:25	05/02/24 16:13	1

Client Sample ID: MW05-04-042924
Lab Sample ID: 480-219333-2

Date Collected: 04/29/24 10:45
Matrix: Water

Date Received: 04/29/24 17:15

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	ND		10	1.6	ug/L		05/01/24 09:25	05/02/24 16:13	1
Acenaphthene	ND		5.2	0.43	ug/L		05/01/24 09:25	05/02/24 16:13	1
Acenaphthylene	ND		5.2	0.40	ug/L		05/01/24 09:25	05/02/24 16:13	1
Acetophenone	ND		5.2	0.56	ug/L		05/01/24 09:25	05/02/24 16:13	1
Anthracene	ND		5.2	0.29	ug/L		05/01/24 09:25	05/02/24 16:13	1
Atrazine	ND		5.2	0.48	ug/L		05/01/24 09:25	05/02/24 16:13	1
Benzaldehyde	ND		5.2	0.28	ug/L		05/01/24 09:25	05/02/24 16:13	1
Benzo(a)anthracene	ND		5.2	0.38	ug/L		05/01/24 09:25	05/02/24 16:13	1
Benzo(a)pyrene	ND		5.2	0.49	ug/L		05/01/24 09:25	05/02/24 16:13	1
Benzo(b)fluoranthene	ND		5.2	0.35	ug/L		05/01/24 09:25	05/02/24 16:13	1
Benzo(g,h,i)perylene	ND		5.2	0.36	ug/L		05/01/24 09:25	05/02/24 16:13	1
Benzo(k)fluoranthene	ND		5.2	0.76	ug/L		05/01/24 09:25	05/02/24 16:13	1
Biphenyl	ND		5.2	0.68	ug/L		05/01/24 09:25	05/02/24 16:13	1
bis (2-chloroisopropyl) ether	ND		5.2	0.54	ug/L		05/01/24 09:25	05/02/24 16:13	1
Bis(2-chloroethoxy)methane	ND		5.2	0.36	ug/L		05/01/24 09:25	05/02/24 16:13	1
Bis(2-chloroethyl)ether	ND		5.2	0.42	ug/L		05/01/24 09:25	05/02/24 16:13	1
Bis(2-ethylhexyl) phthalate	ND		5.2	2.3	ug/L		05/01/24 09:25	05/02/24 16:13	1
Butyl benzyl phthalate	ND		5.2	1.0	ug/L		05/01/24 09:25	05/02/24 16:13	1
Caprolactam	ND		5.2	2.3	ug/L		05/01/24 09:25	05/02/24 16:13	1
Carbazole	ND		5.2	0.31	ug/L		05/01/24 09:25	05/02/24 16:13	1
Chrysene	ND		5.2	0.34	ug/L		05/01/24 09:25	05/02/24 16:13	1
Dibenz(a,h)anthracene	ND		5.2	0.44	ug/L		05/01/24 09:25	05/02/24 16:13	1
Dibenzofuran	ND		10	0.53	ug/L		05/01/24 09:25	05/02/24 16:13	1
Diethyl phthalate	ND		5.2	0.23	ug/L		05/01/24 09:25	05/02/24 16:13	1
Dimethyl phthalate	ND		5.2	0.38	ug/L		05/01/24 09:25	05/02/24 16:13	1
Di-n-butyl phthalate	ND		5.2	0.32	ug/L		05/01/24 09:25	05/02/24 16:13	1
Di-n-octyl phthalate	ND		5.2	0.49	ug/L		05/01/24 09:25	05/02/24 16:13	1
Fluoranthene	ND		5.2	0.42	ug/L		05/01/24 09:25	05/02/24 16:13	1
Fluorene	ND		5.2	0.38	ug/L		05/01/24 09:25	05/02/24 16:13	1
Hexachlorobenzene	ND		5.2	0.53	ug/L		05/01/24 09:25	05/02/24 16:13	1
Hexachlorobutadiene	ND		5.2	0.71	ug/L		05/01/24 09:25	05/02/24 16:13	1
Hexachlorocyclopentadiene	ND		5.2	0.61	ug/L		05/01/24 09:25	05/02/24 16:13	1
Hexachloroethane	ND		5.2	0.61	ug/L		05/01/24 09:25	05/02/24 16:13	1
Indeno(1,2,3-cd)pyrene	ND		5.2	0.49	ug/L		05/01/24 09:25	05/02/24 16:13	1
Isophorone	ND		5.2	0.45	ug/L		05/01/24 09:25	05/02/24 16:13	1
Naphthalene	ND		5.2	0.79	ug/L		05/01/24 09:25	05/02/24 16:13	1
Nitrobenzene	ND		5.2	0.30	ug/L		05/01/24 09:25	05/02/24 16:13	1
N-Nitrosodi-n-propylamine	ND		5.2	0.56	ug/L		05/01/24 09:25	05/02/24 16:13	1
N-Nitrosodiphenylamine	ND		5.2	0.53	ug/L		05/01/24 09:25	05/02/24 16:13	1
Pentachlorophenol	ND	UJ	10	2.3	ug/L		05/01/24 09:25	05/02/24 16:13	1
Phenanthrene	ND		5.2	0.46	ug/L		05/01/24 09:25	05/02/24 16:13	1
Phenol	ND		5.2	0.41	ug/L		05/01/24 09:25	05/02/24 16:13	1
Pyrene	ND		5.2	0.35	ug/L		05/01/24 09:25	05/02/24 16:13	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*2.4*	*T J*	*ug/L*		*2.61*	*N/A*	*05/01/24 09:25*	*05/02/24 16:13*	*1*
Furan, tetrahydro-	*450*	*T J N*	*ug/L*		*2.77*	*109-99-9*	*05/01/24 09:25*	*05/02/24 16:13*	*1*
Unknown	*8.3*	*T J*	*ug/L*		*2.90*	*N/A*	*05/01/24 09:25*	*05/02/24 16:13*	*1*
Unknown	*2.6*	*T J*	*ug/L*		*3.09*	*N/A*	*05/01/24 09:25*	*05/02/24 16:13*	*1*
Chloroiodomethane	*1.7*	*T J N*	*ug/L*		*3.96*	*593-71-5*	*05/01/24 09:25*	*05/02/24 16:13*	*1*

Client Sample ID: MW05-04-042924
Lab Sample ID: 480-219333-2

Date Collected: 04/29/24 10:45
Matrix: Water
Date Received: 04/29/24 17:15

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	31	T J	ug/L		5.12	N/A	05/01/24 09:25	05/02/24 16:13	1
Unknown	4.2	T J	ug/L		5.53	N/A	05/01/24 09:25	05/02/24 16:13	1
Unknown	3.5	T J	ug/L		5.64	N/A	05/01/24 09:25	05/02/24 16:13	1
Unknown	3.8	T J	ug/L		5.91	N/A	05/01/24 09:25	05/02/24 16:13	1
Unknown	2.5	T J	ug/L		6.05	N/A	05/01/24 09:25	05/02/24 16:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	101		41 - 120	05/01/24 09:25	05/02/24 16:13	1
2-Fluorobiphenyl	92		48 - 120	05/01/24 09:25	05/02/24 16:13	1
2-Fluorophenol	71		35 - 120	05/01/24 09:25	05/02/24 16:13	1
Nitrobenzene-d5	79		46 - 120	05/01/24 09:25	05/02/24 16:13	1
Phenol-d5	56		22 - 120	05/01/24 09:25	05/02/24 16:13	1
p-Terphenyl-d14	72		60 - 148	05/01/24 09:25	05/02/24 16:13	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.21	0.022	ug/L		05/02/24 08:53	05/07/24 18:13	1
4,4'-DDE	ND		0.21	0.018	ug/L		05/02/24 08:53	05/07/24 18:13	1
4,4'-DDT	ND		0.21	0.020	ug/L		05/02/24 08:53	05/07/24 18:13	1
Aldrin	ND		0.21	0.027	ug/L		05/02/24 08:53	05/07/24 18:13	1
alpha-BHC	ND		0.21	0.022	ug/L		05/02/24 08:53	05/07/24 18:13	1
cis-Chlordane	ND		0.21	0.029	ug/L		05/02/24 08:53	05/07/24 18:13	1
beta-BHC	ND		0.21	0.039	ug/L		05/02/24 08:53	05/07/24 18:13	1
delta-BHC	ND		0.21	0.018	ug/L		05/02/24 08:53	05/07/24 18:13	1
Dieldrin	ND		0.21	0.027	ug/L		05/02/24 08:53	05/07/24 18:13	1
Endosulfan I	ND		0.21	0.015	ug/L		05/02/24 08:53	05/07/24 18:13	1
Endosulfan II	ND		0.21	0.026	ug/L		05/02/24 08:53	05/07/24 18:13	1
Endosulfan sulfate	ND		0.21	0.015	ug/L		05/02/24 08:53	05/07/24 18:13	1
Endrin	ND		0.21	0.027	ug/L		05/02/24 08:53	05/07/24 18:13	1
Endrin aldehyde	ND		0.21	0.019	ug/L		05/02/24 08:53	05/07/24 18:13	1
Endrin ketone	ND		0.21	0.017	ug/L		05/02/24 08:53	05/07/24 18:13	1
gamma-BHC (Lindane)	ND		0.21	0.025	ug/L		05/02/24 08:53	05/07/24 18:13	1
trans-Chlordane	ND		0.21	0.021	ug/L		05/02/24 08:53	05/07/24 18:13	1
Heptachlor	ND		0.21	0.034	ug/L		05/02/24 08:53	05/07/24 18:13	1
Heptachlor epoxide	ND		0.21	0.027	ug/L		05/02/24 08:53	05/07/24 18:13	1
Methoxychlor	ND		0.42	0.020	ug/L		05/02/24 08:53	05/07/24 18:13	1
Toxaphene	ND		8.3	0.24	ug/L		05/02/24 08:53	05/07/24 18:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	67		10 - 145	05/02/24 08:53	05/07/24 18:13	1
DCB Decachlorobiphenyl	58		10 - 145	05/02/24 08:53	05/07/24 18:13	1
Tetrachloro-m-xylene	57		10 - 123	05/02/24 08:53	05/07/24 18:13	1
Tetrachloro-m-xylene	54		10 - 123	05/02/24 08:53	05/07/24 18:13	1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 22:24	1
PCB-1221	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 22:24	1
PCB-1232	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 22:24	1
PCB-1242	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 22:24	1

Client Sample ID: MW05-04-042924
Lab Sample ID: 480-219333-2

Date Collected: 04/29/24 10:45
Matrix: Water

Date Received: 04/29/24 17:15

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1248	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 22:24	1
PCB-1254	ND		0.50	0.25	ug/L		05/01/24 13:50	05/02/24 22:24	1
PCB-1260	ND		0.50	0.25	ug/L		05/01/24 13:50	05/02/24 22:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*46*		*19 - 120*	*05/01/24 13:50*	*05/02/24 22:24*	*1*
DCB Decachlorobiphenyl	*46*		*19 - 120*	*05/01/24 13:50*	*05/02/24 22:24*	*1*
Tetrachloro-m-xylene	*62*		*39 - 121*	*05/01/24 13:50*	*05/02/24 22:24*	*1*
Tetrachloro-m-xylene	*58*		*39 - 121*	*05/01/24 13:50*	*05/02/24 22:24*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	ND		3.2	0.79	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluorohexanoic acid (PFHxA)	**1.9**		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluoroheptanoic acid (PFHpA)	**0.99**	**J**	1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluorooctanoic acid (PFOA)	**4.0**		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluorobutanesulfonic acid (PFBS)	**1.2**	**J**	1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluorooctanesulfonic acid (PFOS)	**0.73**	**J**	1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		6.3	1.6	ng/L		05/02/24 08:21	05/02/24 21:20	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		6.3	1.6	ng/L		05/02/24 08:21	05/02/24 21:20	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		6.3	1.6	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	0.49	ng/L		05/02/24 08:21	05/02/24 21:20	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 21:20	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		16	4.0	ng/L		05/02/24 08:21	05/02/24 21:20	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		16	4.0	ng/L		05/02/24 08:21	05/02/24 21:20	1

Client Sample ID: MW05-04-042924

Date Collected: 04/29/24 10:45
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-2

Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		6.3	1.6	ng/L		05/02/24 08:21	05/02/24 21:20	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		6.3	1.6	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		3.2	0.79	ng/L		05/02/24 08:21	05/02/24 21:20	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		3.2	0.97	ng/L		05/02/24 08:21	05/02/24 21:20	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		6.3	1.6	ng/L		05/02/24 08:21	05/02/24 21:20	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		6.3	1.6	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		3.2	0.79	ng/L		05/02/24 08:21	05/02/24 21:20	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		7.9	2.0	ng/L		05/02/24 08:21	05/02/24 21:20	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		40	9.9	ng/L		05/02/24 08:21	05/02/24 21:20	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		40	12	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		3.2	0.79	ng/L		05/02/24 08:21	05/02/24 21:20	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*100*		*10 - 130*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
13C5 PFPeA	*60.6*		*35 - 150*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
13C5 PFHxA	*75.2*		*55 - 150*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
13C4 PFHpA	*89.5*		*55 - 150*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
13C8 PFOA	*85.7*		*60 - 140*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
13C9 PFNA	*80.5*		*55 - 140*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
13C6 PFDA	*99.9*		*50 - 140*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
13C7 PFUnA	*75.9*		*30 - 140*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
13C2 PFTeDA	*46.0*		*10 - 130*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
13C3 PFBS	*92.7*		*55 - 150*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
13C3 PFHxS	*89.9*		*55 - 150*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
13C8 PFOS	*76.1*		*45 - 140*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
13C8 FOSA	*88.7*		*30 - 130*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
d3-NMeFOSAA	*96.2*		*45 - 200*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
d5-NEtFOSAA	*79.3*		*10 - 200*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
M2-4:2 FTS	*247*	*5+	*60 - 200*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
M2-6:2 FTS	*183*		*60 - 200*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
M2-8:2 FTS	*161*		*50 - 200*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
13C3 HFPO-DA	*73.8*		*25 - 160*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
d7-N-MeFOSE-M	*66.1*		*10 - 150*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
d9-N-EtFOSE-M	*59.8*		*10 - 150*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
d5-NEtPFOSA	*49.8*		*10 - 130*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
d3-NMePFOSA	*55.1*		*15 - 130*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
13C2-PFDoDA	*61.6*		*10 - 150*	*05/02/24 08:21*	*05/02/24 21:20*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		17	4.4	ng/L		05/03/24 12:06	05/03/24 21:20	1

Client Sample ID: MW05-04-042924
Lab Sample ID: 480-219333-2

Date Collected: 04/29/24 10:45
Matrix: Water

Date Received: 04/29/24 17:15

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	103		10 - 130	05/03/24 12:06	05/03/24 21:20	1
13C5 PFPeA	82.8		35 - 150	05/03/24 12:06	05/03/24 21:20	1
13C5 PFHxA	84.8		55 - 150	05/03/24 12:06	05/03/24 21:20	1
13C4 PFHpA	90.0		55 - 150	05/03/24 12:06	05/03/24 21:20	1
13C8 PFOA	89.1		60 - 140	05/03/24 12:06	05/03/24 21:20	1
13C9 PFNA	97.8		55 - 140	05/03/24 12:06	05/03/24 21:20	1
13C6 PFDA	107		50 - 140	05/03/24 12:06	05/03/24 21:20	1
13C7 PFUnA	84.3		30 - 140	05/03/24 12:06	05/03/24 21:20	1
13C2 PFTeDA	62.9		10 - 130	05/03/24 12:06	05/03/24 21:20	1
13C3 PFBS	105		55 - 150	05/03/24 12:06	05/03/24 21:20	1
13C3 PFHxS	95.9		55 - 150	05/03/24 12:06	05/03/24 21:20	1
13C8 PFOS	88.2		45 - 140	05/03/24 12:06	05/03/24 21:20	1
13C8 FOSA	106		30 - 130	05/03/24 12:06	05/03/24 21:20	1
d3-NMeFOSAA	99.9		45 - 200	05/03/24 12:06	05/03/24 21:20	1
d5-NEtFOSAA	89.4		10 - 200	05/03/24 12:06	05/03/24 21:20	1
M2-4:2 FTS	217	*5+	60 - 200	05/03/24 12:06	05/03/24 21:20	1
M2-6:2 FTS	124		60 - 200	05/03/24 12:06	05/03/24 21:20	1
M2-8:2 FTS	134		50 - 200	05/03/24 12:06	05/03/24 21:20	1
13C3 HFPO-DA	84.3		25 - 160	05/03/24 12:06	05/03/24 21:20	1
d7-N-MeFOSE-M	81.3		10 - 150	05/03/24 12:06	05/03/24 21:20	1
d9-N-EtFOSE-M	74.5		10 - 150	05/03/24 12:06	05/03/24 21:20	1
d5-NEtPFOSA	66.4		10 - 130	05/03/24 12:06	05/03/24 21:20	1
d3-NMePFOSA	73.5		15 - 130	05/03/24 12:06	05/03/24 21:20	1
13C2-PFDoDA	69.4		10 - 150	05/03/24 12:06	05/03/24 21:20	1

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**205**		200	47.3	ug/L		05/16/24 16:30	05/18/24 09:02	1
Antimony	ND		20.0	7.5	ug/L		05/16/24 16:30	05/18/24 09:02	1
Arsenic	**4.7**	**J**	15.0	4.1	ug/L		05/16/24 16:30	05/18/24 09:02	1
Barium	**136**	**J**	200	3.0	ug/L		05/16/24 16:30	05/18/24 09:02	1
Beryllium	ND		5.0	0.60	ug/L		05/16/24 16:30	05/18/24 09:02	1
Cadmium	**0.70**	**J**	5.0	0.45	ug/L		05/16/24 16:30	05/18/24 09:02	1
Calcium	**93000**		5000	307	ug/L		05/16/24 16:30	05/18/24 09:02	1
Chromium	**1.2**	**J**	10.0	0.76	ug/L		05/16/24 16:30	05/18/24 09:02	1
Cobalt	**3.8**	**J**	10.0	0.75	ug/L		05/16/24 16:30	05/18/24 09:02	1
Copper	ND		25.0	3.5	ug/L		05/16/24 16:30	05/18/24 09:02	1
Iron	**383**		200	82.7	ug/L		05/16/24 16:30	05/18/24 09:02	1
Lead	ND		10.0	2.8	ug/L		05/16/24 16:30	05/18/24 09:02	1
Magnesium	**84200**		5000	259	ug/L		05/16/24 16:30	05/18/24 09:02	1
Manganese	**194**		15.0	2.6	ug/L		05/16/24 16:30	05/18/24 09:02	1
Nickel	**8.5**	**J**	40.0	2.2	ug/L		05/16/24 16:30	05/18/24 09:02	1
Potassium	**2920**	**J**	5000	557	ug/L		05/16/24 16:30	05/18/24 09:02	1
Selenium	ND		20.0	6.0	ug/L		05/16/24 16:30	05/18/24 09:02	1
Silver	ND		10.0	0.62	ug/L		05/16/24 16:30	05/18/24 09:02	1
Sodium	**32200**	J+	5000	2110	ug/L		05/16/24 16:30	05/18/24 09:02	1
Thallium	ND		20.0	2.7	ug/L		05/16/24 16:30	05/18/24 09:02	1
Vanadium	ND	U	50.0	5.6	ug/L		05/16/24 16:30	05/18/24 09:02	1
Zinc	ND		50.0	22.5	ug/L		05/16/24 16:30	05/18/24 09:02	1

Client Sample ID: MW05-04-042924
Lab Sample ID: 480-219333-2

Date Collected: 04/29/24 10:45
Matrix: Water
Date Received: 04/29/24 17:15

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	47.3	ug/L		05/16/24 16:30	05/18/24 09:44	1
Antimony	ND		20.0	7.5	ug/L		05/16/24 16:30	05/18/24 09:44	1
Arsenic	**4.8**	**J**	15.0	4.1	ug/L		05/16/24 16:30	05/18/24 09:44	1
Barium	**140**	**J**	200	3.0	ug/L		05/16/24 16:30	05/18/24 09:44	1
Beryllium	ND		5.0	0.60	ug/L		05/16/24 16:30	05/18/24 09:44	1
Cadmium	**0.70**	**J**	5.0	0.45	ug/L		05/16/24 16:30	05/18/24 09:44	1
Calcium	**96700**		5000	307	ug/L		05/16/24 16:30	05/18/24 09:44	1
Chromium	**13.4**		10.0	0.76	ug/L		05/16/24 16:30	05/18/24 09:44	1
Cobalt	**4.1**	**J**	10.0	0.75	ug/L		05/16/24 16:30	05/18/24 09:44	1
Copper	ND		25.0	3.5	ug/L		05/16/24 16:30	05/18/24 09:44	1
Iron	ND		200	82.7	ug/L		05/16/24 16:30	05/18/24 09:44	1
Lead	ND		10.0	2.8	ug/L		05/16/24 16:30	05/18/24 09:44	1
Magnesium	**94500**		5000	259	ug/L		05/16/24 16:30	05/18/24 09:44	1
Manganese	**209**		15.0	2.6	ug/L		05/16/24 16:30	05/18/24 09:44	1
Nickel	**13.3**	**J**	40.0	2.2	ug/L		05/16/24 16:30	05/18/24 09:44	1
Potassium	**3550**	**J**	5000	557	ug/L		05/16/24 16:30	05/18/24 09:44	1
Selenium	ND		20.0	6.0	ug/L		05/16/24 16:30	05/18/24 09:44	1
Silver	ND		10.0	0.62	ug/L		05/16/24 16:30	05/18/24 09:44	1
Sodium	**36200**		5000	2110	ug/L		05/16/24 16:30	05/18/24 09:44	1
Thallium	ND		20.0	2.7	ug/L		05/16/24 16:30	05/18/24 09:44	1
Vanadium	ND	U	50.0	5.6	ug/L		05/16/24 16:30	05/18/24 09:44	1
Zinc	ND		50.0	22.5	ug/L		05/16/24 16:30	05/18/24 09:44	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00040	0.000084	mg/L		05/02/24 11:04	05/02/24 17:04	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/02/24 11:04	05/02/24 17:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND	UJ	0.010	0.0041	mg/L			05/08/24 19:16	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND	U	0.010	0.0041	mg/L			05/08/24 20:30	1

Client Sample ID: MW-02S-042924
Lab Sample ID: 480-219333-3

Date Collected: 04/29/24 13:06
Matrix: Water
Date Received: 04/29/24 17:15

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/01/24 14:25	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/01/24 14:25	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			05/01/24 14:25	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/01/24 14:25	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/01/24 14:25	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/01/24 14:25	1

Client Sample ID: MW-02S-042924
Lab Sample ID: 480-219333-3

Date Collected: 04/29/24 13:06
Matrix: Water

Date Received: 04/29/24 17:15

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			05/01/24 14:25	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			05/01/24 14:25	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			05/01/24 14:25	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			05/01/24 14:25	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/01/24 14:25	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/01/24 14:25	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			05/01/24 14:25	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			05/01/24 14:25	1
2-Butanone (MEK)	ND		10	1.3	ug/L			05/01/24 14:25	1
2-Hexanone	ND		5.0	1.2	ug/L			05/01/24 14:25	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/01/24 14:25	1
Acetone	ND		10	3.0	ug/L			05/01/24 14:25	1
Benzene	ND		1.0	0.41	ug/L			05/01/24 14:25	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/01/24 14:25	1
Bromoform	ND		1.0	0.26	ug/L			05/01/24 14:25	1
Bromomethane	ND		1.0	0.69	ug/L			05/01/24 14:25	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/01/24 14:25	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/01/24 14:25	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/01/24 14:25	1
Chloroethane	ND		1.0	0.32	ug/L			05/01/24 14:25	1
Chloroform	ND		1.0	0.34	ug/L			05/01/24 14:25	1
Chloromethane	ND		1.0	0.35	ug/L			05/01/24 14:25	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			05/01/24 14:25	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/01/24 14:25	1
Cyclohexane	ND		1.0	0.18	ug/L			05/01/24 14:25	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/01/24 14:25	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/01/24 14:25	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/01/24 14:25	1
Isopropylbenzene	ND		1.0	0.79	ug/L			05/01/24 14:25	1
Methyl acetate	ND		2.5	1.3	ug/L			05/01/24 14:25	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/01/24 14:25	1
Methylcyclohexane	ND		1.0	0.16	ug/L			05/01/24 14:25	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/01/24 14:25	1
Styrene	ND		1.0	0.73	ug/L			05/01/24 14:25	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/01/24 14:25	1
Toluene	ND		1.0	0.51	ug/L			05/01/24 14:25	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			05/01/24 14:25	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/01/24 14:25	1
Trichloroethene	ND		1.0	0.46	ug/L			05/01/24 14:25	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			05/01/24 14:25	1
Vinyl chloride	ND		1.0	0.90	ug/L			05/01/24 14:25	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/01/24 14:25	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*		*05/01/24 14:25*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*		*05/01/24 14:25*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*05/01/24 14:25*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*05/01/24 14:25*	*1*

Client Sample ID: MW-02S-042924

Date Collected: 04/29/24 13:06
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-3

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*100*		*80 - 120*		*05/01/24 14:25*	*1*

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**0.24**		0.20	0.10	ug/L		04/30/24 13:54	05/02/24 23:40	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*34*		*15 - 110*	*04/30/24 13:54*	*05/02/24 23:40*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		05/01/24 09:25	05/02/24 17:08	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		05/01/24 09:25	05/02/24 17:08	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		05/01/24 09:25	05/02/24 17:08	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		05/01/24 09:25	05/02/24 17:08	1
2,4-Dinitrophenol	ND	UJ	10	2.2	ug/L		05/01/24 09:25	05/02/24 17:08	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		05/01/24 09:25	05/02/24 17:08	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		05/01/24 09:25	05/02/24 17:08	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		05/01/24 09:25	05/02/24 17:08	1
2-Chlorophenol	ND		5.0	0.53	ug/L		05/01/24 09:25	05/02/24 17:08	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		05/01/24 09:25	05/02/24 17:08	1
2-Methylphenol	ND		5.0	0.40	ug/L		05/01/24 09:25	05/02/24 17:08	1
2-Nitroaniline	ND		10	0.42	ug/L		05/01/24 09:25	05/02/24 17:08	1
2-Nitrophenol	ND		5.0	0.48	ug/L		05/01/24 09:25	05/02/24 17:08	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		05/01/24 09:25	05/02/24 17:08	1
3-Nitroaniline	ND		10	0.48	ug/L		05/01/24 09:25	05/02/24 17:08	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		05/01/24 09:25	05/02/24 17:08	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		05/01/24 09:25	05/02/24 17:08	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		05/01/24 09:25	05/02/24 17:08	1
4-Chloroaniline	ND		5.0	0.59	ug/L		05/01/24 09:25	05/02/24 17:08	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		05/01/24 09:25	05/02/24 17:08	1
4-Methylphenol	ND		10	0.36	ug/L		05/01/24 09:25	05/02/24 17:08	1
4-Nitroaniline	ND		10	0.25	ug/L		05/01/24 09:25	05/02/24 17:08	1
4-Nitrophenol	ND		10	1.5	ug/L		05/01/24 09:25	05/02/24 17:08	1
Acenaphthene	ND		5.0	0.41	ug/L		05/01/24 09:25	05/02/24 17:08	1
Acenaphthylene	ND		5.0	0.38	ug/L		05/01/24 09:25	05/02/24 17:08	1
Acetophenone	ND		5.0	0.54	ug/L		05/01/24 09:25	05/02/24 17:08	1
Anthracene	ND		5.0	0.28	ug/L		05/01/24 09:25	05/02/24 17:08	1
Atrazine	ND		5.0	0.46	ug/L		05/01/24 09:25	05/02/24 17:08	1
Benzaldehyde	ND		5.0	0.27	ug/L		05/01/24 09:25	05/02/24 17:08	1
Benzo(a)anthracene	ND		5.0	0.36	ug/L		05/01/24 09:25	05/02/24 17:08	1
Benzo(a)pyrene	ND		5.0	0.47	ug/L		05/01/24 09:25	05/02/24 17:08	1
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L		05/01/24 09:25	05/02/24 17:08	1
Benzo(g,h,i)perylene	ND		5.0	0.35	ug/L		05/01/24 09:25	05/02/24 17:08	1
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L		05/01/24 09:25	05/02/24 17:08	1
Biphenyl	ND		5.0	0.65	ug/L		05/01/24 09:25	05/02/24 17:08	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		05/01/24 09:25	05/02/24 17:08	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		05/01/24 09:25	05/02/24 17:08	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		05/01/24 09:25	05/02/24 17:08	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		05/01/24 09:25	05/02/24 17:08	1

Client Sample ID: MW-02S-042924
Lab Sample ID: 480-219333-3

Date Collected: 04/29/24 13:06
Matrix: Water

Date Received: 04/29/24 17:15

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		05/01/24 09:25	05/02/24 17:08	1
Caprolactam	ND		5.0	2.2	ug/L		05/01/24 09:25	05/02/24 17:08	1
Carbazole	ND		5.0	0.30	ug/L		05/01/24 09:25	05/02/24 17:08	1
Chrysene	ND		5.0	0.33	ug/L		05/01/24 09:25	05/02/24 17:08	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		05/01/24 09:25	05/02/24 17:08	1
Dibenzofuran	ND		10	0.51	ug/L		05/01/24 09:25	05/02/24 17:08	1
Diethyl phthalate	ND		5.0	0.22	ug/L		05/01/24 09:25	05/02/24 17:08	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		05/01/24 09:25	05/02/24 17:08	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		05/01/24 09:25	05/02/24 17:08	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		05/01/24 09:25	05/02/24 17:08	1
Fluoranthene	ND		5.0	0.40	ug/L		05/01/24 09:25	05/02/24 17:08	1
Fluorene	ND		5.0	0.36	ug/L		05/01/24 09:25	05/02/24 17:08	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		05/01/24 09:25	05/02/24 17:08	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		05/01/24 09:25	05/02/24 17:08	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		05/01/24 09:25	05/02/24 17:08	1
Hexachloroethane	ND		5.0	0.59	ug/L		05/01/24 09:25	05/02/24 17:08	1
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L		05/01/24 09:25	05/02/24 17:08	1
Isophorone	ND		5.0	0.43	ug/L		05/01/24 09:25	05/02/24 17:08	1
Naphthalene	ND		5.0	0.76	ug/L		05/01/24 09:25	05/02/24 17:08	1
Nitrobenzene	ND		5.0	0.29	ug/L		05/01/24 09:25	05/02/24 17:08	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		05/01/24 09:25	05/02/24 17:08	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		05/01/24 09:25	05/02/24 17:08	1
Pentachlorophenol	ND	UJ	10	2.2	ug/L		05/01/24 09:25	05/02/24 17:08	1
Phenanthrene	ND		5.0	0.44	ug/L		05/01/24 09:25	05/02/24 17:08	1
Phenol	ND		5.0	0.39	ug/L		05/01/24 09:25	05/02/24 17:08	1
Pyrene	ND		5.0	0.34	ug/L		05/01/24 09:25	05/02/24 17:08	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Furan, tetrahydro-	*370*	*T J N*	*ug/L*		*2.76*	*109-99-9*	*05/01/24 09:25*	*05/02/24 17:08*	*1*
Unknown	*6.7*	*T J*	*ug/L*		*2.89*	*N/A*	*05/01/24 09:25*	*05/02/24 17:08*	*1*
Unknown	*2.2*	*T J*	*ug/L*		*3.08*	*N/A*	*05/01/24 09:25*	*05/02/24 17:08*	*1*
Unknown	*24*	*T J*	*ug/L*		*5.12*	*N/A*	*05/01/24 09:25*	*05/02/24 17:08*	*1*
Unknown	*3.5*	*T J*	*ug/L*		*5.52*	*N/A*	*05/01/24 09:25*	*05/02/24 17:08*	*1*
Unknown	*2.9*	*T J*	*ug/L*		*5.64*	*N/A*	*05/01/24 09:25*	*05/02/24 17:08*	*1*
Unknown	*3.2*	*T J*	*ug/L*		*5.91*	*N/A*	*05/01/24 09:25*	*05/02/24 17:08*	*1*
Unknown	*2.1*	*T J*	*ug/L*		*6.04*	*N/A*	*05/01/24 09:25*	*05/02/24 17:08*	*1*
Erucylamide	*4.3*	*T J N*	*ug/L*		*14.19*	*112-84-5*	*05/01/24 09:25*	*05/02/24 17:08*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*74*		*41 - 120*	*05/01/24 09:25*	*05/02/24 17:08*	*1*
2-Fluorobiphenyl	*74*		*48 - 120*	*05/01/24 09:25*	*05/02/24 17:08*	*1*
2-Fluorophenol	*57*		*35 - 120*	*05/01/24 09:25*	*05/02/24 17:08*	*1*
Nitrobenzene-d5	*66*		*46 - 120*	*05/01/24 09:25*	*05/02/24 17:08*	*1*
Phenol-d5	*42*		*22 - 120*	*05/01/24 09:25*	*05/02/24 17:08*	*1*
p-Terphenyl-d14	*70*		*60 - 148*	*05/01/24 09:25*	*05/02/24 17:08*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.20	0.021	ug/L		05/02/24 08:53	05/07/24 19:00	1
4,4'-DDE	ND		0.20	0.017	ug/L		05/02/24 08:53	05/07/24 19:00	1

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Lab Sample ID: 480-219333-3

Date Collected: 04/29/24 13:06
Matrix: Water

Date Received: 04/29/24 17:15

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDT	ND		0.20	0.019	ug/L		05/02/24 08:53	05/07/24 19:00	1
Aldrin	ND		0.20	0.026	ug/L		05/02/24 08:53	05/07/24 19:00	1
alpha-BHC	ND		0.20	0.021	ug/L		05/02/24 08:53	05/07/24 19:00	1
cis-Chlordane	ND		0.20	0.028	ug/L		05/02/24 08:53	05/07/24 19:00	1
beta-BHC	ND		0.20	0.037	ug/L		05/02/24 08:53	05/07/24 19:00	1
delta-BHC	ND		0.20	0.017	ug/L		05/02/24 08:53	05/07/24 19:00	1
Dieldrin	ND		0.20	0.026	ug/L		05/02/24 08:53	05/07/24 19:00	1
Endosulfan I	ND		0.20	0.015	ug/L		05/02/24 08:53	05/07/24 19:00	1
Endosulfan II	ND		0.20	0.025	ug/L		05/02/24 08:53	05/07/24 19:00	1
Endosulfan sulfate	ND		0.20	0.015	ug/L		05/02/24 08:53	05/07/24 19:00	1
Endrin	ND		0.20	0.026	ug/L		05/02/24 08:53	05/07/24 19:00	1
Endrin aldehyde	ND		0.20	0.018	ug/L		05/02/24 08:53	05/07/24 19:00	1
Endrin ketone	ND		0.20	0.016	ug/L		05/02/24 08:53	05/07/24 19:00	1
gamma-BHC (Lindane)	ND		0.20	0.024	ug/L		05/02/24 08:53	05/07/24 19:00	1
trans-Chlordane	ND		0.20	0.020	ug/L		05/02/24 08:53	05/07/24 19:00	1
Heptachlor	ND		0.20	0.033	ug/L		05/02/24 08:53	05/07/24 19:00	1
Heptachlor epoxide	ND		0.20	0.026	ug/L		05/02/24 08:53	05/07/24 19:00	1
Methoxychlor	ND		0.40	0.019	ug/L		05/02/24 08:53	05/07/24 19:00	1
Toxaphene	ND		8.0	0.23	ug/L		05/02/24 08:53	05/07/24 19:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*79*		*10 - 145*	*05/02/24 08:53*	*05/07/24 19:00*	*1*
DCB Decachlorobiphenyl	*76*		*10 - 145*	*05/02/24 08:53*	*05/07/24 19:00*	*1*
Tetrachloro-m-xylene	*61*		*10 - 123*	*05/02/24 08:53*	*05/07/24 19:00*	*1*
Tetrachloro-m-xylene	*58*		*10 - 123*	*05/02/24 08:53*	*05/07/24 19:00*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 22:59	1
PCB-1221	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 22:59	1
PCB-1232	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 22:59	1
PCB-1242	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 22:59	1
PCB-1248	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 22:59	1
PCB-1254	ND		0.50	0.25	ug/L		05/01/24 13:50	05/02/24 22:59	1
PCB-1260	ND		0.50	0.25	ug/L		05/01/24 13:50	05/02/24 22:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*70*		*19 - 120*	*05/01/24 13:50*	*05/02/24 22:59*	*1*
DCB Decachlorobiphenyl	*69*		*19 - 120*	*05/01/24 13:50*	*05/02/24 22:59*	*1*
Tetrachloro-m-xylene	*76*		*39 - 121*	*05/01/24 13:50*	*05/02/24 22:59*	*1*
Tetrachloro-m-xylene	*72*		*39 - 121*	*05/01/24 13:50*	*05/02/24 22:59*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		6.6	1.8	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluoropentanoic acid (PFPeA)	ND		3.3	0.82	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluorooctanoic acid (PFOA)	**0.92**	**J**	1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1

Client Sample ID: MW-02S-042924

Date Collected: 04/29/24 13:06
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-3

Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorodecanoic acid (PFDA)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.43	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		6.6	1.6	ng/L		05/02/24 08:21	05/02/24 22:05	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		6.6	1.6	ng/L		05/02/24 08:21	05/02/24 22:05	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		6.6	1.6	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	0.51	ng/L		05/02/24 08:21	05/02/24 22:05	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	0.43	ng/L		05/02/24 08:21	05/02/24 22:05	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		16	4.1	ng/L		05/02/24 08:21	05/02/24 22:05	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		16	4.1	ng/L		05/02/24 08:21	05/02/24 22:05	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		6.6	1.6	ng/L		05/02/24 08:21	05/02/24 22:05	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		6.6	1.6	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		3.3	0.82	ng/L		05/02/24 08:21	05/02/24 22:05	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		3.3	1.0	ng/L		05/02/24 08:21	05/02/24 22:05	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		6.6	1.6	ng/L		05/02/24 08:21	05/02/24 22:05	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		6.6	1.6	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		3.3	0.82	ng/L		05/02/24 08:21	05/02/24 22:05	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		8.2	2.1	ng/L		05/02/24 08:21	05/02/24 22:05	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		41	10	ng/L		05/02/24 08:21	05/02/24 22:05	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		41	12	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1

Client Sample ID: MW-02S-042924
Lab Sample ID: 480-219333-3

Date Collected: 04/29/24 13:06
Matrix: Water

Date Received: 04/29/24 17:15

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		3.3	0.82	ng/L		05/02/24 08:21	05/02/24 22:05	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*101*		*10 - 130*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
13C5 PFPeA	*88.6*		*35 - 150*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
13C5 PFHxA	*84.5*		*55 - 150*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
13C4 PFHpA	*89.0*		*55 - 150*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
13C8 PFOA	*86.6*		*60 - 140*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
13C9 PFNA	*94.7*		*55 - 140*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
13C6 PFDA	*102*		*50 - 140*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
13C7 PFUnA	*80.9*		*30 - 140*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
13C2 PFTeDA	*55.9*		*10 - 130*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
13C3 PFBS	*96.5*		*55 - 150*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
13C3 PFHxS	*89.1*		*55 - 150*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
13C8 PFOS	*81.4*		*45 - 140*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
13C8 FOSA	*97.0*		*30 - 130*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
d3-NMeFOSAA	*92.5*		*45 - 200*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
d5-NEtFOSAA	*84.8*		*10 - 200*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
M2-4:2 FTS	*134*		*60 - 200*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
M2-6:2 FTS	*97.1*		*60 - 200*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
M2-8:2 FTS	*111*		*50 - 200*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
13C3 HFPO-DA	*87.3*		*25 - 160*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
d7-N-MeFOSE-M	*76.6*		*10 - 150*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
d9-N-EtFOSE-M	*72.1*		*10 - 150*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
d5-NEtPFOSA	*62.9*		*10 - 130*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
d3-NMePFOSA	*68.2*		*15 - 130*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
13C2-PFDoDA	*65.8*		*10 - 150*	*05/02/24 08:21*	*05/02/24 22:05*	*1*

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	47.3	ug/L		05/16/24 16:30	05/18/24 10:53	1
Antimony	ND		20.0	7.5	ug/L		05/16/24 16:30	05/18/24 10:53	1
Arsenic	ND		15.0	4.1	ug/L		05/16/24 16:30	05/18/24 10:53	1
Barium	**59.9**	**J**	200	3.0	ug/L		05/16/24 16:30	05/18/24 10:53	1
Beryllium	ND		5.0	0.60	ug/L		05/16/24 16:30	05/18/24 10:53	1
Cadmium	**0.84**	**J**	5.0	0.45	ug/L		05/16/24 16:30	05/18/24 10:53	1
Calcium	**74200**		5000	307	ug/L		05/16/24 16:30	05/18/24 10:53	1
Chromium	**1.0**	**J**	10.0	0.76	ug/L		05/16/24 16:30	05/18/24 10:53	1
Cobalt	ND		10.0	0.75	ug/L		05/16/24 16:30	05/18/24 10:53	1
Copper	ND		25.0	3.5	ug/L		05/16/24 16:30	05/18/24 10:53	1
Iron	**157**	**J**	200	82.7	ug/L		05/16/24 16:30	05/18/24 10:53	1
Lead	ND		10.0	2.8	ug/L		05/16/24 16:30	05/18/24 10:53	1
Magnesium	**145000**		5000	259	ug/L		05/16/24 16:30	05/18/24 10:53	1
Manganese	**14.2**	**J**	15.0	2.6	ug/L		05/16/24 16:30	05/18/24 10:53	1
Nickel	**2.8**	**J**	40.0	2.2	ug/L		05/16/24 16:30	05/18/24 10:53	1
Potassium	**3630**	**J**	5000	557	ug/L		05/16/24 16:30	05/18/24 10:53	1
Selenium	ND		20.0	6.0	ug/L		05/16/24 16:30	05/18/24 10:53	1
Silver	ND		10.0	0.62	ug/L		05/16/24 16:30	05/18/24 10:53	1
Sodium	**45900**	J+	5000	2110	ug/L		05/16/24 16:30	05/18/24 10:53	1
Thallium	ND		20.0	2.7	ug/L		05/16/24 16:30	05/18/24 10:53	1

Client Sample ID: MW-02S-042924
Lab Sample ID: 480-219333-3

Date Collected: 04/29/24 13:06
Matrix: Water
Date Received: 04/29/24 17:15

Method: SW846 6010D - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	ND	U	50.0	5.6	ug/L		05/16/24 16:30	05/18/24 10:53	1
Zinc	ND		50.0	22.5	ug/L		05/16/24 16:30	05/18/24 10:53	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	47.3	ug/L		05/16/24 16:30	05/18/24 10:57	1
Antimony	ND		20.0	7.5	ug/L		05/16/24 16:30	05/18/24 10:57	1
Arsenic	ND		15.0	4.1	ug/L		05/16/24 16:30	05/18/24 10:57	1
Barium	**60.8**	**J**	200	3.0	ug/L		05/16/24 16:30	05/18/24 10:57	1
Beryllium	ND		5.0	0.60	ug/L		05/16/24 16:30	05/18/24 10:57	1
Cadmium	**1.1**	**J**	5.0	0.45	ug/L		05/16/24 16:30	05/18/24 10:57	1
Calcium	**74800**		5000	307	ug/L		05/16/24 16:30	05/18/24 10:57	1
Chromium	ND		10.0	0.76	ug/L		05/16/24 16:30	05/18/24 10:57	1
Cobalt	ND		10.0	0.75	ug/L		05/16/24 16:30	05/18/24 10:57	1
Copper	ND		25.0	3.5	ug/L		05/16/24 16:30	05/18/24 10:57	1
Iron	ND		200	82.7	ug/L		05/16/24 16:30	05/18/24 10:57	1
Lead	ND		10.0	2.8	ug/L		05/16/24 16:30	05/18/24 10:57	1
Magnesium	**147000**		5000	259	ug/L		05/16/24 16:30	05/18/24 10:57	1
Manganese	**7.8**	**J**	15.0	2.6	ug/L		05/16/24 16:30	05/18/24 10:57	1
Nickel	ND		40.0	2.2	ug/L		05/16/24 16:30	05/18/24 10:57	1
Potassium	**3630**	**J**	5000	557	ug/L		05/16/24 16:30	05/18/24 10:57	1
Selenium	ND		20.0	6.0	ug/L		05/16/24 16:30	05/18/24 10:57	1
Silver	ND		10.0	0.62	ug/L		05/16/24 16:30	05/18/24 10:57	1
Sodium	**46000**		5000	2110	ug/L		05/16/24 16:30	05/18/24 10:57	1
Thallium	ND		20.0	2.7	ug/L		05/16/24 16:30	05/18/24 10:57	1
Vanadium	ND		50.0	5.6	ug/L		05/16/24 16:30	05/18/24 10:57	1
Zinc	ND		50.0	22.5	ug/L		05/16/24 16:30	05/18/24 10:57	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00040	0.000084	mg/L		05/02/24 11:04	05/02/24 17:09	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/02/24 11:04	05/02/24 17:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			05/02/24 23:30	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			05/03/24 00:02	1

Client Sample ID: MW-02S-042924-FD
Lab Sample ID: 480-219333-4

Date Collected: 04/29/24 13:15
Matrix: Water
Date Received: 04/29/24 17:15

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/01/24 14:48	1

Client Sample ID: MW-02S-042924-FD
Lab Sample ID: 480-219333-4

Date Collected: 04/29/24 13:15
Matrix: Water
Date Received: 04/29/24 17:15

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/01/24 14:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			05/01/24 14:48	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/01/24 14:48	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/01/24 14:48	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/01/24 14:48	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			05/01/24 14:48	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			05/01/24 14:48	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			05/01/24 14:48	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			05/01/24 14:48	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/01/24 14:48	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/01/24 14:48	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			05/01/24 14:48	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			05/01/24 14:48	1
2-Butanone (MEK)	ND		10	1.3	ug/L			05/01/24 14:48	1
2-Hexanone	ND		5.0	1.2	ug/L			05/01/24 14:48	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/01/24 14:48	1
Acetone	ND		10	3.0	ug/L			05/01/24 14:48	1
Benzene	ND		1.0	0.41	ug/L			05/01/24 14:48	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/01/24 14:48	1
Bromoform	ND		1.0	0.26	ug/L			05/01/24 14:48	1
Bromomethane	ND		1.0	0.69	ug/L			05/01/24 14:48	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/01/24 14:48	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/01/24 14:48	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/01/24 14:48	1
Chloroethane	ND		1.0	0.32	ug/L			05/01/24 14:48	1
Chloroform	ND		1.0	0.34	ug/L			05/01/24 14:48	1
Chloromethane	ND		1.0	0.35	ug/L			05/01/24 14:48	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			05/01/24 14:48	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/01/24 14:48	1
Cyclohexane	ND		1.0	0.18	ug/L			05/01/24 14:48	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/01/24 14:48	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/01/24 14:48	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/01/24 14:48	1
Isopropylbenzene	ND		1.0	0.79	ug/L			05/01/24 14:48	1
Methyl acetate	ND		2.5	1.3	ug/L			05/01/24 14:48	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/01/24 14:48	1
Methylcyclohexane	ND		1.0	0.16	ug/L			05/01/24 14:48	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/01/24 14:48	1
Styrene	ND		1.0	0.73	ug/L			05/01/24 14:48	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/01/24 14:48	1
Toluene	ND		1.0	0.51	ug/L			05/01/24 14:48	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			05/01/24 14:48	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/01/24 14:48	1
Trichloroethene	ND		1.0	0.46	ug/L			05/01/24 14:48	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			05/01/24 14:48	1
Vinyl chloride	ND		1.0	0.90	ug/L			05/01/24 14:48	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/01/24 14:48	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*		*05/01/24 14:48*	*1*

Client Sample ID: MW-02S-042924-FD
Lab Sample ID: 480-219333-4

Date Collected: 04/29/24 13:15
Matrix: Water
Date Received: 04/29/24 17:15

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*05/01/24 14:48*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*05/01/24 14:48*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 123*		*05/01/24 14:48*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*05/01/24 14:48*	*1*

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**0.31**		0.20	0.10	ug/L		04/30/24 13:54	05/03/24 00:01	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*31*		*15 - 110*	*04/30/24 13:54*	*05/03/24 00:01*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.2	0.50	ug/L		05/01/24 09:25	05/02/24 17:36	1
2,4,6-Trichlorophenol	ND		5.2	0.64	ug/L		05/01/24 09:25	05/02/24 17:36	1
2,4-Dichlorophenol	ND		5.2	0.53	ug/L		05/01/24 09:25	05/02/24 17:36	1
2,4-Dimethylphenol	ND		5.2	0.52	ug/L		05/01/24 09:25	05/02/24 17:36	1
2,4-Dinitrophenol	ND	UJ	10	2.3	ug/L		05/01/24 09:25	05/02/24 17:36	1
2,4-Dinitrotoluene	ND		5.2	0.47	ug/L		05/01/24 09:25	05/02/24 17:36	1
2,6-Dinitrotoluene	ND		5.2	0.42	ug/L		05/01/24 09:25	05/02/24 17:36	1
2-Chloronaphthalene	ND		5.2	0.48	ug/L		05/01/24 09:25	05/02/24 17:36	1
2-Chlorophenol	ND		5.2	0.55	ug/L		05/01/24 09:25	05/02/24 17:36	1
2-Methylnaphthalene	ND		5.2	0.63	ug/L		05/01/24 09:25	05/02/24 17:36	1
2-Methylphenol	ND		5.2	0.42	ug/L		05/01/24 09:25	05/02/24 17:36	1
2-Nitroaniline	ND		10	0.44	ug/L		05/01/24 09:25	05/02/24 17:36	1
2-Nitrophenol	ND		5.2	0.50	ug/L		05/01/24 09:25	05/02/24 17:36	1
3,3'-Dichlorobenzidine	ND		5.2	0.42	ug/L		05/01/24 09:25	05/02/24 17:36	1
3-Nitroaniline	ND		10	0.50	ug/L		05/01/24 09:25	05/02/24 17:36	1
4,6-Dinitro-2-methylphenol	ND		10	2.3	ug/L		05/01/24 09:25	05/02/24 17:36	1
4-Bromophenyl phenyl ether	ND		5.2	0.47	ug/L		05/01/24 09:25	05/02/24 17:36	1
4-Chloro-3-methylphenol	ND		5.2	0.47	ug/L		05/01/24 09:25	05/02/24 17:36	1
4-Chloroaniline	ND		5.2	0.61	ug/L		05/01/24 09:25	05/02/24 17:36	1
4-Chlorophenyl phenyl ether	ND		5.2	0.36	ug/L		05/01/24 09:25	05/02/24 17:36	1
4-Methylphenol	ND		10	0.38	ug/L		05/01/24 09:25	05/02/24 17:36	1
4-Nitroaniline	ND		10	0.26	ug/L		05/01/24 09:25	05/02/24 17:36	1
4-Nitrophenol	ND		10	1.6	ug/L		05/01/24 09:25	05/02/24 17:36	1
Acenaphthene	ND		5.2	0.43	ug/L		05/01/24 09:25	05/02/24 17:36	1
Acenaphthylene	ND		5.2	0.40	ug/L		05/01/24 09:25	05/02/24 17:36	1
Acetophenone	ND		5.2	0.56	ug/L		05/01/24 09:25	05/02/24 17:36	1
Anthracene	ND		5.2	0.29	ug/L		05/01/24 09:25	05/02/24 17:36	1
Atrazine	ND		5.2	0.48	ug/L		05/01/24 09:25	05/02/24 17:36	1
Benzaldehyde	ND		5.2	0.28	ug/L		05/01/24 09:25	05/02/24 17:36	1
Benzo(a)anthracene	ND		5.2	0.38	ug/L		05/01/24 09:25	05/02/24 17:36	1
Benzo(a)pyrene	ND		5.2	0.49	ug/L		05/01/24 09:25	05/02/24 17:36	1
Benzo(b)fluoranthene	ND		5.2	0.35	ug/L		05/01/24 09:25	05/02/24 17:36	1
Benzo(g,h,i)perylene	ND		5.2	0.36	ug/L		05/01/24 09:25	05/02/24 17:36	1
Benzo(k)fluoranthene	ND		5.2	0.76	ug/L		05/01/24 09:25	05/02/24 17:36	1
Biphenyl	ND		5.2	0.68	ug/L		05/01/24 09:25	05/02/24 17:36	1
bis (2-chloroisopropyl) ether	ND		5.2	0.54	ug/L		05/01/24 09:25	05/02/24 17:36	1
Bis(2-chloroethoxy)methane	ND		5.2	0.36	ug/L		05/01/24 09:25	05/02/24 17:36	1

Client Sample ID: MW-02S-042924-FD
Lab Sample ID: 480-219333-4

Date Collected: 04/29/24 13:15
Matrix: Water
Date Received: 04/29/24 17:15

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethyl)ether	ND		5.2	0.42	ug/L		05/01/24 09:25	05/02/24 17:36	1
Bis(2-ethylhexyl) phthalate	ND		5.2	2.3	ug/L		05/01/24 09:25	05/02/24 17:36	1
Butyl benzyl phthalate	ND		5.2	1.0	ug/L		05/01/24 09:25	05/02/24 17:36	1
Caprolactam	ND		5.2	2.3	ug/L		05/01/24 09:25	05/02/24 17:36	1
Carbazole	ND		5.2	0.31	ug/L		05/01/24 09:25	05/02/24 17:36	1
Chrysene	ND		5.2	0.34	ug/L		05/01/24 09:25	05/02/24 17:36	1
Dibenz(a,h)anthracene	ND		5.2	0.44	ug/L		05/01/24 09:25	05/02/24 17:36	1
Dibenzofuran	ND		10	0.53	ug/L		05/01/24 09:25	05/02/24 17:36	1
Diethyl phthalate	ND		5.2	0.23	ug/L		05/01/24 09:25	05/02/24 17:36	1
Dimethyl phthalate	ND		5.2	0.38	ug/L		05/01/24 09:25	05/02/24 17:36	1
Di-n-butyl phthalate	ND		5.2	0.32	ug/L		05/01/24 09:25	05/02/24 17:36	1
Di-n-octyl phthalate	ND		5.2	0.49	ug/L		05/01/24 09:25	05/02/24 17:36	1
Fluoranthene	ND		5.2	0.42	ug/L		05/01/24 09:25	05/02/24 17:36	1
Fluorene	ND		5.2	0.38	ug/L		05/01/24 09:25	05/02/24 17:36	1
Hexachlorobenzene	ND		5.2	0.53	ug/L		05/01/24 09:25	05/02/24 17:36	1
Hexachlorobutadiene	ND		5.2	0.71	ug/L		05/01/24 09:25	05/02/24 17:36	1
Hexachlorocyclopentadiene	ND		5.2	0.61	ug/L		05/01/24 09:25	05/02/24 17:36	1
Hexachloroethane	ND		5.2	0.61	ug/L		05/01/24 09:25	05/02/24 17:36	1
Indeno(1,2,3-cd)pyrene	ND		5.2	0.49	ug/L		05/01/24 09:25	05/02/24 17:36	1
Isophorone	ND		5.2	0.45	ug/L		05/01/24 09:25	05/02/24 17:36	1
Naphthalene	ND		5.2	0.79	ug/L		05/01/24 09:25	05/02/24 17:36	1
Nitrobenzene	ND		5.2	0.30	ug/L		05/01/24 09:25	05/02/24 17:36	1
N-Nitrosodi-n-propylamine	ND		5.2	0.56	ug/L		05/01/24 09:25	05/02/24 17:36	1
N-Nitrosodiphenylamine	ND		5.2	0.53	ug/L		05/01/24 09:25	05/02/24 17:36	1
Pentachlorophenol	ND	UJ	10	2.3	ug/L		05/01/24 09:25	05/02/24 17:36	1
Phenanthrene	ND		5.2	0.46	ug/L		05/01/24 09:25	05/02/24 17:36	1
Phenol	ND		5.2	0.41	ug/L		05/01/24 09:25	05/02/24 17:36	1
Pyrene	ND		5.2	0.35	ug/L		05/01/24 09:25	05/02/24 17:36	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Furan, tetrahydro-	*360*	*T J N*	*ug/L*		*2.75*	*109-99-9*	*05/01/24 09:25*	*05/02/24 17:36*	*1*
Unknown	*6.1*	*T J*	*ug/L*		*2.89*	*N/A*	*05/01/24 09:25*	*05/02/24 17:36*	*1*
Unknown	*1.9*	*T J*	*ug/L*		*3.08*	*N/A*	*05/01/24 09:25*	*05/02/24 17:36*	*1*
Unknown	*22*	*T J*	*ug/L*		*5.12*	*N/A*	*05/01/24 09:25*	*05/02/24 17:36*	*1*
Unknown	*3.2*	*T J*	*ug/L*		*5.52*	*N/A*	*05/01/24 09:25*	*05/02/24 17:36*	*1*
Unknown	*2.6*	*T J*	*ug/L*		*5.64*	*N/A*	*05/01/24 09:25*	*05/02/24 17:36*	*1*
Unknown	*2.9*	*T J*	*ug/L*		*5.91*	*N/A*	*05/01/24 09:25*	*05/02/24 17:36*	*1*
Cyclohexane, 1-methyl-2-propyl-	*1.9*	*T J N*	*ug/L*		*6.05*	*4291-79-6*	*05/01/24 09:25*	*05/02/24 17:36*	*1*
Unknown	*1.8*	*T J*	*ug/L*		*11.93*	*N/A*	*05/01/24 09:25*	*05/02/24 17:36*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*68*		*41 - 120*	*05/01/24 09:25*	*05/02/24 17:36*	*1*
2-Fluorobiphenyl	*65*		*48 - 120*	*05/01/24 09:25*	*05/02/24 17:36*	*1*
2-Fluorophenol	*51*		*35 - 120*	*05/01/24 09:25*	*05/02/24 17:36*	*1*
Nitrobenzene-d5	*58*		*46 - 120*	*05/01/24 09:25*	*05/02/24 17:36*	*1*
Phenol-d5	*39*		*22 - 120*	*05/01/24 09:25*	*05/02/24 17:36*	*1*
p-Terphenyl-d14	*62*		*60 - 148*	*05/01/24 09:25*	*05/02/24 17:36*	*1*

Client Sample ID: MW-02S-042924-FD
Lab Sample ID: 480-219333-4

Date Collected: 04/29/24 13:15
Matrix: Water
Date Received: 04/29/24 17:15

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.20	0.021	ug/L		05/02/24 08:53	05/06/24 17:18	1
4,4'-DDE	ND		0.20	0.017	ug/L		05/02/24 08:53	05/06/24 17:18	1
4,4'-DDT	ND		0.20	0.019	ug/L		05/02/24 08:53	05/06/24 17:18	1
Aldrin	ND		0.20	0.026	ug/L		05/02/24 08:53	05/06/24 17:18	1
alpha-BHC	ND		0.20	0.021	ug/L		05/02/24 08:53	05/06/24 17:18	1
cis-Chlordane	ND		0.20	0.028	ug/L		05/02/24 08:53	05/06/24 17:18	1
beta-BHC	ND		0.20	0.037	ug/L		05/02/24 08:53	05/06/24 17:18	1
delta-BHC	ND		0.20	0.017	ug/L		05/02/24 08:53	05/06/24 17:18	1
Dieldrin	ND		0.20	0.026	ug/L		05/02/24 08:53	05/06/24 17:18	1
Endosulfan I	ND		0.20	0.015	ug/L		05/02/24 08:53	05/06/24 17:18	1
Endosulfan II	ND		0.20	0.025	ug/L		05/02/24 08:53	05/06/24 17:18	1
Endosulfan sulfate	ND		0.20	0.015	ug/L		05/02/24 08:53	05/06/24 17:18	1
Endrin	ND		0.20	0.026	ug/L		05/02/24 08:53	05/06/24 17:18	1
Endrin aldehyde	ND		0.20	0.018	ug/L		05/02/24 08:53	05/07/24 19:16	1
Endrin ketone	ND		0.20	0.016	ug/L		05/02/24 08:53	05/06/24 17:18	1
gamma-BHC (Lindane)	ND		0.20	0.024	ug/L		05/02/24 08:53	05/06/24 17:18	1
trans-Chlordane	ND		0.20	0.020	ug/L		05/02/24 08:53	05/06/24 17:18	1
Heptachlor	ND		0.20	0.033	ug/L		05/02/24 08:53	05/06/24 17:18	1
Heptachlor epoxide	ND		0.20	0.026	ug/L		05/02/24 08:53	05/06/24 17:18	1
Methoxychlor	ND		0.40	0.019	ug/L		05/02/24 08:53	05/06/24 17:18	1
Toxaphene	ND		8.0	0.23	ug/L		05/02/24 08:53	05/06/24 17:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*59*		*10 - 145*	*05/02/24 08:53*	*05/06/24 17:18*	*1*
DCB Decachlorobiphenyl	*61*		*10 - 145*	*05/02/24 08:53*	*05/06/24 17:18*	*1*
DCB Decachlorobiphenyl	*66*		*10 - 145*	*05/02/24 08:53*	*05/07/24 19:16*	*1*
DCB Decachlorobiphenyl	*62*		*10 - 145*	*05/02/24 08:53*	*05/07/24 19:16*	*1*
Tetrachloro-m-xylene	*56*		*10 - 123*	*05/02/24 08:53*	*05/06/24 17:18*	*1*
Tetrachloro-m-xylene	*53*		*10 - 123*	*05/02/24 08:53*	*05/06/24 17:18*	*1*
Tetrachloro-m-xylene	*61*		*10 - 123*	*05/02/24 08:53*	*05/07/24 19:16*	*1*
Tetrachloro-m-xylene	*59*		*10 - 123*	*05/02/24 08:53*	*05/07/24 19:16*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 23:17	1
PCB-1221	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 23:17	1
PCB-1232	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 23:17	1
PCB-1242	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 23:17	1
PCB-1248	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 23:17	1
PCB-1254	ND		0.50	0.25	ug/L		05/01/24 13:50	05/02/24 23:17	1
PCB-1260	ND		0.50	0.25	ug/L		05/01/24 13:50	05/02/24 23:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*79*		*19 - 120*	*05/01/24 13:50*	*05/02/24 23:17*	*1*
DCB Decachlorobiphenyl	*76*		*19 - 120*	*05/01/24 13:50*	*05/02/24 23:17*	*1*
Tetrachloro-m-xylene	*76*		*39 - 121*	*05/01/24 13:50*	*05/02/24 23:17*	*1*
Tetrachloro-m-xylene	*75*		*39 - 121*	*05/01/24 13:50*	*05/02/24 23:17*	*1*

Client Sample ID: MW-02S-042924-FD
Lab Sample ID: 480-219333-4

Date Collected: 04/29/24 13:15
Matrix: Water
Date Received: 04/29/24 17:15

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		7.0	1.9	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluoropentanoic acid (PFPeA)	ND		3.5	0.87	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluorohexanoic acid (PFHxA)	ND		1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluorooctanoic acid (PFOA)	**1.0**	**J**	1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluorononanoic acid (PFNA)	ND		1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	0.45	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluorooctanesulfonic acid (PFOS)	**0.58**	**J**	1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		7.0	1.7	ng/L		05/02/24 08:21	05/02/24 22:50	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		7.0	1.7	ng/L		05/02/24 08:21	05/02/24 22:50	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		7.0	1.7	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.7	0.54	ng/L		05/02/24 08:21	05/02/24 22:50	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.7	0.45	ng/L		05/02/24 08:21	05/02/24 22:50	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		17	4.4	ng/L		05/02/24 08:21	05/02/24 22:50	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		17	4.4	ng/L		05/02/24 08:21	05/02/24 22:50	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		7.0	1.7	ng/L		05/02/24 08:21	05/02/24 22:50	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		7.0	1.7	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		3.5	0.87	ng/L		05/02/24 08:21	05/02/24 22:50	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		3.5	1.1	ng/L		05/02/24 08:21	05/02/24 22:50	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		7.0	1.7	ng/L		05/02/24 08:21	05/02/24 22:50	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		7.0	1.7	ng/L		05/02/24 08:21	05/02/24 22:50	1

Client Sample ID: MW-02S-042924-FD
Lab Sample ID: 480-219333-4

Date Collected: 04/29/24 13:15
Matrix: Water
Date Received: 04/29/24 17:15

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		3.5	0.87	ng/L		05/02/24 08:21	05/02/24 22:50	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		8.7	2.2	ng/L		05/02/24 08:21	05/02/24 22:50	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		44	11	ng/L		05/02/24 08:21	05/02/24 22:50	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		44	13	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		3.5	0.87	ng/L		05/02/24 08:21	05/02/24 22:50	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*97.1*		*10 - 130*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
13C5 PFPeA	*88.8*		*35 - 150*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
13C5 PFHxA	*82.7*		*55 - 150*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
13C4 PFHpA	*85.3*		*55 - 150*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
13C8 PFOA	*87.3*		*60 - 140*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
13C9 PFNA	*89.3*		*55 - 140*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
13C6 PFDA	*103*		*50 - 140*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
13C7 PFUnA	*76.1*		*30 - 140*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
13C2 PFTeDA	*62.2*		*10 - 130*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
13C3 PFBS	*101*		*55 - 150*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
13C3 PFHxS	*91.9*		*55 - 150*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
13C8 PFOS	*84.0*		*45 - 140*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
13C8 FOSA	*94.4*		*30 - 130*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
d3-NMeFOSAA	*87.3*		*45 - 200*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
d5-NEtFOSAA	*81.6*		*10 - 200*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
M2-4:2 FTS	*137*		*60 - 200*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
M2-6:2 FTS	*103*		*60 - 200*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
M2-8:2 FTS	*119*		*50 - 200*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
13C3 HFPO-DA	*90.5*		*25 - 160*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
d7-N-MeFOSE-M	*78.6*		*10 - 150*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
d9-N-EtFOSE-M	*74.1*		*10 - 150*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
d5-NEtPFOSA	*68.4*		*10 - 130*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
d3-NMePFOSA	*71.9*		*15 - 130*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
13C2-PFDoDA	*67.3*		*10 - 150*	*05/02/24 08:21*	*05/02/24 22:50*	*1*

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	47.3	ug/L		05/16/24 16:30	05/18/24 11:01	1
Antimony	ND		20.0	7.5	ug/L		05/16/24 16:30	05/18/24 11:01	1
Arsenic	ND		15.0	4.1	ug/L		05/16/24 16:30	05/18/24 11:01	1
Barium	**60.1**	**J**	200	3.0	ug/L		05/16/24 16:30	05/18/24 11:01	1
Beryllium	ND		5.0	0.60	ug/L		05/16/24 16:30	05/18/24 11:01	1
Cadmium	**0.87**	**J**	5.0	0.45	ug/L		05/16/24 16:30	05/18/24 11:01	1
Calcium	**73200**		5000	307	ug/L		05/16/24 16:30	05/18/24 11:01	1
Chromium	**0.90**	**J**	10.0	0.76	ug/L		05/16/24 16:30	05/18/24 11:01	1
Cobalt	ND		10.0	0.75	ug/L		05/16/24 16:30	05/18/24 11:01	1
Copper	ND		25.0	3.5	ug/L		05/16/24 16:30	05/18/24 11:01	1
Iron	**136**	**J**	200	82.7	ug/L		05/16/24 16:30	05/18/24 11:01	1
Lead	ND		10.0	2.8	ug/L		05/16/24 16:30	05/18/24 11:01	1

Client Sample ID: MW-02S-042924-FD
Lab Sample ID: 480-219333-4

Date Collected: 04/29/24 13:15
Matrix: Water

Date Received: 04/29/24 17:15

Method: SW846 6010D - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	**146000**		5000	259	ug/L		05/16/24 16:30	05/18/24 11:01	1
Manganese	**14.3**	**J**	15.0	2.6	ug/L		05/16/24 16:30	05/18/24 11:01	1
Nickel	**2.7**	**J**	40.0	2.2	ug/L		05/16/24 16:30	05/18/24 11:01	1
Potassium	**3530**	**J**	5000	557	ug/L		05/16/24 16:30	05/18/24 11:01	1
Selenium	ND		20.0	6.0	ug/L		05/16/24 16:30	05/18/24 11:01	1
Silver	ND		10.0	0.62	ug/L		05/16/24 16:30	05/18/24 11:01	1
Sodium	**44500**	J+	5000	2110	ug/L		05/16/24 16:30	05/18/24 11:01	1
Thallium	ND		20.0	2.7	ug/L		05/16/24 16:30	05/18/24 11:01	1
Vanadium	ND		50.0	5.6	ug/L		05/16/24 16:30	05/18/24 11:01	1
Zinc	ND		50.0	22.5	ug/L		05/16/24 16:30	05/18/24 11:01	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	47.3	ug/L		05/16/24 16:30	05/18/24 11:06	1
Antimony	ND		20.0	7.5	ug/L		05/16/24 16:30	05/18/24 11:06	1
Arsenic	ND		15.0	4.1	ug/L		05/16/24 16:30	05/18/24 11:06	1
Barium	**61.1**	**J**	200	3.0	ug/L		05/16/24 16:30	05/18/24 11:06	1
Beryllium	ND		5.0	0.60	ug/L		05/16/24 16:30	05/18/24 11:06	1
Cadmium	**0.83**	**J**	5.0	0.45	ug/L		05/16/24 16:30	05/18/24 11:06	1
Calcium	**75200**		5000	307	ug/L		05/16/24 16:30	05/18/24 11:06	1
Chromium	**1.1**	**J**	10.0	0.76	ug/L		05/16/24 16:30	05/18/24 11:06	1
Cobalt	ND		10.0	0.75	ug/L		05/16/24 16:30	05/18/24 11:06	1
Copper	ND		25.0	3.5	ug/L		05/16/24 16:30	05/18/24 11:06	1
Iron	ND		200	82.7	ug/L		05/16/24 16:30	05/18/24 11:06	1
Lead	ND		10.0	2.8	ug/L		05/16/24 16:30	05/18/24 11:06	1
Magnesium	**149000**		5000	259	ug/L		05/16/24 16:30	05/18/24 11:06	1
Manganese	**7.6**	**J**	15.0	2.6	ug/L		05/16/24 16:30	05/18/24 11:06	1
Nickel	**2.9**	**J**	40.0	2.2	ug/L		05/16/24 16:30	05/18/24 11:06	1
Potassium	**3730**	**J**	5000	557	ug/L		05/16/24 16:30	05/18/24 11:06	1
Selenium	ND		20.0	6.0	ug/L		05/16/24 16:30	05/18/24 11:06	1
Silver	ND		10.0	0.62	ug/L		05/16/24 16:30	05/18/24 11:06	1
Sodium	**45900**		5000	2110	ug/L		05/16/24 16:30	05/18/24 11:06	1
Thallium	ND		20.0	2.7	ug/L		05/16/24 16:30	05/18/24 11:06	1
Vanadium	ND		50.0	5.6	ug/L		05/16/24 16:30	05/18/24 11:06	1
Zinc	ND		50.0	22.5	ug/L		05/16/24 16:30	05/18/24 11:06	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00040	0.000084	mg/L		05/02/24 11:04	05/02/24 17:10	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/02/24 11:04	05/02/24 17:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			05/08/24 19:03	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			05/03/24 00:05	1

Client Sample ID: MW05-01-042924
Lab Sample ID: 480-219333-5

Date Collected: 04/29/24 14:30
Matrix: Water

Date Received: 04/29/24 17:15

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	4.1	ug/L			05/01/24 15:10	5
1,1,2,2-Tetrachloroethane	ND		5.0	1.1	ug/L			05/01/24 15:10	5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.6	ug/L			05/01/24 15:10	5
1,1,2-Trichloroethane	ND		5.0	1.2	ug/L			05/01/24 15:10	5
1,1-Dichloroethane	ND		5.0	1.9	ug/L			05/01/24 15:10	5
1,1-Dichloroethene	ND		5.0	1.5	ug/L			05/01/24 15:10	5
1,2,4-Trichlorobenzene	ND		5.0	2.1	ug/L			05/01/24 15:10	5
1,2-Dibromo-3-Chloropropane	ND		5.0	2.0	ug/L			05/01/24 15:10	5
1,2-Dibromoethane	ND		5.0	3.7	ug/L			05/01/24 15:10	5
1,2-Dichlorobenzene	ND		5.0	4.0	ug/L			05/01/24 15:10	5
1,2-Dichloroethane	ND		5.0	1.1	ug/L			05/01/24 15:10	5
1,2-Dichloropropane	ND		5.0	3.6	ug/L			05/01/24 15:10	5
1,3-Dichlorobenzene	ND		5.0	3.9	ug/L			05/01/24 15:10	5
1,4-Dichlorobenzene	ND		5.0	4.2	ug/L			05/01/24 15:10	5
2-Butanone (MEK)	ND		50	6.6	ug/L			05/01/24 15:10	5
2-Hexanone	ND		25	6.2	ug/L			05/01/24 15:10	5
4-Methyl-2-pentanone (MIBK)	ND		25	11	ug/L			05/01/24 15:10	5
Acetone	ND		50	15	ug/L			05/01/24 15:10	5
Benzene	ND		5.0	2.1	ug/L			05/01/24 15:10	5
Bromodichloromethane	ND		5.0	2.0	ug/L			05/01/24 15:10	5
Bromoform	ND		5.0	1.3	ug/L			05/01/24 15:10	5
Bromomethane	ND		5.0	3.5	ug/L			05/01/24 15:10	5
Carbon disulfide	ND		5.0	0.95	ug/L			05/01/24 15:10	5
Carbon tetrachloride	ND		5.0	1.4	ug/L			05/01/24 15:10	5
Chlorobenzene	ND		5.0	3.8	ug/L			05/01/24 15:10	5
Chloroethane	ND		5.0	1.6	ug/L			05/01/24 15:10	5
Chloroform	ND		5.0	1.7	ug/L			05/01/24 15:10	5
Chloromethane	ND		5.0	1.8	ug/L			05/01/24 15:10	5
cis-1,2-Dichloroethene	ND		5.0	4.1	ug/L			05/01/24 15:10	5
cis-1,3-Dichloropropene	ND		5.0	1.8	ug/L			05/01/24 15:10	5
Cyclohexane	ND		5.0	0.90	ug/L			05/01/24 15:10	5
Dibromochloromethane	ND		5.0	1.6	ug/L			05/01/24 15:10	5
Dichlorodifluoromethane	ND		5.0	3.4	ug/L			05/01/24 15:10	5
Ethylbenzene	ND		5.0	3.7	ug/L			05/01/24 15:10	5
Isopropylbenzene	ND		5.0	4.0	ug/L			05/01/24 15:10	5
Methyl acetate	ND		13	6.5	ug/L			05/01/24 15:10	5
Methyl tert-butyl ether	ND		5.0	0.80	ug/L			05/01/24 15:10	5
Methylcyclohexane	ND		5.0	0.80	ug/L			05/01/24 15:10	5
Methylene Chloride	ND		5.0	2.2	ug/L			05/01/24 15:10	5
Styrene	ND		5.0	3.7	ug/L			05/01/24 15:10	5
Tetrachloroethene	ND		5.0	1.8	ug/L			05/01/24 15:10	5
Toluene	ND		5.0	2.6	ug/L			05/01/24 15:10	5
trans-1,2-Dichloroethene	ND		5.0	4.5	ug/L			05/01/24 15:10	5
trans-1,3-Dichloropropene	ND		5.0	1.9	ug/L			05/01/24 15:10	5
Trichloroethene	ND		5.0	2.3	ug/L			05/01/24 15:10	5
Trichlorofluoromethane	ND		5.0	4.4	ug/L			05/01/24 15:10	5
Vinyl chloride	ND		5.0	4.5	ug/L			05/01/24 15:10	5
Xylenes, Total	ND		10	3.3	ug/L			05/01/24 15:10	5

Client Sample ID: MW05-01-042924
Date Collected: 04/29/24 14:30
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-5
Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A		05/01/24 15:10	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		77 - 120		05/01/24 15:10	5
4-Bromofluorobenzene (Surr)	99		73 - 120		05/01/24 15:10	5
Dibromofluoromethane (Surr)	103		75 - 123		05/01/24 15:10	5
Toluene-d8 (Surr)	99		80 - 120		05/01/24 15:10	5

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		04/30/24 13:54	05/03/24 00:22	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	34		15 - 110	04/30/24 13:54	05/03/24 00:22	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		05/01/24 09:25	05/02/24 18:04	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		05/01/24 09:25	05/02/24 18:04	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		05/01/24 09:25	05/02/24 18:04	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		05/01/24 09:25	05/02/24 18:04	1
2,4-Dinitrophenol	ND	UJ	10	2.2	ug/L		05/01/24 09:25	05/02/24 18:04	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		05/01/24 09:25	05/02/24 18:04	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		05/01/24 09:25	05/02/24 18:04	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		05/01/24 09:25	05/02/24 18:04	1
2-Chlorophenol	ND		5.0	0.53	ug/L		05/01/24 09:25	05/02/24 18:04	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		05/01/24 09:25	05/02/24 18:04	1
2-Methylphenol	ND		5.0	0.40	ug/L		05/01/24 09:25	05/02/24 18:04	1
2-Nitroaniline	ND		10	0.42	ug/L		05/01/24 09:25	05/02/24 18:04	1
2-Nitrophenol	ND		5.0	0.48	ug/L		05/01/24 09:25	05/02/24 18:04	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		05/01/24 09:25	05/02/24 18:04	1
3-Nitroaniline	ND		10	0.48	ug/L		05/01/24 09:25	05/02/24 18:04	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		05/01/24 09:25	05/02/24 18:04	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		05/01/24 09:25	05/02/24 18:04	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		05/01/24 09:25	05/02/24 18:04	1
4-Chloroaniline	ND		5.0	0.59	ug/L		05/01/24 09:25	05/02/24 18:04	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		05/01/24 09:25	05/02/24 18:04	1
4-Methylphenol	ND		10	0.36	ug/L		05/01/24 09:25	05/02/24 18:04	1
4-Nitroaniline	ND		10	0.25	ug/L		05/01/24 09:25	05/02/24 18:04	1
4-Nitrophenol	ND		10	1.5	ug/L		05/01/24 09:25	05/02/24 18:04	1
Acenaphthene	ND		5.0	0.41	ug/L		05/01/24 09:25	05/02/24 18:04	1
Acenaphthylene	ND		5.0	0.38	ug/L		05/01/24 09:25	05/02/24 18:04	1
Acetophenone	ND		5.0	0.54	ug/L		05/01/24 09:25	05/02/24 18:04	1
Anthracene	ND		5.0	0.28	ug/L		05/01/24 09:25	05/02/24 18:04	1
Atrazine	ND		5.0	0.46	ug/L		05/01/24 09:25	05/02/24 18:04	1
Benzaldehyde	ND		5.0	0.27	ug/L		05/01/24 09:25	05/02/24 18:04	1
Benzo(a)anthracene	ND		5.0	0.36	ug/L		05/01/24 09:25	05/02/24 18:04	1
Benzo(a)pyrene	ND		5.0	0.47	ug/L		05/01/24 09:25	05/02/24 18:04	1
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L		05/01/24 09:25	05/02/24 18:04	1
Benzo(g,h,i)perylene	ND		5.0	0.35	ug/L		05/01/24 09:25	05/02/24 18:04	1
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L		05/01/24 09:25	05/02/24 18:04	1

Client Sample ID: MW05-01-042924

Date Collected: 04/29/24 14:30
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-5

Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.0	0.65	ug/L		05/01/24 09:25	05/02/24 18:04	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		05/01/24 09:25	05/02/24 18:04	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		05/01/24 09:25	05/02/24 18:04	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		05/01/24 09:25	05/02/24 18:04	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		05/01/24 09:25	05/02/24 18:04	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		05/01/24 09:25	05/02/24 18:04	1
Caprolactam	ND		5.0	2.2	ug/L		05/01/24 09:25	05/02/24 18:04	1
Carbazole	ND		5.0	0.30	ug/L		05/01/24 09:25	05/02/24 18:04	1
Chrysene	ND		5.0	0.33	ug/L		05/01/24 09:25	05/02/24 18:04	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		05/01/24 09:25	05/02/24 18:04	1
Dibenzofuran	ND		10	0.51	ug/L		05/01/24 09:25	05/02/24 18:04	1
Diethyl phthalate	ND		5.0	0.22	ug/L		05/01/24 09:25	05/02/24 18:04	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		05/01/24 09:25	05/02/24 18:04	1
Di-n-butyl phthalate	**0.31**	**J**	5.0	0.31	ug/L		05/01/24 09:25	05/02/24 18:04	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		05/01/24 09:25	05/02/24 18:04	1
Fluoranthene	ND		5.0	0.40	ug/L		05/01/24 09:25	05/02/24 18:04	1
Fluorene	ND		5.0	0.36	ug/L		05/01/24 09:25	05/02/24 18:04	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		05/01/24 09:25	05/02/24 18:04	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		05/01/24 09:25	05/02/24 18:04	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		05/01/24 09:25	05/02/24 18:04	1
Hexachloroethane	ND		5.0	0.59	ug/L		05/01/24 09:25	05/02/24 18:04	1
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L		05/01/24 09:25	05/02/24 18:04	1
Isophorone	ND		5.0	0.43	ug/L		05/01/24 09:25	05/02/24 18:04	1
Naphthalene	ND		5.0	0.76	ug/L		05/01/24 09:25	05/02/24 18:04	1
Nitrobenzene	ND		5.0	0.29	ug/L		05/01/24 09:25	05/02/24 18:04	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		05/01/24 09:25	05/02/24 18:04	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		05/01/24 09:25	05/02/24 18:04	1
Pentachlorophenol	ND	UJ	10	2.2	ug/L		05/01/24 09:25	05/02/24 18:04	1
Phenanthrene	ND		5.0	0.44	ug/L		05/01/24 09:25	05/02/24 18:04	1
Phenol	ND		5.0	0.39	ug/L		05/01/24 09:25	05/02/24 18:04	1
Pyrene	ND		5.0	0.34	ug/L		05/01/24 09:25	05/02/24 18:04	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Furan, tetrahydro-	*350*	*T J N*	*ug/L*		*2.75*	*109-99-9*	*05/01/24 09:25*	*05/02/24 18:04*	*1*
Unknown	*6.0*	*T J*	*ug/L*		*2.89*	*N/A*	*05/01/24 09:25*	*05/02/24 18:04*	*1*
Unknown	*1.9*	*T J*	*ug/L*		*3.08*	*N/A*	*05/01/24 09:25*	*05/02/24 18:04*	*1*
Unknown	*23*	*T J*	*ug/L*		*5.12*	*N/A*	*05/01/24 09:25*	*05/02/24 18:04*	*1*
Unknown	*3.1*	*T J*	*ug/L*		*5.52*	*N/A*	*05/01/24 09:25*	*05/02/24 18:04*	*1*
Unknown	*2.6*	*T J*	*ug/L*		*5.64*	*N/A*	*05/01/24 09:25*	*05/02/24 18:04*	*1*
Unknown	*2.8*	*T J*	*ug/L*		*5.91*	*N/A*	*05/01/24 09:25*	*05/02/24 18:04*	*1*
Unknown	*1.8*	*T J*	*ug/L*		*6.04*	*N/A*	*05/01/24 09:25*	*05/02/24 18:04*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*77*		*41 - 120*	*05/01/24 09:25*	*05/02/24 18:04*	*1*
2-Fluorobiphenyl	*71*		*48 - 120*	*05/01/24 09:25*	*05/02/24 18:04*	*1*
2-Fluorophenol	*52*		*35 - 120*	*05/01/24 09:25*	*05/02/24 18:04*	*1*
Nitrobenzene-d5	*59*		*46 - 120*	*05/01/24 09:25*	*05/02/24 18:04*	*1*
Phenol-d5	*40*		*22 - 120*	*05/01/24 09:25*	*05/02/24 18:04*	*1*
p-Terphenyl-d14	*60*		*60 - 148*	*05/01/24 09:25*	*05/02/24 18:04*	*1*

Client Sample ID: MW05-01-042924
Lab Sample ID: 480-219333-5

Date Collected: 04/29/24 14:30
Matrix: Water

Date Received: 04/29/24 17:15

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.21	0.022	ug/L		05/02/24 08:53	05/06/24 17:33	1
4,4'-DDE	ND		0.21	0.018	ug/L		05/02/24 08:53	05/06/24 17:33	1
4,4'-DDT	ND		0.21	0.020	ug/L		05/02/24 08:53	05/06/24 17:33	1
Aldrin	ND		0.21	0.027	ug/L		05/02/24 08:53	05/06/24 17:33	1
alpha-BHC	ND		0.21	0.022	ug/L		05/02/24 08:53	05/06/24 17:33	1
cis-Chlordane	ND		0.21	0.029	ug/L		05/02/24 08:53	05/06/24 17:33	1
beta-BHC	ND		0.21	0.039	ug/L		05/02/24 08:53	05/06/24 17:33	1
delta-BHC	ND		0.21	0.018	ug/L		05/02/24 08:53	05/06/24 17:33	1
Dieldrin	ND		0.21	0.027	ug/L		05/02/24 08:53	05/06/24 17:33	1
Endosulfan I	ND		0.21	0.015	ug/L		05/02/24 08:53	05/06/24 17:33	1
Endosulfan II	ND		0.21	0.026	ug/L		05/02/24 08:53	05/06/24 17:33	1
Endosulfan sulfate	ND		0.21	0.015	ug/L		05/02/24 08:53	05/06/24 17:33	1
Endrin	ND		0.21	0.027	ug/L		05/02/24 08:53	05/06/24 17:33	1
Endrin aldehyde	ND		0.21	0.019	ug/L		05/02/24 08:53	05/07/24 19:31	1
Endrin ketone	ND		0.21	0.017	ug/L		05/02/24 08:53	05/06/24 17:33	1
gamma-BHC (Lindane)	ND		0.21	0.025	ug/L		05/02/24 08:53	05/06/24 17:33	1
trans-Chlordane	ND		0.21	0.021	ug/L		05/02/24 08:53	05/06/24 17:33	1
Heptachlor	ND		0.21	0.034	ug/L		05/02/24 08:53	05/06/24 17:33	1
Heptachlor epoxide	ND		0.21	0.027	ug/L		05/02/24 08:53	05/06/24 17:33	1
Methoxychlor	ND		0.42	0.020	ug/L		05/02/24 08:53	05/06/24 17:33	1
Toxaphene	ND		8.3	0.24	ug/L		05/02/24 08:53	05/06/24 17:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*71*		*10 - 145*	*05/02/24 08:53*	*05/06/24 17:33*	*1*
DCB Decachlorobiphenyl	*62*		*10 - 145*	*05/02/24 08:53*	*05/06/24 17:33*	*1*
DCB Decachlorobiphenyl	*76*		*10 - 145*	*05/02/24 08:53*	*05/07/24 19:31*	*1*
DCB Decachlorobiphenyl	*68*		*10 - 145*	*05/02/24 08:53*	*05/07/24 19:31*	*1*
Tetrachloro-m-xylene	*50*		*10 - 123*	*05/02/24 08:53*	*05/06/24 17:33*	*1*
Tetrachloro-m-xylene	*47*		*10 - 123*	*05/02/24 08:53*	*05/06/24 17:33*	*1*
Tetrachloro-m-xylene	*57*		*10 - 123*	*05/02/24 08:53*	*05/07/24 19:31*	*1*
Tetrachloro-m-xylene	*53*		*10 - 123*	*05/02/24 08:53*	*05/07/24 19:31*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 23:34	1
PCB-1221	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 23:34	1
PCB-1232	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 23:34	1
PCB-1242	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 23:34	1
PCB-1248	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 23:34	1
PCB-1254	ND		0.50	0.25	ug/L		05/01/24 13:50	05/02/24 23:34	1
PCB-1260	ND		0.50	0.25	ug/L		05/01/24 13:50	05/02/24 23:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*45*		*19 - 120*	*05/01/24 13:50*	*05/02/24 23:34*	*1*
DCB Decachlorobiphenyl	*44*		*19 - 120*	*05/01/24 13:50*	*05/02/24 23:34*	*1*
Tetrachloro-m-xylene	*69*		*39 - 121*	*05/01/24 13:50*	*05/02/24 23:34*	*1*
Tetrachloro-m-xylene	*67*		*39 - 121*	*05/01/24 13:50*	*05/02/24 23:34*	*1*

Client Sample ID: MW05-01-042924
Lab Sample ID: 480-219333-5

Date Collected: 04/29/24 14:30
Matrix: Water

Date Received: 04/29/24 17:15

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**9.2**		6.4	1.7	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluoropentanoic acid (PFPeA)	**2.5**	NJ	3.2	0.80	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluoroheptanoic acid (PFHpA)	**1.2**	**J**	1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluorooctanoic acid (PFOA)	**3.7**		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluorononanoic acid (PFNA)	**3.2**		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluorobutanesulfonic acid (PFBS)	**2.4**		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluorohexanesulfonic acid (PFHxS)	**0.59**	**J**	1.6	0.41	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluorooctanesulfonic acid (PFOS)	**3.4**		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		6.4	1.6	ng/L		05/02/24 08:21	05/02/24 23:06	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	**2.9**	**J**	6.4	1.6	ng/L		05/02/24 08:21	05/02/24 23:06	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		6.4	1.6	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	0.50	ng/L		05/02/24 08:21	05/02/24 23:06	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	0.42	ng/L		05/02/24 08:21	05/02/24 23:06	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		16	4.0	ng/L		05/02/24 08:21	05/02/24 23:06	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		16	4.0	ng/L		05/02/24 08:21	05/02/24 23:06	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		6.4	1.6	ng/L		05/02/24 08:21	05/02/24 23:06	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		6.4	1.6	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		3.2	0.80	ng/L		05/02/24 08:21	05/02/24 23:06	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		3.2	0.98	ng/L		05/02/24 08:21	05/02/24 23:06	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		6.4	1.6	ng/L		05/02/24 08:21	05/02/24 23:06	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		6.4	1.6	ng/L		05/02/24 08:21	05/02/24 23:06	1

Client Sample ID: MW05-01-042924
Lab Sample ID: 480-219333-5

Date Collected: 04/29/24 14:30
Matrix: Water

Date Received: 04/29/24 17:15

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		3.2	0.80	ng/L		05/02/24 08:21	05/02/24 23:06	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		8.0	2.0	ng/L		05/02/24 08:21	05/02/24 23:06	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		40	10	ng/L		05/02/24 08:21	05/02/24 23:06	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		40	12	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		3.2	0.80	ng/L		05/02/24 08:21	05/02/24 23:06	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*99.8*		*10 - 130*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
13C5 PFPeA	*67.3*		*35 - 150*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
13C5 PFHxA	*77.6*		*55 - 150*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
13C4 PFHpA	*93.9*		*55 - 150*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
13C8 PFOA	*80.7*		*60 - 140*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
13C9 PFNA	*89.2*		*55 - 140*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
13C6 PFDA	*99.7*		*50 - 140*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
13C7 PFUnA	*86.6*		*30 - 140*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
13C2 PFTeDA	*58.7*		*10 - 130*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
13C3 PFBS	*88.1*		*55 - 150*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
13C3 PFHxS	*91.6*		*55 - 150*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
13C8 PFOS	*83.8*		*45 - 140*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
13C8 FOSA	*105*		*30 - 130*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
d3-NMeFOSAA	*112*		*45 - 200*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
d5-NEtFOSAA	*106*		*10 - 200*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
M2-4:2 FTS	*248*	*5+	*60 - 200*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
M2-6:2 FTS	*205*	*5+	*60 - 200*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
M2-8:2 FTS	*229*	*5+	*50 - 200*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
13C3 HFPO-DA	*69.5*		*25 - 160*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
d7-N-MeFOSE-M	*71.4*		*10 - 150*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
d9-N-EtFOSE-M	*66.0*		*10 - 150*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
d5-NEtPFOSA	*58.1*		*10 - 130*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
d3-NMePFOSA	*64.9*		*15 - 130*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
13C2-PFDoDA	*72.1*		*10 - 150*	*05/02/24 08:21*	*05/02/24 23:06*	*1*

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**613**		200	47.3	ug/L		05/16/24 16:30	05/18/24 11:10	1
Antimony	ND		20.0	7.5	ug/L		05/16/24 16:30	05/18/24 11:10	1
Arsenic	ND		15.0	4.1	ug/L		05/16/24 16:30	05/18/24 11:10	1
Barium	**77.9**	**J**	200	3.0	ug/L		05/16/24 16:30	05/18/24 11:10	1
Beryllium	ND		5.0	0.60	ug/L		05/16/24 16:30	05/18/24 11:10	1
Cadmium	ND		5.0	0.45	ug/L		05/16/24 16:30	05/18/24 11:10	1
Calcium	**105000**		5000	307	ug/L		05/16/24 16:30	05/18/24 11:10	1
Chromium	**1.7**	**J**	10.0	0.76	ug/L		05/16/24 16:30	05/18/24 11:10	1
Cobalt	ND		10.0	0.75	ug/L		05/16/24 16:30	05/18/24 11:10	1
Copper	**7.4**	**J**	25.0	3.5	ug/L		05/16/24 16:30	05/18/24 11:10	1
Iron	**711**		200	82.7	ug/L		05/16/24 16:30	05/18/24 11:10	1
Lead	**7.6**	**J**	10.0	2.8	ug/L		05/16/24 16:30	05/18/24 11:10	1

Client Sample ID: MW05-01-042924

Date Collected: 04/29/24 14:30
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-5

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	**29700**		5000	259	ug/L		05/16/24 16:30	05/18/24 11:10	1
Manganese	**34.7**		15.0	2.6	ug/L		05/16/24 16:30	05/18/24 11:10	1
Nickel	**3.6**	**J**	40.0	2.2	ug/L		05/16/24 16:30	05/18/24 11:10	1
Potassium	**2940**	**J**	5000	557	ug/L		05/16/24 16:30	05/18/24 11:10	1
Selenium	ND		20.0	6.0	ug/L		05/16/24 16:30	05/18/24 11:10	1
Silver	ND		10.0	0.62	ug/L		05/16/24 16:30	05/18/24 11:10	1
Sodium	**10400**	J+	5000	2110	ug/L		05/16/24 16:30	05/18/24 11:10	1
Thallium	ND		20.0	2.7	ug/L		05/16/24 16:30	05/18/24 11:10	1
Vanadium	ND	U	50.0	5.6	ug/L		05/16/24 16:30	05/18/24 11:10	1
Zinc	ND		50.0	22.5	ug/L		05/16/24 16:30	05/18/24 11:10	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	47.3	ug/L		05/16/24 16:30	05/18/24 11:14	1
Antimony	ND		20.0	7.5	ug/L		05/16/24 16:30	05/18/24 11:14	1
Arsenic	**6.1**	**J**	15.0	4.1	ug/L		05/16/24 16:30	05/18/24 11:14	1
Barium	**71.2**	**J**	200	3.0	ug/L		05/16/24 16:30	05/18/24 11:14	1
Beryllium	ND		5.0	0.60	ug/L		05/16/24 16:30	05/18/24 11:14	1
Cadmium	ND		5.0	0.45	ug/L		05/16/24 16:30	05/18/24 11:14	1
Calcium	**104000**		5000	307	ug/L		05/16/24 16:30	05/18/24 11:14	1
Chromium	**1.0**	**J**	10.0	0.76	ug/L		05/16/24 16:30	05/18/24 11:14	1
Cobalt	ND		10.0	0.75	ug/L		05/16/24 16:30	05/18/24 11:14	1
Copper	**5.6**	**J**	25.0	3.5	ug/L		05/16/24 16:30	05/18/24 11:14	1
Iron	ND		200	82.7	ug/L		05/16/24 16:30	05/18/24 11:14	1
Lead	ND		10.0	2.8	ug/L		05/16/24 16:30	05/18/24 11:14	1
Magnesium	**31700**		5000	259	ug/L		05/16/24 16:30	05/18/24 11:14	1
Manganese	**26.0**		15.0	2.6	ug/L		05/16/24 16:30	05/18/24 11:14	1
Nickel	**3.3**	**J**	40.0	2.2	ug/L		05/16/24 16:30	05/18/24 11:14	1
Potassium	**2670**	**J**	5000	557	ug/L		05/16/24 16:30	05/18/24 11:14	1
Selenium	ND		20.0	6.0	ug/L		05/16/24 16:30	05/18/24 11:14	1
Silver	ND		10.0	0.62	ug/L		05/16/24 16:30	05/18/24 11:14	1
Sodium	**10900**		5000	2110	ug/L		05/16/24 16:30	05/18/24 11:14	1
Thallium	ND		20.0	2.7	ug/L		05/16/24 16:30	05/18/24 11:14	1
Vanadium	ND	U	50.0	5.6	ug/L		05/16/24 16:30	05/18/24 11:14	1
Zinc	ND		50.0	22.5	ug/L		05/16/24 16:30	05/18/24 11:14	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00040	0.000084	mg/L		05/02/24 11:04	05/02/24 17:12	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/02/24 11:04	05/02/24 17:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			05/02/24 23:54	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			05/03/24 00:07	1

Client Sample ID: MW05-03-042924
Lab Sample ID: 480-219333-6

Date Collected: 04/29/24 16:00
Matrix: Water

Date Received: 04/29/24 17:15

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/01/24 15:32	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/01/24 15:32	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			05/01/24 15:32	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/01/24 15:32	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/01/24 15:32	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/01/24 15:32	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			05/01/24 15:32	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			05/01/24 15:32	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			05/01/24 15:32	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			05/01/24 15:32	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/01/24 15:32	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/01/24 15:32	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			05/01/24 15:32	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			05/01/24 15:32	1
2-Butanone (MEK)	ND		10	1.3	ug/L			05/01/24 15:32	1
2-Hexanone	ND		5.0	1.2	ug/L			05/01/24 15:32	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/01/24 15:32	1
Acetone	**4.8**	**J**	10	3.0	ug/L			05/01/24 15:32	1
Benzene	ND		1.0	0.41	ug/L			05/01/24 15:32	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/01/24 15:32	1
Bromoform	ND		1.0	0.26	ug/L			05/01/24 15:32	1
Bromomethane	ND		1.0	0.69	ug/L			05/01/24 15:32	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/01/24 15:32	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/01/24 15:32	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/01/24 15:32	1
Chloroethane	ND		1.0	0.32	ug/L			05/01/24 15:32	1
Chloroform	ND		1.0	0.34	ug/L			05/01/24 15:32	1
Chloromethane	ND		1.0	0.35	ug/L			05/01/24 15:32	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			05/01/24 15:32	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/01/24 15:32	1
Cyclohexane	ND		1.0	0.18	ug/L			05/01/24 15:32	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/01/24 15:32	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/01/24 15:32	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/01/24 15:32	1
Isopropylbenzene	ND		1.0	0.79	ug/L			05/01/24 15:32	1
Methyl acetate	ND		2.5	1.3	ug/L			05/01/24 15:32	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/01/24 15:32	1
Methylcyclohexane	ND		1.0	0.16	ug/L			05/01/24 15:32	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/01/24 15:32	1
Styrene	ND		1.0	0.73	ug/L			05/01/24 15:32	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/01/24 15:32	1
Toluene	ND		1.0	0.51	ug/L			05/01/24 15:32	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			05/01/24 15:32	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/01/24 15:32	1
Trichloroethene	ND		1.0	0.46	ug/L			05/01/24 15:32	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			05/01/24 15:32	1
Vinyl chloride	ND		1.0	0.90	ug/L			05/01/24 15:32	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/01/24 15:32	1

Client Sample ID: MW05-03-042924
Date Collected: 04/29/24 16:00
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-6
Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A		05/01/24 15:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		05/01/24 15:32	1
4-Bromofluorobenzene (Surr)	101		73 - 120		05/01/24 15:32	1
Dibromofluoromethane (Surr)	103		75 - 123		05/01/24 15:32	1
Toluene-d8 (Surr)	101		80 - 120		05/01/24 15:32	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.2	0.50	ug/L		05/01/24 09:25	05/02/24 18:32	1
2,4,6-Trichlorophenol	ND		5.2	0.64	ug/L		05/01/24 09:25	05/02/24 18:32	1
2,4-Dichlorophenol	ND		5.2	0.53	ug/L		05/01/24 09:25	05/02/24 18:32	1
2,4-Dimethylphenol	ND	UJ	5.2	0.52	ug/L		05/01/24 09:25	05/02/24 18:32	1
2,4-Dinitrophenol	ND		10	2.3	ug/L		05/01/24 09:25	05/02/24 18:32	1
2,4-Dinitrotoluene	ND		5.2	0.47	ug/L		05/01/24 09:25	05/02/24 18:32	1
2,6-Dinitrotoluene	ND		5.2	0.42	ug/L		05/01/24 09:25	05/02/24 18:32	1
2-Chloronaphthalene	ND		5.2	0.48	ug/L		05/01/24 09:25	05/02/24 18:32	1
2-Chlorophenol	ND		5.2	0.55	ug/L		05/01/24 09:25	05/02/24 18:32	1
2-Methylnaphthalene	ND		5.2	0.63	ug/L		05/01/24 09:25	05/02/24 18:32	1
2-Methylphenol	ND		5.2	0.42	ug/L		05/01/24 09:25	05/02/24 18:32	1
2-Nitroaniline	ND		10	0.44	ug/L		05/01/24 09:25	05/02/24 18:32	1
2-Nitrophenol	ND		5.2	0.50	ug/L		05/01/24 09:25	05/02/24 18:32	1
3,3'-Dichlorobenzidine	ND		5.2	0.42	ug/L		05/01/24 09:25	05/02/24 18:32	1
3-Nitroaniline	ND		10	0.50	ug/L		05/01/24 09:25	05/02/24 18:32	1
4,6-Dinitro-2-methylphenol	ND		10	2.3	ug/L		05/01/24 09:25	05/02/24 18:32	1
4-Bromophenyl phenyl ether	ND		5.2	0.47	ug/L		05/01/24 09:25	05/02/24 18:32	1
4-Chloro-3-methylphenol	ND		5.2	0.47	ug/L		05/01/24 09:25	05/02/24 18:32	1
4-Chloroaniline	ND		5.2	0.61	ug/L		05/01/24 09:25	05/02/24 18:32	1
4-Chlorophenyl phenyl ether	ND		5.2	0.36	ug/L		05/01/24 09:25	05/02/24 18:32	1
4-Methylphenol	ND		10	0.38	ug/L		05/01/24 09:25	05/02/24 18:32	1
4-Nitroaniline	ND		10	0.26	ug/L		05/01/24 09:25	05/02/24 18:32	1
4-Nitrophenol	ND		10	1.6	ug/L		05/01/24 09:25	05/02/24 18:32	1
Acenaphthene	ND		5.2	0.43	ug/L		05/01/24 09:25	05/02/24 18:32	1
Acenaphthylene	ND		5.2	0.40	ug/L		05/01/24 09:25	05/02/24 18:32	1
Acetophenone	ND		5.2	0.56	ug/L		05/01/24 09:25	05/02/24 18:32	1
Anthracene	ND		5.2	0.29	ug/L		05/01/24 09:25	05/02/24 18:32	1
Atrazine	ND		5.2	0.48	ug/L		05/01/24 09:25	05/02/24 18:32	1
Benzaldehyde	ND		5.2	0.28	ug/L		05/01/24 09:25	05/02/24 18:32	1
Benzo(a)anthracene	ND		5.2	0.38	ug/L		05/01/24 09:25	05/02/24 18:32	1
Benzo(a)pyrene	ND		5.2	0.49	ug/L		05/01/24 09:25	05/02/24 18:32	1
Benzo(b)fluoranthene	ND		5.2	0.35	ug/L		05/01/24 09:25	05/02/24 18:32	1
Benzo(g,h,i)perylene	ND		5.2	0.36	ug/L		05/01/24 09:25	05/02/24 18:32	1
Benzo(k)fluoranthene	ND		5.2	0.76	ug/L		05/01/24 09:25	05/02/24 18:32	1
Biphenyl	ND		5.2	0.68	ug/L		05/01/24 09:25	05/02/24 18:32	1
bis (2-chloroisopropyl) ether	ND		5.2	0.54	ug/L		05/01/24 09:25	05/02/24 18:32	1
Bis(2-chloroethoxy)methane	ND		5.2	0.36	ug/L		05/01/24 09:25	05/02/24 18:32	1
Bis(2-chloroethyl)ether	ND		5.2	0.42	ug/L		05/01/24 09:25	05/02/24 18:32	1
Bis(2-ethylhexyl) phthalate	ND		5.2	2.3	ug/L		05/01/24 09:25	05/02/24 18:32	1
Butyl benzyl phthalate	ND		5.2	1.0	ug/L		05/01/24 09:25	05/02/24 18:32	1

Client Sample ID: MW05-03-042924
Lab Sample ID: 480-219333-6

Date Collected: 04/29/24 16:00
Matrix: Water
Date Received: 04/29/24 17:15

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Caprolactam	ND		5.2	2.3	ug/L		05/01/24 09:25	05/02/24 18:32	1
Carbazole	ND		5.2	0.31	ug/L		05/01/24 09:25	05/02/24 18:32	1
Chrysene	ND		5.2	0.34	ug/L		05/01/24 09:25	05/02/24 18:32	1
Dibenz(a,h)anthracene	ND		5.2	0.44	ug/L		05/01/24 09:25	05/02/24 18:32	1
Dibenzofuran	ND		10	0.53	ug/L		05/01/24 09:25	05/02/24 18:32	1
Diethyl phthalate	ND		5.2	0.23	ug/L		05/01/24 09:25	05/02/24 18:32	1
Dimethyl phthalate	ND		5.2	0.38	ug/L		05/01/24 09:25	05/02/24 18:32	1
Di-n-butyl phthalate	ND		5.2	0.32	ug/L		05/01/24 09:25	05/02/24 18:32	1
Di-n-octyl phthalate	ND		5.2	0.49	ug/L		05/01/24 09:25	05/02/24 18:32	1
Fluoranthene	ND		5.2	0.42	ug/L		05/01/24 09:25	05/02/24 18:32	1
Fluorene	ND		5.2	0.38	ug/L		05/01/24 09:25	05/02/24 18:32	1
Hexachlorobenzene	ND		5.2	0.53	ug/L		05/01/24 09:25	05/02/24 18:32	1
Hexachlorobutadiene	ND		5.2	0.71	ug/L		05/01/24 09:25	05/02/24 18:32	1
Hexachlorocyclopentadiene	ND		5.2	0.61	ug/L		05/01/24 09:25	05/02/24 18:32	1
Hexachloroethane	ND		5.2	0.61	ug/L		05/01/24 09:25	05/02/24 18:32	1
Indeno(1,2,3-cd)pyrene	ND		5.2	0.49	ug/L		05/01/24 09:25	05/02/24 18:32	1
Isophorone	ND		5.2	0.45	ug/L		05/01/24 09:25	05/02/24 18:32	1
Naphthalene	ND		5.2	0.79	ug/L		05/01/24 09:25	05/02/24 18:32	1
Nitrobenzene	ND		5.2	0.30	ug/L		05/01/24 09:25	05/02/24 18:32	1
N-Nitrosodi-n-propylamine	ND		5.2	0.56	ug/L		05/01/24 09:25	05/02/24 18:32	1
N-Nitrosodiphenylamine	ND		5.2	0.53	ug/L		05/01/24 09:25	05/02/24 18:32	1
Pentachlorophenol	ND	UJ	10	2.3	ug/L		05/01/24 09:25	05/02/24 18:32	1
Phenanthrene	ND		5.2	0.46	ug/L		05/01/24 09:25	05/02/24 18:32	1
Phenol	ND		5.2	0.41	ug/L		05/01/24 09:25	05/02/24 18:32	1
Pyrene	ND		5.2	0.35	ug/L		05/01/24 09:25	05/02/24 18:32	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Furan, tetrahydro-	*390*	*T J N*	*ug/L*		*2.76*	*109-99-9*	*05/01/24 09:25*	*05/02/24 18:32*	*1*
Unknown	*6.9*	*T J*	*ug/L*		*2.89*	*N/A*	*05/01/24 09:25*	*05/02/24 18:32*	*1*
Unknown	*2.2*	*T J*	*ug/L*		*3.08*	*N/A*	*05/01/24 09:25*	*05/02/24 18:32*	*1*
Unknown	*27*	*T J*	*ug/L*		*5.12*	*N/A*	*05/01/24 09:25*	*05/02/24 18:32*	*1*
Unknown	*3.6*	*T J*	*ug/L*		*5.52*	*N/A*	*05/01/24 09:25*	*05/02/24 18:32*	*1*
Unknown	*3.0*	*T J*	*ug/L*		*5.64*	*N/A*	*05/01/24 09:25*	*05/02/24 18:32*	*1*
Unknown	*3.4*	*T J*	*ug/L*		*5.91*	*N/A*	*05/01/24 09:25*	*05/02/24 18:32*	*1*
Unknown	*2.1*	*T J*	*ug/L*		*6.05*	*N/A*	*05/01/24 09:25*	*05/02/24 18:32*	*1*
Unknown	*4.5*	*T J*	*ug/L*		*8.28*	*N/A*	*05/01/24 09:25*	*05/02/24 18:32*	*1*
Unknown	*4.5*	*T J*	*ug/L*		*11.93*	*N/A*	*05/01/24 09:25*	*05/02/24 18:32*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*78*		*41 - 120*	*05/01/24 09:25*	*05/02/24 18:32*	*1*
2-Fluorobiphenyl	*74*		*48 - 120*	*05/01/24 09:25*	*05/02/24 18:32*	*1*
2-Fluorophenol	*56*		*35 - 120*	*05/01/24 09:25*	*05/02/24 18:32*	*1*
Nitrobenzene-d5	*66*		*46 - 120*	*05/01/24 09:25*	*05/02/24 18:32*	*1*
Phenol-d5	*43*		*22 - 120*	*05/01/24 09:25*	*05/02/24 18:32*	*1*
p-Terphenyl-d14	*69*		*60 - 148*	*05/01/24 09:25*	*05/02/24 18:32*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.20	0.021	ug/L		05/02/24 08:53	05/07/24 19:47	1
4,4'-DDE	ND		0.20	0.017	ug/L		05/02/24 08:53	05/07/24 19:47	1

Client Sample ID: MW05-03-042924
Lab Sample ID: 480-219333-6

Date Collected: 04/29/24 16:00
Matrix: Water

Date Received: 04/29/24 17:15

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDT	ND		0.20	0.019	ug/L		05/02/24 08:53	05/07/24 19:47	1
Aldrin	ND		0.20	0.026	ug/L		05/02/24 08:53	05/07/24 19:47	1
alpha-BHC	ND		0.20	0.021	ug/L		05/02/24 08:53	05/07/24 19:47	1
cis-Chlordane	ND		0.20	0.028	ug/L		05/02/24 08:53	05/07/24 19:47	1
beta-BHC	ND		0.20	0.037	ug/L		05/02/24 08:53	05/07/24 19:47	1
delta-BHC	ND		0.20	0.017	ug/L		05/02/24 08:53	05/07/24 19:47	1
Dieldrin	ND		0.20	0.026	ug/L		05/02/24 08:53	05/07/24 19:47	1
Endosulfan I	ND		0.20	0.015	ug/L		05/02/24 08:53	05/07/24 19:47	1
Endosulfan II	ND		0.20	0.025	ug/L		05/02/24 08:53	05/07/24 19:47	1
Endosulfan sulfate	ND		0.20	0.015	ug/L		05/02/24 08:53	05/07/24 19:47	1
Endrin	ND		0.20	0.026	ug/L		05/02/24 08:53	05/07/24 19:47	1
Endrin aldehyde	ND		0.20	0.018	ug/L		05/02/24 08:53	05/07/24 19:47	1
Endrin ketone	ND		0.20	0.016	ug/L		05/02/24 08:53	05/07/24 19:47	1
gamma-BHC (Lindane)	ND		0.20	0.024	ug/L		05/02/24 08:53	05/07/24 19:47	1
trans-Chlordane	ND		0.20	0.020	ug/L		05/02/24 08:53	05/07/24 19:47	1
Heptachlor	ND		0.20	0.033	ug/L		05/02/24 08:53	05/07/24 19:47	1
Heptachlor epoxide	ND		0.20	0.026	ug/L		05/02/24 08:53	05/07/24 19:47	1
Methoxychlor	ND		0.40	0.019	ug/L		05/02/24 08:53	05/07/24 19:47	1
Toxaphene	ND		8.0	0.23	ug/L		05/02/24 08:53	05/07/24 19:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*55*		*10 - 145*	*05/02/24 08:53*	*05/07/24 19:47*	*1*
DCB Decachlorobiphenyl	*54*		*10 - 145*	*05/02/24 08:53*	*05/07/24 19:47*	*1*
Tetrachloro-m-xylene	*49*		*10 - 123*	*05/02/24 08:53*	*05/07/24 19:47*	*1*
Tetrachloro-m-xylene	*46*		*10 - 123*	*05/02/24 08:53*	*05/07/24 19:47*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.52	0.18	ug/L		05/01/24 13:50	05/02/24 23:52	1
PCB-1221	ND		0.52	0.18	ug/L		05/01/24 13:50	05/02/24 23:52	1
PCB-1232	ND		0.52	0.18	ug/L		05/01/24 13:50	05/02/24 23:52	1
PCB-1242	ND		0.52	0.18	ug/L		05/01/24 13:50	05/02/24 23:52	1
PCB-1248	ND		0.52	0.18	ug/L		05/01/24 13:50	05/02/24 23:52	1
PCB-1254	ND		0.52	0.26	ug/L		05/01/24 13:50	05/02/24 23:52	1
PCB-1260	ND		0.52	0.26	ug/L		05/01/24 13:50	05/02/24 23:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*45*		*19 - 120*	*05/01/24 13:50*	*05/02/24 23:52*	*1*
DCB Decachlorobiphenyl	*43*		*19 - 120*	*05/01/24 13:50*	*05/02/24 23:52*	*1*
Tetrachloro-m-xylene	*84*		*39 - 121*	*05/01/24 13:50*	*05/02/24 23:52*	*1*
Tetrachloro-m-xylene	*79*		*39 - 121*	*05/01/24 13:50*	*05/02/24 23:52*	*1*

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**13600**		200	47.3	ug/L		05/16/24 16:30	05/18/24 11:19	1
Antimony	ND		20.0	7.5	ug/L		05/16/24 16:30	05/18/24 11:19	1
Arsenic	**5.3**	**J**	15.0	4.1	ug/L		05/16/24 16:30	05/18/24 11:19	1
Barium	**91.4**	**J**	200	3.0	ug/L		05/16/24 16:30	05/18/24 11:19	1
Beryllium	ND		5.0	0.60	ug/L		05/16/24 16:30	05/18/24 11:19	1
Cadmium	**0.86**	**J**	5.0	0.45	ug/L		05/16/24 16:30	05/18/24 11:19	1

Client Sample ID: MW05-03-042924
Lab Sample ID: 480-219333-6

Date Collected: 04/29/24 16:00
Matrix: Water

Date Received: 04/29/24 17:15

Method: SW846 6010D - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	283000		5000	307	ug/L		05/16/24 16:30	05/18/24 11:19	1
Chromium	18.1		10.0	0.76	ug/L		05/16/24 16:30	05/18/24 11:19	1
Cobalt	8.0	J	10.0	0.75	ug/L		05/16/24 16:30	05/18/24 11:19	1
Copper	10.7	J	25.0	3.5	ug/L		05/16/24 16:30	05/18/24 11:19	1
Iron	15300		200	82.7	ug/L		05/16/24 16:30	05/18/24 11:19	1
Lead	6.9	J	10.0	2.8	ug/L		05/16/24 16:30	05/18/24 11:19	1
Magnesium	109000		5000	259	ug/L		05/16/24 16:30	05/18/24 11:19	1
Manganese	333		15.0	2.6	ug/L		05/16/24 16:30	05/18/24 11:19	1
Nickel	20.1	J	40.0	2.2	ug/L		05/16/24 16:30	05/18/24 11:19	1
Potassium	8090		5000	557	ug/L		05/16/24 16:30	05/18/24 11:19	1
Selenium	ND		20.0	6.0	ug/L		05/16/24 16:30	05/18/24 11:19	1
Silver	ND		10.0	0.62	ug/L		05/16/24 16:30	05/18/24 11:19	1
Sodium	34000	J+	5000	2110	ug/L		05/16/24 16:30	05/18/24 11:19	1
Thallium	ND		20.0	2.7	ug/L		05/16/24 16:30	05/18/24 11:19	1
Vanadium	ND	U	50.0	5.6	ug/L		05/16/24 16:30	05/18/24 11:19	1
Zinc	43.4	J	50.0	22.5	ug/L		05/16/24 16:30	05/18/24 11:19	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	47.3	ug/L		05/16/24 16:30	05/18/24 11:23	1
Antimony	ND		20.0	7.5	ug/L		05/16/24 16:30	05/18/24 11:23	1
Arsenic	ND		15.0	4.1	ug/L		05/16/24 16:30	05/18/24 11:23	1
Barium	19.2	J	200	3.0	ug/L		05/16/24 16:30	05/18/24 11:23	1
Beryllium	ND		5.0	0.60	ug/L		05/16/24 16:30	05/18/24 11:23	1
Cadmium	0.80	J	5.0	0.45	ug/L		05/16/24 16:30	05/18/24 11:23	1
Calcium	277000		5000	307	ug/L		05/16/24 16:30	05/18/24 11:23	1
Chromium	1.0	J	10.0	0.76	ug/L		05/16/24 16:30	05/18/24 11:23	1
Cobalt	1.0	J	10.0	0.75	ug/L		05/16/24 16:30	05/18/24 11:23	1
Copper	3.8	J	25.0	3.5	ug/L		05/16/24 16:30	05/18/24 11:23	1
Iron	ND		200	82.7	ug/L		05/16/24 16:30	05/18/24 11:23	1
Lead	ND		10.0	2.8	ug/L		05/16/24 16:30	05/18/24 11:23	1
Magnesium	111000		5000	259	ug/L		05/16/24 16:30	05/18/24 11:23	1
Manganese	55.6		15.0	2.6	ug/L		05/16/24 16:30	05/18/24 11:23	1
Nickel	5.1	J	40.0	2.2	ug/L		05/16/24 16:30	05/18/24 11:23	1
Potassium	4120	J	5000	557	ug/L		05/16/24 16:30	05/18/24 11:23	1
Selenium	7.0	J	20.0	6.0	ug/L		05/16/24 16:30	05/18/24 11:23	1
Silver	ND		10.0	0.62	ug/L		05/16/24 16:30	05/18/24 11:23	1
Sodium	36700		5000	2110	ug/L		05/16/24 16:30	05/18/24 11:23	1
Thallium	ND		20.0	2.7	ug/L		05/16/24 16:30	05/18/24 11:23	1
Vanadium	ND	U	50.0	5.6	ug/L		05/16/24 16:30	05/18/24 11:23	1
Zinc	ND		50.0	22.5	ug/L		05/16/24 16:30	05/18/24 11:23	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00030	0.000063	mg/L		05/02/24 11:04	05/02/24 17:13	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/02/24 11:04	05/02/24 17:47	1

Client Sample ID: MW05-03-042924
Lab Sample ID: 480-219333-6

Date Collected: 04/29/24 16:00
Matrix: Water
Date Received: 04/29/24 17:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			05/02/24 23:57	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND U		0.010	0.0041	mg/L			05/03/24 00:29	1

Client Sample ID: TB-042924
Lab Sample ID: 480-219333-7

Date Collected: 04/29/24 00:00
Matrix: Water
Date Received: 04/29/24 17:15

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/01/24 15:54	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/01/24 15:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			05/01/24 15:54	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/01/24 15:54	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/01/24 15:54	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/01/24 15:54	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			05/01/24 15:54	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			05/01/24 15:54	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			05/01/24 15:54	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			05/01/24 15:54	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/01/24 15:54	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/01/24 15:54	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			05/01/24 15:54	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			05/01/24 15:54	1
2-Butanone (MEK)	ND		10	1.3	ug/L			05/01/24 15:54	1
2-Hexanone	ND		5.0	1.2	ug/L			05/01/24 15:54	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/01/24 15:54	1
Acetone	ND		10	3.0	ug/L			05/01/24 15:54	1
Benzene	ND		1.0	0.41	ug/L			05/01/24 15:54	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/01/24 15:54	1
Bromoform	ND		1.0	0.26	ug/L			05/01/24 15:54	1
Bromomethane	ND		1.0	0.69	ug/L			05/01/24 15:54	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/01/24 15:54	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/01/24 15:54	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/01/24 15:54	1
Chloroethane	ND		1.0	0.32	ug/L			05/01/24 15:54	1
Chloroform	ND		1.0	0.34	ug/L			05/01/24 15:54	1
Chloromethane	ND		1.0	0.35	ug/L			05/01/24 15:54	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			05/01/24 15:54	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/01/24 15:54	1
Cyclohexane	ND		1.0	0.18	ug/L			05/01/24 15:54	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/01/24 15:54	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/01/24 15:54	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/01/24 15:54	1
Isopropylbenzene	ND		1.0	0.79	ug/L			05/01/24 15:54	1
Methyl acetate	ND		2.5	1.3	ug/L			05/01/24 15:54	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/01/24 15:54	1
Methylcyclohexane	ND		1.0	0.16	ug/L			05/01/24 15:54	1

Client: Ashland LLC
Job ID: 480-219333-1
Project/Site: Tank 75 Analysis

Client Sample ID: TB-042924
Lab Sample ID: 480-219333-7
Date Collected: 04/29/24 00:00
Matrix: Water
Date Received: 04/29/24 17:15

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		1.0	0.44	ug/L			05/01/24 15:54	1
Styrene	ND		1.0	0.73	ug/L			05/01/24 15:54	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/01/24 15:54	1
Toluene	ND		1.0	0.51	ug/L			05/01/24 15:54	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			05/01/24 15:54	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/01/24 15:54	1
Trichloroethene	ND		1.0	0.46	ug/L			05/01/24 15:54	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			05/01/24 15:54	1
Vinyl chloride	ND		1.0	0.90	ug/L			05/01/24 15:54	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/01/24 15:54	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*		*05/01/24 15:54*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*05/01/24 15:54*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*05/01/24 15:54*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*05/01/24 15:54*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*05/01/24 15:54*	*1*

Client Sample ID: MW05-02-043024
Lab Sample ID: 480-219368-1

Date Collected: 04/30/24 09:05
Matrix: Water

Date Received: 04/30/24 15:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/06/24 14:27	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/06/24 14:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			05/06/24 14:27	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/06/24 14:27	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/06/24 14:27	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/06/24 14:27	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			05/06/24 14:27	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			05/06/24 14:27	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			05/06/24 14:27	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			05/06/24 14:27	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/06/24 14:27	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/06/24 14:27	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			05/06/24 14:27	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			05/06/24 14:27	1
2-Butanone (MEK)	ND		10	1.3	ug/L			05/06/24 14:27	1
2-Hexanone	ND		5.0	1.2	ug/L			05/06/24 14:27	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/06/24 14:27	1
Acetone	ND		10	3.0	ug/L			05/06/24 14:27	1
Benzene	ND		1.0	0.41	ug/L			05/06/24 14:27	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/06/24 14:27	1
Bromoform	ND		1.0	0.26	ug/L			05/06/24 14:27	1
Bromomethane	ND		1.0	0.69	ug/L			05/06/24 14:27	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/06/24 14:27	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/06/24 14:27	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/06/24 14:27	1
Chloroethane	ND		1.0	0.32	ug/L			05/06/24 14:27	1
Chloroform	ND		1.0	0.34	ug/L			05/06/24 14:27	1
Chloromethane	ND		1.0	0.35	ug/L			05/06/24 14:27	1
cis-1,2-Dichloroethene	**1.3**		1.0	0.81	ug/L			05/06/24 14:27	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/06/24 14:27	1
Cyclohexane	ND		1.0	0.18	ug/L			05/06/24 14:27	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/06/24 14:27	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/06/24 14:27	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/06/24 14:27	1
Isopropylbenzene	ND		1.0	0.79	ug/L			05/06/24 14:27	1
Methyl acetate	ND		2.5	1.3	ug/L			05/06/24 14:27	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/06/24 14:27	1
Methylcyclohexane	ND		1.0	0.16	ug/L			05/06/24 14:27	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/06/24 14:27	1
Styrene	ND		1.0	0.73	ug/L			05/06/24 14:27	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/06/24 14:27	1
Toluene	ND		1.0	0.51	ug/L			05/06/24 14:27	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			05/06/24 14:27	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/06/24 14:27	1
Trichloroethene	ND		1.0	0.46	ug/L			05/06/24 14:27	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			05/06/24 14:27	1
Vinyl chloride	**0.90**	**J**	1.0	0.90	ug/L			05/06/24 14:27	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/06/24 14:27	1

Client Sample ID: MW05-02-043024
Date Collected: 04/30/24 09:05
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-1
Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A		05/06/24 14:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		05/06/24 14:27	1
4-Bromofluorobenzene (Surr)	98		73 - 120		05/06/24 14:27	1
Dibromofluoromethane (Surr)	102		75 - 123		05/06/24 14:27	1
Toluene-d8 (Surr)	99		80 - 120		05/06/24 14:27	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		05/07/24 09:20	05/09/24 06:54	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		05/07/24 09:20	05/09/24 06:54	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		05/07/24 09:20	05/09/24 06:54	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		05/07/24 09:20	05/09/24 06:54	1
2,4-Dinitrophenol	ND	UJ	10	2.2	ug/L		05/07/24 09:20	05/09/24 06:54	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		05/07/24 09:20	05/09/24 06:54	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		05/07/24 09:20	05/09/24 06:54	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		05/07/24 09:20	05/09/24 06:54	1
2-Chlorophenol	ND		5.0	0.53	ug/L		05/07/24 09:20	05/09/24 06:54	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		05/07/24 09:20	05/09/24 06:54	1
2-Methylphenol	ND		5.0	0.40	ug/L		05/07/24 09:20	05/09/24 06:54	1
2-Nitroaniline	ND		10	0.42	ug/L		05/07/24 09:20	05/09/24 06:54	1
2-Nitrophenol	ND		5.0	0.48	ug/L		05/07/24 09:20	05/09/24 06:54	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		05/07/24 09:20	05/09/24 06:54	1
3-Nitroaniline	ND		10	0.48	ug/L		05/07/24 09:20	05/09/24 06:54	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		05/07/24 09:20	05/09/24 06:54	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		05/07/24 09:20	05/09/24 06:54	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		05/07/24 09:20	05/09/24 06:54	1
4-Chloroaniline	ND		5.0	0.59	ug/L		05/07/24 09:20	05/09/24 06:54	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		05/07/24 09:20	05/09/24 06:54	1
4-Methylphenol	ND		10	0.36	ug/L		05/07/24 09:20	05/09/24 06:54	1
4-Nitroaniline	ND		10	0.25	ug/L		05/07/24 09:20	05/09/24 06:54	1
4-Nitrophenol	ND		10	1.5	ug/L		05/07/24 09:20	05/09/24 06:54	1
Acenaphthene	ND		5.0	0.41	ug/L		05/07/24 09:20	05/09/24 06:54	1
Acenaphthylene	ND		5.0	0.38	ug/L		05/07/24 09:20	05/09/24 06:54	1
Acetophenone	ND		5.0	0.54	ug/L		05/07/24 09:20	05/09/24 06:54	1
Anthracene	ND		5.0	0.28	ug/L		05/07/24 09:20	05/09/24 06:54	1
Atrazine	ND		5.0	0.46	ug/L		05/07/24 09:20	05/09/24 06:54	1
Benzaldehyde	ND		5.0	0.27	ug/L		05/07/24 09:20	05/09/24 06:54	1
Benzo(a)anthracene	ND		5.0	0.36	ug/L		05/07/24 09:20	05/09/24 06:54	1
Benzo(a)pyrene	ND		5.0	0.47	ug/L		05/07/24 09:20	05/09/24 06:54	1
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L		05/07/24 09:20	05/09/24 06:54	1
Benzo(g,h,i)perylene	ND		5.0	0.35	ug/L		05/07/24 09:20	05/09/24 06:54	1
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L		05/07/24 09:20	05/09/24 06:54	1
Biphenyl	ND		5.0	0.65	ug/L		05/07/24 09:20	05/09/24 06:54	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		05/07/24 09:20	05/09/24 06:54	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		05/07/24 09:20	05/09/24 06:54	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		05/07/24 09:20	05/09/24 06:54	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		05/07/24 09:20	05/09/24 06:54	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		05/07/24 09:20	05/09/24 06:54	1

Client Sample ID: MW05-02-043024

Date Collected: 04/30/24 09:05
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-1

Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Caprolactam	ND		5.0	2.2	ug/L		05/07/24 09:20	05/09/24 06:54	1
Carbazole	ND		5.0	0.30	ug/L		05/07/24 09:20	05/09/24 06:54	1
Chrysene	ND		5.0	0.33	ug/L		05/07/24 09:20	05/09/24 06:54	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		05/07/24 09:20	05/09/24 06:54	1
Dibenzofuran	ND		10	0.51	ug/L		05/07/24 09:20	05/09/24 06:54	1
Diethyl phthalate	ND		5.0	0.22	ug/L		05/07/24 09:20	05/09/24 06:54	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		05/07/24 09:20	05/09/24 06:54	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		05/07/24 09:20	05/09/24 06:54	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		05/07/24 09:20	05/09/24 06:54	1
Fluoranthene	ND		5.0	0.40	ug/L		05/07/24 09:20	05/09/24 06:54	1
Fluorene	ND		5.0	0.36	ug/L		05/07/24 09:20	05/09/24 06:54	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		05/07/24 09:20	05/09/24 06:54	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		05/07/24 09:20	05/09/24 06:54	1
Hexachlorocyclopentadiene	ND	UJ	5.0	0.59	ug/L		05/07/24 09:20	05/09/24 06:54	1
Hexachloroethane	ND		5.0	0.59	ug/L		05/07/24 09:20	05/09/24 06:54	1
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L		05/07/24 09:20	05/09/24 06:54	1
Isophorone	ND		5.0	0.43	ug/L		05/07/24 09:20	05/09/24 06:54	1
Naphthalene	ND		5.0	0.76	ug/L		05/07/24 09:20	05/09/24 06:54	1
Nitrobenzene	ND		5.0	0.29	ug/L		05/07/24 09:20	05/09/24 06:54	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		05/07/24 09:20	05/09/24 06:54	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		05/07/24 09:20	05/09/24 06:54	1
Pentachlorophenol	ND		10	2.2	ug/L		05/07/24 09:20	05/09/24 06:54	1
Phenanthrene	ND		5.0	0.44	ug/L		05/07/24 09:20	05/09/24 06:54	1
Phenol	ND		5.0	0.39	ug/L		05/07/24 09:20	05/09/24 06:54	1
Pyrene	ND		5.0	0.34	ug/L		05/07/24 09:20	05/09/24 06:54	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*3.8*	*T J*	*ug/L*		*2.85*	*N/A*	*05/07/24 09:20*	*05/09/24 06:54*	*1*
Unknown	*1.9*	*T J*	*ug/L*		*3.18*	*N/A*	*05/07/24 09:20*	*05/09/24 06:54*	*1*
Unknown	*19*	*T J*	*ug/L*		*5.18*	*N/A*	*05/07/24 09:20*	*05/09/24 06:54*	*1*
Unknown	*2.3*	*T J*	*ug/L*		*7.74*	*N/A*	*05/07/24 09:20*	*05/09/24 06:54*	*1*
Diethyltoluamide	*18*	*T J N*	*ug/L*		*9.46*	*134-62-3*	*05/07/24 09:20*	*05/09/24 06:54*	*1*
Unknown	*2.4*	*T J*	*ug/L*		*12.01*	*N/A*	*05/07/24 09:20*	*05/09/24 06:54*	*1*
Unknown	*1.9*	*T J*	*ug/L*		*12.43*	*N/A*	*05/07/24 09:20*	*05/09/24 06:54*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*105*		*41 - 120*	*05/07/24 09:20*	*05/09/24 06:54*	*1*
2-Fluorobiphenyl	*89*		*48 - 120*	*05/07/24 09:20*	*05/09/24 06:54*	*1*
2-Fluorophenol	*64*		*35 - 120*	*05/07/24 09:20*	*05/09/24 06:54*	*1*
Nitrobenzene-d5	*83*		*46 - 120*	*05/07/24 09:20*	*05/09/24 06:54*	*1*
Phenol-d5	*49*		*22 - 120*	*05/07/24 09:20*	*05/09/24 06:54*	*1*
p-Terphenyl-d14	*78*		*60 - 148*	*05/07/24 09:20*	*05/09/24 06:54*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.20	0.021	ug/L		05/07/24 08:43	05/08/24 18:52	1
4,4'-DDE	ND		0.20	0.017	ug/L		05/07/24 08:43	05/08/24 18:52	1
4,4'-DDT	ND		0.20	0.019	ug/L		05/07/24 08:43	05/08/24 18:52	1
Aldrin	ND		0.20	0.026	ug/L		05/07/24 08:43	05/08/24 18:52	1
alpha-BHC	ND		0.20	0.021	ug/L		05/07/24 08:43	05/08/24 18:52	1

Client Sample ID: MW05-02-043024
Lab Sample ID: 480-219368-1

Date Collected: 04/30/24 09:05
Matrix: Water
Date Received: 04/30/24 15:00

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-Chlordane	ND		0.20	0.028	ug/L		05/07/24 08:43	05/08/24 18:52	1
beta-BHC	ND		0.20	0.037	ug/L		05/07/24 08:43	05/08/24 18:52	1
delta-BHC	ND		0.20	0.017	ug/L		05/07/24 08:43	05/08/24 18:52	1
Dieldrin	ND		0.20	0.026	ug/L		05/07/24 08:43	05/08/24 18:52	1
Endosulfan I	ND		0.20	0.015	ug/L		05/07/24 08:43	05/08/24 18:52	1
Endosulfan II	ND		0.20	0.025	ug/L		05/07/24 08:43	05/08/24 18:52	1
Endosulfan sulfate	ND		0.20	0.015	ug/L		05/07/24 08:43	05/08/24 18:52	1
Endrin	ND		0.20	0.026	ug/L		05/07/24 08:43	05/08/24 18:52	1
Endrin aldehyde	ND		0.20	0.018	ug/L		05/07/24 08:43	05/08/24 18:52	1
Endrin ketone	ND		0.20	0.016	ug/L		05/07/24 08:43	05/08/24 18:52	1
gamma-BHC (Lindane)	ND		0.20	0.024	ug/L		05/07/24 08:43	05/08/24 18:52	1
trans-Chlordane	ND		0.20	0.020	ug/L		05/07/24 08:43	05/08/24 18:52	1
Heptachlor	ND		0.20	0.033	ug/L		05/07/24 08:43	05/08/24 18:52	1
Heptachlor epoxide	ND		0.20	0.026	ug/L		05/07/24 08:43	05/08/24 18:52	1
Methoxychlor	ND		0.40	0.019	ug/L		05/07/24 08:43	05/08/24 18:52	1
Toxaphene	ND		8.0	0.23	ug/L		05/07/24 08:43	05/08/24 18:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*66*		*10 - 145*	*05/07/24 08:43*	*05/08/24 18:52*	*1*
DCB Decachlorobiphenyl	*68*		*10 - 145*	*05/07/24 08:43*	*05/08/24 18:52*	*1*
Tetrachloro-m-xylene	*62*		*10 - 123*	*05/07/24 08:43*	*05/08/24 18:52*	*1*
Tetrachloro-m-xylene	*60*		*10 - 123*	*05/07/24 08:43*	*05/08/24 18:52*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.52	0.18	ug/L		05/01/24 13:50	05/03/24 01:02	1
PCB-1221	ND		0.52	0.18	ug/L		05/01/24 13:50	05/03/24 01:02	1
PCB-1232	ND		0.52	0.18	ug/L		05/01/24 13:50	05/03/24 01:02	1
PCB-1242	ND		0.52	0.18	ug/L		05/01/24 13:50	05/03/24 01:02	1
PCB-1248	ND		0.52	0.18	ug/L		05/01/24 13:50	05/03/24 01:02	1
PCB-1254	ND		0.52	0.26	ug/L		05/01/24 13:50	05/03/24 01:02	1
PCB-1260	ND		0.52	0.26	ug/L		05/01/24 13:50	05/03/24 01:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*66*		*19 - 120*	*05/01/24 13:50*	*05/03/24 01:02*	*1*
DCB Decachlorobiphenyl	*61*		*19 - 120*	*05/01/24 13:50*	*05/03/24 01:02*	*1*
Tetrachloro-m-xylene	*89*		*39 - 121*	*05/01/24 13:50*	*05/03/24 01:02*	*1*
Tetrachloro-m-xylene	*83*		*39 - 121*	*05/01/24 13:50*	*05/03/24 01:02*	*1*

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**2220**		200	47.3	ug/L		05/04/24 10:00	05/06/24 19:35	1
Antimony	ND		20.0	7.5	ug/L		05/04/24 10:00	05/06/24 19:35	1
Arsenic	ND		15.0	4.1	ug/L		05/04/24 10:00	05/06/24 19:35	1
Barium	**60.3**	**J**	200	3.0	ug/L		05/04/24 10:00	05/06/24 19:35	1
Beryllium	ND		5.0	0.60	ug/L		05/04/24 10:00	05/06/24 19:35	1
Cadmium	**0.95**	**J**	5.0	0.45	ug/L		05/04/24 10:00	05/06/24 19:35	1
Calcium	**81700**		5000	307	ug/L		05/04/24 10:00	05/06/24 19:35	1
Chromium	**3.9**	**J**	10.0	0.76	ug/L		05/04/24 10:00	05/06/24 19:35	1
Cobalt	**1.9**	**J**	10.0	0.75	ug/L		05/04/24 10:00	05/06/24 19:35	1

Client Sample ID: MW05-02-043024
Lab Sample ID: 480-219368-1

Date Collected: 04/30/24 09:05
Matrix: Water
Date Received: 04/30/24 15:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		25.0	3.5	ug/L		05/04/24 10:00	05/06/24 19:35	1
Iron	**2580**		200	82.7	ug/L		05/04/24 10:00	05/06/24 19:35	1
Lead	**3.3**	**J**	10.0	2.8	ug/L		05/04/24 10:00	05/06/24 19:35	1
Magnesium	**142000**		5000	259	ug/L		05/04/24 10:00	05/06/24 19:35	1
Manganese	**68.0**		15.0	2.6	ug/L		05/04/24 10:00	05/06/24 19:35	1
Nickel	**4.4**	**J**	40.0	2.2	ug/L		05/04/24 10:00	05/06/24 19:35	1
Potassium	**4410**	**J**	5000	557	ug/L		05/04/24 10:00	05/06/24 19:35	1
Selenium	ND		20.0	6.0	ug/L		05/04/24 10:00	05/06/24 19:35	1
Silver	ND		10.0	0.62	ug/L		05/04/24 10:00	05/06/24 19:35	1
Sodium	**50800**	J+	5000	2110	ug/L		05/04/24 10:00	05/06/24 19:35	1
Thallium	ND		20.0	2.7	ug/L		05/04/24 10:00	05/06/24 19:35	1
Vanadium	**9.7**	**J**	50.0	5.6	ug/L		05/04/24 10:00	05/06/24 19:35	1
Zinc	ND		50.0	22.5	ug/L		05/04/24 10:00	05/06/24 19:35	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	47.3	ug/L		05/04/24 10:00	05/06/24 19:39	1
Antimony	ND		20.0	7.5	ug/L		05/04/24 10:00	05/06/24 19:39	1
Arsenic	ND		15.0	4.1	ug/L		05/04/24 10:00	05/06/24 19:39	1
Barium	**49.0**	**J**	200	3.0	ug/L		05/04/24 10:00	05/06/24 19:39	1
Beryllium	ND		5.0	0.60	ug/L		05/04/24 10:00	05/06/24 19:39	1
Cadmium	**0.88**	**J**	5.0	0.45	ug/L		05/04/24 10:00	05/06/24 19:39	1
Calcium	**78900**		5000	307	ug/L		05/04/24 10:00	05/06/24 19:39	1
Chromium	**1.3**	**J**	10.0	0.76	ug/L		05/04/24 10:00	05/06/24 19:39	1
Cobalt	ND		10.0	0.75	ug/L		05/04/24 10:00	05/06/24 19:39	1
Copper	ND		25.0	3.5	ug/L		05/04/24 10:00	05/06/24 19:39	1
Iron	ND		200	82.7	ug/L		05/04/24 10:00	05/06/24 19:39	1
Lead	ND		10.0	2.8	ug/L		05/04/24 10:00	05/06/24 19:39	1
Magnesium	**141000**		5000	259	ug/L		05/04/24 10:00	05/06/24 19:39	1
Manganese	**12.4**	**J**	15.0	2.6	ug/L		05/04/24 10:00	05/06/24 19:39	1
Nickel	ND		40.0	2.2	ug/L		05/04/24 10:00	05/06/24 19:39	1
Potassium	**3610**	**J**	5000	557	ug/L		05/04/24 10:00	05/06/24 19:39	1
Selenium	ND		20.0	6.0	ug/L		05/04/24 10:00	05/06/24 19:39	1
Silver	**0.85**	**J**	10.0	0.62	ug/L		05/04/24 10:00	05/06/24 19:39	1
Sodium	**50700**		5000	2110	ug/L		05/04/24 10:00	05/06/24 19:39	1
Thallium	ND		20.0	2.7	ug/L		05/04/24 10:00	05/06/24 19:39	1
Vanadium	**12.8**	**J**	50.0	5.6	ug/L		05/04/24 10:00	05/06/24 19:39	1
Zinc	ND		50.0	22.5	ug/L		05/04/24 10:00	05/06/24 19:39	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/08/24 10:01	05/08/24 14:49	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/09/24 10:31	05/09/24 17:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			05/03/24 00:37	1

Client Sample ID: MW05-02-043024
Lab Sample ID: 480-219368-1

Date Collected: 04/30/24 09:05
Matrix: Water
Date Received: 04/30/24 15:00

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	0.013	J+	0.010	0.0041	mg/L			05/08/24 19:34	1

Client Sample ID: MW-04S-043024
Lab Sample ID: 480-219368-2

Date Collected: 04/30/24 10:35
Matrix: Water
Date Received: 04/30/24 15:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/06/24 14:49	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/06/24 14:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			05/06/24 14:49	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/06/24 14:49	1
1,1-Dichloroethane	0.61	J	1.0	0.38	ug/L			05/06/24 14:49	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/06/24 14:49	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			05/06/24 14:49	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			05/06/24 14:49	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			05/06/24 14:49	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			05/06/24 14:49	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/06/24 14:49	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/06/24 14:49	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			05/06/24 14:49	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			05/06/24 14:49	1
2-Butanone (MEK)	ND		10	1.3	ug/L			05/06/24 14:49	1
2-Hexanone	ND		5.0	1.2	ug/L			05/06/24 14:49	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/06/24 14:49	1
Acetone	ND		10	3.0	ug/L			05/06/24 14:49	1
Benzene	ND		1.0	0.41	ug/L			05/06/24 14:49	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/06/24 14:49	1
Bromoform	ND		1.0	0.26	ug/L			05/06/24 14:49	1
Bromomethane	ND		1.0	0.69	ug/L			05/06/24 14:49	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/06/24 14:49	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/06/24 14:49	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/06/24 14:49	1
Chloroethane	ND		1.0	0.32	ug/L			05/06/24 14:49	1
Chloroform	ND		1.0	0.34	ug/L			05/06/24 14:49	1
Chloromethane	ND		1.0	0.35	ug/L			05/06/24 14:49	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			05/06/24 14:49	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/06/24 14:49	1
Cyclohexane	ND		1.0	0.18	ug/L			05/06/24 14:49	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/06/24 14:49	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/06/24 14:49	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/06/24 14:49	1
Isopropylbenzene	ND		1.0	0.79	ug/L			05/06/24 14:49	1
Methyl acetate	ND		2.5	1.3	ug/L			05/06/24 14:49	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/06/24 14:49	1
Methylcyclohexane	ND		1.0	0.16	ug/L			05/06/24 14:49	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/06/24 14:49	1
Styrene	ND		1.0	0.73	ug/L			05/06/24 14:49	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/06/24 14:49	1
Toluene	ND		1.0	0.51	ug/L			05/06/24 14:49	1

Client Sample ID: MW-04S-043024

Date Collected: 04/30/24 10:35
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-2

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			05/06/24 14:49	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/06/24 14:49	1
Trichloroethene	ND		1.0	0.46	ug/L			05/06/24 14:49	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			05/06/24 14:49	1
Vinyl chloride	ND		1.0	0.90	ug/L			05/06/24 14:49	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/06/24 14:49	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*		*05/06/24 14:49*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*77 - 120*		*05/06/24 14:49*	*1*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*05/06/24 14:49*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*05/06/24 14:49*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*05/06/24 14:49*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		6.0	0.57	ug/L		05/07/24 09:20	05/09/24 07:22	1
2,4,6-Trichlorophenol	ND		6.0	0.73	ug/L		05/07/24 09:20	05/09/24 07:22	1
2,4-Dichlorophenol	ND		6.0	0.61	ug/L		05/07/24 09:20	05/09/24 07:22	1
2,4-Dimethylphenol	ND		6.0	0.60	ug/L		05/07/24 09:20	05/09/24 07:22	1
2,4-Dinitrophenol	ND	UJ	12	2.6	ug/L		05/07/24 09:20	05/09/24 07:22	1
2,4-Dinitrotoluene	ND		6.0	0.53	ug/L		05/07/24 09:20	05/09/24 07:22	1
2,6-Dinitrotoluene	ND		6.0	0.48	ug/L		05/07/24 09:20	05/09/24 07:22	1
2-Chloronaphthalene	ND		6.0	0.55	ug/L		05/07/24 09:20	05/09/24 07:22	1
2-Chlorophenol	ND		6.0	0.63	ug/L		05/07/24 09:20	05/09/24 07:22	1
2-Methylnaphthalene	ND		6.0	0.71	ug/L		05/07/24 09:20	05/09/24 07:22	1
2-Methylphenol	ND		6.0	0.48	ug/L		05/07/24 09:20	05/09/24 07:22	1
2-Nitroaniline	ND		12	0.50	ug/L		05/07/24 09:20	05/09/24 07:22	1
2-Nitrophenol	ND		6.0	0.57	ug/L		05/07/24 09:20	05/09/24 07:22	1
3,3'-Dichlorobenzidine	ND		6.0	0.48	ug/L		05/07/24 09:20	05/09/24 07:22	1
3-Nitroaniline	ND		12	0.57	ug/L		05/07/24 09:20	05/09/24 07:22	1
4,6-Dinitro-2-methylphenol	ND		12	2.6	ug/L		05/07/24 09:20	05/09/24 07:22	1
4-Bromophenyl phenyl ether	ND		6.0	0.54	ug/L		05/07/24 09:20	05/09/24 07:22	1
4-Chloro-3-methylphenol	ND		6.0	0.54	ug/L		05/07/24 09:20	05/09/24 07:22	1
4-Chloroaniline	ND		6.0	0.70	ug/L		05/07/24 09:20	05/09/24 07:22	1
4-Chlorophenyl phenyl ether	ND		6.0	0.42	ug/L		05/07/24 09:20	05/09/24 07:22	1
4-Methylphenol	ND		12	0.43	ug/L		05/07/24 09:20	05/09/24 07:22	1
4-Nitroaniline	ND		12	0.30	ug/L		05/07/24 09:20	05/09/24 07:22	1
4-Nitrophenol	ND		12	1.8	ug/L		05/07/24 09:20	05/09/24 07:22	1
Acenaphthene	ND		6.0	0.49	ug/L		05/07/24 09:20	05/09/24 07:22	1
Acenaphthylene	ND		6.0	0.45	ug/L		05/07/24 09:20	05/09/24 07:22	1
Acetophenone	ND		6.0	0.64	ug/L		05/07/24 09:20	05/09/24 07:22	1
Anthracene	ND		6.0	0.33	ug/L		05/07/24 09:20	05/09/24 07:22	1
Atrazine	ND		6.0	0.55	ug/L		05/07/24 09:20	05/09/24 07:22	1
Benzaldehyde	ND		6.0	0.32	ug/L		05/07/24 09:20	05/09/24 07:22	1
Benzo(a)anthracene	ND		6.0	0.43	ug/L		05/07/24 09:20	05/09/24 07:22	1
Benzo(a)pyrene	ND		6.0	0.56	ug/L		05/07/24 09:20	05/09/24 07:22	1
Benzo(b)fluoranthene	ND		6.0	0.40	ug/L		05/07/24 09:20	05/09/24 07:22	1

Client Sample ID: MW-04S-043024
Lab Sample ID: 480-219368-2

Date Collected: 04/30/24 10:35
Matrix: Water

Date Received: 04/30/24 15:00

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo(g,h,i)perylene	ND		6.0	0.42	ug/L		05/07/24 09:20	05/09/24 07:22	1
Benzo(k)fluoranthene	ND		6.0	0.87	ug/L		05/07/24 09:20	05/09/24 07:22	1
Biphenyl	ND		6.0	0.78	ug/L		05/07/24 09:20	05/09/24 07:22	1
bis (2-chloroisopropyl) ether	ND		6.0	0.62	ug/L		05/07/24 09:20	05/09/24 07:22	1
Bis(2-chloroethoxy)methane	ND		6.0	0.42	ug/L		05/07/24 09:20	05/09/24 07:22	1
Bis(2-chloroethyl)ether	ND		6.0	0.48	ug/L		05/07/24 09:20	05/09/24 07:22	1
Bis(2-ethylhexyl) phthalate	ND		6.0	2.6	ug/L		05/07/24 09:20	05/09/24 07:22	1
Butyl benzyl phthalate	ND		6.0	1.2	ug/L		05/07/24 09:20	05/09/24 07:22	1
Caprolactam	ND		6.0	2.6	ug/L		05/07/24 09:20	05/09/24 07:22	1
Carbazole	ND		6.0	0.36	ug/L		05/07/24 09:20	05/09/24 07:22	1
Chrysene	ND		6.0	0.39	ug/L		05/07/24 09:20	05/09/24 07:22	1
Dibenz(a,h)anthracene	ND		6.0	0.50	ug/L		05/07/24 09:20	05/09/24 07:22	1
Dibenzofuran	ND		12	0.61	ug/L		05/07/24 09:20	05/09/24 07:22	1
Diethyl phthalate	ND		6.0	0.26	ug/L		05/07/24 09:20	05/09/24 07:22	1
Dimethyl phthalate	ND		6.0	0.43	ug/L		05/07/24 09:20	05/09/24 07:22	1
Di-n-butyl phthalate	ND		6.0	0.37	ug/L		05/07/24 09:20	05/09/24 07:22	1
Di-n-octyl phthalate	ND		6.0	0.56	ug/L		05/07/24 09:20	05/09/24 07:22	1
Fluoranthene	ND		6.0	0.48	ug/L		05/07/24 09:20	05/09/24 07:22	1
Fluorene	ND		6.0	0.43	ug/L		05/07/24 09:20	05/09/24 07:22	1
Hexachlorobenzene	ND		6.0	0.61	ug/L		05/07/24 09:20	05/09/24 07:22	1
Hexachlorobutadiene	ND		6.0	0.81	ug/L		05/07/24 09:20	05/09/24 07:22	1
Hexachlorocyclopentadiene	ND	UJ	6.0	0.70	ug/L		05/07/24 09:20	05/09/24 07:22	1
Hexachloroethane	ND		6.0	0.70	ug/L		05/07/24 09:20	05/09/24 07:22	1
Indeno(1,2,3-cd)pyrene	ND		6.0	0.56	ug/L		05/07/24 09:20	05/09/24 07:22	1
Isophorone	ND		6.0	0.51	ug/L		05/07/24 09:20	05/09/24 07:22	1
Naphthalene	ND		6.0	0.90	ug/L		05/07/24 09:20	05/09/24 07:22	1
Nitrobenzene	ND		6.0	0.35	ug/L		05/07/24 09:20	05/09/24 07:22	1
N-Nitrosodi-n-propylamine	ND		6.0	0.64	ug/L		05/07/24 09:20	05/09/24 07:22	1
N-Nitrosodiphenylamine	ND		6.0	0.61	ug/L		05/07/24 09:20	05/09/24 07:22	1
Pentachlorophenol	ND		12	2.6	ug/L		05/07/24 09:20	05/09/24 07:22	1
Phenanthrene	ND		6.0	0.52	ug/L		05/07/24 09:20	05/09/24 07:22	1
Phenol	ND		6.0	0.46	ug/L		05/07/24 09:20	05/09/24 07:22	1
Pyrene	ND		6.0	0.40	ug/L		05/07/24 09:20	05/09/24 07:22	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*5.4*	*T J*	*ug/L*		*2.84*	*N/A*	*05/07/24 09:20*	*05/09/24 07:22*	*1*
Unknown	*2.5*	*T J*	*ug/L*		*3.18*	*N/A*	*05/07/24 09:20*	*05/09/24 07:22*	*1*
Chloroiodomethane	*6.4*	*T J N*	*ug/L*		*4.03*	*593-71-5*	*05/07/24 09:20*	*05/09/24 07:22*	*1*
Unknown	*20*	*T J*	*ug/L*		*5.18*	*N/A*	*05/07/24 09:20*	*05/09/24 07:22*	*1*
Thiophene, tetrahydro-, 1,1-dioxide	*23*	*T J N*	*ug/L*		*7.75*	*126-33-0*	*05/07/24 09:20*	*05/09/24 07:22*	*1*
Unknown	*2.6*	*T J*	*ug/L*		*9.46*	*N/A*	*05/07/24 09:20*	*05/09/24 07:22*	*1*
Unknown	*3.1*	*T J*	*ug/L*		*10.79*	*N/A*	*05/07/24 09:20*	*05/09/24 07:22*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*116*		*41 - 120*	*05/07/24 09:20*	*05/09/24 07:22*	*1*
2-Fluorobiphenyl	*93*		*48 - 120*	*05/07/24 09:20*	*05/09/24 07:22*	*1*
2-Fluorophenol	*71*		*35 - 120*	*05/07/24 09:20*	*05/09/24 07:22*	*1*
Nitrobenzene-d5	*85*		*46 - 120*	*05/07/24 09:20*	*05/09/24 07:22*	*1*
Phenol-d5	*58*		*22 - 120*	*05/07/24 09:20*	*05/09/24 07:22*	*1*
p-Terphenyl-d14	*83*		*60 - 148*	*05/07/24 09:20*	*05/09/24 07:22*	*1*

Client Sample ID: MW-04S-043024
Lab Sample ID: 480-219368-2

Date Collected: 04/30/24 10:35
Matrix: Water

Date Received: 04/30/24 15:00

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.21	0.022	ug/L		05/07/24 08:43	05/08/24 19:07	1
4,4'-DDE	ND		0.21	0.018	ug/L		05/07/24 08:43	05/08/24 19:07	1
4,4'-DDT	ND		0.21	0.020	ug/L		05/07/24 08:43	05/08/24 19:07	1
Aldrin	ND		0.21	0.027	ug/L		05/07/24 08:43	05/08/24 19:07	1
alpha-BHC	ND		0.21	0.022	ug/L		05/07/24 08:43	05/08/24 19:07	1
cis-Chlordane	ND		0.21	0.029	ug/L		05/07/24 08:43	05/08/24 19:07	1
beta-BHC	ND		0.21	0.039	ug/L		05/07/24 08:43	05/08/24 19:07	1
delta-BHC	ND		0.21	0.018	ug/L		05/07/24 08:43	05/08/24 19:07	1
Dieldrin	ND		0.21	0.027	ug/L		05/07/24 08:43	05/08/24 19:07	1
Endosulfan I	ND		0.21	0.015	ug/L		05/07/24 08:43	05/08/24 19:07	1
Endosulfan II	ND		0.21	0.026	ug/L		05/07/24 08:43	05/08/24 19:07	1
Endosulfan sulfate	ND		0.21	0.015	ug/L		05/07/24 08:43	05/08/24 19:07	1
Endrin	ND		0.21	0.027	ug/L		05/07/24 08:43	05/08/24 19:07	1
Endrin aldehyde	ND		0.21	0.019	ug/L		05/07/24 08:43	05/08/24 19:07	1
Endrin ketone	ND		0.21	0.017	ug/L		05/07/24 08:43	05/08/24 19:07	1
gamma-BHC (Lindane)	ND		0.21	0.025	ug/L		05/07/24 08:43	05/08/24 19:07	1
trans-Chlordane	ND		0.21	0.021	ug/L		05/07/24 08:43	05/08/24 19:07	1
Heptachlor	ND		0.21	0.034	ug/L		05/07/24 08:43	05/08/24 19:07	1
Heptachlor epoxide	ND		0.21	0.027	ug/L		05/07/24 08:43	05/08/24 19:07	1
Methoxychlor	ND		0.42	0.020	ug/L		05/07/24 08:43	05/08/24 19:07	1
Toxaphene	ND		8.3	0.24	ug/L		05/07/24 08:43	05/08/24 19:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*73*		*10 - 145*	*05/07/24 08:43*	*05/08/24 19:07*	*1*
DCB Decachlorobiphenyl	*73*		*10 - 145*	*05/07/24 08:43*	*05/08/24 19:07*	*1*
Tetrachloro-m-xylene	*65*		*10 - 123*	*05/07/24 08:43*	*05/08/24 19:07*	*1*
Tetrachloro-m-xylene	*63*		*10 - 123*	*05/07/24 08:43*	*05/08/24 19:07*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.52	0.18	ug/L		05/01/24 13:50	05/03/24 01:19	1
PCB-1221	ND		0.52	0.18	ug/L		05/01/24 13:50	05/03/24 01:19	1
PCB-1232	ND		0.52	0.18	ug/L		05/01/24 13:50	05/03/24 01:19	1
PCB-1242	ND		0.52	0.18	ug/L		05/01/24 13:50	05/03/24 01:19	1
PCB-1248	ND		0.52	0.18	ug/L		05/01/24 13:50	05/03/24 01:19	1
PCB-1254	ND		0.52	0.26	ug/L		05/01/24 13:50	05/03/24 01:19	1
PCB-1260	ND		0.52	0.26	ug/L		05/01/24 13:50	05/03/24 01:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*84*		*19 - 120*	*05/01/24 13:50*	*05/03/24 01:19*	*1*
DCB Decachlorobiphenyl	*82*		*19 - 120*	*05/01/24 13:50*	*05/03/24 01:19*	*1*
Tetrachloro-m-xylene	*97*		*39 - 121*	*05/01/24 13:50*	*05/03/24 01:19*	*1*
Tetrachloro-m-xylene	*92*		*39 - 121*	*05/01/24 13:50*	*05/03/24 01:19*	*1*

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	47.3	ug/L		05/04/24 10:00	05/06/24 19:43	1
Antimony	ND		20.0	7.5	ug/L		05/04/24 10:00	05/06/24 19:43	1
Arsenic	ND		15.0	4.1	ug/L		05/04/24 10:00	05/06/24 19:43	1
Barium	**47.6**	**J**	200	3.0	ug/L		05/04/24 10:00	05/06/24 19:43	1

Client Sample ID: MW-04S-043024
Lab Sample ID: 480-219368-2

Date Collected: 04/30/24 10:35
Matrix: Water

Date Received: 04/30/24 15:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		5.0	0.60	ug/L		05/04/24 10:00	05/06/24 19:43	1
Cadmium	**3.3**	**J**	5.0	0.45	ug/L		05/04/24 10:00	05/06/24 19:43	1
Calcium	**73100**		5000	307	ug/L		05/04/24 10:00	05/06/24 19:43	1
Chromium	**0.83**	**J**	10.0	0.76	ug/L		05/04/24 10:00	05/06/24 19:43	1
Cobalt	**5.9**	**J**	10.0	0.75	ug/L		05/04/24 10:00	05/06/24 19:43	1
Copper	ND		25.0	3.5	ug/L		05/04/24 10:00	05/06/24 19:43	1
Iron	**117**	**J**	200	82.7	ug/L		05/04/24 10:00	05/06/24 19:43	1
Lead	ND		10.0	2.8	ug/L		05/04/24 10:00	05/06/24 19:43	1
Magnesium	**155000**		5000	259	ug/L		05/04/24 10:00	05/06/24 19:43	1
Manganese	**26.2**		15.0	2.6	ug/L		05/04/24 10:00	05/06/24 19:43	1
Nickel	**19.8**	**J**	40.0	2.2	ug/L		05/04/24 10:00	05/06/24 19:43	1
Potassium	**4090**	**J**	5000	557	ug/L		05/04/24 10:00	05/06/24 19:43	1
Selenium	ND		20.0	6.0	ug/L		05/04/24 10:00	05/06/24 19:43	1
Silver	ND		10.0	0.62	ug/L		05/04/24 10:00	05/06/24 19:43	1
Sodium	**50300**	J+	5000	2110	ug/L		05/04/24 10:00	05/06/24 19:43	1
Thallium	ND		20.0	2.7	ug/L		05/04/24 10:00	05/06/24 19:43	1
Vanadium	ND		50.0	5.6	ug/L		05/04/24 10:00	05/06/24 19:43	1
Zinc	ND		50.0	22.5	ug/L		05/04/24 10:00	05/06/24 19:43	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	47.3	ug/L		05/04/24 10:00	05/06/24 19:48	1
Antimony	ND		20.0	7.5	ug/L		05/04/24 10:00	05/06/24 19:48	1
Arsenic	**4.4**	**J**	15.0	4.1	ug/L		05/04/24 10:00	05/06/24 19:48	1
Barium	**47.9**	**J**	200	3.0	ug/L		05/04/24 10:00	05/06/24 19:48	1
Beryllium	ND		5.0	0.60	ug/L		05/04/24 10:00	05/06/24 19:48	1
Cadmium	**3.0**	**J**	5.0	0.45	ug/L		05/04/24 10:00	05/06/24 19:48	1
Calcium	**73000**		5000	307	ug/L		05/04/24 10:00	05/06/24 19:48	1
Chromium	**0.83**	**J**	10.0	0.76	ug/L		05/04/24 10:00	05/06/24 19:48	1
Cobalt	**5.5**	**J**	10.0	0.75	ug/L		05/04/24 10:00	05/06/24 19:48	1
Copper	ND		25.0	3.5	ug/L		05/04/24 10:00	05/06/24 19:48	1
Iron	ND		200	82.7	ug/L		05/04/24 10:00	05/06/24 19:48	1
Lead	ND		10.0	2.8	ug/L		05/04/24 10:00	05/06/24 19:48	1
Magnesium	**157000**		5000	259	ug/L		05/04/24 10:00	05/06/24 19:48	1
Manganese	**22.3**		15.0	2.6	ug/L		05/04/24 10:00	05/06/24 19:48	1
Nickel	**19.9**	**J**	40.0	2.2	ug/L		05/04/24 10:00	05/06/24 19:48	1
Potassium	**4160**	**J**	5000	557	ug/L		05/04/24 10:00	05/06/24 19:48	1
Selenium	ND		20.0	6.0	ug/L		05/04/24 10:00	05/06/24 19:48	1
Silver	**0.86**	**J**	10.0	0.62	ug/L		05/04/24 10:00	05/06/24 19:48	1
Sodium	**51500**		5000	2110	ug/L		05/04/24 10:00	05/06/24 19:48	1
Thallium	ND		20.0	2.7	ug/L		05/04/24 10:00	05/06/24 19:48	1
Vanadium	**9.4**	**J**	50.0	5.6	ug/L		05/04/24 10:00	05/06/24 19:48	1
Zinc	ND		50.0	22.5	ug/L		05/04/24 10:00	05/06/24 19:48	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/08/24 10:01	05/08/24 14:51	1

Client Sample ID: MW-04S-043024
Lab Sample ID: 480-219368-2

Date Collected: 04/30/24 10:35
Matrix: Water
Date Received: 04/30/24 15:00

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/09/24 10:31	05/09/24 17:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			05/03/24 00:40	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			05/03/24 01:12	1

Client Sample ID: TB-043024
Lab Sample ID: 480-219368-3

Date Collected: 04/30/24 00:00
Matrix: Water
Date Received: 04/30/24 15:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/02/24 21:34	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/02/24 21:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			05/02/24 21:34	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/02/24 21:34	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/02/24 21:34	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/02/24 21:34	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			05/02/24 21:34	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			05/02/24 21:34	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			05/02/24 21:34	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			05/02/24 21:34	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/02/24 21:34	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/02/24 21:34	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			05/02/24 21:34	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			05/02/24 21:34	1
2-Butanone (MEK)	ND		10	1.3	ug/L			05/02/24 21:34	1
2-Hexanone	ND		5.0	1.2	ug/L			05/02/24 21:34	1
4-Methyl-2-pentanone (MIBK)	ND	UJ	5.0	2.1	ug/L			05/02/24 21:34	1
Acetone	ND		10	3.0	ug/L			05/02/24 21:34	1
Benzene	ND		1.0	0.41	ug/L			05/02/24 21:34	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/02/24 21:34	1
Bromoform	ND		1.0	0.26	ug/L			05/02/24 21:34	1
Bromomethane	ND		1.0	0.69	ug/L			05/02/24 21:34	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/02/24 21:34	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/02/24 21:34	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/02/24 21:34	1
Chloroethane	ND		1.0	0.32	ug/L			05/02/24 21:34	1
Chloroform	ND		1.0	0.34	ug/L			05/02/24 21:34	1
Chloromethane	ND		1.0	0.35	ug/L			05/02/24 21:34	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			05/02/24 21:34	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/02/24 21:34	1
Cyclohexane	ND		1.0	0.18	ug/L			05/02/24 21:34	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/02/24 21:34	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/02/24 21:34	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/02/24 21:34	1

Client Sample ID: TB-043024

Date Collected: 04/30/24 00:00
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-3

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.0	0.79	ug/L			05/02/24 21:34	1
Methyl acetate	ND		2.5	1.3	ug/L			05/02/24 21:34	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/02/24 21:34	1
Methylcyclohexane	ND		1.0	0.16	ug/L			05/02/24 21:34	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/02/24 21:34	1
Styrene	ND		1.0	0.73	ug/L			05/02/24 21:34	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/02/24 21:34	1
Toluene	ND		1.0	0.51	ug/L			05/02/24 21:34	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			05/02/24 21:34	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/02/24 21:34	1
Trichloroethene	ND		1.0	0.46	ug/L			05/02/24 21:34	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			05/02/24 21:34	1
Vinyl chloride	ND		1.0	0.90	ug/L			05/02/24 21:34	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/02/24 21:34	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*		*05/02/24 21:34*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*77 - 120*		*05/02/24 21:34*	*1*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*05/02/24 21:34*	*1*
Dibromofluoromethane (Surr)	*118*		*75 - 123*		*05/02/24 21:34*	*1*
Toluene-d8 (Surr)	*92*		*80 - 120*		*05/02/24 21:34*	*1*

Client Sample ID: MW-04D-043024

Date Collected: 04/30/24 11:35
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-4

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/02/24 21:56	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/02/24 21:56	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			05/02/24 21:56	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/02/24 21:56	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/02/24 21:56	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/02/24 21:56	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			05/02/24 21:56	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			05/02/24 21:56	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			05/02/24 21:56	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			05/02/24 21:56	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/02/24 21:56	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/02/24 21:56	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			05/02/24 21:56	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			05/02/24 21:56	1
2-Butanone (MEK)	ND		10	1.3	ug/L			05/02/24 21:56	1
2-Hexanone	ND		5.0	1.2	ug/L			05/02/24 21:56	1
4-Methyl-2-pentanone (MIBK)	ND	UJ	5.0	2.1	ug/L			05/02/24 21:56	1
Acetone	ND		10	3.0	ug/L			05/02/24 21:56	1
Benzene	ND		1.0	0.41	ug/L			05/02/24 21:56	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/02/24 21:56	1

Client Sample ID: MW-04D-043024
Lab Sample ID: 480-219368-4

Date Collected: 04/30/24 11:35
Matrix: Water

Date Received: 04/30/24 15:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	ND		1.0	0.26	ug/L			05/02/24 21:56	1
Bromomethane	ND		1.0	0.69	ug/L			05/02/24 21:56	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/02/24 21:56	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/02/24 21:56	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/02/24 21:56	1
Chloroethane	ND		1.0	0.32	ug/L			05/02/24 21:56	1
Chloroform	ND		1.0	0.34	ug/L			05/02/24 21:56	1
Chloromethane	ND		1.0	0.35	ug/L			05/02/24 21:56	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			05/02/24 21:56	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/02/24 21:56	1
Cyclohexane	ND		1.0	0.18	ug/L			05/02/24 21:56	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/02/24 21:56	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/02/24 21:56	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/02/24 21:56	1
Isopropylbenzene	ND		1.0	0.79	ug/L			05/02/24 21:56	1
Methyl acetate	ND		2.5	1.3	ug/L			05/02/24 21:56	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/02/24 21:56	1
Methylcyclohexane	ND		1.0	0.16	ug/L			05/02/24 21:56	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/02/24 21:56	1
Styrene	ND		1.0	0.73	ug/L			05/02/24 21:56	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/02/24 21:56	1
Toluene	ND		1.0	0.51	ug/L			05/02/24 21:56	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			05/02/24 21:56	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/02/24 21:56	1
Trichloroethene	ND		1.0	0.46	ug/L			05/02/24 21:56	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			05/02/24 21:56	1
Vinyl chloride	ND		1.0	0.90	ug/L			05/02/24 21:56	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/02/24 21:56	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*		*05/02/24 21:56*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*77 - 120*		*05/02/24 21:56*	*1*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*		*05/02/24 21:56*	*1*
Dibromofluoromethane (Surr)	*110*		*75 - 123*		*05/02/24 21:56*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*05/02/24 21:56*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		05/07/24 09:20	05/09/24 07:51	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		05/07/24 09:20	05/09/24 07:51	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		05/07/24 09:20	05/09/24 07:51	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		05/07/24 09:20	05/09/24 07:51	1
2,4-Dinitrophenol	ND	UJ	10	2.2	ug/L		05/07/24 09:20	05/09/24 07:51	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		05/07/24 09:20	05/09/24 07:51	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		05/07/24 09:20	05/09/24 07:51	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		05/07/24 09:20	05/09/24 07:51	1
2-Chlorophenol	ND		5.0	0.53	ug/L		05/07/24 09:20	05/09/24 07:51	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		05/07/24 09:20	05/09/24 07:51	1

Client Sample ID: MW-04D-043024
Lab Sample ID: 480-219368-4

Date Collected: 04/30/24 11:35
Matrix: Water

Date Received: 04/30/24 15:00

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	ND		5.0	0.40	ug/L		05/07/24 09:20	05/09/24 07:51	1
2-Nitroaniline	ND		10	0.42	ug/L		05/07/24 09:20	05/09/24 07:51	1
2-Nitrophenol	ND		5.0	0.48	ug/L		05/07/24 09:20	05/09/24 07:51	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		05/07/24 09:20	05/09/24 07:51	1
3-Nitroaniline	ND		10	0.48	ug/L		05/07/24 09:20	05/09/24 07:51	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		05/07/24 09:20	05/09/24 07:51	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		05/07/24 09:20	05/09/24 07:51	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		05/07/24 09:20	05/09/24 07:51	1
4-Chloroaniline	ND		5.0	0.59	ug/L		05/07/24 09:20	05/09/24 07:51	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		05/07/24 09:20	05/09/24 07:51	1
4-Methylphenol	ND		10	0.36	ug/L		05/07/24 09:20	05/09/24 07:51	1
4-Nitroaniline	ND		10	0.25	ug/L		05/07/24 09:20	05/09/24 07:51	1
4-Nitrophenol	ND		10	1.5	ug/L		05/07/24 09:20	05/09/24 07:51	1
Acenaphthene	ND		5.0	0.41	ug/L		05/07/24 09:20	05/09/24 07:51	1
Acenaphthylene	ND		5.0	0.38	ug/L		05/07/24 09:20	05/09/24 07:51	1
Acetophenone	ND		5.0	0.54	ug/L		05/07/24 09:20	05/09/24 07:51	1
Anthracene	ND		5.0	0.28	ug/L		05/07/24 09:20	05/09/24 07:51	1
Atrazine	ND		5.0	0.46	ug/L		05/07/24 09:20	05/09/24 07:51	1
Benzaldehyde	ND		5.0	0.27	ug/L		05/07/24 09:20	05/09/24 07:51	1
Benzo(a)anthracene	ND		5.0	0.36	ug/L		05/07/24 09:20	05/09/24 07:51	1
Benzo(a)pyrene	ND		5.0	0.47	ug/L		05/07/24 09:20	05/09/24 07:51	1
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L		05/07/24 09:20	05/09/24 07:51	1
Benzo(g,h,i)perylene	ND		5.0	0.35	ug/L		05/07/24 09:20	05/09/24 07:51	1
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L		05/07/24 09:20	05/09/24 07:51	1
Biphenyl	ND		5.0	0.65	ug/L		05/07/24 09:20	05/09/24 07:51	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		05/07/24 09:20	05/09/24 07:51	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		05/07/24 09:20	05/09/24 07:51	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		05/07/24 09:20	05/09/24 07:51	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		05/07/24 09:20	05/09/24 07:51	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		05/07/24 09:20	05/09/24 07:51	1
Caprolactam	**3.4**	**J**	5.0	2.2	ug/L		05/07/24 09:20	05/09/24 07:51	1
Carbazole	ND		5.0	0.30	ug/L		05/07/24 09:20	05/09/24 07:51	1
Chrysene	ND		5.0	0.33	ug/L		05/07/24 09:20	05/09/24 07:51	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		05/07/24 09:20	05/09/24 07:51	1
Dibenzofuran	ND		10	0.51	ug/L		05/07/24 09:20	05/09/24 07:51	1
Diethyl phthalate	ND		5.0	0.22	ug/L		05/07/24 09:20	05/09/24 07:51	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		05/07/24 09:20	05/09/24 07:51	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		05/07/24 09:20	05/09/24 07:51	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		05/07/24 09:20	05/09/24 07:51	1
Fluoranthene	ND		5.0	0.40	ug/L		05/07/24 09:20	05/09/24 07:51	1
Fluorene	ND		5.0	0.36	ug/L		05/07/24 09:20	05/09/24 07:51	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		05/07/24 09:20	05/09/24 07:51	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		05/07/24 09:20	05/09/24 07:51	1
Hexachlorocyclopentadiene	ND	UJ	5.0	0.59	ug/L		05/07/24 09:20	05/09/24 07:51	1
Hexachloroethane	ND		5.0	0.59	ug/L		05/07/24 09:20	05/09/24 07:51	1
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L		05/07/24 09:20	05/09/24 07:51	1
Isophorone	ND		5.0	0.43	ug/L		05/07/24 09:20	05/09/24 07:51	1
Naphthalene	ND		5.0	0.76	ug/L		05/07/24 09:20	05/09/24 07:51	1
Nitrobenzene	ND		5.0	0.29	ug/L		05/07/24 09:20	05/09/24 07:51	1

Client Sample ID: MW-04D-043024
Lab Sample ID: 480-219368-4

Date Collected: 04/30/24 11:35
Matrix: Water

Date Received: 04/30/24 15:00

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		05/07/24 09:20	05/09/24 07:51	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		05/07/24 09:20	05/09/24 07:51	1
Pentachlorophenol	ND		10	2.2	ug/L		05/07/24 09:20	05/09/24 07:51	1
Phenanthrene	ND		5.0	0.44	ug/L		05/07/24 09:20	05/09/24 07:51	1
Phenol	ND		5.0	0.39	ug/L		05/07/24 09:20	05/09/24 07:51	1
Pyrene	ND		5.0	0.34	ug/L		05/07/24 09:20	05/09/24 07:51	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Furan, tetrahydro-	*8.0*	*T J N*	*ug/L*		*2.85*	*109-99-9*	*05/07/24 09:20*	*05/09/24 07:51*	*1*
Unknown	*1.9*	*T J*	*ug/L*		*3.17*	*N/A*	*05/07/24 09:20*	*05/09/24 07:51*	*1*
Unknown	*16*	*T J*	*ug/L*		*5.18*	*N/A*	*05/07/24 09:20*	*05/09/24 07:51*	*1*
Unknown	*2.2*	*T J*	*ug/L*		*6.51*	*N/A*	*05/07/24 09:20*	*05/09/24 07:51*	*1*
Diethyltoluamide	*63*	*T J N*	*ug/L*		*9.46*	*134-62-3*	*05/07/24 09:20*	*05/09/24 07:51*	*1*
Unknown	*1.8*	*T J*	*ug/L*		*11.05*	*N/A*	*05/07/24 09:20*	*05/09/24 07:51*	*1*
Unknown	*2.0*	*T J*	*ug/L*		*11.40*	*N/A*	*05/07/24 09:20*	*05/09/24 07:51*	*1*
Unknown	*7.5*	*T J*	*ug/L*		*11.43*	*N/A*	*05/07/24 09:20*	*05/09/24 07:51*	*1*
Unknown	*2.7*	*T J*	*ug/L*		*12.01*	*N/A*	*05/07/24 09:20*	*05/09/24 07:51*	*1*
Unknown	*3.6*	*T J*	*ug/L*		*12.42*	*N/A*	*05/07/24 09:20*	*05/09/24 07:51*	*1*
Unknown	*1.6*	*T J*	*ug/L*		*13.78*	*N/A*	*05/07/24 09:20*	*05/09/24 07:51*	*1*
Unknown	*5.0*	*T J*	*ug/L*		*14.51*	*N/A*	*05/07/24 09:20*	*05/09/24 07:51*	*1*
Unknown	*2.3*	*T J*	*ug/L*		*15.97*	*N/A*	*05/07/24 09:20*	*05/09/24 07:51*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*111*		*41 - 120*	*05/07/24 09:20*	*05/09/24 07:51*	*1*
2-Fluorobiphenyl	*90*		*48 - 120*	*05/07/24 09:20*	*05/09/24 07:51*	*1*
2-Fluorophenol	*60*		*35 - 120*	*05/07/24 09:20*	*05/09/24 07:51*	*1*
Nitrobenzene-d5	*85*		*46 - 120*	*05/07/24 09:20*	*05/09/24 07:51*	*1*
Phenol-d5	*49*		*22 - 120*	*05/07/24 09:20*	*05/09/24 07:51*	*1*
p-Terphenyl-d14	*66*		*60 - 148*	*05/07/24 09:20*	*05/09/24 07:51*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.22	0.023	ug/L		05/07/24 08:43	05/08/24 19:23	1
4,4'-DDE	ND		0.22	0.019	ug/L		05/07/24 08:43	05/08/24 19:23	1
4,4'-DDT	ND		0.22	0.021	ug/L		05/07/24 08:43	05/08/24 19:23	1
Aldrin	ND		0.22	0.028	ug/L		05/07/24 08:43	05/08/24 19:23	1
alpha-BHC	ND		0.22	0.023	ug/L		05/07/24 08:43	05/08/24 19:23	1
cis-Chlordane	ND		0.22	0.030	ug/L		05/07/24 08:43	05/08/24 19:23	1
beta-BHC	ND		0.22	0.040	ug/L		05/07/24 08:43	05/08/24 19:23	1
delta-BHC	ND		0.22	0.019	ug/L		05/07/24 08:43	05/08/24 19:23	1
Dieldrin	ND		0.22	0.028	ug/L		05/07/24 08:43	05/08/24 19:23	1
Endosulfan I	ND		0.22	0.016	ug/L		05/07/24 08:43	05/08/24 19:23	1
Endosulfan II	ND		0.22	0.027	ug/L		05/07/24 08:43	05/08/24 19:23	1
Endosulfan sulfate	ND		0.22	0.016	ug/L		05/07/24 08:43	05/08/24 19:23	1
Endrin	ND		0.22	0.028	ug/L		05/07/24 08:43	05/08/24 19:23	1
Endrin aldehyde	ND		0.22	0.020	ug/L		05/07/24 08:43	05/08/24 19:23	1
Endrin ketone	ND		0.22	0.017	ug/L		05/07/24 08:43	05/08/24 19:23	1
gamma-BHC (Lindane)	ND		0.22	0.026	ug/L		05/07/24 08:43	05/08/24 19:23	1
trans-Chlordane	ND		0.22	0.022	ug/L		05/07/24 08:43	05/08/24 19:23	1
Heptachlor	ND		0.22	0.036	ug/L		05/07/24 08:43	05/08/24 19:23	1

Client Sample ID: MW-04D-043024
Lab Sample ID: 480-219368-4

Date Collected: 04/30/24 11:35
Matrix: Water

Date Received: 04/30/24 15:00

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor epoxide	ND		0.22	0.028	ug/L		05/07/24 08:43	05/08/24 19:23	1
Methoxychlor	ND		0.43	0.020	ug/L		05/07/24 08:43	05/08/24 19:23	1
Toxaphene	ND		8.7	0.25	ug/L		05/07/24 08:43	05/08/24 19:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*75*		*10 - 145*	*05/07/24 08:43*	*05/08/24 19:23*	*1*
DCB Decachlorobiphenyl	*74*		*10 - 145*	*05/07/24 08:43*	*05/08/24 19:23*	*1*
Tetrachloro-m-xylene	*63*		*10 - 123*	*05/07/24 08:43*	*05/08/24 19:23*	*1*
Tetrachloro-m-xylene	*65*		*10 - 123*	*05/07/24 08:43*	*05/08/24 19:23*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.54	0.19	ug/L		05/01/24 13:50	05/03/24 01:37	1
PCB-1221	ND		0.54	0.19	ug/L		05/01/24 13:50	05/03/24 01:37	1
PCB-1232	ND		0.54	0.19	ug/L		05/01/24 13:50	05/03/24 01:37	1
PCB-1242	ND		0.54	0.19	ug/L		05/01/24 13:50	05/03/24 01:37	1
PCB-1248	ND		0.54	0.19	ug/L		05/01/24 13:50	05/03/24 01:37	1
PCB-1254	ND		0.54	0.27	ug/L		05/01/24 13:50	05/03/24 01:37	1
PCB-1260	ND		0.54	0.27	ug/L		05/01/24 13:50	05/03/24 01:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*55*		*19 - 120*	*05/01/24 13:50*	*05/03/24 01:37*	*1*
DCB Decachlorobiphenyl	*50*		*19 - 120*	*05/01/24 13:50*	*05/03/24 01:37*	*1*
Tetrachloro-m-xylene	*88*		*39 - 121*	*05/01/24 13:50*	*05/03/24 01:37*	*1*
Tetrachloro-m-xylene	*84*		*39 - 121*	*05/01/24 13:50*	*05/03/24 01:37*	*1*

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**90.2**	**J**	200	47.3	ug/L		05/04/24 10:00	05/06/24 20:00	1
Antimony	ND		20.0	7.5	ug/L		05/04/24 10:00	05/06/24 20:00	1
Arsenic	**6.0**	**J**	15.0	4.1	ug/L		05/04/24 10:00	05/06/24 20:00	1
Barium	**37.8**	**J**	200	3.0	ug/L		05/04/24 10:00	05/06/24 20:00	1
Beryllium	ND		5.0	0.60	ug/L		05/04/24 10:00	05/06/24 20:00	1
Cadmium	**0.85**	**J**	5.0	0.45	ug/L		05/04/24 10:00	05/06/24 20:00	1
Calcium	**25600**		5000	307	ug/L		05/04/24 10:00	05/06/24 20:00	1
Chromium	**0.97**	**J**	10.0	0.76	ug/L		05/04/24 10:00	05/06/24 20:00	1
Cobalt	ND		10.0	0.75	ug/L		05/04/24 10:00	05/06/24 20:00	1
Copper	ND		25.0	3.5	ug/L		05/04/24 10:00	05/06/24 20:00	1
Iron	**193**	**J**	200	82.7	ug/L		05/04/24 10:00	05/06/24 20:00	1
Lead	ND		10.0	2.8	ug/L		05/04/24 10:00	05/06/24 20:00	1
Magnesium	**59400**		5000	259	ug/L		05/04/24 10:00	05/06/24 20:00	1
Manganese	**6.2**	**J**	15.0	2.6	ug/L		05/04/24 10:00	05/06/24 20:00	1
Nickel	ND		40.0	2.2	ug/L		05/04/24 10:00	05/06/24 20:00	1
Potassium	**5340**		5000	557	ug/L		05/04/24 10:00	05/06/24 20:00	1
Selenium	ND		20.0	6.0	ug/L		05/04/24 10:00	05/06/24 20:00	1
Silver	ND		10.0	0.62	ug/L		05/04/24 10:00	05/06/24 20:00	1
Sodium	**78600**	J+	5000	2110	ug/L		05/04/24 10:00	05/06/24 20:00	1
Thallium	ND		20.0	2.7	ug/L		05/04/24 10:00	05/06/24 20:00	1
Vanadium	ND		50.0	5.6	ug/L		05/04/24 10:00	05/06/24 20:00	1
Zinc	ND		50.0	22.5	ug/L		05/04/24 10:00	05/06/24 20:00	1

Client Sample ID: MW-04D-043024
Lab Sample ID: 480-219368-4

Date Collected: 04/30/24 11:35
Matrix: Water
Date Received: 04/30/24 15:00

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**200**		200	47.3	ug/L		05/04/24 10:00	05/06/24 20:04	1
Antimony	ND		20.0	7.5	ug/L		05/04/24 10:00	05/06/24 20:04	1
Arsenic	**6.8**	**J**	15.0	4.1	ug/L		05/04/24 10:00	05/06/24 20:04	1
Barium	**87.7**	**J**	200	3.0	ug/L		05/04/24 10:00	05/06/24 20:04	1
Beryllium	ND		5.0	0.60	ug/L		05/04/24 10:00	05/06/24 20:04	1
Cadmium	**2.0**	**J**	5.0	0.45	ug/L		05/04/24 10:00	05/06/24 20:04	1
Calcium	**51300**		5000	307	ug/L		05/04/24 10:00	05/06/24 20:04	1
Chromium	**1.2**	**J**	10.0	0.76	ug/L		05/04/24 10:00	05/06/24 20:04	1
Cobalt	ND		10.0	0.75	ug/L		05/04/24 10:00	05/06/24 20:04	1
Copper	ND		25.0	3.5	ug/L		05/04/24 10:00	05/06/24 20:04	1
Iron	**531**		200	82.7	ug/L		05/04/24 10:00	05/06/24 20:04	1
Lead	ND		10.0	2.8	ug/L		05/04/24 10:00	05/06/24 20:04	1
Magnesium	**59900**		5000	259	ug/L		05/04/24 10:00	05/06/24 20:04	1
Manganese	**13.9**	**J**	15.0	2.6	ug/L		05/04/24 10:00	05/06/24 20:04	1
Nickel	**3.2**	**J**	40.0	2.2	ug/L		05/04/24 10:00	05/06/24 20:04	1
Potassium	**5220**		5000	557	ug/L		05/04/24 10:00	05/06/24 20:04	1
Selenium	ND		20.0	6.0	ug/L		05/04/24 10:00	05/06/24 20:04	1
Silver	**0.64**	**J**	10.0	0.62	ug/L		05/04/24 10:00	05/06/24 20:04	1
Sodium	**76000**		5000	2110	ug/L		05/04/24 10:00	05/06/24 20:04	1
Thallium	ND		20.0	2.7	ug/L		05/04/24 10:00	05/06/24 20:04	1
Vanadium	ND		50.0	5.6	ug/L		05/04/24 10:00	05/06/24 20:04	1
Zinc	ND		50.0	22.5	ug/L		05/04/24 10:00	05/06/24 20:04	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/08/24 10:01	05/08/24 14:52	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/09/24 10:31	05/09/24 17:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			05/03/24 00:42	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			05/03/24 01:14	1

Client Sample ID: MW-02D-043024
Lab Sample ID: 480-219368-5

Date Collected: 04/30/24 13:00
Matrix: Water
Date Received: 04/30/24 15:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/03/24 04:16	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/03/24 04:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			05/03/24 04:16	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/03/24 04:16	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/03/24 04:16	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/03/24 04:16	1

Client Sample ID: MW-02D-043024

Date Collected: 04/30/24 13:00
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-5

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			05/03/24 04:16	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			05/03/24 04:16	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			05/03/24 04:16	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			05/03/24 04:16	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/03/24 04:16	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/03/24 04:16	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			05/03/24 04:16	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			05/03/24 04:16	1
2-Butanone (MEK)	ND		10	1.3	ug/L			05/03/24 04:16	1
2-Hexanone	ND		5.0	1.2	ug/L			05/03/24 04:16	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/03/24 04:16	1
Acetone	**7.9**	**J**	10	3.0	ug/L			05/03/24 04:16	1
Benzene	ND		1.0	0.41	ug/L			05/03/24 04:16	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/03/24 04:16	1
Bromoform	ND		1.0	0.26	ug/L			05/03/24 04:16	1
Bromomethane	ND		1.0	0.69	ug/L			05/03/24 04:16	1
Carbon disulfide	**0.63**	**J**	1.0	0.19	ug/L			05/03/24 04:16	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/03/24 04:16	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/03/24 04:16	1
Chloroethane	ND		1.0	0.32	ug/L			05/03/24 04:16	1
Chloroform	ND		1.0	0.34	ug/L			05/03/24 04:16	1
Chloromethane	ND	UJ	1.0	0.35	ug/L			05/03/24 04:16	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			05/03/24 04:16	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/03/24 04:16	1
Cyclohexane	ND		1.0	0.18	ug/L			05/03/24 04:16	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/03/24 04:16	1
Dichlorodifluoromethane	ND	UJ	1.0	0.68	ug/L			05/03/24 04:16	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/03/24 04:16	1
Isopropylbenzene	ND		1.0	0.79	ug/L			05/03/24 04:16	1
Methyl acetate	ND		2.5	1.3	ug/L			05/03/24 04:16	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/03/24 04:16	1
Methylcyclohexane	ND		1.0	0.16	ug/L			05/03/24 04:16	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/03/24 04:16	1
Styrene	ND		1.0	0.73	ug/L			05/03/24 04:16	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/03/24 04:16	1
Toluene	ND		1.0	0.51	ug/L			05/03/24 04:16	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			05/03/24 04:16	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/03/24 04:16	1
Trichloroethene	ND		1.0	0.46	ug/L			05/03/24 04:16	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			05/03/24 04:16	1
Vinyl chloride	ND		1.0	0.90	ug/L			05/03/24 04:16	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/03/24 04:16	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*		*05/03/24 04:16*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*117*		*77 - 120*		*05/03/24 04:16*	*1*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*05/03/24 04:16*	*1*
Dibromofluoromethane (Surr)	*106*		*75 - 123*		*05/03/24 04:16*	*1*

Client Sample ID: MW-02D-043024
Lab Sample ID: 480-219368-5

Date Collected: 04/30/24 13:00
Matrix: Water

Date Received: 04/30/24 15:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*109*		*80 - 120*		*05/03/24 04:16*	*1*

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		05/01/24 14:00	05/03/24 12:54	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*38*		*15 - 110*	*05/01/24 14:00*	*05/03/24 12:54*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.4	0.52	ug/L		05/07/24 09:20	05/09/24 08:19	1
2,4,6-Trichlorophenol	ND		5.4	0.66	ug/L		05/07/24 09:20	05/09/24 08:19	1
2,4-Dichlorophenol	ND		5.4	0.55	ug/L		05/07/24 09:20	05/09/24 08:19	1
2,4-Dimethylphenol	ND		5.4	0.54	ug/L		05/07/24 09:20	05/09/24 08:19	1
2,4-Dinitrophenol	ND	UJ	11	2.4	ug/L		05/07/24 09:20	05/09/24 08:19	1
2,4-Dinitrotoluene	ND		5.4	0.49	ug/L		05/07/24 09:20	05/09/24 08:19	1
2,6-Dinitrotoluene	ND		5.4	0.43	ug/L		05/07/24 09:20	05/09/24 08:19	1
2-Chloronaphthalene	ND		5.4	0.50	ug/L		05/07/24 09:20	05/09/24 08:19	1
2-Chlorophenol	ND		5.4	0.58	ug/L		05/07/24 09:20	05/09/24 08:19	1
2-Methylnaphthalene	ND		5.4	0.65	ug/L		05/07/24 09:20	05/09/24 08:19	1
2-Methylphenol	ND		5.4	0.43	ug/L		05/07/24 09:20	05/09/24 08:19	1
2-Nitroaniline	ND		11	0.46	ug/L		05/07/24 09:20	05/09/24 08:19	1
2-Nitrophenol	ND		5.4	0.52	ug/L		05/07/24 09:20	05/09/24 08:19	1
3,3'-Dichlorobenzidine	ND		5.4	0.43	ug/L		05/07/24 09:20	05/09/24 08:19	1
3-Nitroaniline	ND		11	0.52	ug/L		05/07/24 09:20	05/09/24 08:19	1
4,6-Dinitro-2-methylphenol	ND		11	2.4	ug/L		05/07/24 09:20	05/09/24 08:19	1
4-Bromophenyl phenyl ether	ND		5.4	0.49	ug/L		05/07/24 09:20	05/09/24 08:19	1
4-Chloro-3-methylphenol	ND		5.4	0.49	ug/L		05/07/24 09:20	05/09/24 08:19	1
4-Chloroaniline	ND		5.4	0.64	ug/L		05/07/24 09:20	05/09/24 08:19	1
4-Chlorophenyl phenyl ether	ND		5.4	0.38	ug/L		05/07/24 09:20	05/09/24 08:19	1
4-Methylphenol	ND		11	0.39	ug/L		05/07/24 09:20	05/09/24 08:19	1
4-Nitroaniline	ND		11	0.27	ug/L		05/07/24 09:20	05/09/24 08:19	1
4-Nitrophenol	ND		11	1.7	ug/L		05/07/24 09:20	05/09/24 08:19	1
Acenaphthene	ND		5.4	0.45	ug/L		05/07/24 09:20	05/09/24 08:19	1
Acenaphthylene	ND		5.4	0.41	ug/L		05/07/24 09:20	05/09/24 08:19	1
Acetophenone	ND		5.4	0.59	ug/L		05/07/24 09:20	05/09/24 08:19	1
Anthracene	ND		5.4	0.30	ug/L		05/07/24 09:20	05/09/24 08:19	1
Atrazine	ND		5.4	0.50	ug/L		05/07/24 09:20	05/09/24 08:19	1
Benzaldehyde	ND		5.4	0.29	ug/L		05/07/24 09:20	05/09/24 08:19	1
Benzo(a)anthracene	ND		5.4	0.39	ug/L		05/07/24 09:20	05/09/24 08:19	1
Benzo(a)pyrene	ND		5.4	0.51	ug/L		05/07/24 09:20	05/09/24 08:19	1
Benzo(b)fluoranthene	ND		5.4	0.37	ug/L		05/07/24 09:20	05/09/24 08:19	1
Benzo(g,h,i)perylene	ND		5.4	0.38	ug/L		05/07/24 09:20	05/09/24 08:19	1
Benzo(k)fluoranthene	ND		5.4	0.79	ug/L		05/07/24 09:20	05/09/24 08:19	1
Biphenyl	ND		5.4	0.71	ug/L		05/07/24 09:20	05/09/24 08:19	1
bis (2-chloroisopropyl) ether	ND		5.4	0.57	ug/L		05/07/24 09:20	05/09/24 08:19	1
Bis(2-chloroethoxy)methane	ND		5.4	0.38	ug/L		05/07/24 09:20	05/09/24 08:19	1
Bis(2-chloroethyl)ether	ND		5.4	0.43	ug/L		05/07/24 09:20	05/09/24 08:19	1
Bis(2-ethylhexyl) phthalate	ND		5.4	2.4	ug/L		05/07/24 09:20	05/09/24 08:19	1

Client Sample ID: MW-02D-043024
Lab Sample ID: 480-219368-5

Date Collected: 04/30/24 13:00
Matrix: Water

Date Received: 04/30/24 15:00

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Butyl benzyl phthalate	ND		5.4	1.1	ug/L		05/07/24 09:20	05/09/24 08:19	1
Caprolactam	**3.5**	**J**	5.4	2.4	ug/L		05/07/24 09:20	05/09/24 08:19	1
Carbazole	ND		5.4	0.33	ug/L		05/07/24 09:20	05/09/24 08:19	1
Chrysene	ND		5.4	0.36	ug/L		05/07/24 09:20	05/09/24 08:19	1
Dibenz(a,h)anthracene	ND		5.4	0.46	ug/L		05/07/24 09:20	05/09/24 08:19	1
Dibenzofuran	ND		11	0.55	ug/L		05/07/24 09:20	05/09/24 08:19	1
Diethyl phthalate	ND		5.4	0.24	ug/L		05/07/24 09:20	05/09/24 08:19	1
Dimethyl phthalate	ND		5.4	0.39	ug/L		05/07/24 09:20	05/09/24 08:19	1
Di-n-butyl phthalate	ND		5.4	0.34	ug/L		05/07/24 09:20	05/09/24 08:19	1
Di-n-octyl phthalate	ND		5.4	0.51	ug/L		05/07/24 09:20	05/09/24 08:19	1
Fluoranthene	ND		5.4	0.43	ug/L		05/07/24 09:20	05/09/24 08:19	1
Fluorene	ND		5.4	0.39	ug/L		05/07/24 09:20	05/09/24 08:19	1
Hexachlorobenzene	ND		5.4	0.55	ug/L		05/07/24 09:20	05/09/24 08:19	1
Hexachlorobutadiene	ND		5.4	0.74	ug/L		05/07/24 09:20	05/09/24 08:19	1
Hexachlorocyclopentadiene	ND	UJ	5.4	0.64	ug/L		05/07/24 09:20	05/09/24 08:19	1
Hexachloroethane	ND		5.4	0.64	ug/L		05/07/24 09:20	05/09/24 08:19	1
Indeno(1,2,3-cd)pyrene	ND		5.4	0.51	ug/L		05/07/24 09:20	05/09/24 08:19	1
Isophorone	ND		5.4	0.47	ug/L		05/07/24 09:20	05/09/24 08:19	1
Naphthalene	ND		5.4	0.83	ug/L		05/07/24 09:20	05/09/24 08:19	1
Nitrobenzene	ND		5.4	0.32	ug/L		05/07/24 09:20	05/09/24 08:19	1
N-Nitrosodi-n-propylamine	ND		5.4	0.59	ug/L		05/07/24 09:20	05/09/24 08:19	1
N-Nitrosodiphenylamine	ND		5.4	0.55	ug/L		05/07/24 09:20	05/09/24 08:19	1
Pentachlorophenol	ND		11	2.4	ug/L		05/07/24 09:20	05/09/24 08:19	1
Phenanthrene	ND		5.4	0.48	ug/L		05/07/24 09:20	05/09/24 08:19	1
Phenol	ND		5.4	0.42	ug/L		05/07/24 09:20	05/09/24 08:19	1
Pyrene	ND		5.4	0.37	ug/L		05/07/24 09:20	05/09/24 08:19	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Furan, tetrahydro-	*11*	*T J N*	*ug/L*		*2.84*	*109-99-9*	*05/07/24 09:20*	*05/09/24 08:19*	*1*
Unknown	*15*	*T J*	*ug/L*		*5.18*	*N/A*	*05/07/24 09:20*	*05/09/24 08:19*	*1*
Unknown	*2.1*	*T J*	*ug/L*		*6.41*	*N/A*	*05/07/24 09:20*	*05/09/24 08:19*	*1*
Unknown	*1.8*	*T J*	*ug/L*		*6.43*	*N/A*	*05/07/24 09:20*	*05/09/24 08:19*	*1*
Unknown	*4.1*	*T J*	*ug/L*		*6.51*	*N/A*	*05/07/24 09:20*	*05/09/24 08:19*	*1*
Unknown	*2.0*	*T J*	*ug/L*		*10.61*	*N/A*	*05/07/24 09:20*	*05/09/24 08:19*	*1*
Unknown	*2.1*	*T J*	*ug/L*		*13.79*	*N/A*	*05/07/24 09:20*	*05/09/24 08:19*	*1*
Unknown	*2.4*	*T J*	*ug/L*		*14.44*	*N/A*	*05/07/24 09:20*	*05/09/24 08:19*	*1*
Unknown	*27*	*T J*	*ug/L*		*16.31*	*N/A*	*05/07/24 09:20*	*05/09/24 08:19*	*1*
17-(1,5-Dimethylhexyl)-10,13-dimethyl-2,3,4,7,8,9,10,11,12,1	*30*	*T J N*	*ug/L*		*16.53*	*1000210-38-4*	*05/07/24 09:20*	*05/09/24 08:19*	*1*
Cholestan-3-one, (5.beta.)-	*29*	*T J N*	*ug/L*		*16.57*	*601-53-6*	*05/07/24 09:20*	*05/09/24 08:19*	*1*
Cholest-4-en-3-one	*3.1*	*T J N*	*ug/L*		*17.46*	*601-57-0*	*05/07/24 09:20*	*05/09/24 08:19*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*94*		*41 - 120*	*05/07/24 09:20*	*05/09/24 08:19*	*1*
2-Fluorobiphenyl	*79*		*48 - 120*	*05/07/24 09:20*	*05/09/24 08:19*	*1*
2-Fluorophenol	*55*		*35 - 120*	*05/07/24 09:20*	*05/09/24 08:19*	*1*
Nitrobenzene-d5	*67*		*46 - 120*	*05/07/24 09:20*	*05/09/24 08:19*	*1*
Phenol-d5	*45*		*22 - 120*	*05/07/24 09:20*	*05/09/24 08:19*	*1*
p-Terphenyl-d14	*57*	*S1-*	*60 - 148*	*05/07/24 09:20*	*05/09/24 08:19*	*1*

Client Sample ID: MW-02D-043024

Date Collected: 04/30/24 13:00
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-5

Matrix: Water

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.23	0.024	ug/L		05/07/24 08:43	05/08/24 19:38	1
4,4'-DDE	ND		0.23	0.020	ug/L		05/07/24 08:43	05/08/24 19:38	1
4,4'-DDT	ND		0.23	0.022	ug/L		05/07/24 08:43	05/08/24 19:38	1
Aldrin	ND		0.23	0.030	ug/L		05/07/24 08:43	05/08/24 19:38	1
alpha-BHC	ND		0.23	0.024	ug/L		05/07/24 08:43	05/08/24 19:38	1
cis-Chlordane	ND		0.23	0.032	ug/L		05/07/24 08:43	05/08/24 19:38	1
beta-BHC	ND		0.23	0.042	ug/L		05/07/24 08:43	05/08/24 19:38	1
delta-BHC	ND		0.23	0.020	ug/L		05/07/24 08:43	05/08/24 19:38	1
Dieldrin	ND		0.23	0.030	ug/L		05/07/24 08:43	05/08/24 19:38	1
Endosulfan I	ND		0.23	0.017	ug/L		05/07/24 08:43	05/08/24 19:38	1
Endosulfan II	ND		0.23	0.028	ug/L		05/07/24 08:43	05/08/24 19:38	1
Endosulfan sulfate	ND		0.23	0.017	ug/L		05/07/24 08:43	05/08/24 19:38	1
Endrin	ND		0.23	0.030	ug/L		05/07/24 08:43	05/08/24 19:38	1
Endrin aldehyde	ND		0.23	0.021	ug/L		05/07/24 08:43	05/08/24 19:38	1
Endrin ketone	ND		0.23	0.018	ug/L		05/07/24 08:43	05/08/24 19:38	1
gamma-BHC (Lindane)	ND		0.23	0.027	ug/L		05/07/24 08:43	05/08/24 19:38	1
trans-Chlordane	ND		0.23	0.023	ug/L		05/07/24 08:43	05/08/24 19:38	1
Heptachlor	ND		0.23	0.037	ug/L		05/07/24 08:43	05/08/24 19:38	1
Heptachlor epoxide	ND		0.23	0.029	ug/L		05/07/24 08:43	05/08/24 19:38	1
Methoxychlor	ND		0.45	0.021	ug/L		05/07/24 08:43	05/08/24 19:38	1
Toxaphene	ND		9.1	0.26	ug/L		05/07/24 08:43	05/08/24 19:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*77*		*10 - 145*	*05/07/24 08:43*	*05/08/24 19:38*	*1*
DCB Decachlorobiphenyl	*81*		*10 - 145*	*05/07/24 08:43*	*05/08/24 19:38*	*1*
Tetrachloro-m-xylene	*72*		*10 - 123*	*05/07/24 08:43*	*05/08/24 19:38*	*1*
Tetrachloro-m-xylene	*61*		*10 - 123*	*05/07/24 08:43*	*05/08/24 19:38*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		05/01/24 13:50	05/03/24 01:55	1
PCB-1221	ND		0.50	0.18	ug/L		05/01/24 13:50	05/03/24 01:55	1
PCB-1232	ND		0.50	0.18	ug/L		05/01/24 13:50	05/03/24 01:55	1
PCB-1242	ND		0.50	0.18	ug/L		05/01/24 13:50	05/03/24 01:55	1
PCB-1248	ND		0.50	0.18	ug/L		05/01/24 13:50	05/03/24 01:55	1
PCB-1254	ND		0.50	0.25	ug/L		05/01/24 13:50	05/03/24 01:55	1
PCB-1260	ND		0.50	0.25	ug/L		05/01/24 13:50	05/03/24 01:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*48*		*19 - 120*	*05/01/24 13:50*	*05/03/24 01:55*	*1*
DCB Decachlorobiphenyl	*46*		*19 - 120*	*05/01/24 13:50*	*05/03/24 01:55*	*1*
Tetrachloro-m-xylene	*59*		*39 - 121*	*05/01/24 13:50*	*05/03/24 01:55*	*1*
Tetrachloro-m-xylene	*55*		*39 - 121*	*05/01/24 13:50*	*05/03/24 01:55*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**2.2**	**J**	6.9	1.8	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluoropentanoic acid (PFPeA)	ND		3.4	0.86	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluorohexanoic acid (PFHxA)	**0.74**	**J**	1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluoroheptanoic acid (PFHpA)	**0.56**	**J**	1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1

Client Sample ID: MW-02D-043024
Lab Sample ID: 480-219368-5

Date Collected: 04/30/24 13:00
Matrix: Water
Date Received: 04/30/24 15:00

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	**1.8**		1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluorononanoic acid (PFNA)	**0.65**	**J**	1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluorodecanoic acid (PFDA)	**0.45**	**J**	1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	0.45	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluorooctanesulfonic acid (PFOS)	**2.2**		1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		6.9	1.7	ng/L		05/03/24 13:02	05/03/24 22:36	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	**12**		6.9	1.7	ng/L		05/03/24 13:02	05/03/24 22:36	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		6.9	1.7	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.7	0.53	ng/L		05/03/24 13:02	05/03/24 22:36	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.7	0.45	ng/L		05/03/24 13:02	05/03/24 22:36	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		17	4.3	ng/L		05/03/24 13:02	05/03/24 22:36	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		17	4.3	ng/L		05/03/24 13:02	05/03/24 22:36	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		6.9	1.7	ng/L		05/03/24 13:02	05/03/24 22:36	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		6.9	1.7	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		3.4	0.86	ng/L		05/03/24 13:02	05/03/24 22:36	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		3.4	1.1	ng/L		05/03/24 13:02	05/03/24 22:36	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		6.9	1.7	ng/L		05/03/24 13:02	05/03/24 22:36	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		6.9	1.7	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		3.4	0.86	ng/L		05/03/24 13:02	05/03/24 22:36	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		8.6	2.2	ng/L		05/03/24 13:02	05/03/24 22:36	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		43	11	ng/L		05/03/24 13:02	05/03/24 22:36	1

Client Sample ID: MW-02D-043024
Lab Sample ID: 480-219368-5

Date Collected: 04/30/24 13:00
Matrix: Water
Date Received: 04/30/24 15:00

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		43	13	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		3.4	0.86	ng/L		05/03/24 13:02	05/03/24 22:36	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*93.8*		*10 - 130*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
13C5 PFPeA	*87.6*		*35 - 150*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
13C5 PFHxA	*88.7*		*55 - 150*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
13C4 PFHpA	*87.1*		*55 - 150*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
13C8 PFOA	*94.4*		*60 - 140*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
13C9 PFNA	*94.4*		*55 - 140*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
13C6 PFDA	*104*		*50 - 140*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
13C7 PFUnA	*81.9*		*30 - 140*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
13C2 PFTeDA	*74.4*		*10 - 130*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
13C3 PFBS	*100*		*55 - 150*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
13C3 PFHxS	*91.8*		*55 - 150*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
13C8 PFOS	*83.5*		*45 - 140*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
13C8 FOSA	*95.9*		*30 - 130*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
d3-NMeFOSAA	*94.0*		*45 - 200*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
d5-NEtFOSAA	*84.9*		*10 - 200*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
M2-4:2 FTS	*140*		*60 - 200*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
M2-6:2 FTS	*104*		*60 - 200*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
M2-8:2 FTS	*113*		*50 - 200*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
13C3 HFPO-DA	*86.8*		*25 - 160*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
d7-N-MeFOSE-M	*73.3*		*10 - 150*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
d9-N-EtFOSE-M	*69.8*		*10 - 150*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
d5-NEtPFOSA	*64.1*		*10 - 130*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
d3-NMePFOSA	*65.5*		*15 - 130*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
13C2-PFDoDA	*74.2*		*10 - 150*	*05/03/24 13:02*	*05/03/24 22:36*	*1*

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**7110**		200	47.3	ug/L		05/04/24 10:00	05/06/24 20:09	1
Antimony	ND		20.0	7.5	ug/L		05/04/24 10:00	05/06/24 20:09	1
Arsenic	**7.1**	**J**	15.0	4.1	ug/L		05/04/24 10:00	05/06/24 20:09	1
Barium	**154**	**J**	200	3.0	ug/L		05/04/24 10:00	05/06/24 20:09	1
Beryllium	ND		5.0	0.60	ug/L		05/04/24 10:00	05/06/24 20:09	1
Cadmium	**4.0**	**J**	5.0	0.45	ug/L		05/04/24 10:00	05/06/24 20:09	1
Calcium	**72300**		5000	307	ug/L		05/04/24 10:00	05/06/24 20:09	1
Chromium	**11.6**		10.0	0.76	ug/L		05/04/24 10:00	05/06/24 20:09	1
Cobalt	**3.1**	**J**	10.0	0.75	ug/L		05/04/24 10:00	05/06/24 20:09	1
Copper	**11.1**	**J**	25.0	3.5	ug/L		05/04/24 10:00	05/06/24 20:09	1
Iron	**8510**		200	82.7	ug/L		05/04/24 10:00	05/06/24 20:09	1
Lead	**5.6**	**J**	10.0	2.8	ug/L		05/04/24 10:00	05/06/24 20:09	1
Magnesium	**21000**		5000	259	ug/L		05/04/24 10:00	05/06/24 20:09	1
Manganese	**198**		15.0	2.6	ug/L		05/04/24 10:00	05/06/24 20:09	1
Nickel	**20.2**	**J**	40.0	2.2	ug/L		05/04/24 10:00	05/06/24 20:09	1
Potassium	**6760**		5000	557	ug/L		05/04/24 10:00	05/06/24 20:09	1
Selenium	ND		20.0	6.0	ug/L		05/04/24 10:00	05/06/24 20:09	1

Client Sample ID: MW-02D-043024
Lab Sample ID: 480-219368-5

Date Collected: 04/30/24 13:00
Matrix: Water

Date Received: 04/30/24 15:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		10.0	0.62	ug/L		05/04/24 10:00	05/06/24 20:09	1
Sodium	**63600**	J+	5000	2110	ug/L		05/04/24 10:00	05/06/24 20:09	1
Thallium	ND		20.0	2.7	ug/L		05/04/24 10:00	05/06/24 20:09	1
Vanadium	**30.9**	J	50.0	5.6	ug/L		05/04/24 10:00	05/06/24 20:09	1
Zinc	**46.3**	J	50.0	22.5	ug/L		05/04/24 10:00	05/06/24 20:09	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**3430**		200	47.3	ug/L		05/04/24 10:00	05/06/24 20:13	1
Antimony	ND		20.0	7.5	ug/L		05/04/24 10:00	05/06/24 20:13	1
Arsenic	**5.4**	J	15.0	4.1	ug/L		05/04/24 10:00	05/06/24 20:13	1
Barium	**94.9**	J	200	3.0	ug/L		05/04/24 10:00	05/06/24 20:13	1
Beryllium	ND		5.0	0.60	ug/L		05/04/24 10:00	05/06/24 20:13	1
Cadmium	**2.7**	J	5.0	0.45	ug/L		05/04/24 10:00	05/06/24 20:13	1
Calcium	**50300**		5000	307	ug/L		05/04/24 10:00	05/06/24 20:13	1
Chromium	**5.8**	J	10.0	0.76	ug/L		05/04/24 10:00	05/06/24 20:13	1
Cobalt	**1.2**	J	10.0	0.75	ug/L		05/04/24 10:00	05/06/24 20:13	1
Copper	**5.7**	J	25.0	3.5	ug/L		05/04/24 10:00	05/06/24 20:13	1
Iron	**4010**		200	82.7	ug/L		05/04/24 10:00	05/06/24 20:13	1
Lead	**5.0**	J	10.0	2.8	ug/L		05/04/24 10:00	05/06/24 20:13	1
Magnesium	**17800**		5000	259	ug/L		05/04/24 10:00	05/06/24 20:13	1
Manganese	**104**		15.0	2.6	ug/L		05/04/24 10:00	05/06/24 20:13	1
Nickel	**11.2**	J	40.0	2.2	ug/L		05/04/24 10:00	05/06/24 20:13	1
Potassium	**6240**		5000	557	ug/L		05/04/24 10:00	05/06/24 20:13	1
Selenium	ND		20.0	6.0	ug/L		05/04/24 10:00	05/06/24 20:13	1
Silver	ND		10.0	0.62	ug/L		05/04/24 10:00	05/06/24 20:13	1
Sodium	**62600**		5000	2110	ug/L		05/04/24 10:00	05/06/24 20:13	1
Thallium	ND		20.0	2.7	ug/L		05/04/24 10:00	05/06/24 20:13	1
Vanadium	**23.4**	J	50.0	5.6	ug/L		05/04/24 10:00	05/06/24 20:13	1
Zinc	**23.1**	J	50.0	22.5	ug/L		05/04/24 10:00	05/06/24 20:13	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/08/24 10:01	05/08/24 14:53	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/09/24 10:31	05/09/24 17:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			05/03/24 00:45	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			05/03/24 01:17	1

Client Sample ID: RB-043024
Lab Sample ID: 480-219368-6

Date Collected: 04/30/24 13:30
Matrix: Water
Date Received: 04/30/24 15:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/03/24 04:40	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/03/24 04:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			05/03/24 04:40	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/03/24 04:40	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/03/24 04:40	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/03/24 04:40	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			05/03/24 04:40	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			05/03/24 04:40	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			05/03/24 04:40	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			05/03/24 04:40	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/03/24 04:40	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/03/24 04:40	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			05/03/24 04:40	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			05/03/24 04:40	1
2-Butanone (MEK)	ND		10	1.3	ug/L			05/03/24 04:40	1
2-Hexanone	ND		5.0	1.2	ug/L			05/03/24 04:40	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/03/24 04:40	1
Acetone	ND		10	3.0	ug/L			05/03/24 04:40	1
Benzene	ND		1.0	0.41	ug/L			05/03/24 04:40	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/03/24 04:40	1
Bromoform	ND		1.0	0.26	ug/L			05/03/24 04:40	1
Bromomethane	ND		1.0	0.69	ug/L			05/03/24 04:40	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/03/24 04:40	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/03/24 04:40	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/03/24 04:40	1
Chloroethane	ND		1.0	0.32	ug/L			05/03/24 04:40	1
Chloroform	ND		1.0	0.34	ug/L			05/03/24 04:40	1
Chloromethane	ND	UJ	1.0	0.35	ug/L			05/03/24 04:40	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			05/03/24 04:40	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/03/24 04:40	1
Cyclohexane	ND		1.0	0.18	ug/L			05/03/24 04:40	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/03/24 04:40	1
Dichlorodifluoromethane	ND	UJ	1.0	0.68	ug/L			05/03/24 04:40	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/03/24 04:40	1
Isopropylbenzene	ND		1.0	0.79	ug/L			05/03/24 04:40	1
Methyl acetate	ND		2.5	1.3	ug/L			05/03/24 04:40	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/03/24 04:40	1
Methylcyclohexane	ND		1.0	0.16	ug/L			05/03/24 04:40	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/03/24 04:40	1
Styrene	ND		1.0	0.73	ug/L			05/03/24 04:40	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/03/24 04:40	1
Toluene	ND		1.0	0.51	ug/L			05/03/24 04:40	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			05/03/24 04:40	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/03/24 04:40	1
Trichloroethene	ND		1.0	0.46	ug/L			05/03/24 04:40	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			05/03/24 04:40	1
Vinyl chloride	ND		1.0	0.90	ug/L			05/03/24 04:40	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/03/24 04:40	1

Client Sample ID: RB-043024
Date Collected: 04/30/24 13:30
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-6
Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A		05/03/24 04:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		77 - 120		05/03/24 04:40	1
4-Bromofluorobenzene (Surr)	103		73 - 120		05/03/24 04:40	1
Dibromofluoromethane (Surr)	104		75 - 123		05/03/24 04:40	1
Toluene-d8 (Surr)	107		80 - 120		05/03/24 04:40	1

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		05/01/24 14:00	05/03/24 13:16	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	37		15 - 110	05/01/24 14:00	05/03/24 13:16	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		6.0	0.57	ug/L		05/07/24 09:20	05/09/24 08:47	1
2,4,6-Trichlorophenol	ND		6.0	0.73	ug/L		05/07/24 09:20	05/09/24 08:47	1
2,4-Dichlorophenol	ND		6.0	0.61	ug/L		05/07/24 09:20	05/09/24 08:47	1
2,4-Dimethylphenol	ND		6.0	0.60	ug/L		05/07/24 09:20	05/09/24 08:47	1
2,4-Dinitrophenol	ND	UJ	12	2.6	ug/L		05/07/24 09:20	05/09/24 08:47	1
2,4-Dinitrotoluene	ND		6.0	0.53	ug/L		05/07/24 09:20	05/09/24 08:47	1
2,6-Dinitrotoluene	ND		6.0	0.48	ug/L		05/07/24 09:20	05/09/24 08:47	1
2-Chloronaphthalene	ND		6.0	0.55	ug/L		05/07/24 09:20	05/09/24 08:47	1
2-Chlorophenol	ND		6.0	0.63	ug/L		05/07/24 09:20	05/09/24 08:47	1
2-Methylnaphthalene	ND		6.0	0.71	ug/L		05/07/24 09:20	05/09/24 08:47	1
2-Methylphenol	ND		6.0	0.48	ug/L		05/07/24 09:20	05/09/24 08:47	1
2-Nitroaniline	ND		12	0.50	ug/L		05/07/24 09:20	05/09/24 08:47	1
2-Nitrophenol	ND		6.0	0.57	ug/L		05/07/24 09:20	05/09/24 08:47	1
3,3'-Dichlorobenzidine	ND		6.0	0.48	ug/L		05/07/24 09:20	05/09/24 08:47	1
3-Nitroaniline	ND		12	0.57	ug/L		05/07/24 09:20	05/09/24 08:47	1
4,6-Dinitro-2-methylphenol	ND		12	2.6	ug/L		05/07/24 09:20	05/09/24 08:47	1
4-Bromophenyl phenyl ether	ND		6.0	0.54	ug/L		05/07/24 09:20	05/09/24 08:47	1
4-Chloro-3-methylphenol	ND		6.0	0.54	ug/L		05/07/24 09:20	05/09/24 08:47	1
4-Chloroaniline	ND		6.0	0.70	ug/L		05/07/24 09:20	05/09/24 08:47	1
4-Chlorophenyl phenyl ether	ND		6.0	0.42	ug/L		05/07/24 09:20	05/09/24 08:47	1
4-Methylphenol	ND		12	0.43	ug/L		05/07/24 09:20	05/09/24 08:47	1
4-Nitroaniline	ND		12	0.30	ug/L		05/07/24 09:20	05/09/24 08:47	1
4-Nitrophenol	ND		12	1.8	ug/L		05/07/24 09:20	05/09/24 08:47	1
Acenaphthene	ND		6.0	0.49	ug/L		05/07/24 09:20	05/09/24 08:47	1
Acenaphthylene	ND		6.0	0.45	ug/L		05/07/24 09:20	05/09/24 08:47	1
Acetophenone	ND		6.0	0.64	ug/L		05/07/24 09:20	05/09/24 08:47	1
Anthracene	ND		6.0	0.33	ug/L		05/07/24 09:20	05/09/24 08:47	1
Atrazine	ND		6.0	0.55	ug/L		05/07/24 09:20	05/09/24 08:47	1
Benzaldehyde	ND		6.0	0.32	ug/L		05/07/24 09:20	05/09/24 08:47	1
Benzo(a)anthracene	ND		6.0	0.43	ug/L		05/07/24 09:20	05/09/24 08:47	1
Benzo(a)pyrene	ND		6.0	0.56	ug/L		05/07/24 09:20	05/09/24 08:47	1
Benzo(b)fluoranthene	ND		6.0	0.40	ug/L		05/07/24 09:20	05/09/24 08:47	1
Benzo(g,h,i)perylene	ND		6.0	0.42	ug/L		05/07/24 09:20	05/09/24 08:47	1
Benzo(k)fluoranthene	ND		6.0	0.87	ug/L		05/07/24 09:20	05/09/24 08:47	1

Client Sample ID: RB-043024
Lab Sample ID: 480-219368-6

Date Collected: 04/30/24 13:30
Matrix: Water
Date Received: 04/30/24 15:00

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		6.0	0.78	ug/L		05/07/24 09:20	05/09/24 08:47	1
bis (2-chloroisopropyl) ether	ND		6.0	0.62	ug/L		05/07/24 09:20	05/09/24 08:47	1
Bis(2-chloroethoxy)methane	ND		6.0	0.42	ug/L		05/07/24 09:20	05/09/24 08:47	1
Bis(2-chloroethyl)ether	ND		6.0	0.48	ug/L		05/07/24 09:20	05/09/24 08:47	1
Bis(2-ethylhexyl) phthalate	ND		6.0	2.6	ug/L		05/07/24 09:20	05/09/24 08:47	1
Butyl benzyl phthalate	ND		6.0	1.2	ug/L		05/07/24 09:20	05/09/24 08:47	1
Caprolactam	ND		6.0	2.6	ug/L		05/07/24 09:20	05/09/24 08:47	1
Carbazole	ND		6.0	0.36	ug/L		05/07/24 09:20	05/09/24 08:47	1
Chrysene	ND		6.0	0.39	ug/L		05/07/24 09:20	05/09/24 08:47	1
Dibenz(a,h)anthracene	ND		6.0	0.50	ug/L		05/07/24 09:20	05/09/24 08:47	1
Dibenzofuran	ND		12	0.61	ug/L		05/07/24 09:20	05/09/24 08:47	1
Diethyl phthalate	ND		6.0	0.26	ug/L		05/07/24 09:20	05/09/24 08:47	1
Dimethyl phthalate	ND		6.0	0.43	ug/L		05/07/24 09:20	05/09/24 08:47	1
Di-n-butyl phthalate	ND		6.0	0.37	ug/L		05/07/24 09:20	05/09/24 08:47	1
Di-n-octyl phthalate	ND		6.0	0.56	ug/L		05/07/24 09:20	05/09/24 08:47	1
Fluoranthene	ND		6.0	0.48	ug/L		05/07/24 09:20	05/09/24 08:47	1
Fluorene	ND		6.0	0.43	ug/L		05/07/24 09:20	05/09/24 08:47	1
Hexachlorobenzene	ND		6.0	0.61	ug/L		05/07/24 09:20	05/09/24 08:47	1
Hexachlorobutadiene	ND		6.0	0.81	ug/L		05/07/24 09:20	05/09/24 08:47	1
Hexachlorocyclopentadiene	ND	UJ	6.0	0.70	ug/L		05/07/24 09:20	05/09/24 08:47	1
Hexachloroethane	ND		6.0	0.70	ug/L		05/07/24 09:20	05/09/24 08:47	1
Indeno(1,2,3-cd)pyrene	ND		6.0	0.56	ug/L		05/07/24 09:20	05/09/24 08:47	1
Isophorone	ND		6.0	0.51	ug/L		05/07/24 09:20	05/09/24 08:47	1
Naphthalene	ND		6.0	0.90	ug/L		05/07/24 09:20	05/09/24 08:47	1
Nitrobenzene	ND		6.0	0.35	ug/L		05/07/24 09:20	05/09/24 08:47	1
N-Nitrosodi-n-propylamine	ND		6.0	0.64	ug/L		05/07/24 09:20	05/09/24 08:47	1
N-Nitrosodiphenylamine	ND		6.0	0.61	ug/L		05/07/24 09:20	05/09/24 08:47	1
Pentachlorophenol	ND		12	2.6	ug/L		05/07/24 09:20	05/09/24 08:47	1
Phenanthrene	ND		6.0	0.52	ug/L		05/07/24 09:20	05/09/24 08:47	1
Phenol	ND		6.0	0.46	ug/L		05/07/24 09:20	05/09/24 08:47	1
Pyrene	ND		6.0	0.40	ug/L		05/07/24 09:20	05/09/24 08:47	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*2.4*	*T J*	*ug/L*		*2.78*	*N/A*	*05/07/24 09:20*	*05/09/24 08:47*	*1*
Furan, tetrahydro-	*6.8*	*T J N*	*ug/L*		*2.84*	*109-99-9*	*05/07/24 09:20*	*05/09/24 08:47*	*1*
Unknown	*2.2*	*T J*	*ug/L*		*3.18*	*N/A*	*05/07/24 09:20*	*05/09/24 08:47*	*1*
Unknown	*20*	*T J*	*ug/L*		*5.18*	*N/A*	*05/07/24 09:20*	*05/09/24 08:47*	*1*
Unknown	*2.1*	*T J*	*ug/L*		*10.48*	*N/A*	*05/07/24 09:20*	*05/09/24 08:47*	*1*
Unknown	*6.0*	*T J*	*ug/L*		*11.04*	*N/A*	*05/07/24 09:20*	*05/09/24 08:47*	*1*
Unknown	*33*	*T J*	*ug/L*		*11.42*	*N/A*	*05/07/24 09:20*	*05/09/24 08:47*	*1*
Unknown	*3.2*	*T J*	*ug/L*		*11.75*	*N/A*	*05/07/24 09:20*	*05/09/24 08:47*	*1*
Unknown	*2.3*	*T J*	*ug/L*		*11.98*	*N/A*	*05/07/24 09:20*	*05/09/24 08:47*	*1*
Unknown	*15*	*T J*	*ug/L*		*12.01*	*N/A*	*05/07/24 09:20*	*05/09/24 08:47*	*1*
Unknown	*15*	*T J*	*ug/L*		*12.41*	*N/A*	*05/07/24 09:20*	*05/09/24 08:47*	*1*
Unknown	*6.2*	*T J*	*ug/L*		*12.84*	*N/A*	*05/07/24 09:20*	*05/09/24 08:47*	*1*
Unknown	*19*	*T J*	*ug/L*		*13.16*	*N/A*	*05/07/24 09:20*	*05/09/24 08:47*	*1*
Unknown	*7.4*	*T J*	*ug/L*		*13.59*	*N/A*	*05/07/24 09:20*	*05/09/24 08:47*	*1*
Unknown	*3.0*	*T J*	*ug/L*		*13.79*	*N/A*	*05/07/24 09:20*	*05/09/24 08:47*	*1*
Unknown	*4.8*	*T J*	*ug/L*		*14.15*	*N/A*	*05/07/24 09:20*	*05/09/24 08:47*	*1*
Unknown	*8.7*	*T J*	*ug/L*		*14.47*	*N/A*	*05/07/24 09:20*	*05/09/24 08:47*	*1*

Client Sample ID: RB-043024
Lab Sample ID: 480-219368-6

Date Collected: 04/30/24 13:30
Matrix: Water
Date Received: 04/30/24 15:00

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	21	T J	ug/L		14.51	N/A	05/07/24 09:20	05/09/24 08:47	1
Unknown	3.4	T J	ug/L		15.60	N/A	05/07/24 09:20	05/09/24 08:47	1
Unknown	27	T J	ug/L		15.99	N/A	05/07/24 09:20	05/09/24 08:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	106		41 - 120	05/07/24 09:20	05/09/24 08:47	1
2-Fluorobiphenyl	79		48 - 120	05/07/24 09:20	05/09/24 08:47	1
2-Fluorophenol	64		35 - 120	05/07/24 09:20	05/09/24 08:47	1
Nitrobenzene-d5	75		46 - 120	05/07/24 09:20	05/09/24 08:47	1
Phenol-d5	53		22 - 120	05/07/24 09:20	05/09/24 08:47	1
p-Terphenyl-d14	97		60 - 148	05/07/24 09:20	05/09/24 08:47	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.21	0.022	ug/L		05/07/24 08:43	05/08/24 19:54	1
4,4'-DDE	ND		0.21	0.018	ug/L		05/07/24 08:43	05/08/24 19:54	1
4,4'-DDT	ND		0.21	0.020	ug/L		05/07/24 08:43	05/08/24 19:54	1
Aldrin	ND		0.21	0.027	ug/L		05/07/24 08:43	05/08/24 19:54	1
alpha-BHC	ND		0.21	0.022	ug/L		05/07/24 08:43	05/08/24 19:54	1
cis-Chlordane	ND		0.21	0.029	ug/L		05/07/24 08:43	05/08/24 19:54	1
beta-BHC	ND		0.21	0.039	ug/L		05/07/24 08:43	05/08/24 19:54	1
delta-BHC	ND		0.21	0.018	ug/L		05/07/24 08:43	05/08/24 19:54	1
Dieldrin	ND		0.21	0.027	ug/L		05/07/24 08:43	05/08/24 19:54	1
Endosulfan I	ND		0.21	0.015	ug/L		05/07/24 08:43	05/08/24 19:54	1
Endosulfan II	ND		0.21	0.026	ug/L		05/07/24 08:43	05/08/24 19:54	1
Endosulfan sulfate	ND		0.21	0.015	ug/L		05/07/24 08:43	05/08/24 19:54	1
Endrin	ND		0.21	0.027	ug/L		05/07/24 08:43	05/08/24 19:54	1
Endrin aldehyde	ND		0.21	0.019	ug/L		05/07/24 08:43	05/08/24 19:54	1
Endrin ketone	ND		0.21	0.017	ug/L		05/07/24 08:43	05/08/24 19:54	1
gamma-BHC (Lindane)	ND		0.21	0.025	ug/L		05/07/24 08:43	05/08/24 19:54	1
trans-Chlordane	ND		0.21	0.021	ug/L		05/07/24 08:43	05/08/24 19:54	1
Heptachlor	ND		0.21	0.034	ug/L		05/07/24 08:43	05/08/24 19:54	1
Heptachlor epoxide	ND		0.21	0.027	ug/L		05/07/24 08:43	05/08/24 19:54	1
Methoxychlor	ND		0.42	0.020	ug/L		05/07/24 08:43	05/08/24 19:54	1
Toxaphene	ND		8.3	0.24	ug/L		05/07/24 08:43	05/08/24 19:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	68		10 - 145	05/07/24 08:43	05/08/24 19:54	1
DCB Decachlorobiphenyl	65		10 - 145	05/07/24 08:43	05/08/24 19:54	1
Tetrachloro-m-xylene	64		10 - 123	05/07/24 08:43	05/08/24 19:54	1
Tetrachloro-m-xylene	60		10 - 123	05/07/24 08:43	05/08/24 19:54	1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		05/01/24 13:50	05/03/24 02:12	1
PCB-1221	ND		0.50	0.18	ug/L		05/01/24 13:50	05/03/24 02:12	1
PCB-1232	ND		0.50	0.18	ug/L		05/01/24 13:50	05/03/24 02:12	1
PCB-1242	ND		0.50	0.18	ug/L		05/01/24 13:50	05/03/24 02:12	1
PCB-1248	ND		0.50	0.18	ug/L		05/01/24 13:50	05/03/24 02:12	1
PCB-1254	ND		0.50	0.25	ug/L		05/01/24 13:50	05/03/24 02:12	1

Client Sample ID: RB-043024
Lab Sample ID: 480-219368-6

Date Collected: 04/30/24 13:30
Matrix: Water

Date Received: 04/30/24 15:00

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1260	ND		0.50	0.25	ug/L		05/01/24 13:50	05/03/24 02:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*73*		*19 - 120*	*05/01/24 13:50*	*05/03/24 02:12*	*1*
DCB Decachlorobiphenyl	*69*		*19 - 120*	*05/01/24 13:50*	*05/03/24 02:12*	*1*
Tetrachloro-m-xylene	*71*		*39 - 121*	*05/01/24 13:50*	*05/03/24 02:12*	*1*
Tetrachloro-m-xylene	*67*		*39 - 121*	*05/01/24 13:50*	*05/03/24 02:12*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		6.7	1.8	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluoropentanoic acid (PFPeA)	ND		3.3	0.83	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluorohexanoic acid (PFHxA)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluorooctanoic acid (PFOA)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluorononanoic acid (PFNA)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		6.7	1.7	ng/L		05/03/24 13:02	05/03/24 22:51	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		6.7	1.7	ng/L		05/03/24 13:02	05/03/24 22:51	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		6.7	1.7	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.7	0.52	ng/L		05/03/24 13:02	05/03/24 22:51	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:51	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		17	4.2	ng/L		05/03/24 13:02	05/03/24 22:51	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		17	4.2	ng/L		05/03/24 13:02	05/03/24 22:51	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		6.7	1.7	ng/L		05/03/24 13:02	05/03/24 22:51	1

Client Sample ID: RB-043024
Lab Sample ID: 480-219368-6

Date Collected: 04/30/24 13:30
Matrix: Water
Date Received: 04/30/24 15:00

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		6.7	1.7	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		3.3	0.83	ng/L		05/03/24 13:02	05/03/24 22:51	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		3.3	1.0	ng/L		05/03/24 13:02	05/03/24 22:51	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		6.7	1.7	ng/L		05/03/24 13:02	05/03/24 22:51	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		6.7	1.7	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		3.3	0.83	ng/L		05/03/24 13:02	05/03/24 22:51	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		8.3	2.1	ng/L		05/03/24 13:02	05/03/24 22:51	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		42	10	ng/L		05/03/24 13:02	05/03/24 22:51	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		42	12	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		3.3	0.83	ng/L		05/03/24 13:02	05/03/24 22:51	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*92.8*		*10 - 130*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
13C5 PFPeA	*90.2*		*35 - 150*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
13C5 PFHxA	*88.0*		*55 - 150*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
13C4 PFHpA	*97.9*		*55 - 150*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
13C8 PFOA	*89.0*		*60 - 140*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
13C9 PFNA	*93.1*		*55 - 140*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
13C6 PFDA	*111*		*50 - 140*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
13C7 PFUnA	*93.1*		*30 - 140*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
13C2 PFTeDA	*69.5*		*10 - 130*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
13C3 PFBS	*98.0*		*55 - 150*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
13C3 PFHxS	*92.1*		*55 - 150*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
13C8 PFOS	*89.8*		*45 - 140*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
13C8 FOSA	*88.4*		*30 - 130*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
d3-NMeFOSAA	*124*		*45 - 200*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
d5-NEtFOSAA	*87.5*		*10 - 200*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
M2-4:2 FTS	*92.7*		*60 - 200*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
M2-6:2 FTS	*97.5*		*60 - 200*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
M2-8:2 FTS	*127*		*50 - 200*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
13C3 HFPO-DA	*97.4*		*25 - 160*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
d7-N-MeFOSE-M	*85.2*		*10 - 150*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
d9-N-EtFOSE-M	*82.9*		*10 - 150*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
d5-NEtPFOSA	*74.0*		*10 - 130*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
d3-NMePFOSA	*74.9*		*15 - 130*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
13C2-PFDoDA	*81.0*		*10 - 150*	*05/03/24 13:02*	*05/03/24 22:51*	*1*

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	47.3	ug/L		05/04/24 10:00	05/06/24 20:17	1
Antimony	ND		20.0	7.5	ug/L		05/04/24 10:00	05/06/24 20:17	1
Arsenic	ND		15.0	4.1	ug/L		05/04/24 10:00	05/06/24 20:17	1

Client Sample ID: RB-043024
Lab Sample ID: 480-219368-6

Date Collected: 04/30/24 13:30
Matrix: Water

Date Received: 04/30/24 15:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		200	3.0	ug/L		05/04/24 10:00	05/06/24 20:17	1
Beryllium	ND		5.0	0.60	ug/L		05/04/24 10:00	05/06/24 20:17	1
Cadmium	ND		5.0	0.45	ug/L		05/04/24 10:00	05/06/24 20:17	1
Calcium	ND		5000	307	ug/L		05/04/24 10:00	05/06/24 20:17	1
Chromium	ND		10.0	0.76	ug/L		05/04/24 10:00	05/06/24 20:17	1
Cobalt	ND		10.0	0.75	ug/L		05/04/24 10:00	05/06/24 20:17	1
Copper	ND		25.0	3.5	ug/L		05/04/24 10:00	05/06/24 20:17	1
Iron	ND		200	82.7	ug/L		05/04/24 10:00	05/06/24 20:17	1
Lead	ND		10.0	2.8	ug/L		05/04/24 10:00	05/06/24 20:17	1
Magnesium	ND		5000	259	ug/L		05/04/24 10:00	05/06/24 20:17	1
Manganese	ND		15.0	2.6	ug/L		05/04/24 10:00	05/06/24 20:17	1
Nickel	ND		40.0	2.2	ug/L		05/04/24 10:00	05/06/24 20:17	1
Potassium	ND		5000	557	ug/L		05/04/24 10:00	05/06/24 20:17	1
Selenium	ND		20.0	6.0	ug/L		05/04/24 10:00	05/06/24 20:17	1
Silver	**1.1**	**J**	10.0	0.62	ug/L		05/04/24 10:00	05/06/24 20:17	1
Sodium	**13400**	J+	5000	2110	ug/L		05/04/24 10:00	05/06/24 20:17	1
Thallium	ND		20.0	2.7	ug/L		05/04/24 10:00	05/06/24 20:17	1
Vanadium	ND		50.0	5.6	ug/L		05/04/24 10:00	05/06/24 20:17	1
Zinc	ND		50.0	22.5	ug/L		05/04/24 10:00	05/06/24 20:17	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	47.3	ug/L		05/04/24 10:00	05/06/24 20:21	1
Antimony	ND		20.0	7.5	ug/L		05/04/24 10:00	05/06/24 20:21	1
Arsenic	ND		15.0	4.1	ug/L		05/04/24 10:00	05/06/24 20:21	1
Barium	ND		200	3.0	ug/L		05/04/24 10:00	05/06/24 20:21	1
Beryllium	ND		5.0	0.60	ug/L		05/04/24 10:00	05/06/24 20:21	1
Cadmium	ND		5.0	0.45	ug/L		05/04/24 10:00	05/06/24 20:21	1
Calcium	ND		5000	307	ug/L		05/04/24 10:00	05/06/24 20:21	1
Chromium	ND		10.0	0.76	ug/L		05/04/24 10:00	05/06/24 20:21	1
Cobalt	ND		10.0	0.75	ug/L		05/04/24 10:00	05/06/24 20:21	1
Copper	ND		25.0	3.5	ug/L		05/04/24 10:00	05/06/24 20:21	1
Iron	ND		200	82.7	ug/L		05/04/24 10:00	05/06/24 20:21	1
Lead	ND		10.0	2.8	ug/L		05/04/24 10:00	05/06/24 20:21	1
Magnesium	ND		5000	259	ug/L		05/04/24 10:00	05/06/24 20:21	1
Manganese	ND		15.0	2.6	ug/L		05/04/24 10:00	05/06/24 20:21	1
Nickel	ND		40.0	2.2	ug/L		05/04/24 10:00	05/06/24 20:21	1
Potassium	ND		5000	557	ug/L		05/04/24 10:00	05/06/24 20:21	1
Selenium	ND		20.0	6.0	ug/L		05/04/24 10:00	05/06/24 20:21	1
Silver	ND		10.0	0.62	ug/L		05/04/24 10:00	05/06/24 20:21	1
Sodium	ND		5000	2110	ug/L		05/04/24 10:00	05/06/24 20:21	1
Thallium	ND		20.0	2.7	ug/L		05/04/24 10:00	05/06/24 20:21	1
Vanadium	ND		50.0	5.6	ug/L		05/04/24 10:00	05/06/24 20:21	1
Zinc	ND		50.0	22.5	ug/L		05/04/24 10:00	05/06/24 20:21	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/08/24 10:01	05/08/24 14:58	1

Client: Ashland LLC
Job ID: 480-219368-1
Project/Site: Tank 75 Analysis

Client Sample ID: RB-043024
Lab Sample ID: 480-219368-6

Date Collected: 04/30/24 13:30
Matrix: Water
Date Received: 04/30/24 15:00

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/09/24 10:31	05/09/24 17:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			05/03/24 01:04	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			05/03/24 01:37	1

ATTACHMENT B

SUPPORT DOCUMENTATION

>> Select a Laboratory or Service Center <<
#N/A
#N/A
#N/A
##

Chain of Custody Record

27595

eurofins | Environment Testing America

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Eurofins Environment Testing America

Client Contact	Project Manager: Colin Wasteneys	Site Contact: Ethan Smith	Date: 4-29-24	COC No: 1 of 1 COCs
AECOM	Email: colin.wasteneys@aecom.com	Lab Contact: John Beninati	Carrier:	TALS Project #:
50 Lakefront Blvd. Suite 111	Tel/Fax: (716) 225-4396			Sampler:
Buffalo, NY 14202	Analysis Turnaround Time			For Lab Use Only:
(716) 856-5636 Phone	☐ CALENDAR DAYS ☐ WORKING DAYS			Walk-in Client:
(xxx) xxx-xxxx FAX	TAT if different from Below STANDARD			Lab Sampling:
Project Name: Ashland Tank 75 Site	☐ 2 weeks			Job / SDG No.:
Site: Tank 75 Site, Tonawanda, NY	☐ 1 week			
P O # 60730037	☐ 2 days			
	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	8260C - TCL VOC + TICs	8270A - TCL SVOC + TICs	8081B - TCL Pests	8270D - TCL SVOC + TICs	6010C, 7470A TAL Metals	6010C, 7470A Dis. TAL Mtls + Hg	9012B NP Total Cyanide	9012B NP Cyanide Dissolved (Off	1633 - 533 Standard List	8270D SIM 1,4 Dioxane	Sample Specific Notes:
MW-03-042924	4-29-24	0920	G	Water	13			X	X	X	X	X	X	X	X			
~~MW-05~~ MW05-04-042924	4-29-24	1045	G	Water	18			X	X	X	X	X	X	X	X	X	X	
MW05-04-042924-MS	4-29-24	1050	G	Water	18			X	X	X	X	X	X	X	X	X	X	
MW05-04-042924-MSD	4-29-24	1055	G	Water	18			X	X	X	X	X	X	X	X	X	X	
MW-02S-042924	4-29-24	1306	G	Water	18			X	X	X	X	X	X	X	X	X	X	
MW-02S-042924-FD	4-29-24	1315	G	Water	18			X	X	X	X	X	X	X	X	X	X	
MW05-01-042924	4-29-24	1430	G	Water	18			X	X	X	X	X	X	X	X	X	X	
MW05-03-042924	4-29-24	1600	G	Water	15			X	X	X	X	X	X	X	X			
TB-042924	-	-	-	Water	2			X										
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other								2	1	1	1	4	4	5	5	1	1	

480-219333 Chain of Custody

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

CAT B + EQUIS

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____ Corr'd: _____	Therm ID No.: _____
Relinquished by:	Company: AECOM	Date/Time: 4-29-24 1715	Received by:	Company: ESA-Buffalo	Date/Time: 4/29/24 1715
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

2.8 2.5 3.0
2.7 2.9 ICE

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298
Phone: 716-691-2600 Fax: 716-691 7991

Chain of Custody Record

eurofins

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Beninati John	Carrier Tracking No(s):	COC No: 480-86756 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note): NELAP New York		Job #: 480-219333-1
Address: 180 S. Van Buren Avenue,	Due Date Requested: 5/13/2024			
City: Barberton	TAT Requested (days):			
State, Zip: OH 44203				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

Other:

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=wasteoil BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010D/3005A TAL Metals ICP	6010D/1311T_M TAL Metals ICP Dissolved FF	8081B/3510C TCL Pesticides	1633/1633_SPE 1633 Standard List	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X					X	
MW-03-042924 (480-219333-1)	4/29/24	09:20 Eastern		Water			X	X	X		2	
MW05-04-042924 (480-219333-2)	4/29/24	10:45 Eastern		Water			X	X	X	X	5	
MW05-04-042924 (480-219333-2MS)	4/29/24	10:50 Eastern	MS	Water			X	X	X	X	5	
MW05-04-042924 (480-219333-2MSD)	4/29/24	10:55 Eastern	MSD	Water			X	X	X	X	5	
MW-02S-042924 (480-219333-3)	4/29/24	13:06 Eastern		Water			X	X	X	X	5	
MW-02S-042924-FD (480-219333-4)	4/29/24	13.15 Eastern		Water			X	X	X	X	5	
MW05-01-042924 (480-219333-5)	4/29/24	14.30 Eastern		Water			X	X	X	X	5	
MW05-03-042924 (480-219333-6)	4/29/24	16:00 Eastern		Water			X	X	X		2	

Note: Since laboratory accreditations are subject to change Eurofins Environment Testing Northeast LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Ashley Hess	4-30-24 1600			5/1/24	Euro
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Job Narrative
480-219333-1

Receipt
The samples were received on 4/29/2024 5:15 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 2.5º C, 2.7º C, 2.8º C, 2.9º C and 3.0º C.

GC/MS VOA
Method 8260C: The continuing calibration verification (CCV) associated with batch 480-710160 recovered above the upper control limit for 1,1-Dichloroethene, 1,1,2-Trichloro-1,2,2-trifluoroethane, Trichlorofluoromethane and Vinyl chloride. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: MW-03-042924 (480-219333-1), MW05-04-042924 (480-219333-2), MW-02S-042924 (480-219333-3), MW-02S-042924-FD (480-219333-4), MW05-01-042924 (480-219333-5), MW05-03-042924 (480-219333-6) and TB-042924 (480-219333-7).

Method 8260C: The following volatiles samples were diluted due to foaming at the time of purging during the original sample analysis: MW-03-042924 (480-219333-1), MW05-04-042924 (480-219333-2), MW05-04-042924-MS (480-219333-2[MS]), MW05-04-042924-MSD (480-219333-2[MSD]) and MW05-01-042924 (480-219333-5). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method 8270D: The continuing calibration verification (CCV) associated with batch 480-710333 recovered above the upper control limit for Benzo(g,h,i)perylene and Indeno(1,2,3-cd)pyrene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: MW-03-042924 (480-219333-1), MW05-04-042924 (480-219333-2), MW-02S-042924 (480-219333-3), MW-02S-042924-FD (480-219333-4), MW05-01-042924 (480-219333-5) and MW05-03-042924 (480-219333-6).

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-710333 recovered outside acceptance criteria, low biased, for 2,4-Dinitrophenol and Hexachlorocyclopentadiene. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D: The minimum response factor (RF) criteria for the continuing calibration verification (CCV) analyzed in batch 480-710333 was outside criteria for the following analyte(s): Pentachlorophenol. As indicated in the reference method, sample analysis may proceed; however, any detection or non-detection for the affected analyte(s) is considered estimated.

Method 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 480-710141 and analytical batch 480-710333 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method 8081B: Sulfur was present in this sample, creating an interference detecting some of the pesticide compounds. TBA was used to remove the sulfur interference. Since the recovery of Endrin Aldehyde is drastically reduced when using TBA cleanup, this compound has to be reported from a diluted run of the extract that has not been subject to the TBA cleanup. The sample, method blank, and LCS that have been TBA cleaned have been qualified with a RA identifier: MW-02S-042924-FD (480-219333-4), MW05-01-042924 (480-219333-5), (LCS 240-611588/2-A) and (MB 240-611588/1-A)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

LCMS

Method 1633: Isotope Dilution Analyte (IDA) recovery for the Low Continuing Calibration Verification (CCV Low) is above the method recommended limit for the following analytes: 13C8 FOSA . Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries, the following affected samples are non detect for associated target analytes. MW05-04-042924 (480-219333-2), MW-02S-042924 (480-219333-3), MW-02S-042924-FD (480-219333-4) and MW05-01-042924 (480-219333-5)

Method 1633: Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following sample: MW05-04-042924 (480-219333-2) for M2-4:2 FTS . Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries, samples are non detect for associated target analytes.

Method 1633: Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following sample: MW05-01-042924 (480-219333-5) for M2-4:2 FTS and M2-8:2 FTS . Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries, samples are non detect for associated target analytes.

Method 1633: Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following sample: MW05-01-042924 (480-219333-5) for M2-6:2 FTS . Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries, samples were not ran at a dilution because diluting the sample to remove matrix affect on M2-6:2 FTS will dilute out the IDA's native compound, therefore the data is valid.

Method 1633: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 240-611570 and analytical batch 240-611678 was outside control limits. Sample matrix interference is suspected. The following compounds were affected: 3-Perfluoropropylpropanoic acid (3:3 FTCA), 3-Perfluoropentylpropanoic acid (5:3 FTCA) and 3-Perfluoroheptylpropanoic acid (7:3 FTCA)

Method 1633: Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for 13C6 PFDA in the CCV Low associated with the following sample: (480-219368-M-6-A). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries. The concentration for the associated native compound is within acceptance limits and data is reported with no corrective action.

Method 1633: Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for 13C6 PFDA in the CCV Low associated with the following samples: MW05-04-042924 (480-219333-2), MW05-04-042924-MS (480-219333-2[MS]) and MW05-04-042924-MSD (480-219333-2[MSD]). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries. The concentration for the associated native compound is within acceptance limits and data is reported with no corrective action.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Field Service / Mobile Lab
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Methods 9012B: The initial calibration verification (ICV) result for batch 480-710579 was above the upper control limit. The affected analytes are: Cyanide, Total. Sample results were non-detects, and have been reported as qualified data. MW-03-042924 (480-219333-1), MW-02S-042924 (480-219333-3), MW-02S-042924-FD (480-219333-4), MW05-01-042924 (480-219333-5), MW05-03-042924 (480-219333-6), (ICV 480-710579/15), (480-219368-K-6), (480-219368-L-6) and (480-219368-L-6 DU)

Methods 9012B: The continuing calibration verification (CCV) associated with batch 480-710579 recovered above the upper control limit for Cyanide, Total. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: MW-03-042924 (480-219333-1), MW-02S-042924 (480-219333-3) and (CCV 480-710579/19).

Methods 9012B: The continuing calibration blank (CCB) and method blank (MB) for analytical batch 480-710579 contained Cyanide, Total above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

Methods 9012B: The method blank for preparation batch 480-710579 contained Cyanide, Total above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

Methods 9012B: The continuing calibration blank (CCB) for analytical batch 480-710579 contained Cyanide, Total above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins Buffalo Job No.: 480-219333-1

SDG No.:

Lab File ID: Y036431.D DFTPP Injection Date: 05/02/2024

Instrument ID: HP5973Y DFTPP Injection Time: 10:40

Analysis Batch No.: 710333

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10-80% of Base Peak	40.2
68	Less than 2% of mass 69	0.0 (0.0) 1
69	Mass 69 Relative abundance	46.9
70	Less than 2% of mass 69	0.2 (0.5) 1
127	10-80% of Base Peak	54.4
197	Less than 2% of mass 198	0.0
198	Base peak	100.0
199	5-9% of mass 198	7.2
275	10-60% of Base Peak	26.3
365	Greater than 1% of mass 198	3.8
441	present but less than 24% of mass 442	22.2 (19.0) 2
442	Greater than 50% of mass 198	116.9
443	15-24% of mass 442	24.2 (20.7) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 480-710333/3	Y036432.D	05/02/2024	11:07
	MB 480-710141/1-A	Y036439.D	05/02/2024	14:22
	LCS 480-710141/2-A	Y036440.D	05/02/2024	14:50
MW05-04-042924-MS MS	480-219333-2 MS	Y036441.D	05/02/2024	15:17
MW05-04-042924-MSD MSD	480-219333-2 MSD	Y036442.D	05/02/2024	15:45
MW05-04-042924	480-219333-2	Y036443.D	05/02/2024	16:13
MW-03-042924	480-219333-1	Y036444.D	05/02/2024	16:41
MW-02S-042924	480-219333-3	Y036445.D	05/02/2024	17:08
MW-02S-042924-FD	480-219333-4	Y036446.D	05/02/2024	17:36
MW05-01-042924	480-219333-5	Y036447.D	05/02/2024	18:04
MW05-03-042924	480-219333-6	Y036448.D	05/02/2024	18:32

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Buffalo | Job No.: 480-219333-1

SDG No.:

Lab Sample ID: CCVIS 480-710333/3 | Calibration Date: 05/02/2024 11:07

Instrument ID: HP5973Y | Calib Start Date: 04/30/2024 23:23

GC Column: RXI-5Sil MS ID: 0.25(mm) | Calib End Date: 05/01/2024 02:36

Lab File ID: Y036432.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Biphenyl	Ave	1.444	1.456	0.0100	4030	4000	0.8	20.0
2-Chloronaphthalene	Ave	1.139	1.134	0.8000	3980	4000	-0.5	20.0
2-Nitroaniline	Lin2		0.3301	0.0100	3860	4000	-3.5	20.0
Dimethyl phthalate	Ave	1.124	1.122	0.0100	3990	4000	-0.2	20.0
1,3-Dinitrobenzene	Lin2		0.0976	0.0100	3930	4000	-1.8	20.0
2,6-Dinitrotoluene	Lin2		0.2761	0.2000	3850	4000	-3.8	20.0
Acenaphthylene	Lin2		1.741	0.9000	4180	4000	4.4	20.0
3-Nitroaniline	Lin2		0.3175	0.0100	3870	4000	-3.2	20.0
Acenaphthene	Ave	1.220	1.234	0.9000	4050	4000	1.2	20.0
2,4-Dinitrophenol	Lin1		0.0659	0.0100	5710	8000	-28.7*	20.0
4-Nitrophenol	Lin2		0.1167	0.0100	7250	8000	-9.3	20.0
2,4-Dinitrotoluene	Lin2		0.3465	0.2000	3800	4000	-5.0	20.0
Dibenzofuran	Ave	1.523	1.527	0.8000	4010	4000	0.3	20.0
2,3,4,6-Tetrachlorophenol	Lin2		0.1925	0.0100	3380	4000	-15.4	20.0
Hexadecane	Lin2		0.7880	0.0100	3900	4000	-2.5	20.0
Diethyl phthalate	Ave	1.235	1.237	0.0100	4010	4000	0.2	20.0
4-Chlorophenyl phenyl ether	Ave	0.5653	0.5556	0.4000	3930	4000	-1.7	20.0
4-Nitroaniline	Lin2		0.3408	0.0100	3900	4000	-2.4	20.0
Fluorene	Ave	1.241	1.262	0.9000	4070	4000	1.7	20.0
4,6-Dinitro-2-methylphenol	Lin2		0.0912	0.0100	7000	8000	-12.5	20.0
Diphenylamine	Lin2		0.6500	0.0100	3420	3420	0.0	20.0
N-Nitrosodiphenylamine	Lin2		0.5558	0.0100	4000	4000	0.1	20.0
1,2-Diphenylhydrazine	Lin2		0.8742	0.0100	4060	4000	1.6	20.0
trans-Azobenzene	Lin2		0.8742	0.0100	4060	4000	1.6	20.0
4-Bromophenyl phenyl ether	Lin2		0.2094	0.1000	4100	4000	2.5	20.0
Hexachlorobenzene	Lin2		0.2542	0.1000	3950	4000	-1.1	20.0
Atrazine	Ave	0.2978	0.3099	0.0100	8320	8000	4.1	20.0
n-Octadecane	Lin2		0.5143	0.0100	3980	4000	-0.4	20.0
Pentachlorophenol	Lin1		0.0432*	0.0500	4740	8000	-40.8	50.0
Phenanthrene	Ave	1.037	1.097	0.7000	4230	4000	5.7	20.0
Anthracene	Ave	1.033	1.080	0.7000	4180	4000	4.5	20.0
Carbazole	Ave	0.9260	0.9513	0.0100	4110	4000	2.7	20.0
Di-n-butyl phthalate	Lin2		1.353	0.0100	4230	4000	5.7	20.0
Fluoranthene	Lin2		1.086	0.6000	4160	4000	4.0	20.0
Benzidine	Lin2		0.5902	0.0100	8540	8000	6.8	50.0
Pyrene	Ave	1.368	1.409	0.6000	4120	4000	3.0	20.0
Butyl benzyl phthalate	Lin2		0.6996	0.0100	3930	4000	-1.6	20.0
Bis(2-ethylhexyl) phthalate	Lin2		0.999	0.0100	3960	4000	-1.0	20.0
3,3'-Dichlorobenzidine	Lin2		0.5025	0.0100	8020	8000	0.2	50.0
Benzo(a)anthracene	Ave	1.295	1.304	0.8000	4030	4000	0.6	20.0
Chrysene	Ave	1.233	1.227	0.7000	3980	4000	-0.5	20.0

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Buffalo Job No.: 480-219333-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Y036441.D

Lab ID: 480-219333-2 MS Client ID: MW05-04-042924-MS MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
2,4,5-Trichlorophenol	32.0	ND	32.8	102	65-126	
2,4,6-Trichlorophenol	32.0	ND	33.4	104	64-120	
2,4-Dichlorophenol	32.0	ND	29.4	92	48-132	
2,4-Dimethylphenol	32.0	ND	29.3	91	39-130	
2,4-Dinitrophenol	64.0	ND	63.8	100	21-150	
2,4-Dinitrotoluene	32.0	ND	33.4	104	54-138	
2,6-Dinitrotoluene	32.0	ND	32.1	100	17-150	
2-Chloronaphthalene	32.0	ND	28.5	89	52-124	
2-Chlorophenol	32.0	ND	27.7	87	48-120	
2-Methylnaphthalene	32.0	ND	28.1	88	34-140	
2-Methylphenol	32.0	ND	28.6	89	46-120	
2-Nitroaniline	32.0	ND	32.1	100	44-136	
2-Nitrophenol	32.0	ND	28.9	90	38-141	
3,3'-Dichlorobenzidine	64.0	ND	2.02 J	3	10-150	F1
3-Nitroaniline	32.0	ND	16.7	52	32-150	
4,6-Dinitro-2-methylphenol	64.0	ND	65.7	103	38-150	
4-Bromophenyl phenyl ether	32.0	ND	31.8	99	63-126	
4-Chloro-3-methylphenol	32.0	ND	31.3	98	64-127	
4-Chloroaniline	32.0	ND	14.5	45	16-124	
4-Chlorophenyl phenyl ether	32.0	ND	31.0	97	61-120	
4-Methylphenol	32.0	ND	28.4	89	36-120	
4-Nitroaniline	32.0	ND	28.8	90	32-150	
4-Nitrophenol	64.0	ND	55.0	86	23-132	
Acenaphthene	32.0	ND	30.6	95	48-120	
Acenaphthylene	32.0	ND	30.8	96	63-120	
Acetophenone	32.0	ND	29.2	91	53-120	
Anthracene	32.0	ND	33.2	104	65-122	
Atrazine	64.0	ND	59.5	93	50-150	
Benzaldehyde	64.0	ND	48.8	76	10-150	
Benzo(a)anthracene	32.0	ND	25.9	81	43-124	
Benzo(a)pyrene	32.0	ND	23.2	73	23-125	
Benzo(b)fluoranthene	32.0	ND	23.3	73	27-127	
Benzo(g,h,i)perylene	32.0	ND	27.6	86	16-147	
Benzo(k)fluoranthene	32.0	ND	23.0	72	20-124	
Biphenyl	32.0	ND	29.0	91	57-120	
bis (2-chloroisopropyl) ether	32.0	ND	28.0	88	28-121	
Bis(2-chloroethoxy)methane	32.0	ND	29.1	91	44-128	
Bis(2-chloroethyl)ether	32.0	ND	35.9	112	45-120	
Bis(2-ethylhexyl) phthalate	32.0	ND	22.7	71	16-150	
Butyl benzyl phthalate	32.0	ND	30.2	94	51-140	
Caprolactam	64.0	ND	23.8	37	10-120	
Carbazole	32.0	ND	36.0	113	16-148	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Buffalo Job No.: 480-219333-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Y036442.D

Lab ID: 480-219333-2 MSD Client ID: MW05-04-042924-MSD MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
2,4,5-Trichlorophenol	32.0	35.9	112	9	18	65-126	
2,4,6-Trichlorophenol	32.0	35.7	111	7	19	64-120	
2,4-Dichlorophenol	32.0	32.3	101	9	19	48-132	
2,4-Dimethylphenol	32.0	31.8	99	8	42	39-130	
2,4-Dinitrophenol	64.0	66.6	104	4	22	21-150	
2,4-Dinitrotoluene	32.0	35.7	112	7	20	54-138	
2,6-Dinitrotoluene	32.0	34.4	107	7	15	17-150	
2-Chloronaphthalene	32.0	32.4	101	13	21	52-124	
2-Chlorophenol	32.0	30.5	95	10	25	48-120	
2-Methylnaphthalene	32.0	31.3	98	11	21	34-140	
2-Methylphenol	32.0	31.0	97	8	27	46-120	
2-Nitroaniline	32.0	34.2	107	6	15	44-136	
2-Nitrophenol	32.0	31.7	99	9	18	38-141	
3,3'-Dichlorobenzidine	64.0	1.85 J	3	9	25	10-150	F1
3-Nitroaniline	32.0	18.9	59	13	19	32-150	
4,6-Dinitro-2-methylphenol	64.0	68.3	107	4	15	38-150	
4-Bromophenyl phenyl ether	32.0	32.8	103	3	15	63-126	
4-Chloro-3-methylphenol	32.0	33.4	104	7	27	64-127	
4-Chloroaniline	32.0	17.1	53	16	22	16-124	
4-Chlorophenyl phenyl ether	32.0	33.3	104	7	16	61-120	
4-Methylphenol	32.0	30.6	96	7	24	36-120	
4-Nitroaniline	32.0	29.9	94	4	24	32-150	
4-Nitrophenol	64.0	58.6	92	6	48	23-132	
Acenaphthene	32.0	34.1	107	11	24	48-120	
Acenaphthylene	32.0	34.2	107	10	18	63-120	
Acetophenone	32.0	32.0	100	9	20	53-120	
Anthracene	32.0	33.7	105	1	15	65-122	
Atrazine	64.0	63.8	100	7	20	50-150	
Benzaldehyde	64.0	55.7	87	13	20	10-150	
Benzo(a)anthracene	32.0	25.9	81	0	15	43-124	
Benzo(a)pyrene	32.0	22.4	70	4	15	23-125	
Benzo(b)fluoranthene	32.0	22.7	71	3	15	27-127	
Benzo(g,h,i)perylene	32.0	26.5	83	4	15	16-147	
Benzo(k)fluoranthene	32.0	21.8	68	5	22	20-124	
Biphenyl	32.0	32.7	102	12	20	57-120	
bis (2-chloroisopropyl) ether	32.0	31.6	99	12	24	28-121	
Bis(2-chloroethoxy)methane	32.0	31.8	99	9	17	44-128	
Bis(2-chloroethyl)ether	32.0	38.7	121	7	21	45-120	F1
Bis(2-ethylhexyl) phthalate	32.0	22.6	71	1	15	16-150	
Butyl benzyl phthalate	32.0	31.4	98	4	16	51-140	
Caprolactam	64.0	25.2	39	6	20	10-120	
Carbazole	32.0	37.3	116	3	20	16-148	

Column to be used to flag recovery and RPD values

FORM III 8270D

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: Eurofins Cleveland Job No.: 480-219333-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-613290/1-A

Instrument Code: I9 Batch No.: 613551

CAS No.	Analyte	Concentration	C	Q	Method
7429-90-5	Aluminum	ND			6010D
7440-36-0	Antimony	ND			6010D
7440-38-2	Arsenic	ND			6010D
7440-39-3	Barium	ND			6010D
7440-41-7	Beryllium	ND			6010D
7440-43-9	Cadmium	ND			6010D
7440-70-2	Calcium	ND			6010D
7440-47-3	Chromium	ND			6010D
7440-48-4	Cobalt	ND			6010D
7440-50-8	Copper	ND			6010D
7439-89-6	Iron	ND			6010D
7439-92-1	Lead	ND			6010D
7439-95-4	Magnesium	ND			6010D
7439-96-5	Manganese	ND			6010D
7440-02-0	Nickel	ND			6010D
7440-09-7	Potassium	ND			6010D
7782-49-2	Selenium	ND			6010D
7440-22-4	Silver	ND			6010D
7440-23-5	Sodium	ND			6010D
7440-28-0	Thallium	ND			6010D
7440-62-2	Vanadium	8.14	J		6010D
7440-66-6	Zinc	ND			6010D

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins Cleveland Job No.: 480-219333-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-613551/56 05/18/2024 11:36							
		Found	C	Found	C	Found	C	Found	C
Aluminum	200	ND							
Antimony	20.0	ND							
Arsenic	15.0	ND							
Barium	200	ND							
Beryllium	5.0	ND							
Cadmium	5.0	ND							
Calcium	5000	ND							
Chromium	10.0	ND							
Cobalt	10.0	ND							
Copper	25.0	ND							
Iron	200	ND							
Lead	10.0	ND							
Magnesium	5000	ND							
Manganese	15.0	ND							
Nickel	40.0	ND							
Potassium	5000	ND							
Selenium	20.0	ND							
Silver	10.0	ND							
Sodium	5000	ND							
Thallium	20.0	ND							
Vanadium	50.0	6.69	J						
Zinc	50.0	ND							

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins Buffalo Job No.: 480-219333-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 710579	Date: 05/02/2024 22:34						
9012B	MB 480-710579/21	Cyanide, Total	ND	^1+ ^+	mg/L	0.010	1
Batch ID: 710579	Date: 05/02/2024 23:45						
9012B	MB 480-710579/47	Cyanide, Total	0.0297	^1+	mg/L	0.010	1
Batch ID: 710579	Date: 05/03/2024 00:59						
9012B	MB 480-710579/75	Cyanide, Total	0.0298	^1+	mg/L	0.010	1
Batch ID: 711260	Date: 05/08/2024 19:52						
9012B	MB 480-711260/46	Cyanide, Total	0.00930	J	mg/L	0.010	1
Batch ID: 711260	Date: 05/08/2024 21:08						
9012B	MB 480-711260/74	Cyanide, Total	0.00990	J	mg/L	0.010	1

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins Buffalo Job No.: 480-219333-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 710579	Date: 05/02/2024 22:34						
9012B	MB 480-710579/21	Cyanide, Total	ND	^1+ ^+	mg/L	0.010	1
Batch ID: 710579	Date: 05/02/2024 23:45						
9012B	MB 480-710579/47	Cyanide, Total	0.0297	^1+	mg/L	0.010	1
Batch ID: 710579	Date: 05/03/2024 00:59						
9012B	MB 480-710579/75	Cyanide, Total	0.0298	^1+	mg/L	0.010	1
Batch ID: 711260	Date: 05/08/2024 19:52						
9012B	MB 480-711260/46	Cyanide, Total	0.00930	J	mg/L	0.010	1
Batch ID: 711260	Date: 05/08/2024 21:08						
9012B	MB 480-711260/74	Cyanide, Total	0.00990	J	mg/L	0.010	1

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Buffalo Job No.: 480-219333-1

SDG No.:

Analyst: GW Batch Start Date: 05/08/2024

Reporting Units: mg/L Analytical Batch No.: 711260

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
15	ICV	18:28	Cyanide, Total	0.263	0.250	105	90-110		WC_CN ICV_00218
16	ICB	18:31	Cyanide, Total	ND					
17	CCV	18:33	Cyanide, Total	0.253	0.250	101	90-110		WC_CN CCV/LCS_00375
18	CCB	18:36	Cyanide, Total	ND					
29	CCV	19:05	Cyanide, Total	0.260	0.250	104	90-110		WC_CN CCV/LCS_00375
30	CCB	19:08	Cyanide, Total	ND					
43	CCV	19:43	Cyanide, Total	0.240	0.250	96	90-110		WC_CN CCV/LCS_00375
44	CCB	19:46	Cyanide, Total	0.00800				J	
56	CCV	20:20	Cyanide, Total	0.265	0.250	106	90-110		WC_CN CCV/LCS_00375
57	CCB	20:23	Cyanide, Total	0.00790				J	
70	CCV	20:57	Cyanide, Total	0.238	0.250	95	90-110		WC_CN CCV/LCS_00375
71	CCB	21:00	Cyanide, Total	0.00750				J	
84	CCV	21:35	Cyanide, Total	0.250	0.250	100	90-110		WC_CN CCV/LCS_00375
85	CCB	21:37	Cyanide, Total	0.00670				J	
98	CCV	22:12	Cyanide, Total	0.253	0.250	101	90-110		WC_CN CCV/LCS_00375
99	CCB	22:15	Cyanide, Total	0.00780				J	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Buffalo Job No.: 480-219333-1

SDG No.:

Analyst: GW Batch Start Date: 05/02/2024

Reporting Units: mg/L Analytical Batch No.: 710579

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
15	ICV	22:19	Cyanide, Total	0.291	0.250	116	90-110		WC_CN ICV_00217
16	ICB	22:21	Cyanide, Total	0.0443					
19	CCV	22:30	Cyanide, Total	0.312	0.250	125	90-110		WC_CN CCV/LCS_00371
20	CCB	22:31	Cyanide, Total	0.0259					
29	CCV	22:55	Cyanide, Total	0.252	0.250	101	90-110		WC_CN CCV/LCS_00371
30	CCB	22:58	Cyanide, Total	0.0199					
43	CCV	23:33	Cyanide, Total	0.229	0.250	92	90-110		WC_CN CCV/LCS_00371
44	CCB	23:36	Cyanide, Total	0.00470				J	
57	CCV	00:10	Cyanide, Total	0.241	0.250	97	90-110		WC_CN CCV/LCS_00371
58	CCB	00:13	Cyanide, Total	0.0114					
71	CCV	00:48	Cyanide, Total	0.238	0.250	95	90-110		WC_CN CCV/LCS_00371
72	CCB	00:50	Cyanide, Total	0.0129					
85	CCV	01:25	Cyanide, Total	0.251	0.250	100	90-110		WC_CN CCV/LCS_00371
86	CCB	01:28	Cyanide, Total	0.00720				J	
94	CCV	01:49	Cyanide, Total	0.256	0.250	103	90-110		WC_CN CCV/LCS_00371
95	CCB	01:52	Cyanide, Total	0.00590				J	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins Buffalo Job No.: 480-219333-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 711260 Date: 05/08/2024 19:19											
9012B	480-219333-2	Cyanide, Total	ND		mg/L						
9012B	480-219333-2 MS	Cyanide, Total	0.0930		mg/L	0.100	93	90-110			
Batch ID: 711260 Date: 05/08/2024 20:33											
9012B	480-219333-2	Cyanide, Total	0.0094	J	mg/L						B F1
9012B	480-219333-2 MS	Cyanide, Total	0.0926		mg/L	0.100	83	90-110			F1

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins Buffalo Job No.: 480-219333-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 711260 Date: 05/08/2024 19:21											
9012B	480-219333-2 MSD	Cyanide, Total	0.0969		mg/L	0.100	97	90-110	4	15	
Batch ID: 711260 Date: 05/08/2024 20:36											
9012B	480-219333-2 MSD	Cyanide, Total	0.0976		mg/L	0.100	88	90-110	5	15	F1

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

>> Select a Laboratory or Service Center <<
#N/A
#N/A
#N/A
##

Chain of Custody Record

eurofins | Environment Testing America

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Eurofins Environment Testing Americ

Client Contact		Project Manager: Colin Wadeneys	Site Contact: Ellen Smith	Date: 4-30-24	COC No: 1 of 1 COCs
Your Company Name here	AECOM	Email: colin.wadeneys@aecom.com	Lab Contact: Sam Bennett	Carrier:	TALS Project #:
Address	50 Hallett Blvd Suite 111	Tel/Fax: (716) 225-4396			Sampler:
City/State/Zip	Buffalo NY 14202	Analysis Turnaround Time			For Lab Use Only:
(xxx) xxx-xxxx	Phone (716)856-0636	☐ CALENDAR DAYS ☐ WORKING DAYS			Walk-in Client:
(xxx) xxx-xxxx	FAX	TAT if different from Below STANDARD			Lab Sampling:
Project Name:	Ashland Tank 75 Site	☐ 2 weeks			Job / SDG No.:
Site:	Tank 75 Site, Tonawanda, NY	☐ 1 week			
P O #	60730037	☐ 2 days			
		☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	8260C - TCL VOC + TICs	8082A - TCL PCBs	8081B - TCL Pests	8270D - TCL SVOC + TICs	6010C, 7470A Diss TAL Metals, Hg	6010C, 7470A TAL Metals, Hg	9012B NP Cyanide Dissolved (Filt	9012B NP Cyanide Total	1633 - 1633 Standard List	8270D - SIM 1,4-Dioxane	Sample Specific Notes:
MW05-02-043024	4-30-24	0905	G	GW	13			X	X	X	X	X	X	X	X			
MW-04S-043024	4-30-24	1035	G	GW	13			X	X	X	X	X	X	X	X			
TB-043024	-	-	G	Water	2			X										
MW-04D-043024	4-30-24	1135	G	GW	13			X	X	X	X	X	X	X	X			
MW-02D-043024	4-30-24	1300	G	GW	18			X	X	X	X			X	X	X	X	Lab filter for dissolved TAL metals + Hg and dissolved cyanide analysis
RB-043024	4-30-24	1330	G	Water	18			X	X	X	X			X	X	X	X	Lab filter for dissolved TAL metals + Hg and dissolved cyanide analysis
								2	1	1	1	4	4	5	5	1	1	

480-219368 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

CAT B + EQUIS

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____ Corr'd: _____		Therm ID No.:
Relinquished by:	Company: AECOM	Date/Time: 4-30-24 1500	Received by:	Company:	Date/Time: 4/30/24 1500
Relinquished by:	Company:	Date/Time:	Received by:	Company: FedEx	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: 3.0 2.8	Company: 2.5 ICE	Date/Time:

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-86798.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note): NELAP - New York		Job #: 480-219368-1
Address: 180 S. Van Buren Avenue, ,	Due Date Requested: 5/13/2024			Preservation Codes: -
City: Barberton	TAT Requested (days):			
State, Zip: OH, 44203				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site:	SSOW#:			Other: PFAS 4

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8081B/3510C TCL Pesticides	6010D/3005A TAL Metals ICP	6010D/FIELD_FLTRD TAL Metals ICP - Dissolved FF	1633/1633_SPE 1633 Standard List	Total Number of containers	Special Instructions/Note: E165, M015, G092
			Preservation Code:									
MW05-02-043024 (480-219368-1)	4/30/24	09:05 Eastern		Water			X	X	X		4	
MW-04S-043024 (480-219368-2)	4/30/24	10:35 Eastern		Water			X	X	X		4	
MW-04D-043024 (480-219368-4)	4/30/24	11:35 Eastern		Water			X	X	X		4	
MW-02D-043024 (480-219368-5)	4/30/24	13:00 Eastern		Water			X	X	X	X	7	
RB-043024 (480-219368-6)	4/30/24	13:30 Eastern		Water			X	X	X	X	7	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
	5/1/24 1645	ETA Buffalo		5.2.24 0935	EETNC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company
Relinquished by:	Date/Time:	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Job Narrative
480-219368-1

Receipt
The samples were received on 4/30/2024 3:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 2.5º C, 2.8º C and 3.0º C.

GC/MS VOA
Method 8260C: The continuing calibration verification (CCV) associated with batch 480-710397 recovered outside acceptance criteria, low biased, for Chloromethane. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported. The associated samples are impacted: MW-02D-043024 (480-219368-5) and RB-043024 (480-219368-6).

Method 8260C: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for analytical batch 480-710397 recovered outside control limits for the following analyte(s): Dichlorodifluoromethane. Dichlorodifluoromethane has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. The associated samples are impacted: MW-02D-043024 (480-219368-5) and RB-043024 (480-219368-6).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-710397 recovered above the upper control limit for Carbon tetrachloride . The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: MW-02D-043024 (480-219368-5) and RB-043024 (480-219368-6).

Method 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 480-710309 recovered outside control limits for the following analytes: 1,2-Dichloroethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. The associated samples are impacted: TB-043024 (480-219368-3) and MW-04D-043024 (480-219368-4).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-710309 recovered outside acceptance criteria, low biased, for 4-Methyl-2-pentanone. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported. The associated samples are impacted: TB-043024 (480-219368-3) and MW-04D-043024 (480-219368-4).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-710309 recovered above the upper control limit for Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: TB-043024 (480-219368-3) and MW-04D-043024 (480-219368-4).

Method 8260C: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 480-710309 recovered outside control limits for the following analytes: Bromomethane and Chloroethane. The associated samples are impacted: TB-043024 (480-219368-3) and MW-04D-043024 (480-219368-4).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-710791 recovered above the upper control limit for 1,1,2-Trichloro-1,2,2-trifluoroethane, 1,1-Dichloroethene, Carbon disulfide, Methylene Chloride, Trichlorofluoromethane and Vinyl chloride. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: MW05-02-043024 (480-219368-1) and MW-04S-043024 (480-219368-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method 8270D: The continuing calibration verification (CCV) associated with batch 480-710494 recovered outside acceptance criteria, low biased, for 2,4-Dinitrophenol. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-710494 recovered above the upper control limit for Benzo(g,h,i)perylene, Hexachlorocyclopentadiene and Indeno(1,2,3-cd)pyrene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: MW05-02-043024 (480-219368-1), MW-04S-043024 (480-219368-2), MW-04D-043024 (480-219368-4), MW-02D-043024 (480-219368-5) and RB-043024 (480-219368-6).

Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: MW-04D-043024 (480-219368-4) and MW-02D-043024 (480-219368-5). These results have been reported and qualified.

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 480-710433 and analytical batch 480-710494 recovered outside control limits for multiple analytes.

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-711112 recovered outside acceptance criteria, low biased, for 2,4-Dinitrophenol and Hexachlorocyclopentadiene. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: MW-02D-043024 (480-219368-5). These results have been reported and qualified.

Method 8270D: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 480-710923 and analytical batch 480-711112 recovered outside control limits for the following analytes: Bis(2-chloroethoxy)methane and Carbazole. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
Method 6010D: The continuing calibration verification (CCV) associated with batch 240-612073 recovered above the upper control limit for selenium. The samples associated with this CCV were on-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: MW05-02-043024 (480-219368-1), MW-04S-043024 (480-219368-2), MW-04D-043024 (480-219368-4), MW-02D-043024 (480-219368-5) and RB-043024 (480-219368-6).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

LCMS
Method 1633: Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for 13C6 PFDA in the CCV Low associated with the following samples: MW-02D-043024 (480-219368-5) and RB-043024 (480-219368-6). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries. The concentration for the associated native compound is within acceptance limits and data is reported with no corrective action.

Method 1633: Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for 13C6 PFDA in the CCV Low associated with the following sample: (480-219368-O-6-A DU). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries. The concentration for the associated native compound is within acceptance limits and data is reported with no corrective action.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Field Service / Mobile Lab
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Methods 9012B: The initial calibration verification (ICV) result for batch 480-710579 was above the upper control limit. The affected analytes are: Cyanide, Total. Sample results were non-detects, and have been reported as qualified data. MW05-02-043024 (480-219368-1), MW-04S-043024 (480-219368-2), MW-04D-043024 (480-219368-4), MW-02D-043024 (480-219368-5), RB-043024 (480-219368-6), (ICV 480-710579/15), (480-219368-L-6 DU), (480-219368-K-6 MS) and (480-219368-L-6 MS)

Methods 9012B: The continuing calibration verification (CCV) associated with batch 480-710579 recovered above the upper control limit for Cyanide, Total. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 480-710579/19).

Methods 9012B: The continuing calibration blank (CCB) and method blank (MB) for analytical batch 480-710579 contained Cyanide, Total above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

Methods 9012B: The method blank for preparation batch 480-710579 contained Cyanide, Total above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

Methods 9012B: The continuing calibration blank (CCB) for analytical batch 480-710579 contained Cyanide, Total above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-710206.

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-710433.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Buffalo Job No.: 480-219368-1

SDG No.:

Lab File ID: N7294.d BFB Injection Date: 05/02/2024

Instrument ID: HP5973N BFB Injection Time: 10:42

Analysis Batch No.: 710309

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	35.3	
75	30.0 - 60.0 % of mass 95	52.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.4	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	Greater than 50% of mass 95	87.7	
175	5.0 - 9.0 % of mass 174	6.2	(7.0) 1
176	95.0 - 101.0 % of mass 174	85.4	(97.4) 1
177	5.0 - 9.0 % of mass 176	6.2	(7.3) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 480-710309/4	N7295.d	05/02/2024	11:06
	LCS 480-710309/6	N7297.d	05/02/2024	12:03
	MB 480-710309/32	N7300.d	05/02/2024	13:57
TB-043024	480-219368-3	N7320.d	05/02/2024	21:34
MW-04D-043024	480-219368-4	N7321.d	05/02/2024	21:56
	LCSD 480-710309/31	N7323.d	05/02/2024	22:42

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Buffalo Job No.: 480-219368-1

SDG No.:

Lab File ID: D2213.d BFB Injection Date: 05/06/2024

Instrument ID: HP5975D BFB Injection Time: 11:01

Analysis Batch No.: 710791

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.7	
75	30.0 - 60.0 % of mass 95	44.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.4	(0.4) 1
174	Greater than 50% of mass 95	101.4	
175	5.0 - 9.0 % of mass 174	7.4	(7.3) 1
176	95.0 - 101.0 % of mass 174	99.6	(98.2) 1
177	5.0 - 9.0 % of mass 176	6.5	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 480-710791/4	D2214.d	05/06/2024	11:41
	LCS 480-710791/6	D2216.d	05/06/2024	12:25
	MB 480-710791/8	D2218.d	05/06/2024	13:10
MW05-02-043024	480-219368-1	D2220.d	05/06/2024	14:27
MW-04S-043024	480-219368-2	D2221.d	05/06/2024	14:49

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Buffalo Job No.: 480-219368-1

SDG No.:

Lab Sample ID: CCVIS 480-710309/4 Calibration Date: 05/02/2024 11:06

Instrument ID: HP5973N Calib Start Date: 03/26/2024 15:59

GC Column: ZB-624 (20) ID: 0.18(mm) Calib End Date: 03/26/2024 18:37

Lab File ID: N7295.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	2.149	2.074	0.1000	24.1	25.0	-3.5	20.0
1,2-Dichloropropane	Ave	1.321	1.331	0.1000	25.2	25.0	0.7	20.0
Dibromomethane	Ave	0.7361	0.8085	0.1000	27.5	25.0	9.8	20.0
1,4-Dioxane	Ave	0.0046	0.0030		334	500	-33.1	50.0
Bromodichloromethane	Ave	1.423	1.613	0.2000	28.3	25.0	13.3	20.0
2-Chloroethyl vinyl ether	Ave	0.8351	0.8339		25.0	25.0	-0.1	20.0
cis-1,3-Dichloropropene	Ave	1.570	1.731	0.2000	27.6	25.0	10.3	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3297	0.2524	0.1000	95.7	125	-23.5*	20.0
Toluene	Ave	0.7599	0.7568	0.4000	24.9	25.0	-0.4	20.0
trans-1,3-Dichloropropene	Ave	0.4263	0.4174	0.1000	24.5	25.0	-2.1	20.0
Ethyl methacrylate	Ave	0.4907	0.3420		17.4	25.0	-30.3*	20.0
1,1,2-Trichloroethane	Ave	0.2396	0.2204	0.1000	23.0	25.0	-8.0	20.0
Tetrachloroethene	Ave	0.3090	0.3598	0.2000	29.1	25.0	16.5	20.0
1,3-Dichloropropane	Ave	0.4482	0.4245		23.7	25.0	-5.3	20.0
2-Hexanone	Ave	0.7249	0.5886	0.1000	101	125	-18.8	20.0
Dibromochloromethane	Ave	0.2985	0.3434	0.1000	28.8	25.0	15.1	20.0
1,2-Dibromoethane	Ave	0.2849	0.2924		25.7	25.0	2.6	20.0
Chlorobenzene	Ave	0.8356	0.8869	0.5000	26.5	25.0	6.1	20.0
Ethylbenzene	Ave	1.479	1.442	0.1000	24.4	25.0	-2.5	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3461	0.3558		25.7	25.0	2.8	20.0
m,p-Xylene	Ave	0.5653	0.5496	0.1000	24.3	25.0	-2.8	20.0
o-Xylene	Ave	0.6016	0.5743	0.3000	23.9	25.0	-4.5	20.0
Styrene	Ave	0.8999	0.8860	0.3000	24.6	25.0	-1.6	20.0
Bromoform	Ave	0.2065	0.2267	0.1000	27.5	25.0	9.8	50.0
Isopropylbenzene	Ave	2.712	2.794	0.1000	25.8	25.0	3.0	20.0
Bromobenzene	Ave	0.6314	0.7046		27.9	25.0	11.6	20.0
1,1,2,2-Tetrachloroethane	Ave	0.8817	0.7308	0.3000	20.7	25.0	-17.1	20.0
N-Propylbenzene	Ave	3.186	3.100		24.3	25.0	-2.7	20.0
1,2,3-Trichloropropane	Ave	0.2655	0.2506		23.6	25.0	-5.6	20.0
trans-1,4-Dichloro-2-butene	Ave	0.4670	0.2670		14.3	25.0	-42.8	50.0
2-Chlorotoluene	Ave	0.6479	0.6769		26.1	25.0	4.5	20.0
1,3,5-Trimethylbenzene	Ave	2.346	2.358		25.1	25.0	0.5	20.0
4-Chlorotoluene	Ave	2.125	2.118		24.9	25.0	-0.3	20.0
tert-Butylbenzene	Ave	0.4755	0.5415		28.5	25.0	13.9	20.0
1,2,4-Trimethylbenzene	Ave	2.459	2.405		24.5	25.0	-2.2	20.0
sec-Butylbenzene	Ave	2.893	2.977		25.7	25.0	2.9	20.0
1,3-Dichlorobenzene	Ave	1.307	1.343	0.6000	25.7	25.0	2.7	20.0
4-Isopropyltoluene	Ave	2.582	2.642		25.6	25.0	2.3	20.0
1,4-Dichlorobenzene	Ave	1.324	1.332	0.5000	25.1	25.0	0.6	20.0
n-Butylbenzene	Ave	2.378	2.187		23.0	25.0	-8.0	20.0
1,2-Dichlorobenzene	Ave	1.330	1.291	0.4000	24.3	25.0	-3.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Buffalo Job No.: 480-219368-1

SDG No.:

Lab Sample ID: CCVIS 480-710791/4 Calibration Date: 05/06/2024 11:41

Instrument ID: HP5975D Calib Start Date: 04/16/2024 16:22

GC Column: ZB-624 (20) ID: 0.18(mm) Calib End Date: 04/16/2024 18:57

Lab File ID: D2214.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	1.879	1.946	0.1000	25.9	25.0	3.5	50.0
Chloromethane	Ave	2.227	2.549	0.1000	28.6	25.0	14.5	20.0
Vinyl chloride	Ave	1.668	2.140	0.1000	32.1	25.0	28.3*	20.0
Butadiene	Ave	1.716	1.963		28.6	25.0	14.4	20.0
Bromomethane	Ave	1.083	1.286	0.1000	29.7	25.0	18.7	50.0
Chloroethane	Ave	0.8846	0.8597	0.1000	24.3	25.0	-2.8	50.0
Dichlorofluoromethane	Ave	2.506	2.859		28.5	25.0	14.1	20.0
Trichlorofluoromethane	Ave	1.826	2.455	0.1000	33.6	25.0	34.4*	20.0
Ethyl ether	Ave	1.157	1.323		28.6	25.0	14.4	20.0
Acrolein	Ave	0.1842	0.1652		112	125	-10.4	50.0
1,1-Dichloroethene	Ave	1.131	1.613	0.1000	35.7	25.0	42.6*	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	1.265	1.867	0.1000	36.9	25.0	47.6*	20.0
Acetone	Ave	0.5064	0.6966	0.1000	172	125	37.6	50.0
Iodomethane	Ave	2.727	3.667		33.6	25.0	34.5*	20.0
Carbon disulfide	Ave	3.911	5.574	0.1000	35.6	25.0	42.5*	20.0
Allyl chloride	Ave	2.055	3.064		37.3	25.0	49.1*	20.0
Methyl acetate	Ave	1.358	1.696	0.1000	62.5	50.0	24.9	50.0
Methylene Chloride	Lin1		1.845	0.1000	34.7	25.0	38.8*	20.0
2-Methyl-2-propanol	Ave	0.1939	0.2125		274	250	9.6	50.0
Methyl tert-butyl ether	Ave	3.697	3.571	0.1000	24.1	25.0	-3.4	20.0
trans-1,2-Dichloroethene	Ave	1.193	1.386	0.1000	29.0	25.0	16.2	20.0
Acrylonitrile	Ave	0.6410	0.6227		243	250	-2.9	20.0
Hexane	Ave	1.678	1.970		29.3	25.0	17.4	20.0
1,1-Dichloroethane	Ave	2.245	2.544	0.2000	28.3	25.0	13.3	20.0
Vinyl acetate	Ave	3.504	3.773		53.8	50.0	7.7	20.0
2,2-Dichloropropane	Ave	1.495	1.578		26.4	25.0	5.6	20.0
cis-1,2-Dichloroethene	Ave	1.374	1.496	0.1000	27.2	25.0	8.9	20.0
2-Butanone (MEK)	Ave	0.8078	0.9090	0.1000	141	125	12.5	20.0
Chlorobromomethane	Ave	0.8380	0.8757		26.1	25.0	4.5	20.0
Tetrahydrofuran	Ave	0.5859	0.5734		48.9	50.0	-2.1	20.0
Chloroform	Ave	2.581	2.613	0.2000	25.3	25.0	1.3	20.0
1,1,1-Trichloroethane	Ave	1.902	2.025	0.1000	26.6	25.0	6.5	20.0
Cyclohexane	Ave	2.003	2.272	0.1000	28.4	25.0	13.4	20.0
Carbon tetrachloride	Ave	1.816	1.857	0.1000	25.6	25.0	2.3	20.0
1,1-Dichloropropene	Ave	1.635	1.794		27.4	25.0	9.7	20.0
Benzene	Ave	4.364	4.769	0.5000	27.3	25.0	9.3	20.0
Isobutyl alcohol	Ave	0.0740	0.0759		641	625	2.6	50.0
1,2-Dichloroethane	Ave	2.008	2.126	0.1000	26.5	25.0	5.8	20.0
n-Heptane	Ave	2.069	2.587		31.3	25.0	25.0*	20.0
Trichloroethene	Ave	1.319	1.395	0.2000	26.4	25.0	5.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Buffalo Job No.: 480-219368-1

SDG No.:

Lab Sample ID: CCVIS 480-710397/4 Calibration Date: 05/03/2024 02:13

Instrument ID: HP5977L Calib Start Date: 04/10/2024 15:21

GC Column: ZB-624 (30) VOA ID: 0.25(mm) Calib End Date: 04/10/2024 18:16

Lab File ID: L5004.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	1.907	1.122	0.1000	14.7	25.0	-41.2	50.0
Chloromethane	Ave	1.888	1.407	0.1000	18.6	25.0	-25.5*	20.0
Vinyl chloride	Ave	1.638	1.363	0.1000	20.8	25.0	-16.8	20.0
Butadiene	Ave	1.696	1.658		24.4	25.0	-2.3	20.0
Bromomethane	Ave	1.174	1.100	0.1000	23.4	25.0	-6.3	50.0
Chloroethane	Ave	1.144	0.9750	0.1000	21.3	25.0	-14.8	50.0
Dichlorofluoromethane	Ave	2.888	2.696		23.3	25.0	-6.7	20.0
Trichlorofluoromethane	Ave	2.324	2.107	0.1000	22.7	25.0	-9.4	20.0
Ethyl ether	Ave	1.427	1.480		25.9	25.0	3.7	20.0
Acrolein	Ave	0.2592	0.2006		96.7	125	-22.6	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	1.416	1.351	0.1000	23.9	25.0	-4.6	20.0
1,1-Dichloroethene	Ave	1.301	1.337	0.1000	25.7	25.0	2.7	20.0
Acetone	Ave	0.8809	0.9315	0.1000	132	125	5.7	50.0
Iodomethane	Ave	2.533	2.628		25.9	25.0	3.7	20.0
Carbon disulfide	Ave	4.347	4.026	0.1000	23.1	25.0	-7.4	20.0
Allyl chloride	Ave	2.087	2.113		25.3	25.0	1.3	20.0
Methyl acetate	Ave	1.903	2.003	0.1000	52.6	50.0	5.2	50.0
Methylene Chloride	Lin1		1.775	0.1000	25.9	25.0	3.5	20.0
2-Methyl-2-propanol	Ave	0.3107	0.3840		309	250	23.6	50.0
Methyl tert-butyl ether	Ave	5.028	5.344	0.1000	26.6	25.0	6.3	20.0
trans-1,2-Dichloroethene	Ave	1.542	1.662	0.1000	26.9	25.0	7.8	20.0
Acrylonitrile	Ave	0.9680	1.012		261	250	4.6	20.0
Hexane	Ave	1.978	1.814		22.9	25.0	-8.3	20.0
1,1-Dichloroethane	Ave	2.570	2.759	0.2000	26.8	25.0	7.3	20.0
Vinyl acetate	Ave	3.233	3.551		54.9	50.0	9.8	20.0
2,2-Dichloropropane	Ave	1.581	1.600		25.3	25.0	1.2	20.0
cis-1,2-Dichloroethene	Ave	1.685	1.853	0.1000	27.5	25.0	10.0	20.0
2-Butanone (MEK)	Ave	1.259	1.416	0.1000	141	125	12.4	20.0
Chlorobromomethane	Ave	0.9137	1.001		27.4	25.0	9.5	20.0
Tetrahydrofuran	Ave	0.8914	0.9348		52.4	50.0	4.9	20.0
Chloroform	Ave	2.814	2.994	0.2000	26.6	25.0	6.4	20.0
1,1,1-Trichloroethane	Ave	2.099	2.366	0.1000	28.2	25.0	12.7	20.0
Cyclohexane	Ave	2.384	2.249	0.1000	23.6	25.0	-5.7	20.0
Carbon tetrachloride	Ave	1.713	2.063	0.1000	30.1	25.0	20.5*	20.0
1,1-Dichloropropene	Ave	1.961	2.158		27.5	25.0	10.0	20.0
Isobutyl alcohol	Ave	0.1106	0.1607		908	625	45.3	50.0
Benzene	Ave	5.714	6.318	0.5000	27.6	25.0	10.6	20.0
1,2-Dichloroethane	Ave	2.119	2.441	0.1000	28.8	25.0	15.2	20.0
n-Heptane	Ave	1.785	1.705		23.9	25.0	-4.5	20.0
Trichloroethene	Ave	1.491	1.705	0.2000	28.6	25.0	14.4	20.0

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Buffalo Job No.: 480-219368-1

SDG No.:

Matrix: Water Level: Low Lab File ID: L5006.D

Lab ID: LCS 480-710397/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	25.0	28.1	112	73-126	
1,1,2,2-Tetrachloroethane	25.0	24.3	97	76-120	
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	23.4	94	61-148	
1,1,2-Trichloroethane	25.0	25.3	101	76-122	
1,1-Dichloroethane	25.0	27.2	109	77-120	
1,1-Dichloroethene	25.0	24.7	99	66-127	
1,2,4-Trichlorobenzene	25.0	24.2	97	79-122	
1,2-Dibromo-3-Chloropropane	25.0	25.9	103	56-134	
1,2-Dibromoethane	25.0	26.2	105	77-120	
1,2-Dichlorobenzene	25.0	24.2	97	80-124	
1,2-Dichloroethane	25.0	28.5	114	75-120	
1,2-Dichloropropane	25.0	27.9	112	76-120	
1,3-Dichlorobenzene	25.0	24.8	99	77-120	
1,4-Dichlorobenzene	25.0	24.8	99	80-120	
2-Butanone (MEK)	125	139	111	57-140	
2-Hexanone	125	143	114	65-127	
4-Methyl-2-pentanone (MIBK)	125	129	103	71-125	
Acetone	125	132	106	56-142	
Benzene	25.0	27.3	109	71-124	
Bromodichloromethane	25.0	29.6	118	80-122	
Bromoform	25.0	28.1	112	61-132	
Bromomethane	25.0	22.8	91	55-144	
Carbon disulfide	25.0	23.4	93	59-134	
Carbon tetrachloride	25.0	29.1	116	72-134	
Chlorobenzene	25.0	26.0	104	80-120	
Chloroethane	25.0	21.0	84	69-136	
Chloroform	25.0	26.0	104	73-127	
Chloromethane	25.0	17.5	70	68-124	
cis-1,2-Dichloroethene	25.0	27.5	110	74-124	
cis-1,3-Dichloropropene	25.0	28.7	115	74-124	
Cyclohexane	25.0	23.9	96	59-135	
Dibromochloromethane	25.0	28.6	114	75-125	
Dichlorodifluoromethane	25.0	14.5	58	59-135	*-
Ethylbenzene	25.0	25.8	103	77-123	
Isopropylbenzene	25.0	25.3	101	77-122	
Methyl acetate	50.0	51.0	102	74-133	
Methyl tert-butyl ether	25.0	25.5	102	77-120	
Methylcyclohexane	25.0	24.4	98	68-134	
Methylene Chloride	25.0	25.1	101	75-124	
Styrene	25.0	26.8	107	80-120	
Tetrachloroethene	25.0	25.5	102	74-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins Buffalo Job No.: 480-219368-1

SDG No.:

Lab File ID: W100257965.d DFTPP Injection Date: 05/08/2024

Instrument ID: HP5973W DFTPP Injection Time: 23:32

Analysis Batch No.: 711112

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10-80% of Base Peak	34.3	
68	Less than 2% of mass 69	0.0	(0.0) 1
69	Mass 69 Relative abundance	28.5	
70	Less than 2% of mass 69	0.0	(0.0) 1
127	10-80% of Base Peak	39.9	
197	Less than 2% of mass 198	0.0	
198	Base peak	100.0	
199	5-9% of mass 198	7.0	
275	10-60% of Base Peak	36.4	
365	Greater than 1% of mass 198	5.8	
441	present but less than 24% of mass 442	39.8	(23.5) 2
442	Greater than 50% of mass 198	169.6	
443	15-24% of mass 442	34.4	(20.3) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 480-711112/3	W100257966.d	05/08/2024	23:59
MW05-02-043024	480-219368-1	W100257981.d	05/09/2024	6:54
MW-04S-043024	480-219368-2	W100257982.d	05/09/2024	7:22
MW-04D-043024	480-219368-4	W100257983.d	05/09/2024	7:51
MW-02D-043024	480-219368-5	W100257984.d	05/09/2024	8:19
RB-043024	480-219368-6	W100257985.d	05/09/2024	8:47

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Buffalo | Job No.: 480-219368-1

SDG No.:

Lab Sample ID: CCVIS 480-711112/3 | Calibration Date: 05/08/2024 23:59

Instrument ID: HP5973W | Calib Start Date: 05/03/2024 10:07

GC Column: RXI-5Sil MS ID: 0.25(mm) | Calib End Date: 05/03/2024 13:21

Lab File ID: W100257966.d | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Lin2		0.5297	0.0100	4180	4000	4.4	20.0
N-Nitrosodimethylamine	Lin1		0.7101	0.0100	5140	4000	28.6	50.0
Pyridine	Ave	0.7371	0.8622	0.0100	9360	8000	17.0	50.0
Benzaldehyde	Ave	0.9258	1.035	0.0100	8940	8000	11.8	50.0
Phenol	Ave	1.492	1.577	0.8000	4230	4000	5.7	20.0
Aniline	Lin1		1.998	0.0100	4100	4000	2.5	20.0
Bis(2-chloroethyl)ether	Lin1		1.247	0.7000	4330	4000	8.3	20.0
2-Chlorophenol	Ave	1.266	1.274	0.8000	4030	4000	0.6	20.0
n-Decane	Ave	1.234	1.388	0.0100	4500	4000	12.5	20.0
1,3-Dichlorobenzene	Lin2		1.444	0.0100	4020	4000	0.4	20.0
1,4-Dichlorobenzene	Ave	1.460	1.443	0.0100	3950	4000	-1.2	20.0
Benzyl alcohol	Lin2		0.8487	0.0100	4030	4000	0.9	20.0
1,2-Dichlorobenzene	Lin2		1.373	0.0100	4030	4000	0.7	20.0
2-Methylphenol	Lin2		1.185	0.7000	4020	4000	0.6	20.0
bis (2-chloroisopropyl) ether	Ave	1.322	1.556	0.0100	4710	4000	17.7	20.0
Indene	Ave	0.5984	0.6153	0.0100	20600	20000	2.8	20.0
4-Methylphenol	Lin2		1.226	0.6000	4030	4000	0.6	20.0
N-Nitrosodi-n-propylamine	Ave	0.7562	0.8685	0.5000	4590	4000	14.9	20.0
Acetophenone	Lin1		1.725	0.0100	4150	4000	3.8	20.0
Hexachloroethane	Lin2		0.5850	0.3000	4050	4000	1.3	20.0
Nitrobenzene	Lin2		0.3755	0.2000	4280	4000	7.0	20.0
Isophorone	Ave	0.6795	0.7038	0.4000	4140	4000	3.6	20.0
2-Nitrophenol	Lin2		0.1958	0.1000	4250	4000	6.4	20.0
2,4-Dimethylphenol	Lin1		0.3492	0.2000	4600	4000	15.0	20.0
Bis(2-chloroethoxy)methane	Lin2		0.4344	0.3000	4280	4000	7.0	20.0
Benzoic acid	Lin2		0.2289	0.0100	22400	20000	12.1	50.0
2,4-Dichlorophenol	Lin2		0.2959	0.2000	4010	4000	0.1	20.0
1,2,4-Trichlorobenzene	Ave	0.3486	0.3576	0.0100	4100	4000	2.6	20.0
Naphthalene	Lin2		1.006	0.7000	3900	4000	-2.6	20.0
4-Chloroaniline	Lin2		0.4058	0.0100	4080	4000	2.0	20.0
2,6-Dichlorophenol	Lin2		0.2945	0.0100	4110	4000	2.9	20.0
Hexachlorobutadiene	Ave	0.1947	0.2026	0.0100	4160	4000	4.0	20.0
Caprolactam	Lin2		0.1163	0.0100	7790	8000	-2.7	50.0
4-Chloro-3-methylphenol	Lin2		0.3083	0.2000	4000	4000	0.0	20.0
2-Methylnaphthalene	Lin2		0.7136	0.4000	4050	4000	1.2	20.0
1-Methylnaphthalene	Ave	0.6403	0.6572	0.0100	4110	4000	2.7	20.0
Hexachlorocyclopentadiene	Lin		0.2644	0.0500	3090	4000	-22.9*	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.6161	0.5977	0.0100	3880	4000	-3.0	20.0
2,4,6-Trichlorophenol	Lin2		0.3821	0.2000	3840	4000	-4.0	20.0
2,4,5-Trichlorophenol	Lin2		0.3415	0.2000	3650	4000	-8.6	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Buffalo Job No.: 480-219368-1

SDG No.:

Lab Sample ID: CCVIS 480-711112/3 Calibration Date: 05/08/2024 23:59

Instrument ID: HP5973W Calib Start Date: 05/03/2024 10:07

GC Column: RXI-5Sil MS ID: 0.25(mm) Calib End Date: 05/03/2024 13:21

Lab File ID: W100257966.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Biphenyl	Lin2		1.463	0.0100	3940	4000	-1.5	20.0
2-Chloronaphthalene	Ave	1.116	1.083	0.8000	3880	4000	-3.0	20.0
2-Nitroaniline	Lin2		0.3302	0.0100	4030	4000	0.8	20.0
Dimethyl phthalate	Ave	1.164	1.135	0.0100	3900	4000	-2.5	20.0
1,3-Dinitrobenzene	Lin2		0.1158	0.0100	3810	4000	-4.7	20.0
2,6-Dinitrotoluene	Lin2		0.3034	0.2000	3990	4000	-0.2	20.0
Acenaphthylene	Lin2		1.681	0.9000	4010	4000	0.3	20.0
3-Nitroaniline	Lin2		0.2717	0.0100	3740	4000	-6.4	20.0
2,4-Dinitrophenol	Lin1		0.0890	0.0100	5190	8000	-35.1*	20.0
Acenaphthene	Lin2		1.183	0.9000	4050	4000	1.2	20.0
4-Nitrophenol	Lin2		0.1636	0.0100	7820	8000	-2.2	20.0
2,4-Dinitrotoluene	Lin2		0.3991	0.2000	3990	4000	-0.2	20.0
Dibenzofuran	Lin2		1.525	0.8000	3970	4000	-0.7	20.0
2,3,4,6-Tetrachlorophenol	Lin2		0.3030	0.0100	4120	4000	3.1	20.0
Hexadecane	Ave	0.6432	0.6820	0.0100	4240	4000	6.0	20.0
Diethyl phthalate	Lin2		1.226	0.0100	4080	4000	2.1	20.0
4-Chlorophenyl phenyl ether	Ave	0.6316	0.6122	0.4000	3880	4000	-3.1	20.0
4-Nitroaniline	Lin2		0.3025	0.0100	4320	4000	8.1	20.0
Fluorene	Lin2		1.211	0.9000	3880	4000	-2.9	20.0
4,6-Dinitro-2-methylphenol	Lin2		0.0990	0.0100	7420	8000	-7.2	20.0
Diphenylamine	Ave	0.6065	0.6047	0.0100	3410	3420	-0.3	20.0
N-Nitrosodiphenylamine	Ave	0.5186	0.5170	0.0100	3990	4000	-0.3	20.0
1,2-Diphenylhydrazine	Ave	1.229	1.307	0.0100	4250	4000	6.3	20.0
trans-Azobenzene	Ave	0.7071	0.7332	0.0100	4150	4000	3.7	20.0
4-Bromophenyl phenyl ether	Ave	0.2268	0.2396	0.1000	4230	4000	5.6	20.0
Hexachlorobenzene	Ave	0.2502	0.2754	0.1000	4400	4000	10.1	20.0
Atrazine	Ave	0.3329	0.3521	0.0100	8460	8000	5.7	20.0
n-Octadecane	Qua		0.4263	0.0100	4410	4000	10.3	20.0
Pentachlorophenol	Lin2		0.1240	0.0500	7440	8000	-7.0	50.0
Phenanthrene	Lin2		1.032	0.7000	4190	4000	4.7	20.0
Anthracene	Lin2		1.039	0.7000	4170	4000	4.2	20.0
Carbazole	Lin1		0.6699	0.0100	3700	4000	-7.5	20.0
Di-n-butyl phthalate	Lin2		1.184	0.0100	4200	4000	5.1	20.0
Fluoranthene	Lin2		1.078	0.6000	4170	4000	4.2	20.0
Benzidine	Lin1		0.3280	0.0100	8700	8000	8.8	50.0
Pyrene	Ave	1.392	1.388	0.6000	3990	4000	-0.3	20.0
Butyl benzyl phthalate	Lin2		0.6596	0.0100	4040	4000	1.0	20.0
Bis(2-ethylhexyl) phthalate	Lin2		0.9501	0.0100	4100	4000	2.6	20.0
3,3'-Dichlorobenzidine	Lin1		0.3999	0.0100	7610	8000	-4.8	50.0
Benzo(a)anthracene	Ave	1.264	1.255	0.8000	3970	4000	-0.8	20.0
Chrysene	Ave	1.207	1.212	0.7000	4010	4000	0.4	20.0

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Buffalo Job No.: 480-219368-1

SDG No.:

Analyst: GW Batch Start Date: 05/08/2024

Reporting Units: mg/L Analytical Batch No.: 711260

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
15	ICV	18:28	Cyanide, Total	0.263	0.250	105	90-110		WC_CN ICV_00218
16	ICB	18:31	Cyanide, Total	ND					
17	CCV	18:33	Cyanide, Total	0.253	0.250	101	90-110		WC_CN CCV/LCS_00375
18	CCB	18:36	Cyanide, Total	ND					
29	CCV	19:05	Cyanide, Total	0.260	0.250	104	90-110		WC_CN CCV/LCS_00375
30	CCB	19:08	Cyanide, Total	ND					
43	CCV	19:43	Cyanide, Total	0.240	0.250	96	90-110		WC_CN CCV/LCS_00375
44	CCB	19:46	Cyanide, Total	0.00800				J	
56	CCV	20:20	Cyanide, Total	0.265	0.250	106	90-110		WC_CN CCV/LCS_00375
57	CCB	20:23	Cyanide, Total	0.00790				J	
70	CCV	20:57	Cyanide, Total	0.238	0.250	95	90-110		WC_CN CCV/LCS_00375
71	CCB	21:00	Cyanide, Total	0.00750				J	
84	CCV	21:35	Cyanide, Total	0.250	0.250	100	90-110		WC_CN CCV/LCS_00375
85	CCB	21:37	Cyanide, Total	0.00670				J	
98	CCV	22:12	Cyanide, Total	0.253	0.250	101	90-110		WC_CN CCV/LCS_00375
99	CCB	22:15	Cyanide, Total	0.00780				J	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins Buffalo Job No.: 480-219368-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 710579 Date: 05/02/2024 23:45							
9012B	MB 480-710579/47	Cyanide, Total	0.0297	^1+	mg/L	0.010	1
Batch ID: 710579 Date: 05/03/2024 00:59							
9012B	MB 480-710579/75	Cyanide, Total	0.0298	^1+	mg/L	0.010	1
Batch ID: 711260 Date: 05/08/2024 19:52							
9012B	MB 480-711260/46	Cyanide, Total	0.00930	J	mg/L	0.010	1
Batch ID: 711260 Date: 05/08/2024 21:08							
9012B	MB 480-711260/74	Cyanide, Total	0.00990	J	mg/L	0.010	1

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins Buffalo Job No.: 480-219368-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 710579 Date: 05/03/2024 01:06											
9012B	480-219368-6	Cyanide, Total	ND		mg/L						^1+ F1
9012B	480-219368-6 MS	Cyanide, Total	0.0531		mg/L	0.100	53	90-110			F1 ^1+
Batch ID: 710579 Date: 05/03/2024 01:41											
9012B	480-219368-6	Cyanide, Total	ND		mg/L						^1+ F1
9012B	480-219368-6 MS	Cyanide, Total	0.0621		mg/L	0.100	62	90-110			F1 ^1+

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

DATA USABILITY SUMMARY REPORT

ASHLAND TANK 75 INVESTIGATION
4625 RIVER ROAD
TONAWANDA, NEW YORK 14150

Analyses Performed by:

EUROFINS – AMHERST, NY, BARBERTON, OH, SAVANNAH, GA, and PENSACOLA, FL

Prepared for:

NEW YORK STATE DEPARTMENT OF ENVIROMENTAL CONSERVATION
625 BROADWAY
ALBANY, NEW YORK 12233-0001

Prepared by:

AECOM
50 LAKEFRONT BOULEVARD
SUITE 111
BUFFALO, NY 14202

JULY 2024

CONTENTS

I. INTRODUCTION

This Data Usability Summary Report (DUSR) has been prepared following the guidelines provided in New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation *DER-10, Technical Guidance for Site Investigation and Remediation, Appendix 2B - Guidance for Data Deliverables and the Development of Data Usability Summary Reports*, May 2010. Discussed in this DUSR are the analytical data for 3 surface water (SW) samples, 1 SW matrix spike/matrix spike duplicate (MS/MSD) pair, 1 SW field duplicate (FD), 3 aqueous waste samples, five solid waste samples, 25 sediment (SED) samples, 2 SED FDs, 1 SED MS/MSD, 2 (SW/SED) rinse blanks (RB), and 2 trip blanks collected on June 3-4, 2024.

The samples were collected at the Ashland Tank 75 site located in Tonawanda, NY and sent to Eurofins [Amherst, NY, Barberton, OH, Savannaha, GA, and Pensacola, FL] for analysis. Eurofins is a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory.

II. ANALYTICAL METHODOLOGIES AND DATA VALIDATION PROCEDURES

The samples were analyzed for the following parameters (not all samples were analyzed for all parameters):

Parameter	Method
Volatile Organic Compounds (VOCs)	SW8260C
Semi-Volatile Organic Compounds (SVOCs)	SW8270D
1,4-Dioxane	SW8270D Selective Ion Monitoring (SIM)
Pesticides	SW8081B
PCBs (Polychlorinated Biphenyls)	SW8082A
PFAS (Per- and Polyfluoroalkyl Substances)	EPA Draft Method 1633
Ethylene Glycol	SW8015D
Total/Dissolved Metals/Mercury	SW6010D/7470A/7471A
Total/Dissolved Cyanide (CN)	SW9012B
Reactive Cyanide/Sulfide	SW9012/SW9034
Flashpoint	SW1010A
pH/Temperature	SW9045D
BTU	ASTMD240-87

Parameter	Method
Oil and Grease	SW1664A
Total Organic Carbon (TOC)	SW9060A

A limited data validation was performed following the guidelines in the following USEPA Region II documents:

- *Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry, SW-846 Method 8260B & 8260C, SOP HW-24, Rev. 4,* October 2014;
- *Validating Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry, SW-846 Method 8270D, SOP HW-22, Rev. 5*, December 2010;
- *Polychlorinated Biphenyl (PCB) Aroclor Data Validation, SOP HW-37A, Rev. 0*, February 2018;
- *Validating Pesticide Compounds Organochlorine Pesticides by Gas Chromatography, SW-846, Method 8081B, SOP HW-44, Rev. 3.1*, December 2010;
- *Sampling, Analysis, and Assessment of Per- and Perfluoroalkyl Substances under NYSDEC Part 375 Remedial Programs, Appendix H*, April 2023;
- *ICP-AES Data Validation, SOP HW-3a, Rev. 1*, September 2016; and
- *Mercury and Cyanide Data Validation, SOP HW-3c, Rev. 1*, September 2016.

The limited validation included a review of: completeness of all required deliverables; holding times; quality control (QC) results [blanks, instrument tunings, calibration standards, duplicate analyses, MS/MSD recoveries, surrogate/internal standard recoveries, and laboratory control sample (LCS) recoveries] to determine if the data are within the protocol-required limits and specifications; a determination that all samples were analyzed using established and agreed upon analytical protocols; an evaluation of the raw data to confirm the results provided in the data summary sheets; and laboratory data qualifiers.

Definitions of USEPA data qualifiers are presented at the end of this text. A summary of data qualifications has been presented in Table 1. Validated Form 1s have been presented in Attachment A. Documentation supporting the qualification of data is presented in Attachment B. Only analytical deviations affecting data usability are discussed in this report.

III. DATA DELIVERABLE COMPLETENESS

Full deliverable data packages (i.e., NYSDEC ASP Category B or equivalent) were provided by the laboratory and included all reporting forms and raw data necessary to fully evaluate and verify the reported analytical results.

IV. SAMPLE RECEIPT/PRESERVATION/HOLDING TIMES

All samples were received by the laboratory intact, properly preserved and under proper chain-of-custody (COC) with the following exception.

- Two extra containers were received for sample SED-06-20240604.
- The time of collection of the samples in SDG J220474 was not listed on the COC.

All samples were analyzed within the required holding times (HT) with the following exception.

- Sample SED-04-WC was sampled on 6/3/24 and analyzed for ethylene glycol on 7/9/24 which is over 2x the HT. The sample was originally dropped off at the Eurofins Buffalo location along with samples SED-01 thru SED-05 (SDG J220421). Due to a laboratory error all samples except SED-04 were sent to the Florida lab for ethylene glycol analysis. Sample SED-04-WC was listed on the COC but was not included in the shipment. The sample was sent to that laboratory at a much later date when the error was discovered. The result for ethylene glycol in that sample has been qualified 'R' due to the gross exceedance of the holding time and the uncertainty of the location of the sample during storage.

V. NON-CONFORMANCES

- **Calibration**

  The percent difference (%D) between the initial calibration (ICAL) and the continuing calibration (CCAL) relative response factors (RRFs) associated with the SW samples exceeded 20% and showed a low bias for the following VOC compound: chloromethane. The results for this compound in the associated samples listed on Table 1 have been qualified 'UJ'.

  The %D between the ICAL and the CCAL RRFs associated with the SED samples exceeded 20% and showed a low bias for the following VOC compounds: 1,2,4-trichlorobenzene, chloromethane, and/or cyclohexane. The results for these compounds in the associated samples listed on Table 1 have been qualified 'J' or 'UJ'.

The %D between the ICAL and the CCAL RRF associated with the SW samples exceeded 20% and showed a low bias for the following SVOC compounds: 3-nitroanaline and/or pentachlorophenol. The minimum RRF for pentachlorophenol was also slightly below the QC limit (0.050). The results for these compounds in the samples listed on Table 1 have been qualified 'UJ'.

The %D between the ICAL and the CCAL RRF associated with the SED samples exceeded 20% and showed a low bias for the following SVOC compounds: bis(2-chloroisopropyl) ether and/or hexachlorocyclopentadiene. The results for these compounds in the samples listed on Table 1 have been qualified 'UJ'.

- **Matrix Spike/Matrix Spike Duplicate**

The VOC MS/MSD performed on sample SED-06 showed the %Rs of isopropylbenzene (cumene) and methylcyclohexane as being above the QC limits. The %Rs of these compounds were acceptable in the LCS. The detected results for these compounds have been qualified 'J' in this sample.

The SVOC MS/MSD performed on sample SW-01-2-20240603 showed the %Rs of 3,3'-dichlorobenzidine as being below the QC limits. The %R of this compound was acceptable in the laboratory control sample (LCS). The result for 3,3'-dichlorobenzidine has been qualified 'UJ' in this sample and its field duplicate.

The SVOC MS/MSD performed on sample SED-04 showed the %Rs of 2,4-dimethylphenol, 2,4-dinitrotoluene, 2-methylnaphthalene, 2-nitroaniline, benzo(a)anthracene, bis(2-ethylhexyl) phthalate, chrysene, fluorene, hexachlorocyclopentadiene, phenanthrene, and pyrene as being below the QC limits. The %Rs of these compounds were acceptable in the LCS. The results for these compounds have been qualified 'J' or 'UJ' in this sample.

The metals MS/MSD performed on sample SED-06 showed the %Rs of antimony (Sb), barium (Ba), copper (Cu), manganese (Mn), and/or nickel (Ni) as being outside of the QC limits. The post-digestion spike %Rs were acceptable. The results for these metals have been qualified 'J' or 'UJ' in this sample.

The metals MS/MSD performed on sample SED-01 showed the %Rs of Sb, beryllium (Be), lead (Pb), selenium (Se), silver (Ag), vanadium (V), and/or zinc (Zn) as being outside of the QC limits. The post-digestion spike %R for Be was acceptable, the remaining metals were outside of the QC

limits. The results for these metals have been qualified 'J,' 'J+,' or 'UJ' in this sample as noted on Table 1 below.

The wet chemistry MS performed on samples SED-06 and SED-11 had %Rs less than the QC limit for total CN. The result for CN in these sample has been qualified 'J.'

The wet chemistry MS/MSD performed on sample SED-06 had %Rs outside (low/high) the QC limit for TOC. The laboratory re-exracted the batch of samples however the re-extraction occurred outside of the HT. The initial results have been reported and the result for TOC in sample SED-06 was qualified 'J.'

- **Method Blanks/Laboratory Blanks/Rinse Blanks**

The method blanks and/or SW/SED rinse blank were detected for carbon disulfide, methylene chloride, 2,4-dichlorophenol, alpha-BHC, gamma-BHC, Ba, dissolved Ba, Ca, dissolve Ca, Pb, and dissolved Pb, K, Na, dissolved Na, at concentrations greater than the method detection limit (MDL) but less than the reporting limit (RL). Those samples that were less than the RL have been qualified 'U' at the RL as listed on Table 1.

- **Serial Dilution**

The metals serial dilution performed on sample SED-01 had the percent difference (%D) of metals aluminum (Al), arsenic (As), Ba, calcium (Ca), chromium (Cr), iron (Fe), Pb, magnesium (Mg), Mn, Ni, and V as being greater than the QC limit. The results for these metals in this sample have been qualified J, unless previously qualified for the MS/MSD outlier.

VI. SAMPLE RESULTS AND REPORTING

All sample results were reported in accordance with method requirements and were adjusted for sample volume. Results reported below the RL, but greater than the MDL, are qualified 'J' by the laboratory.

A SW field duplicate was collected at location SW-01-2-20240603. The samples exhibited good analytical/field precision (i.e., RPD between results < 20% if both results > RL). A sediment FD was collected at location SED-08-20240604. The samples exhibited good analytical/field precision (i.e., relative percent difference (RPD) between results < 50% if both results > RL). If one result was >RL and the other non-detect, the results were qualified 'J'/"UJ' if the difference between the results and RL was greater than the RL. Any exceptions are listed in Table 1.

Several samples were diluted due to foaming, elevated levels of target/non-target compounds, and/or sample matrix. The sediment samples were collected from a disposal pit and were oily with strong odors. They required dilutions for several analyses. The non-detect results represent the lowest achievable at the dilution.

A florisil cleanup was performed on the pesticide extracts for sediment samples SED-01, SED-02, SED-03, SED-04, SED-05, SED-06, SED-07, SED-08, SED-08-FD, SED-09, SED-10, SED-11, SED-11-FD, SED-12, SED-13, SED-14, and SED-15. These samples were dark, oily, and had a foul odor. These samples were also analyzed at higher dilutions (i.e, 10X, 20X, 50X)which caused the surrogates to be diluted out, thus the surrogate recoveries were not evaluated

The mass ion ratios of several PFAS were outside of the QC limits for identification. The affected samples/compounds have been listed on Table 1. Using analyst judgement, the compounds were reported as detections and qualified 'I' by the laboratory. The 'I' qualifier has been changed to 'JN.' The results reported represent the estimated maximum possible concentration (EMPC) of the compounds.

The RPD between the pesticide columns was evaluated and the samples in Table 1 qualified in accordance with the following table:

%RPD between Column	Qualification
26-70%	J
%D>50 %, hit < RL	U
71-100%	NJ

VII. SUMMARY

All sample analyses were found to be compliant with the method criteria, except where previously noted. Those results qualified 'J,' 'J+,' 'J-', 'JN,' and 'UJ,' are considered conditionally usable. Those results qualified 'U' are considered non-detect. All other sample results are usable as reported. AECOM does not recommend the recollection of any samples at this time.

Prepared By: Ann Marie Kropovitch, Chemist **Date:** 7/17/2024

Reviewed By: Peter R. Fairbanks, Senior Chemist **Date:** 7/17/2024

Table 1

Summary of Sample Qualifications

VOCs			
SAMPLE	**COMPOUND**	**QUALIFIER**	**REASON**
SW-01-1-20240603, SW-01-2-20240603, SW-01-2-FD-20240603, SW-01-3-20240603, and TB-060324-20240603	chloromethane	UJ	CCAL%D > QC limit (20%), low bias
SED-06, SED-07, SED-08, SED-08-FD, SED-09, SED-10, SED-11, SED-11-FD, SED-12, SED-13, SED-14, and SED-15	1,2,4-trichlorobenzene, chloromethane, and cyclohexane	J/UJ	CCAL%D > QC limit (20%), low bias
SED-01, SED-02, SED-03, SED-04, and SED-05	chloromethane	UJ	CCAL%D > QC limit (20%), low bias
SED-06	isopropylbenzene (cumene) and methylcyclohexane	J	MS/MSD > QC limit
SED-07	Methylene chloride	U at RL	MBLK contamination
Ethylene Glycol			
SED-04-WC	ethylene glycol	R	Analyzed >2X holding time
SVOCs			
SW-01-2-20240603 and SW-01-2-FD	3,3'-dichlorobenzidine	UJ	MS/MSD %R < QC limit
SW-01-1-20240603, SW-01-2-20240603, SW-01-2-FD-20240603, and SW-01-3-20240603	3-nitroanaline and pentachlorophenol	UJ	CCAL%D > QC limit (20%), low bias
SED-06, SED-07, SED-09, SED-11-FD, SED-12, and SED-15	hexachlorocyclopentadiene	UJ	CCAL%D > QC limit (20%), low bias
SED-01, SED-02, SED-03, SED-04, and SED-05	bis(2-chloroisopropyl) ether	UJ	CCAL%D > QC limit (20%), low bias
SED-06	2,4-dimethylphenol, 2,4-dinitrotoluene, 2-methylnaphthalene, 2-nitroaniline, benzo(a)anthracene, bis(2-ethylhexyl) phthalate, chrysene, fluorene, hexachlorocyclopentadiene, phenanthrene, and pyrene	J/UJ	MS/MSD %R < QC limit

Table 1

Summary of Sample Qualifications

SAMPLE	COMPOUND	QUALIFIER	REASON
SED-08 and SED-08-FD	2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, biphenyl (diphenyl), carbazole, chrysene, dibenzofuran, fluoranthene, fluorene, indeno(1,2,3-c,d)pyrene, indeno(1,2,3-c,d)pyrene, naphthalene, phenanthrene, and pyrene	J/UJ	%RPD > 50%
PFAS			
SW-01-2-20240603	perfluorohexanesulfonic acid (PFHxS) and perfluorononanoic acid (PFNA)	JN	Ion Ratio > criteria, reported value is EMPC
SW-01-2-FD-20240603	PFNA	JN	Ion Ratio > criteria, reported value is EMPC
SED-06	1H,1H,2H,2H-perfluorooctane sulfonate (6:2), perfluorodecane sulfonic acid, and perfluorooctanoic acid (PFOA)	JN	Ion Ratio > criteria, reported value is EMPC
SED-08 and SED-08-FD	perfluorodecane sulfonic acid	JN	Ion Ratio > criteria, reported value is EMPC
SED-10	perfluorodecane sulfonic acid and perfluorooctane sulfonic acid	JN	Ion Ratio > criteria, reported value is EMPC
SED-12	N-ethylperfluoro-1-octanesulfonamide, perfluorodecane sulfonic acid, perfluorooctane sulfonamide (FOSA), and perfluoroundecanoic acid (PFUnA)	JN	Ion Ratio > criteria, reported value is EMPC
SED-04	perfluorononanoic acid and perfluorotridecanoic acid (PFTriDA)	JN	Ion Ratio > criteria, reported value is EMPC
PESTICIDES			
SW-01-2-20240603	4,4'-DDT	J	%D between 26-70%
SW-01-2-20240603	methoxychlor	NJ	%D between 71-100%
SW-01-3-20240603	methoxychlor	J	%D between 26-70%
SW-01-3-20240603	4,4'-DDT	U at RL	%D>50%, Result < RL

Table 1

Summary of Sample Qualifications

SAMPLE	COMPOUND	QUALIFIER	REASON
SW-01-2-FD-20240603 and SW-01-1-20240603	methoxychlor	U at RL	%D>50%, Result < RL
SW-01-3-20240603	gamma-BHC	U at RL	Mblk Contamination
SW-01-2-20240603	alpha-BHC	U at RL	Mblk Contamination
Metals			
SW-01-1-20240603, SW-01-3-20240603, and SW-01-2-FD-20240603	Pb (dissolved)	U at RL	RB contamination
SW-01-2-20240603 and SW-01-2-FD-20240603	Mn (total), Fe (total), and Ba (dissolved)	J	FD RPD > QC limit.
SED-06	Sb, Ba, and Mn	UJ	MS/MSD %R < QC limit.
SED-06	Cu and Ni	J	MS/MSD %R > QC limit.
SED-08 and SED-08-FD	Ni and V	J	%RPD > 50%
SED-01	Zn	J	MSD %R < QC limit, post digestion spike > QC limit
SED-01	Sb, Ag	UJ	MS/MSD %R < QC limit, post digestion spike > QC limit.
SED-01	Be	J	MS/MSD %R < QC limit, post digestion spike OK.
SED-01	Pb, V	J+	MS/MSD/Post %R > QC limit.
SED-01	Se	UJ	MS/MSD/Post %R < QC limit
SED-01	Al, As, Ba, Ca, Cr, Fe, Pb, Mg, Mn, Ni, and V	J	Serial %D > 15%
Wet Chemistry			
SED-06, SED-11, and SED-11-FD	CN (total)	J	MS %R < QC limit.
SED-06	TOC	J	MS/MSD %R outside QC limit.

DEFINITIONS OF USEPA REGION II DATA QUALIFIERS

U – The analyte was analyzed for but was not detected above the reported sample quantitation limit.

J – The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ – The result is an estimated quantity, but the result may be biased high.

J- – The result is an estimated quantity, but the result may be biased low.

UJ – The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

JN - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

R – The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

ATTACHMENT A

VALIDATED FORM 1s

Client Sample ID: SED-RB-060424
Lab Sample ID: 480-220471-1

Date Collected: 06/04/24 13:15
Matrix: Water

Date Received: 06/04/24 16:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/06/24 16:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/06/24 16:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			06/06/24 16:26	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/06/24 16:26	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/06/24 16:26	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/06/24 16:26	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			06/06/24 16:26	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/06/24 16:26	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/06/24 16:26	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/06/24 16:26	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/06/24 16:26	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/06/24 16:26	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			06/06/24 16:26	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/06/24 16:26	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/06/24 16:26	1
2-Hexanone	ND		5.0	1.2	ug/L			06/06/24 16:26	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			06/06/24 16:26	1
Acetone	ND		10	3.0	ug/L			06/06/24 16:26	1
Benzene	ND		1.0	0.41	ug/L			06/06/24 16:26	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/06/24 16:26	1
Bromoform	ND		1.0	0.26	ug/L			06/06/24 16:26	1
Bromomethane	ND		1.0	0.69	ug/L			06/06/24 16:26	1
Carbon disulfide	**0.36**	**J**	1.0	0.19	ug/L			06/06/24 16:26	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/06/24 16:26	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/06/24 16:26	1
Chloroethane	ND		1.0	0.32	ug/L			06/06/24 16:26	1
Chloroform	ND		1.0	0.34	ug/L			06/06/24 16:26	1
Chloromethane	ND		1.0	0.35	ug/L			06/06/24 16:26	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/06/24 16:26	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/06/24 16:26	1
Cyclohexane	ND		1.0	0.18	ug/L			06/06/24 16:26	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/06/24 16:26	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			06/06/24 16:26	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/06/24 16:26	1
Isopropylbenzene	ND		1.0	0.79	ug/L			06/06/24 16:26	1
Methyl acetate	ND		2.5	1.3	ug/L			06/06/24 16:26	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			06/06/24 16:26	1
Methylcyclohexane	ND		1.0	0.16	ug/L			06/06/24 16:26	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/06/24 16:26	1
Styrene	ND		1.0	0.73	ug/L			06/06/24 16:26	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/06/24 16:26	1
Toluene	ND		1.0	0.51	ug/L			06/06/24 16:26	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/06/24 16:26	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/06/24 16:26	1
Trichloroethene	ND		1.0	0.46	ug/L			06/06/24 16:26	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/06/24 16:26	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/06/24 16:26	1
Xylenes, Total	ND		2.0	0.66	ug/L			06/06/24 16:26	1

Client Sample ID: SED-RB-060424
Lab Sample ID: 480-220471-1

Date Collected: 06/04/24 13:15
Matrix: Water

Date Received: 06/04/24 16:00

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A		06/06/24 16:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		77 - 120		06/06/24 16:26	1
4-Bromofluorobenzene (Surr)	93		73 - 120		06/06/24 16:26	1
Dibromofluoromethane (Surr)	104		75 - 123		06/06/24 16:26	1
Toluene-d8 (Surr)	91		80 - 120		06/06/24 16:26	1

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		06/05/24 13:46	06/07/24 02:20	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	36		15 - 110	06/05/24 13:46	06/07/24 02:20	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		06/11/24 09:14	06/12/24 20:03	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		06/11/24 09:14	06/12/24 20:03	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		06/11/24 09:14	06/12/24 20:03	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		06/11/24 09:14	06/12/24 20:03	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		06/11/24 09:14	06/12/24 20:03	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		06/11/24 09:14	06/12/24 20:03	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		06/11/24 09:14	06/12/24 20:03	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		06/11/24 09:14	06/12/24 20:03	1
2-Chlorophenol	ND		5.0	0.53	ug/L		06/11/24 09:14	06/12/24 20:03	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		06/11/24 09:14	06/12/24 20:03	1
2-Methylphenol	ND		5.0	0.40	ug/L		06/11/24 09:14	06/12/24 20:03	1
2-Nitroaniline	ND		10	0.42	ug/L		06/11/24 09:14	06/12/24 20:03	1
2-Nitrophenol	ND		5.0	0.48	ug/L		06/11/24 09:14	06/12/24 20:03	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		06/11/24 09:14	06/12/24 20:03	1
3-Nitroaniline	ND		10	0.48	ug/L		06/11/24 09:14	06/12/24 20:03	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		06/11/24 09:14	06/12/24 20:03	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		06/11/24 09:14	06/12/24 20:03	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		06/11/24 09:14	06/12/24 20:03	1
4-Chloroaniline	ND		5.0	0.59	ug/L		06/11/24 09:14	06/12/24 20:03	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		06/11/24 09:14	06/12/24 20:03	1
4-Methylphenol	ND		10	0.36	ug/L		06/11/24 09:14	06/12/24 20:03	1
4-Nitroaniline	ND		10	0.25	ug/L		06/11/24 09:14	06/12/24 20:03	1
4-Nitrophenol	ND		10	1.5	ug/L		06/11/24 09:14	06/12/24 20:03	1
Acenaphthene	ND		5.0	0.41	ug/L		06/11/24 09:14	06/12/24 20:03	1
Acenaphthylene	ND		5.0	0.38	ug/L		06/11/24 09:14	06/12/24 20:03	1
Acetophenone	ND		5.0	0.54	ug/L		06/11/24 09:14	06/12/24 20:03	1
Anthracene	ND		5.0	0.28	ug/L		06/11/24 09:14	06/12/24 20:03	1
Atrazine	ND		5.0	0.46	ug/L		06/11/24 09:14	06/12/24 20:03	1
Benzaldehyde	ND		5.0	0.27	ug/L		06/11/24 09:14	06/12/24 20:03	1
Benzo(a)anthracene	ND		5.0	0.36	ug/L		06/11/24 09:14	06/12/24 20:03	1
Benzo(a)pyrene	ND		5.0	0.47	ug/L		06/11/24 09:14	06/12/24 20:03	1
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L		06/11/24 09:14	06/12/24 20:03	1
Benzo(g,h,i)perylene	ND		5.0	0.35	ug/L		06/11/24 09:14	06/12/24 20:03	1
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L		06/11/24 09:14	06/12/24 20:03	1

Client Sample ID: SED-RB-060424
Lab Sample ID: 480-220471-1
Date Collected: 06/04/24 13:15
Matrix: Water
Date Received: 06/04/24 16:00

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.0	0.65	ug/L		06/11/24 09:14	06/12/24 20:03	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		06/11/24 09:14	06/12/24 20:03	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		06/11/24 09:14	06/12/24 20:03	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		06/11/24 09:14	06/12/24 20:03	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		06/11/24 09:14	06/12/24 20:03	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		06/11/24 09:14	06/12/24 20:03	1
Caprolactam	ND		5.0	2.2	ug/L		06/11/24 09:14	06/12/24 20:03	1
Carbazole	ND		5.0	0.30	ug/L		06/11/24 09:14	06/12/24 20:03	1
Chrysene	ND		5.0	0.33	ug/L		06/11/24 09:14	06/12/24 20:03	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		06/11/24 09:14	06/12/24 20:03	1
Dibenzofuran	ND		10	0.51	ug/L		06/11/24 09:14	06/12/24 20:03	1
Diethyl phthalate	ND		5.0	0.22	ug/L		06/11/24 09:14	06/12/24 20:03	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		06/11/24 09:14	06/12/24 20:03	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		06/11/24 09:14	06/12/24 20:03	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		06/11/24 09:14	06/12/24 20:03	1
Fluoranthene	ND		5.0	0.40	ug/L		06/11/24 09:14	06/12/24 20:03	1
Fluorene	ND		5.0	0.36	ug/L		06/11/24 09:14	06/12/24 20:03	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		06/11/24 09:14	06/12/24 20:03	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		06/11/24 09:14	06/12/24 20:03	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		06/11/24 09:14	06/12/24 20:03	1
Hexachloroethane	ND		5.0	0.59	ug/L		06/11/24 09:14	06/12/24 20:03	1
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L		06/11/24 09:14	06/12/24 20:03	1
Isophorone	ND		5.0	0.43	ug/L		06/11/24 09:14	06/12/24 20:03	1
Naphthalene	ND		5.0	0.76	ug/L		06/11/24 09:14	06/12/24 20:03	1
Nitrobenzene	ND		5.0	0.29	ug/L		06/11/24 09:14	06/12/24 20:03	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		06/11/24 09:14	06/12/24 20:03	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		06/11/24 09:14	06/12/24 20:03	1
Pentachlorophenol	ND		10	2.2	ug/L		06/11/24 09:14	06/12/24 20:03	1
Phenanthrene	ND		5.0	0.44	ug/L		06/11/24 09:14	06/12/24 20:03	1
Phenol	ND		5.0	0.39	ug/L		06/11/24 09:14	06/12/24 20:03	1
Pyrene	ND		5.0	0.34	ug/L		06/11/24 09:14	06/12/24 20:03	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
2-Butanone, 3-methyl-	*2.0*	*T J N*	*ug/L*		*3.17*	*563-80-4*	*06/11/24 09:14*	*06/12/24 20:03*	*1*
Benzene	*1.7*	*T J N*	*ug/L*		*3.22*	*71-43-2*	*06/11/24 09:14*	*06/12/24 20:03*	*1*
Unknown	*13*	*T J*	*ug/L*		*4.72*	*N/A*	*06/11/24 09:14*	*06/12/24 20:03*	*1*
Aniline	*4.1*	*T J N*	*ug/L*		*6.08*	*62-53-3*	*06/11/24 09:14*	*06/12/24 20:03*	*1*
Benzenamine, 3-methyl-	*2.2*	*T J N*	*ug/L*		*7.16*	*108-44-1*	*06/11/24 09:14*	*06/12/24 20:03*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*82*		*25 - 144*	*06/11/24 09:14*	*06/12/24 20:03*	*1*
2-Fluorobiphenyl	*74*		*53 - 126*	*06/11/24 09:14*	*06/12/24 20:03*	*1*
2-Fluorophenol	*59*		*24 - 120*	*06/11/24 09:14*	*06/12/24 20:03*	*1*
Nitrobenzene-d5	*68*		*29 - 129*	*06/11/24 09:14*	*06/12/24 20:03*	*1*
Phenol-d5	*37*		*10 - 120*	*06/11/24 09:14*	*06/12/24 20:03*	*1*
p-Terphenyl-d14	*77*		*33 - 132*	*06/11/24 09:14*	*06/12/24 20:03*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.050	0.0092	ug/L		06/06/24 13:46	06/07/24 10:29	1

Client Sample ID: SED-RB-060424
Lab Sample ID: 480-220471-1

Date Collected: 06/04/24 13:15
Matrix: Water

Date Received: 06/04/24 16:00

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDE	ND		0.050	0.012	ug/L		06/06/24 13:46	06/07/24 10:29	1
4,4'-DDT	ND		0.050	0.011	ug/L		06/06/24 13:46	06/07/24 10:29	1
Aldrin	ND		0.050	0.0081	ug/L		06/06/24 13:46	06/07/24 10:29	1
alpha-BHC	**0.0086**	**J**	0.050	0.0077	ug/L		06/06/24 13:46	06/07/24 10:29	1
cis-Chlordane	ND		0.050	0.015	ug/L		06/06/24 13:46	06/07/24 10:29	1
beta-BHC	ND		0.050	0.025	ug/L		06/06/24 13:46	06/07/24 10:29	1
delta-BHC	ND		0.050	0.010	ug/L		06/06/24 13:46	06/07/24 10:29	1
Dieldrin	ND		0.050	0.0098	ug/L		06/06/24 13:46	06/07/24 10:29	1
Endosulfan I	ND		0.050	0.011	ug/L		06/06/24 13:46	06/07/24 10:29	1
Endosulfan II	ND		0.050	0.012	ug/L		06/06/24 13:46	06/07/24 10:29	1
Endosulfan sulfate	ND		0.050	0.016	ug/L		06/06/24 13:46	06/07/24 10:29	1
Endrin	ND		0.050	0.014	ug/L		06/06/24 13:46	06/07/24 10:29	1
Endrin aldehyde	ND		0.050	0.016	ug/L		06/06/24 13:46	06/07/24 10:29	1
Endrin ketone	ND		0.050	0.012	ug/L		06/06/24 13:46	06/07/24 10:29	1
gamma-BHC (Lindane)	**0.0092**	**J**	0.050	0.0080	ug/L		06/06/24 13:46	06/07/24 10:29	1
trans-Chlordane	ND		0.050	0.011	ug/L		06/06/24 13:46	06/07/24 10:29	1
Heptachlor	ND		0.050	0.0085	ug/L		06/06/24 13:46	06/07/24 10:29	1
Heptachlor epoxide	ND		0.050	0.0074	ug/L		06/06/24 13:46	06/07/24 10:29	1
Methoxychlor	ND		0.050	0.014	ug/L		06/06/24 13:46	06/07/24 10:29	1
Toxaphene	ND		0.50	0.12	ug/L		06/06/24 13:46	06/07/24 10:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*66*		*20 - 120*	*06/06/24 13:46*	*06/07/24 10:29*	*1*
DCB Decachlorobiphenyl	*61*		*20 - 120*	*06/06/24 13:46*	*06/07/24 10:29*	*1*
Tetrachloro-m-xylene	*89*		*44 - 120*	*06/06/24 13:46*	*06/07/24 10:29*	*1*
Tetrachloro-m-xylene	*72*		*44 - 120*	*06/06/24 13:46*	*06/07/24 10:29*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 20:22	1
PCB-1221	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 20:22	1
PCB-1232	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 20:22	1
PCB-1242	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 20:22	1
PCB-1248	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 20:22	1
PCB-1254	ND		0.50	0.25	ug/L		06/06/24 06:53	06/06/24 20:22	1
PCB-1260	ND		0.50	0.25	ug/L		06/06/24 06:53	06/06/24 20:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*47*		*19 - 120*	*06/06/24 06:53*	*06/06/24 20:22*	*1*
DCB Decachlorobiphenyl	*58*		*19 - 120*	*06/06/24 06:53*	*06/06/24 20:22*	*1*
Tetrachloro-m-xylene	*60*		*39 - 121*	*06/06/24 06:53*	*06/06/24 20:22*	*1*
Tetrachloro-m-xylene	*54*		*39 - 121*	*06/06/24 06:53*	*06/06/24 20:22*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		6.6	1.8	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluoropentanoic acid (PFPeA)	ND		3.3	0.82	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluorooctanoic acid (PFOA)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1

Client Sample ID: SED-RB-060424
Lab Sample ID: 480-220471-1

Date Collected: 06/04/24 13:15
Matrix: Water

Date Received: 06/04/24 16:00

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanoic acid (PFNA)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.42	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		6.6	1.6	ng/L		06/10/24 08:21	06/10/24 20:13	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	**1.6**	**J**	6.6	1.6	ng/L		06/10/24 08:21	06/10/24 20:13	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	**2.8**	**J**	6.6	1.6	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	0.51	ng/L		06/10/24 08:21	06/10/24 20:13	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	0.43	ng/L		06/10/24 08:21	06/10/24 20:13	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		16	4.1	ng/L		06/10/24 08:21	06/10/24 20:13	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		16	4.1	ng/L		06/10/24 08:21	06/10/24 20:13	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		6.6	1.6	ng/L		06/10/24 08:21	06/10/24 20:13	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		6.6	1.6	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		3.3	0.82	ng/L		06/10/24 08:21	06/10/24 20:13	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		3.3	1.0	ng/L		06/10/24 08:21	06/10/24 20:13	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		6.6	1.6	ng/L		06/10/24 08:21	06/10/24 20:13	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		6.6	1.6	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		3.3	0.82	ng/L		06/10/24 08:21	06/10/24 20:13	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		8.2	2.1	ng/L		06/10/24 08:21	06/10/24 20:13	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		41	10	ng/L		06/10/24 08:21	06/10/24 20:13	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		41	12	ng/L		06/10/24 08:21	06/10/24 20:13	1

Client Sample ID: SED-RB-060424
Lab Sample ID: 480-220471-1

Date Collected: 06/04/24 13:15
Matrix: Water

Date Received: 06/04/24 16:00

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		3.3	0.82	ng/L		06/10/24 08:21	06/10/24 20:13	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*106*		*10 - 130*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
13C5 PFPeA	*105*		*35 - 150*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
13C5 PFHxA	*112*		*55 - 150*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
13C4 PFHpA	*102*		*55 - 150*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
13C8 PFOA	*112*		*60 - 140*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
13C9 PFNA	*121*		*55 - 140*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
13C6 PFDA	*106*		*50 - 140*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
13C7 PFUnA	*113*		*30 - 140*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
13C2 PFTeDA	*80.7*		*10 - 130*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
13C3 PFBS	*123*		*55 - 150*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
13C3 PFHxS	*111*		*55 - 150*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
13C8 PFOS	*115*		*45 - 140*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
13C8 FOSA	*97.0*		*30 - 130*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
d3-NMeFOSAA	*112*		*45 - 200*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
d5-NEtFOSAA	*108*		*10 - 200*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
M2-4:2 FTS	*123*		*60 - 200*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
M2-6:2 FTS	*104*		*60 - 200*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
M2-8:2 FTS	*103*		*50 - 200*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
13C3 HFPO-DA	*107*		*25 - 160*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
d7-N-MeFOSE-M	*115*		*10 - 150*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
d9-N-EtFOSE-M	*112*		*10 - 150*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
d5-NEtPFOSA	*82.2*		*10 - 130*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
d3-NMePFOSA	*80.2*		*15 - 130*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
13C2-PFDoDA	*104*		*10 - 150*	*06/10/24 08:21*	*06/10/24 20:13*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		06/06/24 09:11	06/06/24 19:11	1
Antimony	ND		0.020	0.0068	mg/L		06/06/24 09:11	06/06/24 19:11	1
Arsenic	ND		0.015	0.0056	mg/L		06/06/24 09:11	06/06/24 19:11	1
Barium	**0.0014**	**J**	0.0020	0.00070	mg/L		06/06/24 09:11	06/06/24 19:11	1
Beryllium	ND		0.0020	0.00030	mg/L		06/06/24 09:11	06/06/24 19:11	1
Cadmium	ND		0.0020	0.00050	mg/L		06/06/24 09:11	06/06/24 19:11	1
Calcium	**0.32**	**J**	0.50	0.10	mg/L		06/06/24 09:11	06/06/24 19:11	1
Chromium	ND		0.0040	0.0010	mg/L		06/06/24 09:11	06/06/24 19:11	1
Cobalt	ND		0.0040	0.00063	mg/L		06/06/24 09:11	06/06/24 19:11	1
Copper	ND		0.010	0.0016	mg/L		06/06/24 09:11	06/06/24 19:11	1
Iron	ND		0.050	0.019	mg/L		06/06/24 09:11	06/06/24 19:11	1
Lead	**0.0038**	**J**	0.010	0.0030	mg/L		06/06/24 09:11	06/06/24 19:11	1
Magnesium	ND		0.20	0.043	mg/L		06/06/24 09:11	06/06/24 19:11	1
Manganese	ND		0.0030	0.00040	mg/L		06/06/24 09:11	06/06/24 19:11	1
Nickel	ND		0.010	0.0013	mg/L		06/06/24 09:11	06/06/24 19:11	1
Potassium	**0.13**	**J**	0.50	0.10	mg/L		06/06/24 09:11	06/06/24 19:11	1
Selenium	ND		0.025	0.0087	mg/L		06/06/24 09:11	06/06/24 19:11	1
Silver	ND		0.0060	0.0017	mg/L		06/06/24 09:11	06/06/24 19:11	1
Sodium	**0.79**	**J**	1.0	0.32	mg/L		06/06/24 09:11	06/06/24 19:11	1

Client Sample ID: SED-RB-060424
Lab Sample ID: 480-220471-1

Date Collected: 06/04/24 13:15
Matrix: Water
Date Received: 06/04/24 16:00

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	ND		0.020	0.010	mg/L		06/06/24 09:11	06/06/24 19:11	1
Vanadium	ND		0.0050	0.0015	mg/L		06/06/24 09:11	06/06/24 19:11	1
Zinc	ND		0.010	0.0015	mg/L		06/06/24 09:11	06/06/24 19:11	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		06/06/24 12:22	06/06/24 16:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			06/09/24 17:43	1
Total Organic Carbon (SW846 9060A)	ND		1.0	0.43	mg/L			06/07/24 21:30	1
Total Organic Carbon - Quad (SW846 9060A)	ND		1.0	0.43	mg/L			06/07/24 21:30	1
TOC Result 1 (SW846 9060A)	ND		1.0	0.43	mg/L			06/07/24 21:30	1
TOC Result 2 (SW846 9060A)	ND		1.0	0.43	mg/L			06/07/24 21:30	1
TOC Result 3 (SW846 9060A)	ND		1.0	0.43	mg/L			06/07/24 21:30	1
TOC Result 4 (SW846 9060A)	ND		1.0	0.43	mg/L			06/07/24 21:30	1

Client Sample ID: SW-RB-06424
Lab Sample ID: 480-220471-2

Date Collected: 06/04/24 14:00
Matrix: Water
Date Received: 06/04/24 16:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/06/24 16:48	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/06/24 16:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			06/06/24 16:48	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/06/24 16:48	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/06/24 16:48	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/06/24 16:48	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			06/06/24 16:48	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/06/24 16:48	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/06/24 16:48	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/06/24 16:48	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/06/24 16:48	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/06/24 16:48	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			06/06/24 16:48	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/06/24 16:48	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/06/24 16:48	1
2-Hexanone	ND		5.0	1.2	ug/L			06/06/24 16:48	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			06/06/24 16:48	1
Acetone	ND		10	3.0	ug/L			06/06/24 16:48	1
Benzene	ND		1.0	0.41	ug/L			06/06/24 16:48	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/06/24 16:48	1
Bromoform	ND		1.0	0.26	ug/L			06/06/24 16:48	1
Bromomethane	ND		1.0	0.69	ug/L			06/06/24 16:48	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/06/24 16:48	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/06/24 16:48	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/06/24 16:48	1
Chloroethane	ND		1.0	0.32	ug/L			06/06/24 16:48	1

Client Sample ID: SW-RB-06424
Lab Sample ID: 480-220471-2

Date Collected: 06/04/24 14:00
Matrix: Water

Date Received: 06/04/24 16:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		1.0	0.34	ug/L			06/06/24 16:48	1
Chloromethane	ND		1.0	0.35	ug/L			06/06/24 16:48	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/06/24 16:48	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/06/24 16:48	1
Cyclohexane	ND		1.0	0.18	ug/L			06/06/24 16:48	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/06/24 16:48	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			06/06/24 16:48	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/06/24 16:48	1
Isopropylbenzene	ND		1.0	0.79	ug/L			06/06/24 16:48	1
Methyl acetate	ND		2.5	1.3	ug/L			06/06/24 16:48	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			06/06/24 16:48	1
Methylcyclohexane	ND		1.0	0.16	ug/L			06/06/24 16:48	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/06/24 16:48	1
Styrene	ND		1.0	0.73	ug/L			06/06/24 16:48	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/06/24 16:48	1
Toluene	ND		1.0	0.51	ug/L			06/06/24 16:48	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/06/24 16:48	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/06/24 16:48	1
Trichloroethene	ND		1.0	0.46	ug/L			06/06/24 16:48	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/06/24 16:48	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/06/24 16:48	1
Xylenes, Total	ND		2.0	0.66	ug/L			06/06/24 16:48	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*		*06/06/24 16:48*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*77 - 120*		*06/06/24 16:48*	*1*
4-Bromofluorobenzene (Surr)	*94*		*73 - 120*		*06/06/24 16:48*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 123*		*06/06/24 16:48*	*1*
Toluene-d8 (Surr)	*89*		*80 - 120*		*06/06/24 16:48*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		06/11/24 09:14	06/12/24 20:31	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		06/11/24 09:14	06/12/24 20:31	1
2,4-Dichlorophenol	**0.54**	**J**	5.0	0.51	ug/L		06/11/24 09:14	06/12/24 20:31	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		06/11/24 09:14	06/12/24 20:31	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		06/11/24 09:14	06/12/24 20:31	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		06/11/24 09:14	06/12/24 20:31	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		06/11/24 09:14	06/12/24 20:31	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		06/11/24 09:14	06/12/24 20:31	1
2-Chlorophenol	ND		5.0	0.53	ug/L		06/11/24 09:14	06/12/24 20:31	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		06/11/24 09:14	06/12/24 20:31	1
2-Methylphenol	ND		5.0	0.40	ug/L		06/11/24 09:14	06/12/24 20:31	1
2-Nitroaniline	ND		10	0.42	ug/L		06/11/24 09:14	06/12/24 20:31	1
2-Nitrophenol	ND		5.0	0.48	ug/L		06/11/24 09:14	06/12/24 20:31	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		06/11/24 09:14	06/12/24 20:31	1
3-Nitroaniline	ND		10	0.48	ug/L		06/11/24 09:14	06/12/24 20:31	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		06/11/24 09:14	06/12/24 20:31	1

Client Sample ID: SW-RB-06424
Lab Sample ID: 480-220471-2

Date Collected: 06/04/24 14:00
Matrix: Water
Date Received: 06/04/24 16:00

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		06/11/24 09:14	06/12/24 20:31	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		06/11/24 09:14	06/12/24 20:31	1
4-Chloroaniline	ND		5.0	0.59	ug/L		06/11/24 09:14	06/12/24 20:31	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		06/11/24 09:14	06/12/24 20:31	1
4-Methylphenol	ND		10	0.36	ug/L		06/11/24 09:14	06/12/24 20:31	1
4-Nitroaniline	ND		10	0.25	ug/L		06/11/24 09:14	06/12/24 20:31	1
4-Nitrophenol	ND		10	1.5	ug/L		06/11/24 09:14	06/12/24 20:31	1
Acenaphthene	ND		5.0	0.41	ug/L		06/11/24 09:14	06/12/24 20:31	1
Acenaphthylene	ND		5.0	0.38	ug/L		06/11/24 09:14	06/12/24 20:31	1
Acetophenone	ND		5.0	0.54	ug/L		06/11/24 09:14	06/12/24 20:31	1
Anthracene	ND		5.0	0.28	ug/L		06/11/24 09:14	06/12/24 20:31	1
Atrazine	ND		5.0	0.46	ug/L		06/11/24 09:14	06/12/24 20:31	1
Benzaldehyde	ND		5.0	0.27	ug/L		06/11/24 09:14	06/12/24 20:31	1
Benzo(a)anthracene	ND		5.0	0.36	ug/L		06/11/24 09:14	06/12/24 20:31	1
Benzo(a)pyrene	ND		5.0	0.47	ug/L		06/11/24 09:14	06/12/24 20:31	1
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L		06/11/24 09:14	06/12/24 20:31	1
Benzo(g,h,i)perylene	ND		5.0	0.35	ug/L		06/11/24 09:14	06/12/24 20:31	1
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L		06/11/24 09:14	06/12/24 20:31	1
Biphenyl	ND		5.0	0.65	ug/L		06/11/24 09:14	06/12/24 20:31	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		06/11/24 09:14	06/12/24 20:31	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		06/11/24 09:14	06/12/24 20:31	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		06/11/24 09:14	06/12/24 20:31	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		06/11/24 09:14	06/12/24 20:31	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		06/11/24 09:14	06/12/24 20:31	1
Caprolactam	ND		5.0	2.2	ug/L		06/11/24 09:14	06/12/24 20:31	1
Carbazole	ND		5.0	0.30	ug/L		06/11/24 09:14	06/12/24 20:31	1
Chrysene	ND		5.0	0.33	ug/L		06/11/24 09:14	06/12/24 20:31	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		06/11/24 09:14	06/12/24 20:31	1
Dibenzofuran	ND		10	0.51	ug/L		06/11/24 09:14	06/12/24 20:31	1
Diethyl phthalate	ND		5.0	0.22	ug/L		06/11/24 09:14	06/12/24 20:31	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		06/11/24 09:14	06/12/24 20:31	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		06/11/24 09:14	06/12/24 20:31	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		06/11/24 09:14	06/12/24 20:31	1
Fluoranthene	ND		5.0	0.40	ug/L		06/11/24 09:14	06/12/24 20:31	1
Fluorene	ND		5.0	0.36	ug/L		06/11/24 09:14	06/12/24 20:31	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		06/11/24 09:14	06/12/24 20:31	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		06/11/24 09:14	06/12/24 20:31	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		06/11/24 09:14	06/12/24 20:31	1
Hexachloroethane	ND		5.0	0.59	ug/L		06/11/24 09:14	06/12/24 20:31	1
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L		06/11/24 09:14	06/12/24 20:31	1
Isophorone	ND		5.0	0.43	ug/L		06/11/24 09:14	06/12/24 20:31	1
Naphthalene	ND		5.0	0.76	ug/L		06/11/24 09:14	06/12/24 20:31	1
Nitrobenzene	ND		5.0	0.29	ug/L		06/11/24 09:14	06/12/24 20:31	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		06/11/24 09:14	06/12/24 20:31	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		06/11/24 09:14	06/12/24 20:31	1
Pentachlorophenol	ND		10	2.2	ug/L		06/11/24 09:14	06/12/24 20:31	1
Phenanthrene	ND		5.0	0.44	ug/L		06/11/24 09:14	06/12/24 20:31	1
Phenol	ND		5.0	0.39	ug/L		06/11/24 09:14	06/12/24 20:31	1
Pyrene	ND		5.0	0.34	ug/L		06/11/24 09:14	06/12/24 20:31	1

Client Sample ID: SW-RB-06424
Lab Sample ID: 480-220471-2

Date Collected: 06/04/24 14:00
Matrix: Water
Date Received: 06/04/24 16:00

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	1.8	T J	ug/L		3.17	N/A	06/11/24 09:14	06/12/24 20:31	1
Unknown	15	T J	ug/L		4.72	N/A	06/11/24 09:14	06/12/24 20:31	1
Unknown	1.6	T J	ug/L		5.13	N/A	06/11/24 09:14	06/12/24 20:31	1
1H-Isoindole-1,3(2H)-dione	2.1	T J N	ug/L		10.05	85-41-6	06/11/24 09:14	06/12/24 20:31	1
Unknown	5.7	T J	ug/L		12.54	N/A	06/11/24 09:14	06/12/24 20:31	1
Unknown	4.1	T J	ug/L		13.06	N/A	06/11/24 09:14	06/12/24 20:31	1
Unknown	11	T J	ug/L		13.43	N/A	06/11/24 09:14	06/12/24 20:31	1
Unknown	1.7	T J	ug/L		13.72	N/A	06/11/24 09:14	06/12/24 20:31	1
Unknown	5.5	T J	ug/L		13.94	N/A	06/11/24 09:14	06/12/24 20:31	1
Erucylamide	1.8	T J N	ug/L		14.69	112-84-5	06/11/24 09:14	06/12/24 20:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	95		25 - 144	06/11/24 09:14	06/12/24 20:31	1
2-Fluorobiphenyl	73		53 - 126	06/11/24 09:14	06/12/24 20:31	1
2-Fluorophenol	60		24 - 120	06/11/24 09:14	06/12/24 20:31	1
Nitrobenzene-d5	67		29 - 129	06/11/24 09:14	06/12/24 20:31	1
Phenol-d5	38		10 - 120	06/11/24 09:14	06/12/24 20:31	1
p-Terphenyl-d14	78		33 - 132	06/11/24 09:14	06/12/24 20:31	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.052	0.0096	ug/L		06/06/24 13:46	06/07/24 10:48	1
4,4'-DDE	ND		0.052	0.012	ug/L		06/06/24 13:46	06/07/24 10:48	1
4,4'-DDT	ND		0.052	0.011	ug/L		06/06/24 13:46	06/07/24 10:48	1
Aldrin	ND		0.052	0.0084	ug/L		06/06/24 13:46	06/07/24 10:48	1
alpha-BHC	**0.0099**	**J**	0.052	0.0080	ug/L		06/06/24 13:46	06/07/24 10:48	1
cis-Chlordane	ND		0.052	0.015	ug/L		06/06/24 13:46	06/07/24 10:48	1
beta-BHC	ND		0.052	0.026	ug/L		06/06/24 13:46	06/07/24 10:48	1
delta-BHC	ND		0.052	0.010	ug/L		06/06/24 13:46	06/07/24 10:48	1
Dieldrin	ND		0.052	0.010	ug/L		06/06/24 13:46	06/07/24 10:48	1
Endosulfan I	ND		0.052	0.011	ug/L		06/06/24 13:46	06/07/24 10:48	1
Endosulfan II	ND		0.052	0.013	ug/L		06/06/24 13:46	06/07/24 10:48	1
Endosulfan sulfate	ND		0.052	0.016	ug/L		06/06/24 13:46	06/07/24 10:48	1
Endrin	ND		0.052	0.014	ug/L		06/06/24 13:46	06/07/24 10:48	1
Endrin aldehyde	ND		0.052	0.017	ug/L		06/06/24 13:46	06/07/24 10:48	1
Endrin ketone	ND		0.052	0.013	ug/L		06/06/24 13:46	06/07/24 10:48	1
gamma-BHC (Lindane)	ND		0.052	0.0083	ug/L		06/06/24 13:46	06/07/24 10:48	1
trans-Chlordane	ND		0.052	0.011	ug/L		06/06/24 13:46	06/07/24 10:48	1
Heptachlor	ND		0.052	0.0089	ug/L		06/06/24 13:46	06/07/24 10:48	1
Heptachlor epoxide	ND		0.052	0.0077	ug/L		06/06/24 13:46	06/07/24 10:48	1
Methoxychlor	ND		0.052	0.015	ug/L		06/06/24 13:46	06/07/24 10:48	1
Toxaphene	ND		0.52	0.13	ug/L		06/06/24 13:46	06/07/24 10:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	82		20 - 120	06/06/24 13:46	06/07/24 10:48	1
DCB Decachlorobiphenyl	77		20 - 120	06/06/24 13:46	06/07/24 10:48	1
Tetrachloro-m-xylene	94		44 - 120	06/06/24 13:46	06/07/24 10:48	1
Tetrachloro-m-xylene	98		44 - 120	06/06/24 13:46	06/07/24 10:48	1

Client Sample ID: SW-RB-06424
Lab Sample ID: 480-220471-2

Date Collected: 06/04/24 14:00
Matrix: Water
Date Received: 06/04/24 16:00

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.54	0.19	ug/L		06/06/24 06:53	06/06/24 20:39	1
PCB-1221	ND		0.54	0.19	ug/L		06/06/24 06:53	06/06/24 20:39	1
PCB-1232	ND		0.54	0.19	ug/L		06/06/24 06:53	06/06/24 20:39	1
PCB-1242	ND		0.54	0.19	ug/L		06/06/24 06:53	06/06/24 20:39	1
PCB-1248	ND		0.54	0.19	ug/L		06/06/24 06:53	06/06/24 20:39	1
PCB-1254	ND		0.54	0.27	ug/L		06/06/24 06:53	06/06/24 20:39	1
PCB-1260	ND		0.54	0.27	ug/L		06/06/24 06:53	06/06/24 20:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*53*		*19 - 120*	*06/06/24 06:53*	*06/06/24 20:39*	*1*
DCB Decachlorobiphenyl	*60*		*19 - 120*	*06/06/24 06:53*	*06/06/24 20:39*	*1*
Tetrachloro-m-xylene	*66*		*39 - 121*	*06/06/24 06:53*	*06/06/24 20:39*	*1*
Tetrachloro-m-xylene	*59*		*39 - 121*	*06/06/24 06:53*	*06/06/24 20:39*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		6.0	1.6	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluoropentanoic acid (PFPeA)	ND		3.0	0.74	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluorohexanoic acid (PFHxA)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluoroheptanoic acid (PFHpA)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluorooctanoic acid (PFOA)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluorononanoic acid (PFNA)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluorodecanoic acid (PFDA)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluoroundecanoic acid (PFUnA)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluorododecanoic acid (PFDoA)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.5	0.39	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluorononanesulfonic acid (PFNS)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		6.0	1.5	ng/L		06/10/24 08:21	06/10/24 20:26	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		6.0	1.5	ng/L		06/10/24 08:21	06/10/24 20:26	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		6.0	1.5	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.5	0.46	ng/L		06/10/24 08:21	06/10/24 20:26	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.5	0.39	ng/L		06/10/24 08:21	06/10/24 20:26	1

Client Sample ID: SW-RB-06424
Lab Sample ID: 480-220471-2

Date Collected: 06/04/24 14:00
Matrix: Water
Date Received: 06/04/24 16:00

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		15	3.7	ng/L		06/10/24 08:21	06/10/24 20:26	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		15	3.7	ng/L		06/10/24 08:21	06/10/24 20:26	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		6.0	1.5	ng/L		06/10/24 08:21	06/10/24 20:26	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		6.0	1.5	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		3.0	0.74	ng/L		06/10/24 08:21	06/10/24 20:26	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		3.0	0.91	ng/L		06/10/24 08:21	06/10/24 20:26	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		6.0	1.5	ng/L		06/10/24 08:21	06/10/24 20:26	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		6.0	1.5	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		3.0	0.74	ng/L		06/10/24 08:21	06/10/24 20:26	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		7.4	1.9	ng/L		06/10/24 08:21	06/10/24 20:26	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		37	9.3	ng/L		06/10/24 08:21	06/10/24 20:26	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		37	11	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		3.0	0.74	ng/L		06/10/24 08:21	06/10/24 20:26	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*101*		*10 - 130*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
13C5 PFPeA	*110*		*35 - 150*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
13C5 PFHxA	*106*		*55 - 150*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
13C4 PFHpA	*104*		*55 - 150*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
13C8 PFOA	*106*		*60 - 140*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
13C9 PFNA	*118*		*55 - 140*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
13C6 PFDA	*100*		*50 - 140*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
13C7 PFUnA	*101*		*30 - 140*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
13C2 PFTeDA	*71.1*		*10 - 130*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
13C3 PFBS	*121*		*55 - 150*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
13C3 PFHxS	*111*		*55 - 150*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
13C8 PFOS	*108*		*45 - 140*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
13C8 FOSA	*93.1*		*30 - 130*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
d3-NMeFOSAA	*97.9*		*45 - 200*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
d5-NEtFOSAA	*107*		*10 - 200*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
M2-4:2 FTS	*111*		*60 - 200*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
M2-6:2 FTS	*92.7*		*60 - 200*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
M2-8:2 FTS	*94.5*		*50 - 200*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
13C3 HFPO-DA	*115*		*25 - 160*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
d7-N-MeFOSE-M	*99.2*		*10 - 150*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
d9-N-EtFOSE-M	*98.3*		*10 - 150*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
d5-NEtPFOSA	*83.2*		*10 - 130*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
d3-NMePFOSA	*81.1*		*15 - 130*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
13C2-PFDoDA	*92.5*		*10 - 150*	*06/10/24 08:21*	*06/10/24 20:26*	*1*

Client Sample ID: SW-RB-06424
Lab Sample ID: 480-220471-2

Date Collected: 06/04/24 14:00
Matrix: Water

Date Received: 06/04/24 16:00

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		06/06/24 09:11	06/06/24 19:13	1
Antimony	ND		0.020	0.0068	mg/L		06/06/24 09:11	06/06/24 19:13	1
Arsenic	ND		0.015	0.0056	mg/L		06/06/24 09:11	06/06/24 19:13	1
Barium	**0.0011**	**J**	0.0020	0.00070	mg/L		06/06/24 09:11	06/06/24 19:13	1
Beryllium	ND		0.0020	0.00030	mg/L		06/06/24 09:11	06/06/24 19:13	1
Cadmium	ND		0.0020	0.00050	mg/L		06/06/24 09:11	06/06/24 19:13	1
Calcium	**0.27**	**J**	0.50	0.10	mg/L		06/06/24 09:11	06/06/24 19:13	1
Chromium	ND		0.0040	0.0010	mg/L		06/06/24 09:11	06/06/24 19:13	1
Cobalt	**0.00086**	**J**	0.0040	0.00063	mg/L		06/06/24 09:11	06/06/24 19:13	1
Copper	ND		0.010	0.0016	mg/L		06/06/24 09:11	06/06/24 19:13	1
Iron	ND		0.050	0.019	mg/L		06/06/24 09:11	06/06/24 19:13	1
Lead	**0.0031**	**J**	0.010	0.0030	mg/L		06/06/24 09:11	06/06/24 19:13	1
Magnesium	ND		0.20	0.043	mg/L		06/06/24 09:11	06/06/24 19:13	1
Manganese	ND		0.0030	0.00040	mg/L		06/06/24 09:11	06/06/24 19:13	1
Nickel	ND		0.010	0.0013	mg/L		06/06/24 09:11	06/06/24 19:13	1
Potassium	ND		0.50	0.10	mg/L		06/06/24 09:11	06/06/24 19:13	1
Selenium	ND		0.025	0.0087	mg/L		06/06/24 09:11	06/06/24 19:13	1
Silver	ND		0.0060	0.0017	mg/L		06/06/24 09:11	06/06/24 19:13	1
Sodium	**0.63**	**J**	1.0	0.32	mg/L		06/06/24 09:11	06/06/24 19:13	1
Thallium	ND		0.020	0.010	mg/L		06/06/24 09:11	06/06/24 19:13	1
Vanadium	ND		0.0050	0.0015	mg/L		06/06/24 09:11	06/06/24 19:13	1
Zinc	ND		0.010	0.0015	mg/L		06/06/24 09:11	06/06/24 19:13	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		06/06/24 09:12	06/07/24 14:39	1
Antimony	ND		0.020	0.0068	mg/L		06/06/24 09:12	06/07/24 14:39	1
Arsenic	ND		0.015	0.0056	mg/L		06/06/24 09:12	06/06/24 20:21	1
Barium	**0.0013**	**J**	0.0020	0.00070	mg/L		06/06/24 09:12	06/07/24 14:39	1
Beryllium	ND		0.0020	0.00030	mg/L		06/06/24 09:12	06/07/24 14:39	1
Cadmium	ND		0.0020	0.00050	mg/L		06/06/24 09:12	06/07/24 14:39	1
Calcium	**0.33**	**J**	0.50	0.10	mg/L		06/06/24 09:12	06/07/24 14:39	1
Chromium	ND		0.0040	0.0010	mg/L		06/06/24 09:12	06/07/24 14:39	1
Cobalt	ND		0.0040	0.00063	mg/L		06/06/24 09:12	06/07/24 14:39	1
Copper	ND		0.010	0.0016	mg/L		06/06/24 09:12	06/07/24 14:39	1
Iron	ND		0.050	0.019	mg/L		06/06/24 09:12	06/07/24 14:39	1
Lead	**0.0053**	**J**	0.010	0.0030	mg/L		06/06/24 09:12	06/06/24 20:21	1
Magnesium	ND		0.20	0.043	mg/L		06/06/24 09:12	06/07/24 14:39	1
Manganese	ND		0.0030	0.00040	mg/L		06/06/24 09:12	06/07/24 14:39	1
Nickel	ND		0.010	0.0013	mg/L		06/06/24 09:12	06/07/24 14:39	1
Potassium	ND		0.50	0.10	mg/L		06/06/24 09:12	06/07/24 14:39	1
Selenium	ND		0.025	0.0087	mg/L		06/06/24 09:12	06/07/24 14:39	1
Silver	ND		0.0060	0.0017	mg/L		06/06/24 09:12	06/07/24 14:39	1
Sodium	**0.68**	**J**	1.0	0.32	mg/L		06/06/24 09:12	06/07/24 14:39	1
Thallium	ND		0.020	0.010	mg/L		06/06/24 09:12	06/06/24 20:21	1
Vanadium	ND		0.0050	0.0015	mg/L		06/06/24 09:12	06/07/24 14:39	1
Zinc	ND		0.010	0.0015	mg/L		06/06/24 09:12	06/07/24 14:39	1

Client Sample ID: SW-RB-06424
Lab Sample ID: 480-220471-2

Date Collected: 06/04/24 14:00
Matrix: Water
Date Received: 06/04/24 16:00

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		06/06/24 12:22	06/06/24 16:04	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		06/06/24 12:22	06/06/24 16:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			06/09/24 17:46	1
Total Organic Carbon (SW846 9060A)	ND		1.0	0.43	mg/L			06/07/24 22:00	1
Total Organic Carbon - Quad (SW846 9060A)	ND		1.0	0.43	mg/L			06/07/24 22:00	1
TOC Result 1 (SW846 9060A)	ND		1.0	0.43	mg/L			06/07/24 22:00	1
TOC Result 2 (SW846 9060A)	ND		1.0	0.43	mg/L			06/07/24 22:00	1
TOC Result 3 (SW846 9060A)	ND		1.0	0.43	mg/L			06/07/24 22:00	1
TOC Result 4 (SW846 9060A)	ND		1.0	0.43	mg/L			06/07/24 22:00	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			06/09/24 17:50	1

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-220471-3

Date Collected: 06/04/24 00:00
Matrix: Water
Date Received: 06/04/24 16:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/06/24 00:21	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/06/24 00:21	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			06/06/24 00:21	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/06/24 00:21	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/06/24 00:21	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/06/24 00:21	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			06/06/24 00:21	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/06/24 00:21	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/06/24 00:21	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/06/24 00:21	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/06/24 00:21	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/06/24 00:21	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			06/06/24 00:21	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/06/24 00:21	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/06/24 00:21	1
2-Hexanone	ND		5.0	1.2	ug/L			06/06/24 00:21	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			06/06/24 00:21	1
Acetone	ND		10	3.0	ug/L			06/06/24 00:21	1
Benzene	ND		1.0	0.41	ug/L			06/06/24 00:21	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/06/24 00:21	1
Bromoform	ND		1.0	0.26	ug/L			06/06/24 00:21	1
Bromomethane	ND		1.0	0.69	ug/L			06/06/24 00:21	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/06/24 00:21	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/06/24 00:21	1

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-220471-3

Date Collected: 06/04/24 00:00
Matrix: Water
Date Received: 06/04/24 16:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND		1.0	0.75	ug/L			06/06/24 00:21	1
Chloroethane	ND		1.0	0.32	ug/L			06/06/24 00:21	1
Chloroform	ND		1.0	0.34	ug/L			06/06/24 00:21	1
Chloromethane	ND		1.0	0.35	ug/L			06/06/24 00:21	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/06/24 00:21	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/06/24 00:21	1
Cyclohexane	ND		1.0	0.18	ug/L			06/06/24 00:21	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/06/24 00:21	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			06/06/24 00:21	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/06/24 00:21	1
Isopropylbenzene	ND		1.0	0.79	ug/L			06/06/24 00:21	1
Methyl acetate	ND		2.5	1.3	ug/L			06/06/24 00:21	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			06/06/24 00:21	1
Methylcyclohexane	ND		1.0	0.16	ug/L			06/06/24 00:21	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/06/24 00:21	1
Styrene	ND		1.0	0.73	ug/L			06/06/24 00:21	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/06/24 00:21	1
Toluene	ND		1.0	0.51	ug/L			06/06/24 00:21	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/06/24 00:21	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/06/24 00:21	1
Trichloroethene	ND		1.0	0.46	ug/L			06/06/24 00:21	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/06/24 00:21	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/06/24 00:21	1
Xylenes, Total	ND		2.0	0.66	ug/L			06/06/24 00:21	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*		*06/06/24 00:21*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*		*06/06/24 00:21*	*1*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*06/06/24 00:21*	*1*
Dibromofluoromethane (Surr)	*94*		*75 - 123*		*06/06/24 00:21*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*06/06/24 00:21*	*1*

Client Sample ID: SW-01-2
Lab Sample ID: 480-220419-1

Date Collected: 06/03/24 11:55
Matrix: Water
Date Received: 06/03/24 19:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/05/24 13:54	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/05/24 13:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			06/05/24 13:54	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/05/24 13:54	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/05/24 13:54	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/05/24 13:54	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			06/05/24 13:54	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/05/24 13:54	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/05/24 13:54	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/05/24 13:54	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/05/24 13:54	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/05/24 13:54	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			06/05/24 13:54	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/05/24 13:54	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/05/24 13:54	1
2-Hexanone	ND		5.0	1.2	ug/L			06/05/24 13:54	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			06/05/24 13:54	1
Acetone	ND		10	3.0	ug/L			06/05/24 13:54	1
Benzene	ND		1.0	0.41	ug/L			06/05/24 13:54	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/05/24 13:54	1
Bromoform	ND		1.0	0.26	ug/L			06/05/24 13:54	1
Bromomethane	ND		1.0	0.69	ug/L			06/05/24 13:54	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/05/24 13:54	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/05/24 13:54	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/05/24 13:54	1
Chloroethane	ND		1.0	0.32	ug/L			06/05/24 13:54	1
Chloroform	ND		1.0	0.34	ug/L			06/05/24 13:54	1
Chloromethane	ND	UJ	1.0	0.35	ug/L			06/05/24 13:54	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/05/24 13:54	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/05/24 13:54	1
Cyclohexane	ND		1.0	0.18	ug/L			06/05/24 13:54	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/05/24 13:54	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			06/05/24 13:54	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/05/24 13:54	1
Isopropylbenzene	ND		1.0	0.79	ug/L			06/05/24 13:54	1
Methyl acetate	ND		2.5	1.3	ug/L			06/05/24 13:54	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			06/05/24 13:54	1
Methylcyclohexane	ND		1.0	0.16	ug/L			06/05/24 13:54	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/05/24 13:54	1
Styrene	ND		1.0	0.73	ug/L			06/05/24 13:54	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/05/24 13:54	1
Toluene	ND		1.0	0.51	ug/L			06/05/24 13:54	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/05/24 13:54	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/05/24 13:54	1
Trichloroethene	ND		1.0	0.46	ug/L			06/05/24 13:54	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/05/24 13:54	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/05/24 13:54	1
Xylenes, Total	ND		2.0	0.66	ug/L			06/05/24 13:54	1

Client Sample ID: SW-01-2

Date Collected: 06/03/24 11:55
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-1

Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A		06/05/24 13:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		77 - 120		06/05/24 13:54	1
4-Bromofluorobenzene (Surr)	111		73 - 120		06/05/24 13:54	1
Dibromofluoromethane (Surr)	91		75 - 123		06/05/24 13:54	1
Toluene-d8 (Surr)	95		80 - 120		06/05/24 13:54	1

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		06/05/24 09:28	06/06/24 16:34	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	28		15 - 110	06/05/24 09:28	06/06/24 16:34	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.2	0.50	ug/L		06/07/24 09:42	06/10/24 19:42	1
2,4,6-Trichlorophenol	ND		5.2	0.64	ug/L		06/07/24 09:42	06/10/24 19:42	1
2,4-Dichlorophenol	ND		5.2	0.53	ug/L		06/07/24 09:42	06/10/24 19:42	1
2,4-Dimethylphenol	ND		5.2	0.52	ug/L		06/07/24 09:42	06/10/24 19:42	1
2,4-Dinitrophenol	ND		10	2.3	ug/L		06/07/24 09:42	06/10/24 19:42	1
2,4-Dinitrotoluene	ND		5.2	0.47	ug/L		06/07/24 09:42	06/10/24 19:42	1
2,6-Dinitrotoluene	ND		5.2	0.42	ug/L		06/07/24 09:42	06/10/24 19:42	1
2-Chloronaphthalene	ND		5.2	0.48	ug/L		06/07/24 09:42	06/10/24 19:42	1
2-Chlorophenol	ND		5.2	0.55	ug/L		06/07/24 09:42	06/10/24 19:42	1
2-Methylnaphthalene	ND		5.2	0.63	ug/L		06/07/24 09:42	06/10/24 19:42	1
2-Methylphenol	ND		5.2	0.42	ug/L		06/07/24 09:42	06/10/24 19:42	1
2-Nitroaniline	ND		10	0.44	ug/L		06/07/24 09:42	06/10/24 19:42	1
2-Nitrophenol	ND		5.2	0.50	ug/L		06/07/24 09:42	06/10/24 19:42	1
3,3'-Dichlorobenzidine	ND	UJ	5.2	0.42	ug/L		06/07/24 09:42	06/10/24 19:42	1
3-Nitroaniline	ND	UJ	10	0.50	ug/L		06/07/24 09:42	06/10/24 19:42	1
4,6-Dinitro-2-methylphenol	ND		10	2.3	ug/L		06/07/24 09:42	06/10/24 19:42	1
4-Bromophenyl phenyl ether	ND		5.2	0.47	ug/L		06/07/24 09:42	06/10/24 19:42	1
4-Chloro-3-methylphenol	ND		5.2	0.47	ug/L		06/07/24 09:42	06/10/24 19:42	1
4-Chloroaniline	ND		5.2	0.61	ug/L		06/07/24 09:42	06/10/24 19:42	1
4-Chlorophenyl phenyl ether	ND		5.2	0.36	ug/L		06/07/24 09:42	06/10/24 19:42	1
4-Methylphenol	ND		10	0.38	ug/L		06/07/24 09:42	06/10/24 19:42	1
4-Nitroaniline	ND		10	0.26	ug/L		06/07/24 09:42	06/10/24 19:42	1
4-Nitrophenol	ND		10	1.6	ug/L		06/07/24 09:42	06/10/24 19:42	1
Acenaphthene	ND		5.2	0.43	ug/L		06/07/24 09:42	06/10/24 19:42	1
Acenaphthylene	ND		5.2	0.40	ug/L		06/07/24 09:42	06/10/24 19:42	1
Acetophenone	ND		5.2	0.56	ug/L		06/07/24 09:42	06/10/24 19:42	1
Anthracene	ND		5.2	0.29	ug/L		06/07/24 09:42	06/10/24 19:42	1
Atrazine	ND		5.2	0.48	ug/L		06/07/24 09:42	06/10/24 19:42	1
Benzaldehyde	ND		5.2	0.28	ug/L		06/07/24 09:42	06/10/24 19:42	1
Benzo(a)anthracene	ND		5.2	0.38	ug/L		06/07/24 09:42	06/10/24 19:42	1
Benzo(a)pyrene	ND		5.2	0.49	ug/L		06/07/24 09:42	06/10/24 19:42	1
Benzo(b)fluoranthene	ND		5.2	0.35	ug/L		06/07/24 09:42	06/10/24 19:42	1
Benzo(g,h,i)perylene	ND		5.2	0.36	ug/L		06/07/24 09:42	06/10/24 19:42	1
Benzo(k)fluoranthene	ND		5.2	0.76	ug/L		06/07/24 09:42	06/10/24 19:42	1

Client Sample ID: SW-01-2

Date Collected: 06/03/24 11:55
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-1

Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.2	0.68	ug/L		06/07/24 09:42	06/10/24 19:42	1
bis (2-chloroisopropyl) ether	ND		5.2	0.54	ug/L		06/07/24 09:42	06/10/24 19:42	1
Bis(2-chloroethoxy)methane	ND		5.2	0.36	ug/L		06/07/24 09:42	06/10/24 19:42	1
Bis(2-chloroethyl)ether	ND		5.2	0.42	ug/L		06/07/24 09:42	06/10/24 19:42	1
Bis(2-ethylhexyl) phthalate	ND		5.2	2.3	ug/L		06/07/24 09:42	06/10/24 19:42	1
Butyl benzyl phthalate	ND		5.2	1.0	ug/L		06/07/24 09:42	06/10/24 19:42	1
Caprolactam	ND		5.2	2.3	ug/L		06/07/24 09:42	06/10/24 19:42	1
Carbazole	ND		5.2	0.31	ug/L		06/07/24 09:42	06/10/24 19:42	1
Chrysene	ND		5.2	0.34	ug/L		06/07/24 09:42	06/10/24 19:42	1
Dibenz(a,h)anthracene	ND		5.2	0.44	ug/L		06/07/24 09:42	06/10/24 19:42	1
Dibenzofuran	ND		10	0.53	ug/L		06/07/24 09:42	06/10/24 19:42	1
Diethyl phthalate	ND		5.2	0.23	ug/L		06/07/24 09:42	06/10/24 19:42	1
Dimethyl phthalate	ND		5.2	0.38	ug/L		06/07/24 09:42	06/10/24 19:42	1
Di-n-butyl phthalate	ND		5.2	0.32	ug/L		06/07/24 09:42	06/10/24 19:42	1
Di-n-octyl phthalate	ND		5.2	0.49	ug/L		06/07/24 09:42	06/10/24 19:42	1
Fluoranthene	ND		5.2	0.42	ug/L		06/07/24 09:42	06/10/24 19:42	1
Fluorene	ND		5.2	0.38	ug/L		06/07/24 09:42	06/10/24 19:42	1
Hexachlorobenzene	ND		5.2	0.53	ug/L		06/07/24 09:42	06/10/24 19:42	1
Hexachlorobutadiene	ND		5.2	0.71	ug/L		06/07/24 09:42	06/10/24 19:42	1
Hexachlorocyclopentadiene	ND		5.2	0.61	ug/L		06/07/24 09:42	06/10/24 19:42	1
Hexachloroethane	ND		5.2	0.61	ug/L		06/07/24 09:42	06/10/24 19:42	1
Indeno(1,2,3-cd)pyrene	ND		5.2	0.49	ug/L		06/07/24 09:42	06/10/24 19:42	1
Isophorone	ND		5.2	0.45	ug/L		06/07/24 09:42	06/10/24 19:42	1
Naphthalene	ND		5.2	0.79	ug/L		06/07/24 09:42	06/10/24 19:42	1
Nitrobenzene	ND		5.2	0.30	ug/L		06/07/24 09:42	06/10/24 19:42	1
N-Nitrosodi-n-propylamine	ND		5.2	0.56	ug/L		06/07/24 09:42	06/10/24 19:42	1
N-Nitrosodiphenylamine	ND		5.2	0.53	ug/L		06/07/24 09:42	06/10/24 19:42	1
Pentachlorophenol	ND	UJ	10	2.3	ug/L		06/07/24 09:42	06/10/24 19:42	1
Phenanthrene	ND		5.2	0.46	ug/L		06/07/24 09:42	06/10/24 19:42	1
Phenol	ND		5.2	0.41	ug/L		06/07/24 09:42	06/10/24 19:42	1
Pyrene	ND		5.2	0.35	ug/L		06/07/24 09:42	06/10/24 19:42	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*2.0*	*T J*	*ug/L*		*3.21*	*N/A*	*06/07/24 09:42*	*06/10/24 19:42*	*1*
Unknown	*25*	*T J*	*ug/L*		*4.75*	*N/A*	*06/07/24 09:42*	*06/10/24 19:42*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*81*		*25 - 144*	*06/07/24 09:42*	*06/10/24 19:42*	*1*
2-Fluorobiphenyl	*69*		*53 - 126*	*06/07/24 09:42*	*06/10/24 19:42*	*1*
2-Fluorophenol	*51*		*24 - 120*	*06/07/24 09:42*	*06/10/24 19:42*	*1*
Nitrobenzene-d5	*64*		*29 - 129*	*06/07/24 09:42*	*06/10/24 19:42*	*1*
Phenol-d5	*38*		*10 - 120*	*06/07/24 09:42*	*06/10/24 19:42*	*1*
p-Terphenyl-d14	*60*		*33 - 132*	*06/07/24 09:42*	*06/10/24 19:42*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.050	0.0092	ug/L		06/05/24 09:14	06/06/24 11:53	1
4,4'-DDE	ND		0.050	0.012	ug/L		06/05/24 09:14	06/06/24 11:53	1
4,4'-DDT	**0.033**	**J**	0.050	0.011	ug/L		06/05/24 09:14	06/06/24 11:53	1
Aldrin	ND		0.050	0.0081	ug/L		06/05/24 09:14	06/06/24 11:53	1

Client Sample ID: SW-01-2

Date Collected: 06/03/24 11:55
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Lab Sample ID: 480-220419-1

Matrix: Water

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
alpha-BHC	ND	U	0.050	0.0077	ug/L		06/05/24 09:14	06/06/24 11:53	1
cis-Chlordane	ND		0.050	0.015	ug/L		06/05/24 09:14	06/06/24 11:53	1
beta-BHC	ND		0.050	0.025	ug/L		06/05/24 09:14	06/06/24 11:53	1
delta-BHC	0.014	J	0.050	0.010	ug/L		06/05/24 09:14	06/06/24 11:53	1
Dieldrin	ND		0.050	0.0098	ug/L		06/05/24 09:14	06/06/24 11:53	1
Endosulfan I	ND		0.050	0.011	ug/L		06/05/24 09:14	06/06/24 11:53	1
Endosulfan II	ND		0.050	0.012	ug/L		06/05/24 09:14	06/06/24 11:53	1
Endosulfan sulfate	ND		0.050	0.016	ug/L		06/05/24 09:14	06/06/24 11:53	1
Endrin	ND		0.050	0.014	ug/L		06/05/24 09:14	06/06/24 11:53	1
Endrin aldehyde	ND		0.050	0.016	ug/L		06/05/24 09:14	06/06/24 11:53	1
Endrin ketone	0.019	J	0.050	0.012	ug/L		06/05/24 09:14	06/06/24 11:53	1
gamma-BHC (Lindane)	ND		0.050	0.0080	ug/L		06/05/24 09:14	06/06/24 11:53	1
trans-Chlordane	ND		0.050	0.011	ug/L		06/05/24 09:14	06/06/24 11:53	1
Heptachlor	ND		0.050	0.0085	ug/L		06/05/24 09:14	06/06/24 11:53	1
Heptachlor epoxide	ND		0.050	0.0074	ug/L		06/05/24 09:14	06/06/24 11:53	1
Methoxychlor	0.050	NJ	0.050	0.014	ug/L		06/05/24 09:14	06/06/24 11:53	1
Toxaphene	ND		0.50	0.12	ug/L		06/05/24 09:14	06/06/24 11:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*49*		*20 - 120*	*06/05/24 09:14*	*06/06/24 11:53*	*1*
DCB Decachlorobiphenyl	*48*		*20 - 120*	*06/05/24 09:14*	*06/06/24 11:53*	*1*
Tetrachloro-m-xylene	*42*	*S1-*	*44 - 120*	*06/05/24 09:14*	*06/06/24 11:53*	*1*
Tetrachloro-m-xylene	*41*	*S1-*	*44 - 120*	*06/05/24 09:14*	*06/06/24 11:53*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 18:59	1
PCB-1221	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 18:59	1
PCB-1232	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 18:59	1
PCB-1242	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 18:59	1
PCB-1248	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 18:59	1
PCB-1254	ND		0.50	0.25	ug/L		06/06/24 06:53	06/06/24 18:59	1
PCB-1260	ND		0.50	0.25	ug/L		06/06/24 06:53	06/06/24 18:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*34*		*19 - 120*	*06/06/24 06:53*	*06/06/24 18:59*	*1*
DCB Decachlorobiphenyl	*40*		*19 - 120*	*06/06/24 06:53*	*06/06/24 18:59*	*1*
Tetrachloro-m-xylene	*71*		*39 - 121*	*06/06/24 06:53*	*06/06/24 18:59*	*1*
Tetrachloro-m-xylene	*66*		*39 - 121*	*06/06/24 06:53*	*06/06/24 18:59*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	6.0	J	6.7	1.8	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluoropentanoic acid (PFPeA)	ND		3.3	0.83	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluorohexanoic acid (PFHxA)	1.9		1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluoroheptanoic acid (PFHpA)	1.3	J	1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluorooctanoic acid (PFOA)	8.3		1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluorononanoic acid (PFNA)	18	JN	1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1

Client Sample ID: SW-01-2

Date Collected: 06/03/24 11:55
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-1

Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluorobutanesulfonic acid (PFBS)	**2.1**		1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluorohexanesulfonic acid (PFHxS)	**0.75**	JN	1.7	0.43	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluorooctanesulfonic acid (PFOS)	**2.4**		1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		6.7	1.7	ng/L		06/06/24 08:39	06/07/24 16:19	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		6.7	1.7	ng/L		06/06/24 08:39	06/07/24 16:19	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		6.7	1.7	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.7	0.52	ng/L		06/06/24 08:39	06/07/24 16:19	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.7	0.43	ng/L		06/06/24 08:39	06/07/24 16:19	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		17	4.2	ng/L		06/06/24 08:39	06/07/24 16:19	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		17	4.2	ng/L		06/06/24 08:39	06/07/24 16:19	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		6.7	1.7	ng/L		06/06/24 08:39	06/07/24 16:19	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		6.7	1.7	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		3.3	0.83	ng/L		06/06/24 08:39	06/07/24 16:19	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		3.3	1.0	ng/L		06/06/24 08:39	06/07/24 16:19	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		6.7	1.7	ng/L		06/06/24 08:39	06/07/24 16:19	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		6.7	1.7	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		3.3	0.83	ng/L		06/06/24 08:39	06/07/24 16:19	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		8.3	2.1	ng/L		06/06/24 08:39	06/07/24 16:19	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		42	10	ng/L		06/06/24 08:39	06/07/24 16:19	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		42	12	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1

Client Sample ID: SW-01-2
Date Collected: 06/03/24 11:55
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-1
Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		3.3	0.83	ng/L		06/06/24 08:39	06/07/24 16:19	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*82.5*		*10 - 130*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
13C5 PFPeA	*77.8*		*35 - 150*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
13C5 PFHxA	*83.2*		*55 - 150*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
13C4 PFHpA	*75.5*		*55 - 150*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
13C8 PFOA	*84.2*		*60 - 140*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
13C9 PFNA	*113*		*55 - 140*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
13C6 PFDA	*78.6*		*50 - 140*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
13C7 PFUnA	*107*		*30 - 140*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
13C2 PFTeDA	*65.8*		*10 - 130*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
13C3 PFBS	*96.0*		*55 - 150*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
13C3 PFHxS	*84.6*		*55 - 150*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
13C8 PFOS	*80.6*		*45 - 140*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
13C8 FOSA	*64.3*		*30 - 130*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
d3-NMeFOSAA	*63.5*		*45 - 200*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
d5-NEtFOSAA	*64.2*		*10 - 200*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
M2-4:2 FTS	*177*		*60 - 200*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
M2-6:2 FTS	*176*		*60 - 200*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
M2-8:2 FTS	*78.7*		*50 - 200*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
13C3 HFPO-DA	*94.1*		*25 - 160*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
d7-N-MeFOSE-M	*44.1*		*10 - 150*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
d9-N-EtFOSE-M	*42.9*		*10 - 150*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
d5-NEtPFOSA	*46.5*		*10 - 130*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
d3-NMePFOSA	*53.3*		*15 - 130*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
13C2-PFDoDA	*91.1*		*10 - 150*	*06/06/24 08:39*	*06/07/24 16:19*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		06/06/24 09:16	06/06/24 17:31	1
Antimony	ND		0.020	0.0068	mg/L		06/06/24 09:16	06/06/24 17:31	1
Arsenic	ND		0.015	0.0056	mg/L		06/06/24 09:16	06/06/24 17:31	1
Barium	**0.027**		0.0020	0.00070	mg/L		06/06/24 09:16	06/06/24 17:31	1
Beryllium	ND		0.0020	0.00030	mg/L		06/06/24 09:16	06/06/24 17:31	1
Cadmium	ND		0.0020	0.00050	mg/L		06/06/24 09:16	06/06/24 17:31	1
Calcium	**52.9**		0.50	0.10	mg/L		06/06/24 09:16	06/06/24 17:31	1
Chromium	ND		0.0040	0.0010	mg/L		06/06/24 09:16	06/06/24 17:31	1
Cobalt	ND		0.0040	0.00063	mg/L		06/06/24 09:16	06/06/24 17:31	1
Copper	ND		0.010	0.0016	mg/L		06/06/24 09:16	06/06/24 17:31	1
Iron	**0.13**	J	0.050	0.019	mg/L		06/06/24 09:16	06/06/24 17:31	1
Lead	ND		0.010	0.0030	mg/L		06/06/24 09:16	06/06/24 17:31	1
Magnesium	**10.3**		0.20	0.043	mg/L		06/06/24 09:16	06/06/24 17:31	1
Manganese	**0.029**	J	0.0030	0.00040	mg/L		06/06/24 09:16	06/06/24 17:31	1
Nickel	**0.0021**	J	0.010	0.0013	mg/L		06/06/24 09:16	06/06/24 17:31	1
Potassium	**2.4**		0.50	0.10	mg/L		06/06/24 09:16	06/06/24 17:31	1
Selenium	ND		0.025	0.0087	mg/L		06/06/24 09:16	06/06/24 17:31	1
Silver	ND		0.0060	0.0017	mg/L		06/06/24 09:16	06/06/24 17:31	1
Sodium	**7.8**		1.0	0.32	mg/L		06/06/24 09:16	06/06/24 17:31	1
Thallium	ND		0.020	0.010	mg/L		06/06/24 09:16	06/06/24 17:31	1

Client Sample ID: SW-01-2
Lab Sample ID: 480-220419-1

Date Collected: 06/03/24 11:55
Matrix: Water
Date Received: 06/03/24 19:00

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	ND		0.0050	0.0015	mg/L		06/06/24 09:16	06/06/24 17:31	1
Zinc	ND		0.010	0.0015	mg/L		06/06/24 09:16	06/06/24 17:31	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		06/06/24 09:12	06/06/24 19:47	1
Antimony	ND		0.020	0.0068	mg/L		06/06/24 09:12	06/06/24 19:47	1
Arsenic	ND		0.015	0.0056	mg/L		06/06/24 09:12	06/06/24 19:47	1
Barium	**0.026**	J	0.0020	0.00070	mg/L		06/06/24 09:12	06/06/24 19:47	1
Beryllium	ND		0.0020	0.00030	mg/L		06/06/24 09:12	06/06/24 19:47	1
Cadmium	ND		0.0020	0.00050	mg/L		06/06/24 09:12	06/06/24 19:47	1
Calcium	**50.7**		0.50	0.10	mg/L		06/06/24 09:12	06/06/24 19:47	1
Chromium	ND		0.0040	0.0010	mg/L		06/06/24 09:12	06/06/24 19:47	1
Cobalt	**0.00083**	J	0.0040	0.00063	mg/L		06/06/24 09:12	06/06/24 19:47	1
Copper	ND		0.010	0.0016	mg/L		06/06/24 09:12	06/06/24 19:47	1
Iron	**0.052**		0.050	0.019	mg/L		06/06/24 09:12	06/06/24 19:47	1
Lead	ND		0.010	0.0030	mg/L		06/06/24 09:12	06/06/24 19:47	1
Magnesium	**10.3**		0.20	0.043	mg/L		06/06/24 09:12	06/06/24 19:47	1
Manganese	ND		0.0030	0.00040	mg/L		06/06/24 09:12	06/06/24 19:47	1
Nickel	ND		0.010	0.0013	mg/L		06/06/24 09:12	06/06/24 19:47	1
Potassium	**2.3**		0.50	0.10	mg/L		06/06/24 09:12	06/06/24 19:47	1
Selenium	ND		0.025	0.0087	mg/L		06/06/24 09:12	06/06/24 19:47	1
Silver	ND		0.0060	0.0017	mg/L		06/06/24 09:12	06/06/24 19:47	1
Sodium	**7.5**		1.0	0.32	mg/L		06/06/24 09:12	06/06/24 19:47	1
Thallium	ND		0.020	0.010	mg/L		06/06/24 09:12	06/06/24 19:47	1
Vanadium	ND		0.0050	0.0015	mg/L		06/06/24 09:12	06/06/24 19:47	1
Zinc	ND		0.010	0.0015	mg/L		06/06/24 09:12	06/06/24 19:47	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		06/05/24 10:50	06/05/24 14:09	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		06/05/24 10:50	06/05/24 14:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			06/09/24 17:22	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			06/14/24 21:23	1

Client Sample ID: SW-01-2-FD
Lab Sample ID: 480-220419-2

Date Collected: 06/03/24 11:55
Matrix: Water
Date Received: 06/03/24 19:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/05/24 14:17	1

Client Sample ID: SW-01-2-FD

Date Collected: 06/03/24 11:55
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-2

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/05/24 14:17	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			06/05/24 14:17	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/05/24 14:17	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/05/24 14:17	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/05/24 14:17	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			06/05/24 14:17	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/05/24 14:17	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/05/24 14:17	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/05/24 14:17	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/05/24 14:17	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/05/24 14:17	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			06/05/24 14:17	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/05/24 14:17	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/05/24 14:17	1
2-Hexanone	ND		5.0	1.2	ug/L			06/05/24 14:17	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			06/05/24 14:17	1
Acetone	ND		10	3.0	ug/L			06/05/24 14:17	1
Benzene	ND		1.0	0.41	ug/L			06/05/24 14:17	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/05/24 14:17	1
Bromoform	ND		1.0	0.26	ug/L			06/05/24 14:17	1
Bromomethane	ND		1.0	0.69	ug/L			06/05/24 14:17	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/05/24 14:17	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/05/24 14:17	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/05/24 14:17	1
Chloroethane	ND		1.0	0.32	ug/L			06/05/24 14:17	1
Chloroform	ND		1.0	0.34	ug/L			06/05/24 14:17	1
Chloromethane	ND	UJ	1.0	0.35	ug/L			06/05/24 14:17	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/05/24 14:17	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/05/24 14:17	1
Cyclohexane	ND		1.0	0.18	ug/L			06/05/24 14:17	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/05/24 14:17	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			06/05/24 14:17	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/05/24 14:17	1
Isopropylbenzene	ND		1.0	0.79	ug/L			06/05/24 14:17	1
Methyl acetate	ND		2.5	1.3	ug/L			06/05/24 14:17	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			06/05/24 14:17	1
Methylcyclohexane	ND		1.0	0.16	ug/L			06/05/24 14:17	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/05/24 14:17	1
Styrene	ND		1.0	0.73	ug/L			06/05/24 14:17	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/05/24 14:17	1
Toluene	ND		1.0	0.51	ug/L			06/05/24 14:17	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/05/24 14:17	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/05/24 14:17	1
Trichloroethene	ND		1.0	0.46	ug/L			06/05/24 14:17	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/05/24 14:17	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/05/24 14:17	1
Xylenes, Total	ND		2.0	0.66	ug/L			06/05/24 14:17	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*		*06/05/24 14:17*	*1*

Client Sample ID: SW-01-2-FD
Lab Sample ID: 480-220419-2

Date Collected: 06/03/24 11:55
Matrix: Water

Date Received: 06/03/24 19:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*77 - 120*		*06/05/24 14:17*	*1*
4-Bromofluorobenzene (Surr)	*107*		*73 - 120*		*06/05/24 14:17*	*1*
Dibromofluoromethane (Surr)	*92*		*75 - 123*		*06/05/24 14:17*	*1*
Toluene-d8 (Surr)	*91*		*80 - 120*		*06/05/24 14:17*	*1*

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		06/05/24 09:28	06/06/24 18:21	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*31*		*15 - 110*	*06/05/24 09:28*	*06/06/24 18:21*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		06/07/24 09:42	06/10/24 21:32	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		06/07/24 09:42	06/10/24 21:32	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		06/07/24 09:42	06/10/24 21:32	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		06/07/24 09:42	06/10/24 21:32	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		06/07/24 09:42	06/10/24 21:32	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		06/07/24 09:42	06/10/24 21:32	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		06/07/24 09:42	06/10/24 21:32	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		06/07/24 09:42	06/10/24 21:32	1
2-Chlorophenol	ND		5.0	0.53	ug/L		06/07/24 09:42	06/10/24 21:32	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		06/07/24 09:42	06/10/24 21:32	1
2-Methylphenol	ND		5.0	0.40	ug/L		06/07/24 09:42	06/10/24 21:32	1
2-Nitroaniline	ND		10	0.42	ug/L		06/07/24 09:42	06/10/24 21:32	1
2-Nitrophenol	ND		5.0	0.48	ug/L		06/07/24 09:42	06/10/24 21:32	1
3,3'-Dichlorobenzidine	ND	UJ	5.0	0.40	ug/L		06/07/24 09:42	06/10/24 21:32	1
3-Nitroaniline	ND	UJ	10	0.48	ug/L		06/07/24 09:42	06/10/24 21:32	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		06/07/24 09:42	06/10/24 21:32	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		06/07/24 09:42	06/10/24 21:32	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		06/07/24 09:42	06/10/24 21:32	1
4-Chloroaniline	ND		5.0	0.59	ug/L		06/07/24 09:42	06/10/24 21:32	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		06/07/24 09:42	06/10/24 21:32	1
4-Methylphenol	ND		10	0.36	ug/L		06/07/24 09:42	06/10/24 21:32	1
4-Nitroaniline	ND		10	0.25	ug/L		06/07/24 09:42	06/10/24 21:32	1
4-Nitrophenol	ND		10	1.5	ug/L		06/07/24 09:42	06/10/24 21:32	1
Acenaphthene	ND		5.0	0.41	ug/L		06/07/24 09:42	06/10/24 21:32	1
Acenaphthylene	ND		5.0	0.38	ug/L		06/07/24 09:42	06/10/24 21:32	1
Acetophenone	ND		5.0	0.54	ug/L		06/07/24 09:42	06/10/24 21:32	1
Anthracene	ND		5.0	0.28	ug/L		06/07/24 09:42	06/10/24 21:32	1
Atrazine	ND		5.0	0.46	ug/L		06/07/24 09:42	06/10/24 21:32	1
Benzaldehyde	ND		5.0	0.27	ug/L		06/07/24 09:42	06/10/24 21:32	1
Benzo(a)anthracene	ND		5.0	0.36	ug/L		06/07/24 09:42	06/10/24 21:32	1
Benzo(a)pyrene	ND		5.0	0.47	ug/L		06/07/24 09:42	06/10/24 21:32	1
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L		06/07/24 09:42	06/10/24 21:32	1
Benzo(g,h,i)perylene	ND		5.0	0.35	ug/L		06/07/24 09:42	06/10/24 21:32	1
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L		06/07/24 09:42	06/10/24 21:32	1
Biphenyl	ND		5.0	0.65	ug/L		06/07/24 09:42	06/10/24 21:32	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		06/07/24 09:42	06/10/24 21:32	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		06/07/24 09:42	06/10/24 21:32	1

Client Sample ID: SW-01-2-FD
Date Collected: 06/03/24 11:55
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-2
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		06/07/24 09:42	06/10/24 21:32	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		06/07/24 09:42	06/10/24 21:32	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		06/07/24 09:42	06/10/24 21:32	1
Caprolactam	ND		5.0	2.2	ug/L		06/07/24 09:42	06/10/24 21:32	1
Carbazole	ND		5.0	0.30	ug/L		06/07/24 09:42	06/10/24 21:32	1
Chrysene	ND		5.0	0.33	ug/L		06/07/24 09:42	06/10/24 21:32	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		06/07/24 09:42	06/10/24 21:32	1
Dibenzofuran	ND		10	0.51	ug/L		06/07/24 09:42	06/10/24 21:32	1
Diethyl phthalate	ND		5.0	0.22	ug/L		06/07/24 09:42	06/10/24 21:32	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		06/07/24 09:42	06/10/24 21:32	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		06/07/24 09:42	06/10/24 21:32	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		06/07/24 09:42	06/10/24 21:32	1
Fluoranthene	ND		5.0	0.40	ug/L		06/07/24 09:42	06/10/24 21:32	1
Fluorene	ND		5.0	0.36	ug/L		06/07/24 09:42	06/10/24 21:32	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		06/07/24 09:42	06/10/24 21:32	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		06/07/24 09:42	06/10/24 21:32	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		06/07/24 09:42	06/10/24 21:32	1
Hexachloroethane	ND		5.0	0.59	ug/L		06/07/24 09:42	06/10/24 21:32	1
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L		06/07/24 09:42	06/10/24 21:32	1
Isophorone	ND		5.0	0.43	ug/L		06/07/24 09:42	06/10/24 21:32	1
Naphthalene	ND		5.0	0.76	ug/L		06/07/24 09:42	06/10/24 21:32	1
Nitrobenzene	ND		5.0	0.29	ug/L		06/07/24 09:42	06/10/24 21:32	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		06/07/24 09:42	06/10/24 21:32	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		06/07/24 09:42	06/10/24 21:32	1
Pentachlorophenol	ND	UJ	10	2.2	ug/L		06/07/24 09:42	06/10/24 21:32	1
Phenanthrene	ND		5.0	0.44	ug/L		06/07/24 09:42	06/10/24 21:32	1
Phenol	ND		5.0	0.39	ug/L		06/07/24 09:42	06/10/24 21:32	1
Pyrene	ND		5.0	0.34	ug/L		06/07/24 09:42	06/10/24 21:32	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*2.0*	*T J*	*ug/L*		*3.21*	*N/A*	*06/07/24 09:42*	*06/10/24 21:32*	*1*
Unknown	*23*	*T J*	*ug/L*		*4.75*	*N/A*	*06/07/24 09:42*	*06/10/24 21:32*	*1*
Bromacil	*1.7*	*T J N*	*ug/L*		*12.05*	*314-40-9*	*06/07/24 09:42*	*06/10/24 21:32*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*81*		*25 - 144*	*06/07/24 09:42*	*06/10/24 21:32*	*1*
2-Fluorobiphenyl	*71*		*53 - 126*	*06/07/24 09:42*	*06/10/24 21:32*	*1*
2-Fluorophenol	*50*		*24 - 120*	*06/07/24 09:42*	*06/10/24 21:32*	*1*
Nitrobenzene-d5	*66*		*29 - 129*	*06/07/24 09:42*	*06/10/24 21:32*	*1*
Phenol-d5	*37*		*10 - 120*	*06/07/24 09:42*	*06/10/24 21:32*	*1*
p-Terphenyl-d14	*54*		*33 - 132*	*06/07/24 09:42*	*06/10/24 21:32*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	**0.018**	**J**	0.050	0.0092	ug/L		06/05/24 09:14	06/06/24 13:31	1
4,4'-DDE	ND		0.050	0.012	ug/L		06/05/24 09:14	06/06/24 13:31	1
4,4'-DDT	**0.032**	**J**	0.050	0.011	ug/L		06/05/24 09:14	06/06/24 13:31	1
Aldrin	ND		0.050	0.0081	ug/L		06/05/24 09:14	06/06/24 13:31	1
alpha-BHC	ND		0.050	0.0077	ug/L		06/05/24 09:14	06/06/24 13:31	1
cis-Chlordane	ND		0.050	0.015	ug/L		06/05/24 09:14	06/06/24 13:31	1

Client Sample ID: SW-01-2-FD

Date Collected: 06/03/24 11:55
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-2

Matrix: Water

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
beta-BHC	ND		0.050	0.025	ug/L		06/05/24 09:14	06/06/24 13:31	1
delta-BHC	ND		0.050	0.010	ug/L		06/05/24 09:14	06/06/24 13:31	1
Dieldrin	ND		0.050	0.0098	ug/L		06/05/24 09:14	06/06/24 13:31	1
Endosulfan I	ND		0.050	0.011	ug/L		06/05/24 09:14	06/06/24 13:31	1
Endosulfan II	ND		0.050	0.012	ug/L		06/05/24 09:14	06/06/24 13:31	1
Endosulfan sulfate	ND		0.050	0.016	ug/L		06/05/24 09:14	06/06/24 13:31	1
Endrin	ND		0.050	0.014	ug/L		06/05/24 09:14	06/06/24 13:31	1
Endrin aldehyde	ND		0.050	0.016	ug/L		06/05/24 09:14	06/06/24 13:31	1
Endrin ketone	ND		0.050	0.012	ug/L		06/05/24 09:14	06/06/24 13:31	1
gamma-BHC (Lindane)	ND		0.050	0.0080	ug/L		06/05/24 09:14	06/06/24 13:31	1
trans-Chlordane	ND		0.050	0.011	ug/L		06/05/24 09:14	06/06/24 13:31	1
Heptachlor	ND		0.050	0.0085	ug/L		06/05/24 09:14	06/06/24 13:31	1
Heptachlor epoxide	ND		0.050	0.0074	ug/L		06/05/24 09:14	06/06/24 13:31	1
Methoxychlor	ND	U	0.050	0.014	ug/L		06/05/24 09:14	06/06/24 13:31	1
Toxaphene	ND		0.50	0.12	ug/L		06/05/24 09:14	06/06/24 13:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*71*		*20 - 120*	*06/05/24 09:14*	*06/06/24 13:31*	*1*
DCB Decachlorobiphenyl	*40*		*20 - 120*	*06/05/24 09:14*	*06/06/24 13:31*	*1*
Tetrachloro-m-xylene	*41*	*S1-*	*44 - 120*	*06/05/24 09:14*	*06/06/24 13:31*	*1*
Tetrachloro-m-xylene	*36*	*S1-*	*44 - 120*	*06/05/24 09:14*	*06/06/24 13:31*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 19:15	1
PCB-1221	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 19:15	1
PCB-1232	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 19:15	1
PCB-1242	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 19:15	1
PCB-1248	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 19:15	1
PCB-1254	ND		0.50	0.25	ug/L		06/06/24 06:53	06/06/24 19:15	1
PCB-1260	ND		0.50	0.25	ug/L		06/06/24 06:53	06/06/24 19:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*36*		*19 - 120*	*06/06/24 06:53*	*06/06/24 19:15*	*1*
DCB Decachlorobiphenyl	*42*		*19 - 120*	*06/06/24 06:53*	*06/06/24 19:15*	*1*
Tetrachloro-m-xylene	*78*		*39 - 121*	*06/06/24 06:53*	*06/06/24 19:15*	*1*
Tetrachloro-m-xylene	*72*		*39 - 121*	*06/06/24 06:53*	*06/06/24 19:15*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**5.8**	**J**	5.9	1.6	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluoropentanoic acid (PFPeA)	ND		2.9	0.74	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluorohexanoic acid (PFHxA)	**1.7**		1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluoroheptanoic acid (PFHpA)	**1.3**	**J**	1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluorooctanoic acid (PFOA)	**8.0**		1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluorononanoic acid (PFNA)	**19**	JN	1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluorodecanoic acid (PFDA)	**0.48**	**J**	1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluoroundecanoic acid (PFUnA)	ND		1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluorododecanoic acid (PFDoA)	ND		1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1

Client Sample ID: SW-01-2-FD
Lab Sample ID: 480-220419-2

Date Collected: 06/03/24 11:55
Matrix: Water

Date Received: 06/03/24 19:00

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorotetradecanoic acid (PFTeDA)	ND		1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluorobutanesulfonic acid (PFBS)	**2.2**		1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluorohexanesulfonic acid (PFHxS)	**0.63**	**J**	1.5	0.38	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluorooctanesulfonic acid (PFOS)	**2.9**		1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluorononanesulfonic acid (PFNS)	ND		1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		5.9	1.5	ng/L		06/06/24 08:39	06/07/24 16:47	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	**1.8**	**J**	5.9	1.5	ng/L		06/06/24 08:39	06/07/24 16:47	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	**5.3**	**J**	5.9	1.5	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.5	0.46	ng/L		06/06/24 08:39	06/07/24 16:47	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.5	0.38	ng/L		06/06/24 08:39	06/07/24 16:47	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		15	3.7	ng/L		06/06/24 08:39	06/07/24 16:47	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		15	3.7	ng/L		06/06/24 08:39	06/07/24 16:47	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		5.9	1.5	ng/L		06/06/24 08:39	06/07/24 16:47	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		5.9	1.5	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.9	0.74	ng/L		06/06/24 08:39	06/07/24 16:47	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.9	0.90	ng/L		06/06/24 08:39	06/07/24 16:47	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		5.9	1.5	ng/L		06/06/24 08:39	06/07/24 16:47	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		5.9	1.5	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		2.9	0.74	ng/L		06/06/24 08:39	06/07/24 16:47	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		7.4	1.8	ng/L		06/06/24 08:39	06/07/24 16:47	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		37	9.2	ng/L		06/06/24 08:39	06/07/24 16:47	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		37	11	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.9	0.74	ng/L		06/06/24 08:39	06/07/24 16:47	1

Client Sample ID: SW-01-2-FD
Lab Sample ID: 480-220419-2

Date Collected: 06/03/24 11:55
Matrix: Water

Date Received: 06/03/24 19:00

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	85.9		10 - 130	06/06/24 08:39	06/07/24 16:47	1
13C5 PFPeA	73.3		35 - 150	06/06/24 08:39	06/07/24 16:47	1
13C5 PFHxA	88.8		55 - 150	06/06/24 08:39	06/07/24 16:47	1
13C4 PFHpA	82.1		55 - 150	06/06/24 08:39	06/07/24 16:47	1
13C8 PFOA	77.4		60 - 140	06/06/24 08:39	06/07/24 16:47	1
13C9 PFNA	105		55 - 140	06/06/24 08:39	06/07/24 16:47	1
13C6 PFDA	76.2		50 - 140	06/06/24 08:39	06/07/24 16:47	1
13C7 PFUnA	106		30 - 140	06/06/24 08:39	06/07/24 16:47	1
13C2 PFTeDA	53.3		10 - 130	06/06/24 08:39	06/07/24 16:47	1
13C3 PFBS	107		55 - 150	06/06/24 08:39	06/07/24 16:47	1
13C3 PFHxS	92.0		55 - 150	06/06/24 08:39	06/07/24 16:47	1
13C8 PFOS	78.2		45 - 140	06/06/24 08:39	06/07/24 16:47	1
13C8 FOSA	63.7		30 - 130	06/06/24 08:39	06/07/24 16:47	1
d3-NMeFOSAA	58.9		45 - 200	06/06/24 08:39	06/07/24 16:47	1
d5-NEtFOSAA	51.4		10 - 200	06/06/24 08:39	06/07/24 16:47	1
M2-4:2 FTS	214	*5+	60 - 200	06/06/24 08:39	06/07/24 16:47	1
M2-6:2 FTS	211	I *5+	60 - 200	06/06/24 08:39	06/07/24 16:47	1
M2-8:2 FTS	75.7		50 - 200	06/06/24 08:39	06/07/24 16:47	1
13C3 HFPO-DA	95.4		25 - 160	06/06/24 08:39	06/07/24 16:47	1
d7-N-MeFOSE-M	40.6		10 - 150	06/06/24 08:39	06/07/24 16:47	1
d9-N-EtFOSE-M	39.8		10 - 150	06/06/24 08:39	06/07/24 16:47	1
d5-NEtPFOSA	45.3		10 - 130	06/06/24 08:39	06/07/24 16:47	1
d3-NMePFOSA	49.5		15 - 130	06/06/24 08:39	06/07/24 16:47	1
13C2-PFDoDA	84.0		10 - 150	06/06/24 08:39	06/07/24 16:47	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		06/06/24 09:16	06/06/24 17:37	1
Antimony	ND		0.020	0.0068	mg/L		06/06/24 09:16	06/06/24 17:37	1
Arsenic	ND		0.015	0.0056	mg/L		06/06/24 09:16	06/06/24 17:37	1
Barium	**0.024**		0.0020	0.00070	mg/L		06/06/24 09:16	06/06/24 17:37	1
Beryllium	ND		0.0020	0.00030	mg/L		06/06/24 09:16	06/06/24 17:37	1
Cadmium	ND		0.0020	0.00050	mg/L		06/06/24 09:16	06/06/24 17:37	1
Calcium	**46.3**		0.50	0.10	mg/L		06/06/24 09:16	06/06/24 17:37	1
Chromium	ND		0.0040	0.0010	mg/L		06/06/24 09:16	06/06/24 17:37	1
Cobalt	ND		0.0040	0.00063	mg/L		06/06/24 09:16	06/06/24 17:37	1
Copper	ND		0.010	0.0016	mg/L		06/06/24 09:16	06/06/24 17:37	1
Iron	**0.083**	J	0.050	0.019	mg/L		06/06/24 09:16	06/06/24 17:37	1
Lead	ND		0.010	0.0030	mg/L		06/06/24 09:16	06/06/24 17:37	1
Magnesium	**9.0**		0.20	0.043	mg/L		06/06/24 09:16	06/06/24 17:37	1
Manganese	**0.018**	J	0.0030	0.00040	mg/L		06/06/24 09:16	06/06/24 17:37	1
Nickel	ND		0.010	0.0013	mg/L		06/06/24 09:16	06/06/24 17:37	1
Potassium	**2.1**		0.50	0.10	mg/L		06/06/24 09:16	06/06/24 17:37	1
Selenium	ND		0.025	0.0087	mg/L		06/06/24 09:16	06/06/24 17:37	1
Silver	ND		0.0060	0.0017	mg/L		06/06/24 09:16	06/06/24 17:37	1
Sodium	**7.1**		1.0	0.32	mg/L		06/06/24 09:16	06/06/24 17:37	1
Thallium	ND		0.020	0.010	mg/L		06/06/24 09:16	06/06/24 17:37	1
Vanadium	ND		0.0050	0.0015	mg/L		06/06/24 09:16	06/06/24 17:37	1
Zinc	ND		0.010	0.0015	mg/L		06/06/24 09:16	06/06/24 17:37	1

Client Sample ID: SW-01-2-FD
Lab Sample ID: 480-220419-2
Date Collected: 06/03/24 11:55
Matrix: Water
Date Received: 06/03/24 19:00

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		06/06/24 09:12	06/06/24 20:04	1
Antimony	ND		0.020	0.0068	mg/L		06/06/24 09:12	06/06/24 20:04	1
Arsenic	ND		0.015	0.0056	mg/L		06/06/24 09:12	06/06/24 20:04	1
Barium	**0.046**	J	0.0020	0.00070	mg/L		06/06/24 09:12	06/06/24 20:04	1
Beryllium	ND		0.0020	0.00030	mg/L		06/06/24 09:12	06/06/24 20:04	1
Cadmium	ND		0.0020	0.00050	mg/L		06/06/24 09:12	06/06/24 20:04	1
Calcium	**56.0**		0.50	0.10	mg/L		06/06/24 09:12	06/06/24 20:04	1
Chromium	ND		0.0040	0.0010	mg/L		06/06/24 09:12	06/06/24 20:04	1
Cobalt	ND		0.0040	0.00063	mg/L		06/06/24 09:12	06/06/24 20:04	1
Copper	ND		0.010	0.0016	mg/L		06/06/24 09:12	06/06/24 20:04	1
Iron	**0.064**		0.050	0.019	mg/L		06/06/24 09:12	06/06/24 20:04	1
Lead	ND	U	0.010	0.0030	mg/L		06/06/24 09:12	06/06/24 20:04	1
Magnesium	**11.1**		0.20	0.043	mg/L		06/06/24 09:12	06/06/24 20:04	1
Manganese	**0.68**		0.0030	0.00040	mg/L		06/06/24 09:12	06/06/24 20:04	1
Nickel	ND		0.010	0.0013	mg/L		06/06/24 09:12	06/06/24 20:04	1
Potassium	**2.6**		0.50	0.10	mg/L		06/06/24 09:12	06/06/24 20:04	1
Selenium	ND		0.025	0.0087	mg/L		06/06/24 09:12	06/06/24 20:04	1
Silver	ND		0.0060	0.0017	mg/L		06/06/24 09:12	06/06/24 20:04	1
Sodium	**8.4**		1.0	0.32	mg/L		06/06/24 09:12	06/06/24 20:04	1
Thallium	ND		0.020	0.010	mg/L		06/06/24 09:12	06/06/24 20:04	1
Vanadium	ND		0.0050	0.0015	mg/L		06/06/24 09:12	06/06/24 20:04	1
Zinc	ND		0.010	0.0015	mg/L		06/06/24 09:12	06/06/24 20:04	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		06/05/24 10:50	06/05/24 14:14	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		06/05/24 10:50	06/05/24 14:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			06/09/24 17:33	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			06/14/24 20:56	1

Client Sample ID: SW-01-3
Lab Sample ID: 480-220419-3
Date Collected: 06/03/24 13:20
Matrix: Water
Date Received: 06/03/24 19:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/05/24 14:41	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/05/24 14:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			06/05/24 14:41	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/05/24 14:41	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/05/24 14:41	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/05/24 14:41	1

Client Sample ID: SW-01-3

Date Collected: 06/03/24 13:20
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-3

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			06/05/24 14:41	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/05/24 14:41	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/05/24 14:41	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/05/24 14:41	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/05/24 14:41	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/05/24 14:41	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			06/05/24 14:41	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/05/24 14:41	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/05/24 14:41	1
2-Hexanone	ND		5.0	1.2	ug/L			06/05/24 14:41	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			06/05/24 14:41	1
Acetone	**3.2**	**J**	10	3.0	ug/L			06/05/24 14:41	1
Benzene	**0.69**	**J**	1.0	0.41	ug/L			06/05/24 14:41	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/05/24 14:41	1
Bromoform	ND		1.0	0.26	ug/L			06/05/24 14:41	1
Bromomethane	ND		1.0	0.69	ug/L			06/05/24 14:41	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/05/24 14:41	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/05/24 14:41	1
Chlorobenzene	**1.6**		1.0	0.75	ug/L			06/05/24 14:41	1
Chloroethane	ND		1.0	0.32	ug/L			06/05/24 14:41	1
Chloroform	ND		1.0	0.34	ug/L			06/05/24 14:41	1
Chloromethane	ND	UJ	1.0	0.35	ug/L			06/05/24 14:41	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/05/24 14:41	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/05/24 14:41	1
Cyclohexane	**1.6**		1.0	0.18	ug/L			06/05/24 14:41	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/05/24 14:41	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			06/05/24 14:41	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/05/24 14:41	1
Isopropylbenzene	ND		1.0	0.79	ug/L			06/05/24 14:41	1
Methyl acetate	ND		2.5	1.3	ug/L			06/05/24 14:41	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			06/05/24 14:41	1
Methylcyclohexane	**1.4**		1.0	0.16	ug/L			06/05/24 14:41	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/05/24 14:41	1
Styrene	ND		1.0	0.73	ug/L			06/05/24 14:41	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/05/24 14:41	1
Toluene	ND		1.0	0.51	ug/L			06/05/24 14:41	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/05/24 14:41	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/05/24 14:41	1
Trichloroethene	ND		1.0	0.46	ug/L			06/05/24 14:41	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/05/24 14:41	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/05/24 14:41	1
Xylenes, Total	ND		2.0	0.66	ug/L			06/05/24 14:41	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Indane	*4.8*	*T J N*	*ug/L*		*10.69*	*496-11-7*		*06/05/24 14:41*	*1*
Unknown	*3.8*	*T J*	*ug/L*		*11.90*	*N/A*		*06/05/24 14:41*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*77 - 120*		*06/05/24 14:41*	*1*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*06/05/24 14:41*	*1*

Client Sample ID: SW-01-3

Date Collected: 06/03/24 13:20
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-3

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*84*		*75 - 123*		*06/05/24 14:41*	*1*
Toluene-d8 (Surr)	*90*		*80 - 120*		*06/05/24 14:41*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		06/07/24 09:42	06/10/24 22:00	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		06/07/24 09:42	06/10/24 22:00	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		06/07/24 09:42	06/10/24 22:00	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		06/07/24 09:42	06/10/24 22:00	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		06/07/24 09:42	06/10/24 22:00	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		06/07/24 09:42	06/10/24 22:00	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		06/07/24 09:42	06/10/24 22:00	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		06/07/24 09:42	06/10/24 22:00	1
2-Chlorophenol	ND		5.0	0.53	ug/L		06/07/24 09:42	06/10/24 22:00	1
2-Methylnaphthalene	**1.3**	**J**	5.0	0.60	ug/L		06/07/24 09:42	06/10/24 22:00	1
2-Methylphenol	ND		5.0	0.40	ug/L		06/07/24 09:42	06/10/24 22:00	1
2-Nitroaniline	ND		10	0.42	ug/L		06/07/24 09:42	06/10/24 22:00	1
2-Nitrophenol	ND		5.0	0.48	ug/L		06/07/24 09:42	06/10/24 22:00	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		06/07/24 09:42	06/10/24 22:00	1
3-Nitroaniline	ND	UJ	10	0.48	ug/L		06/07/24 09:42	06/10/24 22:00	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		06/07/24 09:42	06/10/24 22:00	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		06/07/24 09:42	06/10/24 22:00	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		06/07/24 09:42	06/10/24 22:00	1
4-Chloroaniline	ND		5.0	0.59	ug/L		06/07/24 09:42	06/10/24 22:00	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		06/07/24 09:42	06/10/24 22:00	1
4-Methylphenol	**0.78**	**J**	10	0.36	ug/L		06/07/24 09:42	06/10/24 22:00	1
4-Nitroaniline	ND		10	0.25	ug/L		06/07/24 09:42	06/10/24 22:00	1
4-Nitrophenol	ND		10	1.5	ug/L		06/07/24 09:42	06/10/24 22:00	1
Acenaphthene	**0.54**	**J**	5.0	0.41	ug/L		06/07/24 09:42	06/10/24 22:00	1
Acenaphthylene	ND		5.0	0.38	ug/L		06/07/24 09:42	06/10/24 22:00	1
Acetophenone	ND		5.0	0.54	ug/L		06/07/24 09:42	06/10/24 22:00	1
Anthracene	ND		5.0	0.28	ug/L		06/07/24 09:42	06/10/24 22:00	1
Atrazine	ND		5.0	0.46	ug/L		06/07/24 09:42	06/10/24 22:00	1
Benzaldehyde	ND		5.0	0.27	ug/L		06/07/24 09:42	06/10/24 22:00	1
Benzo(a)anthracene	ND		5.0	0.36	ug/L		06/07/24 09:42	06/10/24 22:00	1
Benzo(a)pyrene	ND		5.0	0.47	ug/L		06/07/24 09:42	06/10/24 22:00	1
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L		06/07/24 09:42	06/10/24 22:00	1
Benzo(g,h,i)perylene	ND		5.0	0.35	ug/L		06/07/24 09:42	06/10/24 22:00	1
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L		06/07/24 09:42	06/10/24 22:00	1
Biphenyl	ND		5.0	0.65	ug/L		06/07/24 09:42	06/10/24 22:00	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		06/07/24 09:42	06/10/24 22:00	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		06/07/24 09:42	06/10/24 22:00	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		06/07/24 09:42	06/10/24 22:00	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		06/07/24 09:42	06/10/24 22:00	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		06/07/24 09:42	06/10/24 22:00	1
Caprolactam	ND		5.0	2.2	ug/L		06/07/24 09:42	06/10/24 22:00	1
Carbazole	ND		5.0	0.30	ug/L		06/07/24 09:42	06/10/24 22:00	1
Chrysene	ND		5.0	0.33	ug/L		06/07/24 09:42	06/10/24 22:00	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		06/07/24 09:42	06/10/24 22:00	1

Client Sample ID: SW-01-3

Date Collected: 06/03/24 13:20
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-3

Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	ND		10	0.51	ug/L		06/07/24 09:42	06/10/24 22:00	1
Diethyl phthalate	ND		5.0	0.22	ug/L		06/07/24 09:42	06/10/24 22:00	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		06/07/24 09:42	06/10/24 22:00	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		06/07/24 09:42	06/10/24 22:00	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		06/07/24 09:42	06/10/24 22:00	1
Fluoranthene	ND		5.0	0.40	ug/L		06/07/24 09:42	06/10/24 22:00	1
Fluorene	**0.48**	**J**	5.0	0.36	ug/L		06/07/24 09:42	06/10/24 22:00	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		06/07/24 09:42	06/10/24 22:00	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		06/07/24 09:42	06/10/24 22:00	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		06/07/24 09:42	06/10/24 22:00	1
Hexachloroethane	ND		5.0	0.59	ug/L		06/07/24 09:42	06/10/24 22:00	1
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L		06/07/24 09:42	06/10/24 22:00	1
Isophorone	ND		5.0	0.43	ug/L		06/07/24 09:42	06/10/24 22:00	1
Naphthalene	ND		5.0	0.76	ug/L		06/07/24 09:42	06/10/24 22:00	1
Nitrobenzene	ND		5.0	0.29	ug/L		06/07/24 09:42	06/10/24 22:00	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		06/07/24 09:42	06/10/24 22:00	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		06/07/24 09:42	06/10/24 22:00	1
Pentachlorophenol	ND	UJ	10	2.2	ug/L		06/07/24 09:42	06/10/24 22:00	1
Phenanthrene	**0.59**	**J**	5.0	0.44	ug/L		06/07/24 09:42	06/10/24 22:00	1
Phenol	**0.55**	**J**	5.0	0.39	ug/L		06/07/24 09:42	06/10/24 22:00	1
Pyrene	ND		5.0	0.34	ug/L		06/07/24 09:42	06/10/24 22:00	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*1.7*	*T J*	*ug/L*		*3.19*	*N/A*	*06/07/24 09:42*	*06/10/24 22:00*	*1*
Unknown	*1.7*	*T J*	*ug/L*		*4.35*	*N/A*	*06/07/24 09:42*	*06/10/24 22:00*	*1*
Unknown	*20*	*T J*	*ug/L*		*4.75*	*N/A*	*06/07/24 09:42*	*06/10/24 22:00*	*1*
Indane	*3.2*	*T J N*	*ug/L*		*6.84*	*496-11-7*	*06/07/24 09:42*	*06/10/24 22:00*	*1*
3-Phenylbut-1-ene	*3.6*	*T J N*	*ug/L*		*8.00*	*934-10-1*	*06/07/24 09:42*	*06/10/24 22:00*	*1*
1,4-Methanonaphthalene, 1,4-dihydro-	*2.5*	*T J N*	*ug/L*		*9.27*	*4453-90-1*	*06/07/24 09:42*	*06/10/24 22:00*	*1*
Naphthalene, 2,6-dimethyl-	*3.2*	*T J N*	*ug/L*		*9.81*	*581-42-0*	*06/07/24 09:42*	*06/10/24 22:00*	*1*
Naphthalene, 1,5-dimethyl-	*2.8*	*T J N*	*ug/L*		*9.89*	*571-61-9*	*06/07/24 09:42*	*06/10/24 22:00*	*1*
Naphthalene, 2,7-dimethyl-	*2.8*	*T J N*	*ug/L*		*9.92*	*582-16-1*	*06/07/24 09:42*	*06/10/24 22:00*	*1*
Unknown	*2.1*	*T J*	*ug/L*		*10.80*	*N/A*	*06/07/24 09:42*	*06/10/24 22:00*	*1*
Bromacil	*2.9*	*T J N*	*ug/L*		*12.05*	*314-40-9*	*06/07/24 09:42*	*06/10/24 22:00*	*1*
Unknown	*28*	*T J*	*ug/L*		*13.28*	*N/A*	*06/07/24 09:42*	*06/10/24 22:00*	*1*
Unknown	*2.3*	*T J*	*ug/L*		*14.17*	*N/A*	*06/07/24 09:42*	*06/10/24 22:00*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*54*		*25 - 144*	*06/07/24 09:42*	*06/10/24 22:00*	*1*
2-Fluorobiphenyl	*62*		*53 - 126*	*06/07/24 09:42*	*06/10/24 22:00*	*1*
2-Fluorophenol	*38*		*24 - 120*	*06/07/24 09:42*	*06/10/24 22:00*	*1*
Nitrobenzene-d5	*56*		*29 - 129*	*06/07/24 09:42*	*06/10/24 22:00*	*1*
Phenol-d5	*30*		*10 - 120*	*06/07/24 09:42*	*06/10/24 22:00*	*1*
p-Terphenyl-d14	*37*		*33 - 132*	*06/07/24 09:42*	*06/10/24 22:00*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	**0.011**	**J**	0.050	0.0092	ug/L		06/05/24 09:14	06/06/24 13:50	1
4,4'-DDE	ND		0.050	0.012	ug/L		06/05/24 09:14	06/06/24 13:50	1

Client Sample ID: SW-01-3
Date Collected: 06/03/24 13:20
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-3
Matrix: Water

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDT	ND		0.050	0.011	ug/L		06/05/24 09:14	06/06/24 13:50	1
Aldrin	ND		0.050	0.0081	ug/L		06/05/24 09:14	06/06/24 13:50	1
alpha-BHC	ND		0.050	0.0077	ug/L		06/05/24 09:14	06/06/24 13:50	1
cis-Chlordane	ND		0.050	0.015	ug/L		06/05/24 09:14	06/06/24 13:50	1
beta-BHC	ND		0.050	0.025	ug/L		06/05/24 09:14	06/06/24 13:50	1
delta-BHC	ND		0.050	0.010	ug/L		06/05/24 09:14	06/06/24 13:50	1
Dieldrin	ND		0.050	0.0098	ug/L		06/05/24 09:14	06/06/24 13:50	1
Endosulfan I	ND		0.050	0.011	ug/L		06/05/24 09:14	06/06/24 13:50	1
Endosulfan II	ND		0.050	0.012	ug/L		06/05/24 09:14	06/06/24 13:50	1
Endosulfan sulfate	ND		0.050	0.016	ug/L		06/05/24 09:14	06/06/24 13:50	1
Endrin	ND		0.050	0.014	ug/L		06/05/24 09:14	06/06/24 13:50	1
Endrin aldehyde	ND		0.050	0.016	ug/L		06/05/24 09:14	06/06/24 13:50	1
Endrin ketone	ND		0.050	0.012	ug/L		06/05/24 09:14	06/06/24 13:50	1
gamma-BHC (Lindane)	ND	U	0.050	0.0080	ug/L		06/05/24 09:14	06/06/24 13:50	1
trans-Chlordane	ND		0.050	0.011	ug/L		06/05/24 09:14	06/06/24 13:50	1
Heptachlor	ND		0.050	0.0085	ug/L		06/05/24 09:14	06/06/24 13:50	1
Heptachlor epoxide	ND		0.050	0.0074	ug/L		06/05/24 09:14	06/06/24 13:50	1
Methoxychlor	**0.078**	J	0.050	0.014	ug/L		06/05/24 09:14	06/06/24 13:50	1
Toxaphene	ND		0.50	0.12	ug/L		06/05/24 09:14	06/06/24 13:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*37*		*20 - 120*	*06/05/24 09:14*	*06/06/24 13:50*	*1*
DCB Decachlorobiphenyl	*32*		*20 - 120*	*06/05/24 09:14*	*06/06/24 13:50*	*1*
Tetrachloro-m-xylene	*39*	*S1-*	*44 - 120*	*06/05/24 09:14*	*06/06/24 13:50*	*1*
Tetrachloro-m-xylene	*37*	*S1-*	*44 - 120*	*06/05/24 09:14*	*06/06/24 13:50*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 19:32	1
PCB-1221	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 19:32	1
PCB-1232	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 19:32	1
PCB-1242	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 19:32	1
PCB-1248	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 19:32	1
PCB-1254	ND		0.50	0.25	ug/L		06/06/24 06:53	06/06/24 19:32	1
PCB-1260	ND		0.50	0.25	ug/L		06/06/24 06:53	06/06/24 19:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*23*		*19 - 120*	*06/06/24 06:53*	*06/06/24 19:32*	*1*
DCB Decachlorobiphenyl	*30*		*19 - 120*	*06/06/24 06:53*	*06/06/24 19:32*	*1*
Tetrachloro-m-xylene	*51*		*39 - 121*	*06/06/24 06:53*	*06/06/24 19:32*	*1*
Tetrachloro-m-xylene	*51*		*39 - 121*	*06/06/24 06:53*	*06/06/24 19:32*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		06/06/24 09:16	06/06/24 17:39	1
Antimony	ND		0.020	0.0068	mg/L		06/06/24 09:16	06/06/24 17:39	1
Arsenic	ND		0.015	0.0056	mg/L		06/06/24 09:16	06/06/24 17:39	1
Barium	**0.061**		0.0020	0.00070	mg/L		06/06/24 09:16	06/06/24 17:39	1
Beryllium	ND		0.0020	0.00030	mg/L		06/06/24 09:16	06/06/24 17:39	1
Cadmium	ND		0.0020	0.00050	mg/L		06/06/24 09:16	06/06/24 17:39	1

Client Sample ID: SW-01-3

Date Collected: 06/03/24 13:20
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-3

Matrix: Water

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**52.1**		0.50	0.10	mg/L		06/06/24 09:16	06/06/24 17:39	1
Chromium	**0.0021**	**J**	0.0040	0.0010	mg/L		06/06/24 09:16	06/06/24 17:39	1
Cobalt	ND		0.0040	0.00063	mg/L		06/06/24 09:16	06/06/24 17:39	1
Copper	ND		0.010	0.0016	mg/L		06/06/24 09:16	06/06/24 17:39	1
Iron	**0.26**		0.050	0.019	mg/L		06/06/24 09:16	06/06/24 17:39	1
Lead	ND		0.010	0.0030	mg/L		06/06/24 09:16	06/06/24 17:39	1
Magnesium	**9.8**		0.20	0.043	mg/L		06/06/24 09:16	06/06/24 17:39	1
Manganese	**1.7**		0.0030	0.00040	mg/L		06/06/24 09:16	06/06/24 17:39	1
Nickel	ND		0.010	0.0013	mg/L		06/06/24 09:16	06/06/24 17:39	1
Potassium	**2.5**		0.50	0.10	mg/L		06/06/24 09:16	06/06/24 17:39	1
Selenium	ND		0.025	0.0087	mg/L		06/06/24 09:16	06/06/24 17:39	1
Silver	ND		0.0060	0.0017	mg/L		06/06/24 09:16	06/06/24 17:39	1
Sodium	**7.9**		1.0	0.32	mg/L		06/06/24 09:16	06/06/24 17:39	1
Thallium	ND		0.020	0.010	mg/L		06/06/24 09:16	06/06/24 17:39	1
Vanadium	ND		0.0050	0.0015	mg/L		06/06/24 09:16	06/06/24 17:39	1
Zinc	**0.0028**	**J**	0.010	0.0015	mg/L		06/06/24 09:16	06/06/24 17:39	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		06/06/24 09:12	06/06/24 20:06	1
Antimony	ND		0.020	0.0068	mg/L		06/06/24 09:12	06/06/24 20:06	1
Arsenic	ND		0.015	0.0056	mg/L		06/06/24 09:12	06/06/24 20:06	1
Barium	**0.027**		0.0020	0.00070	mg/L		06/06/24 09:12	06/06/24 20:06	1
Beryllium	ND		0.0020	0.00030	mg/L		06/06/24 09:12	06/06/24 20:06	1
Cadmium	ND		0.0020	0.00050	mg/L		06/06/24 09:12	06/06/24 20:06	1
Calcium	**52.6**		0.50	0.10	mg/L		06/06/24 09:12	06/06/24 20:06	1
Chromium	ND		0.0040	0.0010	mg/L		06/06/24 09:12	06/06/24 20:06	1
Cobalt	**0.00065**	**J**	0.0040	0.00063	mg/L		06/06/24 09:12	06/06/24 20:06	1
Copper	**0.0018**	**J**	0.010	0.0016	mg/L		06/06/24 09:12	06/06/24 20:06	1
Iron	**0.066**		0.050	0.019	mg/L		06/06/24 09:12	06/06/24 20:06	1
Lead	ND	U	0.010	0.0030	mg/L		06/06/24 09:12	06/06/24 20:06	1
Magnesium	**10.6**		0.20	0.043	mg/L		06/06/24 09:12	06/06/24 20:06	1
Manganese	**0.0018**	**J**	0.0030	0.00040	mg/L		06/06/24 09:12	06/06/24 20:06	1
Nickel	ND		0.010	0.0013	mg/L		06/06/24 09:12	06/06/24 20:06	1
Potassium	**2.4**		0.50	0.10	mg/L		06/06/24 09:12	06/06/24 20:06	1
Selenium	ND		0.025	0.0087	mg/L		06/06/24 09:12	06/06/24 20:06	1
Silver	ND		0.0060	0.0017	mg/L		06/06/24 09:12	06/06/24 20:06	1
Sodium	**7.9**		1.0	0.32	mg/L		06/06/24 09:12	06/06/24 20:06	1
Thallium	ND		0.020	0.010	mg/L		06/06/24 09:12	06/06/24 20:06	1
Vanadium	ND		0.0050	0.0015	mg/L		06/06/24 09:12	06/06/24 20:06	1
Zinc	ND		0.010	0.0015	mg/L		06/06/24 09:12	06/06/24 20:06	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		06/05/24 10:50	06/05/24 14:15	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		06/05/24 10:50	06/05/24 14:43	1

Client Sample ID: SW-01-3
Lab Sample ID: 480-220419-3

Date Collected: 06/03/24 13:20
Matrix: Water
Date Received: 06/03/24 19:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			06/09/24 17:36	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			06/14/24 21:03	1

Client Sample ID: SW-01-1
Lab Sample ID: 480-220419-4

Date Collected: 06/03/24 13:45
Matrix: Water
Date Received: 06/03/24 19:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/05/24 15:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/05/24 15:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			06/05/24 15:03	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/05/24 15:03	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/05/24 15:03	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/05/24 15:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			06/05/24 15:03	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/05/24 15:03	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/05/24 15:03	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/05/24 15:03	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/05/24 15:03	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/05/24 15:03	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			06/05/24 15:03	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/05/24 15:03	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/05/24 15:03	1
2-Hexanone	ND		5.0	1.2	ug/L			06/05/24 15:03	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			06/05/24 15:03	1
Acetone	ND		10	3.0	ug/L			06/05/24 15:03	1
Benzene	ND		1.0	0.41	ug/L			06/05/24 15:03	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/05/24 15:03	1
Bromoform	ND		1.0	0.26	ug/L			06/05/24 15:03	1
Bromomethane	ND		1.0	0.69	ug/L			06/05/24 15:03	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/05/24 15:03	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/05/24 15:03	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/05/24 15:03	1
Chloroethane	ND		1.0	0.32	ug/L			06/05/24 15:03	1
Chloroform	ND		1.0	0.34	ug/L			06/05/24 15:03	1
Chloromethane	ND	UJ	1.0	0.35	ug/L			06/05/24 15:03	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/05/24 15:03	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/05/24 15:03	1
Cyclohexane	ND		1.0	0.18	ug/L			06/05/24 15:03	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/05/24 15:03	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			06/05/24 15:03	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/05/24 15:03	1
Isopropylbenzene	ND		1.0	0.79	ug/L			06/05/24 15:03	1
Methyl acetate	ND		2.5	1.3	ug/L			06/05/24 15:03	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			06/05/24 15:03	1
Methylcyclohexane	ND		1.0	0.16	ug/L			06/05/24 15:03	1

Client Sample ID: SW-01-1

Date Collected: 06/03/24 13:45
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-4

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		1.0	0.44	ug/L			06/05/24 15:03	1
Styrene	ND		1.0	0.73	ug/L			06/05/24 15:03	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/05/24 15:03	1
Toluene	ND		1.0	0.51	ug/L			06/05/24 15:03	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/05/24 15:03	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/05/24 15:03	1
Trichloroethene	ND		1.0	0.46	ug/L			06/05/24 15:03	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/05/24 15:03	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/05/24 15:03	1
Xylenes, Total	ND		2.0	0.66	ug/L			06/05/24 15:03	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*		*06/05/24 15:03*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*77 - 120*		*06/05/24 15:03*	*1*
4-Bromofluorobenzene (Surr)	*108*		*73 - 120*		*06/05/24 15:03*	*1*
Dibromofluoromethane (Surr)	*95*		*75 - 123*		*06/05/24 15:03*	*1*
Toluene-d8 (Surr)	*88*		*80 - 120*		*06/05/24 15:03*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		06/07/24 09:42	06/10/24 22:28	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		06/07/24 09:42	06/10/24 22:28	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		06/07/24 09:42	06/10/24 22:28	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		06/07/24 09:42	06/10/24 22:28	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		06/07/24 09:42	06/10/24 22:28	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		06/07/24 09:42	06/10/24 22:28	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		06/07/24 09:42	06/10/24 22:28	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		06/07/24 09:42	06/10/24 22:28	1
2-Chlorophenol	ND		5.0	0.53	ug/L		06/07/24 09:42	06/10/24 22:28	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		06/07/24 09:42	06/10/24 22:28	1
2-Methylphenol	ND		5.0	0.40	ug/L		06/07/24 09:42	06/10/24 22:28	1
2-Nitroaniline	ND		10	0.42	ug/L		06/07/24 09:42	06/10/24 22:28	1
2-Nitrophenol	ND		5.0	0.48	ug/L		06/07/24 09:42	06/10/24 22:28	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		06/07/24 09:42	06/10/24 22:28	1
3-Nitroaniline	ND	UJ	10	0.48	ug/L		06/07/24 09:42	06/10/24 22:28	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		06/07/24 09:42	06/10/24 22:28	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		06/07/24 09:42	06/10/24 22:28	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		06/07/24 09:42	06/10/24 22:28	1
4-Chloroaniline	ND		5.0	0.59	ug/L		06/07/24 09:42	06/10/24 22:28	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		06/07/24 09:42	06/10/24 22:28	1
4-Methylphenol	ND		10	0.36	ug/L		06/07/24 09:42	06/10/24 22:28	1
4-Nitroaniline	ND		10	0.25	ug/L		06/07/24 09:42	06/10/24 22:28	1
4-Nitrophenol	ND		10	1.5	ug/L		06/07/24 09:42	06/10/24 22:28	1
Acenaphthene	ND		5.0	0.41	ug/L		06/07/24 09:42	06/10/24 22:28	1
Acenaphthylene	ND		5.0	0.38	ug/L		06/07/24 09:42	06/10/24 22:28	1
Acetophenone	ND		5.0	0.54	ug/L		06/07/24 09:42	06/10/24 22:28	1
Anthracene	ND		5.0	0.28	ug/L		06/07/24 09:42	06/10/24 22:28	1
Atrazine	ND		5.0	0.46	ug/L		06/07/24 09:42	06/10/24 22:28	1

Client Sample ID: SW-01-1

Date Collected: 06/03/24 13:45
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-4

Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzaldehyde	ND		5.0	0.27	ug/L		06/07/24 09:42	06/10/24 22:28	1
Benzo(a)anthracene	ND		5.0	0.36	ug/L		06/07/24 09:42	06/10/24 22:28	1
Benzo(a)pyrene	ND		5.0	0.47	ug/L		06/07/24 09:42	06/10/24 22:28	1
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L		06/07/24 09:42	06/10/24 22:28	1
Benzo(g,h,i)perylene	ND		5.0	0.35	ug/L		06/07/24 09:42	06/10/24 22:28	1
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L		06/07/24 09:42	06/10/24 22:28	1
Biphenyl	ND		5.0	0.65	ug/L		06/07/24 09:42	06/10/24 22:28	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		06/07/24 09:42	06/10/24 22:28	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		06/07/24 09:42	06/10/24 22:28	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		06/07/24 09:42	06/10/24 22:28	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		06/07/24 09:42	06/10/24 22:28	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		06/07/24 09:42	06/10/24 22:28	1
Caprolactam	ND		5.0	2.2	ug/L		06/07/24 09:42	06/10/24 22:28	1
Carbazole	ND		5.0	0.30	ug/L		06/07/24 09:42	06/10/24 22:28	1
Chrysene	ND		5.0	0.33	ug/L		06/07/24 09:42	06/10/24 22:28	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		06/07/24 09:42	06/10/24 22:28	1
Dibenzofuran	ND		10	0.51	ug/L		06/07/24 09:42	06/10/24 22:28	1
Diethyl phthalate	ND		5.0	0.22	ug/L		06/07/24 09:42	06/10/24 22:28	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		06/07/24 09:42	06/10/24 22:28	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		06/07/24 09:42	06/10/24 22:28	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		06/07/24 09:42	06/10/24 22:28	1
Fluoranthene	ND		5.0	0.40	ug/L		06/07/24 09:42	06/10/24 22:28	1
Fluorene	ND		5.0	0.36	ug/L		06/07/24 09:42	06/10/24 22:28	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		06/07/24 09:42	06/10/24 22:28	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		06/07/24 09:42	06/10/24 22:28	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		06/07/24 09:42	06/10/24 22:28	1
Hexachloroethane	ND		5.0	0.59	ug/L		06/07/24 09:42	06/10/24 22:28	1
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L		06/07/24 09:42	06/10/24 22:28	1
Isophorone	ND		5.0	0.43	ug/L		06/07/24 09:42	06/10/24 22:28	1
Naphthalene	ND		5.0	0.76	ug/L		06/07/24 09:42	06/10/24 22:28	1
Nitrobenzene	ND		5.0	0.29	ug/L		06/07/24 09:42	06/10/24 22:28	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		06/07/24 09:42	06/10/24 22:28	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		06/07/24 09:42	06/10/24 22:28	1
Pentachlorophenol	ND	UJ	10	2.2	ug/L		06/07/24 09:42	06/10/24 22:28	1
Phenanthrene	ND		5.0	0.44	ug/L		06/07/24 09:42	06/10/24 22:28	1
Phenol	ND		5.0	0.39	ug/L		06/07/24 09:42	06/10/24 22:28	1
Pyrene	ND		5.0	0.34	ug/L		06/07/24 09:42	06/10/24 22:28	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*2.0*	*T J*	*ug/L*		*3.21*	*N/A*	*06/07/24 09:42*	*06/10/24 22:28*	*1*
Unknown	*22*	*T J*	*ug/L*		*4.75*	*N/A*	*06/07/24 09:42*	*06/10/24 22:28*	*1*
Bromacil	*2.0*	*T J N*	*ug/L*		*12.05*	*314-40-9*	*06/07/24 09:42*	*06/10/24 22:28*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*92*		*25 - 144*	*06/07/24 09:42*	*06/10/24 22:28*	*1*
2-Fluorobiphenyl	*72*		*53 - 126*	*06/07/24 09:42*	*06/10/24 22:28*	*1*
2-Fluorophenol	*54*		*24 - 120*	*06/07/24 09:42*	*06/10/24 22:28*	*1*
Nitrobenzene-d5	*70*		*29 - 129*	*06/07/24 09:42*	*06/10/24 22:28*	*1*
Phenol-d5	*40*		*10 - 120*	*06/07/24 09:42*	*06/10/24 22:28*	*1*
p-Terphenyl-d14	*65*		*33 - 132*	*06/07/24 09:42*	*06/10/24 22:28*	*1*

Client Sample ID: SW-01-1

Date Collected: 06/03/24 13:45
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-4

Matrix: Water

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	**0.021**	**J**	0.050	0.0092	ug/L		06/05/24 09:14	06/06/24 14:10	1
4,4'-DDE	ND		0.050	0.012	ug/L		06/05/24 09:14	06/06/24 14:10	1
4,4'-DDT	ND		0.050	0.011	ug/L		06/05/24 09:14	06/06/24 14:10	1
Aldrin	ND		0.050	0.0081	ug/L		06/05/24 09:14	06/06/24 14:10	1
alpha-BHC	ND		0.050	0.0077	ug/L		06/05/24 09:14	06/06/24 14:10	1
cis-Chlordane	ND		0.050	0.015	ug/L		06/05/24 09:14	06/06/24 14:10	1
beta-BHC	ND		0.050	0.025	ug/L		06/05/24 09:14	06/06/24 14:10	1
delta-BHC	ND		0.050	0.010	ug/L		06/05/24 09:14	06/06/24 14:10	1
Dieldrin	ND		0.050	0.0098	ug/L		06/05/24 09:14	06/06/24 14:10	1
Endosulfan I	ND		0.050	0.011	ug/L		06/05/24 09:14	06/06/24 14:10	1
Endosulfan II	ND		0.050	0.012	ug/L		06/05/24 09:14	06/06/24 14:10	1
Endosulfan sulfate	ND		0.050	0.016	ug/L		06/05/24 09:14	06/06/24 14:10	1
Endrin	ND		0.050	0.014	ug/L		06/05/24 09:14	06/06/24 14:10	1
Endrin aldehyde	**0.028**	**J**	0.050	0.016	ug/L		06/05/24 09:14	06/06/24 14:10	1
Endrin ketone	ND		0.050	0.012	ug/L		06/05/24 09:14	06/06/24 14:10	1
gamma-BHC (Lindane)	ND		0.050	0.0080	ug/L		06/05/24 09:14	06/06/24 14:10	1
trans-Chlordane	ND		0.050	0.011	ug/L		06/05/24 09:14	06/06/24 14:10	1
Heptachlor	ND		0.050	0.0085	ug/L		06/05/24 09:14	06/06/24 14:10	1
Heptachlor epoxide	ND		0.050	0.0074	ug/L		06/05/24 09:14	06/06/24 14:10	1
Methoxychlor	**ND**	**U**	0.050	0.014	ug/L		06/05/24 09:14	06/06/24 14:10	1
Toxaphene	ND		0.50	0.12	ug/L		06/05/24 09:14	06/06/24 14:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*72*		*20 - 120*	*06/05/24 09:14*	*06/06/24 14:10*	*1*
DCB Decachlorobiphenyl	*49*		*20 - 120*	*06/05/24 09:14*	*06/06/24 14:10*	*1*
Tetrachloro-m-xylene	*49*		*44 - 120*	*06/05/24 09:14*	*06/06/24 14:10*	*1*
Tetrachloro-m-xylene	*51*		*44 - 120*	*06/05/24 09:14*	*06/06/24 14:10*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 19:49	1
PCB-1221	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 19:49	1
PCB-1232	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 19:49	1
PCB-1242	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 19:49	1
PCB-1248	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 19:49	1
PCB-1254	ND		0.50	0.25	ug/L		06/06/24 06:53	06/06/24 19:49	1
PCB-1260	ND		0.50	0.25	ug/L		06/06/24 06:53	06/06/24 19:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*32*		*19 - 120*	*06/06/24 06:53*	*06/06/24 19:49*	*1*
DCB Decachlorobiphenyl	*38*		*19 - 120*	*06/06/24 06:53*	*06/06/24 19:49*	*1*
Tetrachloro-m-xylene	*82*		*39 - 121*	*06/06/24 06:53*	*06/06/24 19:49*	*1*
Tetrachloro-m-xylene	*73*		*39 - 121*	*06/06/24 06:53*	*06/06/24 19:49*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		06/06/24 09:16	06/06/24 17:46	1
Antimony	ND		0.020	0.0068	mg/L		06/06/24 09:16	06/06/24 17:46	1
Arsenic	ND		0.015	0.0056	mg/L		06/06/24 09:16	06/06/24 17:46	1
Barium	**0.026**		0.0020	0.00070	mg/L		06/06/24 09:16	06/06/24 17:46	1

Client Sample ID: SW-01-1
Date Collected: 06/03/24 13:45
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-4
Matrix: Water

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0020	0.00030	mg/L		06/06/24 09:16	06/06/24 17:46	1
Cadmium	ND		0.0020	0.00050	mg/L		06/06/24 09:16	06/06/24 17:46	1
Calcium	**51.1**		0.50	0.10	mg/L		06/06/24 09:16	06/06/24 17:46	1
Chromium	ND		0.0040	0.0010	mg/L		06/06/24 09:16	06/06/24 17:46	1
Cobalt	ND		0.0040	0.00063	mg/L		06/06/24 09:16	06/06/24 17:46	1
Copper	ND		0.010	0.0016	mg/L		06/06/24 09:16	06/06/24 17:46	1
Iron	**0.093**		0.050	0.019	mg/L		06/06/24 09:16	06/06/24 17:46	1
Lead	ND		0.010	0.0030	mg/L		06/06/24 09:16	06/06/24 17:46	1
Magnesium	**10**		0.20	0.043	mg/L		06/06/24 09:16	06/06/24 17:46	1
Manganese	**0.018**		0.0030	0.00040	mg/L		06/06/24 09:16	06/06/24 17:46	1
Nickel	**0.0013**	**J**	0.010	0.0013	mg/L		06/06/24 09:16	06/06/24 17:46	1
Potassium	**2.3**		0.50	0.10	mg/L		06/06/24 09:16	06/06/24 17:46	1
Selenium	ND		0.025	0.0087	mg/L		06/06/24 09:16	06/06/24 17:46	1
Silver	ND		0.0060	0.0017	mg/L		06/06/24 09:16	06/06/24 17:46	1
Sodium	**7.5**		1.0	0.32	mg/L		06/06/24 09:16	06/06/24 17:46	1
Thallium	ND		0.020	0.010	mg/L		06/06/24 09:16	06/06/24 17:46	1
Vanadium	ND		0.0050	0.0015	mg/L		06/06/24 09:16	06/06/24 17:46	1
Zinc	ND		0.010	0.0015	mg/L		06/06/24 09:16	06/06/24 17:46	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		06/06/24 09:12	06/06/24 20:08	1
Antimony	ND		0.020	0.0068	mg/L		06/06/24 09:12	06/06/24 20:08	1
Arsenic	ND		0.015	0.0056	mg/L		06/06/24 09:12	06/06/24 20:08	1
Barium	**0.020**		0.0020	0.00070	mg/L		06/06/24 09:12	06/06/24 20:08	1
Beryllium	ND		0.0020	0.00030	mg/L		06/06/24 09:12	06/06/24 20:08	1
Cadmium	ND		0.0020	0.00050	mg/L		06/06/24 09:12	06/06/24 20:08	1
Calcium	**4.6**		0.50	0.10	mg/L		06/06/24 09:12	06/06/24 20:08	1
Chromium	ND		0.0040	0.0010	mg/L		06/06/24 09:12	06/06/24 20:08	1
Cobalt	**0.0014**	**J**	0.0040	0.00063	mg/L		06/06/24 09:12	06/06/24 20:08	1
Copper	**0.091**		0.010	0.0016	mg/L		06/06/24 09:12	06/06/24 20:08	1
Iron	ND		0.050	0.019	mg/L		06/06/24 09:12	06/06/24 20:08	1
Lead	ND	**U**	0.010	0.0030	mg/L		06/06/24 09:12	06/06/24 20:08	1
Magnesium	**4.3**		0.20	0.043	mg/L		06/06/24 09:12	06/06/24 20:08	1
Manganese	**0.029**		0.0030	0.00040	mg/L		06/06/24 09:12	06/06/24 20:08	1
Nickel	**0.0038**	**J**	0.010	0.0013	mg/L		06/06/24 09:12	06/06/24 20:08	1
Potassium	**0.90**		0.50	0.10	mg/L		06/06/24 09:12	06/06/24 20:08	1
Selenium	ND		0.025	0.0087	mg/L		06/06/24 09:12	06/06/24 20:08	1
Silver	ND		0.0060	0.0017	mg/L		06/06/24 09:12	06/06/24 20:08	1
Sodium	**1.4**		1.0	0.32	mg/L		06/06/24 09:12	06/06/24 20:08	1
Thallium	ND		0.020	0.010	mg/L		06/06/24 09:12	06/06/24 20:08	1
Vanadium	ND		0.0050	0.0015	mg/L		06/06/24 09:12	06/06/24 20:08	1
Zinc	**0.19**		0.010	0.0015	mg/L		06/06/24 09:12	06/06/24 20:08	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		06/05/24 10:50	06/05/24 14:17	1

Client Sample ID: SW-01-1
Lab Sample ID: 480-220419-4

Date Collected: 06/03/24 13:45
Matrix: Water
Date Received: 06/03/24 19:00

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		06/05/24 10:50	06/05/24 14:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			06/09/24 17:39	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			06/14/24 21:06	1

Client Sample ID: TB-060324
Lab Sample ID: 480-220419-5

Date Collected: 06/03/24 00:00
Matrix: Water
Date Received: 06/03/24 19:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/05/24 15:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/05/24 15:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			06/05/24 15:26	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/05/24 15:26	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/05/24 15:26	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/05/24 15:26	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			06/05/24 15:26	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/05/24 15:26	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/05/24 15:26	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/05/24 15:26	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/05/24 15:26	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/05/24 15:26	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			06/05/24 15:26	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/05/24 15:26	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/05/24 15:26	1
2-Hexanone	ND		5.0	1.2	ug/L			06/05/24 15:26	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			06/05/24 15:26	1
Acetone	ND		10	3.0	ug/L			06/05/24 15:26	1
Benzene	ND		1.0	0.41	ug/L			06/05/24 15:26	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/05/24 15:26	1
Bromoform	ND		1.0	0.26	ug/L			06/05/24 15:26	1
Bromomethane	ND		1.0	0.69	ug/L			06/05/24 15:26	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/05/24 15:26	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/05/24 15:26	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/05/24 15:26	1
Chloroethane	ND		1.0	0.32	ug/L			06/05/24 15:26	1
Chloroform	ND		1.0	0.34	ug/L			06/05/24 15:26	1
Chloromethane	ND	UJ	1.0	0.35	ug/L			06/05/24 15:26	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/05/24 15:26	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/05/24 15:26	1
Cyclohexane	ND		1.0	0.18	ug/L			06/05/24 15:26	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/05/24 15:26	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			06/05/24 15:26	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/05/24 15:26	1

Client Sample ID: TB-060324
Lab Sample ID: 480-220419-5

Date Collected: 06/03/24 00:00
Matrix: Water
Date Received: 06/03/24 19:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.0	0.79	ug/L			06/05/24 15:26	1
Methyl acetate	ND		2.5	1.3	ug/L			06/05/24 15:26	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			06/05/24 15:26	1
Methylcyclohexane	ND		1.0	0.16	ug/L			06/05/24 15:26	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/05/24 15:26	1
Styrene	ND		1.0	0.73	ug/L			06/05/24 15:26	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/05/24 15:26	1
Toluene	ND		1.0	0.51	ug/L			06/05/24 15:26	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/05/24 15:26	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/05/24 15:26	1
Trichloroethene	ND		1.0	0.46	ug/L			06/05/24 15:26	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/05/24 15:26	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/05/24 15:26	1
Xylenes, Total	ND		2.0	0.66	ug/L			06/05/24 15:26	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*		*06/05/24 15:26*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*77 - 120*		*06/05/24 15:26*	*1*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*		*06/05/24 15:26*	*1*
Dibromofluoromethane (Surr)	*95*		*75 - 123*		*06/05/24 15:26*	*1*
Toluene-d8 (Surr)	*88*		*80 - 120*		*06/05/24 15:26*	*1*

Client Sample ID: SED-06

Lab Sample ID: 480-220470-1

Date Collected: 06/04/24 07:10

Matrix: Solid

Date Received: 06/04/24 16:00

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Free Liquid (SW846 9095B)	Passed				mL/100g			06/05/24 13:18	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		9.9	9.9	mg/Kg		06/07/24 10:05	06/08/24 08:35	1
Sulfide, Reactive (SW846 9034)	79.1		9.9	9.9	mg/Kg		06/07/24 10:05	06/08/24 08:25	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	>175		50.0	50.0	Degrees F			06/06/24 07:46	1
pH (SW846 9045D)	7.5		0.1	0.1	SU			06/10/24 15:54	1
Temperature (SW846 9045D)	18.5		0.001	0.001	Degrees C			06/10/24 15:54	1
BTU (ASTM D240-87)	3900		200	200	BTU/lb		06/12/24 14:48	06/12/24 21:00	1

Client Sample ID: SED-06

Lab Sample ID: 480-220470-1

Date Collected: 06/04/24 07:10

Matrix: Solid

Date Received: 06/04/24 16:00

Percent Solids: 53.1

Method: SW846 8015D - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		93	74	mg/Kg	☼		06/10/24 19:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	45000		188	75.2	mg/Kg	☼	06/06/24 08:13	06/06/24 09:18	1

Client Sample ID: SED-07

Lab Sample ID: 480-220470-2

Date Collected: 06/04/24 07:45

Matrix: Solid

Date Received: 06/04/24 16:00

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Free Liquid (SW846 9095B)	Passed				mL/100g			06/05/24 13:18	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		9.6	9.6	mg/Kg		06/07/24 10:05	06/08/24 08:37	1
Sulfide, Reactive (SW846 9034)	ND		9.6	9.6	mg/Kg		06/07/24 10:05	06/08/24 08:25	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	>175		50.0	50.0	Degrees F			06/06/24 07:46	1
pH (SW846 9045D)	7.6		0.1	0.1	SU			06/10/24 15:54	1
Temperature (SW846 9045D)	18.4		0.001	0.001	Degrees C			06/10/24 15:54	1
BTU (ASTM D240-87)	5430		200	200	BTU/lb		06/12/24 14:48	06/12/24 21:00	1

Client Sample ID: SED-07

Lab Sample ID: 480-220470-2

Date Collected: 06/04/24 07:45

Matrix: Solid

Date Received: 06/04/24 16:00

Percent Solids: 81.2

Method: SW846 8015D - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		61	49	mg/Kg	☼		06/10/24 20:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	19700		122	48.9	mg/Kg	☼	06/06/24 08:13	06/06/24 09:18	1

Client Sample ID: SED-08

Lab Sample ID: 480-220470-3

Date Collected: 06/04/24 08:15

Matrix: Solid

Date Received: 06/04/24 16:00

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Free Liquid (SW846 9095B)	Passed				mL/100g			06/05/24 13:18	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		9.9	9.9	mg/Kg		06/07/24 10:05	06/08/24 08:41	1
Sulfide, Reactive (SW846 9034)	119		9.9	9.9	mg/Kg		06/07/24 10:05	06/08/24 08:25	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	>175		50.0	50.0	Degrees F			06/06/24 07:46	1
pH (SW846 9045D)	8.0		0.1	0.1	SU			06/10/24 15:54	1
Temperature (SW846 9045D)	18.4		0.001	0.001	Degrees C			06/10/24 15:54	1
BTU (ASTM D240-87)	4310		200	200	BTU/lb		06/18/24 15:27	06/18/24 19:55	1

Client Sample ID: SED-08

Lab Sample ID: 480-220470-3

Date Collected: 06/04/24 08:15

Matrix: Solid

Date Received: 06/04/24 16:00

Percent Solids: 49.3

Method: SW846 8015D - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		100	80	mg/Kg	☼		06/10/24 20:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	10400		201	80.5	mg/Kg	☼	06/06/24 08:13	06/06/24 09:18	1

Client Sample ID: SED-09

Lab Sample ID: 480-220470-4

Date Collected: 06/04/24 08:45

Matrix: Solid

Date Received: 06/04/24 16:00

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Free Liquid (SW846 9095B)	Passed				mL/100g			06/05/24 13:18	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		9.7	9.7	mg/Kg		06/07/24 10:05	06/08/24 08:43	1
Sulfide, Reactive (SW846 9034)	156		9.7	9.7	mg/Kg		06/07/24 10:05	06/08/24 08:25	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	>175		50.0	50.0	Degrees F			06/06/24 07:46	1
pH (SW846 9045D)	7.5		0.1	0.1	SU			06/10/24 15:54	1
Temperature (SW846 9045D)	18.3		0.001	0.001	Degrees C			06/10/24 15:54	1
BTU (ASTM D240-87)	3280		200	200	BTU/lb		06/18/24 15:27	06/18/24 19:55	1

Client Sample ID: SED-09

Lab Sample ID: 480-220470-4

Date Collected: 06/04/24 08:45

Matrix: Solid

Date Received: 06/04/24 16:00

Percent Solids: 57.5

Method: SW846 8015D - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		85	68	mg/Kg	☼		06/10/24 20:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	19000		173	69.1	mg/Kg	☼	06/06/24 08:13	06/06/24 09:18	1

Client Sample ID: SED-10

Lab Sample ID: 480-220470-5

Date Collected: 06/04/24 09:15

Matrix: Solid

Date Received: 06/04/24 16:00

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Free Liquid (SW846 9095B)	Passed				mL/100g			06/05/24 13:18	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		10	10	mg/Kg		06/07/24 10:05	06/08/24 08:44	1
Sulfide, Reactive (SW846 9034)	180		10	10	mg/Kg		06/07/24 10:05	06/08/24 08:25	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	>175		50.0	50.0	Degrees F			06/06/24 07:46	1
pH (SW846 9045D)	7.1		0.1	0.1	SU			06/10/24 15:54	1
Temperature (SW846 9045D)	18.4		0.001	0.001	Degrees C			06/10/24 15:54	1
BTU (ASTM D240-87)	3090		200	200	BTU/lb		06/18/24 15:27	06/18/24 19:55	1

Client Sample ID: SED-10

Lab Sample ID: 480-220470-5

Date Collected: 06/04/24 09:15

Matrix: Solid

Date Received: 06/04/24 16:00

Percent Solids: 50.9

Method: SW846 8015D - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		97	78	mg/Kg	☼		06/10/24 20:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	18000		196	78.5	mg/Kg	☼	06/06/24 08:13	06/06/24 09:18	1

Client Sample ID: SED-11

Lab Sample ID: 480-220470-6

Date Collected: 06/04/24 09:50

Matrix: Solid

Date Received: 06/04/24 16:00

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Free Liquid (SW846 9095B)	Passed				mL/100g			06/05/24 13:18	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		9.7	9.7	mg/Kg		06/12/24 09:55	06/13/24 10:26	1
Sulfide, Reactive (SW846 9034)	291		9.7	9.7	mg/Kg		06/12/24 09:55	06/13/24 11:30	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	>175		50.0	50.0	Degrees F			06/06/24 07:46	1
pH (SW846 9045D)	7.0		0.1	0.1	SU			06/10/24 15:54	1
Temperature (SW846 9045D)	18.6		0.001	0.001	Degrees C			06/10/24 15:54	1
BTU (ASTM D240-87)	3930		200	200	BTU/lb		06/18/24 15:27	06/18/24 19:55	1

Client Sample ID: SED-11

Lab Sample ID: 480-220470-6

Date Collected: 06/04/24 09:50

Matrix: Solid

Date Received: 06/04/24 16:00

Percent Solids: 48.9

Method: SW846 8015D - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		100	80	mg/Kg	☼		06/10/24 20:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	27200		203	81.3	mg/Kg	☼	06/06/24 08:13	06/06/24 09:18	1

Client Sample ID: SED-12

Lab Sample ID: 480-220470-7

Date Collected: 06/04/24 10:30

Matrix: Solid

Date Received: 06/04/24 16:00

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Free Liquid (SW846 9095B)	Passed				mL/100g			06/05/24 13:18	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		9.4	9.4	mg/Kg		06/12/24 09:55	06/13/24 10:27	1
Sulfide, Reactive (SW846 9034)	132		9.4	9.4	mg/Kg		06/12/24 09:55	06/13/24 11:30	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	>175		50.0	50.0	Degrees F			06/11/24 09:28	1
pH (SW846 9045D)	7.3		0.1	0.1	SU			06/10/24 15:54	1
Temperature (SW846 9045D)	18.5		0.001	0.001	Degrees C			06/10/24 15:54	1
BTU (ASTM D240-87)	2660		200	200	BTU/lb		06/18/24 15:27	06/18/24 19:55	1

Client Sample ID: SED-12

Lab Sample ID: 480-220470-7

Date Collected: 06/04/24 10:30

Matrix: Solid

Date Received: 06/04/24 16:00

Percent Solids: 53.1

Method: SW846 8015D - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		93	75	mg/Kg	☼		06/10/24 20:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	16600		189	75.4	mg/Kg	☼	06/06/24 08:13	06/06/24 09:18	1

Client Sample ID: SED-13

Lab Sample ID: 480-220470-8

Date Collected: 06/04/24 11:00

Matrix: Solid

Date Received: 06/04/24 16:00

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Free Liquid (SW846 9095B)	Passed				mL/100g			06/05/24 13:18	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		9.5	9.5	mg/Kg		06/12/24 09:55	06/13/24 10:32	1
Sulfide, Reactive (SW846 9034)	152		9.5	9.5	mg/Kg		06/12/24 09:55	06/13/24 11:30	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	>175		50.0	50.0	Degrees F			06/11/24 09:28	1
pH (SW846 9045D)	7.2		0.1	0.1	SU			06/10/24 15:54	1
Temperature (SW846 9045D)	18.4		0.001	0.001	Degrees C			06/10/24 15:54	1
BTU (ASTM D240-87)	DNF		200	200	BTU/lb		06/18/24 15:27	06/18/24 19:55	1

Client Sample ID: SED-13

Lab Sample ID: 480-220470-8

Date Collected: 06/04/24 11:00

Matrix: Solid

Date Received: 06/04/24 16:00

Percent Solids: 40.9

Method: SW846 8015D - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		120	97	mg/Kg	☼		06/10/24 20:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	45600		245	98.0	mg/Kg	☼	06/06/24 08:13	06/06/24 09:18	1

Client Sample ID: SED-14

Lab Sample ID: 480-220470-9

Date Collected: 06/04/24 11:30

Matrix: Solid

Date Received: 06/04/24 16:00

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Free Liquid (SW846 9095B)	Passed				mL/100g			06/05/24 13:18	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		9.9	9.9	mg/Kg		06/12/24 09:55	06/13/24 10:33	1
Sulfide, Reactive (SW846 9034)	79.4		9.9	9.9	mg/Kg		06/12/24 09:55	06/13/24 11:30	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	>175		50.0	50.0	Degrees F			06/11/24 09:28	1
pH (SW846 9045D)	7.3		0.1	0.1	SU			06/10/24 15:54	1
Temperature (SW846 9045D)	18.6		0.001	0.001	Degrees C			06/10/24 15:54	1
BTU (ASTM D240-87)	3090		200	200	BTU/lb		06/18/24 15:27	06/18/24 19:55	1

Client Sample ID: SED-14

Lab Sample ID: 480-220470-9

Date Collected: 06/04/24 11:30

Matrix: Solid

Date Received: 06/04/24 16:00

Percent Solids: 60.7

Method: SW846 8015D - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		82	65	mg/Kg	☼		06/10/24 20:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	31700		165	65.9	mg/Kg	☼	06/06/24 08:13	06/06/24 09:18	1

Client Sample ID: SED-15

Lab Sample ID: 480-220470-10

Date Collected: 06/04/24 12:00

Matrix: Solid

Date Received: 06/04/24 16:00

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Free Liquid (SW846 9095B)	Passed				mL/100g			06/05/24 13:18	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		9.2	9.2	mg/Kg		06/12/24 09:55	06/13/24 10:35	1
Sulfide, Reactive (SW846 9034)	18.5		9.2	9.2	mg/Kg		06/12/24 09:55	06/13/24 11:30	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	>175		50.0	50.0	Degrees F			06/11/24 09:28	1
pH (SW846 9045D)	7.7		0.1	0.1	SU			06/10/24 15:54	1
Temperature (SW846 9045D)	18.3		0.001	0.001	Degrees C			06/10/24 15:54	1
BTU (ASTM D240-87)	1400		200	200	BTU/lb		06/18/24 15:27	06/18/24 19:55	1

Client Sample ID: SED-15

Lab Sample ID: 480-220470-10

Date Collected: 06/04/24 12:00

Matrix: Solid

Date Received: 06/04/24 16:00

Percent Solids: 74.4

Method: SW846 8015D - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		67	54	mg/Kg	☼		06/10/24 20:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	13500		134	53.7	mg/Kg	☼	06/06/24 08:13	06/06/24 09:18	1

Client Sample ID: SW-01-2-WC
Lab Sample ID: 480-220420-1
Date Collected: 06/03/24 12:00
Matrix: Water
Date Received: 06/03/24 19:00

Method: SW846 8015D - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		10	1.9	mg/L		06/05/24 07:43	06/05/24 10:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Butanediol	*85*		*66 - 130*	*06/05/24 07:43*	*06/05/24 10:45*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	ND		4.8	1.9	mg/L		06/05/24 10:32	06/05/24 12:29	1
Cyanide, Reactive (SW846 9012)	ND		10.0	10.0	mg/L		06/06/24 10:30	06/07/24 14:33	1
Sulfide, Reactive (SW846 9034)	ND		10.0	10.0	mg/L		06/06/24 10:30	06/08/24 08:25	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	**>175**		50.0	50.0	Degrees F			06/04/24 07:35	1
pH (SW846 9040C)	**8.25**		0.100	0.100	SU			06/04/24 19:16	1
Temperature (SW846 9040C)	**19.9**		0.00100	0.00100	Degrees C			06/04/24 19:16	1
BTU (ASTM D240-87)	**DNF**		200	200	BTU/lb		06/12/24 14:48	06/12/24 21:00	1

Client Sample ID: SW-01-3-WC
Lab Sample ID: 480-220420-2
Date Collected: 06/03/24 13:25
Matrix: Water
Date Received: 06/03/24 19:00

Method: SW846 8015D - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		10	1.9	mg/L		06/05/24 07:43	06/05/24 11:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Butanediol	*84*		*66 - 130*	*06/05/24 07:43*	*06/05/24 11:04*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	ND		4.8	1.9	mg/L		06/05/24 10:32	06/05/24 12:29	1
Cyanide, Reactive (SW846 9012)	ND		10.0	10.0	mg/L		06/06/24 10:30	06/07/24 14:34	1
Sulfide, Reactive (SW846 9034)	ND		10.0	10.0	mg/L		06/06/24 10:30	06/08/24 08:25	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	**>175**		50.0	50.0	Degrees F			06/04/24 13:40	1
pH (SW846 9040C)	**7.95**		0.100	0.100	SU			06/04/24 19:16	1
Temperature (SW846 9040C)	**19.7**		0.00100	0.00100	Degrees C			06/04/24 19:16	1
BTU (ASTM D240-87)	**DNF**		200	200	BTU/lb		06/12/24 14:48	06/12/24 21:00	1

Client Sample ID: SW-01-1-WC
Lab Sample ID: 480-220420-3
Date Collected: 06/03/24 13:50
Matrix: Water
Date Received: 06/03/24 19:00

Method: SW846 8015D - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		10	1.9	mg/L		06/05/24 07:43	06/05/24 11:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Butanediol	*84*		*66 - 130*	*06/05/24 07:43*	*06/05/24 11:22*	*1*

Client Sample ID: SW-01-1-WC
Lab Sample ID: 480-220420-3

Date Collected: 06/03/24 13:50
Matrix: Water
Date Received: 06/03/24 19:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	ND		5.0	1.9	mg/L		06/05/24 10:32	06/05/24 12:29	1
Cyanide, Reactive (SW846 9012)	ND		10.0	10.0	mg/L		06/06/24 10:30	06/07/24 14:36	1
Sulfide, Reactive (SW846 9034)	ND		10.0	10.0	mg/L		06/06/24 10:30	06/08/24 08:25	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	**>175**		50.0	50.0	Degrees F			06/05/24 08:08	1
pH (SW846 9040C)	**8.28**		0.100	0.100	SU			06/04/24 19:16	1
Temperature (SW846 9040C)	**19.9**		0.00100	0.00100	Degrees C			06/04/24 19:16	1
BTU (ASTM D240-87)	**DNF**		200	200	BTU/lb		06/12/24 14:48	06/12/24 21:00	1

Client Sample ID: SED-01-WC

Lab Sample ID: 480-220421-1

Date Collected: 06/03/24 15:00
Matrix: Solid
Date Received: 06/03/24 19:00

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Free Liquid (SW846 9095B)	Passed				mL/100g			06/04/24 13:13	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		9.4	9.4	mg/Kg		06/06/24 10:30	06/07/24 14:42	1
Sulfide, Reactive (SW846 9034)	ND		9.4	9.4	mg/Kg		06/06/24 10:30	06/08/24 08:25	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	>175		50.0	50.0	Degrees F			06/05/24 08:08	1
pH (SW846 9045D)	7.6		0.1	0.1	SU			06/04/24 13:03	1
Temperature (SW846 9045D)	20.0		0.001	0.001	Degrees C			06/04/24 13:03	1
BTU (ASTM D240-87)	5050		200	200	BTU/lb		06/13/24 09:39	06/13/24 11:41	1

Client Sample ID: SED-01-WC

Lab Sample ID: 480-220421-1

Date Collected: 06/03/24 15:00
Matrix: Solid
Date Received: 06/03/24 19:00
Percent Solids: 80.0

Method: SW846 8015D - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		62	50	mg/Kg	☼		06/10/24 18:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	4380		125	50.0	mg/Kg	☼	06/06/24 08:13	06/06/24 09:18	1

Client Sample ID: SED-02-WC

Lab Sample ID: 480-220421-2

Date Collected: 06/03/24 16:00
Matrix: Solid
Date Received: 06/03/24 19:00

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Free Liquid (SW846 9095B)	Passed				mL/100g			06/04/24 13:13	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		9.7	9.7	mg/Kg		06/06/24 10:30	06/07/24 14:43	1
Sulfide, Reactive (SW846 9034)	175		9.7	9.7	mg/Kg		06/06/24 10:30	06/08/24 08:25	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	>175		50.0	50.0	Degrees F			06/05/24 08:08	1
pH (SW846 9045D)	7.6		0.1	0.1	SU			06/04/24 13:03	1
Temperature (SW846 9045D)	20.0		0.001	0.001	Degrees C			06/04/24 13:03	1
BTU (ASTM D240-87)	3030		200	200	BTU/lb		06/13/24 09:39	06/13/24 11:41	1

Client Sample ID: SED-02-WC

Lab Sample ID: 480-220421-2

Date Collected: 06/03/24 16:00
Matrix: Solid
Date Received: 06/03/24 19:00
Percent Solids: 53.6

Method: SW846 8015D - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		93	74	mg/Kg	☼		06/10/24 19:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	12800		186	74.5	mg/Kg	☼	06/06/24 08:13	06/06/24 09:18	1

Client Sample ID: SED-03-WC

Lab Sample ID: 480-220421-3

Date Collected: 06/03/24 16:30
Matrix: Solid
Date Received: 06/03/24 19:00

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Free Liquid (SW846 9095B)	Passed				mL/100g			06/04/24 13:13	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		9.9	9.9	mg/Kg		06/06/24 10:30	06/07/24 14:44	1
Sulfide, Reactive (SW846 9034)	99.5		9.9	9.9	mg/Kg		06/06/24 10:30	06/08/24 08:25	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	>175		50.0	50.0	Degrees F			06/05/24 08:08	1
pH (SW846 9045D)	7.7		0.1	0.1	SU			06/04/24 13:03	1
Temperature (SW846 9045D)	20.1		0.001	0.001	Degrees C			06/04/24 13:03	1
BTU (ASTM D240-87)	DNF		200	200	BTU/lb		06/13/24 09:39	06/13/24 11:41	1

Client Sample ID: SED-03-WC

Lab Sample ID: 480-220421-3

Date Collected: 06/03/24 16:30
Matrix: Solid
Date Received: 06/03/24 19:00
Percent Solids: 72.1

Method: SW846 8015D - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		69	55	mg/Kg	☼		06/10/24 19:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	4930		139	55.7	mg/Kg	☼	06/06/24 08:13	06/06/24 09:18	1

Client Sample ID: SED-04-WC

Lab Sample ID: 480-220421-4

Date Collected: 06/03/24 17:00
Matrix: Solid
Date Received: 06/03/24 19:00

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Free Liquid (SW846 9095B)	Passed				mL/100g			06/04/24 13:13	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		9.7	9.7	mg/Kg		06/06/24 10:30	06/07/24 14:46	1
Sulfide, Reactive (SW846 9034)	155		9.7	9.7	mg/Kg		06/06/24 10:30	06/08/24 08:25	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	>175		50.0	50.0	Degrees F			06/05/24 08:08	1
pH (SW846 9045D)	7.9		0.1	0.1	SU			06/04/24 13:03	1
Temperature (SW846 9045D)	20.1		0.001	0.001	Degrees C			06/04/24 13:03	1
BTU (ASTM D240-87)	3110		200	200	BTU/lb		06/13/24 09:39	06/13/24 11:41	1

Client Sample ID: SED-04-WC

Lab Sample ID: 480-220421-4

Date Collected: 06/03/24 17:00
Matrix: Solid
Date Received: 06/03/24 19:00
Percent Solids: 52.0

Method: SW846 8015D - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND	R	48	38	mg/Kg	☼		07/09/24 03:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	11700		191	76.3	mg/Kg	☼	06/06/24 08:13	06/06/24 09:18	1

Client Sample ID: SED-05-WC
Lab Sample ID: 480-220421-5
Date Collected: 06/03/24 17:35
Matrix: Solid
Date Received: 06/03/24 19:00

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Free Liquid (SW846 9095B)	**Passed**				mL/100g			06/04/24 13:13	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		9.9	9.9	mg/Kg		06/07/24 10:05	06/08/24 08:34	1
Sulfide, Reactive (SW846 9034)	**377**		9.9	9.9	mg/Kg		06/07/24 10:05	06/08/24 08:25	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	**>175**		50.0	50.0	Degrees F			06/05/24 08:08	1
pH (SW846 9045D)	**7.3**		0.1	0.1	SU			06/04/24 13:03	1
Temperature (SW846 9045D)	**20.1**		0.001	0.001	Degrees C			06/04/24 13:03	1
BTU (ASTM D240-87)	**DNF**		200	200	BTU/lb		06/13/24 09:39	06/13/24 11:41	1

Client Sample ID: SED-05-WC
Lab Sample ID: 480-220421-5
Date Collected: 06/03/24 17:35
Matrix: Solid
Date Received: 06/03/24 19:00
Percent Solids: 50.3

Method: SW846 8015D - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		98	79	mg/Kg	☼		06/10/24 19:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	**13300**		198	79.2	mg/Kg	☼	06/06/24 08:13	06/06/24 09:18	1

Client Sample ID: SED-01
Date Collected: 06/03/24 15:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-1
Matrix: Solid
Percent Solids: 94.6

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		8000	2200	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
1,1,2,2-Tetrachloroethane	ND		8000	1300	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		8000	4000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
1,1,2-Trichloroethane	ND		8000	1700	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
1,1-Dichloroethane	ND		8000	2500	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
1,1-Dichloroethene	ND		8000	2800	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
1,2,4-Trichlorobenzene	ND		8000	3000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
1,2-Dibromo-3-Chloropropane	ND		8000	4000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
1,2-Dichlorobenzene	ND		8000	2000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
1,2-Dichloroethane	ND		8000	3300	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
1,2-Dichloropropane	ND		8000	1300	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
1,3-Dichlorobenzene	ND		8000	2100	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
1,4-Dichlorobenzene	ND		8000	1100	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
2-Butanone (MEK)	ND		40000	24000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
2-Hexanone	ND		40000	16000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
4-Methyl-2-pentanone (MIBK)	ND		40000	2600	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Acetone	ND		40000	33000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Benzene	**290000**		8000	1500	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Bromoform	ND		8000	4000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Bromomethane	ND		8000	1800	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Carbon disulfide	ND		8000	3700	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Carbon tetrachloride	ND		8000	2000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Chlorobenzene	ND		8000	1100	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Dibromochloromethane	ND		8000	3900	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Chloroethane	ND		8000	1700	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Chloroform	ND		8000	5500	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Chloromethane	ND	UJ	8000	1900	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
cis-1,2-Dichloroethene	ND		8000	2200	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Cyclohexane	ND		8000	1800	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Bromodichloromethane	ND		8000	1600	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Dichlorodifluoromethane	ND		8000	3500	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Ethylbenzene	**53000**		8000	2300	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
1,2-Dibromoethane	ND		8000	1400	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Isopropylbenzene	**3200**	**J**	8000	1200	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Methyl acetate	ND		40000	3800	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Methyl tert-butyl ether	ND		8000	3000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Methylcyclohexane	**11000**		8000	3800	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Methylene Chloride	ND		8000	1600	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Tetrachloroethene	ND		8000	1100	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Toluene	**300000**		8000	2200	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
trans-1,2-Dichloroethene	ND		8000	1900	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
trans-1,3-Dichloropropene	ND		8000	790	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Trichloroethene	ND		8000	2200	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Trichlorofluoromethane	ND		8000	3800	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Vinyl chloride	ND		8000	2700	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Xylenes, Total	**420000**		16000	4400	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
cis-1,3-Dichloropropene	ND		8000	1900	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Styrene	**24000**		8000	1900	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100

Client Sample ID: SED-01
Date Collected: 06/03/24 15:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-1
Matrix: Solid
Percent Solids: 94.6

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	320000		ug/Kg	☼	7.96	179601-23-1	06/05/24 09:40	06/05/24 14:16	100
Benzene, 1,2,3-trimethyl-	260000	T J N	ug/Kg	☼	9.79	526-73-8	06/05/24 09:40	06/05/24 14:16	100
Unknown	150000	T J	ug/Kg	☼	11.63	N/A	06/05/24 09:40	06/05/24 14:16	100
Naphthalene	500000	T J N	ug/Kg	☼	12.18	91-20-3	06/05/24 09:40	06/05/24 14:16	100
Unknown	630000	T J	ug/Kg	☼	13.11	N/A	06/05/24 09:40	06/05/24 14:16	100
Naphthalene, 2-methyl-	300000	T J N	ug/Kg	☼	13.25	91-57-6	06/05/24 09:40	06/05/24 14:16	100
Naphthalene, 1-ethyl-	180000	T J N	ug/Kg	☼	13.83	1127-76-0	06/05/24 09:40	06/05/24 14:16	100
Naphthalene, 2,6-dimethyl-	410000	T J N	ug/Kg	☼	13.91	581-42-0	06/05/24 09:40	06/05/24 14:16	100
Naphthalene, 2,3-dimethyl-	360000	T J N	ug/Kg	☼	14.03	581-40-8	06/05/24 09:40	06/05/24 14:16	100
Naphthalene, 1,3-dimethyl-	260000	T J N	ug/Kg	☼	14.21	575-41-7	06/05/24 09:40	06/05/24 14:16	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		53 - 146	06/05/24 09:40	06/05/24 14:16	100
4-Bromofluorobenzene (Surr)	105		49 - 148	06/05/24 09:40	06/05/24 14:16	100
Toluene-d8 (Surr)	101		50 - 149	06/05/24 09:40	06/05/24 14:16	100
Dibromofluoromethane (Surr)	87		60 - 140	06/05/24 09:40	06/05/24 14:16	100

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		190000	52000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
2,4,6-Trichlorophenol	ND		190000	38000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
2,4-Dichlorophenol	ND		190000	20000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
2,4-Dimethylphenol	ND		190000	46000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
2,4-Dinitrophenol	ND		1900000	880000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
2,4-Dinitrotoluene	ND		190000	39000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
2,6-Dinitrotoluene	ND		190000	23000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
2-Chloronaphthalene	ND		190000	32000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
2-Chlorophenol	ND		370000	35000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
2-Methylnaphthalene	**1500000**		190000	38000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
2-Methylphenol	ND		190000	23000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
2-Nitroaniline	ND		370000	28000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
2-Nitrophenol	ND		190000	54000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
3,3'-Dichlorobenzidine	ND		370000	230000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
3-Nitroaniline	ND		370000	53000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
4,6-Dinitro-2-methylphenol	ND		370000	190000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
4-Bromophenyl phenyl ether	ND		190000	27000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
4-Chloro-3-methylphenol	ND		190000	47000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
4-Chloroaniline	ND		190000	47000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
4-Chlorophenyl phenyl ether	ND		190000	24000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
4-Methylphenol	ND		370000	23000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
4-Nitroaniline	ND		370000	100000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
4-Nitrophenol	ND		370000	130000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Acenaphthene	**82000**	**J**	190000	28000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Acenaphthylene	ND		190000	25000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Acetophenone	ND		190000	26000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Anthracene	**94000**	**J**	190000	47000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Atrazine	ND		190000	66000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Benzaldehyde	ND		190000	150000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Benzo[a]anthracene	**120000**	**J**	190000	19000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Benzo[a]pyrene	**74000**	**J**	190000	28000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20

Client Sample ID: SED-01
Date Collected: 06/03/24 15:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-1
Matrix: Solid
Percent Solids: 94.6

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	**39000**	**J**	190000	30000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Benzo[g,h,i]perylene	ND		190000	20000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Benzo[k]fluoranthene	ND		190000	25000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Biphenyl	**62000**	**J**	190000	28000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
bis (2-chloroisopropyl) ether	ND	UJ	190000	38000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Bis(2-chloroethoxy)methane	ND		190000	41000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Bis(2-chloroethyl)ether	ND		190000	25000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Bis(2-ethylhexyl) phthalate	ND		190000	65000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Butyl benzyl phthalate	ND		190000	32000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Caprolactam	ND		190000	57000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Carbazole	**50000**	**J**	190000	23000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Chrysene	**270000**		190000	43000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Dibenz(a,h)anthracene	ND		190000	34000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Dibenzofuran	ND		190000	23000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Diethyl phthalate	ND		190000	25000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Dimethyl phthalate	ND		190000	23000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Di-n-butyl phthalate	ND		190000	33000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Di-n-octyl phthalate	ND		190000	23000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Fluoranthene	**57000**	**J**	190000	20000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Fluorene	**160000**	**J**	190000	23000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Hexachlorobenzene	ND		190000	26000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Hexachlorobutadiene	ND		190000	28000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Hexachlorocyclopentadiene	ND		190000	26000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Hexachloroethane	ND		190000	25000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Indeno[1,2,3-cd]pyrene	ND		190000	24000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Isophorone	ND		190000	41000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Naphthalene	**1000000**		190000	25000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Nitrobenzene	ND		190000	21000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
N-Nitrosodi-n-propylamine	ND		190000	33000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
N-Nitrosodiphenylamine	**280000**		190000	160000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Pentachlorophenol	ND		370000	190000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Phenanthrene	**840000**		190000	28000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Phenol	ND		190000	29000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Pyrene	**200000**		190000	23000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Methylene Chloride	*2400000*	*T J N*	*ug/Kg*	☼	*2.09*	*75-09-2*	*06/04/24 15:55*	*06/07/24 14:23*	*20*
Naphthalene, 2,6-dimethyl-	*1000000*	*T J N*	*ug/Kg*	☼	*8.89*	*581-42-0*	*06/04/24 15:55*	*06/07/24 14:23*	*20*
Naphthalene, 2,3-dimethyl-	*1100000*	*T J N*	*ug/Kg*	☼	*8.97*	*581-40-8*	*06/04/24 15:55*	*06/07/24 14:23*	*20*
Heptadecane	*1100000*	*T J N*	*ug/Kg*	☼	*10.45*	*629-78-7*	*06/04/24 15:55*	*06/07/24 14:23*	*20*
Octadecane	*1200000*	*T J N*	*ug/Kg*	☼	*10.91*	*593-45-3*	*06/04/24 15:55*	*06/07/24 14:23*	*20*
Nonadecane	*1700000*	*T J N*	*ug/Kg*	☼	*11.33*	*629-92-5*	*06/04/24 15:55*	*06/07/24 14:23*	*20*
Phenanthrene, 1-methyl-	*1300000*	*T J N*	*ug/Kg*	☼	*11.47*	*832-69-9*	*06/04/24 15:55*	*06/07/24 14:23*	*20*
Anthracene, 2-methyl-	*2000000*	*T J N*	*ug/Kg*	☼	*11.50*	*613-12-7*	*06/04/24 15:55*	*06/07/24 14:23*	*20*
Anthracene, 1-methyl-	*1100000*	*T J N*	*ug/Kg*	☼	*11.57*	*610-48-0*	*06/04/24 15:55*	*06/07/24 14:23*	*20*
1H-Cyclopropa[l]phenanthrene,1a,9b -dihydro-	*1100000*	*T J N*	*ug/Kg*	☼	*11.60*	*949-41-7*	*06/04/24 15:55*	*06/07/24 14:23*	*20*
Eicosane	*1700000*	*T J N*	*ug/Kg*	☼	*11.71*	*112-95-8*	*06/04/24 15:55*	*06/07/24 14:23*	*20*
2,8-Dimethyldibenzo(B,D)thiophene	*1000000*	*T J N*	*ug/Kg*	☼	*11.77*	*1207-15-4*	*06/04/24 15:55*	*06/07/24 14:23*	*20*
Phenanthrene, 3,6-dimethyl-	*1100000*	*T J N*	*ug/Kg*	☼	*11.92*	*1576-67-6*	*06/04/24 15:55*	*06/07/24 14:23*	*20*

Client Sample ID: SED-01
Date Collected: 06/03/24 15:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-1
Matrix: Solid
Percent Solids: 94.6

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Phenanthrene, 2,3-dimethyl-	2400000	T J N	ug/Kg	☼	11.99	3674-65-5	06/04/24 15:55	06/07/24 14:23	20
Phenanthrene, 2,7-dimethyl-	1100000	T J N	ug/Kg	☼	12.02	1576-69-8	06/04/24 15:55	06/07/24 14:23	20
Heneicosane	2600000	T J N	ug/Kg	☼	12.07	629-94-7	06/04/24 15:55	06/07/24 14:23	20
Hexadecane	2500000	T J N	ug/Kg	☼	12.39	544-76-3	06/04/24 15:55	06/07/24 14:23	20
Tricosane	1900000	T J N	ug/Kg	☼	12.70	638-67-5	06/04/24 15:55	06/07/24 14:23	20
Tetracosane	1000000	T J N	ug/Kg	☼	12.98	646-31-1	06/04/24 15:55	06/07/24 14:23	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	S1-	26 - 143	06/04/24 15:55	06/07/24 14:23	20
2-Fluorobiphenyl	113		50 - 121	06/04/24 15:55	06/07/24 14:23	20
2-Fluorophenol	0	S1-	36 - 120	06/04/24 15:55	06/07/24 14:23	20
Nitrobenzene-d5	0	S1-	40 - 121	06/04/24 15:55	06/07/24 14:23	20
Phenol-d5	99		41 - 120	06/04/24 15:55	06/07/24 14:23	20
p-Terphenyl-d14	0	S1-	46 - 143	06/04/24 15:55	06/07/24 14:23	20

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2000	400	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
4,4'-DDE	ND		2000	430	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
4,4'-DDT	ND		2000	480	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
Aldrin	ND		2000	500	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
alpha-BHC	ND		2000	370	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
cis-Chlordane	ND		2000	1000	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
beta-BHC	ND		2000	370	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
delta-BHC	ND		2000	380	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
Dieldrin	ND		2000	490	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
Endosulfan I	ND		2000	390	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
Endosulfan II	ND		2000	370	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
Endosulfan sulfate	ND		2000	380	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
Endrin	ND		2000	400	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
Endrin aldehyde	ND		2000	520	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
Endrin ketone	ND		2000	500	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
gamma-BHC (Lindane)	ND		2000	370	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
trans-Chlordane	ND		2000	650	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
Heptachlor	ND		2000	440	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
Heptachlor epoxide	ND		2000	520	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
Methoxychlor	ND		2000	410	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
Toxaphene	ND		20000	12000	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	264	S1+	45 - 120	06/05/24 16:46	06/06/24 11:09	50
DCB Decachlorobiphenyl	1985	S1+	45 - 120	06/05/24 16:46	06/06/24 11:09	50
Tetrachloro-m-xylene	0	S1-	30 - 124	06/05/24 16:46	06/06/24 11:09	50
Tetrachloro-m-xylene	0	S1-	30 - 124	06/05/24 16:46	06/06/24 11:09	50

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.76	0.15	mg/Kg	☼	06/04/24 16:08	06/06/24 16:27	2
PCB-1221	ND		0.76	0.15	mg/Kg	☼	06/04/24 16:08	06/06/24 16:27	2
PCB-1232	ND		0.76	0.15	mg/Kg	☼	06/04/24 16:08	06/06/24 16:27	2

Client Sample ID: SED-01

Date Collected: 06/03/24 15:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-1

Matrix: Solid
Percent Solids: 94.6

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1242	ND		0.76	0.15	mg/Kg	☼	06/04/24 16:08	06/06/24 16:27	2
PCB-1248	ND		0.76	0.15	mg/Kg	☼	06/04/24 16:08	06/06/24 16:27	2
PCB-1254	ND		0.76	0.35	mg/Kg	☼	06/04/24 16:08	06/06/24 16:27	2
PCB-1260	ND		0.76	0.35	mg/Kg	☼	06/04/24 16:08	06/06/24 16:27	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*64*		*60 - 154*	*06/04/24 16:08*	*06/06/24 16:27*	*2*
Tetrachloro-m-xylene	*60*		*60 - 154*	*06/04/24 16:08*	*06/06/24 16:27*	*2*
DCB Decachlorobiphenyl	*73*		*65 - 174*	*06/04/24 16:08*	*06/06/24 16:27*	*2*
DCB Decachlorobiphenyl	*79*		*65 - 174*	*06/04/24 16:08*	*06/06/24 16:27*	*2*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**49600**	J	10.4	9.0	mg/Kg	☼	06/04/24 15:43	06/05/24 10:53	1
Antimony	ND	UJ	15.6	0.55	mg/Kg	☼	06/04/24 15:43	06/05/24 10:53	1
Arsenic	**91.4**	J	2.1	0.92	mg/Kg	☼	06/04/24 15:43	06/05/24 10:53	1
Barium	**26.3**	J	0.53	0.15	mg/Kg	☼	06/06/24 14:39	06/07/24 16:11	1
Beryllium	**0.26**	J	0.21	0.042	mg/Kg	☼	06/06/24 14:39	06/07/24 16:11	1
Cadmium	ND		0.21	0.073	mg/Kg	☼	06/04/24 15:43	06/05/24 10:53	1
Calcium	**2320**	J	52.0	28.1	mg/Kg	☼	06/04/24 15:43	06/05/24 10:53	1
Chromium	**31.7**	J	0.53	0.38	mg/Kg	☼	06/06/24 14:39	06/07/24 16:11	1
Cobalt	**2.7**		0.53	0.11	mg/Kg	☼	06/06/24 14:39	06/07/24 16:11	1
Copper	**13.4**		1.1	0.60	mg/Kg	☼	06/06/24 14:39	06/07/24 16:11	1
Iron	**3800**	J	10.4	8.8	mg/Kg	☼	06/04/24 15:43	06/05/24 10:53	1
Lead	**40.2**	J+	1.1	0.48	mg/Kg	☼	06/06/24 14:39	06/07/24 16:11	1
Magnesium	**634**	J	20.8	8.8	mg/Kg	☼	06/04/24 15:43	06/05/24 10:53	1
Manganese	**15.8**	J	1.1	0.29	mg/Kg	☼	06/06/24 14:39	06/07/24 16:11	1
Nickel	**90.5**	J	5.2	0.26	mg/Kg	☼	06/04/24 15:43	06/05/24 10:53	1
Potassium	**98.5**		31.2	25.2	mg/Kg	☼	06/04/24 15:43	06/05/24 10:53	1
Selenium	ND	UJ	4.2	0.84	mg/Kg	☼	06/06/24 14:39	06/07/24 16:11	1
Silver	ND	UJ	0.62	0.21	mg/Kg	☼	06/04/24 15:43	06/05/24 10:53	1
Sodium	**1100**		146	63.8	mg/Kg	☼	06/04/24 15:43	06/05/24 10:53	1
Thallium	ND		31.5	4.0	mg/Kg	☼	06/06/24 14:39	06/10/24 11:06	5
Vanadium	**95.6**	J+	0.53	0.14	mg/Kg	☼	06/06/24 14:39	06/07/24 16:11	1
Zinc	**20.5**	J	2.1	1.1	mg/Kg	☼	06/04/24 15:43	06/05/24 10:53	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.020**	J	0.021	0.0048	mg/Kg	☼	06/05/24 08:44	06/05/24 11:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.90	0.44	mg/Kg	☼	06/07/24 12:22	06/07/24 16:05	1
Total Organic Carbon (EPA-Lloyd Kahn)	**266000**		1060	1030	mg/Kg	☼		06/14/24 14:12	1

Client Sample ID: SED-02
Date Collected: 06/03/24 16:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-2
Matrix: Solid
Percent Solids: 50.7

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		7900	2200	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
1,1,2,2-Tetrachloroethane	ND		7900	1300	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		7900	4000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
1,1,2-Trichloroethane	ND		7900	1700	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
1,1-Dichloroethane	ND		7900	2400	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
1,1-Dichloroethene	ND		7900	2700	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
1,2,4-Trichlorobenzene	ND		7900	3000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
1,2-Dibromo-3-Chloropropane	ND		7900	4000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
1,2-Dichlorobenzene	ND		7900	2000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
1,2-Dichloroethane	ND		7900	3200	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
1,2-Dichloropropane	ND		7900	1300	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
1,3-Dichlorobenzene	ND		7900	2100	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
1,4-Dichlorobenzene	ND		7900	1100	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
2-Butanone (MEK)	ND		40000	23000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
2-Hexanone	ND		40000	16000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
4-Methyl-2-pentanone (MIBK)	ND		40000	2500	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Acetone	ND		40000	33000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Benzene	**73000**		7900	1500	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Bromoform	ND		7900	4000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Bromomethane	ND		7900	1700	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Carbon disulfide	ND		7900	3600	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Carbon tetrachloride	ND		7900	2000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Chlorobenzene	**3500**	**J**	7900	1000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Dibromochloromethane	ND		7900	3800	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Chloroethane	ND		7900	1600	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Chloroform	ND		7900	5400	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Chloromethane	ND	UJ	7900	1900	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
cis-1,2-Dichloroethene	ND		7900	2200	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Cyclohexane	**27000**		7900	1800	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Bromodichloromethane	ND		7900	1600	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Dichlorodifluoromethane	ND		7900	3400	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Ethylbenzene	**7600**	**J**	7900	2300	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
1,2-Dibromoethane	ND		7900	1400	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Isopropylbenzene	**15000**		7900	1200	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Methyl acetate	ND		40000	3800	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Methyl tert-butyl ether	ND		7900	3000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Methylcyclohexane	**46000**		7900	3700	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Methylene Chloride	ND		7900	1600	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Tetrachloroethene	ND		7900	1100	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Toluene	ND		7900	2100	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
trans-1,2-Dichloroethene	ND		7900	1900	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
trans-1,3-Dichloropropene	ND		7900	780	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Trichloroethene	ND		7900	2200	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Trichlorofluoromethane	ND		7900	3700	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Vinyl chloride	ND		7900	2600	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Xylenes, Total	ND		16000	4400	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
cis-1,3-Dichloropropene	ND		7900	1900	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Styrene	ND		7900	1900	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40

Client Sample ID: SED-02
Date Collected: 06/03/24 16:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-2
Matrix: Solid
Percent Solids: 50.7

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Benzene, propyl-	59000	T J N	ug/Kg	☼	9.21	103-65-1	06/05/24 09:40	06/05/24 14:39	40
Benzene, cyclopropyl-	91000	T J N	ug/Kg	☼	10.40	873-49-4	06/05/24 09:40	06/05/24 14:39	40
Benzene, 4-ethyl-1,2-dimethyl-	57000	T J N	ug/Kg	☼	10.85	934-80-5	06/05/24 09:40	06/05/24 14:39	40
Unknown	140000	T J	ug/Kg	☼	11.62	N/A	06/05/24 09:40	06/05/24 14:39	40
Naphthalene, 2-methyl-	380000	T J N	ug/Kg	☼	13.10	91-57-6	06/05/24 09:40	06/05/24 14:39	40
1,4-Methanonaphthalene, 1,4-dihydro-	200000	T J N	ug/Kg	☼	13.25	4453-90-1	06/05/24 09:40	06/05/24 14:39	40
Naphthalene, 2-ethyl-	67000	T J N	ug/Kg	☼	13.83	939-27-5	06/05/24 09:40	06/05/24 14:39	40
Naphthalene, 2,6-dimethyl-	110000	T J N	ug/Kg	☼	13.91	581-42-0	06/05/24 09:40	06/05/24 14:39	40
Naphthalene, 1,5-dimethyl-	140000	T J N	ug/Kg	☼	14.03	571-61-9	06/05/24 09:40	06/05/24 14:39	40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		53 - 146	06/05/24 09:40	06/05/24 14:39	40
4-Bromofluorobenzene (Surr)	112		49 - 148	06/05/24 09:40	06/05/24 14:39	40
Toluene-d8 (Surr)	109		50 - 149	06/05/24 09:40	06/05/24 14:39	40
Dibromofluoromethane (Surr)	102		60 - 140	06/05/24 09:40	06/05/24 14:39	40

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		37000	10000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
2,4,6-Trichlorophenol	ND		37000	7400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
2,4-Dichlorophenol	ND		37000	3900	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
2,4-Dimethylphenol	ND		37000	8900	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
2,4-Dinitrophenol	ND		360000	170000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
2,4-Dinitrotoluene	ND		37000	7600	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
2,6-Dinitrotoluene	ND		37000	4400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
2-Chloronaphthalene	ND		37000	6100	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
2-Chlorophenol	ND		72000	6800	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
2-Methylnaphthalene	**590000**		37000	7400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
2-Methylphenol	ND		37000	4400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
2-Nitroaniline	ND		72000	5400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
2-Nitrophenol	ND		37000	10000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
3,3'-Dichlorobenzidine	ND		72000	44000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
3-Nitroaniline	ND		72000	10000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
4,6-Dinitro-2-methylphenol	ND		72000	37000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
4-Bromophenyl phenyl ether	ND		37000	5200	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
4-Chloro-3-methylphenol	ND		37000	9200	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
4-Chloroaniline	ND		37000	9200	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
4-Chlorophenyl phenyl ether	ND		37000	4600	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
4-Methylphenol	ND		72000	4400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
4-Nitroaniline	ND		72000	19000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
4-Nitrophenol	ND		72000	26000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Acenaphthene	**32000**	**J**	37000	5400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Acenaphthylene	ND		37000	4800	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Acetophenone	ND		37000	5000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Anthracene	**25000**	**J**	37000	9200	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Atrazine	ND		37000	13000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Benzaldehyde	ND		37000	29000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Benzo[a]anthracene	**25000**	**J**	37000	3700	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Benzo[a]pyrene	**13000**	**J**	37000	5400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Benzo[b]fluoranthene	**9000**	**J**	37000	5900	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20

Client Sample ID: SED-02
Date Collected: 06/03/24 16:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-2
Matrix: Solid
Percent Solids: 50.7

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	**7000**	**J**	37000	3900	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Benzo[k]fluoranthene	ND		37000	4800	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Biphenyl	ND		37000	5400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
bis (2-chloroisopropyl) ether	ND	UJ	37000	7400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Bis(2-chloroethoxy)methane	ND		37000	7800	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Bis(2-chloroethyl)ether	ND		37000	4800	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Bis(2-ethylhexyl) phthalate	ND		37000	13000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Butyl benzyl phthalate	ND		37000	6100	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Caprolactam	ND		37000	11000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Carbazole	**10000**	**J**	37000	4400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Chrysene	**49000**		37000	8300	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Dibenz(a,h)anthracene	ND		37000	6500	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Dibenzofuran	**31000**	**J**	37000	4400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Diethyl phthalate	ND		37000	4800	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Dimethyl phthalate	ND		37000	4400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Di-n-butyl phthalate	ND		37000	6300	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Di-n-octyl phthalate	ND		37000	4400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Fluoranthene	**21000**	**J**	37000	3900	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Fluorene	**64000**		37000	4400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Hexachlorobenzene	ND		37000	5000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Hexachlorobutadiene	ND		37000	5400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Hexachlorocyclopentadiene	ND		37000	5000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Hexachloroethane	ND		37000	4800	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Indeno[1,2,3-cd]pyrene	ND		37000	4600	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Isophorone	ND		37000	7800	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Naphthalene	ND		37000	4800	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Nitrobenzene	ND		37000	4100	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
N-Nitrosodi-n-propylamine	ND		37000	6300	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
N-Nitrosodiphenylamine	ND		37000	30000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Pentachlorophenol	ND		72000	37000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Phenanthrene	**220000**		37000	5400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Phenol	ND		37000	5700	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Pyrene	**48000**		37000	4400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Methylene Chloride	*350000*	*T J N*	*ug/Kg*	☼	*2.10*	*75-09-2*	*06/04/24 15:55*	*06/07/24 15:19*	*20*
Unknown	*340000*	*T J*	*ug/Kg*	☼	*7.87*	*N/A*	*06/04/24 15:55*	*06/07/24 15:19*	*20*
1,4-Methanonaphthalene, 1,4-dihydro-	*320000*	*T J N*	*ug/Kg*	☼	*8.26*	*4453-90-1*	*06/04/24 15:55*	*06/07/24 15:19*	*20*
Naphthalene, 1-ethyl-	*230000*	*T J N*	*ug/Kg*	☼	*8.81*	*1127-76-0*	*06/04/24 15:55*	*06/07/24 15:19*	*20*
Naphthalene, 2,6-dimethyl-	*460000*	*T J N*	*ug/Kg*	☼	*8.89*	*581-42-0*	*06/04/24 15:55*	*06/07/24 15:19*	*20*
Naphthalene, 2,3-dimethyl-	*500000*	*T J N*	*ug/Kg*	☼	*8.98*	*581-40-8*	*06/04/24 15:55*	*06/07/24 15:19*	*20*
Naphthalene, 1,5-dimethyl-	*270000*	*T J N*	*ug/Kg*	☼	*9.00*	*571-61-9*	*06/04/24 15:55*	*06/07/24 15:19*	*20*
Naphthalene, 1,3-dimethyl-	*470000*	*T J N*	*ug/Kg*	☼	*9.11*	*575-41-7*	*06/04/24 15:55*	*06/07/24 15:19*	*20*
Naphthalene, 2-(1-methylethyl)-	*320000*	*T J N*	*ug/Kg*	☼	*9.50*	*2027-17-0*	*06/04/24 15:55*	*06/07/24 15:19*	*20*
Naphthalene, 2,3,6-trimethyl-	*290000*	*T J N*	*ug/Kg*	☼	*9.66*	*829-26-5*	*06/04/24 15:55*	*06/07/24 15:19*	*20*
Naphthalene, 1,4,6-trimethyl-	*260000*	*T J N*	*ug/Kg*	☼	*9.75*	*2131-42-2*	*06/04/24 15:55*	*06/07/24 15:19*	*20*
Tridecane, 5-propyl-	*610000*	*T J N*	*ug/Kg*	☼	*10.18*	*55045-11-9*	*06/04/24 15:55*	*06/07/24 15:19*	*20*
Pentadecane, 2,6,10,14-tetramethyl-	*620000*	*T J N*	*ug/Kg*	☼	*10.47*	*1921-70-6*	*06/04/24 15:55*	*06/07/24 15:19*	*20*
Hexadecane, 2,6,10,14-tetramethyl-	*430000*	*T J N*	*ug/Kg*	☼	*10.95*	*638-36-8*	*06/04/24 15:55*	*06/07/24 15:19*	*20*

Client Sample ID: SED-02
Date Collected: 06/03/24 16:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-2
Matrix: Solid
Percent Solids: 50.7

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Anthracene, 2-methyl-	330000	T J N	ug/Kg	☼	11.48	613-12-7	06/04/24 15:55	06/07/24 15:19	20
1H-Cyclopropa[l]phenanthrene,1a,9b-dihydro-	420000	T J N	ug/Kg	☼	11.50	949-41-7	06/04/24 15:55	06/07/24 15:19	20
Anthracene, 1-methyl-	270000	T J N	ug/Kg	☼	11.58	610-48-0	06/04/24 15:55	06/07/24 15:19	20
Phenanthrene, 3,6-dimethyl-	220000	T J N	ug/Kg	☼	11.93	1576-67-6	06/04/24 15:55	06/07/24 15:19	20
Phenanthrene, 2,5-dimethyl-	470000	T J N	ug/Kg	☼	11.99	3674-66-6	06/04/24 15:55	06/07/24 15:19	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	84		26 - 143	06/04/24 15:55	06/07/24 15:19	20
2-Fluorobiphenyl	87		50 - 121	06/04/24 15:55	06/07/24 15:19	20
2-Fluorophenol	71		36 - 120	06/04/24 15:55	06/07/24 15:19	20
Nitrobenzene-d5	0	S1-	40 - 121	06/04/24 15:55	06/07/24 15:19	20
Phenol-d5	68		41 - 120	06/04/24 15:55	06/07/24 15:19	20
p-Terphenyl-d14	78		46 - 143	06/04/24 15:55	06/07/24 15:19	20

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1300	250	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
4,4'-DDE	ND		1300	270	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
4,4'-DDT	ND		1300	300	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
Aldrin	ND		1300	320	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
alpha-BHC	ND		1300	230	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
cis-Chlordane	ND		1300	650	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
beta-BHC	ND		1300	230	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
delta-BHC	ND		1300	240	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
Dieldrin	ND		1300	310	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
Endosulfan I	ND		1300	250	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
Endosulfan II	ND		1300	230	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
Endosulfan sulfate	ND		1300	240	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
Endrin	ND		1300	260	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
Endrin aldehyde	ND		1300	330	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
Endrin ketone	ND		1300	320	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
gamma-BHC (Lindane)	ND		1300	240	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
trans-Chlordane	ND		1300	410	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
Heptachlor	ND		1300	280	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
Heptachlor epoxide	ND		1300	330	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
Methoxychlor	ND		1300	260	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
Toxaphene	ND		13000	7600	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	0	S1-	45 - 120	06/05/24 16:46	06/06/24 11:29	20
DCB Decachlorobiphenyl	0	S1-	45 - 120	06/05/24 16:46	06/06/24 11:29	20
Tetrachloro-m-xylene	0	S1-	30 - 124	06/05/24 16:46	06/06/24 11:29	20
Tetrachloro-m-xylene	0	S1-	30 - 124	06/05/24 16:46	06/06/24 11:29	20

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		1.4	0.28	mg/Kg	☼	06/04/24 16:08	06/06/24 16:44	2
PCB-1221	ND		1.4	0.28	mg/Kg	☼	06/04/24 16:08	06/06/24 16:44	2
PCB-1232	ND		1.4	0.28	mg/Kg	☼	06/04/24 16:08	06/06/24 16:44	2

Client Sample ID: SED-02
Date Collected: 06/03/24 16:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-2
Matrix: Solid
Percent Solids: 50.7

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1242	ND		1.4	0.28	mg/Kg	☼	06/04/24 16:08	06/06/24 16:44	2
PCB-1248	ND		1.4	0.28	mg/Kg	☼	06/04/24 16:08	06/06/24 16:44	2
PCB-1254	ND		1.4	0.66	mg/Kg	☼	06/04/24 16:08	06/06/24 16:44	2
PCB-1260	ND		1.4	0.66	mg/Kg	☼	06/04/24 16:08	06/06/24 16:44	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*65*		*60 - 154*	*06/04/24 16:08*	*06/06/24 16:44*	*2*
Tetrachloro-m-xylene	*60*		*60 - 154*	*06/04/24 16:08*	*06/06/24 16:44*	*2*
DCB Decachlorobiphenyl	*73*		*65 - 174*	*06/04/24 16:08*	*06/06/24 16:44*	*2*
DCB Decachlorobiphenyl	*82*		*65 - 174*	*06/04/24 16:08*	*06/06/24 16:44*	*2*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**14700**		19.5	16.8	mg/Kg	☼	06/04/24 15:43	06/05/24 11:02	1
Antimony	**6.2**	**J**	29.2	1.0	mg/Kg	☼	06/04/24 15:43	06/05/24 11:02	1
Arsenic	**31.9**		3.9	1.7	mg/Kg	☼	06/04/24 15:43	06/05/24 11:02	1
Barium	**247**		0.94	0.26	mg/Kg	☼	06/06/24 14:39	06/07/24 16:26	1
Beryllium	**0.49**		0.38	0.075	mg/Kg	☼	06/06/24 14:39	06/07/24 16:26	1
Cadmium	**2.9**		0.38	0.13	mg/Kg	☼	06/06/24 14:39	06/07/24 16:26	1
Calcium	**25500**		97.4	52.6	mg/Kg	☼	06/04/24 15:43	06/05/24 11:02	1
Chromium	**1860**		0.94	0.68	mg/Kg	☼	06/06/24 14:39	06/07/24 16:26	1
Cobalt	**14.6**		0.94	0.19	mg/Kg	☼	06/06/24 14:39	06/07/24 16:26	1
Copper	**302**		1.9	1.1	mg/Kg	☼	06/06/24 14:39	06/07/24 16:26	1
Iron	**45500**		19.5	16.5	mg/Kg	☼	06/04/24 15:43	06/05/24 11:02	1
Lead	**4660**		1.9	0.87	mg/Kg	☼	06/06/24 14:39	06/07/24 16:26	1
Magnesium	**7370**		39.0	16.5	mg/Kg	☼	06/04/24 15:43	06/05/24 11:02	1
Manganese	**351**		1.9	0.53	mg/Kg	☼	06/06/24 14:39	06/07/24 16:26	1
Nickel	**311**		9.7	0.49	mg/Kg	☼	06/04/24 15:43	06/05/24 11:02	1
Potassium	**2620**		58.5	47.2	mg/Kg	☼	06/04/24 15:43	06/05/24 11:02	1
Selenium	**5.8**	**J**	7.5	1.5	mg/Kg	☼	06/06/24 14:39	06/07/24 16:26	1
Silver	**0.63**	**J**	1.2	0.39	mg/Kg	☼	06/04/24 15:43	06/05/24 11:02	1
Sodium	**962**		273	119	mg/Kg	☼	06/04/24 15:43	06/05/24 11:02	1
Thallium	ND		11.7	1.5	mg/Kg	☼	06/04/24 15:43	06/05/24 11:02	1
Vanadium	**151**		0.94	0.25	mg/Kg	☼	06/06/24 14:39	06/07/24 16:26	1
Zinc	**1940**		3.9	2.0	mg/Kg	☼	06/04/24 15:43	06/05/24 11:02	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**6.4**		0.38	0.088	mg/Kg	☼	06/05/24 08:44	06/05/24 11:31	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	**6.7**		1.8	0.89	mg/Kg	☼	06/07/24 12:22	06/07/24 16:06	1
Total Organic Carbon (EPA-Lloyd Kahn)	**403000**		1970	1920	mg/Kg	☼		06/14/24 14:35	1

Client Sample ID: SED-03
Date Collected: 06/03/24 16:30
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-3
Matrix: Solid
Percent Solids: 73.0

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		3600	990	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
1,1,2,2-Tetrachloroethane	ND		3600	580	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3600	1800	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
1,1,2-Trichloroethane	ND		3600	750	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
1,1-Dichloroethane	ND		3600	1100	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
1,1-Dichloroethene	ND		3600	1200	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
1,2,4-Trichlorobenzene	ND		3600	1400	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
1,2-Dibromo-3-Chloropropane	ND		3600	1800	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
1,2-Dichlorobenzene	ND		3600	910	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
1,2-Dichloroethane	ND		3600	1500	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
1,2-Dichloropropane	ND		3600	580	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
1,3-Dichlorobenzene	ND		3600	950	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
1,4-Dichlorobenzene	ND		3600	500	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
2-Butanone (MEK)	ND		18000	11000	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
2-Hexanone	ND		18000	7300	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
4-Methyl-2-pentanone (MIBK)	ND		18000	1100	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Acetone	ND		18000	15000	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Benzene	ND		3600	680	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Bromoform	ND		3600	1800	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Bromomethane	ND		3600	790	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Carbon disulfide	ND		3600	1600	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Carbon tetrachloride	ND		3600	910	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Chlorobenzene	ND		3600	470	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Dibromochloromethane	ND		3600	1700	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Chloroethane	ND		3600	740	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Chloroform	ND		3600	2500	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Chloromethane	ND	UJ	3600	850	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
cis-1,2-Dichloroethene	ND		3600	990	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Cyclohexane	**6300**		3600	790	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Bromodichloromethane	ND		3600	710	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Dichlorodifluoromethane	ND		3600	1600	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Ethylbenzene	ND		3600	1000	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
1,2-Dibromoethane	ND		3600	630	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Isopropylbenzene	**3800**		3600	540	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Methyl acetate	ND		18000	1700	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Methyl tert-butyl ether	ND		3600	1400	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Methylcyclohexane	**12000**		3600	1700	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Methylene Chloride	ND		3600	710	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Tetrachloroethene	ND		3600	480	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Toluene	ND		3600	960	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
trans-1,2-Dichloroethene	ND		3600	840	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
trans-1,3-Dichloropropene	ND		3600	350	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Trichloroethene	ND		3600	990	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Trichlorofluoromethane	ND		3600	1700	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Vinyl chloride	ND		3600	1200	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Xylenes, Total	ND		7100	2000	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
cis-1,3-Dichloropropene	ND		3600	850	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Styrene	ND		3600	860	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40

Client Sample ID: SED-03
Date Collected: 06/03/24 16:30
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-3
Matrix: Solid
Percent Solids: 73.0

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Benzene, 1-ethenyl-2-methyl-	21000	T J N	ug/Kg	☼	10.40	611-15-4	06/05/24 09:40	06/05/24 15:02	40
Benzene, 1-ethyl-2,3-dimethyl-	15000	T J N	ug/Kg	☼	10.85	933-98-2	06/05/24 09:40	06/05/24 15:02	40
Unknown	43000	T J	ug/Kg	☼	11.62	N/A	06/05/24 09:40	06/05/24 15:02	40
1H-Indene, 2,3-dihydro-1,2-dimethyl-	14000	T J N	ug/Kg	☼	12.64	17057-82-8	06/05/24 09:40	06/05/24 15:02	40
Naphthalene, 2-methyl-	120000	T J N	ug/Kg	☼	13.10	91-57-6	06/05/24 09:40	06/05/24 15:02	40
1,4-Methanonaphthalene, 1,4-dihydro-	72000	T J N	ug/Kg	☼	13.25	4453-90-1	06/05/24 09:40	06/05/24 15:02	40
Naphthalene, 2-ethyl-	22000	T J N	ug/Kg	☼	13.83	939-27-5	06/05/24 09:40	06/05/24 15:02	40
Naphthalene, 2,7-dimethyl-	55000	T J N	ug/Kg	☼	13.91	582-16-1	06/05/24 09:40	06/05/24 15:02	40
Unknown	70000	T J	ug/Kg	☼	14.03	N/A	06/05/24 09:40	06/05/24 15:02	40
Naphthalene, 2,3-dimethyl-	25000	T J N	ug/Kg	☼	14.21	581-40-8	06/05/24 09:40	06/05/24 15:02	40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		53 - 146	06/05/24 09:40	06/05/24 15:02	40
4-Bromofluorobenzene (Surr)	105		49 - 148	06/05/24 09:40	06/05/24 15:02	40
Toluene-d8 (Surr)	100		50 - 149	06/05/24 09:40	06/05/24 15:02	40
Dibromofluoromethane (Surr)	88		60 - 140	06/05/24 09:40	06/05/24 15:02	40

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		24000	6600	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
2,4,6-Trichlorophenol	ND		24000	4800	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
2,4-Dichlorophenol	ND		24000	2600	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
2,4-Dimethylphenol	ND		24000	5800	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
2,4-Dinitrophenol	ND		240000	110000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
2,4-Dinitrotoluene	ND		24000	5000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
2,6-Dinitrotoluene	ND		24000	2900	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
2-Chloronaphthalene	ND		24000	4000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
2-Chlorophenol	ND		47000	4400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
2-Methylnaphthalene	**79000**		24000	4800	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
2-Methylphenol	ND		24000	2900	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
2-Nitroaniline	ND		47000	3600	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
2-Nitrophenol	ND		24000	6800	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
3,3'-Dichlorobenzidine	ND		47000	29000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
3-Nitroaniline	ND		47000	6700	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
4,6-Dinitro-2-methylphenol	ND		47000	24000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
4-Bromophenyl phenyl ether	ND		24000	3400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
4-Chloro-3-methylphenol	ND		24000	6000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
4-Chloroaniline	ND		24000	6000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
4-Chlorophenyl phenyl ether	ND		24000	3000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
4-Methylphenol	ND		47000	2900	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
4-Nitroaniline	ND		47000	13000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
4-Nitrophenol	ND		47000	17000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Acenaphthene	**4500**	**J**	24000	3600	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Acenaphthylene	ND		24000	3100	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Acetophenone	ND		24000	3300	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Anthracene	ND		24000	6000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Atrazine	ND		24000	8400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Benzaldehyde	ND		24000	19000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Benzo[a]anthracene	ND		24000	2400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Benzo[a]pyrene	**4400**	**J**	24000	3600	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20

Client Sample ID: SED-03
Date Collected: 06/03/24 16:30
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-3
Matrix: Solid
Percent Solids: 73.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	ND		24000	3800	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Benzo[g,h,i]perylene	ND		24000	2600	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Benzo[k]fluoranthene	ND		24000	3100	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Biphenyl	ND		24000	3600	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
bis (2-chloroisopropyl) ether	ND	UJ	24000	4800	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Bis(2-chloroethoxy)methane	ND		24000	5100	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Bis(2-chloroethyl)ether	ND		24000	3100	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Bis(2-ethylhexyl) phthalate	ND		24000	8300	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Butyl benzyl phthalate	ND		24000	4000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Caprolactam	ND		24000	7300	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Carbazole	ND		24000	2900	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Chrysene	**11000**	**J**	24000	5400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Dibenz(a,h)anthracene	ND		24000	4300	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Dibenzofuran	ND		24000	2900	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Diethyl phthalate	ND		24000	3100	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Dimethyl phthalate	ND		24000	2900	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Di-n-butyl phthalate	ND		24000	4100	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Di-n-octyl phthalate	ND		24000	2900	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Fluoranthene	**4300**	**J**	24000	2600	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Fluorene	**10000**	**J**	24000	2900	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Hexachlorobenzene	ND		24000	3300	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Hexachlorobutadiene	ND		24000	3600	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Hexachlorocyclopentadiene	ND		24000	3300	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Hexachloroethane	ND		24000	3100	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Indeno[1,2,3-cd]pyrene	ND		24000	3000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Isophorone	ND		24000	5100	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Naphthalene	ND		24000	3100	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Nitrobenzene	ND		24000	2700	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
N-Nitrosodi-n-propylamine	ND		24000	4100	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
N-Nitrosodiphenylamine	ND		24000	20000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Pentachlorophenol	ND		47000	24000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Phenanthrene	**38000**		24000	3600	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Phenol	ND		24000	3700	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Pyrene	**11000**	**J**	24000	2900	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Methylene Chloride	*300000*	*T J N*	*ug/Kg*	☼	*2.09*	*75-09-2*	*06/04/24 15:55*	*06/07/24 15:46*	*20*
Unknown	*59000*	*T J*	*ug/Kg*	☼	*7.87*	*N/A*	*06/04/24 15:55*	*06/07/24 15:46*	*20*
1,4-Methanonaphthalene, 1,4-dihydro-	*58000*	*T J N*	*ug/Kg*	☼	*8.26*	*4453-90-1*	*06/04/24 15:55*	*06/07/24 15:46*	*20*
Naphthalene, 1,6-dimethyl-	*83000*	*T J N*	*ug/Kg*	☼	*8.89*	*575-43-9*	*06/04/24 15:55*	*06/07/24 15:46*	*20*
Naphthalene, 1,8-dimethyl-	*93000*	*T J N*	*ug/Kg*	☼	*8.97*	*569-41-5*	*06/04/24 15:55*	*06/07/24 15:46*	*20*
Naphthalene, 2,6-dimethyl-	*55000*	*T J N*	*ug/Kg*	☼	*9.00*	*581-42-0*	*06/04/24 15:55*	*06/07/24 15:46*	*20*
Naphthalene, 1,3-dimethyl-	*110000*	*T J N*	*ug/Kg*	☼	*9.11*	*575-41-7*	*06/04/24 15:55*	*06/07/24 15:46*	*20*
Naphthalene, 1,4,6-trimethyl-	*63000*	*T J N*	*ug/Kg*	☼	*9.50*	*2131-42-2*	*06/04/24 15:55*	*06/07/24 15:46*	*20*
Naphthalene, 2,3,6-trimethyl-	*65000*	*T J N*	*ug/Kg*	☼	*9.61*	*829-26-5*	*06/04/24 15:55*	*06/07/24 15:46*	*20*
Azulene, 4,6,8-trimethyl-	*61000*	*T J N*	*ug/Kg*	☼	*9.66*	*941-81-1*	*06/04/24 15:55*	*06/07/24 15:46*	*20*
Naphthalene, 1,6,7-trimethyl-	*53000*	*T J N*	*ug/Kg*	☼	*9.75*	*2245-38-7*	*06/04/24 15:55*	*06/07/24 15:46*	*20*
Tridecane, 5-propyl-	*98000*	*T J N*	*ug/Kg*	☼	*10.18*	*55045-11-9*	*06/04/24 15:55*	*06/07/24 15:46*	*20*
Pentadecane, 2,6,10,14-tetramethyl-	*110000*	*T J N*	*ug/Kg*	☼	*10.47*	*1921-70-6*	*06/04/24 15:55*	*06/07/24 15:46*	*20*

Client Sample ID: SED-03
Date Collected: 06/03/24 16:30
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-3
Matrix: Solid
Percent Solids: 73.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tridecane, 7-hexyl-	75000	T J N	ug/Kg	☼	10.94	7225-66-3	06/04/24 15:55	06/07/24 15:46	20
Anthracene, 2-methyl-	59000	T J N	ug/Kg	☼	11.47	613-12-7	06/04/24 15:55	06/07/24 15:46	20
Phenanthrene, 2-methyl-	80000	T J N	ug/Kg	☼	11.50	2531-84-2	06/04/24 15:55	06/07/24 15:46	20
1H-Cyclopropa[l]phenanthrene,1a,9b-dihydro-	52000	T J N	ug/Kg	☼	11.57	949-41-7	06/04/24 15:55	06/07/24 15:46	20
Phenanthrene, 2,5-dimethyl-	100000	T J N	ug/Kg	☼	11.99	3674-66-6	06/04/24 15:55	06/07/24 15:46	20
Unknown	49000	T J	ug/Kg	☼	12.39	N/A	06/04/24 15:55	06/07/24 15:46	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	66		26 - 143	06/04/24 15:55	06/07/24 15:46	20
2-Fluorobiphenyl	85		50 - 121	06/04/24 15:55	06/07/24 15:46	20
2-Fluorophenol	78		36 - 120	06/04/24 15:55	06/07/24 15:46	20
Nitrobenzene-d5	88		40 - 121	06/04/24 15:55	06/07/24 15:46	20
Phenol-d5	67		41 - 120	06/04/24 15:55	06/07/24 15:46	20
p-Terphenyl-d14	75		46 - 143	06/04/24 15:55	06/07/24 15:46	20

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		950	190	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
4,4'-DDE	ND		950	200	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
4,4'-DDT	ND		950	220	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
Aldrin	ND		950	230	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
alpha-BHC	ND		950	170	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
cis-Chlordane	ND		950	470	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
beta-BHC	ND		950	170	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
delta-BHC	ND		950	180	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
Dieldrin	ND		950	230	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
Endosulfan I	ND		950	180	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
Endosulfan II	ND		950	170	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
Endosulfan sulfate	ND		950	180	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
Endrin	ND		950	190	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
Endrin aldehyde	ND		950	240	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
Endrin ketone	ND		950	230	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
gamma-BHC (Lindane)	ND		950	170	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
trans-Chlordane	ND		950	300	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
Heptachlor	ND		950	210	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
Heptachlor epoxide	ND		950	250	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
Methoxychlor	ND		950	190	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
Toxaphene	ND		9500	5500	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	0	S1-	45 - 120	06/05/24 16:46	06/06/24 11:49	20
DCB Decachlorobiphenyl	0	S1-	45 - 120	06/05/24 16:46	06/06/24 11:49	20
Tetrachloro-m-xylene	0	S1-	30 - 124	06/05/24 16:46	06/06/24 11:49	20
Tetrachloro-m-xylene	0	S1-	30 - 124	06/05/24 16:46	06/06/24 11:49	20

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		2.5	0.49	mg/Kg	☼	06/04/24 16:08	06/06/24 02:18	5
PCB-1221	ND		2.5	0.49	mg/Kg	☼	06/04/24 16:08	06/06/24 02:18	5

Client Sample ID: SED-03

Date Collected: 06/03/24 16:30
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-3

Matrix: Solid
Percent Solids: 73.0

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1232	ND		2.5	0.49	mg/Kg	☼	06/04/24 16:08	06/06/24 02:18	5
PCB-1242	ND		2.5	0.49	mg/Kg	☼	06/04/24 16:08	06/06/24 02:18	5
PCB-1248	**4.0**		2.5	0.49	mg/Kg	☼	06/04/24 16:08	06/06/24 02:18	5
PCB-1254	ND		2.5	1.2	mg/Kg	☼	06/04/24 16:08	06/06/24 02:18	5
PCB-1260	ND		2.5	1.2	mg/Kg	☼	06/04/24 16:08	06/06/24 02:18	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*63*		*60 - 154*	*06/04/24 16:08*	*06/06/24 02:18*	*5*
Tetrachloro-m-xylene	*58*	*S1-*	*60 - 154*	*06/04/24 16:08*	*06/06/24 02:18*	*5*
DCB Decachlorobiphenyl	*70*		*65 - 174*	*06/04/24 16:08*	*06/06/24 02:18*	*5*
DCB Decachlorobiphenyl	*99*		*65 - 174*	*06/04/24 16:08*	*06/06/24 02:18*	*5*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**13300**		13.4	11.6	mg/Kg	☼	06/04/24 15:43	06/05/24 11:04	1
Antimony	**2.5**	**J**	20.1	0.71	mg/Kg	☼	06/04/24 15:43	06/05/24 11:04	1
Arsenic	**10.8**		2.7	1.2	mg/Kg	☼	06/04/24 15:43	06/05/24 11:04	1
Barium	**110**		0.70	0.20	mg/Kg	☼	06/06/24 14:39	06/07/24 16:28	1
Beryllium	**0.32**		0.28	0.056	mg/Kg	☼	06/06/24 14:39	06/07/24 16:28	1
Cadmium	**0.92**		0.28	0.099	mg/Kg	☼	06/06/24 14:39	06/07/24 16:28	1
Calcium	**45100**		67.0	36.2	mg/Kg	☼	06/04/24 15:43	06/05/24 11:04	1
Chromium	**1150**		0.70	0.51	mg/Kg	☼	06/06/24 14:39	06/07/24 16:28	1
Cobalt	**5.4**		0.70	0.14	mg/Kg	☼	06/06/24 14:39	06/07/24 16:28	1
Copper	**93.9**		1.4	0.80	mg/Kg	☼	06/06/24 14:39	06/07/24 16:28	1
Iron	**24200**		13.4	11.4	mg/Kg	☼	06/04/24 15:43	06/05/24 11:04	1
Lead	**662**		1.4	0.65	mg/Kg	☼	06/06/24 14:39	06/07/24 16:28	1
Magnesium	**13600**		26.8	11.4	mg/Kg	☼	06/04/24 15:43	06/05/24 11:04	1
Manganese	**270**		1.4	0.39	mg/Kg	☼	06/06/24 14:39	06/07/24 16:28	1
Nickel	**73.2**		6.7	0.34	mg/Kg	☼	06/04/24 15:43	06/05/24 11:04	1
Potassium	**3660**		40.2	32.5	mg/Kg	☼	06/04/24 15:43	06/05/24 11:04	1
Selenium	**2.2**	**J**	5.6	1.1	mg/Kg	☼	06/06/24 14:39	06/07/24 16:28	1
Silver	ND		0.80	0.27	mg/Kg	☼	06/04/24 15:43	06/05/24 11:04	1
Sodium	**492**		188	82.2	mg/Kg	☼	06/04/24 15:43	06/05/24 11:04	1
Thallium	ND		8.0	1.0	mg/Kg	☼	06/04/24 15:43	06/05/24 11:04	1
Vanadium	**31.2**		0.70	0.18	mg/Kg	☼	06/06/24 14:39	06/07/24 16:28	1
Zinc	**481**		2.7	1.4	mg/Kg	☼	06/04/24 15:43	06/05/24 11:04	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**1.1**		0.027	0.0062	mg/Kg	☼	06/05/24 08:44	06/05/24 11:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	**0.62**	**J**	1.2	0.57	mg/Kg	☼	06/07/24 12:22	06/07/24 16:07	1
Total Organic Carbon (EPA-Lloyd Kahn)	**140000**		1370	1330	mg/Kg	☼		06/13/24 19:30	1

Client Sample ID: SED-04
Date Collected: 06/03/24 17:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-4
Matrix: Solid
Percent Solids: 55.2

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		14000	3900	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
1,1,2,2-Tetrachloroethane	ND		14000	2300	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		14000	7000	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
1,1,2-Trichloroethane	ND		14000	3000	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
1,1-Dichloroethane	ND		14000	4300	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
1,1-Dichloroethene	ND		14000	4900	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
1,2,4-Trichlorobenzene	ND		14000	5300	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
1,2-Dibromo-3-Chloropropane	ND		14000	7000	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
1,2-Dichlorobenzene	ND		14000	3600	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
1,2-Dichloroethane	ND		14000	5700	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
1,2-Dichloropropane	ND		14000	2300	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
1,3-Dichlorobenzene	ND		14000	3800	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
1,4-Dichlorobenzene	ND		14000	2000	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
2-Butanone (MEK)	ND		70000	42000	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
2-Hexanone	ND		70000	29000	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
4-Methyl-2-pentanone (MIBK)	ND		70000	4500	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Acetone	ND		70000	58000	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Benzene	**500000**		14000	2700	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Bromoform	ND		14000	7000	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Bromomethane	ND		14000	3100	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Carbon disulfide	ND		14000	6400	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Carbon tetrachloride	ND		14000	3600	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Chlorobenzene	ND		14000	1900	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Dibromochloromethane	ND		14000	6800	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Chloroethane	ND		14000	2900	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Chloroform	ND		14000	9600	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Chloromethane	ND	UJ	14000	3300	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
cis-1,2-Dichloroethene	ND		14000	3900	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Cyclohexane	**12000**	**J**	14000	3100	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Bromodichloromethane	ND		14000	2800	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Dichlorodifluoromethane	ND		14000	6100	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Ethylbenzene	**89000**		14000	4100	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
1,2-Dibromoethane	ND		14000	2500	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Isopropylbenzene	**7600**	**J**	14000	2100	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Methyl acetate	ND		70000	6700	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Methyl tert-butyl ether	ND		14000	5300	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Methylcyclohexane	**19000**		14000	6600	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Methylene Chloride	ND		14000	2800	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Tetrachloroethene	ND		14000	1900	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Toluene	ND		14000	3800	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
trans-1,2-Dichloroethene	ND		14000	3300	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
trans-1,3-Dichloropropene	ND		14000	1400	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Trichloroethene	ND		14000	3900	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Trichlorofluoromethane	ND		14000	6600	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Vinyl chloride	ND		14000	4700	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Xylenes, Total	ND		28000	7800	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
cis-1,3-Dichloropropene	ND		14000	3400	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Styrene	ND		14000	3400	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100

Client Sample ID: SED-04

Date Collected: 06/03/24 17:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-4

Matrix: Solid
Percent Solids: 55.2

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Indane	51000	T J N	ug/Kg	☼	10.40	496-11-7	06/05/24 09:40	06/05/24 15:25	100
Unknown	99000	T J	ug/Kg	☼	11.62	N/A	06/05/24 09:40	06/05/24 15:25	100
Naphthalene	170000	T J N	ug/Kg	☼	12.18	91-20-3	06/05/24 09:40	06/05/24 15:25	100
Naphthalene, 2-methyl-	340000	T J N	ug/Kg	☼	13.11	91-57-6	06/05/24 09:40	06/05/24 15:25	100
Benzocycloheptatriene	190000	T J N	ug/Kg	☼	13.25	264-09-5	06/05/24 09:40	06/05/24 15:25	100
Naphthalene, 2-ethyl-	86000	T J N	ug/Kg	☼	13.83	939-27-5	06/05/24 09:40	06/05/24 15:25	100
Naphthalene, 2,7-dimethyl-	150000	T J N	ug/Kg	☼	13.91	582-16-1	06/05/24 09:40	06/05/24 15:25	100
Naphthalene, 2,3-dimethyl-	150000	T J N	ug/Kg	☼	14.03	581-40-8	06/05/24 09:40	06/05/24 15:25	100
Naphthalene, 1,2-dimethyl-	68000	T J N	ug/Kg	☼	14.21	573-98-8	06/05/24 09:40	06/05/24 15:25	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		53 - 146	06/05/24 09:40	06/05/24 15:25	100
4-Bromofluorobenzene (Surr)	115		49 - 148	06/05/24 09:40	06/05/24 15:25	100
Toluene-d8 (Surr)	111		50 - 149	06/05/24 09:40	06/05/24 15:25	100
Dibromofluoromethane (Surr)	98		60 - 140	06/05/24 09:40	06/05/24 15:25	100

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		19000	11000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
2,4,5-Trichlorophenol	ND		33000	8900	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
2,4,6-Trichlorophenol	ND		33000	6600	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
2,4-Dichlorophenol	ND		33000	3500	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
2,4-Dimethylphenol	ND		33000	7900	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
2,4-Dinitrophenol	ND		320000	150000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
2,4-Dinitrotoluene	ND		33000	6800	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
2,6-Dinitrotoluene	ND		33000	3900	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
2-Chloronaphthalene	ND		33000	5400	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
2-Chlorophenol	ND		64000	6000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
2-Methylnaphthalene	**560000**		33000	6600	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
2-Methylphenol	ND		33000	3900	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
2-Nitroaniline	ND		64000	4800	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
2-Nitrophenol	ND		33000	9300	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
3,3'-Dichlorobenzidine	ND		64000	39000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
3-Nitroaniline	ND		64000	9100	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
4,6-Dinitro-2-methylphenol	ND		64000	33000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
4-Bromophenyl phenyl ether	ND		33000	4600	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
4-Chloro-3-methylphenol	ND		33000	8100	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
4-Chloroaniline	ND		33000	8100	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
4-Chlorophenyl phenyl ether	ND		33000	4100	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
4-Methylphenol	ND		64000	3900	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
4-Nitroaniline	ND		64000	17000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
4-Nitrophenol	ND		64000	23000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Acenaphthene	**27000**	**J**	33000	4800	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Acenaphthylene	ND		33000	4300	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Acetophenone	ND		33000	4500	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Anthracene	**23000**	**J**	33000	8100	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Atrazine	ND		33000	11000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Benzaldehyde	ND		33000	26000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Benzo[a]anthracene	**23000**	**J**	33000	3300	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Benzo[a]pyrene	**14000**	**J**	33000	4800	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20

Client Sample ID: SED-04
Date Collected: 06/03/24 17:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-4
Matrix: Solid
Percent Solids: 55.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	**6600**	**J**	33000	5200	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Benzo[g,h,i]perylene	**8400**	**J**	33000	3500	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Benzo[k]fluoranthene	ND		33000	4300	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Biphenyl	ND		33000	4800	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
bis (2-chloroisopropyl) ether	ND	UJ	33000	6600	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Bis(2-chloroethoxy)methane	ND		33000	7000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Bis(2-chloroethyl)ether	ND		33000	4300	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Bis(2-ethylhexyl) phthalate	ND		33000	11000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Butyl benzyl phthalate	ND		33000	5400	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Caprolactam	ND		33000	9900	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Carbazole	**12000**	**J**	33000	3900	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Chrysene	**49000**		33000	7400	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Dibenz(a,h)anthracene	ND		33000	5800	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Dibenzofuran	**21000**	**J**	33000	3900	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Diethyl phthalate	ND		33000	4300	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Dimethyl phthalate	ND		33000	3900	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Di-n-butyl phthalate	ND		33000	5600	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Di-n-octyl phthalate	**5600**	**J**	33000	3900	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Fluoranthene	**16000**	**J**	33000	3500	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Fluorene	**59000**		33000	3900	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Hexachlorobenzene	ND		33000	4500	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Hexachlorobutadiene	ND		33000	4800	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Hexachlorocyclopentadiene	ND		33000	4500	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Hexachloroethane	ND		33000	4300	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Indeno[1,2,3-cd]pyrene	ND		33000	4100	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Isophorone	ND		33000	7000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Naphthalene	**150000**		33000	4300	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Nitrobenzene	ND		33000	3700	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
N-Nitrosodi-n-propylamine	ND		33000	5600	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
N-Nitrosodiphenylamine	**110000**		33000	27000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Pentachlorophenol	ND		64000	33000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Phenanthrene	**230000**		33000	4800	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Phenol	ND		33000	5000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Pyrene	**43000**		33000	3900	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Methylene Chloride	*390000*	*T J N*	*ug/Kg*	☼	*2.09*	*75-09-2*	*06/04/24 15:55*	*06/07/24 16:14*	*20*
Unknown	*260000*	*T J*	*ug/Kg*	☼	*7.87*	*N/A*	*06/04/24 15:55*	*06/07/24 16:14*	*20*
Naphthalene, 1-methyl-	*300000*	*T J N*	*ug/Kg*	☼	*8.26*	*90-12-0*	*06/04/24 15:55*	*06/07/24 16:14*	*20*
Naphthalene, 2,7-dimethyl-	*400000*	*T J N*	*ug/Kg*	☼	*8.89*	*582-16-1*	*06/04/24 15:55*	*06/07/24 16:14*	*20*
Naphthalene, 1,3-dimethyl-	*410000*	*T J N*	*ug/Kg*	☼	*8.98*	*575-41-7*	*06/04/24 15:55*	*06/07/24 16:14*	*20*
Naphthalene, 2,6-dimethyl-	*240000*	*T J N*	*ug/Kg*	☼	*9.00*	*581-42-0*	*06/04/24 15:55*	*06/07/24 16:14*	*20*
Naphthalene, 2,3-dimethyl-	*360000*	*T J N*	*ug/Kg*	☼	*9.11*	*581-40-8*	*06/04/24 15:55*	*06/07/24 16:14*	*20*
Naphthalene, 2-(1-methylethyl)-	*260000*	*T J N*	*ug/Kg*	☼	*9.50*	*2027-17-0*	*06/04/24 15:55*	*06/07/24 16:14*	*20*
Naphthalene, 2,3,6-trimethyl-	*240000*	*T J N*	*ug/Kg*	☼	*9.66*	*829-26-5*	*06/04/24 15:55*	*06/07/24 16:14*	*20*
Unknown	*470000*	*T J*	*ug/Kg*	☼	*10.19*	*N/A*	*06/04/24 15:55*	*06/07/24 16:14*	*20*
Tridecane, 5-propyl-	*440000*	*T J N*	*ug/Kg*	☼	*10.47*	*55045-11-9*	*06/04/24 15:55*	*06/07/24 16:14*	*20*
Unknown	*240000*	*T J*	*ug/Kg*	☼	*10.62*	*N/A*	*06/04/24 15:55*	*06/07/24 16:14*	*20*
Hexadecane, 2,6,10,14-tetramethyl-	*320000*	*T J N*	*ug/Kg*	☼	*10.95*	*638-36-8*	*06/04/24 15:55*	*06/07/24 16:14*	*20*
Phenanthrene, 2-methyl-	*330000*	*T J N*	*ug/Kg*	☼	*11.48*	*2531-84-2*	*06/04/24 15:55*	*06/07/24 16:14*	*20*

Client Sample ID: SED-04
Date Collected: 06/03/24 17:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-4
Matrix: Solid
Percent Solids: 55.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Anthracene, 2-methyl-	420000	T J N	ug/Kg	☼	11.50	613-12-7	06/04/24 15:55	06/07/24 16:14	20
1H-Cyclopropa[l]phenanthrene,1a,9b-dihydro-	260000	T J N	ug/Kg	☼	11.57	949-41-7	06/04/24 15:55	06/07/24 16:14	20
Phenanthrene, 1-methyl-	250000	T J N	ug/Kg	☼	11.60	832-69-9	06/04/24 15:55	06/07/24 16:14	20
Phenanthrene, 2,7-dimethyl-	220000	T J N	ug/Kg	☼	11.92	1576-69-8	06/04/24 15:55	06/07/24 16:14	20
Phenanthrene, 2,5-dimethyl-	500000	T J N	ug/Kg	☼	11.99	3674-66-6	06/04/24 15:55	06/07/24 16:14	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	81		26 - 143	06/04/24 15:55	06/07/24 16:14	20
2-Fluorobiphenyl	90		50 - 121	06/04/24 15:55	06/07/24 16:14	20
2-Fluorophenol	77		36 - 120	06/04/24 15:55	06/07/24 16:14	20
Nitrobenzene-d5	202	S1+	40 - 121	06/04/24 15:55	06/07/24 16:14	20
Phenol-d5	67		41 - 120	06/04/24 15:55	06/07/24 16:14	20
p-Terphenyl-d14	81		46 - 143	06/04/24 15:55	06/07/24 16:14	20

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1600	310	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
4,4'-DDE	ND		1600	340	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
4,4'-DDT	ND		1600	380	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
Aldrin	ND		1600	400	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
alpha-BHC	ND		1600	290	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
cis-Chlordane	ND		1600	810	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
beta-BHC	ND		1600	290	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
delta-BHC	ND		1600	300	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
Dieldrin	ND		1600	390	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
Endosulfan I	ND		1600	310	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
Endosulfan II	ND		1600	290	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
Endosulfan sulfate	ND		1600	300	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
Endrin	ND		1600	320	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
Endrin aldehyde	ND		1600	410	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
Endrin ketone	ND		1600	400	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
gamma-BHC (Lindane)	ND		1600	300	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
trans-Chlordane	ND		1600	510	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
Heptachlor	ND		1600	350	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
Heptachlor epoxide	ND		1600	420	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
Methoxychlor	ND		1600	330	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
Toxaphene	ND		16000	9400	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	0	S1-	45 - 120	06/05/24 16:46	06/06/24 12:08	20
DCB Decachlorobiphenyl	0	S1-	45 - 120	06/05/24 16:46	06/06/24 12:08	20
Tetrachloro-m-xylene	0	S1-	30 - 124	06/05/24 16:46	06/06/24 12:08	20
Tetrachloro-m-xylene	0	S1-	30 - 124	06/05/24 16:46	06/06/24 12:08	20

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		1.2	0.23	mg/Kg	☼	06/04/24 16:08	06/06/24 17:01	2
PCB-1221	ND		1.2	0.23	mg/Kg	☼	06/04/24 16:08	06/06/24 17:01	2
PCB-1232	ND		1.2	0.23	mg/Kg	☼	06/04/24 16:08	06/06/24 17:01	2

Client Sample ID: SED-04

Date Collected: 06/03/24 17:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-4

Matrix: Solid
Percent Solids: 55.2

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1242	ND		1.2	0.23	mg/Kg	☼	06/04/24 16:08	06/06/24 17:01	2
PCB-1248	ND		1.2	0.23	mg/Kg	☼	06/04/24 16:08	06/06/24 17:01	2
PCB-1254	ND		1.2	0.55	mg/Kg	☼	06/04/24 16:08	06/06/24 17:01	2
PCB-1260	ND		1.2	0.55	mg/Kg	☼	06/04/24 16:08	06/06/24 17:01	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*63*		*60 - 154*	*06/04/24 16:08*	*06/06/24 17:01*	*2*
Tetrachloro-m-xylene	*57*	*S1-*	*60 - 154*	*06/04/24 16:08*	*06/06/24 17:01*	*2*
DCB Decachlorobiphenyl	*68*		*65 - 174*	*06/04/24 16:08*	*06/06/24 17:01*	*2*
DCB Decachlorobiphenyl	*75*		*65 - 174*	*06/04/24 16:08*	*06/06/24 17:01*	*2*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.4	0.60	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluoropentanoic acid (PFPeA)	ND		1.2	0.30	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluorohexanoic acid (PFHxA)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluoroheptanoic acid (PFHpA)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluorooctanoic acid (PFOA)	**0.67**		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluorononanoic acid (PFNA)	**10**	JN	0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluorodecanoic acid (PFDA)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluoroundecanoic acid (PFUnA)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluorododecanoic acid (PFDoA)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluorotridecanoic acid (PFTrDA)	**8.5**	JN	0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluorononanesulfonic acid (PFNS)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		2.4	0.60	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2.4	0.60	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		2.4	0.60	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	**0.46**	**J**	0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		6.0	1.5	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1

Client Sample ID: SED-04
Date Collected: 06/03/24 17:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-4
Matrix: Solid
Percent Solids: 55.2

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		6.0	1.5	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		2.4	0.60	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.4	0.60	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.2	0.30	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.2	0.30	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		2.4	0.60	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		2.4	0.60	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.2	0.30	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.0	0.75	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		15	3.7	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		15	3.7	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.2	0.30	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*106*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
13C5 PFPeA	*78.8*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
13C5 PFHxA	*91.7*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
13C4 PFHpA	*91.8*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
13C8 PFOA	*81.5*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
13C9 PFNA	*80.2*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
13C6 PFDA	*84.1*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
13C7 PFUnA	*85.3*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
13C2 PFTeDA	*87.6*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
13C3 PFBS	*102*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
13C3 PFHxS	*107*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
13C8 PFOS	*73.0*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
13C8 FOSA	*41.3*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
d3-NMeFOSAA	*59.3*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
d5-NEtFOSAA	*64.2*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
M2-4:2 FTS	*128*	*I*	*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
M2-6:2 FTS	*88.8*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
M2-8:2 FTS	*76.7*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
13C3 HFPO-DA	*99.7*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
d7-N-MeFOSE-M	*42.6*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
d9-N-EtFOSE-M	*33.4*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
d5-NEtPFOSA	*31.5*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
d3-NMePFOSA	*37.6*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
13C2-PFDoDA	*83.9*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*

Client Sample ID: SED-04
Lab Sample ID: 480-220423-4

Date Collected: 06/03/24 17:00
Matrix: Solid
Date Received: 06/03/24 19:00
Percent Solids: 55.2

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	17000		18.9	16.3	mg/Kg	☼	06/04/24 15:43	06/05/24 11:12	1
Antimony	1.8	J	28.3	1.0	mg/Kg	☼	06/04/24 15:43	06/05/24 11:12	1
Arsenic	39.7		3.8	1.7	mg/Kg	☼	06/04/24 15:43	06/05/24 11:12	1
Barium	790		0.96	0.27	mg/Kg	☼	06/06/24 14:39	06/07/24 16:30	1
Beryllium	0.65		0.38	0.077	mg/Kg	☼	06/06/24 14:39	06/07/24 16:30	1
Cadmium	5.5		0.38	0.13	mg/Kg	☼	06/06/24 14:39	06/07/24 16:30	1
Calcium	48000		94.3	50.9	mg/Kg	☼	06/04/24 15:43	06/05/24 11:12	1
Chromium	8490		95.6	68.9	mg/Kg	☼	06/06/24 14:39	06/10/24 11:16	100
Cobalt	22.8		0.96	0.19	mg/Kg	☼	06/06/24 14:39	06/07/24 16:30	1
Copper	464		1.9	1.1	mg/Kg	☼	06/06/24 14:39	06/07/24 16:30	1
Iron	26800		18.9	16.0	mg/Kg	☼	06/04/24 15:43	06/05/24 11:12	1
Lead	5480		1.9	0.88	mg/Kg	☼	06/06/24 14:39	06/07/24 16:30	1
Magnesium	8840		37.7	16.0	mg/Kg	☼	06/04/24 15:43	06/05/24 11:12	1
Manganese	497		1.9	0.54	mg/Kg	☼	06/06/24 14:39	06/07/24 16:30	1
Nickel	377		9.4	0.47	mg/Kg	☼	06/04/24 15:43	06/05/24 11:12	1
Potassium	2160		56.6	45.7	mg/Kg	☼	06/04/24 15:43	06/05/24 11:12	1
Selenium	10.6		7.7	1.5	mg/Kg	☼	06/06/24 14:39	06/07/24 16:30	1
Silver	0.46	J	1.1	0.38	mg/Kg	☼	06/04/24 15:43	06/05/24 11:12	1
Sodium	508		264	116	mg/Kg	☼	06/04/24 15:43	06/05/24 11:12	1
Thallium	ND		11.3	1.4	mg/Kg	☼	06/04/24 15:43	06/05/24 11:12	1
Vanadium	252		0.96	0.25	mg/Kg	☼	06/06/24 14:39	06/07/24 16:30	1
Zinc	3050		3.8	1.9	mg/Kg	☼	06/04/24 15:43	06/05/24 11:12	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	4.3		0.36	0.083	mg/Kg	☼	06/05/24 08:44	06/05/24 11:32	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	8.3		8.1	3.9	mg/Kg	☼	06/07/24 12:22	06/07/24 16:25	5
Total Organic Carbon (EPA-Lloyd Kahn)	280000		1810	1760	mg/Kg	☼		06/13/24 19:53	1
~~Total Organic Carbon (EPA-Lloyd Kahn)~~	~~256000~~	~~H~~	~~1810~~	~~1760~~	~~mg/Kg~~	~~☼~~		~~06/24/24 18:36~~	~~1~~

Client Sample ID: SED-05
Lab Sample ID: 480-220423-5

Date Collected: 06/03/24 17:35
Matrix: Solid
Date Received: 06/03/24 19:00
Percent Solids: 49.2

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		7000	1900	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
1,1,2,2-Tetrachloroethane	ND		7000	1100	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		7000	3500	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
1,1,2-Trichloroethane	ND		7000	1500	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
1,1-Dichloroethane	ND		7000	2200	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
1,1-Dichloroethene	ND		7000	2400	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
1,2,4-Trichlorobenzene	ND		7000	2700	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
1,2-Dibromo-3-Chloropropane	ND		7000	3500	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
1,2-Dichlorobenzene	ND		7000	1800	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
1,2-Dichloroethane	ND		7000	2900	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40

Client Sample ID: SED-05
Date Collected: 06/03/24 17:35
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-5
Matrix: Solid
Percent Solids: 49.2

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		7000	1100	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
1,3-Dichlorobenzene	ND		7000	1900	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
1,4-Dichlorobenzene	ND		7000	980	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
2-Butanone (MEK)	ND		35000	21000	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
2-Hexanone	ND		35000	14000	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
4-Methyl-2-pentanone (MIBK)	ND		35000	2200	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Acetone	ND		35000	29000	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Benzene	**250000**		7000	1300	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Bromoform	ND		7000	3500	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Bromomethane	ND		7000	1500	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Carbon disulfide	ND		7000	3200	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Carbon tetrachloride	ND		7000	1800	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Chlorobenzene	ND		7000	920	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Dibromochloromethane	ND		7000	3400	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Chloroethane	ND		7000	1500	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Chloroform	ND		7000	4800	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Chloromethane	ND	UJ	7000	1700	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
cis-1,2-Dichloroethene	ND		7000	1900	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Cyclohexane	**19000**		7000	1600	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Bromodichloromethane	ND		7000	1400	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Dichlorodifluoromethane	ND		7000	3100	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Ethylbenzene	**130000**		7000	2000	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
1,2-Dibromoethane	ND		7000	1200	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Isopropylbenzene	**12000**		7000	1100	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Methyl acetate	ND		35000	3300	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Methyl tert-butyl ether	ND		7000	2600	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Methylcyclohexane	**30000**		7000	3300	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Methylene Chloride	ND		7000	1400	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Tetrachloroethene	ND		7000	940	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Toluene	**2000**	**J**	7000	1900	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
trans-1,2-Dichloroethene	ND		7000	1700	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
trans-1,3-Dichloropropene	ND		7000	690	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Trichloroethene	ND		7000	1900	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Trichlorofluoromethane	ND		7000	3300	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Vinyl chloride	ND		7000	2300	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Xylenes, Total	**6100**	**J**	14000	3900	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
cis-1,3-Dichloropropene	ND		7000	1700	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Styrene	ND		7000	1700	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
o-Xylene	*6100*	*J*	*ug/Kg*	☼	*8.38*	*95-47-6*	*06/05/24 09:40*	*06/05/24 15:48*	*40*
Benzene, cyclopropyl-	*78000*	*T J N*	*ug/Kg*	☼	*10.40*	*873-49-4*	*06/05/24 09:40*	*06/05/24 15:48*	*40*
Unknown	*110000*	*T J*	*ug/Kg*	☼	*11.62*	*N/A*	*06/05/24 09:40*	*06/05/24 15:48*	*40*
Naphthalene	*160000*	*T J N*	*ug/Kg*	☼	*12.18*	*91-20-3*	*06/05/24 09:40*	*06/05/24 15:48*	*40*
Naphthalene, 2-methyl-	*430000*	*T J N*	*ug/Kg*	☼	*13.10*	*91-57-6*	*06/05/24 09:40*	*06/05/24 15:48*	*40*
Naphthalene, 1-methyl-	*230000*	*T J N*	*ug/Kg*	☼	*13.25*	*90-12-0*	*06/05/24 09:40*	*06/05/24 15:48*	*40*
Naphthalene, 1-ethyl-	*100000*	*T J N*	*ug/Kg*	☼	*13.83*	*1127-76-0*	*06/05/24 09:40*	*06/05/24 15:48*	*40*
Naphthalene, 2,6-dimethyl-	*190000*	*T J N*	*ug/Kg*	☼	*13.91*	*581-42-0*	*06/05/24 09:40*	*06/05/24 15:48*	*40*
Unknown	*190000*	*T J*	*ug/Kg*	☼	*14.03*	*N/A*	*06/05/24 09:40*	*06/05/24 15:48*	*40*
Naphthalene, 2,3-dimethyl-	*80000*	*T J N*	*ug/Kg*	☼	*14.21*	*581-40-8*	*06/05/24 09:40*	*06/05/24 15:48*	*40*

Client Sample ID: SED-05
Date Collected: 06/03/24 17:35
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-5
Matrix: Solid
Percent Solids: 49.2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*53 - 146*	*06/05/24 09:40*	*06/05/24 15:48*	*40*
4-Bromofluorobenzene (Surr)	*114*		*49 - 148*	*06/05/24 09:40*	*06/05/24 15:48*	*40*
Toluene-d8 (Surr)	*111*		*50 - 149*	*06/05/24 09:40*	*06/05/24 15:48*	*40*
Dibromofluoromethane (Surr)	*99*		*60 - 140*	*06/05/24 09:40*	*06/05/24 15:48*	*40*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		180000	49000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
2,4,6-Trichlorophenol	ND		180000	37000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
2,4-Dichlorophenol	ND		180000	19000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
2,4-Dimethylphenol	ND		180000	44000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
2,4-Dinitrophenol	ND		1800000	840000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
2,4-Dinitrotoluene	ND		180000	38000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
2,6-Dinitrotoluene	ND		180000	22000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
2-Chloronaphthalene	ND		180000	30000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
2-Chlorophenol	ND		360000	33000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
2-Methylnaphthalene	**470000**		180000	37000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
2-Methylphenol	ND		180000	22000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
2-Nitroaniline	ND		360000	27000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
2-Nitrophenol	ND		180000	52000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
3,3'-Dichlorobenzidine	ND		360000	220000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
3-Nitroaniline	ND		360000	51000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
4,6-Dinitro-2-methylphenol	ND		360000	180000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
4-Bromophenyl phenyl ether	ND		180000	26000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
4-Chloro-3-methylphenol	ND		180000	45000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
4-Chloroaniline	ND		180000	45000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
4-Chlorophenyl phenyl ether	ND		180000	23000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
4-Methylphenol	ND		360000	22000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
4-Nitroaniline	ND		360000	96000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
4-Nitrophenol	ND		360000	130000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Acenaphthene	ND		180000	27000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Acenaphthylene	ND		180000	24000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Acetophenone	ND		180000	25000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Anthracene	ND		180000	45000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Atrazine	ND		180000	63000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Benzaldehyde	ND		180000	150000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Benzo[a]anthracene	ND		180000	18000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Benzo[a]pyrene	ND		180000	27000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Benzo[b]fluoranthene	ND		180000	29000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Benzo[g,h,i]perylene	ND		180000	19000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Benzo[k]fluoranthene	ND		180000	24000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Biphenyl	ND		180000	27000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
bis (2-chloroisopropyl) ether	ND	UJ	180000	37000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Bis(2-chloroethoxy)methane	ND		180000	39000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Bis(2-chloroethyl)ether	ND		180000	24000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Bis(2-ethylhexyl) phthalate	ND		180000	62000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Butyl benzyl phthalate	ND		180000	30000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Caprolactam	ND		180000	55000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Carbazole	ND		180000	22000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Chrysene	ND		180000	41000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10

Client Sample ID: SED-05
Date Collected: 06/03/24 17:35
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-5
Matrix: Solid
Percent Solids: 49.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		180000	32000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Dibenzofuran	ND		180000	22000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Diethyl phthalate	ND		180000	24000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Dimethyl phthalate	ND		180000	22000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Di-n-butyl phthalate	ND		180000	31000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Di-n-octyl phthalate	ND		180000	22000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Fluoranthene	**22000**	**J**	180000	19000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Fluorene	**52000**	**J**	180000	22000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Hexachlorobenzene	ND		180000	25000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Hexachlorobutadiene	ND		180000	27000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Hexachlorocyclopentadiene	ND		180000	25000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Hexachloroethane	ND		180000	24000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Indeno[1,2,3-cd]pyrene	ND		180000	23000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Isophorone	ND		180000	39000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Naphthalene	ND		180000	24000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Nitrobenzene	ND		180000	20000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
N-Nitrosodi-n-propylamine	ND		180000	31000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
N-Nitrosodiphenylamine	ND		180000	150000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Pentachlorophenol	ND		360000	180000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Phenanthrene	**200000**		180000	27000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Phenol	ND		180000	28000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Pyrene	**54000**	**J**	180000	22000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Methylene Chloride	*1900000*	*T J N*	*ug/Kg*	☼	*2.10*	*75-09-2*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
Unknown	*380000*	*T J*	*ug/Kg*	☼	*7.86*	*N/A*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
Naphthalene, 1-methyl-	*330000*	*T J N*	*ug/Kg*	☼	*8.26*	*90-12-0*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
Naphthalene, 1-ethyl-	*260000*	*T J N*	*ug/Kg*	☼	*8.80*	*1127-76-0*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
Naphthalene, 2,7-dimethyl-	*480000*	*T J N*	*ug/Kg*	☼	*8.89*	*582-16-1*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
Naphthalene, 1,7-dimethyl-	*540000*	*T J N*	*ug/Kg*	☼	*8.97*	*575-37-1*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
Naphthalene, 2,6-dimethyl-	*310000*	*T J N*	*ug/Kg*	☼	*9.00*	*581-42-0*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
Naphthalene, 1,4-dimethyl-	*600000*	*T J N*	*ug/Kg*	☼	*9.11*	*571-58-4*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
Naphthalene, 2-(1-methylethyl)-	*320000*	*T J N*	*ug/Kg*	☼	*9.50*	*2027-17-0*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
Naphthalene, 1,4,6-trimethyl-	*400000*	*T J N*	*ug/Kg*	☼	*9.61*	*2131-42-2*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
Naphthalene, 1,4,5-trimethyl-	*320000*	*T J N*	*ug/Kg*	☼	*9.66*	*2131-41-1*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
Naphthalene, 1,6,7-trimethyl-	*280000*	*T J N*	*ug/Kg*	☼	*9.75*	*2245-38-7*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
3-Methyl-4-(methoxycarbonyl)hexa-2,4-dienoic acid	*460000*	*T J N*	*ug/Kg*	☼	*10.18*	*1000104-10-8*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
Pentadecane, 2,6,10,14-tetramethyl-	*440000*	*T J N*	*ug/Kg*	☼	*10.47*	*1921-70-6*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
Hexadecane, 2,6,10,14-tetramethyl-	*300000*	*T J N*	*ug/Kg*	☼	*10.94*	*638-36-8*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
Anthracene, 1-methyl-	*290000*	*T J N*	*ug/Kg*	☼	*11.47*	*610-48-0*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
Anthracene, 2-methyl-	*390000*	*T J N*	*ug/Kg*	☼	*11.50*	*613-12-7*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
1H-Cyclopropa[l]phenanthrene,1a,9b-dihydro-	*260000*	*T J N*	*ug/Kg*	☼	*11.57*	*949-41-7*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
Phenanthrene, 2,5-dimethyl-	*490000*	*T J N*	*ug/Kg*	☼	*11.99*	*3674-66-6*	*06/04/24 15:55*	*06/07/24 16:51*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*122*		*26 - 143*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
2-Fluorobiphenyl	*87*		*50 - 121*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
2-Fluorophenol	*81*		*36 - 120*	*06/04/24 15:55*	*06/07/24 16:51*	*10*

Client Sample ID: SED-05
Date Collected: 06/03/24 17:35
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-5
Matrix: Solid
Percent Solids: 49.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	123	S1+	40 - 121	06/04/24 15:55	06/07/24 16:51	10
Phenol-d5	76		41 - 120	06/04/24 15:55	06/07/24 16:51	10
p-Terphenyl-d14	72		46 - 143	06/04/24 15:55	06/07/24 16:51	10

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1200	240	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
4,4'-DDE	ND		1200	260	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
4,4'-DDT	ND		1200	290	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
Aldrin	ND		1200	310	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
alpha-BHC	ND		1200	220	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
cis-Chlordane	ND		1200	620	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
beta-BHC	ND		1200	220	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
delta-BHC	ND		1200	230	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
Dieldrin	ND		1200	300	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
Endosulfan I	ND		1200	240	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
Endosulfan II	ND		1200	220	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
Endosulfan sulfate	ND		1200	230	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
Endrin	ND		1200	250	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
Endrin aldehyde	ND		1200	320	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
Endrin ketone	ND		1200	310	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
gamma-BHC (Lindane)	ND		1200	230	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
trans-Chlordane	ND		1200	400	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
Heptachlor	ND		1200	270	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
Heptachlor epoxide	ND		1200	320	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
Methoxychlor	ND		1200	250	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
Toxaphene	ND		12000	7300	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	0	S1-	45 - 120	06/05/24 16:46	06/06/24 12:28	20
DCB Decachlorobiphenyl	0	S1-	45 - 120	06/05/24 16:46	06/06/24 12:28	20
Tetrachloro-m-xylene	0	S1-	30 - 124	06/05/24 16:46	06/06/24 12:28	20
Tetrachloro-m-xylene	0	S1-	30 - 124	06/05/24 16:46	06/06/24 12:28	20

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		1.3	0.26	mg/Kg	☼	06/04/24 16:08	06/06/24 17:18	2
PCB-1221	ND		1.3	0.26	mg/Kg	☼	06/04/24 16:08	06/06/24 17:18	2
PCB-1232	ND		1.3	0.26	mg/Kg	☼	06/04/24 16:08	06/06/24 17:18	2
PCB-1242	ND		1.3	0.26	mg/Kg	☼	06/04/24 16:08	06/06/24 17:18	2
PCB-1248	ND		1.3	0.26	mg/Kg	☼	06/04/24 16:08	06/06/24 17:18	2
PCB-1254	ND		1.3	0.62	mg/Kg	☼	06/04/24 16:08	06/06/24 17:18	2
PCB-1260	ND		1.3	0.62	mg/Kg	☼	06/04/24 16:08	06/06/24 17:18	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	64		60 - 154	06/04/24 16:08	06/06/24 17:18	2
Tetrachloro-m-xylene	59	S1-	60 - 154	06/04/24 16:08	06/06/24 17:18	2
DCB Decachlorobiphenyl	70		65 - 174	06/04/24 16:08	06/06/24 17:18	2
DCB Decachlorobiphenyl	77		65 - 174	06/04/24 16:08	06/06/24 17:18	2

Client Sample ID: SED-05
Date Collected: 06/03/24 17:35
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-5
Matrix: Solid
Percent Solids: 49.2

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	15700		20.3	17.5	mg/Kg	☼	06/04/24 15:43	06/05/24 11:14	1
Antimony	13.2	J	30.4	1.1	mg/Kg	☼	06/04/24 15:43	06/05/24 11:14	1
Arsenic	29.0		4.1	1.8	mg/Kg	☼	06/04/24 15:43	06/05/24 11:14	1
Barium	428		1.1	0.29	mg/Kg	☼	06/06/24 14:39	06/07/24 16:32	1
Beryllium	0.70		0.42	0.084	mg/Kg	☼	06/06/24 14:39	06/07/24 16:32	1
Cadmium	3.6		0.42	0.15	mg/Kg	☼	06/06/24 14:39	06/07/24 16:32	1
Calcium	20900		101	54.7	mg/Kg	☼	06/04/24 15:43	06/05/24 11:14	1
Chromium	2560		21.0	15.1	mg/Kg	☼	06/06/24 14:39	06/10/24 11:23	20
Cobalt	21.3		1.1	0.21	mg/Kg	☼	06/06/24 14:39	06/07/24 16:32	1
Copper	349		2.1	1.2	mg/Kg	☼	06/06/24 14:39	06/07/24 16:32	1
Iron	39700		20.3	17.2	mg/Kg	☼	06/04/24 15:43	06/05/24 11:14	1
Lead	11300		42.0	19.3	mg/Kg	☼	06/06/24 14:39	06/10/24 11:23	20
Magnesium	6980		40.6	17.2	mg/Kg	☼	06/04/24 15:43	06/05/24 11:14	1
Manganese	328		2.1	0.59	mg/Kg	☼	06/06/24 14:39	06/07/24 16:32	1
Nickel	325		10.1	0.51	mg/Kg	☼	06/04/24 15:43	06/05/24 11:14	1
Potassium	2540		60.9	49.2	mg/Kg	☼	06/04/24 15:43	06/05/24 11:14	1
Selenium	8.0	J	8.4	1.7	mg/Kg	☼	06/06/24 14:39	06/07/24 16:32	1
Silver	0.56	J	1.2	0.41	mg/Kg	☼	06/04/24 15:43	06/05/24 11:14	1
Sodium	1280		284	124	mg/Kg	☼	06/04/24 15:43	06/05/24 11:14	1
Thallium	ND		12.2	1.5	mg/Kg	☼	06/04/24 15:43	06/05/24 11:14	1
Vanadium	205		1.1	0.27	mg/Kg	☼	06/06/24 14:39	06/07/24 16:32	1
Zinc	1720		4.1	2.1	mg/Kg	☼	06/04/24 15:43	06/05/24 11:14	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	3.0		0.039	0.0090	mg/Kg	☼	06/05/24 08:44	06/05/24 11:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	4.7		1.8	0.86	mg/Kg	☼	06/07/24 12:22	06/07/24 16:10	1
Total Organic Carbon (EPA-Lloyd Kahn)	447000		2030	1970	mg/Kg	☼		06/13/24 20:38	1
~~Total Organic Carbon (EPA-Lloyd Kahn)~~	~~374000~~	~~H~~	~~2030~~	~~1970~~	~~mg/Kg~~	~~☼~~		~~06/24/24 18:51~~	~~1~~

Client Sample ID: SED-06
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-1
Matrix: Solid
Percent Solids: 57.8

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5900	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
1,1,2,2-Tetrachloroethane	ND		5900	950	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5900	2900	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
1,1,2-Trichloroethane	ND		5900	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
1,1-Dichloroethane	ND		5900	1800	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
1,1-Dichloroethene	ND		5900	2000	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
1,2,4-Trichlorobenzene	ND	UJ	5900	2200	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
1,2-Dibromo-3-Chloropropane	ND		5900	2900	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
1,2-Dichlorobenzene	ND		5900	1500	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
1,2-Dichloroethane	ND		5900	2400	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
1,2-Dichloropropane	ND		5900	950	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
1,3-Dichlorobenzene	ND		5900	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
1,4-Dichlorobenzene	ND		5900	820	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
2-Butanone (MEK)	ND		29000	17000	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
2-Hexanone	ND		29000	12000	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
4-Methyl-2-pentanone (MIBK)	ND		29000	1900	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Acetone	ND		29000	24000	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Benzene	**99000**		5900	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Bromoform	ND		5900	2900	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Bromomethane	ND		5900	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Carbon disulfide	ND		5900	2700	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Carbon tetrachloride	ND		5900	1500	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Chlorobenzene	ND		5900	770	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Dibromochloromethane	ND		5900	2800	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Chloroethane	ND		5900	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Chloroform	ND		5900	4000	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Chloromethane	ND	UJ	5900	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
cis-1,2-Dichloroethene	ND		5900	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Cyclohexane	**6500**	J	5900	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Bromodichloromethane	ND		5900	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Dichlorodifluoromethane	ND		5900	2600	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Ethylbenzene	**36000**		5900	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
1,2-Dibromoethane	ND		5900	1000	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Isopropylbenzene	**3300**	**J**	5900	880	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Methyl acetate	ND		29000	2800	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Methyl tert-butyl ether	ND		5900	2200	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Methylcyclohexane	**14000**	J	5900	2700	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Methylene Chloride	ND		5900	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Tetrachloroethene	ND		5900	790	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Toluene	ND		5900	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
trans-1,2-Dichloroethene	ND		5900	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
trans-1,3-Dichloropropene	ND		5900	580	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Trichloroethene	ND		5900	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Trichlorofluoromethane	ND		5900	2700	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Vinyl chloride	ND		5900	2000	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Xylenes, Total	ND		12000	3200	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
cis-1,3-Dichloropropene	ND		5900	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Styrene	ND		5900	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40

Client Sample ID: SED-06

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-1

Matrix: Solid
Percent Solids: 57.8

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Indane	21000	T H J N	ug/Kg	☼	10.40	496-11-7	06/06/24 09:16	06/06/24 14:09	40
Benzene, 4-ethyl-1,2-dimethyl-	17000	T H J N	ug/Kg	☼	10.85	934-80-5	06/06/24 09:16	06/06/24 14:09	40
Unknown	54000	T H J	ug/Kg	☼	11.62	N/A	06/06/24 09:16	06/06/24 14:09	40
1H-Indene, 1-methylene-	110000	T H J N	ug/Kg	☼	12.18	2471-84-3	06/06/24 09:16	06/06/24 14:09	40
Unknown	160000	T H J	ug/Kg	☼	13.10	N/A	06/06/24 09:16	06/06/24 14:09	40
Naphthalene, 2-methyl-	88000	T H J N	ug/Kg	☼	13.26	91-57-6	06/06/24 09:16	06/06/24 14:09	40
Naphthalene, 1-ethyl-	30000	T H J N	ug/Kg	☼	13.83	1127-76-0	06/06/24 09:16	06/06/24 14:09	40
Naphthalene, 2,6-dimethyl-	55000	T H J N	ug/Kg	☼	13.91	581-42-0	06/06/24 09:16	06/06/24 14:09	40
Naphthalene, 2,3-dimethyl-	69000	T H J N	ug/Kg	☼	14.03	581-40-8	06/06/24 09:16	06/06/24 14:09	40
Naphthalene, 1,6-dimethyl-	24000	T H J N	ug/Kg	☼	14.21	575-43-9	06/06/24 09:16	06/06/24 14:09	40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		53 - 146	06/06/24 09:16	06/06/24 14:09	40
4-Bromofluorobenzene (Surr)	102		49 - 148	06/06/24 09:16	06/06/24 14:09	40
Toluene-d8 (Surr)	98		50 - 149	06/06/24 09:16	06/06/24 14:09	40
Dibromofluoromethane (Surr)	96		60 - 140	06/06/24 09:16	06/06/24 14:09	40

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanoic acid (PFNA)	**9.0**		0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
Perfluorodecanoic acid (PFDA)	ND		0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
Perfluoroundecanoic acid (PFUnA)	ND		0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
Perfluorododecanoic acid (PFDoA)	ND		0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
Perfluorononanesulfonic acid (PFNS)	ND		0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	**1.0**	JN	1.1	0.28	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1.1	0.28	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	**0.085**	**J**	0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	**0.17**	**J**	0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/12/24 18:28	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		2.8	0.69	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		2.8	0.69	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1

Client Sample ID: SED-06
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-1
Matrix: Solid
Percent Solids: 57.8

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorodecanesulfonic acid (PFDS)	0.84	JN	0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*2.18*	**5-*	*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
13C4 PFBA	*1.72*	**5-*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
13C5 PFPeA	*1.91*	**5-*	*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
13C5 PFPeA	*1.85*	**5-*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
13C5 PFHxA	*3.23*	**5-*	*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
13C5 PFHxA	*3.68*	*I *5-*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
13C4 PFHpA	*6.87*	**5-*	*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
13C4 PFHpA	*9.37*	**5-*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
13C8 PFOA	*14.1*	**5-*	*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
13C8 PFOA	*18.5*	**5-*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
13C9 PFNA	*53.4*		*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
13C9 PFNA	*38.5*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
13C6 PFDA	*53.9*		*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
13C6 PFDA	*73.2*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
13C7 PFUnA	*100*		*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
13C7 PFUnA	*1.73*	**5-*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
13C2 PFTeDA	*84.6*		*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
13C2 PFTeDA	*1.31*	**5-*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
13C3 PFBS	*29.7*	*I*	*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
13C3 PFBS	*20.1*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
13C3 PFHxS	*82.7*		*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
13C3 PFHxS	*55.8*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
13C8 PFOS	*144*	*I*	*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
13C8 PFOS	*3.82*	*I *5-*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
13C8 FOSA	*38.0*		*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
13C8 FOSA	*39.6*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
d3-NMeFOSAA	*69.7*		*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
d3-NMeFOSAA	*1.49*	**5-*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
d5-NEtFOSAA	*94.9*		*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
d5-NEtFOSAA	*97.7*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
M2-4:2 FTS	*13.1*	*I *5-*	*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
M2-4:2 FTS	*10.7*	*I *5-*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
M2-6:2 FTS	*37.5*	*I*	*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
M2-6:2 FTS	*37.3*	*I*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
M2-8:2 FTS	*123*	*I*	*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
M2-8:2 FTS	*153*	**5+*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
13C3 HFPO-DA	*2.58*	**5-*	*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
13C3 HFPO-DA	*3.24*	**5-*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
d7-N-MeFOSE-M	*27.2*		*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
d7-N-MeFOSE-M	*19.5*	**5-*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
d9-N-EtFOSE-M	*23.3*		*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
d9-N-EtFOSE-M	*15.5*	**5-*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
d5-NEtPFOSA	*64.7*		*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
d5-NEtPFOSA	*45.5*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
d3-NMePFOSA	*59.2*		*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
d3-NMePFOSA	*40.9*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*

Client Sample ID: SED-06

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-1

Matrix: Solid
Percent Solids: 57.8

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-PFDoDA	*89.7*		*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
13C2-PFDoDA	*94.5*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		11	2.8	ug/Kg	☼	06/06/24 15:07	06/14/24 12:55	10
Perfluoropentanoic acid (PFPeA)	ND		5.5	1.4	ug/Kg	☼	06/06/24 15:07	06/14/24 12:55	10
Perfluorohexanoic acid (PFHxA)	ND		2.8	0.69	ug/Kg	☼	06/06/24 15:07	06/14/24 12:55	10
Perfluoroheptanoic acid (PFHpA)	ND		2.8	0.69	ug/Kg	☼	06/06/24 15:07	06/14/24 12:55	10
Perfluorooctanoic acid (PFOA)	**2.4**	JN	2.8	0.69	ug/Kg	☼	06/06/24 15:07	06/14/24 12:55	10
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		11	2.8	ug/Kg	☼	06/06/24 15:07	06/14/24 12:55	10
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		11	2.8	ug/Kg	☼	06/06/24 15:07	06/14/24 12:55	10
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		11	2.8	ug/Kg	☼	06/06/24 15:07	06/14/24 12:55	10
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		5.5	1.4	ug/Kg	☼	06/06/24 15:07	06/14/24 12:55	10
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		5.5	1.4	ug/Kg	☼	06/06/24 15:07	06/14/24 12:55	10
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		11	2.8	ug/Kg	☼	06/06/24 15:07	06/14/24 12:55	10
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		11	2.8	ug/Kg	☼	06/06/24 15:07	06/14/24 12:55	10
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		5.5	1.4	ug/Kg	☼	06/06/24 15:07	06/14/24 12:55	10
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		14	3.5	ug/Kg	☼	06/06/24 15:07	06/14/24 12:55	10
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		69	17	ug/Kg	☼	06/06/24 15:07	06/14/24 12:55	10
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		69	17	ug/Kg	☼	06/06/24 15:07	06/14/24 12:55	10
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		5.5	1.4	ug/Kg	☼	06/06/24 15:07	06/14/24 12:55	10

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*7.05*	*5-*	*20 - 150*	*06/06/24 15:07*	*06/14/24 12:55*	*10*
13C5 PFPeA	*3.21*	*5-*	*20 - 150*	*06/06/24 15:07*	*06/14/24 12:55*	*10*
13C5 PFHxA	*3.75*	*5-*	*20 - 150*	*06/06/24 15:07*	*06/14/24 12:55*	*10*
13C4 PFHpA	*5.90*	*5-*	*20 - 150*	*06/06/24 15:07*	*06/14/24 12:55*	*10*
13C8 PFOA	*18.7*	*5-*	*20 - 150*	*06/06/24 15:07*	*06/14/24 12:55*	*10*
13C9 PFNA	*41.5*		*20 - 150*	*06/06/24 15:07*	*06/14/24 12:55*	*10*
13C6 PFDA	*66.8*		*20 - 150*	*06/06/24 15:07*	*06/14/24 12:55*	*10*
13C7 PFUnA	*97.3*		*20 - 150*	*06/06/24 15:07*	*06/14/24 12:55*	*10*
13C2 PFTeDA	*106*		*20 - 150*	*06/06/24 15:07*	*06/14/24 12:55*	*10*
13C3 PFBS	*15.2*	*I *5-*	*20 - 150*	*06/06/24 15:07*	*06/14/24 12:55*	*10*
13C3 PFHxS	*59.1*		*20 - 150*	*06/06/24 15:07*	*06/14/24 12:55*	*10*
13C8 PFOS	*84.7*		*20 - 150*	*06/06/24 15:07*	*06/14/24 12:55*	*10*
13C8 FOSA	*67.6*		*20 - 150*	*06/06/24 15:07*	*06/14/24 12:55*	*10*
d3-NMeFOSAA	*82.1*		*20 - 150*	*06/06/24 15:07*	*06/14/24 12:55*	*10*
d5-NEtFOSAA	*112*		*20 - 150*	*06/06/24 15:07*	*06/14/24 12:55*	*10*
M2-4:2 FTS	*12.6*	*I *5-*	*20 - 150*	*06/06/24 15:07*	*06/14/24 12:55*	*10*
M2-6:2 FTS	*11.6*	*5-*	*20 - 150*	*06/06/24 15:07*	*06/14/24 12:55*	*10*

Client Sample ID: SED-06
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-1
Matrix: Solid
Percent Solids: 57.8

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS - DL (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-8:2 FTS	*88.7*	*I*	*20 - 150*	*06/06/24 15:07*	*06/14/24 12:55*	*10*
13C3 HFPO-DA	*2.99*	**5-*	*20 - 150*	*06/06/24 15:07*	*06/14/24 12:55*	*10*
d7-N-MeFOSE-M	*48.2*		*20 - 150*	*06/06/24 15:07*	*06/14/24 12:55*	*10*
d9-N-EtFOSE-M	*35.4*		*20 - 150*	*06/06/24 15:07*	*06/14/24 12:55*	*10*
d5-NEtPFOSA	*67.9*		*20 - 150*	*06/06/24 15:07*	*06/14/24 12:55*	*10*
d3-NMePFOSA	*76.2*		*20 - 150*	*06/06/24 15:07*	*06/14/24 12:55*	*10*
13C2-PFDoDA	*105*		*20 - 150*	*06/06/24 15:07*	*06/14/24 12:55*	*10*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**7710**		18.2	15.6	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Antimony	ND	UJ	27.2	0.96	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Arsenic	**76.2**		3.6	1.6	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Barium	**1080**	J	0.91	0.25	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Beryllium	**0.50**		0.36	0.073	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Cadmium	**4.5**		0.36	0.13	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Calcium	**218000**		908	490	mg/Kg	☼	06/05/24 15:25	06/07/24 14:53	10
Chromium	**8210**		9.1	6.5	mg/Kg	☼	06/05/24 15:25	06/07/24 14:53	10
Cobalt	**23.8**		0.91	0.18	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Copper	**450**	J	1.8	1.0	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Iron	**39500**		18.2	15.4	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Lead	**2300**		1.8	0.83	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Magnesium	**14200**		36.3	15.4	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Manganese	**547**	J	1.8	0.51	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Nickel	**192**	J	9.1	0.45	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Potassium	**1410**		54.5	44.0	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Selenium	**25.1**		7.3	1.5	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Silver	**0.62**	J	1.1	0.36	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Sodium	**914**		254	111	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Thallium	**3.1**	J	10.9	1.4	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Vanadium	**139**		0.91	0.24	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Zinc	**2930**		3.6	1.9	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**4.6**		0.34	0.079	mg/Kg	☼	06/06/24 08:50	06/06/24 12:59	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	**5.2**	J	1.6	0.76	mg/Kg	☼	06/07/24 12:22	06/07/24 15:57	1
Total Organic Carbon (EPA-Lloyd Kahn)	**231000**	J	1730	1680	mg/Kg	☼		06/13/24 21:01	1
~~**Total Organic Carbon (EPA-Lloyd Kahn)**~~	~~**280000**~~	~~H~~	~~1730~~	~~1680~~	~~mg/Kg~~	~~☼~~		~~06/24/24 11:32~~	~~1~~

Client Sample ID: SED-07
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-2
Matrix: Solid
Percent Solids: 88.4

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1100	290	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
1,1,2,2-Tetrachloroethane	ND		1100	170	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1100	530	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
1,1,2-Trichloroethane	ND		1100	220	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
1,1-Dichloroethane	ND		1100	330	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
1,1-Dichloroethene	ND		1100	370	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
1,2,4-Trichlorobenzene	ND	UJ	1100	400	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
1,2-Dibromo-3-Chloropropane	ND		1100	530	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
1,2-Dichlorobenzene	**770**	**J**	1100	270	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
1,2-Dichloroethane	ND		1100	430	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
1,2-Dichloropropane	ND		1100	170	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
1,3-Dichlorobenzene	ND		1100	280	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
1,4-Dichlorobenzene	ND		1100	150	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
2-Butanone (MEK)	ND		5300	3200	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
2-Hexanone	ND		5300	2200	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
4-Methyl-2-pentanone (MIBK)	ND		5300	340	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Acetone	ND		5300	4400	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Benzene	**74000**		1100	200	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Bromoform	ND		1100	530	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Bromomethane	ND		1100	230	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Carbon disulfide	ND		1100	480	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Carbon tetrachloride	ND		1100	270	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Chlorobenzene	**370**	**J**	1100	140	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Dibromochloromethane	ND		1100	510	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Chloroethane	ND		1100	220	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Chloroform	ND		1100	730	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Chloromethane	ND	UJ	1100	250	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
cis-1,2-Dichloroethene	ND		1100	290	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Cyclohexane	**2700**	**J**	1100	240	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Bromodichloromethane	ND		1100	210	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Dichlorodifluoromethane	ND		1100	460	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Ethylbenzene	**26000**		1100	310	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
1,2-Dibromoethane	ND		1100	190	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Isopropylbenzene	**2700**		1100	160	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Methyl acetate	ND		5300	510	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Methyl tert-butyl ether	ND		1100	400	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Methylcyclohexane	**7900**		1100	500	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Methylene Chloride	**ND**	**U**	1100	210	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Tetrachloroethene	ND		1100	140	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Toluene	**3100**		1100	280	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
trans-1,2-Dichloroethene	ND		1100	250	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
trans-1,3-Dichloropropene	ND		1100	100	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Trichloroethene	ND		1100	300	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Trichlorofluoromethane	ND		1100	500	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Vinyl chloride	ND		1100	360	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Xylenes, Total	**50000**		2100	590	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
cis-1,3-Dichloropropene	ND		1100	250	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Styrene	ND		1100	260	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20

Client Sample ID: SED-07
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-2
Matrix: Solid
Percent Solids: 88.4

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	39000	H	ug/Kg	☼	7.96	179601-23-1	06/06/24 09:16	06/06/24 14:33	20
Benzene, 1,2,3-trimethyl-	85000	T H J N	ug/Kg	☼	9.79	526-73-8	06/06/24 09:16	06/06/24 14:33	20
Benzene, cyclopropyl-	77000	T H J N	ug/Kg	☼	10.40	873-49-4	06/06/24 09:16	06/06/24 14:33	20
Naphthalene	230000	T H J N	ug/Kg	☼	12.18	91-20-3	06/06/24 09:16	06/06/24 14:33	20
Unknown	310000	T H J	ug/Kg	☼	13.11	N/A	06/06/24 09:16	06/06/24 14:33	20
Naphthalene, 2-methyl-	160000	T H J N	ug/Kg	☼	13.26	91-57-6	06/06/24 09:16	06/06/24 14:33	20
Naphthalene, 1-ethyl-	89000	T H J N	ug/Kg	☼	13.83	1127-76-0	06/06/24 09:16	06/06/24 14:33	20
Naphthalene, 2,7-dimethyl-	200000	T H J N	ug/Kg	☼	13.91	582-16-1	06/06/24 09:16	06/06/24 14:33	20
Naphthalene, 2,6-dimethyl-	220000	T H J N	ug/Kg	☼	14.03	581-42-0	06/06/24 09:16	06/06/24 14:33	20
Naphthalene, 2,3-dimethyl-	79000	T H J N	ug/Kg	☼	14.21	581-40-8	06/06/24 09:16	06/06/24 14:33	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	119		53 - 146	06/06/24 09:16	06/06/24 14:33	20
4-Bromofluorobenzene (Surr)	118		49 - 148	06/06/24 09:16	06/06/24 14:33	20
Toluene-d8 (Surr)	110		50 - 149	06/06/24 09:16	06/06/24 14:33	20
Dibromofluoromethane (Surr)	106		60 - 140	06/06/24 09:16	06/06/24 14:33	20

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**128000**		54.2	46.8	mg/Kg	☼	06/05/24 15:25	06/07/24 15:17	5
Antimony	ND		16.3	0.58	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Arsenic	**108**		2.2	0.95	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Barium	**40.7**		0.54	0.15	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Beryllium	**0.38**		0.22	0.043	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Cadmium	ND		0.22	0.076	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Calcium	**8780**		54.2	29.3	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Chromium	**54.3**		0.54	0.39	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Cobalt	**5.2**		0.54	0.11	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Copper	**116**		1.1	0.62	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Iron	**6000**		10.8	9.2	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Lead	**80.9**		1.1	0.50	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Magnesium	**1480**		21.7	9.2	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Manganese	**149**		1.1	0.30	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Nickel	**71.8**		5.4	0.27	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Potassium	**215**		32.5	26.3	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Selenium	ND		4.3	0.87	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Silver	ND		3.3	1.1	mg/Kg	☼	06/05/24 15:25	06/07/24 15:17	5
Sodium	**807**		152	66.5	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Thallium	ND		32.5	4.1	mg/Kg	☼	06/05/24 15:25	06/07/24 15:17	5
Vanadium	**107**		0.54	0.14	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Zinc	**73.2**		2.2	1.1	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.022	0.0050	mg/Kg	☼	06/06/24 08:50	06/06/24 11:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.1	0.52	mg/Kg	☼	06/07/24 12:22	06/07/24 16:12	1
Total Organic Carbon (EPA-Lloyd Kahn)	**263000**		1130	1100	mg/Kg	☼		06/13/24 22:09	1

Client Sample ID: SED-07
Lab Sample ID: 480-220474-2
Date Collected: 06/04/24 00:00
Matrix: Solid
Date Received: 06/04/24 16:00
Percent Solids: 88.4

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon (EPA-Lloyd Kahn)	239000	H	1130	1100	mg/Kg	☼		06/24/24 13:04	1

Client Sample ID: SED-08
Lab Sample ID: 480-220474-3
Date Collected: 06/04/24 00:00
Matrix: Solid
Date Received: 06/04/24 16:00
Percent Solids: 46.5

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4100	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
1,1,2,2-Tetrachloroethane	ND		4100	670	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4100	2000	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
1,1,2-Trichloroethane	ND		4100	860	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
1,1-Dichloroethane	ND		4100	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
1,1-Dichloroethene	ND		4100	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
1,2,4-Trichlorobenzene	ND	UJ	4100	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
1,2-Dibromo-3-Chloropropane	ND		4100	2000	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
1,2-Dichlorobenzene	ND		4100	1000	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
1,2-Dichloroethane	ND		4100	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
1,2-Dichloropropane	ND		4100	660	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
1,3-Dichlorobenzene	ND		4100	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
1,4-Dichlorobenzene	ND		4100	570	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
2-Butanone (MEK)	ND		20000	12000	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
2-Hexanone	ND		20000	8400	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
4-Methyl-2-pentanone (MIBK)	ND		20000	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Acetone	ND		20000	17000	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Benzene	**180000**		4100	780	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Bromoform	ND		4100	2000	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Bromomethane	ND		4100	900	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Carbon disulfide	ND		4100	1900	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Carbon tetrachloride	ND		4100	1000	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Chlorobenzene	ND		4100	540	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Dibromochloromethane	ND		4100	2000	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Chloroethane	ND		4100	850	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Chloroform	ND		4100	2800	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Chloromethane	ND	UJ	4100	980	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
cis-1,2-Dichloroethene	ND		4100	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Cyclohexane	**9000**	J	4100	910	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Bromodichloromethane	ND		4100	820	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Dichlorodifluoromethane	ND		4100	1800	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Ethylbenzene	**73000**		4100	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
1,2-Dibromoethane	ND		4100	720	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Isopropylbenzene	**6500**		4100	610	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Methyl acetate	ND		20000	2000	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Methyl tert-butyl ether	ND		4100	1500	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Methylcyclohexane	**18000**		4100	1900	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Methylene Chloride	ND		4100	810	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Tetrachloroethene	ND		4100	550	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Toluene	**60000**		4100	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
trans-1,2-Dichloroethene	ND		4100	970	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20

Client Sample ID: SED-08

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-3

Matrix: Solid
Percent Solids: 46.5

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		4100	400	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Trichloroethene	ND		4100	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Trichlorofluoromethane	ND		4100	1900	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Vinyl chloride	ND		4100	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Xylenes, Total	**140000**		8200	2300	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
cis-1,3-Dichloropropene	ND		4100	980	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Styrene	**4400**		4100	990	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Benzene, 1,2,3-trimethyl-	*110000*	*T H J N*	*ug/Kg*	☼	*9.79*	*526-73-8*	*06/06/24 09:16*	*06/06/24 14:56*	*20*
Indene	*100000*	*T H J N*	*ug/Kg*	☼	*10.62*	*95-13-6*	*06/06/24 09:16*	*06/06/24 14:56*	*20*
Unknown	*99000*	*T H J*	*ug/Kg*	☼	*11.62*	*N/A*	*06/06/24 09:16*	*06/06/24 14:56*	*20*
Naphthalene	*1000000*	*T H J N*	*ug/Kg*	☼	*12.18*	*91-20-3*	*06/06/24 09:16*	*06/06/24 14:56*	*20*
Naphthalene, 1-methyl-	*410000*	*T H J N*	*ug/Kg*	☼	*13.11*	*90-12-0*	*06/06/24 09:16*	*06/06/24 14:56*	*20*
Benzocycloheptatriene	*210000*	*T H J N*	*ug/Kg*	☼	*13.25*	*264-09-5*	*06/06/24 09:16*	*06/06/24 14:56*	*20*
Naphthalene, 2-ethyl-	*98000*	*T H J N*	*ug/Kg*	☼	*13.83*	*939-27-5*	*06/06/24 09:16*	*06/06/24 14:56*	*20*
Naphthalene, 2,6-dimethyl-	*190000*	*T H J N*	*ug/Kg*	☼	*13.91*	*581-42-0*	*06/06/24 09:16*	*06/06/24 14:56*	*20*
Unknown	*230000*	*T H J*	*ug/Kg*	☼	*14.03*	*N/A*	*06/06/24 09:16*	*06/06/24 14:56*	*20*
Naphthalene, 2,3-dimethyl-	*83000*	*T H J N*	*ug/Kg*	☼	*14.21*	*581-40-8*	*06/06/24 09:16*	*06/06/24 14:56*	*20*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*53 - 146*	*06/06/24 09:16*	*06/06/24 14:56*	*20*
4-Bromofluorobenzene (Surr)	*106*		*49 - 148*	*06/06/24 09:16*	*06/06/24 14:56*	*20*
Toluene-d8 (Surr)	*98*		*50 - 149*	*06/06/24 09:16*	*06/06/24 14:56*	*20*
Dibromofluoromethane (Surr)	*92*		*60 - 140*	*06/06/24 09:16*	*06/06/24 14:56*	*20*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.4	0.35	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluoropentanoic acid (PFPeA)	ND		0.69	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluorohexanoic acid (PFHxA)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluoroheptanoic acid (PFHpA)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluorooctanoic acid (PFOA)	**0.73**		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluorononanoic acid (PFNA)	**11**		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluorodecanoic acid (PFDA)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluoroundecanoic acid (PFUnA)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluorododecanoic acid (PFDoA)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluorononanesulfonic acid (PFNS)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1.4	0.35	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1

Client Sample ID: SED-08

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-3

Matrix: Solid
Percent Solids: 46.5

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1.4	0.35	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1.4	0.35	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	**0.21**	**J**	0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/12/24 18:42	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		3.5	0.87	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		3.5	0.87	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.4	0.35	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.4	0.35	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.69	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.69	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		1.4	0.35	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		1.4	0.35	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.69	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1.7	0.43	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.7	2.2	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.7	2.2	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluorodecanesulfonic acid (PFDS)	**1.1**	JN	0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.69	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*93.0*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:07*	*1*
13C4 PFBA	*81.9*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:42*	*1*
13C5 PFPeA	*85.3*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:07*	*1*
13C5 PFPeA	*79.6*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:42*	*1*
13C5 PFHxA	*78.5*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:07*	*1*
13C5 PFHxA	*94.2*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:42*	*1*
13C4 PFHpA	*81.8*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:07*	*1*
13C4 PFHpA	*102*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:42*	*1*
13C8 PFOA	*71.0*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:07*	*1*
13C8 PFOA	*97.0*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:42*	*1*
13C9 PFNA	*111*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:07*	*1*
13C9 PFNA	*72.5*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:42*	*1*

Client Sample ID: SED-08
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-3
Matrix: Solid
Percent Solids: 46.5

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C6 PFDA	74.5		20 - 150	06/06/24 15:07	06/07/24 22:07	1
13C6 PFDA	80.0		20 - 150	06/06/24 15:07	06/12/24 18:42	1
13C7 PFUnA	80.7		20 - 150	06/06/24 15:07	06/07/24 22:07	1
13C7 PFUnA	76.8		20 - 150	06/06/24 15:07	06/12/24 18:42	1
13C2 PFTeDA	91.2		20 - 150	06/06/24 15:07	06/07/24 22:07	1
13C2 PFTeDA	2.85	*5-	20 - 150	06/06/24 15:07	06/12/24 18:42	1
13C3 PFBS	108		20 - 150	06/06/24 15:07	06/07/24 22:07	1
13C3 PFBS	122		20 - 150	06/06/24 15:07	06/12/24 18:42	1
13C3 PFHxS	94.7		20 - 150	06/06/24 15:07	06/07/24 22:07	1
13C3 PFHxS	95.0		20 - 150	06/06/24 15:07	06/12/24 18:42	1
13C8 PFOS	121	I	20 - 150	06/06/24 15:07	06/07/24 22:07	1
13C8 PFOS	4.27	I *5-	20 - 150	06/06/24 15:07	06/12/24 18:42	1
13C8 FOSA	64.3		20 - 150	06/06/24 15:07	06/07/24 22:07	1
13C8 FOSA	73.4		20 - 150	06/06/24 15:07	06/12/24 18:42	1
d3-NMeFOSAA	79.6		20 - 150	06/06/24 15:07	06/07/24 22:07	1
d3-NMeFOSAA	128		20 - 150	06/06/24 15:07	06/12/24 18:42	1
d5-NEtFOSAA	98.2		20 - 150	06/06/24 15:07	06/07/24 22:07	1
d5-NEtFOSAA	117		20 - 150	06/06/24 15:07	06/12/24 18:42	1
M2-4:2 FTS	202	I *5+	20 - 150	06/06/24 15:07	06/07/24 22:07	1
M2-4:2 FTS	419	I *5+	20 - 150	06/06/24 15:07	06/12/24 18:42	1
M2-6:2 FTS	170	*5+	20 - 150	06/06/24 15:07	06/07/24 22:07	1
M2-6:2 FTS	228	*5+	20 - 150	06/06/24 15:07	06/12/24 18:42	1
M2-8:2 FTS	189	*5+	20 - 150	06/06/24 15:07	06/07/24 22:07	1
M2-8:2 FTS	250	*5+	20 - 150	06/06/24 15:07	06/12/24 18:42	1
13C3 HFPO-DA	70.1		20 - 150	06/06/24 15:07	06/07/24 22:07	1
13C3 HFPO-DA	79.6		20 - 150	06/06/24 15:07	06/12/24 18:42	1
d7-N-MeFOSE-M	50.5		20 - 150	06/06/24 15:07	06/07/24 22:07	1
d7-N-MeFOSE-M	39.8		20 - 150	06/06/24 15:07	06/12/24 18:42	1
d9-N-EtFOSE-M	49.3		20 - 150	06/06/24 15:07	06/07/24 22:07	1
d9-N-EtFOSE-M	36.3		20 - 150	06/06/24 15:07	06/12/24 18:42	1
d5-NEtPFOSA	62.8		20 - 150	06/06/24 15:07	06/07/24 22:07	1
d5-NEtPFOSA	53.1		20 - 150	06/06/24 15:07	06/12/24 18:42	1
d3-NMePFOSA	62.1		20 - 150	06/06/24 15:07	06/07/24 22:07	1
d3-NMePFOSA	53.9		20 - 150	06/06/24 15:07	06/12/24 18:42	1
13C2-PFDoDA	77.3		20 - 150	06/06/24 15:07	06/07/24 22:07	1
13C2-PFDoDA	2.89	*5-	20 - 150	06/06/24 15:07	06/12/24 18:42	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**12900**		22.6	19.4	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Antimony	ND		33.8	1.2	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Arsenic	**53.7**		4.5	2.0	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Barium	**442**		1.1	0.32	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Beryllium	**0.58**		0.45	0.090	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Cadmium	**4.4**		0.45	0.16	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Calcium	**36900**		113	60.9	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Chromium	**7090**		113	81.2	mg/Kg	☼	06/05/24 15:25	06/07/24 15:21	100
Cobalt	**13.6**		1.1	0.23	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Copper	**404**		2.3	1.3	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Iron	**28300**		22.6	19.1	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1

Client Sample ID: SED-08

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-3

Matrix: Solid
Percent Solids: 46.5

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	3670		2.3	1.0	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Magnesium	7760		45.1	19.1	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Manganese	397		2.3	0.63	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Nickel	365	J	11.3	0.56	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Potassium	2300		67.7	54.7	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Selenium	8.7	J	9.0	1.8	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Silver	ND		1.4	0.45	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Sodium	352		316	138	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Thallium	2.8	J	13.5	1.7	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Vanadium	179	J	1.1	0.29	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Zinc	3070		4.5	2.3	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	4.6		0.41	0.095	mg/Kg	☼	06/06/24 08:50	06/06/24 13:03	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	11.0		1.9	0.90	mg/Kg	☼	06/07/24 12:22	06/07/24 16:13	1
Total Organic Carbon (EPA-Lloyd Kahn)	324000		2150	2090	mg/Kg	☼		06/13/24 22:32	1
~~Total Organic Carbon (EPA-Lloyd Kahn)~~	~~290000~~	~~H~~	~~2150~~	~~2090~~	~~mg/Kg~~	~~☼~~		~~06/24/24 13:19~~	~~1~~

Client Sample ID: SED-08-FD

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-4

Matrix: Solid
Percent Solids: 46.7

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4600	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
1,1,2,2-Tetrachloroethane	ND		4600	740	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4600	2300	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
1,1,2-Trichloroethane	ND		4600	960	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
1,1-Dichloroethane	ND		4600	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
1,1-Dichloroethene	ND		4600	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
1,2,4-Trichlorobenzene	ND	UJ	4600	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
1,2-Dibromo-3-Chloropropane	ND		4600	2300	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
1,2-Dichlorobenzene	ND		4600	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
1,2-Dichloroethane	ND		4600	1900	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
1,2-Dichloropropane	ND		4600	740	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
1,3-Dichlorobenzene	ND		4600	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
1,4-Dichlorobenzene	ND		4600	640	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
2-Butanone (MEK)	ND		23000	14000	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
2-Hexanone	ND		23000	9300	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
4-Methyl-2-pentanone (MIBK)	ND		23000	1500	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Acetone	ND		23000	19000	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Benzene	200000		4600	870	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Bromoform	ND		4600	2300	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Bromomethane	ND		4600	1000	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Carbon disulfide	ND		4600	2100	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20

Client Sample ID: SED-08-FD
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-4
Matrix: Solid
Percent Solids: 46.7

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	ND		4600	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Chlorobenzene	ND		4600	600	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Dibromochloromethane	ND		4600	2200	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Chloroethane	ND		4600	950	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Chloroform	ND		4600	3100	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Chloromethane	ND	UJ	4600	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
cis-1,2-Dichloroethene	ND		4600	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Cyclohexane	**11000**	J	4600	1000	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Bromodichloromethane	ND		4600	910	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Dichlorodifluoromethane	ND		4600	2000	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Ethylbenzene	**91000**		4600	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
1,2-Dibromoethane	ND		4600	800	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Isopropylbenzene	**8400**		4600	680	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Methyl acetate	ND		23000	2200	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Methyl tert-butyl ether	ND		4600	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Methylcyclohexane	**25000**		4600	2100	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Methylene Chloride	ND		4600	900	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Tetrachloroethene	ND		4600	610	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Toluene	**61000**		4600	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
trans-1,2-Dichloroethene	ND		4600	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
trans-1,3-Dichloropropene	ND		4600	450	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Trichloroethene	ND		4600	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Trichlorofluoromethane	ND		4600	2100	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Vinyl chloride	ND		4600	1500	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Xylenes, Total	**150000**		9100	2500	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
cis-1,3-Dichloropropene	ND		4600	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Styrene	**4600**		4600	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
m-Xylene & p-Xylene	*100000*	*H*	*ug/Kg*	☼	*7.96*	*179601-23-1*	*06/06/24 09:16*	*06/06/24 15:20*	*20*
Benzene, 1,2,3-trimethyl-	*120000*	*T H J N*	*ug/Kg*	☼	*9.79*	*526-73-8*	*06/06/24 09:16*	*06/06/24 15:20*	*20*
Benzene, 1-propynyl-	*100000*	*T H J N*	*ug/Kg*	☼	*10.62*	*673-32-5*	*06/06/24 09:16*	*06/06/24 15:20*	*20*
Unknown	*130000*	*T H J*	*ug/Kg*	☼	*11.62*	*N/A*	*06/06/24 09:16*	*06/06/24 15:20*	*20*
Naphthalene	*1000000*	*T H J N*	*ug/Kg*	☼	*12.18*	*91-20-3*	*06/06/24 09:16*	*06/06/24 15:20*	*20*
Naphthalene, 2-methyl-	*440000*	*T H J N*	*ug/Kg*	☼	*13.10*	*91-57-6*	*06/06/24 09:16*	*06/06/24 15:20*	*20*
Benzocycloheptatriene	*220000*	*T H J N*	*ug/Kg*	☼	*13.25*	*264-09-5*	*06/06/24 09:16*	*06/06/24 15:20*	*20*
Naphthalene, 2,7-dimethyl-	*190000*	*T H J N*	*ug/Kg*	☼	*13.91*	*582-16-1*	*06/06/24 09:16*	*06/06/24 15:20*	*20*
Naphthalene, 2,3-dimethyl-	*230000*	*T H J N*	*ug/Kg*	☼	*14.03*	*581-40-8*	*06/06/24 09:16*	*06/06/24 15:20*	*20*
Naphthalene, 1,3-dimethyl-	*80000*	*T H J N*	*ug/Kg*	☼	*14.21*	*575-41-7*	*06/06/24 09:16*	*06/06/24 15:20*	*20*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*53 - 146*	*06/06/24 09:16*	*06/06/24 15:20*	*20*
4-Bromofluorobenzene (Surr)	*104*		*49 - 148*	*06/06/24 09:16*	*06/06/24 15:20*	*20*
Toluene-d8 (Surr)	*99*		*50 - 149*	*06/06/24 09:16*	*06/06/24 15:20*	*20*
Dibromofluoromethane (Surr)	*90*		*60 - 140*	*06/06/24 09:16*	*06/06/24 15:20*	*20*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.4	0.34	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluoropentanoic acid (PFPeA)	ND		0.68	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1

Client Sample ID: SED-08-FD
Lab Sample ID: 480-220474-4

Date Collected: 06/04/24 00:00
Matrix: Solid

Date Received: 06/04/24 16:00
Percent Solids: 46.7

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid (PFHxA)	ND		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluoroheptanoic acid (PFHpA)	**0.18**	**J**	0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluorooctanoic acid (PFOA)	**0.74**		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluorononanoic acid (PFNA)	**12**		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluorodecanoic acid (PFDA)	ND		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluoroundecanoic acid (PFUnA)	ND		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluorododecanoic acid (PFDoA)	ND		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluorononanesulfonic acid (PFNS)	ND		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1.4	0.34	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1.4	0.34	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1.4	0.34	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	**0.21**	**J**	0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/12/24 18:56	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		3.4	0.85	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		3.4	0.85	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.4	0.34	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.4	0.34	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.68	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.68	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		1.4	0.34	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		1.4	0.34	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.68	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1.7	0.42	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1

Client Sample ID: SED-08-FD
Lab Sample ID: 480-220474-4

Date Collected: 06/04/24 00:00
Matrix: Solid

Date Received: 06/04/24 16:00
Percent Solids: 46.7

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.5	2.1	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.5	2.1	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluorodecanesulfonic acid (PFDS)	**0.97**	JN	0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.68	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*95.2*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
13C4 PFBA	*79.0*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
13C5 PFPeA	*94.3*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
13C5 PFPeA	*77.1*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
13C5 PFHxA	*82.8*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
13C5 PFHxA	*92.3*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
13C4 PFHpA	*88.9*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
13C4 PFHpA	*93.6*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
13C8 PFOA	*76.4*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
13C8 PFOA	*97.2*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
13C9 PFNA	*99.2*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
13C9 PFNA	*79.1*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
13C6 PFDA	*78.9*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
13C6 PFDA	*87.2*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
13C7 PFUnA	*92.6*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
13C7 PFUnA	*2.15*	*5-	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
13C2 PFTeDA	*96.0*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
13C2 PFTeDA	*74.6*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
13C3 PFBS	*88.4*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
13C3 PFBS	*106*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
13C3 PFHxS	*95.9*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
13C3 PFHxS	*99.9*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
13C8 PFOS	*137*	*I*	*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
13C8 PFOS	*3.90*	*I *5-	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
13C8 FOSA	*55.6*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
13C8 FOSA	*71.0*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
d3-NMeFOSAA	*81.1*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
d3-NMeFOSAA	*121*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
d5-NEtFOSAA	*86.1*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
d5-NEtFOSAA	*123*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
M2-4:2 FTS	*171*	*I *5+*	*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
M2-4:2 FTS	*432*	*I *5+*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
M2-6:2 FTS	*170*	*5+*	*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
M2-6:2 FTS	*239*	*5+*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
M2-8:2 FTS	*188*	*5+*	*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
M2-8:2 FTS	*256*	*5+*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
13C3 HFPO-DA	*78.2*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
13C3 HFPO-DA	*75.3*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
d7-N-MeFOSE-M	*43.9*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
d7-N-MeFOSE-M	*35.8*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
d9-N-EtFOSE-M	*43.4*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*

Client Sample ID: SED-08-FD
Lab Sample ID: 480-220474-4

Date Collected: 06/04/24 00:00
Matrix: Solid

Date Received: 06/04/24 16:00
Percent Solids: 46.7

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
d9-N-EtFOSE-M	*33.3*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
d5-NEtPFOSA	*53.5*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
d5-NEtPFOSA	*49.0*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
d3-NMePFOSA	*54.9*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
d3-NMePFOSA	*55.2*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
13C2-PFDoDA	*88.5*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
13C2-PFDoDA	*84.4*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**12300**		22.1	19.1	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Antimony	ND		33.2	1.2	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Arsenic	**67.4**		4.4	1.9	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Barium	**289**		1.1	0.31	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Beryllium	**0.59**		0.44	0.088	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Cadmium	**4.9**		0.44	0.15	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Calcium	**41800**		111	59.7	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Chromium	**9180**		111	79.6	mg/Kg	☼	06/05/24 15:25	06/07/24 15:23	100
Cobalt	**10.1**		1.1	0.22	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Copper	**487**		2.2	1.3	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Iron	**30300**		22.1	18.8	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Lead	**3370**		2.2	1.0	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Magnesium	**8260**		44.2	18.8	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Manganese	**449**		2.2	0.62	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Nickel	**185**	J	11.1	0.55	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Potassium	**2130**		66.4	53.6	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Selenium	**10.3**		8.8	1.8	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Silver	**0.47**	J	1.3	0.44	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Sodium	**346**		310	136	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Thallium	**2.8**	J	13.3	1.7	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Vanadium	**103**	J	1.1	0.29	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Zinc	**4140**		4.4	2.3	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**4.6**		0.42	0.096	mg/Kg	☼	06/06/24 08:50	06/06/24 13:04	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	**10.4**		2.0	0.98	mg/Kg	☼	06/07/24 12:22	06/07/24 16:15	1
Total Organic Carbon (EPA-Lloyd Kahn)	**291000**		2140	2080	mg/Kg	☼		06/13/24 23:18	1
~~**Total Organic Carbon (EPA-Lloyd Kahn)**~~	~~**303000**~~	~~**H**~~	~~2140~~	~~2080~~	~~mg/Kg~~	~~☼~~		~~06/24/24 13:34~~	~~1~~

Client Sample ID: SED-09
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-5
Matrix: Solid
Percent Solids: 62.6

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5000	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
1,1,2,2-Tetrachloroethane	ND		5000	810	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5000	2500	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
1,1,2-Trichloroethane	ND		5000	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
1,1-Dichloroethane	ND		5000	1500	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
1,1-Dichloroethene	ND		5000	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
1,2,4-Trichlorobenzene	ND	UJ	5000	1900	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
1,2-Dibromo-3-Chloropropane	ND		5000	2500	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
1,2-Dichlorobenzene	ND		5000	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
1,2-Dichloroethane	ND		5000	2000	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
1,2-Dichloropropane	ND		5000	810	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
1,3-Dichlorobenzene	ND		5000	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
1,4-Dichlorobenzene	ND		5000	700	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
2-Butanone (MEK)	ND		25000	15000	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
2-Hexanone	ND		25000	10000	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
4-Methyl-2-pentanone (MIBK)	ND		25000	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Acetone	ND		25000	21000	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Benzene	**6100**		5000	950	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Bromoform	ND		5000	2500	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Bromomethane	ND		5000	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Carbon disulfide	ND		5000	2300	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Carbon tetrachloride	ND		5000	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Chlorobenzene	ND		5000	660	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Dibromochloromethane	ND		5000	2400	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Chloroethane	ND		5000	1000	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Chloroform	ND		5000	3400	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Chloromethane	ND	UJ	5000	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
cis-1,2-Dichloroethene	ND		5000	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Cyclohexane	**6400**	J	5000	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Bromodichloromethane	ND		5000	1000	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Dichlorodifluoromethane	ND		5000	2200	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Ethylbenzene	ND		5000	1500	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
1,2-Dibromoethane	ND		5000	880	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Isopropylbenzene	**4000**	J	5000	750	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Methyl acetate	ND		25000	2400	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Methyl tert-butyl ether	ND		5000	1900	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Methylcyclohexane	**13000**		5000	2300	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Methylene Chloride	ND		5000	990	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Tetrachloroethene	ND		5000	670	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Toluene	ND		5000	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
trans-1,2-Dichloroethene	ND		5000	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
trans-1,3-Dichloropropene	ND		5000	490	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Trichloroethene	ND		5000	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Trichlorofluoromethane	ND		5000	2300	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Vinyl chloride	ND		5000	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Xylenes, Total	ND		10000	2800	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
cis-1,3-Dichloropropene	ND		5000	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Styrene	ND		5000	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40

Client Sample ID: SED-09
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-5
Matrix: Solid
Percent Solids: 62.6

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Indane	35000	T H J N	ug/Kg	☼	10.40	496-11-7	06/06/24 09:16	06/06/24 15:43	40
Unknown	79000	T H J	ug/Kg	☼	11.62	N/A	06/06/24 09:16	06/06/24 15:43	40
Naphthalene, 2-methyl-	280000	T H J N	ug/Kg	☼	13.10	91-57-6	06/06/24 09:16	06/06/24 15:43	40
Naphthalene, 1-methyl-	150000	T H J N	ug/Kg	☼	13.25	90-12-0	06/06/24 09:16	06/06/24 15:43	40
Naphthalene, 1-ethyl-	72000	T H J N	ug/Kg	☼	13.83	1127-76-0	06/06/24 09:16	06/06/24 15:43	40
Naphthalene, 2,6-dimethyl-	160000	T H J N	ug/Kg	☼	13.91	581-42-0	06/06/24 09:16	06/06/24 15:43	40
Unknown	150000	T H J	ug/Kg	☼	14.03	N/A	06/06/24 09:16	06/06/24 15:43	40
Naphthalene, 2,3-dimethyl-	65000	T H J N	ug/Kg	☼	14.21	581-40-8	06/06/24 09:16	06/06/24 15:43	40
Naphthalene, 2,3,6-trimethyl-	46000	T H J N	ug/Kg	☼	14.58	829-26-5	06/06/24 09:16	06/06/24 15:43	40
Naphthalene, 1,4,6-trimethyl-	45000	T H J N	ug/Kg	☼	14.75	2131-42-2	06/06/24 09:16	06/06/24 15:43	40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		53 - 146	06/06/24 09:16	06/06/24 15:43	40
4-Bromofluorobenzene (Surr)	103		49 - 148	06/06/24 09:16	06/06/24 15:43	40
Toluene-d8 (Surr)	100		50 - 149	06/06/24 09:16	06/06/24 15:43	40
Dibromofluoromethane (Surr)	91		60 - 140	06/06/24 09:16	06/06/24 15:43	40

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**18600**		16.2	14.0	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Antimony	ND		24.3	0.86	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Arsenic	**57.9**		3.2	1.4	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Barium	**250**		0.81	0.23	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Beryllium	**0.89**		0.32	0.065	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Cadmium	**3.1**		0.32	0.11	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Calcium	**41800**		81.0	43.7	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Chromium	**6320**		81.0	58.3	mg/Kg	☼	06/05/24 15:25	06/07/24 15:25	100
Cobalt	**14.8**		0.81	0.16	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Copper	**601**		1.6	0.92	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Iron	**38400**		16.2	13.7	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Lead	**3040**		1.6	0.74	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Magnesium	**9210**		32.4	13.7	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Manganese	**604**		1.6	0.45	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Nickel	**163**		8.1	0.40	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Potassium	**2580**		48.6	39.3	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Selenium	**12.1**		6.5	1.3	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Silver	ND		0.97	0.32	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Sodium	**384**		227	99.3	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Thallium	ND		9.7	1.2	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Vanadium	**104**		0.81	0.21	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Zinc	**2120**		3.2	1.7	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**3.9**		0.31	0.071	mg/Kg	☼	06/06/24 08:50	06/06/24 13:05	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	**3.4**		1.4	0.65	mg/Kg	☼	06/07/24 12:22	06/07/24 16:16	1
Total Organic Carbon (EPA-Lloyd Kahn)	**216000**		1600	1550	mg/Kg	☼		06/14/24 17:20	1

Client Sample ID: SED-09

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-5

Matrix: Solid
Percent Solids: 62.6

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon (EPA-Lloyd Kahn)	193000	H	1600	1550	mg/Kg	☼		06/24/24 14:12	1

Client Sample ID: SED-10

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-6

Matrix: Solid
Percent Solids: 48.6

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		3500	970	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
1,1,2,2-Tetrachloroethane	ND		3500	570	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3500	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
1,1,2-Trichloroethane	ND		3500	730	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
1,1-Dichloroethane	ND		3500	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
1,1-Dichloroethene	ND		3500	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
1,2,4-Trichlorobenzene	ND	UJ	3500	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
1,2-Dibromo-3-Chloropropane	ND		3500	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
1,2-Dichlorobenzene	ND		3500	890	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
1,2-Dichloroethane	ND		3500	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
1,2-Dichloropropane	ND		3500	570	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
1,3-Dichlorobenzene	ND		3500	930	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
1,4-Dichlorobenzene	ND		3500	490	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
2-Butanone (MEK)	ND		17000	10000	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
2-Hexanone	ND		17000	7200	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
4-Methyl-2-pentanone (MIBK)	ND		17000	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Acetone	ND		17000	14000	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Benzene	**97000**		3500	660	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Bromoform	ND		3500	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Bromomethane	ND		3500	770	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Carbon disulfide	ND		3500	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Carbon tetrachloride	ND		3500	890	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Chlorobenzene	ND		3500	460	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Dibromochloromethane	ND		3500	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Chloroethane	ND		3500	730	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Chloroform	ND		3500	2400	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Chloromethane	ND	UJ	3500	830	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
cis-1,2-Dichloroethene	ND		3500	960	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Cyclohexane	**2500**	**J**	3500	780	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Bromodichloromethane	ND		3500	700	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Dichlorodifluoromethane	ND		3500	1500	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Ethylbenzene	**35000**		3500	1000	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
1,2-Dibromoethane	ND		3500	610	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Isopropylbenzene	**3500**		3500	520	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Methyl acetate	ND		17000	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Methyl tert-butyl ether	ND		3500	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Methylcyclohexane	**6600**		3500	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Methylene Chloride	ND		3500	690	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Tetrachloroethene	ND		3500	470	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Toluene	**16000**		3500	940	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
trans-1,2-Dichloroethene	ND		3500	820	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20

Client Sample ID: SED-10

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-6

Matrix: Solid
Percent Solids: 48.6

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		3500	340	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Trichloroethene	ND		3500	970	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Trichlorofluoromethane	ND		3500	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Vinyl chloride	ND		3500	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Xylenes, Total	**83000**		7000	1900	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
cis-1,3-Dichloropropene	ND		3500	830	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Styrene	**1200**	**J**	3500	840	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
m-Xylene & p-Xylene	*62000*	*H*	*ug/Kg*	☼	*7.96*	*179601-23-1*	*06/06/24 09:16*	*06/06/24 16:06*	*20*
Benzene, 1,2,3-trimethyl-	*82000*	*T H J N*	*ug/Kg*	☼	*9.79*	*526-73-8*	*06/06/24 09:16*	*06/06/24 16:06*	*20*
Indane	*48000*	*T H J N*	*ug/Kg*	☼	*10.40*	*496-11-7*	*06/06/24 09:16*	*06/06/24 16:06*	*20*
Indene	*200000*	*T H J N*	*ug/Kg*	☼	*10.62*	*95-13-6*	*06/06/24 09:16*	*06/06/24 16:06*	*20*
Benzene, 1,2,4,5-tetramethyl-	*46000*	*T H J N*	*ug/Kg*	☼	*11.62*	*95-93-2*	*06/06/24 09:16*	*06/06/24 16:06*	*20*
Naphthalene	*1800000*	*T H J N*	*ug/Kg*	☼	*12.19*	*91-20-3*	*06/06/24 09:16*	*06/06/24 16:06*	*20*
Naphthalene, 2-methyl-	*330000*	*T H J N*	*ug/Kg*	☼	*13.11*	*91-57-6*	*06/06/24 09:16*	*06/06/24 16:06*	*20*
Benzocycloheptatriene	*160000*	*T H J N*	*ug/Kg*	☼	*13.25*	*264-09-5*	*06/06/24 09:16*	*06/06/24 16:06*	*20*
Unknown	*96000*	*T H J*	*ug/Kg*	☼	*13.91*	*N/A*	*06/06/24 09:16*	*06/06/24 16:06*	*20*
Naphthalene, 2,6-dimethyl-	*95000*	*T H J N*	*ug/Kg*	☼	*14.03*	*581-42-0*	*06/06/24 09:16*	*06/06/24 16:06*	*20*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*117*		*53 - 146*	*06/06/24 09:16*	*06/06/24 16:06*	*20*
4-Bromofluorobenzene (Surr)	*118*		*49 - 148*	*06/06/24 09:16*	*06/06/24 16:06*	*20*
Toluene-d8 (Surr)	*111*		*50 - 149*	*06/06/24 09:16*	*06/06/24 16:06*	*20*
Dibromofluoromethane (Surr)	*108*		*60 - 140*	*06/06/24 09:16*	*06/06/24 16:06*	*20*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.3	0.34	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluoropentanoic acid (PFPeA)	ND		0.67	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluorohexanoic acid (PFHxA)	ND		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluoroheptanoic acid (PFHpA)	ND		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluorooctanoic acid (PFOA)	**0.46**		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluorononanoic acid (PFNA)	**5.8**		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluorodecanoic acid (PFDA)	ND		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluoroundecanoic acid (PFUnA)	ND		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluorododecanoic acid (PFDoA)	ND		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluorooctanesulfonic acid (PFOS)	**0.60**	JN	0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluorononanesulfonic acid (PFNS)	**0.30**	**J**	0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1

Client Sample ID: SED-10

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-6

Matrix: Solid
Percent Solids: 48.6

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1.3	0.34	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1.3	0.34	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1.3	0.34	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	**0.10**	**J**	0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/12/24 19:09	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		3.4	0.84	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		3.4	0.84	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.3	0.34	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.3	0.34	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.67	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.67	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		1.3	0.34	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		1.3	0.34	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.67	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1.7	0.42	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.4	2.1	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.4	2.1	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluorodecanesulfonic acid (PFDS)	**0.95**	JN	0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.67	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*96.3*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:37*	*1*
13C4 PFBA	*80.6*		*20 - 150*	*06/06/24 15:07*	*06/12/24 19:09*	*1*
13C5 PFPeA	*84.4*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:37*	*1*
13C5 PFPeA	*78.8*		*20 - 150*	*06/06/24 15:07*	*06/12/24 19:09*	*1*
13C5 PFHxA	*74.0*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:37*	*1*
13C5 PFHxA	*90.9*		*20 - 150*	*06/06/24 15:07*	*06/12/24 19:09*	*1*
13C4 PFHpA	*88.6*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:37*	*1*
13C4 PFHpA	*95.1*		*20 - 150*	*06/06/24 15:07*	*06/12/24 19:09*	*1*
13C8 PFOA	*67.1*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:37*	*1*
13C8 PFOA	*95.8*		*20 - 150*	*06/06/24 15:07*	*06/12/24 19:09*	*1*

Client Sample ID: SED-10
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-6
Matrix: Solid
Percent Solids: 48.6

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C9 PFNA	98.8		20 - 150	06/06/24 15:07	06/07/24 22:37	1
13C9 PFNA	83.9		20 - 150	06/06/24 15:07	06/12/24 19:09	1
13C6 PFDA	94.6		20 - 150	06/06/24 15:07	06/07/24 22:37	1
13C6 PFDA	88.3		20 - 150	06/06/24 15:07	06/12/24 19:09	1
13C7 PFUnA	99.5		20 - 150	06/06/24 15:07	06/07/24 22:37	1
13C7 PFUnA	79.0		20 - 150	06/06/24 15:07	06/12/24 19:09	1
13C2 PFTeDA	104		20 - 150	06/06/24 15:07	06/07/24 22:37	1
13C2 PFTeDA	1.13	*5-	20 - 150	06/06/24 15:07	06/12/24 19:09	1
13C3 PFBS	109		20 - 150	06/06/24 15:07	06/07/24 22:37	1
13C3 PFBS	130		20 - 150	06/06/24 15:07	06/12/24 19:09	1
13C3 PFHxS	126	I	20 - 150	06/06/24 15:07	06/07/24 22:37	1
13C3 PFHxS	98.4		20 - 150	06/06/24 15:07	06/12/24 19:09	1
13C8 PFOS	140	I	20 - 150	06/06/24 15:07	06/07/24 22:37	1
13C8 PFOS	97.8		20 - 150	06/06/24 15:07	06/12/24 19:09	1
13C8 FOSA	49.0		20 - 150	06/06/24 15:07	06/07/24 22:37	1
13C8 FOSA	58.0		20 - 150	06/06/24 15:07	06/12/24 19:09	1
d3-NMeFOSAA	69.2		20 - 150	06/06/24 15:07	06/07/24 22:37	1
d3-NMeFOSAA	102		20 - 150	06/06/24 15:07	06/12/24 19:09	1
d5-NEtFOSAA	83.4		20 - 150	06/06/24 15:07	06/07/24 22:37	1
d5-NEtFOSAA	109		20 - 150	06/06/24 15:07	06/12/24 19:09	1
M2-4:2 FTS	199	I *5+	20 - 150	06/06/24 15:07	06/07/24 22:37	1
M2-4:2 FTS	409	I *5+	20 - 150	06/06/24 15:07	06/12/24 19:09	1
M2-6:2 FTS	181	*5+	20 - 150	06/06/24 15:07	06/07/24 22:37	1
M2-6:2 FTS	288	*5+	20 - 150	06/06/24 15:07	06/12/24 19:09	1
M2-8:2 FTS	240	*5+	20 - 150	06/06/24 15:07	06/07/24 22:37	1
M2-8:2 FTS	287	*5+	20 - 150	06/06/24 15:07	06/12/24 19:09	1
13C3 HFPO-DA	71.2		20 - 150	06/06/24 15:07	06/07/24 22:37	1
13C3 HFPO-DA	72.0		20 - 150	06/06/24 15:07	06/12/24 19:09	1
d7-N-MeFOSE-M	31.0		20 - 150	06/06/24 15:07	06/07/24 22:37	1
d7-N-MeFOSE-M	28.3		20 - 150	06/06/24 15:07	06/12/24 19:09	1
d9-N-EtFOSE-M	30.3		20 - 150	06/06/24 15:07	06/07/24 22:37	1
d9-N-EtFOSE-M	23.6		20 - 150	06/06/24 15:07	06/12/24 19:09	1
d5-NEtPFOSA	43.2		20 - 150	06/06/24 15:07	06/07/24 22:37	1
d5-NEtPFOSA	33.8		20 - 150	06/06/24 15:07	06/12/24 19:09	1
d3-NMePFOSA	45.7		20 - 150	06/06/24 15:07	06/07/24 22:37	1
d3-NMePFOSA	34.2		20 - 150	06/06/24 15:07	06/12/24 19:09	1
13C2-PFDoDA	92.4		20 - 150	06/06/24 15:07	06/07/24 22:37	1
13C2-PFDoDA	1.56	*5-	20 - 150	06/06/24 15:07	06/12/24 19:09	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**12500**		21.5	18.5	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Antimony	ND		32.2	1.1	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Arsenic	**75.2**		4.3	1.9	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Barium	**315**		1.1	0.30	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Beryllium	**0.55**		0.43	0.086	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Cadmium	**5.2**		0.43	0.15	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Calcium	**49800**		107	57.9	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Chromium	**9650**		107	77.2	mg/Kg	☼	06/05/24 15:25	06/07/24 15:33	100
Cobalt	**10.8**		1.1	0.21	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1

Client Sample ID: SED-10
Lab Sample ID: 480-220474-6
Date Collected: 06/04/24 00:00
Matrix: Solid
Date Received: 06/04/24 16:00
Percent Solids: 48.6

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	**505**		2.1	1.2	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Iron	**31800**		21.5	18.2	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Lead	**3560**		2.1	0.99	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Magnesium	**8200**		42.9	18.2	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Manganese	**463**		2.1	0.60	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Nickel	**148**		10.7	0.54	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Potassium	**1930**		64.4	52.0	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Selenium	**12.2**		8.6	1.7	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Silver	**0.55**	**J**	1.3	0.43	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Sodium	**501**		300	132	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Thallium	ND		12.9	1.6	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Vanadium	**82.5**		1.1	0.28	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Zinc	**4840**		429	219	mg/Kg	☼	06/05/24 15:25	06/07/24 15:33	100

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**5.8**		0.40	0.092	mg/Kg	☼	06/06/24 08:50	06/06/24 13:07	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	**13.0**		9.6	4.7	mg/Kg	☼	06/07/24 12:22	06/07/24 16:26	5
Total Organic Carbon (EPA-Lloyd Kahn)	**355000**		2060	2000	mg/Kg	☼		06/14/24 17:35	1
~~Total Organic Carbon (EPA-Lloyd Kahn)~~	~~329000~~	~~H~~	~~2060~~	~~2000~~	~~mg/Kg~~	~~☼~~		~~06/24/24 14:27~~	~~1~~

Client Sample ID: SED-11
Lab Sample ID: 480-220474-7
Date Collected: 06/04/24 00:00
Matrix: Solid
Date Received: 06/04/24 16:00
Percent Solids: 52.1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		6100	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
1,1,2,2-Tetrachloroethane	ND		6100	990	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6100	3100	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
1,1,2-Trichloroethane	ND		6100	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
1,1-Dichloroethane	ND		6100	1900	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
1,1-Dichloroethene	ND		6100	2100	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
1,2,4-Trichlorobenzene	ND	UJ	6100	2300	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
1,2-Dibromo-3-Chloropropane	ND		6100	3100	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
1,2-Dichlorobenzene	**2000**	**J**	6100	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
1,2-Dichloroethane	ND		6100	2500	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
1,2-Dichloropropane	ND		6100	990	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
1,3-Dichlorobenzene	ND		6100	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
1,4-Dichlorobenzene	ND		6100	850	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
2-Butanone (MEK)	ND		31000	18000	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
2-Hexanone	ND		31000	13000	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
4-Methyl-2-pentanone (MIBK)	ND		31000	2000	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Acetone	ND		31000	25000	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Benzene	**150000**		6100	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Bromoform	ND		6100	3100	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40

Client Sample ID: SED-11

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-7

Matrix: Solid
Percent Solids: 52.1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		6100	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Carbon disulfide	ND		6100	2800	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Carbon tetrachloride	ND		6100	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Chlorobenzene	**2200**	**J**	6100	810	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Dibromochloromethane	ND		6100	3000	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Chloroethane	ND		6100	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Chloroform	ND		6100	4200	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Chloromethane	ND	UJ	6100	1500	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
cis-1,2-Dichloroethene	ND		6100	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Cyclohexane	**10000**	**J**	6100	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Bromodichloromethane	ND		6100	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Dichlorodifluoromethane	ND		6100	2700	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Ethylbenzene	**92000**		6100	1800	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
1,2-Dibromoethane	ND		6100	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Isopropylbenzene	**8900**		6100	920	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Methyl acetate	ND		31000	2900	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Methyl tert-butyl ether	ND		6100	2300	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Methylcyclohexane	**29000**		6100	2900	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Methylene Chloride	ND		6100	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Tetrachloroethene	ND		6100	820	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Toluene	**2900**	**J**	6100	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
trans-1,2-Dichloroethene	ND		6100	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
trans-1,3-Dichloropropene	ND		6100	600	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Trichloroethene	ND		6100	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Trichlorofluoromethane	ND		6100	2900	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Vinyl chloride	ND		6100	2000	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Xylenes, Total	**29000**		12000	3400	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
cis-1,3-Dichloropropene	ND		6100	1500	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Styrene	ND		6100	1500	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
m-Xylene & p-Xylene	*26000*	*H*	*ug/Kg*	☼	*7.96*	*179601-23-1*	*06/06/24 09:16*	*06/06/24 16:29*	*40*
Indane	*80000*	*T H J N*	*ug/Kg*	☼	*10.40*	*496-11-7*	*06/06/24 09:16*	*06/06/24 16:29*	*40*
Benzene, 1-ethyl-2,3-dimethyl-	*130000*	*T H J N*	*ug/Kg*	☼	*11.62*	*933-98-2*	*06/06/24 09:16*	*06/06/24 16:29*	*40*
Naphthalene	*640000*	*T H J N*	*ug/Kg*	☼	*12.18*	*91-20-3*	*06/06/24 09:16*	*06/06/24 16:29*	*40*
Naphthalene, 1-methyl-	*410000*	*T H J N*	*ug/Kg*	☼	*13.10*	*90-12-0*	*06/06/24 09:16*	*06/06/24 16:29*	*40*
Benzocycloheptatriene	*210000*	*T H J N*	*ug/Kg*	☼	*13.25*	*264-09-5*	*06/06/24 09:16*	*06/06/24 16:29*	*40*
Naphthalene, 1-ethyl-	*86000*	*T H J N*	*ug/Kg*	☼	*13.83*	*1127-76-0*	*06/06/24 09:16*	*06/06/24 16:29*	*40*
Naphthalene, 2,7-dimethyl-	*170000*	*T H J N*	*ug/Kg*	☼	*13.91*	*582-16-1*	*06/06/24 09:16*	*06/06/24 16:29*	*40*
Unknown	*210000*	*T H J*	*ug/Kg*	☼	*14.03*	*N/A*	*06/06/24 09:16*	*06/06/24 16:29*	*40*
Naphthalene, 2,6-dimethyl-	*94000*	*T H J N*	*ug/Kg*	☼	*14.06*	*581-42-0*	*06/06/24 09:16*	*06/06/24 16:29*	*40*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*117*		*53 - 146*	*06/06/24 09:16*	*06/06/24 16:29*	*40*
4-Bromofluorobenzene (Surr)	*120*		*49 - 148*	*06/06/24 09:16*	*06/06/24 16:29*	*40*
Toluene-d8 (Surr)	*113*		*50 - 149*	*06/06/24 09:16*	*06/06/24 16:29*	*40*
Dibromofluoromethane (Surr)	*111*		*60 - 140*	*06/06/24 09:16*	*06/06/24 16:29*	*40*

Client Sample ID: SED-11
Lab Sample ID: 480-220474-7
Date Collected: 06/04/24 00:00
Matrix: Solid
Date Received: 06/04/24 16:00
Percent Solids: 52.1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**12800**		18.4	15.8	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Antimony	ND		27.6	0.97	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Arsenic	**40.2**		3.7	1.6	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Barium	**423**		0.92	0.26	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Beryllium	**0.61**		0.37	0.074	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Cadmium	**4.5**		0.37	0.13	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Calcium	**28300**		91.9	49.6	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Chromium	**4650**		91.9	66.2	mg/Kg	☼	06/05/24 15:25	06/07/24 15:36	100
Cobalt	**18.9**		0.92	0.18	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Copper	**300**		1.8	1.0	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Iron	**27900**		18.4	15.6	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Lead	**6950**		1.8	0.85	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Magnesium	**7170**		36.8	15.6	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Manganese	**344**		1.8	0.51	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Nickel	**460**		9.2	0.46	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Potassium	**2360**		55.2	44.6	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Selenium	**7.7**		7.4	1.5	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Silver	**0.46**	**J**	1.1	0.37	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Sodium	**1890**		257	113	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Thallium	ND		11.0	1.4	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Vanadium	**314**		0.92	0.24	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Zinc	**2260**		3.7	1.9	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**3.8**		0.37	0.085	mg/Kg	☼	06/06/24 08:50	06/06/24 13:08	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	**7.3**	J	1.9	0.91	mg/Kg	☼	06/07/24 12:22	06/07/24 16:22	1
Total Organic Carbon (EPA-Lloyd Kahn)	**255000**		1920	1860	mg/Kg	☼		06/14/24 17:50	1
~~**Total Organic Carbon (EPA-Lloyd Kahn)**~~	~~**275000**~~	~~**H**~~	~~1920~~	~~1860~~	~~mg/Kg~~	~~☼~~		~~06/24/24 14:42~~	~~1~~

Client Sample ID: SED-11-FD
Lab Sample ID: 480-220474-8
Date Collected: 06/04/24 00:00
Matrix: Solid
Date Received: 06/04/24 16:00
Percent Solids: 54.8

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		6900	1900	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
1,1,2,2-Tetrachloroethane	ND		6900	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6900	3400	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
1,1,2-Trichloroethane	ND		6900	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
1,1-Dichloroethane	ND		6900	2100	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
1,1-Dichloroethene	ND		6900	2400	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
1,2,4-Trichlorobenzene	ND	UJ	6900	2600	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
1,2-Dibromo-3-Chloropropane	ND		6900	3400	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
1,2-Dichlorobenzene	**2000**	**J**	6900	1800	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
1,2-Dichloroethane	ND		6900	2800	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40

Client Sample ID: SED-11-FD
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-8
Matrix: Solid
Percent Solids: 54.8

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		6900	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
1,3-Dichlorobenzene	ND		6900	1800	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
1,4-Dichlorobenzene	ND		6900	960	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
2-Butanone (MEK)	ND		34000	20000	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
2-Hexanone	ND		34000	14000	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
4-Methyl-2-pentanone (MIBK)	ND		34000	2200	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Acetone	ND		34000	28000	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Benzene	**170000**		6900	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Bromoform	ND		6900	3400	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Bromomethane	ND		6900	1500	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Carbon disulfide	ND		6900	3100	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Carbon tetrachloride	ND		6900	1800	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Chlorobenzene	ND		6900	910	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Dibromochloromethane	ND		6900	3300	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Chloroethane	ND		6900	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Chloroform	ND		6900	4700	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Chloromethane	ND	UJ	6900	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
cis-1,2-Dichloroethene	ND		6900	1900	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Cyclohexane	**16000**	J	6900	1500	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Bromodichloromethane	ND		6900	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Dichlorodifluoromethane	ND		6900	3000	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Ethylbenzene	**120000**		6900	2000	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
1,2-Dibromoethane	ND		6900	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Isopropylbenzene	**13000**		6900	1000	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Methyl acetate	ND		34000	3300	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Methyl tert-butyl ether	ND		6900	2600	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Methylcyclohexane	**50000**		6900	3200	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Methylene Chloride	ND		6900	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Tetrachloroethene	ND		6900	930	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Toluene	**4000**	J	6900	1800	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
trans-1,2-Dichloroethene	ND		6900	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
trans-1,3-Dichloropropene	ND		6900	680	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Trichloroethene	ND		6900	1900	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Trichlorofluoromethane	ND		6900	3200	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Vinyl chloride	ND		6900	2300	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Xylenes, Total	**46000**		14000	3800	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
cis-1,3-Dichloropropene	ND		6900	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Styrene	ND		6900	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
m-Xylene & p-Xylene	*41000*	*H*	*ug/Kg*	☼	*7.96*	*179601-23-1*	*06/06/24 09:16*	*06/06/24 16:52*	*40*
Unknown	*120000*	*T H J*	*ug/Kg*	☼	*10.40*	*N/A*	*06/06/24 09:16*	*06/06/24 16:52*	*40*
Benzene, 1,2,4,5-tetramethyl-	*200000*	*T H J N*	*ug/Kg*	☼	*11.62*	*95-93-2*	*06/06/24 09:16*	*06/06/24 16:52*	*40*
Naphthalene	*820000*	*T H J N*	*ug/Kg*	☼	*12.18*	*91-20-3*	*06/06/24 09:16*	*06/06/24 16:52*	*40*
Naphthalene, 2-methyl-	*610000*	*T H J N*	*ug/Kg*	☼	*13.10*	*91-57-6*	*06/06/24 09:16*	*06/06/24 16:52*	*40*
Naphthalene, 1-methyl-	*310000*	*T H J N*	*ug/Kg*	☼	*13.25*	*90-12-0*	*06/06/24 09:16*	*06/06/24 16:52*	*40*
Naphthalene, 1-ethyl-	*140000*	*T H J N*	*ug/Kg*	☼	*13.83*	*1127-76-0*	*06/06/24 09:16*	*06/06/24 16:52*	*40*
Naphthalene, 2,7-dimethyl-	*290000*	*T H J N*	*ug/Kg*	☼	*13.91*	*582-16-1*	*06/06/24 09:16*	*06/06/24 16:52*	*40*
Unknown	*270000*	*T H J*	*ug/Kg*	☼	*14.03*	*N/A*	*06/06/24 09:16*	*06/06/24 16:52*	*40*
Naphthalene, 2,3-dimethyl-	*120000*	*T H J N*	*ug/Kg*	☼	*14.21*	*581-40-8*	*06/06/24 09:16*	*06/06/24 16:52*	*40*

Client Sample ID: SED-11-FD
Lab Sample ID: 480-220474-8

Date Collected: 06/04/24 00:00
Matrix: Solid
Date Received: 06/04/24 16:00
Percent Solids: 54.8

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*53 - 146*	*06/06/24 09:16*	*06/06/24 16:52*	*40*
4-Bromofluorobenzene (Surr)	*105*		*49 - 148*	*06/06/24 09:16*	*06/06/24 16:52*	*40*
Toluene-d8 (Surr)	*99*		*50 - 149*	*06/06/24 09:16*	*06/06/24 16:52*	*40*
Dibromofluoromethane (Surr)	*93*		*60 - 140*	*06/06/24 09:16*	*06/06/24 16:52*	*40*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**16600**		17.6	15.2	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Antimony	ND		26.4	0.93	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Arsenic	**64.8**		3.5	1.5	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Barium	**609**		0.88	0.25	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Beryllium	**0.67**		0.35	0.070	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Cadmium	**5.0**		0.35	0.12	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Calcium	**48700**		87.9	47.5	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Chromium	**8690**		87.9	63.3	mg/Kg	☼	06/05/24 15:25	06/07/24 15:38	100
Cobalt	**19.1**		0.88	0.18	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Copper	**513**		1.8	1.0	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Iron	**32000**		17.6	14.9	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Lead	**5610**		1.8	0.81	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Magnesium	**9150**		35.2	14.9	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Manganese	**458**		1.8	0.49	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Nickel	**542**		8.8	0.44	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Potassium	**2220**		52.8	42.6	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Selenium	**9.5**		7.0	1.4	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Silver	**0.35**	**J**	1.1	0.35	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Sodium	**2400**		246	108	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Thallium	**2.1**	**J**	10.6	1.3	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Vanadium	**388**		0.88	0.23	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Zinc	**2720**		3.5	1.8	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.035	0.0082	mg/Kg	☼	06/06/24 08:50	06/06/24 11:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	**7.9**	J	1.6	0.76	mg/Kg	☼	06/11/24 12:20	06/11/24 16:05	1
Total Organic Carbon (EPA-Lloyd Kahn)	**302000**		1830	1770	mg/Kg	☼		06/14/24 18:05	1
~~**Total Organic Carbon (EPA-Lloyd Kahn)**~~	~~**284000**~~	~~**H**~~	~~1830~~	~~1770~~	~~mg/Kg~~	~~☼~~		~~06/24/24 14:57~~	~~1~~

Client Sample ID: SED-12
Lab Sample ID: 480-220474-9

Date Collected: 06/04/24 00:00
Matrix: Solid
Date Received: 06/04/24 16:00
Percent Solids: 48.6

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		15000	4100	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
1,1,2,2-Tetrachloroethane	ND		15000	2400	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		15000	7300	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
1,1,2-Trichloroethane	ND		15000	3100	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80

Client Sample ID: SED-12
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-9
Matrix: Solid
Percent Solids: 48.6

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		15000	4500	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
1,1-Dichloroethene	ND		15000	5100	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
1,2,4-Trichlorobenzene	ND	UJ	15000	5600	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
1,2-Dibromo-3-Chloropropane	ND		15000	7300	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
1,2-Dichlorobenzene	**13000**	**J**	15000	3700	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
1,2-Dichloroethane	ND		15000	6000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
1,2-Dichloropropane	ND		15000	2400	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
1,3-Dichlorobenzene	ND		15000	3900	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
1,4-Dichlorobenzene	**9300**	**J**	15000	2100	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
2-Butanone (MEK)	ND		73000	44000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
2-Hexanone	ND		73000	30000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
4-Methyl-2-pentanone (MIBK)	ND		73000	4700	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Acetone	ND		73000	60000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Benzene	**320000**		15000	2800	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Bromoform	ND		15000	7300	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Bromomethane	ND		15000	3200	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Carbon disulfide	ND		15000	6700	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Carbon tetrachloride	ND		15000	3700	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Chlorobenzene	**61000**		15000	1900	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Dibromochloromethane	ND		15000	7100	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Chloroethane	ND		15000	3000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Chloroform	ND		15000	10000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Chloromethane	ND	UJ	15000	3500	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
cis-1,2-Dichloroethene	ND		15000	4000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Cyclohexane	**17000**	J	15000	3300	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Bromodichloromethane	ND		15000	2900	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Dichlorodifluoromethane	ND		15000	6400	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Ethylbenzene	**230000**		15000	4300	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
1,2-Dibromoethane	ND		15000	2600	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Isopropylbenzene	**24000**		15000	2200	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Methyl acetate	ND		73000	7000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Methyl tert-butyl ether	ND		15000	5500	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Methylcyclohexane	**52000**		15000	6900	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Methylene Chloride	ND		15000	2900	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Tetrachloroethene	ND		15000	2000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Toluene	ND		15000	3900	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
trans-1,2-Dichloroethene	ND		15000	3500	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
trans-1,3-Dichloropropene	ND		15000	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Trichloroethene	ND		15000	4100	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Trichlorofluoromethane	ND		15000	6900	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Vinyl chloride	ND		15000	4900	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Xylenes, Total	**11000**	**J**	29000	8100	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
cis-1,3-Dichloropropene	ND		15000	3500	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Styrene	ND		15000	3500	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
m-Xylene & p-Xylene	*8500*	*J H*	*ug/Kg*	☼	*7.96*	*179601-23-1*	*06/06/24 09:16*	*06/06/24 17:15*	*80*
Benzene, 1-propenyl-	*93000*	*T H J N*	*ug/Kg*	☼	*10.40*	*637-50-3*	*06/06/24 09:16*	*06/06/24 17:15*	*80*
1-Phenyl-1-butene	*140000*	*T H J N*	*ug/Kg*	☼	*11.63*	*824-90-8*	*06/06/24 09:16*	*06/06/24 17:15*	*80*
Naphthalene	*230000*	*T H J N*	*ug/Kg*	☼	*12.18*	*91-20-3*	*06/06/24 09:16*	*06/06/24 17:15*	*80*

Client Sample ID: SED-12

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-9

Matrix: Solid
Percent Solids: 48.6

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	470000	T H J	ug/Kg	☼	13.10	N/A	06/06/24 09:16	06/06/24 17:15	80
Naphthalene, 2-methyl-	260000	T H J N	ug/Kg	☼	13.25	91-57-6	06/06/24 09:16	06/06/24 17:15	80
Naphthalene, 1-ethyl-	110000	T H J N	ug/Kg	☼	13.83	1127-76-0	06/06/24 09:16	06/06/24 17:15	80
Naphthalene, 2,6-dimethyl-	220000	T H J N	ug/Kg	☼	13.91	581-42-0	06/06/24 09:16	06/06/24 17:15	80
Naphthalene, 2,3-dimethyl-	280000	T H J N	ug/Kg	☼	14.03	581-40-8	06/06/24 09:16	06/06/24 17:15	80
Naphthalene, 1,4-dimethyl-	100000	T H J N	ug/Kg	☼	14.21	571-58-4	06/06/24 09:16	06/06/24 17:15	80

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		53 - 146	06/06/24 09:16	06/06/24 17:15	80
4-Bromofluorobenzene (Surr)	104		49 - 148	06/06/24 09:16	06/06/24 17:15	80
Toluene-d8 (Surr)	99		50 - 149	06/06/24 09:16	06/06/24 17:15	80
Dibromofluoromethane (Surr)	92		60 - 140	06/06/24 09:16	06/06/24 17:15	80

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.3	0.33	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluoropentanoic acid (PFPeA)	**0.82**		0.67	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluorohexanoic acid (PFHxA)	ND		0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluoroheptanoic acid (PFHpA)	ND		0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluorooctanoic acid (PFOA)	**1.1**		0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluorononanoic acid (PFNA)	**2.5**		0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluorodecanoic acid (PFDA)	ND		0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluoroundecanoic acid (PFUnA)	**0.27**	JN	0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluorododecanoic acid (PFDoA)	ND		0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluorooctanesulfonic acid (PFOS)	**0.58**		0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluorononanesulfonic acid (PFNS)	ND		0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1.3	0.33	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1.3	0.33	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1.3	0.33	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluorooctanesulfonamide (PFOSA)	**1.8**	JN	0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	**0.12**	JN	0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	**0.41**		0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1

Client Sample ID: SED-12

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-9

Matrix: Solid
Percent Solids: 48.6

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	**2.0**		0.34	0.086	ug/Kg	☼	06/13/24 15:10	06/15/24 05:38	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		3.3	0.84	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		3.3	0.84	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.3	0.33	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.3	0.33	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.67	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.67	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		1.3	0.33	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		1.3	0.33	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.67	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1.7	0.42	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.4	2.1	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.4	2.1	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluorodecanesulfonic acid (PFDS)	**0.43**	JN	0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.67	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*98.0*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:53*	*1*
13C4 PFBA	*95.4*		*20 - 150*	*06/13/24 15:10*	*06/15/24 05:38*	*1*
13C5 PFPeA	*91.4*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:53*	*1*
13C5 PFPeA	*88.3*		*20 - 150*	*06/13/24 15:10*	*06/15/24 05:38*	*1*
13C5 PFHxA	*80.6*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:53*	*1*
13C5 PFHxA	*91.8*		*20 - 150*	*06/13/24 15:10*	*06/15/24 05:38*	*1*
13C4 PFHpA	*79.2*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:53*	*1*
13C4 PFHpA	*74.8*		*20 - 150*	*06/13/24 15:10*	*06/15/24 05:38*	*1*
13C8 PFOA	*87.6*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:53*	*1*
13C8 PFOA	*88.1*		*20 - 150*	*06/13/24 15:10*	*06/15/24 05:38*	*1*
13C9 PFNA	*122*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:53*	*1*
13C9 PFNA	*111*		*20 - 150*	*06/13/24 15:10*	*06/15/24 05:38*	*1*
13C6 PFDA	*83.7*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:53*	*1*
13C6 PFDA	*112*		*20 - 150*	*06/13/24 15:10*	*06/15/24 05:38*	*1*
13C7 PFUnA	*91.4*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:53*	*1*
13C7 PFUnA	*91.8*		*20 - 150*	*06/13/24 15:10*	*06/15/24 05:38*	*1*
13C2 PFTeDA	*92.0*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:53*	*1*
13C2 PFTeDA	*82.7*		*20 - 150*	*06/13/24 15:10*	*06/15/24 05:38*	*1*
13C3 PFBS	*107*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:53*	*1*
13C3 PFBS	*113*		*20 - 150*	*06/13/24 15:10*	*06/15/24 05:38*	*1*
13C3 PFHxS	*103*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:53*	*1*
13C3 PFHxS	*92.0*		*20 - 150*	*06/13/24 15:10*	*06/15/24 05:38*	*1*

Client Sample ID: SED-12
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-9
Matrix: Solid
Percent Solids: 48.6

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOS	74.8		20 - 150	06/06/24 15:07	06/07/24 22:53	1
13C8 PFOS	94.8		20 - 150	06/13/24 15:10	06/15/24 05:38	1
13C8 FOSA	58.5		20 - 150	06/06/24 15:07	06/07/24 22:53	1
13C8 FOSA	64.7		20 - 150	06/13/24 15:10	06/15/24 05:38	1
d3-NMeFOSAA	61.3		20 - 150	06/06/24 15:07	06/07/24 22:53	1
d3-NMeFOSAA	79.9		20 - 150	06/13/24 15:10	06/15/24 05:38	1
d5-NEtFOSAA	72.5		20 - 150	06/06/24 15:07	06/07/24 22:53	1
d5-NEtFOSAA	79.1		20 - 150	06/13/24 15:10	06/15/24 05:38	1
M2-4:2 FTS	177	I *5+	20 - 150	06/06/24 15:07	06/07/24 22:53	1
M2-4:2 FTS	225	I *5+	20 - 150	06/13/24 15:10	06/15/24 05:38	1
M2-6:2 FTS	135		20 - 150	06/06/24 15:07	06/07/24 22:53	1
M2-6:2 FTS	145		20 - 150	06/13/24 15:10	06/15/24 05:38	1
M2-8:2 FTS	151	I *5+	20 - 150	06/06/24 15:07	06/07/24 22:53	1
M2-8:2 FTS	149		20 - 150	06/13/24 15:10	06/15/24 05:38	1
13C3 HFPO-DA	73.1		20 - 150	06/06/24 15:07	06/07/24 22:53	1
13C3 HFPO-DA	78.8		20 - 150	06/13/24 15:10	06/15/24 05:38	1
d7-N-MeFOSE-M	36.0		20 - 150	06/06/24 15:07	06/07/24 22:53	1
d7-N-MeFOSE-M	78.9		20 - 150	06/13/24 15:10	06/15/24 05:38	1
d9-N-EtFOSE-M	34.1		20 - 150	06/06/24 15:07	06/07/24 22:53	1
d9-N-EtFOSE-M	62.6		20 - 150	06/13/24 15:10	06/15/24 05:38	1
d5-NEtPFOSA	53.5		20 - 150	06/06/24 15:07	06/07/24 22:53	1
d5-NEtPFOSA	59.3		20 - 150	06/13/24 15:10	06/15/24 05:38	1
d3-NMePFOSA	57.7		20 - 150	06/06/24 15:07	06/07/24 22:53	1
d3-NMePFOSA	77.3		20 - 150	06/13/24 15:10	06/15/24 05:38	1
13C2-PFDoDA	110		20 - 150	06/06/24 15:07	06/07/24 22:53	1
13C2-PFDoDA	90.7		20 - 150	06/13/24 15:10	06/15/24 05:38	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**15900**		20.7	17.9	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Antimony	ND		31.1	1.1	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Arsenic	**49.2**		4.1	1.8	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Barium	**553**		1.0	0.29	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Beryllium	**0.76**		0.41	0.083	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Cadmium	**6.0**		0.41	0.15	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Calcium	**41900**		104	56.0	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Chromium	**9550**		104	74.7	mg/Kg	☼	06/05/24 15:25	06/07/24 15:40	100
Cobalt	**21.6**		1.0	0.21	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Copper	**369**		2.1	1.2	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Iron	**32100**		20.7	17.6	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Lead	**16400**		207	95.4	mg/Kg	☼	06/05/24 15:25	06/07/24 15:40	100
Magnesium	**7610**		41.5	17.6	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Manganese	**460**		2.1	0.58	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Nickel	**443**		10.4	0.52	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Potassium	**2350**		62.2	50.3	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Selenium	**10.3**		8.3	1.7	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Silver	**0.62**	**J**	1.2	0.41	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Sodium	**846**		290	127	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Thallium	ND		12.4	1.6	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Vanadium	**497**		1.0	0.27	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1

Client Sample ID: SED-12

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-9

Matrix: Solid
Percent Solids: 48.6

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	3100		4.1	2.1	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	5.3		0.41	0.093	mg/Kg	☼	06/06/24 08:50	06/06/24 13:09	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	9.9		1.9	0.90	mg/Kg	☼	06/11/24 12:20	06/11/24 16:06	1
Total Organic Carbon (EPA-Lloyd Kahn)	203000		2060	2000	mg/Kg	☼		06/14/24 18:20	1
~~Total Organic Carbon (EPA-Lloyd Kahn)~~	~~190000~~	~~H~~	~~2060~~	~~2000~~	~~mg/Kg~~	~~☼~~		~~06/24/24 15:12~~	~~1~~

Client Sample ID: SED-13

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-10

Matrix: Solid
Percent Solids: 45.5

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		31000	8500	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
1,1,2,2-Tetrachloroethane	ND		31000	5000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		31000	15000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
1,1,2-Trichloroethane	ND		31000	6400	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
1,1-Dichloroethane	ND		31000	9500	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
1,1-Dichloroethene	ND		31000	11000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
1,2,4-Trichlorobenzene	ND	UJ	31000	12000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
1,2-Dibromo-3-Chloropropane	ND		31000	15000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
1,2-Dichlorobenzene	ND		31000	7800	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
1,2-Dichloroethane	ND		31000	13000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
1,2-Dichloropropane	ND		31000	5000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
1,3-Dichlorobenzene	ND		31000	8200	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
1,4-Dichlorobenzene	ND		31000	4300	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
2-Butanone (MEK)	ND		150000	91000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
2-Hexanone	ND		150000	63000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
4-Methyl-2-pentanone (MIBK)	ND		150000	9800	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Acetone	ND		150000	130000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Benzene	180000		31000	5800	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Bromoform	ND		31000	15000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Bromomethane	ND		31000	6700	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Carbon disulfide	ND		31000	14000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Carbon tetrachloride	ND		31000	7800	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Chlorobenzene	ND		31000	4000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Dibromochloromethane	ND		31000	15000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Chloroethane	ND		31000	6400	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Chloroform	ND		31000	21000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Chloromethane	ND	UJ	31000	7300	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
cis-1,2-Dichloroethene	ND		31000	8400	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Cyclohexane	11000	J	31000	6800	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Bromodichloromethane	ND		31000	6100	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Dichlorodifluoromethane	ND		31000	13000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80

Client Sample ID: SED-13
Lab Sample ID: 480-220474-10
Date Collected: 06/04/24 00:00
Matrix: Solid
Date Received: 06/04/24 16:00
Percent Solids: 45.5

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**130000**		31000	8900	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
1,2-Dibromoethane	ND		31000	5400	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Isopropylbenzene	**15000**	**J**	31000	4600	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Methyl acetate	ND		150000	15000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Methyl tert-butyl ether	ND		31000	12000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Methylcyclohexane	**47000**		31000	14000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Methylene Chloride	ND		31000	6100	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Tetrachloroethene	ND		31000	4100	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Toluene	ND		31000	8200	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
trans-1,2-Dichloroethene	ND		31000	7200	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
trans-1,3-Dichloropropene	ND		31000	3000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Trichloroethene	ND		31000	8500	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Trichlorofluoromethane	ND		31000	14000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Vinyl chloride	ND		31000	10000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Xylenes, Total	ND		61000	17000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
cis-1,3-Dichloropropene	ND		31000	7300	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Styrene	ND		31000	7400	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
o-Xylene	*9200*	*J H*	*ug/Kg*	☼	*8.38*	*95-47-6*	*06/06/24 09:16*	*06/06/24 17:39*	*80*
Benzene, 1,2,3-trimethyl-	*160000*	*T H J N*	*ug/Kg*	☼	*10.22*	*526-73-8*	*06/06/24 09:16*	*06/06/24 17:39*	*80*
Unknown	*280000*	*T H J*	*ug/Kg*	☼	*10.40*	*N/A*	*06/06/24 09:16*	*06/06/24 17:39*	*80*
Unknown	*320000*	*T H J*	*ug/Kg*	☼	*11.62*	*N/A*	*06/06/24 09:16*	*06/06/24 17:39*	*80*
Naphthalene	*1700000*	*T H J N*	*ug/Kg*	☼	*12.18*	*91-20-3*	*06/06/24 09:16*	*06/06/24 17:39*	*80*
Unknown	*950000*	*T H J*	*ug/Kg*	☼	*13.10*	*N/A*	*06/06/24 09:16*	*06/06/24 17:39*	*80*
Naphthalene, 2-methyl-	*500000*	*T H J N*	*ug/Kg*	☼	*13.26*	*91-57-6*	*06/06/24 09:16*	*06/06/24 17:39*	*80*
Naphthalene, 1-ethyl-	*150000*	*T H J N*	*ug/Kg*	☼	*13.83*	*1127-76-0*	*06/06/24 09:16*	*06/06/24 17:39*	*80*
Naphthalene, 2,7-dimethyl-	*280000*	*T H J N*	*ug/Kg*	☼	*13.91*	*582-16-1*	*06/06/24 09:16*	*06/06/24 17:39*	*80*
Unknown	*350000*	*T H J*	*ug/Kg*	☼	*14.03*	*N/A*	*06/06/24 09:16*	*06/06/24 17:39*	*80*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*53 - 146*	*06/06/24 09:16*	*06/06/24 17:39*	*80*
4-Bromofluorobenzene (Surr)	*103*		*49 - 148*	*06/06/24 09:16*	*06/06/24 17:39*	*80*
Toluene-d8 (Surr)	*98*		*50 - 149*	*06/06/24 09:16*	*06/06/24 17:39*	*80*
Dibromofluoromethane (Surr)	*92*		*60 - 140*	*06/06/24 09:16*	*06/06/24 17:39*	*80*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**19300**		22.9	19.8	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Antimony	ND		34.4	1.2	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Arsenic	**60.1**		4.6	2.0	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Barium	**406**		1.1	0.32	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Beryllium	**0.73**		0.46	0.092	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Cadmium	**4.3**		0.46	0.16	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Calcium	**34700**		115	61.9	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Chromium	**7760**		115	82.6	mg/Kg	☼	06/05/24 15:25	06/07/24 15:44	100
Cobalt	**17.1**		1.1	0.23	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Copper	**362**		2.3	1.3	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Iron	**32200**		22.9	19.5	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Lead	**4270**		2.3	1.1	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1

Client Sample ID: SED-13
Lab Sample ID: 480-220474-10
Date Collected: 06/04/24 00:00
Matrix: Solid
Date Received: 06/04/24 16:00
Percent Solids: 45.5

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	**9090**		45.9	19.5	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Manganese	**416**		2.3	0.64	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Nickel	**356**		11.5	0.57	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Potassium	**3070**		68.8	55.6	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Selenium	**8.6**	**J**	9.2	1.8	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Silver	ND		1.4	0.46	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Sodium	**732**		321	141	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Thallium	ND		13.8	1.7	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Vanadium	**226**		1.1	0.30	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Zinc	**2860**		4.6	2.3	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**3.5**		0.042	0.0097	mg/Kg	☼	06/06/24 08:50	06/06/24 12:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	**6.2**		2.2	1.0	mg/Kg	☼	06/11/24 12:20	06/11/24 16:11	1
Total Organic Carbon (EPA-Lloyd Kahn)	**390000**		2200	2140	mg/Kg	☼		06/14/24 18:35	1
~~Total Organic Carbon (EPA-Lloyd Kahn)~~	~~342000~~	~~H~~	~~2200~~	~~2140~~	~~mg/Kg~~	~~☼~~		~~06/24/24 15:28~~	~~1~~

Client Sample ID: SED-14
Lab Sample ID: 480-220474-11
Date Collected: 06/04/24 00:00
Matrix: Solid
Date Received: 06/04/24 16:00
Percent Solids: 66.5

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		3800	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
1,1,2,2-Tetrachloroethane	ND		3800	620	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3800	1900	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
1,1,2-Trichloroethane	ND		3800	810	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
1,1-Dichloroethane	ND		3800	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
1,1-Dichloroethene	ND		3800	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
1,2,4-Trichlorobenzene	ND	UJ	3800	1500	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
1,2-Dibromo-3-Chloropropane	ND		3800	1900	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
1,2-Dichlorobenzene	**1400**	**J**	3800	980	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
1,2-Dichloroethane	ND		3800	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
1,2-Dichloropropane	ND		3800	620	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
1,3-Dichlorobenzene	ND		3800	1000	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
1,4-Dichlorobenzene	ND		3800	540	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
2-Butanone (MEK)	ND		19000	11000	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
2-Hexanone	ND		19000	7900	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
4-Methyl-2-pentanone (MIBK)	ND		19000	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Acetone	ND		19000	16000	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Benzene	**170000**		3800	730	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Bromoform	ND		3800	1900	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Bromomethane	ND		3800	850	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Carbon disulfide	ND		3800	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Carbon tetrachloride	ND		3800	980	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40

Client Sample ID: SED-14
Lab Sample ID: 480-220474-11
Date Collected: 06/04/24 00:00
Matrix: Solid
Date Received: 06/04/24 16:00
Percent Solids: 66.5

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND		3800	510	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Dibromochloromethane	ND		3800	1900	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Chloroethane	ND		3800	800	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Chloroform	ND		3800	2600	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Chloromethane	ND	UJ	3800	920	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
cis-1,2-Dichloroethene	ND		3800	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Cyclohexane	**9500**	J	3800	850	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Bromodichloromethane	ND		3800	770	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Dichlorodifluoromethane	ND		3800	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Ethylbenzene	**71000**		3800	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
1,2-Dibromoethane	ND		3800	670	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Isopropylbenzene	**6800**		3800	580	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Methyl acetate	ND		19000	1800	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Methyl tert-butyl ether	ND		3800	1500	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Methylcyclohexane	**24000**		3800	1800	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Methylene Chloride	ND		3800	760	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Tetrachloroethene	ND		3800	520	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Toluene	**1000**	J	3800	1000	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
trans-1,2-Dichloroethene	ND		3800	910	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
trans-1,3-Dichloropropene	ND		3800	380	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Trichloroethene	ND		3800	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Trichlorofluoromethane	ND		3800	1800	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Vinyl chloride	ND		3800	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Xylenes, Total	**3900**	J	7700	2100	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
cis-1,3-Dichloropropene	ND		3800	920	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Styrene	ND		3800	930	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
m-Xylene & p-Xylene	*3200*	*J H*	*ug/Kg*	☼	*7.96*	*179601-23-1*	*06/06/24 09:16*	*06/06/24 18:02*	*40*
Benzene, propyl-	*24000*	*T H J N*	*ug/Kg*	☼	*9.21*	*103-65-1*	*06/06/24 09:16*	*06/06/24 18:02*	*40*
Unknown	*35000*	*T H J*	*ug/Kg*	☼	*10.40*	*N/A*	*06/06/24 09:16*	*06/06/24 18:02*	*40*
Benzene, 1-methyl-4-(1-methylethyl)-	*25000*	*T H J N*	*ug/Kg*	☼	*10.85*	*99-87-6*	*06/06/24 09:16*	*06/06/24 18:02*	*40*
Unknown	*58000*	*T H J*	*ug/Kg*	☼	*11.62*	*N/A*	*06/06/24 09:16*	*06/06/24 18:02*	*40*
Naphthalene	*230000*	*T H J N*	*ug/Kg*	☼	*12.18*	*91-20-3*	*06/06/24 09:16*	*06/06/24 18:02*	*40*
Unknown	*150000*	*T H J*	*ug/Kg*	☼	*13.10*	*N/A*	*06/06/24 09:16*	*06/06/24 18:02*	*40*
Naphthalene, 2-methyl-	*76000*	*T H J N*	*ug/Kg*	☼	*13.25*	*91-57-6*	*06/06/24 09:16*	*06/06/24 18:02*	*40*
Naphthalene, 2,6-dimethyl-	*41000*	*T H J N*	*ug/Kg*	☼	*13.91*	*581-42-0*	*06/06/24 09:16*	*06/06/24 18:02*	*40*
Naphthalene, 2,3-dimethyl-	*51000*	*T H J N*	*ug/Kg*	☼	*14.03*	*581-40-8*	*06/06/24 09:16*	*06/06/24 18:02*	*40*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*53 - 146*	*06/06/24 09:16*	*06/06/24 18:02*	*40*
4-Bromofluorobenzene (Surr)	*102*		*49 - 148*	*06/06/24 09:16*	*06/06/24 18:02*	*40*
Toluene-d8 (Surr)	*99*		*50 - 149*	*06/06/24 09:16*	*06/06/24 18:02*	*40*
Dibromofluoromethane (Surr)	*90*		*60 - 140*	*06/06/24 09:16*	*06/06/24 18:02*	*40*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**41000**		15.2	13.1	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Antimony	ND		22.9	0.81	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Arsenic	**103**		3.0	1.3	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1

Client Sample ID: SED-14
Lab Sample ID: 480-220474-11
Date Collected: 06/04/24 00:00
Matrix: Solid
Date Received: 06/04/24 16:00
Percent Solids: 66.5

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	300		0.76	0.21	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Beryllium	0.73		0.30	0.061	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Cadmium	3.0		0.30	0.11	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Calcium	33600		76.2	41.1	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Chromium	2830		76.2	54.9	mg/Kg	☼	06/05/24 15:25	06/07/24 15:46	100
Cobalt	13.5		0.76	0.15	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Copper	406		1.5	0.87	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Iron	28100		15.2	12.9	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Lead	2630		1.5	0.70	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Magnesium	7170		30.5	12.9	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Manganese	405		1.5	0.43	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Nickel	358		7.6	0.38	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Potassium	1670		45.7	36.9	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Selenium	5.1	J	6.1	1.2	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Silver	ND		0.91	0.30	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Sodium	1220		213	93.4	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Thallium	ND		9.1	1.2	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Vanadium	354		0.76	0.20	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Zinc	1220		3.0	1.6	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	12.8		0.29	0.068	mg/Kg	☼	06/06/24 08:50	06/06/24 13:10	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	3.6	J	6.3	3.0	mg/Kg	☼	06/11/24 12:20	06/11/24 16:21	5
Total Organic Carbon (EPA-Lloyd Kahn)	211000		1500	1460	mg/Kg	☼		06/14/24 18:51	1
~~Total Organic Carbon (EPA-Lloyd Kahn)~~	~~220000~~	~~H~~	~~1500~~	~~1460~~	~~mg/Kg~~	~~☼~~		~~06/24/24 15:43~~	~~1~~

Client Sample ID: SED-15
Lab Sample ID: 480-220474-12
Date Collected: 06/04/24 00:00
Matrix: Solid
Date Received: 06/04/24 16:00
Percent Solids: 81.3

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2500	700	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
1,1,2,2-Tetrachloroethane	ND		2500	410	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2500	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
1,1,2-Trichloroethane	ND		2500	530	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
1,1-Dichloroethane	ND		2500	780	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
1,1-Dichloroethene	ND		2500	880	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
1,2,4-Trichlorobenzene	ND	UJ	2500	960	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
1,2-Dibromo-3-Chloropropane	ND		2500	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
1,2-Dichlorobenzene	1400	J	2500	650	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
1,2-Dichloroethane	ND		2500	1000	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
1,2-Dichloropropane	ND		2500	410	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
1,3-Dichlorobenzene	ND		2500	680	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
1,4-Dichlorobenzene	1300	J	2500	350	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40

Client Sample ID: SED-15

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-12

Matrix: Solid
Percent Solids: 81.3

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	ND		13000	7500	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
2-Hexanone	ND		13000	5200	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
4-Methyl-2-pentanone (MIBK)	ND		13000	810	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Acetone	ND		13000	10000	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Benzene	**3500**		2500	480	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Bromoform	ND		2500	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Bromomethane	ND		2500	560	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Carbon disulfide	ND		2500	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Carbon tetrachloride	ND		2500	650	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Chlorobenzene	**12000**		2500	330	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Dibromochloromethane	ND		2500	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Chloroethane	ND		2500	530	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Chloroform	ND		2500	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Chloromethane	ND	UJ	2500	600	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
cis-1,2-Dichloroethene	ND		2500	700	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Cyclohexane	**5300**	J	2500	560	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Bromodichloromethane	ND		2500	510	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Dichlorodifluoromethane	ND		2500	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Ethylbenzene	ND		2500	740	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
1,2-Dibromoethane	ND		2500	440	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Isopropylbenzene	**3700**		2500	380	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Methyl acetate	ND		13000	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Methyl tert-butyl ether	ND		2500	960	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Methylcyclohexane	**18000**		2500	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Methylene Chloride	ND		2500	500	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Tetrachloroethene	ND		2500	340	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Toluene	ND		2500	680	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
trans-1,2-Dichloroethene	ND		2500	600	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
trans-1,3-Dichloropropene	ND		2500	250	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Trichloroethene	ND		2500	700	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Trichlorofluoromethane	ND		2500	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Vinyl chloride	ND		2500	850	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Xylenes, Total	ND		5100	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
cis-1,3-Dichloropropene	ND		2500	610	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Styrene	ND		2500	610	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Benzene, 1-propenyl-	*23000*	*T H J N*	*ug/Kg*	☼	*10.40*	*637-50-3*	*06/06/24 09:16*	*06/06/24 18:26*	*40*
Benzene, 2-ethyl-1,3-dimethyl-	*19000*	*T H J N*	*ug/Kg*	☼	*10.85*	*2870-04-4*	*06/06/24 09:16*	*06/06/24 18:26*	*40*
Benzene, 1,2,3,5-tetramethyl-	*16000*	*T H J N*	*ug/Kg*	☼	*11.21*	*527-53-7*	*06/06/24 09:16*	*06/06/24 18:26*	*40*
Unknown	*46000*	*T H J*	*ug/Kg*	☼	*11.62*	*N/A*	*06/06/24 09:16*	*06/06/24 18:26*	*40*
Unknown	*110000*	*T H J*	*ug/Kg*	☼	*13.10*	*N/A*	*06/06/24 09:16*	*06/06/24 18:26*	*40*
Naphthalene, 2-methyl-	*60000*	*T H J N*	*ug/Kg*	☼	*13.25*	*91-57-6*	*06/06/24 09:16*	*06/06/24 18:26*	*40*
Naphthalene, 1-ethyl-	*24000*	*T H J N*	*ug/Kg*	☼	*13.83*	*1127-76-0*	*06/06/24 09:16*	*06/06/24 18:26*	*40*
Naphthalene, 2,6-dimethyl-	*42000*	*T H J N*	*ug/Kg*	☼	*13.91*	*581-42-0*	*06/06/24 09:16*	*06/06/24 18:26*	*40*
Unknown	*52000*	*T H J*	*ug/Kg*	☼	*14.03*	*N/A*	*06/06/24 09:16*	*06/06/24 18:26*	*40*
Naphthalene, 2,3-dimethyl-	*18000*	*T H J N*	*ug/Kg*	☼	*14.21*	*581-40-8*	*06/06/24 09:16*	*06/06/24 18:26*	*40*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*53 - 146*	*06/06/24 09:16*	*06/06/24 18:26*	*40*

Client Sample ID: SED-15
Lab Sample ID: 480-220474-12
Date Collected: 06/04/24 00:00
Matrix: Solid
Date Received: 06/04/24 16:00
Percent Solids: 81.3

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*49 - 148*	*06/06/24 09:16*	*06/06/24 18:26*	*40*
Toluene-d8 (Surr)	*100*		*50 - 149*	*06/06/24 09:16*	*06/06/24 18:26*	*40*
Dibromofluoromethane (Surr)	*93*		*60 - 140*	*06/06/24 09:16*	*06/06/24 18:26*	*40*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**7080**		12.2	10.5	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Antimony	**2.4**	**J**	18.3	0.65	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Arsenic	**31.3**		2.4	1.1	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Barium	**148**		0.61	0.17	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Beryllium	**0.41**		0.24	0.049	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Cadmium	**1.5**		0.24	0.085	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Calcium	**40300**		60.9	32.9	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Chromium	**182**		0.61	0.44	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Cobalt	**17.8**		0.61	0.12	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Copper	**11700**		122	69.4	mg/Kg	☼	06/05/24 15:25	06/07/24 15:48	100
Iron	**48100**		12.2	10.3	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Lead	**472**		1.2	0.56	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Magnesium	**13300**		24.4	10.3	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Manganese	**539**		1.2	0.34	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Nickel	**375**		6.1	0.30	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Potassium	**1210**		36.5	29.5	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Selenium	**8.0**		4.9	0.97	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Silver	**0.74**		0.73	0.24	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Sodium	**394**		170	74.7	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Thallium	ND		7.3	0.93	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Vanadium	**59.3**		0.61	0.16	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Zinc	**2390**		2.4	1.2	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**1.4**		0.024	0.0055	mg/Kg	☼	06/06/24 08:50	06/06/24 12:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	**6.6**		5.5	2.7	mg/Kg	☼	06/11/24 12:20	06/11/24 16:22	5
Total Organic Carbon (EPA-Lloyd Kahn)	**155000**		1230	1190	mg/Kg	☼		06/14/24 19:06	1
~~**Total Organic Carbon (EPA-Lloyd Kahn)**~~	~~**177000**~~	~~**H**~~	~~1230~~	~~1190~~	~~mg/Kg~~	~~☼~~		~~06/24/24 15:58~~	~~1~~

Client Sample ID: SED-06
Lab Sample ID: 480-220474-13
Date Collected: 06/04/24 00:00
Matrix: Waste
Date Received: 06/04/24 16:00

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		150000	22000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
1,4-Dioxane	ND		180000	49000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
bis (2-chloroisopropyl) ether	ND		150000	30000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
2,4,5-Trichlorophenol	ND		150000	41000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5

Client Sample ID: SED-06

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-13

Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,6-Trichlorophenol	ND		150000	30000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
2,4-Dichlorophenol	ND		150000	16000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
2,4-Dimethylphenol	ND	UJ	150000	36000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
2,4-Dinitrophenol	ND		1500000	690000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
2,4-Dinitrotoluene	**56000**	**J**	150000	31000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
2,6-Dinitrotoluene	ND		150000	18000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
2-Chloronaphthalene	ND		150000	25000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
2-Chlorophenol	ND		150000	27000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
2-Methylnaphthalene	**450000**	J	150000	30000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
2-Methylphenol	ND		150000	18000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
2-Nitroaniline	ND	UJ	290000	22000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
2-Nitrophenol	ND		150000	42000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
3,3'-Dichlorobenzidine	ND		290000	180000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
3-Nitroaniline	ND		290000	41000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
4,6-Dinitro-2-methylphenol	ND		290000	150000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
4-Bromophenyl phenyl ether	ND		150000	21000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
4-Chloro-3-methylphenol	ND		150000	37000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
4-Chloroaniline	ND		150000	37000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
4-Chlorophenyl phenyl ether	ND		150000	19000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
4-Methylphenol	ND		290000	18000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
4-Nitroaniline	ND		290000	79000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
4-Nitrophenol	ND		290000	110000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Acenaphthene	**26000**	**J**	150000	22000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Acenaphthylene	ND		150000	19000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Acetophenone	ND		150000	20000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Anthracene	ND		150000	37000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Atrazine	ND		150000	52000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Benzaldehyde	ND		150000	120000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Benzo[a]anthracene	**35000**	**J**	150000	15000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Benzo[a]pyrene	ND		150000	22000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Benzo[b]fluoranthene	ND		150000	24000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Benzo[g,h,i]perylene	ND		150000	16000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Benzo[k]fluoranthene	ND		150000	19000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Bis(2-chloroethoxy)methane	ND		150000	32000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Bis(2-chloroethyl)ether	ND		150000	19000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Bis(2-ethylhexyl) phthalate	ND	UJ	150000	51000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Butyl benzyl phthalate	ND		150000	25000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Caprolactam	ND		150000	45000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Carbazole	ND		150000	18000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Chrysene	**59000**	**J**	150000	34000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Dibenz(a,h)anthracene	ND		150000	26000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Dibenzofuran	ND		150000	18000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Diethyl phthalate	ND		150000	19000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Dimethyl phthalate	ND		150000	18000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Di-n-butyl phthalate	ND		150000	26000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Di-n-octyl phthalate	**24000**	**J**	150000	18000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Fluoranthene	**24000**	**J**	150000	16000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Fluorene	**52000**	**J**	150000	18000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Hexachlorobenzene	ND		150000	20000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5

Client Sample ID: SED-06

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-13

Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND		150000	22000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Hexachlorocyclopentadiene	ND	UJ	150000	20000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Hexachloroethane	ND		150000	19000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Indeno[1,2,3-cd]pyrene	ND		150000	19000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Isophorone	ND		150000	32000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Naphthalene	**150000**		150000	19000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Nitrobenzene	ND		150000	17000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
N-Nitrosodi-n-propylamine	ND		150000	26000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
N-Nitrosodiphenylamine	ND		150000	120000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Pentachlorophenol	ND		290000	150000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Phenanthrene	**220000**	J	150000	22000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Phenol	ND		150000	23000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Pyrene	**56000**	J	150000	18000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Undecane, 2,6-dimethyl-	*250000*	*T J N*	*ug/Kg*		*7.43*	*17301-23-4*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
Unknown	*380000*	*T J*	*ug/Kg*		*7.86*	*N/A*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
1,4-Methanonaphthalene, 1,4-dihydro-	*360000*	*T J N*	*ug/Kg*		*8.26*	*4453-90-1*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
Naphthalene, 1,7-dimethyl-	*440000*	*T J N*	*ug/Kg*		*8.88*	*575-37-1*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
Naphthalene, 2,3-dimethyl-	*500000*	*T J N*	*ug/Kg*		*8.97*	*581-40-8*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
Naphthalene, 2,6-dimethyl-	*260000*	*T J N*	*ug/Kg*		*9.00*	*581-42-0*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
3-(2-Methyl-propenyl)-1H-indene	*310000*	*T J N*	*ug/Kg*		*9.50*	*134261-85-1*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
Naphthalene, 1,4,6-trimethyl-	*320000*	*T J N*	*ug/Kg*		*9.66*	*2131-42-2*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
Naphthalene, 1,6,7-trimethyl-	*290000*	*T J N*	*ug/Kg*		*9.74*	*2245-38-7*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
Bacchotricuneatin c	*500000*	*T J N*	*ug/Kg*		*10.18*	*66563-30-2*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
Pentadecane, 2,6,10,14-tetramethyl-	*560000*	*T J N*	*ug/Kg*		*10.47*	*1921-70-6*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
Hexadecane, 2,6,10,14-tetramethyl-	*380000*	*T J N*	*ug/Kg*		*10.94*	*638-36-8*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
Anthracene, 2-methyl-	*330000*	*T J N*	*ug/Kg*		*11.47*	*613-12-7*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
Phenanthrene, 2-methyl-	*420000*	*T J N*	*ug/Kg*		*11.49*	*2531-84-2*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
Anthracene, 1-methyl-	*270000*	*T J N*	*ug/Kg*		*11.57*	*610-48-0*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
2,8-Dimethyldibenzo(B,D)thiophene	*270000*	*T J N*	*ug/Kg*		*11.77*	*1207-15-4*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
Phenanthrene, 2,7-dimethyl-	*270000*	*T J N*	*ug/Kg*		*11.92*	*1576-69-8*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
Phenanthrene, 2,5-dimethyl-	*590000*	*T J N*	*ug/Kg*		*11.99*	*3674-66-6*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
Phenanthrene, 3,6-dimethyl-	*240000*	*T J N*	*ug/Kg*		*12.01*	*1576-67-6*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
Unknown	*280000*	*T J*	*ug/Kg*		*12.39*	*N/A*	*06/07/24 06:49*	*06/10/24 16:36*	*5*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*60*		*40 - 121*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
p-Terphenyl-d14	*65*		*46 - 143*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
Phenol-d5	*59*		*41 - 120*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
2-Fluorophenol	*62*		*36 - 120*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
2,4,6-Tribromophenol	*49*		*26 - 143*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
2-Fluorobiphenyl	*69*		*50 - 121*	*06/07/24 06:49*	*06/10/24 16:36*	*5*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.8	0.54	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
4,4'-DDE	ND		2.8	0.78	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
4,4'-DDT	ND		2.8	0.61	mg/Kg		06/06/24 10:13	06/07/24 10:09	10

Client Sample ID: SED-06
Lab Sample ID: 480-220474-13
Date Collected: 06/04/24 00:00
Matrix: Waste
Date Received: 06/04/24 16:00

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		2.8	0.28	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
alpha-BHC	ND		2.8	0.50	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
cis-Chlordane	ND		2.8	1.4	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
beta-BHC	ND		2.8	2.0	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
delta-BHC	ND		2.8	0.37	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
Dieldrin	ND		2.8	0.67	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
Endosulfan I	ND		2.8	0.59	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
Endosulfan II	ND		2.8	0.50	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
Endosulfan sulfate	ND		2.8	0.52	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
Endrin	ND		2.8	0.89	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
Endrin aldehyde	ND		2.8	0.71	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
Endrin ketone	ND		2.8	0.67	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
gamma-BHC (Lindane)	ND		2.8	2.0	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
trans-Chlordane	ND		2.8	0.38	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
Heptachlor	ND		2.8	0.43	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
Heptachlor epoxide	ND		2.8	0.72	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
Methoxychlor	ND		2.8	0.72	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
Toxaphene	ND		28	16	mg/Kg		06/06/24 10:13	06/07/24 10:09	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*101*		*45 - 120*	*06/06/24 10:13*	*06/07/24 10:09*	*10*
DCB Decachlorobiphenyl	*251*	*S1+*	*45 - 120*	*06/06/24 10:13*	*06/07/24 10:09*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 10:09*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 10:09*	*10*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		21	4.1	mg/Kg		06/07/24 06:55	06/10/24 20:51	5
PCB-1221	ND		21	4.1	mg/Kg		06/07/24 06:55	06/10/24 20:51	5
PCB-1232	ND		21	4.1	mg/Kg		06/07/24 06:55	06/10/24 20:51	5
PCB-1242	ND		21	4.1	mg/Kg		06/07/24 06:55	06/10/24 20:51	5
PCB-1248	ND		21	4.1	mg/Kg		06/07/24 06:55	06/10/24 20:51	5
PCB-1254	ND		21	0.98	mg/Kg		06/07/24 06:55	06/10/24 20:51	5
PCB-1260	ND		21	0.98	mg/Kg		06/07/24 06:55	06/10/24 20:51	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*72*		*60 - 154*	*06/07/24 06:55*	*06/10/24 20:51*	*5*
Tetrachloro-m-xylene	*68*		*60 - 154*	*06/07/24 06:55*	*06/10/24 20:51*	*5*
DCB Decachlorobiphenyl	*80*		*65 - 174*	*06/07/24 06:55*	*06/10/24 20:51*	*5*
DCB Decachlorobiphenyl	*114*		*65 - 174*	*06/07/24 06:55*	*06/10/24 20:51*	*5*

Client Sample ID: SED-07
Lab Sample ID: 480-220474-14
Date Collected: 06/04/24 00:00
Matrix: Waste
Date Received: 06/04/24 16:00

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		300000	44000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
bis (2-chloroisopropyl) ether	ND		300000	60000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
2,4,5-Trichlorophenol	ND		300000	81000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
2,4,6-Trichlorophenol	ND		300000	60000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10

Client Sample ID: SED-07
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-14
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		300000	32000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
2,4-Dimethylphenol	ND		300000	72000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
2,4-Dinitrophenol	ND		2900000	1400000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
2,4-Dinitrotoluene	ND		300000	62000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
2,6-Dinitrotoluene	ND		300000	35000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
2-Chloronaphthalene	ND		300000	49000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
2-Chlorophenol	ND		300000	55000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
2-Methylnaphthalene	**380000**		300000	60000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
2-Methylphenol	ND		300000	35000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
2-Nitroaniline	ND		580000	44000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
2-Nitrophenol	ND		300000	85000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
3,3'-Dichlorobenzidine	ND		580000	350000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
3-Nitroaniline	ND		580000	83000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
4,6-Dinitro-2-methylphenol	ND		580000	300000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
4-Bromophenyl phenyl ether	ND		300000	42000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
4-Chloro-3-methylphenol	ND		300000	74000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
4-Chloroaniline	ND		300000	74000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
4-Chlorophenyl phenyl ether	ND		300000	37000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
4-Methylphenol	ND		580000	35000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
4-Nitroaniline	ND		580000	160000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
4-Nitrophenol	ND		580000	210000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Acenaphthene	ND		300000	44000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Acenaphthylene	ND		300000	39000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Acetophenone	ND		300000	41000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Anthracene	ND		300000	74000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Atrazine	ND		300000	100000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Benzaldehyde	ND		300000	240000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Benzo[a]anthracene	ND		300000	30000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Benzo[a]pyrene	ND		300000	44000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Benzo[b]fluoranthene	ND		300000	48000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Benzo[g,h,i]perylene	ND		300000	32000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Benzo[k]fluoranthene	ND		300000	39000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Bis(2-chloroethoxy)methane	ND		300000	64000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Bis(2-chloroethyl)ether	ND		300000	39000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Bis(2-ethylhexyl) phthalate	ND		300000	100000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Butyl benzyl phthalate	ND		300000	49000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Caprolactam	ND		300000	90000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Carbazole	ND		300000	35000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Chrysene	ND		300000	67000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Dibenz(a,h)anthracene	ND		300000	53000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Dibenzofuran	ND		300000	35000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Diethyl phthalate	ND		300000	39000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Dimethyl phthalate	ND		300000	35000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Di-n-butyl phthalate	ND		300000	51000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Di-n-octyl phthalate	ND		300000	35000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Fluoranthene	ND		300000	32000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Fluorene	**62000**	**J**	300000	35000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Hexachlorobenzene	ND		300000	41000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Hexachlorobutadiene	ND		300000	44000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10

Client Sample ID: SED-07
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-14
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorocyclopentadiene	ND	UJ	300000	41000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Hexachloroethane	ND		300000	39000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Indeno[1,2,3-cd]pyrene	ND		300000	37000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Isophorone	ND		300000	64000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Naphthalene	**200000**	**J**	300000	39000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Nitrobenzene	ND		300000	34000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
N-Nitrosodi-n-propylamine	ND		300000	51000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
N-Nitrosodiphenylamine	ND		300000	240000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Pentachlorophenol	ND		580000	300000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Phenanthrene	**330000**		300000	44000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Phenol	ND		300000	46000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Pyrene	**92000**	**J**	300000	35000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Naphthalene, 2,7-dimethyl-	*460000*	*T J N*	*ug/Kg*		*8.88*	*582-16-1*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
Naphthalene, 1,6-dimethyl-	*520000*	*T J N*	*ug/Kg*		*8.97*	*575-43-9*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
Naphthalene, 2,3-dimethyl-	*430000*	*T J N*	*ug/Kg*		*9.11*	*581-40-8*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
Naphthalene, 2-(1-methylethyl)-	*350000*	*T J N*	*ug/Kg*		*9.49*	*2027-17-0*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
Naphthalene, 2,3,6-trimethyl-	*440000*	*T J N*	*ug/Kg*		*9.61*	*829-26-5*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
Naphthalene, 1,6,7-trimethyl-	*340000*	*T J N*	*ug/Kg*		*9.66*	*2245-38-7*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
Unknown	*440000*	*T J*	*ug/Kg*		*10.18*	*N/A*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
Dibenzothiophene, 3-methyl-	*360000*	*T J N*	*ug/Kg*		*11.30*	*16587-52-3*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
Anthracene, 1-methyl-	*520000*	*T J N*	*ug/Kg*		*11.47*	*610-48-0*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
Phenanthrene, 2-methyl-	*700000*	*T J N*	*ug/Kg*		*11.49*	*2531-84-2*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
Anthracene, 9-methyl-	*420000*	*T J N*	*ug/Kg*		*11.57*	*779-02-2*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
Anthracene, 2-methyl-	*400000*	*T J N*	*ug/Kg*		*11.60*	*613-12-7*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
2,8-Dimethyldibenzo(B,D)thiophene	*430000*	*T J N*	*ug/Kg*		*11.78*	*1207-15-4*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
Phenanthrene, 2,7-dimethyl-	*370000*	*T J N*	*ug/Kg*		*11.92*	*1576-69-8*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
Phenanthrene, 3,6-dimethyl-	*320000*	*T J N*	*ug/Kg*		*11.94*	*1576-67-6*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
9,10-Dimethylanthracene	*900000*	*T J N*	*ug/Kg*		*11.99*	*781-43-1*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
Phenanthrene, 2,5-dimethyl-	*440000*	*T J N*	*ug/Kg*		*12.01*	*3674-66-6*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
1H-Indene, 2-methyl-3-phenyl-	*330000*	*T J N*	*ug/Kg*		*12.06*	*35099-60-6*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
Unknown	*350000*	*T J*	*ug/Kg*		*12.36*	*N/A*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
Unknown	*490000*	*T J*	*ug/Kg*		*12.39*	*N/A*	*06/07/24 06:49*	*06/10/24 17:04*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*69*		*40 - 121*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
p-Terphenyl-d14	*66*		*46 - 143*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
Phenol-d5	*62*		*41 - 120*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
2-Fluorophenol	*63*		*36 - 120*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
2,4,6-Tribromophenol	*48*		*26 - 143*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
2-Fluorobiphenyl	*79*		*50 - 121*	*06/07/24 06:49*	*06/10/24 17:04*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		3.1	0.61	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
4,4'-DDE	ND		3.1	0.88	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
4,4'-DDT	ND		3.1	0.69	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
Aldrin	ND		3.1	0.32	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
alpha-BHC	ND		3.1	0.56	mg/Kg		06/06/24 10:13	06/07/24 10:29	10

Client Sample ID: SED-07
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-14
Matrix: Waste

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-Chlordane	ND		3.1	1.6	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
beta-BHC	ND		3.1	2.3	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
delta-BHC	ND		3.1	0.41	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
Dieldrin	ND		3.1	0.75	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
Endosulfan I	ND		3.1	0.66	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
Endosulfan II	ND		3.1	0.56	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
Endosulfan sulfate	ND		3.1	0.58	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
Endrin	ND		3.1	1.0	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
Endrin aldehyde	ND		3.1	0.80	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
Endrin ketone	ND		3.1	0.75	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
gamma-BHC (Lindane)	ND		3.1	2.3	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
trans-Chlordane	ND		3.1	0.43	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
Heptachlor	ND		3.1	0.49	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
Heptachlor epoxide	ND		3.1	0.81	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
Methoxychlor	ND		3.1	0.81	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
Toxaphene	ND		31	18	mg/Kg		06/06/24 10:13	06/07/24 10:29	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*143*	*S1+*	*45 - 120*	*06/06/24 10:13*	*06/07/24 10:29*	*10*
DCB Decachlorobiphenyl	*304*	*S1+*	*45 - 120*	*06/06/24 10:13*	*06/07/24 10:29*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 10:29*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 10:29*	*10*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		13	2.6	mg/Kg		06/07/24 06:55	06/10/24 21:08	5
PCB-1221	ND		13	2.6	mg/Kg		06/07/24 06:55	06/10/24 21:08	5
PCB-1232	ND		13	2.6	mg/Kg		06/07/24 06:55	06/10/24 21:08	5
PCB-1242	ND		13	2.6	mg/Kg		06/07/24 06:55	06/10/24 21:08	5
PCB-1248	ND		13	2.6	mg/Kg		06/07/24 06:55	06/10/24 21:08	5
PCB-1254	ND		13	0.62	mg/Kg		06/07/24 06:55	06/10/24 21:08	5
PCB-1260	ND		13	0.62	mg/Kg		06/07/24 06:55	06/10/24 21:08	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*64*		*60 - 154*	*06/07/24 06:55*	*06/10/24 21:08*	*5*
Tetrachloro-m-xylene	*62*		*60 - 154*	*06/07/24 06:55*	*06/10/24 21:08*	*5*
DCB Decachlorobiphenyl	*69*		*65 - 174*	*06/07/24 06:55*	*06/10/24 21:08*	*5*
DCB Decachlorobiphenyl	*103*		*65 - 174*	*06/07/24 06:55*	*06/10/24 21:08*	*5*

Client Sample ID: SED-08
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-15
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	**15000**	**J**	43000	6300	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
1,4-Dioxane	ND		50000	14000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
bis (2-chloroisopropyl) ether	ND		43000	8500	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
2,4,5-Trichlorophenol	ND		43000	12000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
2,4,6-Trichlorophenol	ND		43000	8500	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
2,4-Dichlorophenol	ND		43000	4500	ug/Kg		06/07/24 06:49	06/12/24 13:37	1

Client Sample ID: SED-08
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-15
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	ND		43000	10000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
2,4-Dinitrophenol	ND		420000	200000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
2,4-Dinitrotoluene	ND		43000	8800	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
2,6-Dinitrotoluene	ND		43000	5000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
2-Chloronaphthalene	ND		43000	7000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
2-Chlorophenol	ND		43000	7800	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
2-Methylnaphthalene	**170000**	J	43000	8500	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
2-Methylphenol	ND		43000	5000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
2-Nitroaniline	ND		83000	6300	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
2-Nitrophenol	ND		43000	12000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
3,3'-Dichlorobenzidine	ND		83000	50000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
3-Nitroaniline	ND		83000	12000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
4,6-Dinitro-2-methylphenol	ND		83000	43000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
4-Bromophenyl phenyl ether	ND		43000	6000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
4-Chloro-3-methylphenol	ND		43000	11000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
4-Chloroaniline	ND		43000	11000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
4-Chlorophenyl phenyl ether	ND		43000	5300	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
4-Methylphenol	ND		83000	5000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
4-Nitroaniline	ND		83000	22000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
4-Nitrophenol	ND		83000	30000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Acenaphthene	**18000**	J	43000	6300	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Acenaphthylene	**15000**	J	43000	5500	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Acetophenone	ND		43000	5800	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Anthracene	**46000**	J	43000	11000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Atrazine	ND		43000	15000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Benzaldehyde	ND		43000	34000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Benzo[a]anthracene	**45000**	J	43000	4300	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Benzo[a]pyrene	**36000**	J	43000	6300	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Benzo[b]fluoranthene	**32000**	J	43000	6800	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Benzo[g,h,i]perylene	**19000**	J	43000	4500	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Benzo[k]fluoranthene	**15000**	J	43000	5500	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Bis(2-chloroethoxy)methane	ND		43000	9000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Bis(2-chloroethyl)ether	ND		43000	5500	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Bis(2-ethylhexyl) phthalate	ND		43000	15000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Butyl benzyl phthalate	ND		43000	7000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Caprolactam	ND		43000	13000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Carbazole	**24000**	J	43000	5000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Chrysene	**60000**	J	43000	9500	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Dibenz(a,h)anthracene	ND		43000	7500	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Dibenzofuran	**46000**	J	43000	5000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Diethyl phthalate	ND		43000	5500	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Dimethyl phthalate	ND		43000	5000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Di-n-butyl phthalate	ND		43000	7300	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Di-n-octyl phthalate	ND		43000	5000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Fluoranthene	**120000**	J	43000	4500	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Fluorene	**75000**	J	43000	5000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Hexachlorobenzene	ND		43000	5800	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Hexachlorobutadiene	ND		43000	6300	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Hexachlorocyclopentadiene	ND		43000	5800	ug/Kg		06/07/24 06:49	06/12/24 13:37	1

Client Sample ID: SED-08
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-15
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachloroethane	ND		43000	5500	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Indeno[1,2,3-cd]pyrene	**13000**	**J**	43000	5300	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Isophorone	ND		43000	9000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Naphthalene	**410000**	J	43000	5500	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Nitrobenzene	ND		43000	4800	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
N-Nitrosodi-n-propylamine	ND		43000	7300	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
N-Nitrosodiphenylamine	ND		43000	35000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Pentachlorophenol	ND		83000	43000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Phenanthrene	**260000**	J	43000	6300	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Phenol	ND		43000	6500	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Pyrene	**98000**	J	43000	5000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*200000*	*T J*	*ug/Kg*		*2.02*	*N/A*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Methylene Chloride	*390000*	*T J N*	*ug/Kg*		*2.09*	*75-09-2*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Dodecane	*140000*	*T J N*	*ug/Kg*		*7.33*	*112-40-3*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Tridecane	*160000*	*T J N*	*ug/Kg*		*8.06*	*629-50-5*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Pentadecane, 2,6,10-trimethyl-	*190000*	*T J N*	*ug/Kg*		*10.18*	*3892-00-0*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Heptadecane	*150000*	*T J N*	*ug/Kg*		*10.45*	*629-78-7*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Octadecane	*130000*	*T J N*	*ug/Kg*		*10.91*	*593-45-3*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Nonadecane	*150000*	*T J N*	*ug/Kg*		*11.33*	*629-92-5*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Phenanthrene, 2-methyl-	*170000*	*T J N*	*ug/Kg*		*11.47*	*2531-84-2*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Anthracene, 2-methyl-	*230000*	*T J N*	*ug/Kg*		*11.49*	*613-12-7*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Phenanthrene, 1-methyl-	*160000*	*T J N*	*ug/Kg*		*11.57*	*832-69-9*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Anthracene, 1-methyl-	*140000*	*T J N*	*ug/Kg*		*11.59*	*610-48-0*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Eicosane	*120000*	*T J N*	*ug/Kg*		*11.71*	*112-95-8*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Unknown	*120000*	*T J*	*ug/Kg*		*11.77*	*N/A*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Phenanthrene, 3,6-dimethyl-	*130000*	*T J N*	*ug/Kg*		*11.92*	*1576-67-6*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Phenanthrene, 2,5-dimethyl-	*310000*	*T J N*	*ug/Kg*		*11.99*	*3674-66-6*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Phenanthrene, 2,7-dimethyl-	*130000*	*T J N*	*ug/Kg*		*12.01*	*1576-69-8*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Docosane	*210000*	*T J N*	*ug/Kg*		*12.06*	*629-97-0*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Phenanthrene, 2,3,5-trimethyl-	*190000*	*T J N*	*ug/Kg*		*12.39*	*3674-73-5*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Tricosane	*140000*	*T J N*	*ug/Kg*		*12.69*	*638-67-5*	*06/07/24 06:49*	*06/12/24 13:37*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*62*		*40 - 121*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
p-Terphenyl-d14	*68*		*46 - 143*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Phenol-d5	*61*		*41 - 120*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
2-Fluorophenol	*61*		*36 - 120*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
2,4,6-Tribromophenol	*62*		*26 - 143*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
2-Fluorobiphenyl	*72*		*50 - 121*	*06/07/24 06:49*	*06/12/24 13:37*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.8	0.54	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
4,4'-DDE	ND		2.8	0.78	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
4,4'-DDT	ND		2.8	0.61	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
Aldrin	ND		2.8	0.28	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
alpha-BHC	ND		2.8	0.50	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
cis-Chlordane	ND		2.8	1.4	mg/Kg		06/06/24 10:13	06/07/24 10:49	10

Client Sample ID: SED-08
Lab Sample ID: 480-220474-15
Date Collected: 06/04/24 00:00
Matrix: Waste
Date Received: 06/04/24 16:00

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
beta-BHC	ND		2.8	2.0	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
delta-BHC	ND		2.8	0.37	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
Dieldrin	ND		2.8	0.67	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
Endosulfan I	ND		2.8	0.59	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
Endosulfan II	ND		2.8	0.50	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
Endosulfan sulfate	ND		2.8	0.52	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
Endrin	ND		2.8	0.89	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
Endrin aldehyde	ND		2.8	0.71	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
Endrin ketone	ND		2.8	0.67	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
gamma-BHC (Lindane)	ND		2.8	2.0	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
trans-Chlordane	ND		2.8	0.38	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
Heptachlor	ND		2.8	0.43	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
Heptachlor epoxide	ND		2.8	0.72	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
Methoxychlor	ND		2.8	0.72	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
Toxaphene	ND		28	16	mg/Kg		06/06/24 10:13	06/07/24 10:49	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*118*		*45 - 120*	*06/06/24 10:13*	*06/07/24 10:49*	*10*
DCB Decachlorobiphenyl	*317*	*S1+*	*45 - 120*	*06/06/24 10:13*	*06/07/24 10:49*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 10:49*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 10:49*	*10*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		4.5	0.89	mg/Kg		06/07/24 06:55	06/10/24 21:25	1
PCB-1221	ND		4.5	0.89	mg/Kg		06/07/24 06:55	06/10/24 21:25	1
PCB-1232	ND		4.5	0.89	mg/Kg		06/07/24 06:55	06/10/24 21:25	1
PCB-1242	ND		4.5	0.89	mg/Kg		06/07/24 06:55	06/10/24 21:25	1
PCB-1248	ND		4.5	0.89	mg/Kg		06/07/24 06:55	06/10/24 21:25	1
PCB-1254	ND		4.5	0.21	mg/Kg		06/07/24 06:55	06/10/24 21:25	1
PCB-1260	ND		4.5	0.21	mg/Kg		06/07/24 06:55	06/10/24 21:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*64*		*60 - 154*	*06/07/24 06:55*	*06/10/24 21:25*	*1*
Tetrachloro-m-xylene	*61*		*60 - 154*	*06/07/24 06:55*	*06/10/24 21:25*	*1*
DCB Decachlorobiphenyl	*74*		*65 - 174*	*06/07/24 06:55*	*06/10/24 21:25*	*1*
DCB Decachlorobiphenyl	*83*		*65 - 174*	*06/07/24 06:55*	*06/10/24 21:25*	*1*

Client Sample ID: SED-08-FD
Lab Sample ID: 480-220474-16
Date Collected: 06/04/24 00:00
Matrix: Waste
Date Received: 06/04/24 16:00

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND	UJ	320000	47000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
1,4-Dioxane	ND		380000	100000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
bis (2-chloroisopropyl) ether	ND		320000	64000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
2,4,5-Trichlorophenol	ND		320000	86000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
2,4,6-Trichlorophenol	ND		320000	64000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
2,4-Dichlorophenol	ND		320000	34000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
2,4-Dimethylphenol	ND		320000	77000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10

Client Sample ID: SED-08-FD
Lab Sample ID: 480-220474-16

Date Collected: 06/04/24 00:00
Matrix: Waste

Date Received: 06/04/24 16:00

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	ND		3100000	1500000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
2,4-Dinitrotoluene	ND		320000	66000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
2,6-Dinitrotoluene	ND		320000	38000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
2-Chloronaphthalene	ND		320000	53000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
2-Chlorophenol	ND		320000	58000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
2-Methylnaphthalene	**710000**	J	320000	64000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
2-Methylphenol	ND		320000	38000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
2-Nitroaniline	ND		620000	47000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
2-Nitrophenol	ND		320000	90000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
3,3'-Dichlorobenzidine	ND		620000	380000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
3-Nitroaniline	ND		620000	88000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
4,6-Dinitro-2-methylphenol	ND		620000	320000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
4-Bromophenyl phenyl ether	ND		320000	45000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
4-Chloro-3-methylphenol	ND		320000	79000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
4-Chloroaniline	ND		320000	79000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
4-Chlorophenyl phenyl ether	ND		320000	39000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
4-Methylphenol	ND		620000	38000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
4-Nitroaniline	ND		620000	170000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
4-Nitrophenol	ND		620000	220000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Acenaphthene	**69000**	J	320000	47000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Acenaphthylene	**57000**	J	320000	41000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Acetophenone	ND		320000	43000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Anthracene	**140000**	J	320000	79000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Atrazine	ND		320000	110000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Benzaldehyde	ND		320000	250000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Benzo[a]anthracene	**150000**	J	320000	32000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Benzo[a]pyrene	**120000**	J	320000	47000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Benzo[b]fluoranthene	**100000**	J	320000	51000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Benzo[g,h,i]perylene	**73000**	J	320000	34000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Benzo[k]fluoranthene	**49000**	J	320000	41000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Bis(2-chloroethoxy)methane	ND		320000	68000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Bis(2-chloroethyl)ether	ND		320000	41000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Bis(2-ethylhexyl) phthalate	ND		320000	110000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Butyl benzyl phthalate	ND		320000	53000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Caprolactam	ND		320000	96000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Carbazole	**84000**	J	320000	38000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Chrysene	**180000**	J	320000	71000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Dibenz(a,h)anthracene	ND		320000	56000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Dibenzofuran	**140000**	J	320000	38000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Diethyl phthalate	ND		320000	41000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Dimethyl phthalate	ND		320000	38000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Di-n-butyl phthalate	ND		320000	54000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Di-n-octyl phthalate	ND		320000	38000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Fluoranthene	**350000**	J	320000	34000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Fluorene	**230000**	J	320000	38000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Hexachlorobenzene	ND		320000	43000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Hexachlorobutadiene	ND		320000	47000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Hexachlorocyclopentadiene	ND		320000	43000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Hexachloroethane	ND		320000	41000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10

Client Sample ID: SED-08-FD
Lab Sample ID: 480-220474-16

Date Collected: 06/04/24 00:00
Matrix: Waste

Date Received: 06/04/24 16:00

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	**52000**	**J**	320000	39000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Isophorone	ND		320000	68000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Naphthalene	**1400000**	J	320000	41000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Nitrobenzene	ND		320000	36000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
N-Nitrosodi-n-propylamine	ND		320000	54000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
N-Nitrosodiphenylamine	ND		320000	260000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Pentachlorophenol	ND		620000	320000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Phenanthrene	**860000**	J	320000	47000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Phenol	ND		320000	49000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Pyrene	**310000**	**J**	320000	38000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*420000*	*T J*	*ug/Kg*		*7.86*	*N/A*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
Tetradecane	*440000*	*T J N*	*ug/Kg*		*8.06*	*629-59-4*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
Naphthalene, 1-methyl-	*450000*	*T J N*	*ug/Kg*		*8.25*	*90-12-0*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
Naphthalene, 2,6-dimethyl-	*580000*	*T J N*	*ug/Kg*		*8.88*	*581-42-0*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
Naphthalene, 2,3-dimethyl-	*640000*	*T J N*	*ug/Kg*		*8.97*	*581-40-8*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
Naphthalene, 1,6-dimethyl-	*740000*	*T J N*	*ug/Kg*		*9.10*	*575-43-9*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
Naphthalene, 1,4,6-trimethyl-	*410000*	*T J N*	*ug/Kg*		*9.49*	*2131-42-2*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
Naphthalene, 1,6,7-trimethyl-	*430000*	*T J N*	*ug/Kg*		*9.66*	*2245-38-7*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
Pentadecane, 2,6,10,14-tetramethyl-	*740000*	*T J N*	*ug/Kg*		*10.46*	*1921-70-6*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
Anthracene, 2-methyl-	*660000*	*T J N*	*ug/Kg*		*11.47*	*613-12-7*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
1H-Cyclopropa[l]phenanthrene,1a,9b -dihydro-	*800000*	*T J N*	*ug/Kg*		*11.49*	*949-41-7*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
Phenanthrene, 1-methyl-	*580000*	*T J N*	*ug/Kg*		*11.57*	*832-69-9*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
Anthracene, 1-methyl-	*460000*	*T J N*	*ug/Kg*		*11.59*	*610-48-0*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
2,8-Dimethyldibenzo(B,D)thiophene	*430000*	*T J N*	*ug/Kg*		*11.77*	*1207-15-4*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
Phenanthrene, 2,7-dimethyl-	*500000*	*T J N*	*ug/Kg*		*11.92*	*1576-69-8*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
Phenanthrene, 2,3-dimethyl-	*1100000*	*T J N*	*ug/Kg*		*11.99*	*3674-65-5*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
Phenanthrene, 2,5-dimethyl-	*510000*	*T J N*	*ug/Kg*		*12.01*	*3674-66-6*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
9,10-Dimethylanthracene	*410000*	*T J N*	*ug/Kg*		*12.06*	*781-43-1*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
Unknown	*420000*	*T J*	*ug/Kg*		*12.35*	*N/A*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
Phenanthrene, 2,3,5-trimethyl-	*600000*	*T J N*	*ug/Kg*		*12.39*	*3674-73-5*	*06/07/24 06:49*	*06/12/24 14:06*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*70*		*40 - 121*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
p-Terphenyl-d14	*72*		*46 - 143*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
Phenol-d5	*61*		*41 - 120*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
2-Fluorophenol	*65*		*36 - 120*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
2,4,6-Tribromophenol	*60*		*26 - 143*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
2-Fluorobiphenyl	*77*		*50 - 121*	*06/07/24 06:49*	*06/12/24 14:06*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		3.1	0.61	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
4,4'-DDE	ND		3.1	0.88	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
4,4'-DDT	ND		3.1	0.69	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
Aldrin	ND		3.1	0.32	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
alpha-BHC	ND		3.1	0.56	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
cis-Chlordane	ND		3.1	1.6	mg/Kg		06/06/24 10:13	06/07/24 11:08	10

Client Sample ID: SED-08-FD
Lab Sample ID: 480-220474-16

Date Collected: 06/04/24 00:00
Matrix: Waste
Date Received: 06/04/24 16:00

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
beta-BHC	ND		3.1	2.3	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
delta-BHC	ND		3.1	0.41	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
Dieldrin	ND		3.1	0.75	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
Endosulfan I	ND		3.1	0.66	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
Endosulfan II	ND		3.1	0.56	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
Endosulfan sulfate	ND		3.1	0.58	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
Endrin	ND		3.1	1.0	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
Endrin aldehyde	ND		3.1	0.80	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
Endrin ketone	ND		3.1	0.75	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
gamma-BHC (Lindane)	ND		3.1	2.3	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
trans-Chlordane	ND		3.1	0.43	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
Heptachlor	ND		3.1	0.49	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
Heptachlor epoxide	ND		3.1	0.81	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
Methoxychlor	ND		3.1	0.81	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
Toxaphene	ND		31	18	mg/Kg		06/06/24 10:13	06/07/24 11:08	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*130*	*S1+*	*45 - 120*	*06/06/24 10:13*	*06/07/24 11:08*	*10*
DCB Decachlorobiphenyl	*209*	*S1+*	*45 - 120*	*06/06/24 10:13*	*06/07/24 11:08*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 11:08*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 11:08*	*10*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		18	3.5	mg/Kg		06/07/24 06:55	06/10/24 21:41	5
PCB-1221	ND		18	3.5	mg/Kg		06/07/24 06:55	06/10/24 21:41	5
PCB-1232	ND		18	3.5	mg/Kg		06/07/24 06:55	06/10/24 21:41	5
PCB-1242	ND		18	3.5	mg/Kg		06/07/24 06:55	06/10/24 21:41	5
PCB-1248	ND		18	3.5	mg/Kg		06/07/24 06:55	06/10/24 21:41	5
PCB-1254	ND		18	0.84	mg/Kg		06/07/24 06:55	06/10/24 21:41	5
PCB-1260	ND		18	0.84	mg/Kg		06/07/24 06:55	06/10/24 21:41	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*62*		*60 - 154*	*06/07/24 06:55*	*06/10/24 21:41*	*5*
Tetrachloro-m-xylene	*63*		*60 - 154*	*06/07/24 06:55*	*06/10/24 21:41*	*5*
DCB Decachlorobiphenyl	*92*		*65 - 174*	*06/07/24 06:55*	*06/10/24 21:41*	*5*
DCB Decachlorobiphenyl	*96*		*65 - 174*	*06/07/24 06:55*	*06/10/24 21:41*	*5*

Client Sample ID: SED-09
Lab Sample ID: 480-220474-17

Date Collected: 06/04/24 00:00
Matrix: Waste
Date Received: 06/04/24 16:00

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		160000	23000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
bis (2-chloroisopropyl) ether	ND		160000	32000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
2,4,5-Trichlorophenol	ND		160000	43000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
2,4,6-Trichlorophenol	ND		160000	32000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
2,4-Dichlorophenol	ND		160000	17000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
2,4-Dimethylphenol	ND		160000	38000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
2,4-Dinitrophenol	ND		1600000	740000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5

Client Sample ID: SED-09

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-17

Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		160000	33000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
2,6-Dinitrotoluene	ND		160000	19000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
2-Chloronaphthalene	ND		160000	26000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
2-Chlorophenol	ND		160000	29000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
2-Methylnaphthalene	**420000**		160000	32000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
2-Methylphenol	ND		160000	19000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
2-Nitroaniline	ND		310000	23000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
2-Nitrophenol	ND		160000	45000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
3,3'-Dichlorobenzidine	ND		310000	190000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
3-Nitroaniline	ND		310000	44000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
4,6-Dinitro-2-methylphenol	ND		310000	160000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
4-Bromophenyl phenyl ether	ND		160000	23000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
4-Chloro-3-methylphenol	ND		160000	39000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
4-Chloroaniline	ND		160000	39000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
4-Chlorophenyl phenyl ether	ND		160000	20000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
4-Methylphenol	ND		310000	19000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
4-Nitroaniline	ND		310000	83000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
4-Nitrophenol	ND		310000	110000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Acenaphthene	ND		160000	23000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Acenaphthylene	ND		160000	21000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Acetophenone	ND		160000	22000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Anthracene	ND		160000	39000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Atrazine	ND		160000	55000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Benzaldehyde	ND		160000	130000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Benzo[a]anthracene	ND		160000	16000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Benzo[a]pyrene	ND		160000	23000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Benzo[b]fluoranthene	ND		160000	25000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Benzo[g,h,i]perylene	ND		160000	17000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Benzo[k]fluoranthene	ND		160000	21000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Bis(2-chloroethoxy)methane	ND		160000	34000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Bis(2-chloroethyl)ether	ND		160000	21000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Bis(2-ethylhexyl) phthalate	ND		160000	54000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Butyl benzyl phthalate	ND		160000	26000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Caprolactam	ND		160000	48000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Carbazole	ND		160000	19000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Chrysene	**50000**	**J**	160000	36000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Dibenz(a,h)anthracene	ND		160000	28000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Dibenzofuran	ND		160000	19000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Diethyl phthalate	ND		160000	21000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Dimethyl phthalate	ND		160000	19000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Di-n-butyl phthalate	ND		160000	27000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Di-n-octyl phthalate	ND		160000	19000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Fluoranthene	**43000**	**J**	160000	17000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Fluorene	**56000**	**J**	160000	19000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Hexachlorobenzene	ND		160000	22000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Hexachlorobutadiene	ND		160000	23000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Hexachlorocyclopentadiene	ND	UJ	160000	22000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Hexachloroethane	ND		160000	21000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Indeno[1,2,3-cd]pyrene	ND		160000	20000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5

Client Sample ID: SED-09
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-17
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isophorone	ND		160000	34000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Naphthalene	ND		160000	21000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Nitrobenzene	ND		160000	18000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
N-Nitrosodi-n-propylamine	ND		160000	27000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
N-Nitrosodiphenylamine	ND		160000	130000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Pentachlorophenol	ND		310000	160000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Phenanthrene	**220000**		160000	23000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Phenol	ND		160000	24000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Pyrene	**53000**	**J**	160000	19000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*290000*	*T J*	*ug/Kg*		*7.86*	*N/A*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Benzocycloheptatriene	*320000*	*T J N*	*ug/Kg*		*8.26*	*264-09-5*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Naphthalene, 1,7-dimethyl-	*440000*	*T J N*	*ug/Kg*		*8.88*	*575-37-1*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Naphthalene, 2,3-dimethyl-	*500000*	*T J N*	*ug/Kg*		*8.97*	*581-40-8*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Naphthalene, 2,6-dimethyl-	*290000*	*T J N*	*ug/Kg*		*9.00*	*581-42-0*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Naphthalene, 1,4-dimethyl-	*550000*	*T J N*	*ug/Kg*		*9.11*	*571-58-4*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Naphthalene, 2-(1-methylethyl)-	*340000*	*T J N*	*ug/Kg*		*9.50*	*2027-17-0*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Naphthalene, 2,3,6-trimethyl-	*330000*	*T J N*	*ug/Kg*		*9.61*	*829-26-5*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Naphthalene, 1,6,7-trimethyl-	*320000*	*T J N*	*ug/Kg*		*9.66*	*2245-38-7*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Naphthalene, 1,4,6-trimethyl-	*300000*	*T J N*	*ug/Kg*		*9.74*	*2131-42-2*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Pentadecane, 2,6,10-trimethyl-	*500000*	*T J N*	*ug/Kg*		*10.18*	*3892-00-0*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Pentadecane, 2,6,10,14-tetramethyl-	*510000*	*T J N*	*ug/Kg*		*10.47*	*1921-70-6*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Hexadecane, 2,6,10,14-tetramethyl-	*410000*	*T J N*	*ug/Kg*		*10.94*	*638-36-8*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Anthracene, 9-methyl-	*310000*	*T J N*	*ug/Kg*		*11.47*	*779-02-2*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
1H-Cyclopropa[l]phenanthrene,1a,9b -dihydro-	*390000*	*T J N*	*ug/Kg*		*11.49*	*949-41-7*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Phenanthrene, 2-methyl-	*290000*	*T J N*	*ug/Kg*		*11.57*	*2531-84-2*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
2,8-Dimethyldibenzo(B,D)thiophene	*230000*	*T J N*	*ug/Kg*		*11.78*	*1207-15-4*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Phenanthrene, 2,7-dimethyl-	*210000*	*T J N*	*ug/Kg*		*11.92*	*1576-69-8*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Phenanthrene, 3,6-dimethyl-	*500000*	*T J N*	*ug/Kg*		*11.99*	*1576-67-6*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Unknown	*230000*	*T J*	*ug/Kg*		*12.39*	*N/A*	*06/07/24 06:49*	*06/10/24 18:26*	*5*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*61*		*40 - 121*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
p-Terphenyl-d14	*65*		*46 - 143*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Phenol-d5	*57*		*41 - 120*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
2-Fluorophenol	*62*		*36 - 120*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
2,4,6-Tribromophenol	*48*		*26 - 143*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
2-Fluorobiphenyl	*70*		*50 - 121*	*06/07/24 06:49*	*06/10/24 18:26*	*5*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.6	0.51	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
4,4'-DDE	ND		2.6	0.74	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
4,4'-DDT	ND		2.6	0.58	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
Aldrin	ND		2.6	0.27	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
alpha-BHC	ND		2.6	0.47	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
cis-Chlordane	ND		2.6	1.3	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
beta-BHC	ND		2.6	1.9	mg/Kg		06/06/24 10:13	06/07/24 11:28	10

Client Sample ID: SED-09
Lab Sample ID: 480-220474-17
Date Collected: 06/04/24 00:00
Matrix: Waste
Date Received: 06/04/24 16:00

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
delta-BHC	ND		2.6	0.35	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
Dieldrin	ND		2.6	0.63	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
Endosulfan I	ND		2.6	0.56	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
Endosulfan II	ND		2.6	0.47	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
Endosulfan sulfate	ND		2.6	0.49	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
Endrin	ND		2.6	0.84	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
Endrin aldehyde	ND		2.6	0.67	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
Endrin ketone	ND		2.6	0.63	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
gamma-BHC (Lindane)	ND		2.6	1.9	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
trans-Chlordane	ND		2.6	0.36	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
Heptachlor	ND		2.6	0.41	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
Heptachlor epoxide	ND		2.6	0.68	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
Methoxychlor	ND		2.6	0.68	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
Toxaphene	ND		26	15	mg/Kg		06/06/24 10:13	06/07/24 11:28	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*120*		*45 - 120*	*06/06/24 10:13*	*06/07/24 11:28*	*10*
DCB Decachlorobiphenyl	*198*	*S1+*	*45 - 120*	*06/06/24 10:13*	*06/07/24 11:28*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 11:28*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 11:28*	*10*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		4.2	0.82	mg/Kg		06/07/24 06:55	06/10/24 21:58	1
PCB-1221	ND		4.2	0.82	mg/Kg		06/07/24 06:55	06/10/24 21:58	1
PCB-1232	ND		4.2	0.82	mg/Kg		06/07/24 06:55	06/10/24 21:58	1
PCB-1242	ND		4.2	0.82	mg/Kg		06/07/24 06:55	06/10/24 21:58	1
PCB-1248	ND		4.2	0.82	mg/Kg		06/07/24 06:55	06/10/24 21:58	1
PCB-1254	ND		4.2	0.20	mg/Kg		06/07/24 06:55	06/10/24 21:58	1
PCB-1260	ND		4.2	0.20	mg/Kg		06/07/24 06:55	06/10/24 21:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*61*		*60 - 154*	*06/07/24 06:55*	*06/10/24 21:58*	*1*
Tetrachloro-m-xylene	*57*	*S1-*	*60 - 154*	*06/07/24 06:55*	*06/10/24 21:58*	*1*
DCB Decachlorobiphenyl	*70*		*65 - 174*	*06/07/24 06:55*	*06/10/24 21:58*	*1*
DCB Decachlorobiphenyl	*80*		*65 - 174*	*06/07/24 06:55*	*06/10/24 21:58*	*1*

Client Sample ID: SED-10
Lab Sample ID: 480-220474-18
Date Collected: 06/04/24 00:00
Matrix: Waste
Date Received: 06/04/24 16:00

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	**60000**	**J**	300000	44000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
1,4-Dioxane	ND		350000	97000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
bis (2-chloroisopropyl) ether	ND		300000	60000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
2,4,5-Trichlorophenol	ND		300000	81000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
2,4,6-Trichlorophenol	ND		300000	60000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
2,4-Dichlorophenol	ND		300000	32000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
2,4-Dimethylphenol	ND		300000	72000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
2,4-Dinitrophenol	ND		2900000	1400000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10

Client Sample ID: SED-10
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-18
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		300000	62000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
2,6-Dinitrotoluene	ND		300000	35000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
2-Chloronaphthalene	ND		300000	49000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
2-Chlorophenol	ND		300000	55000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
2-Methylnaphthalene	**620000**		300000	60000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
2-Methylphenol	ND		300000	35000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
2-Nitroaniline	ND		580000	44000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
2-Nitrophenol	ND		300000	85000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
3,3'-Dichlorobenzidine	ND		580000	350000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
3-Nitroaniline	ND		580000	83000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
4,6-Dinitro-2-methylphenol	ND		580000	300000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
4-Bromophenyl phenyl ether	ND		300000	42000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
4-Chloro-3-methylphenol	ND		300000	74000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
4-Chloroaniline	ND		300000	74000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
4-Chlorophenyl phenyl ether	ND		300000	37000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
4-Methylphenol	ND		580000	35000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
4-Nitroaniline	ND		580000	160000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
4-Nitrophenol	ND		580000	210000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Acenaphthene	**63000**	**J**	300000	44000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Acenaphthylene	**110000**	**J**	300000	39000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Acetophenone	ND		300000	41000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Anthracene	**220000**	**J**	300000	74000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Atrazine	ND		300000	100000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Benzaldehyde	ND		300000	240000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Benzo[a]anthracene	**200000**	**J**	300000	30000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Benzo[a]pyrene	**130000**	**J**	300000	44000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Benzo[b]fluoranthene	**150000**	**J**	300000	48000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Benzo[g,h,i]perylene	**74000**	**J**	300000	32000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Benzo[k]fluoranthene	**71000**	**J**	300000	39000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Bis(2-chloroethoxy)methane	ND		300000	64000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Bis(2-chloroethyl)ether	ND		300000	39000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Bis(2-ethylhexyl) phthalate	ND		300000	100000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Butyl benzyl phthalate	ND		300000	49000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Caprolactam	ND		300000	90000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Carbazole	**130000**	**J**	300000	35000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Chrysene	**210000**	**J**	300000	67000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Dibenz(a,h)anthracene	ND		300000	53000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Dibenzofuran	**270000**	**J**	300000	35000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Diethyl phthalate	ND		300000	39000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Dimethyl phthalate	ND		300000	35000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Di-n-butyl phthalate	ND		300000	51000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Di-n-octyl phthalate	ND		300000	35000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Fluoranthene	**550000**		300000	32000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Fluorene	**390000**		300000	35000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Hexachlorobenzene	ND		300000	41000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Hexachlorobutadiene	ND		300000	44000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Hexachlorocyclopentadiene	ND		300000	41000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Hexachloroethane	ND		300000	39000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Indeno[1,2,3-cd]pyrene	**55000**	**J**	300000	37000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10

Client Sample ID: SED-10
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-18
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isophorone	ND		300000	64000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Naphthalene	**2400000**		300000	39000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Nitrobenzene	ND		300000	34000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
N-Nitrosodi-n-propylamine	ND		300000	51000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
N-Nitrosodiphenylamine	ND		300000	240000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Pentachlorophenol	ND		580000	300000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Phenanthrene	**1100000**		300000	44000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Phenol	ND		300000	46000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Pyrene	**370000**		300000	35000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Methylene Chloride	*3300000*	*T J N*	*ug/Kg*		*2.09*	*75-09-2*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
Indene	*310000*	*T J N*	*ug/Kg*		*6.06*	*95-13-6*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
Unknown	*280000*	*T J*	*ug/Kg*		*7.86*	*N/A*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
Naphthalene, 1-methyl-	*400000*	*T J N*	*ug/Kg*		*8.25*	*90-12-0*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
Naphthalene, 1,3-dimethyl-	*340000*	*T J N*	*ug/Kg*		*8.88*	*575-41-7*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
Naphthalene, 2,3-dimethyl-	*400000*	*T J N*	*ug/Kg*		*8.97*	*581-40-8*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
Naphthalene, 1,4-dimethyl-	*460000*	*T J N*	*ug/Kg*		*9.11*	*571-58-4*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
Naphthalene, 2,3,6-trimethyl-	*250000*	*T J N*	*ug/Kg*		*9.66*	*829-26-5*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
Pentadecane, 2,6,10,14-tetramethyl-	*420000*	*T J N*	*ug/Kg*		*10.46*	*1921-70-6*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
Tridecane	*340000*	*T J N*	*ug/Kg*		*10.94*	*629-50-5*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
Anthracene, 2-methyl-	*340000*	*T J N*	*ug/Kg*		*11.47*	*613-12-7*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
Anthracene, 9-methyl-	*510000*	*T J N*	*ug/Kg*		*11.49*	*779-02-2*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
Unknown	*400000*	*T J*	*ug/Kg*		*11.57*	*N/A*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
1H-Cyclopropa[l]phenanthrene,1a,9b -dihydro-	*240000*	*T J N*	*ug/Kg*		*11.59*	*949-41-7*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
Phenanthrene, 3,6-dimethyl-	*590000*	*T J N*	*ug/Kg*		*11.99*	*1576-67-6*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
Phenanthrene, 2,5-dimethyl-	*270000*	*T J N*	*ug/Kg*		*12.01*	*3674-66-6*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
Unknown	*300000*	*T J*	*ug/Kg*		*12.39*	*N/A*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
11H-Benzo[b]fluorene	*240000*	*T J N*	*ug/Kg*		*12.62*	*243-17-4*	*06/07/24 06:49*	*06/12/24 14:37*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*61*		*40 - 121*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
p-Terphenyl-d14	*61*		*46 - 143*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
Phenol-d5	*52*		*41 - 120*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
2-Fluorophenol	*57*		*36 - 120*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
2,4,6-Tribromophenol	*49*		*26 - 143*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
2-Fluorobiphenyl	*67*		*50 - 121*	*06/07/24 06:49*	*06/12/24 14:37*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.8	0.54	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
4,4'-DDE	ND		2.8	0.78	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
4,4'-DDT	ND		2.8	0.61	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
Aldrin	ND		2.8	0.28	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
alpha-BHC	ND		2.8	0.50	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
cis-Chlordane	ND		2.8	1.4	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
beta-BHC	ND		2.8	2.0	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
delta-BHC	ND		2.8	0.37	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
Dieldrin	ND		2.8	0.67	mg/Kg		06/06/24 10:13	06/07/24 11:48	10

Client Sample ID: SED-10

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-18

Matrix: Waste

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I	ND		2.8	0.59	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
Endosulfan II	ND		2.8	0.50	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
Endosulfan sulfate	ND		2.8	0.52	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
Endrin	ND		2.8	0.89	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
Endrin aldehyde	ND		2.8	0.71	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
Endrin ketone	ND		2.8	0.67	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
gamma-BHC (Lindane)	ND		2.8	2.0	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
trans-Chlordane	ND		2.8	0.38	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
Heptachlor	ND		2.8	0.43	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
Heptachlor epoxide	ND		2.8	0.72	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
Methoxychlor	ND		2.8	0.72	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
Toxaphene	ND		28	16	mg/Kg		06/06/24 10:13	06/07/24 11:48	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*79*		*45 - 120*	*06/06/24 10:13*	*06/07/24 11:48*	*10*
DCB Decachlorobiphenyl	*319*	*S1+*	*45 - 120*	*06/06/24 10:13*	*06/07/24 11:48*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 11:48*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 11:48*	*10*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		4.5	0.89	mg/Kg		06/07/24 06:55	06/10/24 22:15	1
PCB-1221	ND		4.5	0.89	mg/Kg		06/07/24 06:55	06/10/24 22:15	1
PCB-1232	ND		4.5	0.89	mg/Kg		06/07/24 06:55	06/10/24 22:15	1
PCB-1242	ND		4.5	0.89	mg/Kg		06/07/24 06:55	06/10/24 22:15	1
PCB-1248	ND		4.5	0.89	mg/Kg		06/07/24 06:55	06/10/24 22:15	1
PCB-1254	ND		4.5	0.21	mg/Kg		06/07/24 06:55	06/10/24 22:15	1
PCB-1260	ND		4.5	0.21	mg/Kg		06/07/24 06:55	06/10/24 22:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*61*		*60 - 154*	*06/07/24 06:55*	*06/10/24 22:15*	*1*
Tetrachloro-m-xylene	*56*	*S1-*	*60 - 154*	*06/07/24 06:55*	*06/10/24 22:15*	*1*
DCB Decachlorobiphenyl	*66*		*65 - 174*	*06/07/24 06:55*	*06/10/24 22:15*	*1*
DCB Decachlorobiphenyl	*74*		*65 - 174*	*06/07/24 06:55*	*06/10/24 22:15*	*1*

Client Sample ID: SED-11

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-19

Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		280000	42000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
bis (2-chloroisopropyl) ether	ND		280000	57000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
2,4,5-Trichlorophenol	ND		280000	77000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
2,4,6-Trichlorophenol	ND		280000	57000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
2,4-Dichlorophenol	ND		280000	30000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
2,4-Dimethylphenol	ND		280000	68000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
2,4-Dinitrophenol	ND		2800000	1300000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
2,4-Dinitrotoluene	ND		280000	58000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
2,6-Dinitrotoluene	ND		280000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
2-Chloronaphthalene	ND		280000	47000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10

Client Sample ID: SED-11
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-19
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorophenol	ND		280000	52000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
2-Methylnaphthalene	**620000**		280000	57000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
2-Methylphenol	ND		280000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
2-Nitroaniline	ND		550000	42000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
2-Nitrophenol	ND		280000	80000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
3,3'-Dichlorobenzidine	ND		550000	330000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
3-Nitroaniline	ND		550000	78000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
4,6-Dinitro-2-methylphenol	ND		550000	280000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
4-Bromophenyl phenyl ether	ND		280000	40000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
4-Chloro-3-methylphenol	ND		280000	70000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
4-Chloroaniline	ND		280000	70000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
4-Chlorophenyl phenyl ether	ND		280000	35000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
4-Methylphenol	ND		550000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
4-Nitroaniline	ND		550000	150000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
4-Nitrophenol	ND		550000	200000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Acenaphthene	ND		280000	42000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Acenaphthylene	**38000**	**J**	280000	37000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Acetophenone	ND		280000	38000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Anthracene	**71000**	**J**	280000	70000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Atrazine	ND		280000	98000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Benzaldehyde	ND		280000	230000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Benzo[a]anthracene	**84000**	**J**	280000	28000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Benzo[a]pyrene	**56000**	**J**	280000	42000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Benzo[b]fluoranthene	**62000**	**J**	280000	45000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Benzo[g,h,i]perylene	**37000**	**J**	280000	30000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Benzo[k]fluoranthene	ND		280000	37000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Bis(2-chloroethoxy)methane	ND		280000	60000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Bis(2-chloroethyl)ether	ND		280000	37000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Bis(2-ethylhexyl) phthalate	ND		280000	97000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Butyl benzyl phthalate	ND		280000	47000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Caprolactam	ND		280000	85000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Carbazole	**36000**	**J**	280000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Chrysene	**93000**	**J**	280000	63000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Dibenz(a,h)anthracene	ND		280000	50000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Dibenzofuran	**67000**	**J**	280000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Diethyl phthalate	ND		280000	37000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Dimethyl phthalate	ND		280000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Di-n-butyl phthalate	ND		280000	48000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Di-n-octyl phthalate	ND		280000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Fluoranthene	**180000**	**J**	280000	30000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Fluorene	**130000**	**J**	280000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Hexachlorobenzene	ND		280000	38000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Hexachlorobutadiene	ND		280000	42000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Hexachlorocyclopentadiene	ND		280000	38000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Hexachloroethane	ND		280000	37000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Indeno[1,2,3-cd]pyrene	ND		280000	35000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Isophorone	ND		280000	60000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Naphthalene	**540000**		280000	37000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Nitrobenzene	ND		280000	32000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10

Client Sample ID: SED-11
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-19
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		280000	48000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
N-Nitrosodiphenylamine	ND		280000	230000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Pentachlorophenol	ND		550000	280000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Phenanthrene	**440000**		280000	42000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Phenol	ND		280000	43000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Pyrene	**130000**	**J**	280000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Benzene, 1,2,4,5-tetramethyl-	*270000*	*T J N*	*ug/Kg*		*7.00*	*95-93-2*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Unknown	*270000*	*T J*	*ug/Kg*		*7.43*	*N/A*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Unknown	*430000*	*T J*	*ug/Kg*		*7.86*	*N/A*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Naphthalene, 1-methyl-	*440000*	*T J N*	*ug/Kg*		*8.25*	*90-12-0*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Naphthalene, 1-ethyl-	*260000*	*T J N*	*ug/Kg*		*8.80*	*1127-76-0*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Naphthalene, 1,7-dimethyl-	*570000*	*T J N*	*ug/Kg*		*8.88*	*575-37-1*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Naphthalene, 2,3-dimethyl-	*620000*	*T J N*	*ug/Kg*		*8.97*	*581-40-8*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Naphthalene, 2,6-dimethyl-	*330000*	*T J N*	*ug/Kg*		*8.99*	*581-42-0*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Naphthalene, 1,3-dimethyl-	*700000*	*T J N*	*ug/Kg*		*9.11*	*575-41-7*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Naphthalene, 2-(1-methylethyl)-	*370000*	*T J N*	*ug/Kg*		*9.49*	*2027-17-0*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Naphthalene, 1,4,6-trimethyl-	*410000*	*T J N*	*ug/Kg*		*9.66*	*2131-42-2*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Naphthalene, 1,6,7-trimethyl-	*310000*	*T J N*	*ug/Kg*		*9.74*	*2245-38-7*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Naphthalene, 2,3,6-trimethyl-	*240000*	*T J N*	*ug/Kg*		*9.84*	*829-26-5*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Unknown	*580000*	*T J*	*ug/Kg*		*10.17*	*N/A*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Heptadecane, 2,6-dimethyl-	*580000*	*T J N*	*ug/Kg*		*10.46*	*54105-67-8*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Octadecane, 2-methyl-	*440000*	*T J N*	*ug/Kg*		*10.94*	*1560-88-9*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Anthracene, 9-methyl-	*340000*	*T J N*	*ug/Kg*		*11.47*	*779-02-2*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Anthracene, 1-methyl-	*420000*	*T J N*	*ug/Kg*		*11.49*	*610-48-0*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Unknown	*290000*	*T J*	*ug/Kg*		*11.57*	*N/A*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Phenanthrene, 2,5-dimethyl-	*470000*	*T J N*	*ug/Kg*		*11.99*	*3674-66-6*	*06/07/24 06:49*	*06/12/24 15:07*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*66*		*40 - 121*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
p-Terphenyl-d14	*74*		*46 - 143*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Phenol-d5	*60*		*41 - 120*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
2-Fluorophenol	*68*		*36 - 120*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
2,4,6-Tribromophenol	*56*		*26 - 143*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
2-Fluorobiphenyl	*73*		*50 - 121*	*06/07/24 06:49*	*06/12/24 15:07*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		3.6	0.69	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
4,4'-DDE	ND		3.6	1.0	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
4,4'-DDT	ND		3.6	0.79	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
Aldrin	ND		3.6	0.36	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
alpha-BHC	ND		3.6	0.64	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
cis-Chlordane	ND		3.6	1.8	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
beta-BHC	ND		3.6	2.6	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
delta-BHC	ND		3.6	0.47	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
Dieldrin	ND		3.6	0.86	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
Endosulfan I	ND		3.6	0.76	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
Endosulfan II	ND		3.6	0.64	mg/Kg		06/06/24 10:13	06/07/24 12:07	10

Client Sample ID: SED-11
Lab Sample ID: 480-220474-19
Date Collected: 06/04/24 00:00
Matrix: Waste
Date Received: 06/04/24 16:00

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan sulfate	ND		3.6	0.66	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
Endrin	ND		3.6	1.1	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
Endrin aldehyde	ND		3.6	0.91	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
Endrin ketone	ND		3.6	0.86	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
gamma-BHC (Lindane)	ND		3.6	2.6	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
trans-Chlordane	ND		3.6	0.49	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
Heptachlor	ND		3.6	0.56	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
Heptachlor epoxide	ND		3.6	0.93	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
Methoxychlor	ND		3.6	0.93	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
Toxaphene	ND		36	21	mg/Kg		06/06/24 10:13	06/07/24 12:07	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*112*		*45 - 120*	*06/06/24 10:13*	*06/07/24 12:07*	*10*
DCB Decachlorobiphenyl	*121*	*S1+*	*45 - 120*	*06/06/24 10:13*	*06/07/24 12:07*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 12:07*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 12:07*	*10*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		15	2.9	mg/Kg		06/07/24 06:55	06/10/24 22:32	5
PCB-1221	ND		15	2.9	mg/Kg		06/07/24 06:55	06/10/24 22:32	5
PCB-1232	ND		15	2.9	mg/Kg		06/07/24 06:55	06/10/24 22:32	5
PCB-1242	ND		15	2.9	mg/Kg		06/07/24 06:55	06/10/24 22:32	5
PCB-1248	ND		15	2.9	mg/Kg		06/07/24 06:55	06/10/24 22:32	5
PCB-1254	ND		15	0.69	mg/Kg		06/07/24 06:55	06/10/24 22:32	5
PCB-1260	ND		15	0.69	mg/Kg		06/07/24 06:55	06/10/24 22:32	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*65*		*60 - 154*	*06/07/24 06:55*	*06/10/24 22:32*	*5*
Tetrachloro-m-xylene	*62*		*60 - 154*	*06/07/24 06:55*	*06/10/24 22:32*	*5*
DCB Decachlorobiphenyl	*69*		*65 - 174*	*06/07/24 06:55*	*06/10/24 22:32*	*5*
DCB Decachlorobiphenyl	*96*		*65 - 174*	*06/07/24 06:55*	*06/10/24 22:32*	*5*

Client Sample ID: SED-11-FD
Lab Sample ID: 480-220474-20
Date Collected: 06/04/24 00:00
Matrix: Waste
Date Received: 06/04/24 16:00

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		270000	39000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
bis (2-chloroisopropyl) ether	ND		270000	54000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
2,4,5-Trichlorophenol	ND		270000	73000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
2,4,6-Trichlorophenol	ND		270000	54000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
2,4-Dichlorophenol	ND		270000	28000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
2,4-Dimethylphenol	ND		270000	65000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
2,4-Dinitrophenol	ND		2600000	1200000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
2,4-Dinitrotoluene	ND		270000	55000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
2,6-Dinitrotoluene	ND		270000	32000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
2-Chloronaphthalene	ND		270000	44000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
2-Chlorophenol	ND		270000	49000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
2-Methylnaphthalene	**470000**		270000	54000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10

Client Sample ID: SED-11-FD
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-20
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	ND		270000	32000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
2-Nitroaniline	ND		520000	39000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
2-Nitrophenol	ND		270000	76000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
3,3'-Dichlorobenzidine	ND		520000	320000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
3-Nitroaniline	ND		520000	74000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
4,6-Dinitro-2-methylphenol	ND		520000	270000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
4-Bromophenyl phenyl ether	ND		270000	38000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
4-Chloro-3-methylphenol	ND		270000	66000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
4-Chloroaniline	ND		270000	66000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
4-Chlorophenyl phenyl ether	ND		270000	33000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
4-Methylphenol	ND		520000	32000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
4-Nitroaniline	ND		520000	140000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
4-Nitrophenol	ND		520000	190000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Acenaphthene	ND		270000	39000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Acenaphthylene	ND		270000	35000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Acetophenone	ND		270000	36000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Anthracene	ND		270000	66000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Atrazine	ND		270000	93000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Benzaldehyde	ND		270000	210000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Benzo[a]anthracene	**47000**	**J**	270000	27000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Benzo[a]pyrene	ND		270000	39000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Benzo[b]fluoranthene	ND		270000	43000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Benzo[g,h,i]perylene	ND		270000	28000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Benzo[k]fluoranthene	ND		270000	35000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Bis(2-chloroethoxy)methane	ND		270000	57000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Bis(2-chloroethyl)ether	ND		270000	35000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Bis(2-ethylhexyl) phthalate	ND		270000	92000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Butyl benzyl phthalate	ND		270000	44000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Caprolactam	ND		270000	81000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Carbazole	ND		270000	32000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Chrysene	ND		270000	60000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Dibenz(a,h)anthracene	ND		270000	47000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Dibenzofuran	**41000**	**J**	270000	32000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Diethyl phthalate	ND		270000	35000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Dimethyl phthalate	ND		270000	32000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Di-n-butyl phthalate	ND		270000	46000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Di-n-octyl phthalate	ND		270000	32000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Fluoranthene	**95000**	**J**	270000	28000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Fluorene	**90000**	**J**	270000	32000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Hexachlorobenzene	ND		270000	36000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Hexachlorobutadiene	ND		270000	39000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Hexachlorocyclopentadiene	ND	UJ	270000	36000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Hexachloroethane	ND		270000	35000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Indeno[1,2,3-cd]pyrene	ND		270000	33000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Isophorone	ND		270000	57000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Naphthalene	**380000**		270000	35000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Nitrobenzene	ND		270000	30000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
N-Nitrosodi-n-propylamine	ND		270000	46000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
N-Nitrosodiphenylamine	ND		270000	220000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10

Client Sample ID: SED-11-FD
Lab Sample ID: 480-220474-20

Date Collected: 06/04/24 00:00
Matrix: Waste
Date Received: 06/04/24 16:00

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		520000	270000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Phenanthrene	**280000**		270000	39000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Phenol	ND		270000	41000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Pyrene	**78000**	**J**	270000	32000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Benzene, 1,2,4,5-tetramethyl-	*230000*	*T J N*	*ug/Kg*		*7.01*	*95-93-2*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
Unknown	*250000*	*T J*	*ug/Kg*		*7.43*	*N/A*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
Unknown	*380000*	*T J*	*ug/Kg*		*7.86*	*N/A*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
1H-Indene, 1-ethylidene-	*360000*	*T J N*	*ug/Kg*		*8.26*	*2471-83-2*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
Naphthalene, 1,3-dimethyl-	*210000*	*T J N*	*ug/Kg*		*8.80*	*575-41-7*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
Naphthalene, 1,7-dimethyl-	*440000*	*T J N*	*ug/Kg*		*8.88*	*575-37-1*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
Naphthalene, 2,3-dimethyl-	*490000*	*T J N*	*ug/Kg*		*8.97*	*581-40-8*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
Naphthalene, 2,7-dimethyl-	*270000*	*T J N*	*ug/Kg*		*9.00*	*582-16-1*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
Unknown	*640000*	*T J*	*ug/Kg*		*9.11*	*N/A*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
Naphthalene, 2-(1-methylethyl)-	*320000*	*T J N*	*ug/Kg*		*9.50*	*2027-17-0*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
Naphthalene, 1,6,7-trimethyl-	*300000*	*T J N*	*ug/Kg*		*9.66*	*2245-38-7*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
Naphthalene, 1,4,6-trimethyl-	*290000*	*T J N*	*ug/Kg*		*9.74*	*2131-42-2*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
Pentadecane, 2,6,10-trimethyl-	*470000*	*T J N*	*ug/Kg*		*10.18*	*3892-00-0*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
Heptadecane, 2,6-dimethyl-	*450000*	*T J N*	*ug/Kg*		*10.47*	*54105-67-8*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
Hexadecane, 2,6,10,14-tetramethyl-	*340000*	*T J N*	*ug/Kg*		*10.94*	*638-36-8*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
Anthracene, 2-methyl-	*250000*	*T J N*	*ug/Kg*		*11.47*	*613-12-7*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
Phenanthrene, 1-methyl-	*320000*	*T J N*	*ug/Kg*		*11.49*	*832-69-9*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
Phenanthrene, 2,5-dimethyl-	*350000*	*T J N*	*ug/Kg*		*11.99*	*3674-66-6*	*06/07/24 06:49*	*06/10/24 19:50*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*60*		*40 - 121*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
p-Terphenyl-d14	*62*		*46 - 143*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
Phenol-d5	*52*		*41 - 120*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
2-Fluorophenol	*53*		*36 - 120*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
2,4,6-Tribromophenol	*51*		*26 - 143*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
2-Fluorobiphenyl	*67*		*50 - 121*	*06/07/24 06:49*	*06/10/24 19:50*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.8	0.54	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
4,4'-DDE	ND		2.8	0.78	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
4,4'-DDT	ND		2.8	0.61	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
Aldrin	ND		2.8	0.28	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
alpha-BHC	ND		2.8	0.50	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
cis-Chlordane	ND		2.8	1.4	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
beta-BHC	ND		2.8	2.0	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
delta-BHC	ND		2.8	0.37	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
Dieldrin	ND		2.8	0.67	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
Endosulfan I	ND		2.8	0.59	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
Endosulfan II	ND		2.8	0.50	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
Endosulfan sulfate	ND		2.8	0.52	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
Endrin	ND		2.8	0.89	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
Endrin aldehyde	ND		2.8	0.71	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
Endrin ketone	ND		2.8	0.67	mg/Kg		06/06/24 10:13	06/07/24 12:27	10

Client Sample ID: SED-11-FD
Lab Sample ID: 480-220474-20

Date Collected: 06/04/24 00:00
Matrix: Waste
Date Received: 06/04/24 16:00

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
gamma-BHC (Lindane)	ND		2.8	2.0	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
trans-Chlordane	ND		2.8	0.38	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
Heptachlor	ND		2.8	0.43	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
Heptachlor epoxide	ND		2.8	0.72	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
Methoxychlor	ND		2.8	0.72	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
Toxaphene	ND		28	16	mg/Kg		06/06/24 10:13	06/07/24 12:27	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*87*		*45 - 120*	*06/06/24 10:13*	*06/07/24 12:27*	*10*
DCB Decachlorobiphenyl	*132*	*S1+*	*45 - 120*	*06/06/24 10:13*	*06/07/24 12:27*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 12:27*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 12:27*	*10*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		13	2.6	mg/Kg		06/07/24 06:55	06/10/24 22:49	5
PCB-1221	ND		13	2.6	mg/Kg		06/07/24 06:55	06/10/24 22:49	5
PCB-1232	ND		13	2.6	mg/Kg		06/07/24 06:55	06/10/24 22:49	5
PCB-1242	ND		13	2.6	mg/Kg		06/07/24 06:55	06/10/24 22:49	5
PCB-1248	ND		13	2.6	mg/Kg		06/07/24 06:55	06/10/24 22:49	5
PCB-1254	ND		13	0.62	mg/Kg		06/07/24 06:55	06/10/24 22:49	5
PCB-1260	ND		13	0.62	mg/Kg		06/07/24 06:55	06/10/24 22:49	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*66*		*60 - 154*	*06/07/24 06:55*	*06/10/24 22:49*	*5*
Tetrachloro-m-xylene	*57*	*S1-*	*60 - 154*	*06/07/24 06:55*	*06/10/24 22:49*	*5*
DCB Decachlorobiphenyl	*65*		*65 - 174*	*06/07/24 06:55*	*06/10/24 22:49*	*5*
DCB Decachlorobiphenyl	*93*		*65 - 174*	*06/07/24 06:55*	*06/10/24 22:49*	*5*

Client Sample ID: SED-12
Lab Sample ID: 480-220474-21

Date Collected: 06/04/24 00:00
Matrix: Waste
Date Received: 06/04/24 16:00

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		36000	5400	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
1,4-Dioxane	ND		43000	12000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
bis (2-chloroisopropyl) ether	ND		36000	7300	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
2,4,5-Trichlorophenol	ND		36000	9900	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
2,4,6-Trichlorophenol	ND		36000	7300	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
2,4-Dichlorophenol	ND		36000	3900	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
2,4-Dimethylphenol	ND		36000	8800	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
2,4-Dinitrophenol	ND		360000	170000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
2,4-Dinitrotoluene	ND		36000	7500	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
2,6-Dinitrotoluene	ND		36000	4300	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
2-Chloronaphthalene	ND		36000	6000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
2-Chlorophenol	ND		36000	6600	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
2-Methylnaphthalene	**710000**		36000	7300	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
2-Methylphenol	ND		36000	4300	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
2-Nitroaniline	ND		71000	5400	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
2-Nitrophenol	ND		36000	10000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1

Client Sample ID: SED-12

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-21

Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	ND		71000	43000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
3-Nitroaniline	ND		71000	10000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
4,6-Dinitro-2-methylphenol	ND		71000	36000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
4-Bromophenyl phenyl ether	ND		36000	5100	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
4-Chloro-3-methylphenol	ND		36000	9000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
4-Chloroaniline	ND		36000	9000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
4-Chlorophenyl phenyl ether	ND		36000	4500	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
4-Methylphenol	ND		71000	4300	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
4-Nitroaniline	ND		71000	19000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
4-Nitrophenol	ND		71000	26000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Acenaphthene	**37000**		36000	5400	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Acenaphthylene	ND		36000	4700	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Acetophenone	ND		36000	4900	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Anthracene	**20000**	**J**	36000	9000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Atrazine	ND		36000	13000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Benzaldehyde	ND		36000	29000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Benzo[a]anthracene	**11000**	**J**	36000	3600	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Benzo[a]pyrene	ND		36000	5400	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Benzo[b]fluoranthene	ND		36000	5800	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Benzo[g,h,i]perylene	ND		36000	3900	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Benzo[k]fluoranthene	ND		36000	4700	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Bis(2-chloroethoxy)methane	ND		36000	7700	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Bis(2-chloroethyl)ether	ND		36000	4700	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Bis(2-ethylhexyl) phthalate	ND		36000	12000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Butyl benzyl phthalate	ND		36000	6000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Caprolactam	ND		36000	11000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Carbazole	**6900**	**J**	36000	4300	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Chrysene	**20000**	**J**	36000	8100	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Dibenz(a,h)anthracene	ND		36000	6400	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Dibenzofuran	**36000**		36000	4300	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Diethyl phthalate	ND		36000	4700	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Dimethyl phthalate	ND		36000	4300	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Di-n-butyl phthalate	ND		36000	6200	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Di-n-octyl phthalate	ND		36000	4300	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Fluoranthene	**11000**	**J**	36000	3900	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Fluorene	**66000**		36000	4300	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Hexachlorobenzene	ND		36000	4900	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Hexachlorobutadiene	ND		36000	5400	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Hexachlorocyclopentadiene	ND	UJ	36000	4900	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Hexachloroethane	ND		36000	4700	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Indeno[1,2,3-cd]pyrene	ND		36000	4500	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Isophorone	ND		36000	7700	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Naphthalene	**120000**		36000	4700	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Nitrobenzene	ND		36000	4100	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
N-Nitrosodi-n-propylamine	ND		36000	6200	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
N-Nitrosodiphenylamine	**140000**		36000	30000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Pentachlorophenol	ND		71000	36000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Phenanthrene	**190000**		36000	5400	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Phenol	ND		36000	5600	ug/Kg		06/07/24 06:49	06/10/24 20:18	1

Client Sample ID: SED-12
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-21
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	23000	J	36000	4300	ug/Kg		06/07/24 06:49	06/10/24 20:18	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Methylene Chloride	*320000*	*T J N*	*ug/Kg*		*2.09*	*75-09-2*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Ethylbenzene	*300000*	*T J N*	*ug/Kg*		*3.85*	*100-41-4*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Octane, 2,6-dimethyl-	*310000*	*T J N*	*ug/Kg*		*4.82*	*2051-30-1*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Benzene, propyl-	*250000*	*T J N*	*ug/Kg*		*5.08*	*103-65-1*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Unknown	*350000*	*T J*	*ug/Kg*		*7.87*	*N/A*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Naphthalene, 1-methyl-	*250000*	*T J N*	*ug/Kg*		*8.26*	*90-12-0*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Naphthalene, 2-ethyl-	*250000*	*T J N*	*ug/Kg*		*8.81*	*939-27-5*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Naphthalene, 1,7-dimethyl-	*420000*	*T J N*	*ug/Kg*		*8.89*	*575-37-1*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Naphthalene, 2,3-dimethyl-	*490000*	*T J N*	*ug/Kg*		*8.98*	*581-40-8*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Naphthalene, 2,6-dimethyl-	*250000*	*T J N*	*ug/Kg*		*9.00*	*581-42-0*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Naphthalene, 1,4-dimethyl-	*550000*	*T J N*	*ug/Kg*		*9.11*	*571-58-4*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Naphthalene, 2-(1-methylethyl)-	*320000*	*T J N*	*ug/Kg*		*9.50*	*2027-17-0*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Naphthalene, 2,3,6-trimethyl-	*300000*	*T J N*	*ug/Kg*		*9.66*	*829-26-5*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Pentadecane, 2,6,10-trimethyl-	*800000*	*T J N*	*ug/Kg*		*10.19*	*3892-00-0*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Unknown	*270000*	*T J*	*ug/Kg*		*10.29*	*N/A*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Pentadecane, 2,6,10,14-tetramethyl-	*830000*	*T J N*	*ug/Kg*		*10.47*	*1921-70-6*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Hexadecane, 2,6,10,14-tetramethyl-	*560000*	*T J N*	*ug/Kg*		*10.95*	*638-36-8*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
1H-Cyclopropa[l]phenanthrene,1a,9b -dihydro-	*280000*	*T J N*	*ug/Kg*		*11.47*	*949-41-7*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Anthracene, 2-methyl-	*310000*	*T J N*	*ug/Kg*		*11.50*	*613-12-7*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Phenanthrene, 2,5-dimethyl-	*260000*	*T J N*	*ug/Kg*		*11.99*	*3674-66-6*	*06/07/24 06:49*	*06/10/24 20:18*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*68*		*40 - 121*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
p-Terphenyl-d14	*71*		*46 - 143*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Phenol-d5	*67*		*41 - 120*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
2-Fluorophenol	*64*		*36 - 120*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
2,4,6-Tribromophenol	*71*		*26 - 143*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
2-Fluorobiphenyl	*78*		*50 - 121*	*06/07/24 06:49*	*06/10/24 20:18*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		3.8	0.75	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
4,4'-DDE	ND		3.8	1.1	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
4,4'-DDT	ND		3.8	0.85	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
Aldrin	ND		3.8	0.39	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
alpha-BHC	ND		3.8	0.69	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
cis-Chlordane	ND		3.8	1.9	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
beta-BHC	ND		3.8	2.8	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
delta-BHC	ND		3.8	0.51	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
Dieldrin	ND		3.8	0.92	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
Endosulfan I	ND		3.8	0.82	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
Endosulfan II	ND		3.8	0.69	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
Endosulfan sulfate	ND		3.8	0.72	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
Endrin	ND		3.8	1.2	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
Endrin aldehyde	ND		3.8	0.98	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
Endrin ketone	ND		3.8	0.92	mg/Kg		06/06/24 10:13	06/07/24 12:47	10

Client Sample ID: SED-12
Lab Sample ID: 480-220474-21
Date Collected: 06/04/24 00:00
Matrix: Waste
Date Received: 06/04/24 16:00

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
gamma-BHC (Lindane)	ND		3.8	2.8	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
trans-Chlordane	ND		3.8	0.53	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
Heptachlor	ND		3.8	0.60	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
Heptachlor epoxide	ND		3.8	1.0	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
Methoxychlor	ND		3.8	1.0	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
Toxaphene	ND		38	22	mg/Kg		06/06/24 10:13	06/07/24 12:47	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*95*		*45 - 120*	*06/06/24 10:13*	*06/07/24 12:47*	*10*
DCB Decachlorobiphenyl	*90*		*45 - 120*	*06/06/24 10:13*	*06/07/24 12:47*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 12:47*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 12:47*	*10*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		3.3	0.65	mg/Kg		06/07/24 06:55	06/10/24 23:05	1
PCB-1221	ND		3.3	0.65	mg/Kg		06/07/24 06:55	06/10/24 23:05	1
PCB-1232	ND		3.3	0.65	mg/Kg		06/07/24 06:55	06/10/24 23:05	1
PCB-1242	ND		3.3	0.65	mg/Kg		06/07/24 06:55	06/10/24 23:05	1
PCB-1248	ND		3.3	0.65	mg/Kg		06/07/24 06:55	06/10/24 23:05	1
PCB-1254	ND		3.3	0.16	mg/Kg		06/07/24 06:55	06/10/24 23:05	1
PCB-1260	ND		3.3	0.16	mg/Kg		06/07/24 06:55	06/10/24 23:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*65*		*60 - 154*	*06/07/24 06:55*	*06/10/24 23:05*	*1*
Tetrachloro-m-xylene	*60*		*60 - 154*	*06/07/24 06:55*	*06/10/24 23:05*	*1*
DCB Decachlorobiphenyl	*76*		*65 - 174*	*06/07/24 06:55*	*06/10/24 23:05*	*1*
DCB Decachlorobiphenyl	*84*		*65 - 174*	*06/07/24 06:55*	*06/10/24 23:05*	*1*

Client Sample ID: SED-13
Lab Sample ID: 480-220474-22
Date Collected: 06/04/24 00:00
Matrix: Waste
Date Received: 06/04/24 16:00

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		280000	42000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
bis (2-chloroisopropyl) ether	ND		280000	57000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
2,4,5-Trichlorophenol	ND		280000	77000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
2,4,6-Trichlorophenol	ND		280000	57000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
2,4-Dichlorophenol	ND		280000	30000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
2,4-Dimethylphenol	ND		280000	68000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
2,4-Dinitrophenol	ND		2800000	1300000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
2,4-Dinitrotoluene	ND		280000	58000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
2,6-Dinitrotoluene	ND		280000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
2-Chloronaphthalene	ND		280000	47000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
2-Chlorophenol	ND		280000	52000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
2-Methylnaphthalene	**460000**		280000	57000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
2-Methylphenol	ND		280000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
2-Nitroaniline	ND		550000	42000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
2-Nitrophenol	ND		280000	80000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
3,3'-Dichlorobenzidine	ND		550000	330000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10

Client Sample ID: SED-13
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-22
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Nitroaniline	ND		550000	78000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
4,6-Dinitro-2-methylphenol	ND		550000	280000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
4-Bromophenyl phenyl ether	ND		280000	40000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
4-Chloro-3-methylphenol	ND		280000	70000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
4-Chloroaniline	ND		280000	70000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
4-Chlorophenyl phenyl ether	ND		280000	35000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
4-Methylphenol	ND		550000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
4-Nitroaniline	ND		550000	150000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
4-Nitrophenol	ND		550000	200000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Acenaphthene	ND		280000	42000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Acenaphthylene	ND		280000	37000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Acetophenone	ND		280000	38000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Anthracene	ND		280000	70000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Atrazine	ND		280000	98000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Benzaldehyde	ND		280000	230000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Benzo[a]anthracene	**65000**	**J**	280000	28000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Benzo[a]pyrene	**42000**	**J**	280000	42000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Benzo[b]fluoranthene	ND		280000	45000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Benzo[g,h,i]perylene	ND		280000	30000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Benzo[k]fluoranthene	ND		280000	37000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Bis(2-chloroethoxy)methane	ND		280000	60000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Bis(2-chloroethyl)ether	ND		280000	37000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Bis(2-ethylhexyl) phthalate	ND		280000	97000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Butyl benzyl phthalate	ND		280000	47000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Caprolactam	ND		280000	85000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Carbazole	ND		280000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Chrysene	**78000**	**J**	280000	63000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Dibenz(a,h)anthracene	ND		280000	50000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Dibenzofuran	**51000**	**J**	280000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Diethyl phthalate	ND		280000	37000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Dimethyl phthalate	ND		280000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Di-n-butyl phthalate	ND		280000	48000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Di-n-octyl phthalate	ND		280000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Fluoranthene	**130000**	**J**	280000	30000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Fluorene	**100000**	**J**	280000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Hexachlorobenzene	ND		280000	38000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Hexachlorobutadiene	ND		280000	42000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Hexachlorocyclopentadiene	ND		280000	38000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Hexachloroethane	ND		280000	37000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Indeno[1,2,3-cd]pyrene	ND		280000	35000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Isophorone	ND		280000	60000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Naphthalene	**440000**		280000	37000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Nitrobenzene	ND		280000	32000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
N-Nitrosodi-n-propylamine	ND		280000	48000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
N-Nitrosodiphenylamine	ND		280000	230000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Pentachlorophenol	ND		550000	280000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Phenanthrene	**350000**		280000	42000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Phenol	ND		280000	43000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Pyrene	**110000**	**J**	280000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10

Client Sample ID: SED-13

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-22

Matrix: Waste

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	320000	T J	ug/Kg		7.86	N/A	06/07/24 06:49	06/12/24 15:36	10
Naphthalene, 1-methyl-	330000	T J N	ug/Kg		8.25	90-12-0	06/07/24 06:49	06/12/24 15:36	10
Naphthalene, 1,7-dimethyl-	440000	T J N	ug/Kg		8.89	575-37-1	06/07/24 06:49	06/12/24 15:36	10
Naphthalene, 2,3-dimethyl-	510000	T J N	ug/Kg		8.97	581-40-8	06/07/24 06:49	06/12/24 15:36	10
Naphthalene, 1,5-dimethyl-	300000	T J N	ug/Kg		8.99	571-61-9	06/07/24 06:49	06/12/24 15:36	10
Naphthalene, 1,8-dimethyl-	540000	T J N	ug/Kg		9.11	569-41-5	06/07/24 06:49	06/12/24 15:36	10
Naphthalene, 2,3,6-trimethyl-	310000	T J N	ug/Kg		9.49	829-26-5	06/07/24 06:49	06/12/24 15:36	10
Naphthalene, 1,4,6-trimethyl-	300000	T J N	ug/Kg		9.66	2131-42-2	06/07/24 06:49	06/12/24 15:36	10
Naphthalene, 1,6,7-trimethyl-	270000	T J N	ug/Kg		9.74	2245-38-7	06/07/24 06:49	06/12/24 15:36	10
Unknown	380000	T J	ug/Kg		10.17	N/A	06/07/24 06:49	06/12/24 15:36	10
Pentadecane, 2,6,10,14-tetramethyl-	410000	T J N	ug/Kg		10.46	1921-70-6	06/07/24 06:49	06/12/24 15:36	10
Hexatriacontane	280000	T J N	ug/Kg		10.94	630-06-8	06/07/24 06:49	06/12/24 15:36	10
Anthracene, 1-methyl-	290000	T J N	ug/Kg		11.47	610-48-0	06/07/24 06:49	06/12/24 15:36	10
Anthracene, 2-methyl-	380000	T J N	ug/Kg		11.49	613-12-7	06/07/24 06:49	06/12/24 15:36	10
Phenanthrene, 4-methyl-	250000	T J N	ug/Kg		11.57	832-64-4	06/07/24 06:49	06/12/24 15:36	10
Phenanthrene, 3,6-dimethyl-	230000	T J N	ug/Kg		11.92	1576-67-6	06/07/24 06:49	06/12/24 15:36	10
Phenanthrene, 2,3-dimethyl-	450000	T J N	ug/Kg		11.99	3674-65-5	06/07/24 06:49	06/12/24 15:36	10
9,10-Dimethylanthracene	220000	T J N	ug/Kg		12.01	781-43-1	06/07/24 06:49	06/12/24 15:36	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	68		40 - 121	06/07/24 06:49	06/12/24 15:36	10
p-Terphenyl-d14	68		46 - 143	06/07/24 06:49	06/12/24 15:36	10
Phenol-d5	57		41 - 120	06/07/24 06:49	06/12/24 15:36	10
2-Fluorophenol	64		36 - 120	06/07/24 06:49	06/12/24 15:36	10
2,4,6-Tribromophenol	59		26 - 143	06/07/24 06:49	06/12/24 15:36	10
2-Fluorobiphenyl	77		50 - 121	06/07/24 06:49	06/12/24 15:36	10

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		3.3	0.65	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
4,4'-DDE	ND		3.3	0.93	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
4,4'-DDT	ND		3.3	0.73	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
Aldrin	ND		3.3	0.34	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
alpha-BHC	ND		3.3	0.60	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
cis-Chlordane	ND		3.3	1.7	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
beta-BHC	ND		3.3	2.4	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
delta-BHC	ND		3.3	0.44	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
Dieldrin	ND		3.3	0.80	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
Endosulfan I	ND		3.3	0.71	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
Endosulfan II	ND		3.3	0.60	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
Endosulfan sulfate	ND		3.3	0.62	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
Endrin	ND		3.3	1.1	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
Endrin aldehyde	ND		3.3	0.85	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
Endrin ketone	ND		3.3	0.80	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
gamma-BHC (Lindane)	ND		3.3	2.4	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
trans-Chlordane	ND		3.3	0.46	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
Heptachlor	ND		3.3	0.52	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
Heptachlor epoxide	ND		3.3	0.87	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
Methoxychlor	ND		3.3	0.87	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
Toxaphene	ND		33	19	mg/Kg		06/06/24 10:13	06/07/24 13:06	10

Client Sample ID: SED-13

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-22

Matrix: Waste

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*90*		*45 - 120*	*06/06/24 10:13*	*06/07/24 13:06*	*10*
DCB Decachlorobiphenyl	*126*	*S1+*	*45 - 120*	*06/06/24 10:13*	*06/07/24 13:06*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 13:06*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 13:06*	*10*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		17	3.3	mg/Kg		06/07/24 06:55	06/10/24 23:22	5
PCB-1221	ND		17	3.3	mg/Kg		06/07/24 06:55	06/10/24 23:22	5
PCB-1232	ND		17	3.3	mg/Kg		06/07/24 06:55	06/10/24 23:22	5
PCB-1242	ND		17	3.3	mg/Kg		06/07/24 06:55	06/10/24 23:22	5
PCB-1248	ND		17	3.3	mg/Kg		06/07/24 06:55	06/10/24 23:22	5
PCB-1254	ND		17	0.78	mg/Kg		06/07/24 06:55	06/10/24 23:22	5
PCB-1260	ND		17	0.78	mg/Kg		06/07/24 06:55	06/10/24 23:22	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*61*		*60 - 154*	*06/07/24 06:55*	*06/10/24 23:22*	*5*
Tetrachloro-m-xylene	*59*	*S1-*	*60 - 154*	*06/07/24 06:55*	*06/10/24 23:22*	*5*
DCB Decachlorobiphenyl	*72*		*65 - 174*	*06/07/24 06:55*	*06/10/24 23:22*	*5*
DCB Decachlorobiphenyl	*95*		*65 - 174*	*06/07/24 06:55*	*06/10/24 23:22*	*5*

Client Sample ID: SED-14

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-23

Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		270000	39000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
bis (2-chloroisopropyl) ether	ND		270000	54000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
2,4,5-Trichlorophenol	ND		270000	73000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
2,4,6-Trichlorophenol	ND		270000	54000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
2,4-Dichlorophenol	ND		270000	28000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
2,4-Dimethylphenol	ND		270000	65000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
2,4-Dinitrophenol	ND		2600000	1200000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
2,4-Dinitrotoluene	ND		270000	55000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
2,6-Dinitrotoluene	ND		270000	32000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
2-Chloronaphthalene	ND		270000	44000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
2-Chlorophenol	ND		270000	49000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
2-Methylnaphthalene	**470000**		270000	54000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
2-Methylphenol	ND		270000	32000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
2-Nitroaniline	ND		520000	39000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
2-Nitrophenol	ND		270000	76000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
3,3'-Dichlorobenzidine	ND		520000	320000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
3-Nitroaniline	ND		520000	74000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
4,6-Dinitro-2-methylphenol	ND		520000	270000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
4-Bromophenyl phenyl ether	ND		270000	38000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
4-Chloro-3-methylphenol	ND		270000	66000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
4-Chloroaniline	ND		270000	66000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
4-Chlorophenyl phenyl ether	ND		270000	33000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
4-Methylphenol	ND		520000	32000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
4-Nitroaniline	ND		520000	140000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10

Client Sample ID: SED-14
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-23
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	ND		520000	190000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Acenaphthene	ND		270000	39000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Acenaphthylene	ND		270000	35000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Acetophenone	ND		270000	36000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Anthracene	ND		270000	66000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Atrazine	ND		270000	93000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Benzaldehyde	ND		270000	210000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Benzo[a]anthracene	ND		270000	27000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Benzo[a]pyrene	ND		270000	39000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Benzo[b]fluoranthene	ND		270000	43000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Benzo[g,h,i]perylene	ND		270000	28000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Benzo[k]fluoranthene	ND		270000	35000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Bis(2-chloroethoxy)methane	ND		270000	57000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Bis(2-chloroethyl)ether	ND		270000	35000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Bis(2-ethylhexyl) phthalate	ND		270000	92000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Butyl benzyl phthalate	ND		270000	44000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Caprolactam	ND		270000	81000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Carbazole	ND		270000	32000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Chrysene	**91000**	**J**	270000	60000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Dibenz(a,h)anthracene	ND		270000	47000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Dibenzofuran	ND		270000	32000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Diethyl phthalate	ND		270000	35000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Dimethyl phthalate	ND		270000	32000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Di-n-butyl phthalate	ND		270000	46000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Di-n-octyl phthalate	ND		270000	32000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Fluoranthene	**110000**	**J**	270000	28000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Fluorene	**83000**	**J**	270000	32000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Hexachlorobenzene	ND		270000	36000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Hexachlorobutadiene	ND		270000	39000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Hexachlorocyclopentadiene	ND		270000	36000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Hexachloroethane	ND		270000	35000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Indeno[1,2,3-cd]pyrene	ND		270000	33000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Isophorone	ND		270000	57000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Naphthalene	**300000**		270000	35000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Nitrobenzene	ND		270000	30000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
N-Nitrosodi-n-propylamine	ND		270000	46000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
N-Nitrosodiphenylamine	ND		270000	220000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Pentachlorophenol	ND		520000	270000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Phenanthrene	**270000**		270000	39000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Phenol	ND		270000	41000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Pyrene	**92000**	**J**	270000	32000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Benzene, 1-ethyl-2,3-dimethyl-	*290000*	*T J N*	*ug/Kg*		*7.00*	*933-98-2*	*06/07/24 06:49*	*06/12/24 16:04*	*10*
Unknown	*220000*	*T J*	*ug/Kg*		*7.43*	*N/A*	*06/07/24 06:49*	*06/12/24 16:04*	*10*
Unknown	*350000*	*T J*	*ug/Kg*		*7.86*	*N/A*	*06/07/24 06:49*	*06/12/24 16:04*	*10*
Naphthalene, 1-methyl-	*320000*	*T J N*	*ug/Kg*		*8.25*	*90-12-0*	*06/07/24 06:49*	*06/12/24 16:04*	*10*
Naphthalene, 1,8-dimethyl-	*430000*	*T J N*	*ug/Kg*		*8.88*	*569-41-5*	*06/07/24 06:49*	*06/12/24 16:04*	*10*
Naphthalene, 1,7-dimethyl-	*500000*	*T J N*	*ug/Kg*		*8.97*	*575-37-1*	*06/07/24 06:49*	*06/12/24 16:04*	*10*
Naphthalene, 1,5-dimethyl-	*250000*	*T J N*	*ug/Kg*		*8.99*	*571-61-9*	*06/07/24 06:49*	*06/12/24 16:04*	*10*

Client Sample ID: SED-14
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-23
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Naphthalene, 2,3-dimethyl-	560000	T J N	ug/Kg		9.11	581-40-8	06/07/24 06:49	06/12/24 16:04	10
Naphthalene, 2,3,6-trimethyl-	300000	T J N	ug/Kg		9.49	829-26-5	06/07/24 06:49	06/12/24 16:04	10
Naphthalene, 1,6,7-trimethyl-	290000	T J N	ug/Kg		9.65	2245-38-7	06/07/24 06:49	06/12/24 16:04	10
Naphthalene, 1,4,6-trimethyl-	280000	T J N	ug/Kg		9.74	2131-42-2	06/07/24 06:49	06/12/24 16:04	10
Unknown	430000	T J	ug/Kg		10.17	N/A	06/07/24 06:49	06/12/24 16:04	10
Pentadecane, 2,6,10,14-tetramethyl-	480000	T J N	ug/Kg		10.46	1921-70-6	06/07/24 06:49	06/12/24 16:04	10
Hexadecane, 2,6,10,14-tetramethyl-	370000	T J N	ug/Kg		10.94	638-36-8	06/07/24 06:49	06/12/24 16:04	10
Anthracene, 2-methyl-	310000	T J N	ug/Kg		11.47	613-12-7	06/07/24 06:49	06/12/24 16:04	10
Phenanthrene, 2-methyl-	380000	T J N	ug/Kg		11.49	2531-84-2	06/07/24 06:49	06/12/24 16:04	10
Anthracene, 1-methyl-	240000	T J N	ug/Kg		11.57	610-48-0	06/07/24 06:49	06/12/24 16:04	10
Phenanthrene, 2,5-dimethyl-	460000	T J N	ug/Kg		11.98	3674-66-6	06/07/24 06:49	06/12/24 16:04	10
Unknown	230000	T J	ug/Kg		12.39	N/A	06/07/24 06:49	06/12/24 16:04	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	56		40 - 121	06/07/24 06:49	06/12/24 16:04	10
p-Terphenyl-d14	63		46 - 143	06/07/24 06:49	06/12/24 16:04	10
Phenol-d5	50		41 - 120	06/07/24 06:49	06/12/24 16:04	10
2-Fluorophenol	54		36 - 120	06/07/24 06:49	06/12/24 16:04	10
2,4,6-Tribromophenol	52		26 - 143	06/07/24 06:49	06/12/24 16:04	10
2-Fluorobiphenyl	65		50 - 121	06/07/24 06:49	06/12/24 16:04	10

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.9	0.57	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
4,4'-DDE	ND		2.9	0.82	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
4,4'-DDT	ND		2.9	0.65	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
Aldrin	ND		2.9	0.30	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
alpha-BHC	ND		2.9	0.53	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
cis-Chlordane	ND		2.9	1.5	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
beta-BHC	ND		2.9	2.1	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
delta-BHC	ND		2.9	0.39	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
Dieldrin	ND		2.9	0.71	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
Endosulfan I	ND		2.9	0.62	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
Endosulfan II	ND		2.9	0.53	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
Endosulfan sulfate	ND		2.9	0.55	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
Endrin	ND		2.9	0.94	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
Endrin aldehyde	ND		2.9	0.75	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
Endrin ketone	ND		2.9	0.71	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
gamma-BHC (Lindane)	ND		2.9	2.1	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
trans-Chlordane	ND		2.9	0.41	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
Heptachlor	ND		2.9	0.46	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
Heptachlor epoxide	ND		2.9	0.76	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
Methoxychlor	ND		2.9	0.76	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
Toxaphene	ND		29	17	mg/Kg		06/06/24 10:13	06/07/24 13:26	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	96		45 - 120	06/06/24 10:13	06/07/24 13:26	10
DCB Decachlorobiphenyl	205	S1+	45 - 120	06/06/24 10:13	06/07/24 13:26	10
Tetrachloro-m-xylene	0	S1-	30 - 124	06/06/24 10:13	06/07/24 13:26	10
Tetrachloro-m-xylene	0	S1-	30 - 124	06/06/24 10:13	06/07/24 13:26	10

Client Sample ID: SED-14
Lab Sample ID: 480-220474-23

Date Collected: 06/04/24 00:00
Matrix: Waste
Date Received: 06/04/24 16:00

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		18	3.5	mg/Kg		06/07/24 06:55	06/10/24 23:39	5
PCB-1221	ND		18	3.5	mg/Kg		06/07/24 06:55	06/10/24 23:39	5
PCB-1232	ND		18	3.5	mg/Kg		06/07/24 06:55	06/10/24 23:39	5
PCB-1242	ND		18	3.5	mg/Kg		06/07/24 06:55	06/10/24 23:39	5
PCB-1248	ND		18	3.5	mg/Kg		06/07/24 06:55	06/10/24 23:39	5
PCB-1254	ND		18	0.84	mg/Kg		06/07/24 06:55	06/10/24 23:39	5
PCB-1260	ND		18	0.84	mg/Kg		06/07/24 06:55	06/10/24 23:39	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*68*		*60 - 154*	*06/07/24 06:55*	*06/10/24 23:39*	*5*
Tetrachloro-m-xylene	*67*		*60 - 154*	*06/07/24 06:55*	*06/10/24 23:39*	*5*
DCB Decachlorobiphenyl	*68*		*65 - 174*	*06/07/24 06:55*	*06/10/24 23:39*	*5*
DCB Decachlorobiphenyl	*99*		*65 - 174*	*06/07/24 06:55*	*06/10/24 23:39*	*5*

Client Sample ID: SED-15
Lab Sample ID: 480-220474-24

Date Collected: 06/04/24 00:00
Matrix: Waste
Date Received: 06/04/24 16:00

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		27000	3900	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
bis (2-chloroisopropyl) ether	ND		27000	5400	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
2,4,5-Trichlorophenol	ND		27000	7300	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
2,4,6-Trichlorophenol	ND		27000	5400	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
2,4-Dichlorophenol	ND		27000	2800	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
2,4-Dimethylphenol	ND		27000	6500	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
2,4-Dinitrophenol	ND		260000	120000	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
2,4-Dinitrotoluene	ND		27000	5500	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
2,6-Dinitrotoluene	ND		27000	3200	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
2-Chloronaphthalene	ND		27000	4400	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
2-Chlorophenol	ND		27000	4900	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
2-Methylnaphthalene	**67000**		27000	5400	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
2-Methylphenol	ND		27000	3200	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
2-Nitroaniline	ND		52000	3900	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
2-Nitrophenol	ND		27000	7600	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
3,3'-Dichlorobenzidine	ND		52000	32000	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
3-Nitroaniline	ND		52000	7400	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
4,6-Dinitro-2-methylphenol	ND		52000	27000	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
4-Bromophenyl phenyl ether	ND		27000	3800	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
4-Chloro-3-methylphenol	ND		27000	6600	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
4-Chloroaniline	ND		27000	6600	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
4-Chlorophenyl phenyl ether	ND		27000	3300	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
4-Methylphenol	ND		52000	3200	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
4-Nitroaniline	ND		52000	14000	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
4-Nitrophenol	ND		52000	19000	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Acenaphthene	ND		27000	3900	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Acenaphthylene	ND		27000	3500	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Acetophenone	ND		27000	3600	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Anthracene	ND		27000	6600	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Atrazine	ND		27000	9300	ug/Kg		06/07/24 06:49	06/10/24 21:40	1

Client Sample ID: SED-15
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-24
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzaldehyde	ND		27000	21000	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Benzo[a]anthracene	ND		27000	2700	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Benzo[a]pyrene	ND		27000	3900	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Benzo[b]fluoranthene	ND		27000	4300	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Benzo[g,h,i]perylene	ND		27000	2800	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Benzo[k]fluoranthene	ND		27000	3500	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Bis(2-chloroethoxy)methane	ND		27000	5700	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Bis(2-chloroethyl)ether	ND		27000	3500	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Bis(2-ethylhexyl) phthalate	ND		27000	9200	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Butyl benzyl phthalate	ND		27000	4400	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Caprolactam	ND		27000	8100	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Carbazole	ND		27000	3200	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Chrysene	ND		27000	6000	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Dibenz(a,h)anthracene	ND		27000	4700	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Dibenzofuran	ND		27000	3200	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Diethyl phthalate	ND		27000	3500	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Dimethyl phthalate	ND		27000	3200	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Di-n-butyl phthalate	ND		27000	4600	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Di-n-octyl phthalate	ND		27000	3200	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Fluoranthene	**3700**	**J**	27000	2800	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Fluorene	**7900**	**J**	27000	3200	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Hexachlorobenzene	ND		27000	3600	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Hexachlorobutadiene	ND		27000	3900	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Hexachlorocyclopentadiene	ND	UJ	27000	3600	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Hexachloroethane	ND		27000	3500	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Indeno[1,2,3-cd]pyrene	ND		27000	3300	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Isophorone	ND		27000	5700	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Naphthalene	ND		27000	3500	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Nitrobenzene	ND		27000	3000	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
N-Nitrosodi-n-propylamine	ND		27000	4600	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
N-Nitrosodiphenylamine	ND		27000	22000	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Pentachlorophenol	ND		52000	27000	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Phenanthrene	**27000**		27000	3900	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Phenol	ND		27000	4100	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Pyrene	**5800**	**J**	27000	3200	ug/Kg		06/07/24 06:49	06/10/24 21:40	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*110000*	*T J*	*ug/Kg*		*2.02*	*N/A*	*06/07/24 06:49*	*06/10/24 21:40*	*1*
Unknown	*50000*	*T J*	*ug/Kg*		*7.86*	*N/A*	*06/07/24 06:49*	*06/10/24 21:40*	*1*
Benzocycloheptatriene	*52000*	*T J N*	*ug/Kg*		*8.25*	*264-09-5*	*06/07/24 06:49*	*06/10/24 21:40*	*1*
Naphthalene, 1-ethyl-	*36000*	*T J N*	*ug/Kg*		*8.80*	*1127-76-0*	*06/07/24 06:49*	*06/10/24 21:40*	*1*
Naphthalene, 2,6-dimethyl-	*74000*	*T J N*	*ug/Kg*		*8.89*	*581-42-0*	*06/07/24 06:49*	*06/10/24 21:40*	*1*
Naphthalene, 1,3-dimethyl-	*84000*	*T J N*	*ug/Kg*		*8.97*	*575-41-7*	*06/07/24 06:49*	*06/10/24 21:40*	*1*
Naphthalene, 1,6-dimethyl-	*56000*	*T J N*	*ug/Kg*		*9.00*	*575-43-9*	*06/07/24 06:49*	*06/10/24 21:40*	*1*
Naphthalene, 1,4-dimethyl-	*82000*	*T J N*	*ug/Kg*		*9.11*	*571-58-4*	*06/07/24 06:49*	*06/10/24 21:40*	*1*
Naphthalene, 2-(1-methylethyl)-	*54000*	*T J N*	*ug/Kg*		*9.50*	*2027-17-0*	*06/07/24 06:49*	*06/10/24 21:40*	*1*
Azulene, 4,6,8-trimethyl-	*56000*	*T J N*	*ug/Kg*		*9.61*	*941-81-1*	*06/07/24 06:49*	*06/10/24 21:40*	*1*
Naphthalene, 2,3,6-trimethyl-	*55000*	*T J N*	*ug/Kg*		*9.66*	*829-26-5*	*06/07/24 06:49*	*06/10/24 21:40*	*1*
Naphthalene, 1,6,7-trimethyl-	*44000*	*T J N*	*ug/Kg*		*9.74*	*2245-38-7*	*06/07/24 06:49*	*06/10/24 21:40*	*1*
Naphthalene, 1,4,6-trimethyl-	*32000*	*T J N*	*ug/Kg*		*9.77*	*2131-42-2*	*06/07/24 06:49*	*06/10/24 21:40*	*1*

Client Sample ID: SED-15
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-24
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Naphthalene, 1,4,5-trimethyl-	36000	T J N	ug/Kg		9.84	2131-41-1	06/07/24 06:49	06/10/24 21:40	1
Pentadecane, 2,6,10-trimethyl-	62000	T J N	ug/Kg		10.18	3892-00-0	06/07/24 06:49	06/10/24 21:40	1
Pentadecane, 2,6,10,14-tetramethyl-	84000	T J N	ug/Kg		10.47	1921-70-6	06/07/24 06:49	06/10/24 21:40	1
Eicosane	64000	T J N	ug/Kg		10.94	112-95-8	06/07/24 06:49	06/10/24 21:40	1
Anthracene, 1-methyl-	38000	T J N	ug/Kg		11.47	610-48-0	06/07/24 06:49	06/10/24 21:40	1
1H-Cyclopropa[l]phenanthrene,1a,9b-dihydro-	48000	T J N	ug/Kg		11.49	949-41-7	06/07/24 06:49	06/10/24 21:40	1
Phenanthrene, 2,5-dimethyl-	46000	T J N	ug/Kg		11.99	3674-66-6	06/07/24 06:49	06/10/24 21:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	57		40 - 121	06/07/24 06:49	06/10/24 21:40	1
p-Terphenyl-d14	66		46 - 143	06/07/24 06:49	06/10/24 21:40	1
Phenol-d5	56		41 - 120	06/07/24 06:49	06/10/24 21:40	1
2-Fluorophenol	54		36 - 120	06/07/24 06:49	06/10/24 21:40	1
2,4,6-Tribromophenol	58		26 - 143	06/07/24 06:49	06/10/24 21:40	1
2-Fluorobiphenyl	67		50 - 121	06/07/24 06:49	06/10/24 21:40	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.6	0.51	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
4,4'-DDE	ND		2.6	0.74	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
4,4'-DDT	ND		2.6	0.58	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
Aldrin	ND		2.6	0.27	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
alpha-BHC	ND		2.6	0.47	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
cis-Chlordane	ND		2.6	1.3	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
beta-BHC	ND		2.6	1.9	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
delta-BHC	ND		2.6	0.35	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
Dieldrin	ND		2.6	0.63	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
Endosulfan I	ND		2.6	0.56	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
Endosulfan II	ND		2.6	0.47	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
Endosulfan sulfate	ND		2.6	0.49	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
Endrin	ND		2.6	0.84	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
Endrin aldehyde	ND		2.6	0.67	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
Endrin ketone	ND		2.6	0.63	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
gamma-BHC (Lindane)	ND		2.6	1.9	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
trans-Chlordane	ND		2.6	0.36	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
Heptachlor	ND		2.6	0.41	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
Heptachlor epoxide	ND		2.6	0.68	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
Methoxychlor	ND		2.6	0.68	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
Toxaphene	ND		26	15	mg/Kg		06/06/24 10:13	06/07/24 13:46	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	101		45 - 120	06/06/24 10:13	06/07/24 13:46	10
DCB Decachlorobiphenyl	91		45 - 120	06/06/24 10:13	06/07/24 13:46	10
Tetrachloro-m-xylene	0	S1-	30 - 124	06/06/24 10:13	06/07/24 13:46	10
Tetrachloro-m-xylene	0	S1-	30 - 124	06/06/24 10:13	06/07/24 13:46	10

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		2.9	0.58	mg/Kg		06/07/24 06:55	06/10/24 23:56	1

Client Sample ID: SED-15
Lab Sample ID: 480-220474-24
Date Collected: 06/04/24 00:00
Matrix: Waste
Date Received: 06/04/24 16:00

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1221	ND		2.9	0.58	mg/Kg		06/07/24 06:55	06/10/24 23:56	1
PCB-1232	ND		2.9	0.58	mg/Kg		06/07/24 06:55	06/10/24 23:56	1
PCB-1242	ND		2.9	0.58	mg/Kg		06/07/24 06:55	06/10/24 23:56	1
PCB-1248	ND		2.9	0.58	mg/Kg		06/07/24 06:55	06/10/24 23:56	1
PCB-1254	ND		2.9	0.14	mg/Kg		06/07/24 06:55	06/10/24 23:56	1
PCB-1260	ND		2.9	0.14	mg/Kg		06/07/24 06:55	06/10/24 23:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*62*		*60 - 154*	*06/07/24 06:55*	*06/10/24 23:56*	*1*
Tetrachloro-m-xylene	*58*	*S1-*	*60 - 154*	*06/07/24 06:55*	*06/10/24 23:56*	*1*
DCB Decachlorobiphenyl	*75*		*65 - 174*	*06/07/24 06:55*	*06/10/24 23:56*	*1*
DCB Decachlorobiphenyl	*85*		*65 - 174*	*06/07/24 06:55*	*06/10/24 23:56*	*1*

ATTACHMENT B

SUPPORT DOCUMENTATION

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins Environment Testing

Client Information	Sampler: Ethan Smith	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-196947-40789.1
Client Contact: Ms. Ann Marie Kropovitch	Phone: 716-912-4456	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: AECOM	PWSID:			Job #:
Address: 50 Lakefront Boulevard Suite 111	Due Date Requested: STD			
City: Buffalo	TAT Requested (days): Per PO			
State, Zip: NY, 14202	Compliance Project: Δ Yes Δ No			
Phone: 614-790-2274(Tel)	PO #: 1120269 Task 300			
Email: ann.marie.kropovitch@aecom.com	WO #: Ann.Marie.Kropovitch@aecom.com			
Project Name: Tank 75 - SW Disposal Characteristics	Project #: 48027595			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
S - H2SO4
N - none

Other:

Special Instructions/Note:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9012 - Reactive CN	9034 - Reactive Sulfide	8015D - DAE - Ethylene Glycol	1664B - TPH-HEM	9040C - pH - Corrosivity	1010A - Ignitability (Flash Point)	D240_87 - BTU	Total Number of containers
			Preservation Code:				N	N	N	S	N	N	N	
SW-01-2-WC	6/3/24	1200	G	Water			X	X	X	X	X	X	X	9
SW-01-3-WC	↓	1325	G	Water			X	X	X	X	X	X	X	9
SW-01-1-WC	↓	1350	G	Water			X	X	X	X	X	X	X	9

480-220420 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:
Add Ethan.Smith@aecom.com and edyta.CherOSt.KowSka@aecom.com to all lab correspondence

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time	Company	Received by	Date/Time	Company
Relinquished by:	6/3/24 1900	AECOM	SM	6/3/24 1900	eurofins
Relinquished by:					
Relinquished by:					

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.7 ICE

Ver: 04/02/2024

Job Narrative
480-220420-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 6/3/2024 7:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.7°C.

GC Semi VOA
Method 8015D_DAI_G: The method blank for preparation batch 480-714430 and analytical batch 480-714437 contained Ethylene glycol above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 1664B: Analysis for Hexane Extractable Material (HEM) was performed for the following samples: SW-01-3-WC (480-220420-2) and SW-01-1-WC (480-220420-3). Since the HEM result(s) was below the reporting limit (RL), the result(s) for Silica Gel Treated - Hexane Extractable Material (SGT-HEM) was reported as a non-detect. All HEM quality control criteria were met.

Method 9040C: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: SW-01-2-WC (480-220420-1), SW-01-3-WC (480-220420-2) and SW-01-1-WC (480-220420-3).

Method D240_87: When prepped for Heat of Combustion/BTU analysis, the following samples did not combust: SW-01-2-WC (480-220420-1), SW-01-3-WC (480-220420-2) and SW-01-1-WC (480-220420-3). The sample(s) was run in duplicate to confirm. The result(s) has been reported as "Did Not Fire" (DNF).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins Environment Testing

Client Information	Sampler: Ethan Smith	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-196949-40791.2
Client Contact: Ms. Ann Marie Kropovitch	Phone: 716-912-4456	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: AECOM	PWSID:			Job #:
Address: 50 Lakefront Boulevard Suite 111	Due Date Requested: STD			Preservation Codes: N - None
City: Buffalo	TAT Requested (days): Per PO			
State, Zip: NY, 14202	Compliance Project: Δ Yes Δ No			
Phone: 614-790-2274(Tel)	PO #: 1120269 Task 300			
Email: ann.marie.kropovitch@aecom.com	WO #: Ann.Marie.Kropovitch@aecom.com			
Project Name: Tank 75 - Sediment Disposal Char	Project #: 48027595			
Site:	SSOW#:			

480-220470 Chain of Custody

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9012_ReactiveCN, 9034_Reactive, 9095B	1010A, 1664B, 9045D	6010C, 7470A, 8081B, 8151A, 8270D	8260C - TCLP Volatiles	8015C_DAI_GLY - Ethylene Glycol	D240_87 - Heat of Combustion (BTU)	Total Number of conta	Special Instructions/Note:
Preservation Code:							N	N	N	N	N	N		
~~SED-05~~	~~6/3/24~~		G	Solid									~~6~~	
SED-06	6/4/24	0710	G	Solid			X	X	X	X	X	X	6	
SED-07		0745		Solid									6	
SED-08		0815		Solid									6	
SED-09		0845											6	
SED-10		0915											6	
SED-11		0950											6	
SED-12		1030											6	
SED-13		1100											6	
SED-14		1130											6	
SED-15		1200											6	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: add Ethan.Smith@aecom.com and Edyta.Chorostkowska@aecom.com

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: 6911 145 Carrier Spondence

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	6/4/24 1600	AECOM			
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by [signature]	Date/Time 6/4/24 1600	Company TMO

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: 3.0, 3.4, 5.2, 5.4, 3.7, 3.0 #1 ICE

Cooler Temperature(s) °C and Other Remarks:

Ver: 04/02/2024

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-87879.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 2
Company: Eurofins Environment Testing Southeast L		Accreditations Required (See note): NELAP - New York		Job #: 480-220470-1
Address: 3355 McLemore Drive,	Due Date Requested: 6/17/2024	Analysis Requested		Preservation Codes:
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site:	SSOW#:			Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015D_DAI/3580A Ethylene Glycol	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SED-06 (480-220470-1)	6/4/24	07:10 Eastern		Solid			X	1	
SED-07 (480-220470-2)	6/4/24	07:45 Eastern		Solid			X	1	
SED-08 (480-220470-3)	6/4/24	08:15 Eastern		Solid			X	1	
SED-09 (480-220470-4)	6/4/24	08:45 Eastern		Solid			X	1	
SED-10 (480-220470-5)	6/4/24	09:15 Eastern		Solid			X	1	
SED-11 (480-220470-6)	6/4/24	09:50 Eastern		Solid			X	1	
SED-12 (480-220470-7)	6/4/24	10:30 Eastern		Solid			X	1	
SED-13 (480-220470-8)	6/4/24	11:00 Eastern		Solid			X	1	
SED-14 (480-220470-9)	6/4/24	11:30 Eastern		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[illegible]	6/5/24 1600	T/A	[illegible]	6/6/24 927	
Relinquished by: [illegible]	Date/Time: 6/6/24 927	Company	Received by: [illegible]	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.7° IR 10

Ver: 04/02/2024

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-87879.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 2 of 2
Company: Eurofins Environment Testing Southeast L		Accreditations Required (See note): NELAP - New York		Job #: 480-220470-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 6/17/2024			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site:	SSOW#:			

Analysis Requested

Preservation Codes: -

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015D_DAI/3580A Ethylene Glycol	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SED-15 (480-220470-10)	6/4/24	12:00 Eastern		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by: [signature]	Date/Time: 6/5/24 1600	Company TA	Received by: [signature]	Date/Time: 6/6/24 927	Company		
Relinquished by: [signature]	Date/Time: 6/6/24 927	Company	Received by: [signature]	Date/Time:	Company		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.7° IR10

Ver: 04/02/2024

Job Narrative
480-220470-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 6/4/2024 4:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 3.0°C, 3.6°C, 3.7°C, 3.9°C, 5.2°C and 5.4°C.

GC Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 9045D: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: SED-06 (480-220470-1), SED-07 (480-220470-2), SED-08 (480-220470-3), SED-09 (480-220470-4), SED-10 (480-220470-5), SED-11 (480-220470-6), SED-12 (480-220470-7), SED-13 (480-220470-8), SED-14 (480-220470-9) and SED-15 (480-220470-10).

Method D240_87: When prepped for Heat of Combustion/BTU analysis, the following sample did not combust: SED-13 (480-220470-8). The sample(s) was run in duplicate to confirm. The result(s) has been reported as "Did Not Fire" (DNF).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Buffalo
10 Hazelwood Drive

Amherst, NY 14228-2223
phone 716.691.2600 fax 716.691.7991

Chain of Custody Record

eurofins | Environment Testing America

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Eurofins Environment Testing America

Client Contact	Project Manager: Colin Wasteneys	Site Contact: Ethan Smith	Date: 6/4/24	COC No:
AECOM	Email: colin.wasteneys@aecom.com	Lab Contact: John Beninati	Carrier:	1 of 1 COCs
50 LAKEFRONT BLVD SUITE 111	Tel/Fax: (716) 225-4396			TALS Project #:
BUFFALO, NY	Analysis Turnaround Time			Sampler: Ethan Smith
(716) 856-5636 Phone	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(xxx) xxx-xxxx FAX	TAT if different from Below STD			Walk-in Client:
Project Name: Ashland Tank 75 Site	☐ 2 weeks			Lab Sampling:
Site: Tank 75 Site, Tonawanda, NY	☐ 1 week			Job / SDG No.:
P O # 60730037	☐ 2 days			
	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	TOC - Lloyd Kahn	8260C TCL VOCs	9012B Cyanide	6010C Metals	7471B Mercury	8270D SVOCs	8082 PCBs	8081 Pesticides	1,4-D, Dioxane	1633 PFAS	Sample Specific Notes:
SED-06	6/4/24		G	sed	27		Y	X	X	X	X	X	X	X	X	X	X	
SED-07					9		N	X	X	X	X	X	X	X	X			
SED-08					9		N	X	X	X	X	X	X	X	X	X	X	
SED-08-FD					9		N	X	X	X	X	X	X	X	X	X	X	
SED-09					9		N	X	X	X	X	X	X	X	X			
SED-10					9		N	X	X	X	X	X	X	X	X	X	X	
SED-11					9		N	X	X	X	X	X	X	X	X			
SED-11-FD					9		N	X	X	X	X	X	X	X	X			
SED-12					9		N	X	X	X	X	X	X	X	X	X	X	
SED-13					9		N	X	X	X	X	X	X	X	X			
SED-14					9		N	X	X	X	X	X	X	X	X			
SED-15	↓		↓	↓	9		N	X	X	X	X	X	X	X	X			

480-220474 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☒ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
add ethan.smith@aecom.com and edyta.chorostkowska@aecom.com to all lab correspondance.
310 314 5125 143736 #1314

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:	Corr'd:	Therm ID No.:
Relinquished by:	Company: AECOM	Date/Time: 6/4/24 1600	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TMH	Date/Time: 6/4/24 1600

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone 732-549-3900 Fax: 732-549-3679

54BB

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler	Lab PM: Beninati, John	Carrier Tracking No(s)	COC No: 460-71444 1
Client Contact: Shipping/Receiving	Phone	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 2
Company: Eurofins Environment Testing Northeast,		Accreditations Required (See note): NELAP - New York		Job #: 480-220474-1
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested: 6/17/2024			Preservation Codes: -
City: Pittsburgh	TAT Requested (days):			
State, Zip: PA, 15238				
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site	SSOW#:			Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Lloyd_Kahn_Mod/ Lloyd Kahn-Single Burn	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SED-06 (480-220474-1MSD)	6/4/24	Eastern	MSD	Solid			X	1	weigh 5 mg only
SED-07 (480-220474-2)	6/4/24	Eastern		Solid			X	1	
SED-08 (480-220474-3)	6/4/24	Eastern		Solid			X	1	
SED-08-FD (480-220474-4)	6/4/24	Eastern		Solid			X	1	
SED-09 (480-220474-5)	6/4/24	Eastern		Solid			X	1	
SED-10 (480-220474-6)	6/4/24	Eastern		Solid			X	1	
SED-11 (480-220474-7)	6/4/24	Eastern		Solid			X	1	
SED-11-FD (480-220474-8)	6/4/24	Eastern		Solid			X	1	
SED-12 (480-220474-9)	6/4/24	Eastern		Solid			X	1	

480-220474 Chain of Custody

Note. Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested. I, II, III, IV, Other (specify) Primary Deliverable Rank. 4	Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		6/11/24 1900	EET		6/12/24 1030	ENVIRONMENT
2						
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler	Lab PM: Beninati, John	Carrier Tracking No(s)	COC No: 460-71444 2
Client Contact: Shipping/Receiving	Phone	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 2 of 2
Company: Eurofins Environment Testing Northeast,		Accreditations Required (See note): NELAP - New York		Job #: 480-220474-1
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested: 6/17/2024			
City: Pittsburgh	TAT Requested (days):			
State, Zip: PA, 15238				
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site:	SSOW#:			

Analysis Requested

Preservation Codes: -

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Lloyd_Kahn_Mod/ Lloyd Kahn-Single Burn	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SED-13 (480-220474-10)	6/4/24	Eastern		Solid			X	1	
SED-14 (480-220474-11)	6/4/24	Eastern		Solid			X	1	
SED-15 (480-220474-12)	6/4/24	Eastern		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) — Primary Deliverable Rank: 4	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 6/11/24 1900	Company: EET	Received by:	Date/Time: 6/12/24 1030	Company: EMTMS
Relinquished by:	Date/Time	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

3 4 5-6

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-87863.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note): NELAP New York		Job #: 480-220474-1
Address: 180 S. Van Buren Avenue,	Due Date Requested: 6/17/2024 *			Preservation Codes:
City: Barberton	TAT Requested (days):			
State, Zip: OH, 44203				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site:	SSOW#:			Other: PFAS 25

Analysis Requested

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633/1633_Shake 1633 Standard List	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SED-06 (480-220474-1)	6/4/24	Eastern		Solid			X	1	
SED-08 (480-220474-3)	6/4/24	Eastern		Solid			X	1	
SED-08-FD (480-220474-4)	6/4/24	Eastern		Solid			X	1	
SED-10 (480-220474-6)	6/4/24	Eastern		Solid			X	1	
SED-12 (480-220474-9)	6/4/24	Eastern		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	6/5/24 1600	ET-A	TAMMY ROYER	6-6-24 930	ETNC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Eurofins = Cleveland Sample Receipt Form/Narrative — Login #:
Barberton Facility

Client ETA — Site Name ____ — Cooler unpacked by: TAMMY ROYER

Cooler Received on 6-6-24 — Opened on 6-6-24

FedEx: 1st Grd (Exp) UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time ____ Storage Location ____

Eurofins Cooler # EC Foam Box Client Cooler Box Other ____

Packing material used: ~~Bubble Wrap~~ Foam Plastic Bag None Other ____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 17 (CF 0+2 °C) Observed Cooler Temp. 3.4 °C Corrected Cooler Temp. 3.6 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes) No	Tests that are not checked for pH by Receiving: VOAs, Oil and Grease, TOC
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes) No NA	
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes (No)	
-Were tamper/custody seals intact and uncompromised?	(Yes) No NA	
3 Shippers' packing slip attached to the cooler(s)?	(Yes) No	
4 Did custody papers accompany the sample(s)?	(Yes) No	
5 Were the custody papers relinquished & signed in the appropriate place?	(Yes) No	
6 Was/were the person(s) who collected the samples clearly identified on the COC?	Yes (No)	
7 Did all bottles arrive in good condition (Unbroken)?	(Yes) No	
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes (No) TK-6-6-24	
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	(Y) (Y) (Y)	
10 Were correct bottle(s) used for the test(s) indicated?	(Yes) No	
11 Sufficient quantity received to perform indicated analyses?	(Yes) No	
12. Are these work share samples and all listed on the COC?	(Yes) No	
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes No NA	pH Strip Lot# HC339814
14. Were VOAs on the COC?	Yes No	
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes No NA	
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # ____	Yes No	
17 Was a LL Hg or Me Hg trip blank present? ____	Yes No	

Contacted PM ____ Date ____ by ____ via Verbal Voice Mail Other

Concerning ____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page — Samples processed by:

received 2 EXTra Jars - Sample - SED-06
(480-220474-1)

19 SAMPLE CONDITION

Sample(s) ____ were received after the recommended holding time had expired.

Sample(s) ____ were received in a broken container

Sample(s) ____ were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) ____ were further preserved in the laboratory

Time preserved. ____ Preservative(s) added/Lot number(s) ____

VOA Sample Preservation - Date/Time VOAs Frozen. ____

Job Narrative
480-220474-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 6/4/2024 4:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 3.0°C, 3.6°C, 3.7°C, 3.9°C, 5.2°C and 5.4°C.

Receipt Exceptions
Times of collection not listed on coc, time of 00:00 was used for sample login.
SED-06 (480-220474-1), SED-06 (480-220474-1[MS]), SED-06 (480-220474-1[MSD]), SED-07 (480-220474-2), SED-08 (480-220474-3), SED-08-FD (480-220474-4), SED-09 (480-220474-5), SED-10 (480-220474-6), SED-11 (480-220474-7), SED-11-FD (480-220474-8), SED-12 (480-220474-9), SED-13 (480-220474-10), SED-14 (480-220474-11), SED-15 (480-220474-12), SED-06 (480-220474-13), SED-06 (480-220474-13[MS]), SED-06 (480-220474-13[MSD]), SED-07 (480-220474-14), SED-08 (480-220474-15), SED-08-FD (480-220474-16), SED-09 (480-220474-17), SED-10 (480-220474-18), SED-11 (480-220474-19), SED-11-FD (480-220474-20), SED-12 (480-220474-21), SED-13 (480-220474-22), SED-14 (480-220474-23) and SED-15 (480-220474-24)

GC/MS VOA
Method 8260C: The following samples were analyzed using medium level soil analysis and diluted to bring the concentration of target analytes within the calibration range: SED-06 (480-220474-1), SED-06 (480-220474-1[MS]), SED-06 (480-220474-1[MSD]), SED-07 (480-220474-2), SED-08 (480-220474-3), SED-08-FD (480-220474-4), SED-10 (480-220474-6), SED-11 (480-220474-7), SED-11-FD (480-220474-8), SED-12 (480-220474-9), SED-13 (480-220474-10), SED-14 (480-220474-11) and SED-15 (480-220474-12). Elevated reporting limits (RLs) are provided.

Method 8260C: The following sample was analyzed using medium level soil analysis and diluted due to the abundance of non-target analytes: SED-09 (480-220474-5). Elevated reporting limits (RLs) are provided.

Method 8260C: The following samples were diluted due to the nature of the sample matrix: SED-06 (480-220474-1[MS]) and SED-06 (480-220474-1[MSD]). Because of this dilution, the matrix spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8260C: The continuing calibration verification (CCV) analyzed in batch 480-714630 was outside the method criteria for the following analyte: Cyclohexane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated. The associated samples are impacted: SED-06 (480-220474-1), SED-07 (480-220474-2), SED-08 (480-220474-3), SED-08-FD (480-220474-4), SED-09 (480-220474-5), SED-11 (480-220474-7), SED-11-FD (480-220474-8), SED-12 (480-220474-9), SED-14 (480-220474-11) and SED-15 (480-220474-12).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-714630 recovered outside acceptance criteria, low biased, for 1,2,4-Trichlorobenzene, Chloromethane, and Methyl tert-butyl ether. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analytes, the data are reported. The associated samples are impacted: SED-06 (480-220474-1), SED-07 (480-220474-2), SED-08 (480-220474-3), SED-08-FD (480-220474-4), SED-09 (480-220474-5), SED-10 (480-220474-6), SED-11 (480-220474-7), SED-11-FD (480-220474-8), SED-12 (480-220474-9), SED-13 (480-220474-10), SED-14 (480-220474-11) and SED-15 (480-220474-12).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-714630 recovered outside

acceptance criteria, low biased, for Cyclohexane. A reporting limit (RL) standard was analyzed, and the target analytes are detected above the reporting limit (RL). Since the associated samples were non-detect for the analyte(s), the data are reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 8270D: The continuing calibration verification (CCV) associated with batch 480-715000 recovered above the upper control limit for Benzo[g,h,i]perylene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: SED-06 (480-220474-13), SED-07 (480-220474-14), SED-09 (480-220474-17), SED-11-FD (480-220474-20), SED-12 (480-220474-21) and SED-15 (480-220474-24).

Method 8270D: The following samples were diluted due to color, appearance, and viscosity: SED-06 (480-220474-13), SED-06 (480-220474-13[MS]), SED-06 (480-220474-13[MSD]), SED-07 (480-220474-14), SED-09 (480-220474-17) and SED-11-FD (480-220474-20). Elevated reporting limits (RL) are provided.

Method 8270D: The following samples were diluted due to color, appearance and viscosity: SED-08-FD (480-220474-16), SED-11 (480-220474-19), SED-13 (480-220474-22) and SED-14 (480-220474-23). Elevated reporting limits (RL) are provided.

Method 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 480-714779 and analytical batch 480-715000 were diluted below the method detection limit (MDL) for 2,4-Dinitrophenol; therefore, percent recovery and RPD could not be calculated. The associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8270D: The following compound has been spiked at a level above the upper range of the initial calibration: 3,3-Dichlorobenzidine. The laboratory control sample (LCS) associated with preparation batch 480-714779 and analytical batch 480-715466 recovered within acceptable limits for this analyte and has been qualified with an "E" flag.

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-715000 recovered outside acceptance criteria, low biased, for Hexachlorocyclopentadiene. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

PCBs
Method 8082A: For method 8082, the recovery of the one surrogate in samples SED-09 (480-220474-17), SED-10 (480-220474-18), SED-11-FD (480-220474-20), SED-13 (480-220474-22) and SED-15 (480-220474-24) exceeds quality control limits due to the sample matrix. The recovery of the secondary surrogate is within quality control criteria; no corrective action is required.

Method 8082A: The following samples were diluted due to the nature of the sample matrix: SED-06 (480-220474-13), SED-06 (480-220474-13[MS]), SED-06 (480-220474-13[MSD]), SED-07 (480-220474-14), SED-08-FD (480-220474-16), SED-11 (480-220474-19), SED-11-FD (480-220474-20), SED-13 (480-220474-22) and SED-14 (480-220474-23). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Pesticides
Method 8081B: The following samples required a Florisil clean-up, via EPA Method 3620C, to reduce matrix interferences: SED-06 (480-220474-13), SED-06 (480-220474-13[MS]), SED-06 (480-220474-13[MSD]), SED-07 (480-220474-14), SED-08 (480-220474-15), SED-08-FD (480-220474-16), SED-09 (480-220474-17), SED-10 (480-220474-18), SED-11 (480-220474-19), SED-11-FD (480-220474-20), SED-12 (480-220474-21), SED-13 (480-220474-22), SED-14 (480-220474-23) and SED-15 (480-220474-24).

Method 8081B: The sample were dark with foul other and oily and in insoluble in solvent property which before concentration filtered.

SED-06 (480-220474-13), SED-06 (480-220474-13[MS]), SED-06 (480-220474-13[MSD]), SED-07 (480-220474-14), SED-08 (480-220474-15), SED-08-FD (480-220474-16), SED-09 (480-220474-17), SED-10 (480-220474-18), SED-11 (480-220474-19), SED-11-FD (480-220474-20), SED-12 (480-220474-21), SED-13 (480-220474-22), SED-14 (480-220474-23) and SED-15 (480-220474-24)

Method 8081B: The following samples were diluted due to the nature of the sample matrix: SED-06 (480-220474-13), SED-07 (480-220474-14), SED-08 (480-220474-15), SED-08-FD (480-220474-16), SED-09 (480-220474-17), SED-10 (480-220474-18), SED-11 (480-220474-19), SED-11-FD (480-220474-20), SED-12 (480-220474-21), SED-13 (480-220474-22), SED-14 (480-220474-23) and SED-15 (480-220474-24). As such, surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method 8081B: The following samples were diluted due to the nature of the sample matrix: SED-06 (480-220474-13[MS]) and SED-06 (480-220474-13[MSD]). As such, spike and surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

PFAS
Method 1633: Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following samples: SED-08 (480-220474-3), SED-08-FD (480-220474-4) and SED-10 (480-220474-6) for M2-4:2 FTS, M2-6:2 FTS and M2-8:2 FTS . Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries, samples are non detect for associated target analytes.

Method 1633: Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following sample: SED-12 (480-220474-9) for M2-4:2 FTS and M2-8:2 FTS . Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries, samples are non detect for associated target analytes.

Method 1633: The low level laboratory control sample (LLCS) for preparation batch 240-615785 and analytical batch 240-616342 recovered outside control limits for the following analytes: N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA). These analytes were biased high in the LLCS and were not detected in the associated samples; therefore, the data have been reported.

Method 1633: Isotope Dilution Analyte (IDA) recovery was outside the method recommended limit for the following sample: SED-06 (480-220474-1). Since this was likely due to matrix effects, samples were analyzed at a dilution and may have elevated RLs.

Method 1633: The Isotope Dilution Analyte (IDA) recovery associated with the following sample is below the method recommended limit: SED-06 (480-220474-1). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample(s).

Method 1633: The low level laboratory control sample (LLCS) for preparation batch 240-616481 and analytical batch 240-616627 recovered outside control limits for the following analytes: d5-NEtFOSAA. However, the native compounds were in spec, therefore the data has been reported

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 9012B: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 480-714887 and analytical batch 480-714906 was outside control limits. Sample non-homogeneity is suspected.

Method 9012B: The matrix spike (MS) recovery for preparation batch 480-715215 and analytical batch 480-715244 was outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method Lloyd_Kahn_Mod: Please note that the reporting limit for Lloyd Kahn TOC analysis is a nominal value and does not reflect adjustments in sample mass processed on an individual basis

SED-06 (480-220474-1), SED-06 (480-220474-1[MS]), SED-06 (480-220474-1[MSD]), SED-07 (480-220474-2), SED-08 (480-220474-3) and SED-08-FD (480-220474-4)

Method Lloyd_Kahn_Mod: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 180-471505 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method Lloyd_Kahn_Mod: Reanalysis of the following sample(s) was performed outside of the analytical holding time due to a 2 day power outage at the laboratory. Both sets of results are reported. : SED-06 (480-220474-1), SED-06 (480-220474-1[MS]), SED-06 (480-220474-1[MSD]), SED-07 (480-220474-2), SED-08 (480-220474-3), SED-08-FD (480-220474-4), SED-09 (480-220474-5), SED-10 (480-220474-6), SED-11 (480-220474-7), SED-11-FD (480-220474-8), SED-12 (480-220474-9), SED-13 (480-220474-10), SED-14 (480-220474-11) and SED-15 (480-220474-12).

Method Lloyd_Kahn_Mod: Please note that the reporting limit for Lloyd Kahn TOC analysis is a nominal value and does not reflect adjustments in sample mass processed on an individual basis.

SED-06 (480-220474-1), SED-06 (480-220474-1[MS]), SED-06 (480-220474-1[MSD]), SED-07 (480-220474-2), SED-08 (480-220474-3), SED-08-FD (480-220474-4), SED-09 (480-220474-5), SED-10 (480-220474-6), SED-11 (480-220474-7), SED-11-FD (480-220474-8), SED-12 (480-220474-9), SED-13 (480-220474-10), SED-14 (480-220474-11) and SED-15 (480-220474-12)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Buffalo Job No.: 480-220474-1

SDG No.:

Matrix: Solid Level: Medium Lab File ID: S9517.d

Lab ID: 480-220474-1 MS Client ID: SED-06 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	4560	ND	4890 J	107	64-142	
1,1,2,2-Tetrachloroethane	4560	ND	7390 J	162	56-128	F1
1,1,2-Trichloro-1,2,2-trifluoroethane	4560	ND	4470 J	98	64-154	
1,1,2-Trichloroethane	4560	ND	6790 J	149	63-133	F1
1,1-Dichloroethane	4560	ND	5310 J	117	64-135	
1,1-Dichloroethene	4560	ND	4930 J	108	62-145	
1,2,4-Trichlorobenzene	4560	ND	3890 J	85	56-145	
1,2-Dibromo-3-Chloropropane	4560	ND	4930 J	108	40-122	
1,2-Dichlorobenzene	4560	ND	5320 J	117	68-133	
1,2-Dichloroethane	4560	ND	5970 J	131	62-135	
1,2-Dichloropropane	4560	ND	6320 J	139	67-139	
1,3-Dichlorobenzene	4560	ND	5530 J	121	68-136	
1,4-Dichlorobenzene	4560	ND	5630 J	124	69-136	
2-Butanone (MEK)	22800	ND	33300 J	NC	46-132	
2-Hexanone	22800	ND	32400 J	142	44-130	F1
4-Methyl-2-pentanone (MIBK)	22800	ND	27400 J	120	49-125	
Acetone	22800	ND	ND	NC	32-136	
Benzene	4560	99000	168000	1505	68-137	4
Bromoform	4560	ND	4570 J	100	43-134	
Bromomethane	4560	ND	6600 J	145	38-137	F1
Carbon disulfide	4560	ND	4210 J	92	52-139	
Carbon tetrachloride	4560	ND	5050 J	111	60-150	
Chlorobenzene	4560	ND	6480 J	142	67-136	F1
Dibromochloromethane	4560	ND	5060 J	111	57-137	
Chloroethane	4560	ND	4360 J	96	34-140	
Chloroform	4560	ND	6480 J	NC	64-133	
Chloromethane	4560	ND	3200 J	70	47-143	
cis-1,2-Dichloroethene	4560	ND	4660 J	102	65-137	
Cyclohexane	4560	6500	22700	356	63-149	F1
Bromodichloromethane	4560	ND	7170 J	157	62-136	F1
Dichlorodifluoromethane	4560	ND	ND	0	26-150	F1
Ethylbenzene	4560	36000	97100	1336	67-136	4
1,2-Dibromoethane	4560	ND	6160 J	135	65-133	F1
Isopropylbenzene	4560	3300 J	15600	269	65-147	F1
Methyl acetate	9120	ND	28900 J	317	50-124	F1
Methyl tert-butyl ether	4560	ND	5380 J	118	60-130	
Methylcyclohexane	4560	14000	55600	901	67-150	F1
Methylene Chloride	4560	ND	5660 J	124	63-138	
Tetrachloroethene	4560	ND	5180 J	114	67-150	
Toluene	4560	ND	7560 J	166	68-137	F1
trans-1,2-Dichloroethene	4560	ND	4850 J	106	65-138	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Buffalo Job No.: 480-220474-1

SDG No.:

Lab File ID: S9491.d BFB Injection Date: 06/06/2024

Instrument ID: HP5973S BFB Injection Time: 09:56

Analysis Batch No.: 714630

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.1	
75	30.0 - 60.0 % of mass 95	49.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.3	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	Greater than 50% of mass 95	81.8	
175	5.0 - 9.0 % of mass 174	6.5	(7.9) 1
176	95.0 - 101.0 % of mass 174	79.4	(97.1) 1
177	5.0 - 9.0 % of mass 176	5.7	(7.2) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 480-714630/4	S9492.d	06/06/2024	10:24
	MB 480-714650/3-A	S9496.d	06/06/2024	12:09
	LCS 480-714650/1-A	S9497.d	06/06/2024	12:44
SED-06	480-220474-1	S9500.d	06/06/2024	14:09
SED-07	480-220474-2	S9501.d	06/06/2024	14:33
SED-08	480-220474-3	S9502.d	06/06/2024	14:56
SED-08-FD	480-220474-4	S9503.d	06/06/2024	15:20
SED-09	480-220474-5	S9504.d	06/06/2024	15:43
SED-10	480-220474-6	S9505.d	06/06/2024	16:06
SED-11	480-220474-7	S9506.d	06/06/2024	16:29
SED-11-FD	480-220474-8	S9507.d	06/06/2024	16:52
SED-12	480-220474-9	S9508.d	06/06/2024	17:15
SED-13	480-220474-10	S9509.d	06/06/2024	17:39
SED-14	480-220474-11	S9510.d	06/06/2024	18:02
SED-15	480-220474-12	S9511.d	06/06/2024	18:26
SED-06 MS	480-220474-1 MS	S9517.d	06/06/2024	20:45
SED-06 MSD	480-220474-1 MSD	S9518.d	06/06/2024	21:09

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Buffalo Job No.: 480-220474-1

SDG No.:

Lab Sample ID: CCVIS 480-714630/4 Calibration Date: 06/06/2024 10:24

Instrument ID: HP5973S Calib Start Date: 05/06/2024 16:50

GC Column: ZB-624 (20) ID: 0.18(mm) Calib End Date: 05/06/2024 19:32

Lab File ID: S9492.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	1.762	1.114	0.1000	15.8	25.0	-36.8	50.0
Chloromethane	Ave	1.698	1.236	0.1000	18.2	25.0	-27.2*	20.0
Vinyl chloride	Ave	1.388	1.210	0.1000	21.8	25.0	-12.8	20.0
Butadiene	Ave	1.567	1.081		17.3	25.0	-31.0*	20.0
Bromomethane	Ave	0.9247	0.8921	0.1000	24.1	25.0	-3.5	50.0
Chloroethane	Ave	1.008	0.8455	0.1000	21.0	25.0	-16.2	50.0
Dichlorofluoromethane	Ave	2.513	2.197		21.9	25.0	-12.6	20.0
Trichlorofluoromethane	Ave	1.950	1.791	0.1000	23.0	25.0	-8.2	20.0
Ethyl ether	Ave	1.310	1.071		20.4	25.0	-18.3	20.0
Acrolein	Ave	0.1418	0.1196		105	125	-15.6	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	1.133	1.001	0.1000	22.1	25.0	-11.7	20.0
1,1-Dichloroethene	Ave	1.137	1.037	0.1000	22.8	25.0	-8.8	20.0
Acetone	Ave	0.5423	0.5105	0.1000	118	125	-5.9	50.0
Iodomethane	Ave	2.074	1.931		23.3	25.0	-6.9	20.0
Carbon disulfide	Ave	3.754	3.186	0.1000	21.2	25.0	-15.1	20.0
Allyl chloride	Ave	2.524	1.843		18.3	25.0	-27.0*	20.0
Methyl acetate	Ave	1.365	1.207	0.1000	44.2	50.0	-11.6	50.0
Methylene Chloride	Lin1		1.274	0.1000	23.6	25.0	-5.5	20.0
2-Methyl-2-propanol	Ave	0.2067	0.1771		214	250	-14.3	50.0
Methyl tert-butyl ether	Ave	4.997	3.994	0.1000	20.0	25.0	-20.1*	20.0
trans-1,2-Dichloroethene	Ave	1.440	1.219	0.1000	21.2	25.0	-15.4	20.0
Acrylonitrile	Ave	0.6722	0.5523		205	250	-17.8	20.0
Hexane	Ave	1.691	1.410		20.9	25.0	-16.6	20.0
1,1-Dichloroethane	Ave	2.467	2.117	0.2000	21.4	25.0	-14.2	20.0
Vinyl acetate	Ave	2.859	2.708		47.4	50.0	-5.3	20.0
2,2-Dichloropropane	Ave	1.637	1.335		20.4	25.0	-18.5	20.0
cis-1,2-Dichloroethene	Ave	1.669	1.367	0.1000	20.5	25.0	-18.1	20.0
2-Butanone (MEK)	Ave	0.6401	0.6854	0.1000	134	125	7.1	20.0
Chlorobromomethane	Ave	0.7978	0.6986		21.9	25.0	-12.4	20.0
Tetrahydrofuran	Ave	0.4928	0.4828		49.0	50.0	-2.0	20.0
Chloroform	Ave	2.613	2.130	0.2000	20.4	25.0	-18.5	20.0
1,1,1-Trichloroethane	Ave	2.007	1.838	0.1000	22.9	25.0	-8.4	20.0
Cyclohexane	Ave	2.352	1.866	0.1000	19.8	25.0	-20.7*	20.0
Carbon tetrachloride	Ave	1.794	1.622	0.1000	22.6	25.0	-9.6	20.0
1,1-Dichloropropene	Ave	1.651	1.670		25.3	25.0	1.1	20.0
Benzene	Ave	4.946	4.829	0.5000	24.4	25.0	-2.4	20.0
Isobutyl alcohol	Ave	0.0703	0.0694		617	625	-1.2	50.0
1,2-Dichloroethane	Ave	1.868	1.766	0.1000	23.6	25.0	-5.4	20.0
n-Heptane	Ave	1.529	1.679		27.5	25.0	9.8	20.0
Trichloroethene	Ave	1.301	1.286	0.2000	24.7	25.0	-1.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Buffalo Job No.: 480-220474-1

SDG No.:

Lab Sample ID: CCVIS 480-714630/4 Calibration Date: 06/06/2024 10:24

Instrument ID: HP5973S Calib Start Date: 05/06/2024 16:50

GC Column: ZB-624 (20) ID: 0.18(mm) Calib End Date: 05/06/2024 19:32

Lab File ID: S9492.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.2115	0.1538	0.0500	18.2	25.0	-27.3	50.0
1,2,4-Trichlorobenzene	Ave	1.229	0.8755	0.2000	17.8	25.0	-28.8*	20.0
Hexachlorobutadiene	Ave	0.4697	0.3481		18.5	25.0	-25.9*	20.0
Naphthalene	Ave	3.861	2.754		17.8	25.0	-28.7*	20.0
1,2,3-Trichlorobenzene	Ave	1.218	0.8373		17.2	25.0	-31.2*	20.0
Dibromofluoromethane (Surr)	Ave	1.404	1.295		23.1	25.0	-7.7	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.8247	0.8190		24.8	25.0	-0.7	20.0
Toluene-d8 (Surr)	Ave	2.425	2.390		24.6	25.0	-1.5	20.0
4-Bromofluorobenzene (Surr)	Ave	0.7436	0.7865		26.4	25.0	5.8	20.0

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Buffalo Job No.: 480-220474-1

SDG No.:

Matrix: Waste Level: Low Lab File ID: V3167425.d

Lab ID: 480-220474-13 MS Client ID: SED-06 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Carbazole	417000	ND	277000	67	59-120	
Chrysene	417000	59000 J	305000	59	64-120	F1
Dibenz(a,h)anthracene	417000	ND	302000	73	54-132	
Dibenzofuran	417000	ND	290000	70	62-120	
Diethyl phthalate	417000	ND	277000	66	66-120	
Dimethyl phthalate	417000	ND	284000	68	65-124	
Di-n-butyl phthalate	417000	ND	272000	65	58-130	
Di-n-octyl phthalate	417000	24000 J	276000	60	57-133	
Fluoranthene	417000	24000 J	313000	69	62-120	
Fluorene	417000	52000 J	311000	62	63-120	F1
Hexachlorobenzene	417000	ND	283000	68	60-120	
Hexachlorobutadiene	417000	ND	292000	70	45-120	
Hexachlorocyclopentadiene	417000	ND	99200 J	24	31-120	F1
Hexachloroethane	417000	ND	227000	55	21-120	
Indeno[1,2,3-cd]pyrene	417000	ND	311000	75	56-134	
Isophorone	417000	ND	264000	63	56-120	
Naphthalene	417000	150000	400000	61	46-120	
Nitrobenzene	417000	ND	247000	59	49-120	
N-Nitrosodi-n-propylamine	417000	ND	237000	57	46-120	
Pentachlorophenol	833000	ND	428000	51	10-136	
Phenanthrene	417000	220000	429000	51	60-122	F1
Phenol	417000	ND	240000	58	50-120	
Pyrene	417000	56000 J	299000	58	61-133	F1

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-220474-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 480-714650/3-A

Matrix: Solid | Lab File ID: S9496.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(g) | Date Analyzed: 06/06/2024 12:09

Soil Aliquot Vol: 100 (uL) | Dilution Factor: 1

Soil Extract Vol.: 10(mL) | GC Column: ZB-624 (20) ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Medium

Analysis Batch No.: 714630 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-82-8	Isopropylbenzene	ND		100	15
79-20-9	Methyl acetate	ND		500	48
1634-04-4	Methyl tert-butyl ether	ND		100	38
108-87-2	Methylcyclohexane	ND		100	47
75-09-2	Methylene Chloride	35.9	J	100	20
127-18-4	Tetrachloroethene	ND		100	13
108-88-3	Toluene	ND		100	27
156-60-5	trans-1,2-Dichloroethene	ND		100	24
10061-02-6	trans-1,3-Dichloropropene	ND		100	9.8
79-01-6	Trichloroethene	ND		100	28
75-69-4	Trichlorofluoromethane	ND		100	47
75-01-4	Vinyl chloride	ND		100	34
1330-20-7	Xylenes, Total	ND		200	55
10061-01-5	cis-1,3-Dichloropropene	ND		100	24
100-42-5	Styrene	ND		100	24

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		53-146
460-00-4	4-Bromofluorobenzene (Surr)	110		49-148
2037-26-5	Toluene-d8 (Surr)	110		50-149
1868-53-7	Dibromofluoromethane (Surr)	101		60-140

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Buffalo Job No.: 480-220474-1

SDG No.:

Matrix: Waste Level: Low Lab File ID: V3167425.d

Lab ID: 480-220474-13 MS Client ID: SED-06 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Biphenyl	417000	ND	275000	66	58-120	
1,4-Dioxane	417000	ND	208000 J	50	13-120	
bis (2-chloroisopropyl) ether	417000	ND	198000 J	48	31-120	
2,4,5-Trichlorophenol	417000	ND	275000	66	46-120	
2,4,6-Trichlorophenol	417000	ND	281000	67	41-123	
2,4-Dichlorophenol	417000	ND	268000	64	45-120	
2,4-Dimethylphenol	417000	ND	207000 J	50	52-120	F1
2,4-Dinitrophenol	833000	ND	ND	NC	41-146	
2,4-Dinitrotoluene	417000	56000 J	310000	61	63-125	F1
2,6-Dinitrotoluene	417000	ND	294000	71	66-120	
2-Chloronaphthalene	417000	ND	261000	63	57-120	
2-Chlorophenol	417000	ND	261000	63	43-120	
2-Methylnaphthalene	417000	450000	641000	47	55-120	F1
2-Methylphenol	417000	ND	251000	60	48-120	
2-Nitroaniline	417000	ND	221000 J	53	61-120	F1
2-Nitrophenol	417000	ND	274000	66	37-120	
3,3'-Dichlorobenzidine	833000	ND	633000	76	37-126	
3-Nitroaniline	417000	ND	278000 J	67	48-120	
4,6-Dinitro-2-methylphenol	833000	ND	523000	63	23-149	
4-Bromophenyl phenyl ether	417000	ND	297000	71	58-120	
4-Chloro-3-methylphenol	417000	ND	255000	61	49-125	
4-Chloroaniline	417000	ND	213000	51	38-120	
4-Chlorophenyl phenyl ether	417000	ND	294000	71	63-124	
4-Methylphenol	417000	ND	226000 J	54	50-120	
4-Nitroaniline	417000	ND	252000 J	61	47-120	
4-Nitrophenol	833000	ND	515000	62	31-147	
Acenaphthene	417000	26000 J	279000	61	60-120	
Acenaphthylene	417000	ND	275000	66	58-121	
Acetophenone	417000	ND	253000	61	47-120	
Anthracene	417000	ND	273000	66	62-120	
Atrazine	833000	ND	609000	73	60-150	
Benzaldehyde	833000	ND	423000	51	10-150	
Benzo[a]anthracene	417000	35000 J	300000	64	65-120	F1
Benzo[a]pyrene	417000	ND	298000	71	64-120	
Benzo[b]fluoranthene	417000	ND	295000	71	10-150	
Benzo[g,h,i]perylene	417000	ND	331000	79	45-145	
Benzo[k]fluoranthene	417000	ND	279000	67	23-150	
Bis(2-chloroethoxy)methane	417000	ND	253000	61	52-120	
Bis(2-chloroethyl)ether	417000	ND	239000	57	45-120	
Bis(2-ethylhexyl) phthalate	417000	ND	248000	59	61-133	F1
Butyl benzyl phthalate	417000	ND	262000	63	61-120	
Caprolactam	833000	ND	525000	63	37-133	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Buffalo Job No.: 480-220474-1

SDG No.:

Matrix: Waste Level: Low Lab File ID: V3167426.d

Lab ID: 480-220474-13 MSD Client ID: SED-06 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Biphenyl	294000	205000	70	29	20	58-120	F2
1,4-Dioxane	294000	148000 J	50	34	50	13-120	
bis (2-chloroisopropyl) ether	294000	157000	53	23	24	31-120	
2,4,5-Trichlorophenol	294000	225000	77	20	18	46-120	F2
2,4,6-Trichlorophenol	294000	219000	74	25	19	41-123	F2
2,4-Dichlorophenol	294000	200000	68	29	19	45-120	F2
2,4-Dimethylphenol	294000	150000	51	32	42	52-120	F1
2,4-Dinitrophenol	588000	ND	NC	NC	22	41-146	
2,4-Dinitrotoluene	294000	282000	77	9	20	63-125	
2,6-Dinitrotoluene	294000	228000	77	26	15	66-120	F2
2-Chloronaphthalene	294000	207000	70	23	21	57-120	F2
2-Chlorophenol	294000	189000	64	32	25	43-120	F2
2-Methylnaphthalene	294000	751000	104	16	21	55-120	
2-Methylphenol	294000	177000	60	35	27	48-120	F2
2-Nitroaniline	294000	176000 J	60	23	15	61-120	F1 F2
2-Nitrophenol	294000	219000	74	23	18	37-120	F2
3,3'-Dichlorobenzidine	588000	484000	82	27	25	37-126	F2
3-Nitroaniline	294000	224000 J	76	21	19	48-120	F2
4,6-Dinitro-2-methylphenol	588000	358000	61	38	15	23-149	F2
4-Bromophenyl phenyl ether	294000	220000	75	30	15	58-120	F2
4-Chloro-3-methylphenol	294000	202000	69	23	27	49-125	
4-Chloroaniline	294000	147000 J	50	37	22	38-120	F2
4-Chlorophenyl phenyl ether	294000	221000	75	28	16	63-124	F2
4-Methylphenol	294000	166000 J	56	31	24	50-120	F2
4-Nitroaniline	294000	193000 J	66	27	24	47-120	F2
4-Nitrophenol	588000	401000	68	25	25	31-147	
Acenaphthene	294000	238000	72	16	35	60-120	
Acenaphthylene	294000	215000	73	25	18	58-121	F2
Acetophenone	294000	181000	62	33	20	47-120	F2
Anthracene	294000	218000	74	23	15	62-120	F2
Atrazine	588000	460000	78	28	20	60-150	F2
Benzaldehyde	588000	286000	49	39	20	10-150	F2
Benzo[a]anthracene	294000	261000	77	14	15	65-120	
Benzo[a]pyrene	294000	246000	84	19	15	64-120	F2
Benzo[b]fluoranthene	294000	228000	77	26	15	10-150	F2
Benzo[g,h,i]perylene	294000	262000	89	23	15	45-145	F2
Benzo[k]fluoranthene	294000	215000	73	26	22	23-150	F2
Bis(2-chloroethoxy)methane	294000	196000	67	25	17	52-120	F2
Bis(2-chloroethyl)ether	294000	178000	61	29	21	45-120	F2
Bis(2-ethylhexyl) phthalate	294000	201000	68	21	15	61-133	F2
Butyl benzyl phthalate	294000	211000	72	22	16	61-120	F2
Caprolactam	588000	434000	74	19	20	37-133	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Buffalo Job No.: 480-220474-1

SDG No.:

Matrix: Waste Level: Low Lab File ID: V3167426.d

Lab ID: 480-220474-13 MSD Client ID: SED-06 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Carbazole	294000	217000	74	24	20	59-120	F2
Chrysene	294000	279000	75	9	15	64-120	
Dibenz(a,h)anthracene	294000	243000	83	22	15	54-132	F2
Dibenzofuran	294000	233000	79	22	15	62-120	F2
Diethyl phthalate	294000	226000	77	20	15	66-120	F2
Dimethyl phthalate	294000	213000	73	28	15	65-124	F2
Di-n-butyl phthalate	294000	210000	71	26	15	58-130	F2
Di-n-octyl phthalate	294000	230000	70	18	16	57-133	F2
Fluoranthene	294000	254000	78	21	15	62-120	F2
Fluorene	294000	271000	74	14	15	63-120	
Hexachlorobenzene	294000	209000	71	30	15	60-120	F2
Hexachlorobutadiene	294000	229000	78	24	44	45-120	
Hexachlorocyclopentadiene	294000	74800 J	25	28	49	31-120	F1
Hexachloroethane	294000	169000	57	29	46	21-120	
Indeno[1,2,3-cd]pyrene	294000	253000	86	20	15	56-134	F2
Isophorone	294000	195000	66	30	17	56-120	F2
Naphthalene	294000	374000	77	7	29	46-120	
Nitrobenzene	294000	180000	61	32	24	49-120	F2
N-Nitrosodi-n-propylamine	294000	172000	58	32	31	46-120	F2
Pentachlorophenol	588000	316000	54	30	35	10-136	
Phenanthrene	294000	475000	88	10	15	60-122	
Phenol	294000	169000	57	35	35	50-120	
Pyrene	294000	274000	74	9	35	61-133	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins Buffalo Job No.: 480-220474-1

SDG No.:

Lab File ID: V3167419.d DFTPP Injection Date: 06/10/2024

Instrument ID: HP5973V DFTPP Injection Time: 12:44

Analysis Batch No.: 715000

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10-80% of Base Peak	54.7	
68	Less than 2% of mass 69	0.1	(0.2) 1
69	Mass 69 Relative abundance	47.4	
70	Less than 2% of mass 69	0.3	(0.6) 1
127	10-80% of Base Peak	53.8	
197	Less than 2% of mass 198	0.0	
198	Base peak	100.0	
199	5-9% of mass 198	6.6	
275	10-60% of Base Peak	24.9	
365	Greater than 1% of mass 198	3.1	
441	present but less than 24% of mass 442	11.3	(15.6) 2
442	Greater than 50% of mass 198	72.4	
443	15-24% of mass 442	12.5	(17.3) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 480-715000/3	V3167420.d	06/10/2024	13:13
	MB 480-714779/1-A	V3167423.d	06/10/2024	14:42
SED-06 MS	480-220474-13 MS	V3167425.d	06/10/2024	15:39
SED-06 MSD	480-220474-13 MSD	V3167426.d	06/10/2024	16:07
SED-06	480-220474-13	V3167427.d	06/10/2024	16:36
SED-07	480-220474-14	V3167428.d	06/10/2024	17:04
SED-09	480-220474-17	V3167431.d	06/10/2024	18:26
SED-11-FD	480-220474-20	V3167434.d	06/10/2024	19:50
SED-12	480-220474-21	V3167435.d	06/10/2024	20:18
SED-15	480-220474-24	V3167438.d	06/10/2024	21:40

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Buffalo | Job No.: 480-220474-1

SDG No.:

Lab Sample ID: CCVIS 480-715000/3 | Calibration Date: 06/10/2024 13:13

Instrument ID: HP5973V | Calib Start Date: 05/03/2024 10:13

GC Column: RXI-5Sil MS ID: 0.25(mm) | Calib End Date: 05/03/2024 14:03

Lab File ID: V3167420.d | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6316	0.6083	0.0100	38500	40000	-3.7	20.0
N-Nitrosodimethylamine	Ave	0.997	0.9113	0.0100	36600	40000	-8.6	50.0
Pyridine	Lin2		0.7457	0.0100	59400	80000	-25.7	50.0
Benzaldehyde	Lin2		1.288	0.0100	42600	40000	6.5	50.0
Aniline	Ave	2.323	2.139	0.0100	36800	40000	-7.9	20.0
Phenol	Ave	2.076	1.993	0.8000	38400	40000	-4.0	20.0
Bis(2-chloroethyl)ether	Ave	1.555	1.468	0.7000	37800	40000	-5.6	20.0
2-Chlorophenol	Ave	1.405	1.447	0.8000	41200	40000	3.0	20.0
n-Decane	Ave	1.755	1.572	0.0100	35800	40000	-10.5	20.0
1,3-Dichlorobenzene	Ave	1.543	1.591	0.0100	41200	40000	3.1	20.0
1,4-Dichlorobenzene	Ave	1.572	1.628	0.0100	41400	40000	3.6	20.0
Benzyl alcohol	Lin2		0.9606	0.0100	40100	40000	0.2	20.0
1,2-Dichlorobenzene	Ave	1.510	1.522	0.0100	40300	40000	0.8	20.0
Indene	Ave	0.8106	0.7129	0.0100	106000	120000	-12.1	20.0
2-Methylphenol	Lin2		1.254	0.7000	36600	40000	-8.6	20.0
bis (2-chloroisopropyl) ether	Ave	2.215	1.822	0.0100	32900	40000	-17.8	20.0
Acetophenone	Ave	2.017	1.938	0.0100	38400	40000	-3.9	20.0
N-Nitrosodi-n-propylamine	Ave	1.170	1.056	0.5000	36100	40000	-9.7	20.0
4-Methylphenol	Lin2		1.352	0.6000	38100	40000	-4.8	20.0
Hexachloroethane	Ave	0.6775	0.6405	0.3000	37800	40000	-5.5	20.0
Nitrobenzene	Ave	0.4016	0.3747	0.2000	37300	40000	-6.7	20.0
Isophorone	Ave	0.7180	0.6992	0.4000	39000	40000	-2.6	20.0
2-Nitrophenol	Lin2		0.1860	0.1000	43400	40000	8.4	20.0
2,4-Dimethylphenol	Ave	0.2893	0.2783	0.2000	38500	40000	-3.8	20.0
Bis(2-chloroethoxy)methane	Ave	0.4591	0.4303	0.3000	37500	40000	-6.3	20.0
Benzoic acid	Lin2		0.2181	0.0100	96800	120000	-19.3	50.0
2,4-Dichlorophenol	Lin2		0.2757	0.2000	42600	40000	6.4	20.0
1,2,4-Trichlorobenzene	Ave	0.2831	0.2985	0.0100	42200	40000	5.5	20.0
Naphthalene	Ave	1.029	1.020	0.7000	39600	40000	-0.9	20.0
4-Chloroaniline	Lin2		0.4130	0.0100	39500	40000	-1.1	20.0
2,6-Dichlorophenol	Lin2		0.2726	0.0100	42100	40000	5.2	20.0
Hexachlorobutadiene	Ave	0.1470	0.1617	0.0100	44000	40000	10.0	20.0
Caprolactam	Lin2		0.1184	0.0100	43500	40000	8.6	50.0
4-Chloro-3-methylphenol	Lin2		0.2992	0.2000	42600	40000	6.5	20.0
2-Methylnaphthalene	Lin2		0.6725	0.4000	40700	40000	1.9	20.0
1-Methylnaphthalene	Lin2		0.6210	0.0100	41100	40000	2.8	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.4808	0.5160	0.0100	42900	40000	7.3	20.0
Hexachlorocyclopentadiene	Lin2		0.2099	0.0500	27900	40000	-30.3*	20.0
2,4,6-Trichlorophenol	Lin2		0.3585	0.2000	44600	40000	11.5	20.0
2,4,5-Trichlorophenol	Lin2		0.3863	0.2000	45700	40000	14.2	20.0

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: SED-06 MS | Lab ID: 480-220474-1 MS

Lab Name: Eurofins Buffalo | Job No.: 480-220474-1

SDG No.:

Matrix: Solid | Concentration Units: mg/Kg

% Solids: 57.8

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Aluminum	15510		7710		1790	436	75-125	4	6010C
Antimony	113.3		ND		175	65	75-125	F1	6010C
Arsenic	419.3		76.2		351	98	75-125		6010C
Barium	1022		1080		351	-16	75-125	F1	6010C
Beryllium	167.6		0.50		175	95	75-125		6010C
Cadmium	171.9		4.5		175	95	75-125		6010C
Calcium	158500		218000		8770	-680	75-125	4	6010C
Chromium	9672		8210		175	833	75-125	4	6010C
Cobalt	190.3		23.8		175	95	75-125		6010C
Copper	749.1		450		175	171	75-125	F1	6010C
Iron	37910		39500		1790	-88	75-125	4	6010C
Lead	2943		2300		175	365	75-125	4	6010C
Magnesium	20050		14200		8770	67	75-125	F1	6010C
Manganese	663.9		547		175	67	75-125	F1	6010C
Nickel	422.4		192		175	131	75-125	F1	6010C
Potassium	11110		1410		8770	111	75-125		6010C
Selenium	294.4		25.1		351	77	75-125		6010C
Silver	17.13		0.62	J	17.5	94	75-125		6010C
Sodium	9411		914		8770	97	75-125		6010C
Thallium	328.7		3.1	J	351	93	75-125		6010C
Vanadium	337.4		139		175	113	75-125		6010C
Zinc	3126		2930		175	111	75-125	4	6010C
Mercury	6.57		4.6		0.556	348	80-120	4	7471B

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: SED-06 MSD | Lab ID: 480-220474-1 MSD

Lab Name: Eurofins Buffalo | Job No.: 480-220474-1

SDG No.:

Matrix: Solid | Concentration Units: mg/Kg

% Solids: 57.8

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Aluminum	13200		1680	328	75-125	16	20	4	6010C
Antimony	106.2		164	65	75-125	7	20	F1	6010C
Arsenic	400.3		329	99	75-125	5	20		6010C
Barium	1243		329	50	75-125	19	20	F1	6010C
Beryllium	154.8		164	94	75-125	8	20		6010C
Cadmium	161.0		164	95	75-125	7	20		6010C
Calcium	195900		8220	-271	75-125	21	20	4 F2	6010C
Chromium	9778		164	953	75-125	1	20	4	6010C
Cobalt	180.0		164	95	75-125	6	20		6010C
Copper	681.1		164	141	75-125	10	20	F1	6010C
Iron	39790		1680	18	75-125	5	20	4	6010C
Lead	2733		164	262	75-125	7	20	4	6010C
Magnesium	20570		8220	78	75-125	3	20		6010C
Manganese	700.7		164	94	75-125	5	20		6010C
Nickel	355.5		164	100	75-125	17	20		6010C
Potassium	10130		8220	106	75-125	9	20		6010C
Selenium	287.9		329	80	75-125	2	20		6010C
Silver	15.99		16.4	94	75-125	7	20		6010C
Sodium	8830		8220	96	75-125	6	20		6010C
Thallium	303.4		329	91	75-125	8	20		6010C
Vanadium	297.9		164	97	75-125	12	20		6010C
Zinc	3156		164	136	75-125	1	20	4	6010C
Mercury	4.82		0.563	32	80-120	31	20	4 F2	7471B

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: SED-06 PDS | Lab ID: 480-220474-1 PDS

Lab Name: Eurofins Buffalo | Job No.: 480-220474-1

SDG No.:

Matrix: Solid | Concentration Units: mg/Kg

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Aluminum	9239		7710		1850	82	80-120		6010C
Antimony	174.2		ND		182	96	80-120		6010C
Arsenic	464.7		76.2		363	107	80-120		6010C
Barium	1391		1080		363	86	80-120		6010C
Beryllium	182.6		0.50		182	100	80-120		6010C
Cadmium	188.0		4.5		182	101	80-120		6010C
Calcium	218800		218000		9080000	0.007	80-120	W	6010C
Chromium	7934		8210		182000	-0.2	80-120	W	6010C
Cobalt	210.0		23.8		182	103	80-120		6010C
Copper	623.4		450		182	96	80-120		6010C
Iron	39390		39500		1850	NC	80-120		6010C
Lead	2389		2300		182	NC	80-120		6010C
Magnesium	22770		14200		9080	95	80-120		6010C
Manganese	691.9		547		182	80	80-120		6010C
Nickel	363.8		192		182	95	80-120		6010C
Potassium	10950		1410		9080	105	80-120		6010C
Selenium	362.6		25.1		363	93	80-120		6010C
Silver	19.28		0.62	J	18.2	103	80-120		6010C
Sodium	10440		914		9080	105	80-120		6010C
Thallium	368.6		3.1	J	363	101	80-120		6010C
Vanadium	315.1		139		182	97	80-120		6010C
Zinc	2951		2930		182	NC	80-120		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VB - IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins Buffalo Job No.: 480-220474-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 714906	Date: 06/07/2024 15:59		Prep Batch: 714887		Date: 06/07/2024 12:22						
9012B	480-220474-1	Cyanide, Total	5.2		mg/Kg						F1 F2
9012B	480-220474-1 MS	Cyanide, Total	5.25		mg/Kg	1.85	4	85-115			F1
Batch ID: 714906	Date: 06/07/2024 16:23		Prep Batch: 714887		Date: 06/07/2024 12:22						
9012B	480-220474-7	Cyanide, Total	7.3		mg/Kg						F1
9012B	480-220474-7 MS	Cyanide, Total	5.86		mg/Kg	2.23	-63	85-115			F1
Batch ID: 715244	Date: 06/11/2024 16:15		Prep Batch: 715215		Date: 06/11/2024 12:20						
9012B	480-220474-12	Cyanide, Total	6.6		mg/Kg						
9012B	480-220474-12 MS	Cyanide, Total	2.22		mg/Kg	1.30	-334	85-115			4

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM V-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins Pittsburgh Job No.: 480-220474-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 471505 Date: 06/13/2024 21:24											
EPA-Lloyd Kahn	480-220474-1	Total Organic Carbon	231000		mg/Kg						F2
EPA-Lloyd Kahn	480-220474-1 MS	Total Organic Carbon	247000		mg/Kg	43100	37	75-125			4
Batch ID: 472359 Date: 06/24/2024 11:48											
EPA-Lloyd Kahn	480-220474-1	Total Organic Carbon	251000		mg/Kg						H
EPA-Lloyd Kahn	480-220474-1 MS	Total Organic Carbon	313900		mg/Kg	70700	88	75-125			H

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins Pittsburgh Job No.: 480-220474-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 471505 Date: 06/13/2024 21:47											
EPA-Lloyd Kahn	480-220474-1 MSD	Total Organic Carbon	309100		mg/Kg	43900	177	75-125	22	20	4 F2
Batch ID: 472359 Date: 06/24/2024 12:03											
EPA-Lloyd Kahn	480-220474-1 MSD	Total Organic Carbon	324400		mg/Kg	69400	116	75-125	3	20	H

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM V-IN

Eurofins Buffalo
10 Hazelwood Drive

Amherst, NY 14228-2223
phone 716.691.2600 fax 716.691.7991

Chain of Custody Record

eurofins | Environment Testing America

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Eurofins Environment Testing America

Client Contact	Project Manager: Colin Wasteneys	Site Contact: Ethan Smith	Date: 613124	COC No:
AECOM	Email: colin.wasteneys@aecom.com	Lab Contact: John Beninati	Carrier:	1 of 1 COCs
50 LAKEFRONT BLVD SUITE 111	Tel/Fax: (716) 225-4396			TALS Project #: Ethan Smith
BUFFALO, NY	Analysis Turnaround Time			Sampler:
(716) 856-5636 Phone	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(xxx) xxx-xxxx FAX	TAT if different from Below STD			Walk-in Client:
Project Name: Ashland Tank 75 Site	☐ 2 weeks			Lab Sampling:
Site: Tank 75 Site, Tonawanda, NY	☐ 1 week			Job / SDG No.:
P O # 60730037	☐ 2 days			
	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	TCL, Total Cyanide	8260C-TCL VOCs	9012B Cyanide, Total	6010C - Thallium	7471B - Mercury	8270D-SVOCs (1,4-Dioxane)	1,4-Dioxane	8082A - PCBs	8081B - Pesticides	1633 - PFAS	Sample Specific Notes:
Sed-01	613124	1500	G	Sed	9			X	X	X	X	X	X	X	X	X		NO 1,4-Dioxane for SED-1,2,3 and 5
Sed-02		1600			9			X	X	X	X	X	X	X	X	X		
Sed-03		1630			9			X	X	X	X	X	X	X	X	X		
Sed-04		1700			10			X	X	X	X	X	X	X	X	X	X	
Sed-05		1735			9			X	X	X	X	X	X	X	X	X		

480-220423 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
Add ethan.smith@aecom.com and edyta.chorostkowska@aecom.com

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____ Corr'd: _____		Therm ID No.: _____
Relinquished by:	Company: AECOM	Date/Time: 1900 613124	Received by: JM	Company: EUROFINS	Date/Time: 6/3/24
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time: 1900
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

3.9 3.2 ICE

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone 732-549-3900 Fax: 732-549-3679

5488

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler	Lab PM: Beninati, John	Carrier Tracking No(s)	COC No: 460-71444 1
Client Contact: Shipping/Receiving	Phone	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing Northeast,		Accreditations Required (See note): NELAP - New York		Job #: 480-220423-1
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested: 6/17/2024			Preservation Codes: -
City: Pittsburgh	TAT Requested (days):			
State, Zip: PA, 15238				
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO #:			
Email	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site	SSOW#:			Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Lloyd_Kahn_Mod/ Lloyd Kahn-Single Burn	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SED-01 (480-220423-1)	6/3/24	15:00 Eastern		Solid			X	1	weigh 5 mg only
SED-02 (480-220423-2)	6/3/24	16 00 Eastern		Solid			X	1	
SED-03 (480-220423-3)	6/3/24	16:30 Eastern		Solid			X	1	
SED-04 (480-220423-4)	6/3/24	17.00 Eastern		Solid			X	1	
SED-05 (480-220423-5)	6/3/24	17:35 Eastern		Solid			X	1	

480-220423 Chain of Custody

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank. 4	Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 6/11/24 1900	Company: EEN	Received by:	Date/Time: 6/12/24 1030	Company: EEN
Relinquished by	Date/Time	Company	Received by:	Date/Time.	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time.	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

4.6/48

eurofins
Environment Testing

Client Information (Sub Contract Lab)	Sampler	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-88090 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note): NELAP New York		Job #: 480-220423-1
Address: 180 S. Van Buren Avenue,	Due Date Requested: 6/17/2024			
City: Barberton	TAT Requested (days):			
State, Zip: OH 44203				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site:	SSOW#:			

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633/1633_Shake 1633 Standard List	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SED-04 (480-220423-4)	6/3/24	17:00 Eastern		Solid			X	1	

Preservation Codes: Other: PFAS 26

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested I, II, III IV Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
KS	6/19/24 4:00pm	ETA	TAMMY ROYER	6-20-24 930	ETNC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-87847 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing Northeast,		Accreditations Required (See note): NELAP New York		Job #: 480-220423-1
Address: 777 New Durham Road,	Due Date Requested: 6/17/2024			Preservation Codes: -
City: Edison	TAT Requested (days):			
State, Zip: NJ 08817				
Phone: 732-549-3900(Tel) 732-549-3679(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site:	SSOW#:			Other:

Analysis Requested

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Lloyd_Kahn_Mod/ Organic Carbon, Total (TOC)	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X		X	
SED-01 (480-220423-1)	6/3/24	15:00 Eastern		Solid			X	1	
SED-02 (480-220423-2)	6/3/24	16:00 Eastern		Solid			X	1	
SED-03 (480-220423-3)	6/3/24	16:30 Eastern		Solid			X	1	
SED-04 (480-220423-4)	6/3/24	17:00 Eastern		Solid			X	1	
SED-05 (480-220423-5)	6/3/24	17:35 Eastern		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested. I, II, III, IV Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:			
Relinquished by: Matthew Lincoln	Date/Time: 6/4/24 1600	Company ETA	Received by: Fedex	Date/Time: 6/5/24 1010	Company ETA		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.		Cooler Temperature(s) °C and Other Remarks: 0.9 1.3 IR9				

Ver: 04/02/2024

Job Narrative
480-220423-1

Receipt
The samples were received on 6/3/2024 7:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.2° C and 3.9° C.

GC/MS VOA
Method 8260C: The following samples were analyzed using medium level soil analysis and diluted to bring the concentration of target analytes within the calibration range: SED-01 (480-220423-1), SED-02 (480-220423-2), SED-03 (480-220423-3), SED-04 (480-220423-4) and SED-05 (480-220423-5). Elevated reporting limits (RLs) are provided.

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-714450 recovered above the upper control limit for cis-1,3-Dichloropropene, trans-1,3-Dichloropropene, and 2-Butanone (MEK). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: SED-01 (480-220423-1), SED-02 (480-220423-2), SED-03 (480-220423-3), SED-04 (480-220423-4) and SED-05 (480-220423-5).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-714450 recovered outside acceptance criteria, low biased, for Chloromethane. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 480-714478 and analytical batch 480-714450 recovered outside control limits for the following analytes: cis-1,3-Dichloropropene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method 8270D: The following samples were diluted due to the nature of the sample matrix: SED-01 (480-220423-1) and SED-02 (480-220423-2)

Method 8270D: The following samples required a dilution due to the nature of the sample matrix: SED-03 (480-220423-3) and SED-04 (480-220423-4). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8270D: Surrogate recovery for the following sample was outside control limits: SED-05 (480-220423-5). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-714483 recovered above the upper control limit for Atrazine. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: SED-01 (480-220423-1), SED-02 (480-220423-2), SED-03 (480-220423-3), SED-04 (480-220423-4) and SED-05 (480-220423-5).

Method 8270D: The following sample was diluted due to color, appearance and viscosity: SED-05 (480-220423-5). Elevated reporting limits (RL) are provided.

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-714483 recovered outside acceptance criteria, low biased, for 2,2-oxybis[1-chloropropane. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method Lloyd Kahn: Please note that the reporting limit for Lloyd Kahn TOC analysis is a nominal value and does not reflect adjustments in sample mass processed on an individual basis

SED-01 (480-220423-1), SED-02 (480-220423-2), SED-03 (480-220423-3), SED-04 (480-220423-4), SED-05 (480-220423-5), (480-220474-B-1), (480-220474-B-1 MS) and (480-220474-B-1 MSD)

Method Lloyd Kahn: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 180-471505 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method Lloyd Kahn: The native sample, matrix spike, and matrix spike duplicate (MS/MSD) associated with analytical batch 180-471505 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of Total Organic Carbon in the MS/MSD was above the instrument calibration range. The data have been reported and qualified.

Method Lloyd Kahn: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 180-471677 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method Lloyd Kahn: Please note that the reporting limit for Lloyd Kahn TOC analysis is a nominal value and does not reflect adjustments in sample mass processed on an individual basis

SED-01 (480-220423-1), SED-02 (480-220423-2), (180-174986-O-24), (180-174986-O-24 MS) and (180-174986-O-24 MSD)

Method Lloyd Kahn: Reanalysis of the following sample(s) was performed outside of the analytical holding time due to a 2 day power outage at the laboratory. Both sets of results are reported. : SED-04 (480-220423-4) and SED-05 (480-220423-5).

Method Lloyd Kahn: Please note that the reporting limit for Lloyd Kahn TOC analysis is a nominal value and does not reflect adjustments in sample mass processed on an individual basis.

SED-04 (480-220423-4), SED-05 (480-220423-5), (480-220474-B-1), (480-220474-B-1 MS) and (480-220474-B-1 MSD)

Method 8082A: The following sample was diluted due to the nature of the sample matrix: SED-03 (480-220423-3). Elevated reporting limits (RLs) are provided.

Method 8082A: For method 8082, the recovery of the one surrogate in samples SED-03 (480-220423-3) exceeds quality control limits due to the sample matrix. The recovery of the secondary surrogate is within quality control criteria; no corrective action is required.

Method 8081B: The following samples were diluted due to the nature of the sample matrix: SED-01 (480-220423-1), SED-02 (480-220423-2), SED-03 (480-220423-3), SED-04 (480-220423-4) and SED-05 (480-220423-5). As such, surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method 8081B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 480-714592 and analytical batch 480-714611 recovered outside control limits for the following analytes: cis-Chlordane and Endrin ketone.

Method 8082A: The following samples were diluted due to the nature of the sample matrix: SED-01 (480-220423-1), SED-02 (480-220423-2), SED-04 (480-220423-4) and SED-05 (480-220423-5). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method 6010C: The laboratory control sample (LCS) for preparation batch 480-714327 and analytical batch 480-714510 recovered outside control limits for the following analytes: Cadmium. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

LCMS

Method 1633: The low level continuing calibration verification (CCVL) associated with batch 240-617699 recovered above the upper control limit for Perfluorohexanesulfonic acid (PFHxS). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 1633: The method blank for preparation batch 240-617589 and analytical batch 240-617699 contained Perfluorooctanesulfonic acid (PFOS) above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
Method 9012B: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 480-714887 and analytical batch 480-714906 was outside control limits. Sample non-homogeneity is suspected.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method 3550C: Due to the matrix, the initial volume(s) used for the following samples deviated from the standard procedure: SED-01 (480-220423-1), SED-02 (480-220423-2), SED-03 (480-220423-3), SED-04 (480-220423-4) and SED-05 (480-220423-5). The reporting limits (RLs) have been adjusted proportionately.

Method 3550C: Due to the matrix, the initial volume(s) used for the following samples deviated from the standard procedure: SED-01 (480-220423-1), SED-02 (480-220423-2), SED-03 (480-220423-3), SED-04 (480-220423-4) and SED-05 (480-220423-5). The reporting limits (RLs) have been adjusted proportionately.

Method 3550C: Due to the matrix, the following samples could not be concentrated to the final method required volume: SED-01 (480-220423-1) and SED-05 (480-220423-5). The reporting limits (RLs) are elevated proportionately.

Method 3550C: Due to the matrix, the initial volume(s) used for the following samples deviated from the standard procedure: SED-01 (480-220423-1), SED-02 (480-220423-2), SED-03 (480-220423-3), SED-04 (480-220423-4) and SED-05 (480-220423-5). The reporting limits (RLs) have been adjusted proportionately.

Method 3550C: The following samples required a Florisil clean-up, via EPA Method 3620C, to reduce matrix interferences: SED-01 (480-220423-1), SED-02 (480-220423-2), SED-03 (480-220423-3), SED-04 (480-220423-4) and SED-05 (480-220423-5).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Buffalo Job No.: 480-220423-1

SDG No.:

Lab File ID: S9442.d BFB Injection Date: 06/05/2024

Instrument ID: HP5973S BFB Injection Time: 10:32

Analysis Batch No.: 714450

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.9	
75	30.0 - 60.0 % of mass 95	50.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	Greater than 50% of mass 95	81.6	
175	5.0 - 9.0 % of mass 174	6.2	(7.6) 1
176	95.0 - 101.0 % of mass 174	80.4	(98.6) 1
177	5.0 - 9.0 % of mass 176	5.5	(6.8) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 480-714450/4	S9443.d	06/05/2024	11:02
	LCS 480-714478/1-A	S9445.d	06/05/2024	12:05
	MB 480-714478/2-A	S9447.d	06/05/2024	12:51
SED-01	480-220423-1	S9450.d	06/05/2024	14:16
SED-02	480-220423-2	S9451.d	06/05/2024	14:39
SED-03	480-220423-3	S9452.d	06/05/2024	15:02
SED-04	480-220423-4	S9453.d	06/05/2024	15:25
SED-05	480-220423-5	S9454.d	06/05/2024	15:48

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Buffalo Job No.: 480-220423-1

SDG No.:

Lab Sample ID: CCVIS 480-714450/4 Calibration Date: 06/05/2024 11:02

Instrument ID: HP5973S Calib Start Date: 05/06/2024 16:50

GC Column: ZB-624 (20) ID: 0.18(mm) Calib End Date: 05/06/2024 19:32

Lab File ID: S9443.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	1.762	1.310	0.1000	18.6	25.0	-25.7	50.0
Chloromethane	Ave	1.698	1.349	0.1000	19.9	25.0	-20.6*	20.0
Vinyl chloride	Ave	1.388	1.303	0.1000	23.5	25.0	-6.1	20.0
Butadiene	Ave	1.567	1.139		18.2	25.0	-27.3*	20.0
Bromomethane	Ave	0.9247	0.9267	0.1000	25.1	25.0	0.2	50.0
Chloroethane	Ave	1.008	0.8989	0.1000	22.3	25.0	-10.9	50.0
Dichlorofluoromethane	Ave	2.513	2.253		22.4	25.0	-10.3	20.0
Trichlorofluoromethane	Ave	1.950	1.989	0.1000	25.5	25.0	2.0	20.0
Ethyl ether	Ave	1.310	1.185		22.6	25.0	-9.5	20.0
Acrolein	Ave	0.1418	0.1421		125	125	0.2	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	1.133	1.114	0.1000	24.6	25.0	-1.7	20.0
1,1-Dichloroethene	Ave	1.137	1.094	0.1000	24.1	25.0	-3.8	20.0
Acetone	Ave	0.5423	0.5986	0.1000	138	125	10.4	50.0
Iodomethane	Ave	2.074	1.997		24.1	25.0	-3.7	20.0
Carbon disulfide	Ave	3.754	3.398	0.1000	22.6	25.0	-9.5	20.0
Allyl chloride	Ave	2.524	1.998		19.8	25.0	-20.9*	20.0
Methyl acetate	Ave	1.365	1.326	0.1000	48.6	50.0	-2.8	50.0
Methylene Chloride	Lin1		1.342	0.1000	24.9	25.0	-0.3	20.0
2-Methyl-2-propanol	Ave	0.2067	0.2351		284	250	13.7	50.0
Methyl tert-butyl ether	Ave	4.997	4.412	0.1000	22.1	25.0	-11.7	20.0
trans-1,2-Dichloroethene	Ave	1.440	1.333	0.1000	23.1	25.0	-7.5	20.0
Acrylonitrile	Ave	0.6722	0.6710		250	250	-0.2	20.0
Hexane	Ave	1.691	1.726		25.5	25.0	2.1	20.0
1,1-Dichloroethane	Ave	2.467	2.322	0.2000	23.5	25.0	-5.9	20.0
Vinyl acetate	Ave	2.859	3.123		54.6	50.0	9.3	20.0
2,2-Dichloropropane	Ave	1.637	1.333		20.4	25.0	-18.6	20.0
cis-1,2-Dichloroethene	Ave	1.669	1.469	0.1000	22.0	25.0	-12.0	20.0
2-Butanone (MEK)	Ave	0.6401	0.8375	0.1000	164	125	30.9*	20.0
Chlorobromomethane	Ave	0.7978	0.7638		23.9	25.0	-4.3	20.0
Tetrahydrofuran	Ave	0.4928	0.5689		57.7	50.0	15.4	20.0
Chloroform	Ave	2.613	2.307	0.2000	22.1	25.0	-11.7	20.0
1,1,1-Trichloroethane	Ave	2.007	2.002	0.1000	24.9	25.0	-0.3	20.0
Cyclohexane	Ave	2.352	2.101	0.1000	22.3	25.0	-10.7	20.0
Carbon tetrachloride	Ave	1.794	1.790	0.1000	25.0	25.0	-0.2	20.0
1,1-Dichloropropene	Ave	1.651	1.836		27.8	25.0	11.2	20.0
Benzene	Ave	4.946	5.270	0.5000	26.6	25.0	6.6	20.0
Isobutyl alcohol	Ave	0.0703	0.0920		818	625	30.8	50.0
1,2-Dichloroethane	Ave	1.868	1.991	0.1000	26.6	25.0	6.6	20.0
n-Heptane	Ave	1.529	1.601		26.2	25.0	4.7	20.0
Trichloroethene	Ave	1.301	1.377	0.2000	26.5	25.0	5.8	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins Buffalo Job No.: 480-220423-1

SDG No.:

Lab File ID: V3167397.d DFTPP Injection Date: 06/07/2024

Instrument ID: HP5973V DFTPP Injection Time: 09:55

Analysis Batch No.: 714483

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10-80% of Base Peak	53.7	
68	Less than 2% of mass 69	0.0	(0.0) 1
69	Mass 69 Relative abundance	45.8	
70	Less than 2% of mass 69	0.3	(0.6) 1
127	10-80% of Base Peak	54.5	
197	Less than 2% of mass 198	0.0	
198	Base peak	100.0	
199	5-9% of mass 198	7.3	
275	10-60% of Base Peak	25.6	
365	Greater than 1% of mass 198	3.3	
441	present but less than 24% of mass 442	12.2	(16.9) 2
442	Greater than 50% of mass 198	72.3	
443	15-24% of mass 442	12.7	(17.5) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 480-714483/3	V3167398.d	06/07/2024	10:25
SED-01	480-220423-1	V3167406.d	06/07/2024	14:23
SED-02	480-220423-2	V3167407.d	06/07/2024	15:19
SED-03	480-220423-3	V3167408.d	06/07/2024	15:46
SED-04	480-220423-4	V3167409.d	06/07/2024	16:14
SED-05	480-220423-5	V3167410.d	06/07/2024	16:51

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Buffalo | Job No.: 480-220423-1

SDG No.:

Lab Sample ID: CCVIS 480-714483/3 | Calibration Date: 06/07/2024 10:25

Instrument ID: HP5973V | Calib Start Date: 05/03/2024 10:13

GC Column: RXI-5Sil MS ID: 0.25(mm) | Calib End Date: 05/03/2024 14:03

Lab File ID: V3167398.d | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6316	0.5607	0.0100	35500	40000	-11.2	20.0
N-Nitrosodimethylamine	Ave	0.997	0.8939	0.0100	35900	40000	-10.3	50.0
Pyridine	Lin2		0.7332	0.0100	58400	80000	-27.0	50.0
Benzaldehyde	Lin2		1.207	0.0100	39900	40000	-0.2	50.0
Aniline	Ave	2.323	2.072	0.0100	35700	40000	-10.8	20.0
Phenol	Ave	2.076	1.921	0.8000	37000	40000	-7.5	20.0
Bis(2-chloroethyl)ether	Ave	1.555	1.425	0.7000	36700	40000	-8.4	20.0
2-Chlorophenol	Ave	1.405	1.408	0.8000	40100	40000	0.2	20.0
n-Decane	Ave	1.755	1.529	0.0100	34800	40000	-12.9	20.0
1,3-Dichlorobenzene	Ave	1.543	1.547	0.0100	40100	40000	0.3	20.0
1,4-Dichlorobenzene	Ave	1.572	1.552	0.0100	39500	40000	-1.3	20.0
Benzyl alcohol	Lin2		0.9120	0.0100	38100	40000	-4.8	20.0
1,2-Dichlorobenzene	Ave	1.510	1.457	0.0100	38600	40000	-3.5	20.0
Indene	Ave	0.8106	0.7254	0.0100	107000	120000	-10.5	20.0
2-Methylphenol	Lin2		1.225	0.7000	35700	40000	-10.6	20.0
bis (2-chloroisopropyl) ether	Ave	2.215	1.761	0.0100	31800	40000	-20.5*	20.0
Acetophenone	Ave	2.017	1.888	0.0100	37400	40000	-6.4	20.0
N-Nitrosodi-n-propylamine	Ave	1.170	1.003	0.5000	34300	40000	-14.3	20.0
4-Methylphenol	Lin2		1.303	0.6000	36700	40000	-8.3	20.0
Hexachloroethane	Ave	0.6775	0.6144	0.3000	36300	40000	-9.3	20.0
Nitrobenzene	Ave	0.4016	0.3707	0.2000	36900	40000	-7.7	20.0
Isophorone	Ave	0.7180	0.7185	0.4000	40000	40000	0.0	20.0
2-Nitrophenol	Lin2		0.1993	0.1000	46500	40000	16.1	20.0
2,4-Dimethylphenol	Ave	0.2893	0.2900	0.2000	40100	40000	0.2	20.0
Bis(2-chloroethoxy)methane	Ave	0.4591	0.4376	0.3000	38100	40000	-4.7	20.0
Benzoic acid	Lin2		0.2410	0.0100	107000	120000	-11.2	50.0
2,4-Dichlorophenol	Lin2		0.2837	0.2000	43800	40000	9.4	20.0
1,2,4-Trichlorobenzene	Ave	0.2831	0.3029	0.0100	42800	40000	7.0	20.0
Naphthalene	Ave	1.029	1.044	0.7000	40600	40000	1.5	20.0
4-Chloroaniline	Lin2		0.4298	0.0100	41200	40000	2.9	20.0
2,6-Dichlorophenol	Lin2		0.2807	0.0100	43400	40000	8.4	20.0
Hexachlorobutadiene	Ave	0.1470	0.1657	0.0100	45100	40000	12.7	20.0
Caprolactam	Lin2		0.1269	0.0100	46600	40000	16.5	50.0
4-Chloro-3-methylphenol	Lin2		0.3023	0.2000	43000	40000	7.6	20.0
2-Methylnaphthalene	Lin2		0.7062	0.4000	42800	40000	7.0	20.0
1-Methylnaphthalene	Lin2		0.6226	0.0100	41200	40000	3.1	20.0
Hexachlorocyclopentadiene	Lin2		0.2560	0.0500	33900	40000	-15.1	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.4808	0.5100	0.0100	42400	40000	6.1	20.0
2,4,6-Trichlorophenol	Lin2		0.3562	0.2000	44300	40000	10.8	20.0
2,4,5-Trichlorophenol	Lin2		0.3717	0.2000	44000	40000	9.9	20.0

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: SED-01 MS | Lab ID: 480-220423-1 MS

Lab Name: Eurofins Buffalo | Job No.: 480-220423-1

SDG No.:

Matrix: Solid | Concentration Units: mg/Kg

% Solids: 94.6

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Aluminum	53360		49600		1140	332	75-125	4	6010C
Antimony	22.05		ND		112	20	75-125	F1	6010C
Arsenic	242.7		91.4						6010C
Barium	192.1		26.3		210	79	75-125		6010C
Beryllium	77.61		0.26		105	74	75-125	F1	6010C
Cadmium	77.68		ND						6010C
Calcium	8893		2320		5610	117	75-125		6010C
Chromium	110.5		31.7		105	75	75-125		6010C
Cobalt	120.7		2.7		105	112	75-125		6010C
Copper	103.7		13.4		105	86	75-125		6010C
Iron	4300		3800		1140	44	75-125	F1	6010C
Lead	193.3		40.2		105	146	75-125	F1	6010C
Magnesium	5243		634		5610	82	75-125		6010C
Manganese	96.79		15.8		105	77	75-125		6010C
Nickel	174.1		90.5						6010C
Potassium	4079		98.5		5610	71	75-125	F1	6010C
Selenium	128.5		ND		210	61	75-125	F1	6010C
Silver	7.05		ND		11.2	63	75-125	F1	6010C
Sodium	5086		1100		5610	71	75-125	F1	6010C
Vanadium	241.5		95.6		105	139	75-125	F1	6010C
Zinc	144.6		20.5		112	111	75-125		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: SED-01 MSD | Lab ID: 480-220423-1 MSD

Lab Name: Eurofins Buffalo | Job No.: 480-220423-1

SDG No.:

Matrix: Solid | Concentration Units: mg/Kg

% Solids: 94.6

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Aluminum	51930		1060	223	75-125	3	20	4	6010C
Antimony	19.67		104	19	75-125	11	20	F1	6010C
Arsenic	225.1								6010C
Barium	186.3		207	77	75-125	3	20		6010C
Beryllium	74.92		103	72	75-125	4	20	F1	6010C
Cadmium	69.81								6010C
Calcium	5410		5180	60	75-125	49	20	F1 F2	6010C
Chromium	117.4		103	83	75-125	6	20		6010C
Cobalt	121.4		103	115	75-125	1	20		6010C
Copper	99.03		103	83	75-125	5	20		6010C
Iron	4027		1060	22	75-125	7	20	F1	6010C
Lead	200.2		103	155	75-125	4	20	F1	6010C
Magnesium	3923		5180	63	75-125	29	20	F1 F2	6010C
Manganese	93.83		103	75	75-125	3	20		6010C
Nickel	165.9								6010C
Potassium	3651		5180	69	75-125	11	20	F1	6010C
Selenium	125.9		207	61	75-125	2	20	F1	6010C
Silver	6.35		10.4	61	75-125	10	20	F1	6010C
Sodium	4601		5180	68	75-125	10	20	F1	6010C
Thallium	206.4		207	100	75-125	13	20		6010C
Vanadium	231.1		103	131	75-125	4	20	F1	6010C
Zinc	90.70		104	68	75-125	46	20	F1 F2	6010C

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: SED-01 PDS | Lab ID: 480-220423-1 PDS

Lab Name: Eurofins Buffalo | Job No.: 480-220423-1

SDG No.:

Matrix: Solid | Concentration Units: mg/Kg

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Aluminum	50790		49600		530	NC	80-120		6010C
Antimony	73.38		ND		52.0	141	80-120	W	6010C
Arsenic	239.2		91.4		104	142	80-120	W	6010C
Barium	216.4		26.3		210	91	80-120		6010C
Beryllium	87.13		0.26		105	83	80-120		6010C
Cadmium	77.26		ND		52.0	149	80-120	W	6010C
Calcium	6326		2320		2600	154	80-120	W	6010C
Chromium	136.8		31.7		105	100	80-120		6010C
Cobalt	134.8		2.7		105	126	80-120	W	6010C
Copper	114.4		13.4		105	96	80-120		6010C
Iron	4575		3800		530	146	80-120	W	6010C
Lead	213.4		40.2		105	165	80-120	W	6010C
Magnesium	4572		634		2600	151	80-120	W	6010C
Manganese	108.7		15.8		105	88	80-120		6010C
Nickel	172.5		90.5		52.0	158	80-120	W	6010C
Potassium	4098		98.5		2600	154	80-120	W	6010C
Selenium	138.7		ND		210	66	80-120	W	6010C
Silver	7.27		ND		5.20	140	80-120	W	6010C
Sodium	5094		1100		2600	154	80-120	W	6010C
Vanadium	245.8		95.6		105	143	80-120	W	6010C
Zinc	99.03		20.5		52.0	151	80-120	W	6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VB - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 480-220423-1

SDG No:

Lab Name: Eurofins Buffalo Job No: 480-220423-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Aluminum	49600		67550		36	V	6010C
Antimony	ND		ND		NC		6010C
Arsenic	91.4		123.7		35	V	6010C
Barium	26.3		35.26		34	V	6010C
Beryllium	0.26		0.305	J	NC		6010C
Cadmium	ND		ND		NC		6010C
Calcium	2320		3090		33	V	6010C
Chromium	31.7		42.54		34	V	6010C
Cobalt	2.7		2.93		9.8		6010C
Copper	13.4		17.25		NC		6010C
Iron	3800		5294		39	V	6010C
Lead	40.2		47.37		18	V	6010C
Magnesium	634		870.2		37	V	6010C
Manganese	15.8		20.63		31	V	6010C
Nickel	90.5		119.1		32	V	6010C
Potassium	98.5		ND		NC		6010C
Selenium	ND		ND		NC		6010C
Silver	ND		ND		NC		6010C
Sodium	1100		1460		NC		6010C
Vanadium	95.6		127.4		33	V	6010C
Zinc	20.5		28.41		NC		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: Ethan Smith	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-196724-40768.1
Client Contact: Ms. Ann Marie Kropovitch	Phone: 716-912-4456	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: AECOM	PWSID:			Job #:
Address: 50 Lakefront Boulevard Suite 111	Due Date Requested: STD			
City: Buffalo	TAT Requested (days): Perpo			
State, Zip: NY, 14202	Compliance Project: Δ Yes Δ No			
Phone: 614-790-2274(Tel)	PO #: 1120269			
Email: ann.marie.kropovitch@aecom.com	WO #: Ann.Marie.Kropovitch@aecom.com			
Project Name: Tank 75 - Surface Water	Project #: 48027595			
Site: Tank 75	SSOW#:			

Analysis Requested

Preservation Codes: A - HCL; D - HNO3; B - NaOH; N - None

Other:

Special Instructions/Note:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL VOCs + TICs	6010D - TAL Metals ICP	6010D - TAL Metals ICP - Dissolved FF	9012B_NP - Cyanide, Total	8082A - TCL PCBs	8270D - TCL SVOCs + TICs	7470A - Mercury	7470A - Mercury - Dissolved FF	9012B_NP - Cyanide, Total - Dissolved FF	8081B - TCL Pesticides	1633 - 1633 Standard List	8270D - (MOD) TCL SVOA - OLM04.2	6010C, 7470A	Total Number of containers
			Preservation Code:				A	D	D	B	N	N	D	D	B	N	N	N	N	
SW-01-2	613124	1155	G	Water			X	X	X	X	X	X	X	X	X	X	X		X	2
SW-01-2-MS		1155		Water			X	X	X	X	X	X	X	X	X	X	X		X	2
SW-01-2-MSD		1155		Water			X	X	X	X	X	X	X	X	X	X	X		X	2
SW-01-2-FD		1155		Water			X	X	X	X	X	X	X	X	X	X	X		X	2
SW-01-3		1320		Water			X	X	X	X	X	X	X	X	X	X				15
SW-01-1		1345		Water			X	X	X	X	X	X	X	X	X	X				15
TB-060324	613124	-	G	Water			X													2
				Water																
				Water																
				Water																
				Water																

480-220419 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: Add Ethan.Smith@aecom.com, edyta.chorostkowska@aecom.com to all lab correspondence.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by:	Date/Time: 613124 1900	Company: AECOM	Received by: SM
Relinquished by:	Date/Time:	Company	Received by:
Relinquished by:	Date/Time:	Company	Received by:

Date/Time:	Company
Overnight	6/3/24
1900	

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2.1 3.1 3.5 ICE

Ver: 04/02/2024

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

4/43

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-87844.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note): NELAP New York		Job #: 480-220419-1
Address: 180 S. Van Buren Avenue,	Due Date Requested: 6/17/2024			
City: Barberton	TAT Requested (days):			
State, Zip: OH, 44203				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

Other: PFAS 15

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633/1633_SPE 1633 Standard List	1633_DRAFT_TSS/ Percent Suspend Solids PFAS	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SW-01-2 (480-220419-1)	6/3/24	11 55 Eastern		Water			X	X	3	
SW-01-2 (480-220419-1MS)	6/3/24	11 55 Eastern	MS	Water			X	X	3	
SW-01-2 (480-220419-1MSD)	6/3/24	11 55 Eastern	MSD	Water			X	X	3	
SW-01-2-FD (480-220419-2)	6/3/24	11 55 Eastern		Water			X	X	3	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*
Deliverable Requested: I II III IV Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	6/4/24 1600	TA	TAMMY ROYER	6-5-24 940	EETNC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver: 04/02/2024

Job Narrative
480-220419-1

Receipt
The samples were received on 6/3/2024 7:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 2.9º C, 3.1º C and 3.5º C.

GC/MS VOA
Method 8260C: The laboratory control sample (LCS) for analytical batch 480-714447 recovered outside control limits for the following analyte: 1,2-Dichloroethane. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported. The associated samples are impacted: SW-01-2 (480-220419-1), SW-01-2-FD (480-220419-2), SW-01-3 (480-220419-3), SW-01-1 (480-220419-4) and TB-060324 (480-220419-5).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-714447 recovered above the upper control limit for 1,2-Dichloroethane and trans-1,3-Dichloropropene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: SW-01-2 (480-220419-1), SW-01-2-FD (480-220419-2), SW-01-3 (480-220419-3), SW-01-1 (480-220419-4) and TB-060324 (480-220419-5).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-714447 recovered outside acceptance criteria, low biased, for Chloromethane. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported. The associated samples are impacted: SW-01-2 (480-220419-1), SW-01-2-FD (480-220419-2), SW-01-3 (480-220419-3), SW-01-1 (480-220419-4) and TB-060324 (480-220419-5).

Method 8260C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 480-714447 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits. The associated samples are impacted: SW-01-2 (480-220419-1[MS]) and SW-01-2 (480-220419-1[MSD]).

Method 8260C: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for analytical batch 480-714447 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits. The associated sample is impacted: SW-01-2 (480-220419-1[MSD]).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method 8270D: The following samples were diluted due to color, appearance, and viscosity: SW-01-2 (480-220419-1), SW-01-2 (480-220419-1[MS]), SW-01-2 (480-220419-1[MSD]), SW-01-2-FD (480-220419-2), SW-01-3 (480-220419-3) and SW-01-1 (480-220419-4). Elevated reporting limits (RL) are provided.

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-714464 recovered outside acceptance criteria, low biased, for 2,4-Dinitrophenol and Hexachlorocyclopentadiene. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-714808 recovered above the upper control limit for bis (2-chloroisopropyl) ether and Bis(2-chloroethyl)ether. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: SW-01-2 (480-220419-1), SW-01-2-FD (480-220419-2), SW-01-3 (480-220419-3) and SW-01-1 (480-220419-4).

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-714808 recovered outside acceptance criteria, low biased, for 2,4-Dinitrophenol and Pentachlorophenol. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D: The minimum response factor (RF) criteria for the continuing calibration verification (CCV) analyzed in batch 480-714808 was outside criteria for the following analyte(s): Pentachlorophenol. As indicated in the reference method, sample analysis may proceed; however, any detection or non-detection for the affected analyte(s) is

considered estimated.

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-715009 recovered outside acceptance criteria, low biased, for 3-Nitroaniline. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 480-714822 and analytical batch 480-715009 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method 8081B: For method 8081, the recovery of the one surrogate in samples SW-01-2 (480-220419-1), SW-01-2 (480-220419-1[MSD]), SW-01-2-FD (480-220419-2) and SW-01-3 (480-220419-3) exceeds quality control limits. The recovery of the secondary surrogate is within quality control criteria; no corrective action is required.

Method 8081B: The method blank for preparation batch 480-714469 and analytical batch 480-714613 contained alpha-BHC and gamma-BHC (Lindane) above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8081B: The %RPD between the primary and confirmation column exceeded 40% for Methoxychlor for the following sample: SW-01-2 (480-220419-1). The lower value(s) has been reported and qualified in accordance with the laboratory's SOP.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

LCMS
Method 1633: The continuing calibration verification (CCV) associated with batch 240-615825 recovered above the upper control limit for Nonafluoro-3,6-dioxaheptanoic acid (NFDHA). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 1633: Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following sample: SW-01-2-FD (480-220419-2) for M2-4:2 FTS and M2-6:2 FTS . Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries, samples are non detect for associated target analytes.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method 3510C: The following sample required a Florisil clean-up, via EPA Method 3620C, to reduce matrix interferences: SW-01-3 (480-220419-3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Buffalo Job No.: 480-220419-1

SDG No.:

Lab File ID: N8507.d BFB Injection Date: 06/05/2024

Instrument ID: HP5973N BFB Injection Time: 10:21

Analysis Batch No.: 714447

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	32.1	
75	30.0 - 60.0 % of mass 95	55.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.4	
173	Less than 2.0 % of mass 174	0.3	(0.4) 1
174	Greater than 50% of mass 95	83.2	
175	5.0 - 9.0 % of mass 174	6.5	(7.9) 1
176	95.0 - 101.0 % of mass 174	83.3	(100.1) 1
177	5.0 - 9.0 % of mass 176	4.7	(5.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 480-714447/4	N8508.d	06/05/2024	11:34
	LCS 480-714447/6	N8510.d	06/05/2024	12:34
	MB 480-714447/8	N8512.d	06/05/2024	13:18
SW-01-2	480-220419-1	N8513.d	06/05/2024	13:54
SW-01-2-FD	480-220419-2	N8514.d	06/05/2024	14:17
SW-01-3	480-220419-3	N8515.d	06/05/2024	14:41
SW-01-1	480-220419-4	N8516.d	06/05/2024	15:03
TB-060324	480-220419-5	N8517.d	06/05/2024	15:26
SW-01-2 MS	480-220419-1 MS	N8533.d	06/05/2024	21:26
SW-01-2 MSD	480-220419-1 MSD	N8534.d	06/05/2024	21:48

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Buffalo Job No.: 480-220419-1

SDG No.:

Lab Sample ID: CCVIS 480-714447/4 Calibration Date: 06/05/2024 11:34

Instrument ID: HP5973N Calib Start Date: 05/07/2024 15:24

GC Column: ZB-624 (20) ID: 0.18(mm) Calib End Date: 05/07/2024 18:02

Lab File ID: N8508.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	1.349	1.460	0.1000	27.1	25.0	8.2	50.0
Chloromethane	Ave	2.798	2.100	0.1000	18.8	25.0	-24.9*	20.0
Vinyl chloride	Ave	1.652	1.336	0.1000	20.2	25.0	-19.1	20.0
Butadiene	Ave	2.359	2.147		22.8	25.0	-9.0	20.0
Bromomethane	Ave	0.8870	0.7435	0.1000	21.0	25.0	-16.2	50.0
Chloroethane	Ave	1.036	0.8249	0.1000	19.9	25.0	-20.4	50.0
Dichlorofluoromethane	Ave	2.471	2.220		22.5	25.0	-10.1	20.0
Trichlorofluoromethane	Ave	1.628	1.714	0.1000	26.3	25.0	5.3	20.0
Ethyl ether	Ave	1.499	1.391		23.2	25.0	-7.2	20.0
Acrolein	Ave	0.2463	0.1535		77.9	125	-37.7	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.9423	1.021	0.1000	27.1	25.0	8.3	20.0
1,1-Dichloroethene	Ave	0.9305	0.9465	0.1000	25.4	25.0	1.7	20.0
Acetone	Ave	0.8306	0.8147	0.1000	123	125	-1.9	50.0
Iodomethane	Ave	1.851	1.794		24.2	25.0	-3.0	20.0
Carbon disulfide	Ave	3.196	3.072	0.1000	24.0	25.0	-3.9	20.0
Allyl chloride	Ave	3.417	2.998		21.9	25.0	-12.3	20.0
Methyl acetate	Ave	2.077	1.753	0.1000	42.2	50.0	-15.6	50.0
Methylene Chloride	Lin1		1.111	0.1000	23.6	25.0	-5.6	20.0
2-Methyl-2-propanol	Ave	0.2438	0.2283		234	250	-6.4	50.0
Methyl tert-butyl ether	Ave	4.074	3.945	0.1000	24.2	25.0	-3.2	20.0
trans-1,2-Dichloroethene	Ave	1.141	1.078	0.1000	23.6	25.0	-5.6	20.0
Acrylonitrile	Ave	1.090	0.8911		204	250	-18.3	20.0
Hexane	Ave	2.244	2.329		25.9	25.0	3.8	20.0
1,1-Dichloroethane	Ave	2.500	2.472	0.2000	24.7	25.0	-1.1	20.0
Vinyl acetate	Ave	4.379	4.210		48.1	50.0	-3.9	20.0
2,2-Dichloropropane	Ave	1.403	1.549		27.6	25.0	10.4	20.0
cis-1,2-Dichloroethene	Ave	1.273	1.200	0.1000	23.6	25.0	-5.7	20.0
2-Butanone (MEK)	Ave	1.150	1.195	0.1000	130	125	3.9	20.0
Chlorobromomethane	Ave	0.6301	0.6624		26.3	25.0	5.1	20.0
Tetrahydrofuran	Ave	0.9095	0.7686		42.3	50.0	-15.5	20.0
Chloroform	Ave	2.027	2.088	0.2000	25.7	25.0	3.0	20.0
1,1,1-Trichloroethane	Ave	1.608	1.882	0.1000	29.3	25.0	17.0	20.0
Cyclohexane	Ave	3.090	2.903	0.1000	23.5	25.0	-6.1	20.0
Carbon tetrachloride	Ave	1.446	1.567	0.1000	27.1	25.0	8.4	20.0
1,1-Dichloropropene	Ave	1.355	1.524		28.1	25.0	12.4	20.0
Benzene	Ave	4.072	3.978	0.5000	24.4	25.0	-2.3	20.0
Isobutyl alcohol	Ave	0.1334	0.1123		526	625	-15.8	50.0
1,2-Dichloroethane	Ave	1.831	2.308	0.1000	31.5	25.0	26.0*	20.0
n-Heptane	Ave	2.611	3.425		32.8	25.0	31.1*	20.0
Trichloroethene	Ave	0.996	1.156	0.2000	29.0	25.0	16.0	20.0

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Buffalo Job No.: 480-220419-1

SDG No.:

Matrix: Water Level: Low Lab File ID: W100258684.d

Lab ID: 480-220419-1 MS Client ID: SW-01-2 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
2,4,5-Trichlorophenol	32.0	ND	28.8	90	65-126	
2,4,6-Trichlorophenol	32.0	ND	28.5	89	64-120	
2,4-Dichlorophenol	32.0	ND	25.5	80	48-132	
2,4-Dimethylphenol	32.0	ND	20.0	62	39-130	
2,4-Dinitrophenol	64.0	ND	66.1	103	21-150	
2,4-Dinitrotoluene	32.0	ND	31.4	98	54-138	
2,6-Dinitrotoluene	32.0	ND	28.8	90	17-150	
2-Chloronaphthalene	32.0	ND	24.8	77	52-124	
2-Chlorophenol	32.0	ND	23.9	75	48-120	
2-Methylnaphthalene	32.0	ND	23.9	75	34-140	
2-Methylphenol	32.0	ND	22.7	71	46-120	
2-Nitroaniline	32.0	ND	30.3	95	44-136	
2-Nitrophenol	32.0	ND	24.8	77	38-141	
3,3'-Dichlorobenzidine	64.0	ND	2.35 J	4	10-150	F1
3-Nitroaniline	32.0	ND	17.3	54	32-150	
4,6-Dinitro-2-methylphenol	64.0	ND	64.9	101	38-150	
4-Bromophenyl phenyl ether	32.0	ND	27.7	87	63-126	
4-Chloro-3-methylphenol	32.0	ND	28.6	89	64-127	
4-Chloroaniline	32.0	ND	7.04	22	16-124	
4-Chlorophenyl phenyl ether	32.0	ND	27.4	86	61-120	
4-Methylphenol	32.0	ND	22.5	70	36-120	
4-Nitroaniline	32.0	ND	27.2	85	32-150	
4-Nitrophenol	64.0	ND	54.9	86	23-132	
Acenaphthene	32.0	ND	26.4	83	48-120	
Acenaphthylene	32.0	ND	26.4	83	63-120	
Acetophenone	32.0	ND	25.4	79	53-120	
Anthracene	32.0	ND	27.1	85	65-122	
Atrazine	64.0	ND	59.7	93	50-150	
Benzaldehyde	64.0	ND	43.3	68	10-150	
Benzo(a)anthracene	32.0	ND	23.3	73	43-124	
Benzo(a)pyrene	32.0	ND	22.1	69	23-125	
Benzo(b)fluoranthene	32.0	ND	20.4	64	27-127	
Benzo(g,h,i)perylene	32.0	ND	22.5	70	16-147	
Benzo(k)fluoranthene	32.0	ND	23.8	74	20-124	
Biphenyl	32.0	ND	24.8	77	57-120	
bis (2-chloroisopropyl) ether	32.0	ND	24.1	75	28-121	
Bis(2-chloroethoxy)methane	32.0	ND	24.2	76	44-128	
Bis(2-chloroethyl)ether	32.0	ND	29.8	93	45-120	
Bis(2-ethylhexyl) phthalate	32.0	ND	20.4	64	16-150	
Butyl benzyl phthalate	32.0	ND	25.2	79	51-140	
Caprolactam	64.0	ND	21.1	33	10-120	
Carbazole	32.0	ND	33.4	104	16-148	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Buffalo Job No.: 480-220419-1

SDG No.:

Matrix: Water Level: Low Lab File ID: W100258685.d

Lab ID: 480-220419-1 MSD Client ID: SW-01-2 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
2,4,5-Trichlorophenol	32.0	25.9	81	11	18	65-126	
2,4,6-Trichlorophenol	32.0	26.6	83	7	19	64-120	
2,4-Dichlorophenol	32.0	24.8	78	3	19	48-132	
2,4-Dimethylphenol	32.0	19.1	60	4	42	39-130	
2,4-Dinitrophenol	64.0	57.5	90	14	22	21-150	
2,4-Dinitrotoluene	32.0	28.4	89	10	20	54-138	
2,6-Dinitrotoluene	32.0	26.0	81	10	15	17-150	
2-Chloronaphthalene	32.0	24.6	77	1	21	52-124	
2-Chlorophenol	32.0	22.7	71	5	25	48-120	
2-Methylnaphthalene	32.0	24.3	76	1	21	34-140	
2-Methylphenol	32.0	20.8	65	9	27	46-120	
2-Nitroaniline	32.0	28.2	88	7	15	44-136	
2-Nitrophenol	32.0	25.0	78	1	18	38-141	
3,3'-Dichlorobenzidine	64.0	3.17 J	5	30	25	10-150	F1 F2
3-Nitroaniline	32.0	17.7	55	2	19	32-150	
4,6-Dinitro-2-methylphenol	64.0	56.4	88	14	15	38-150	
4-Bromophenyl phenyl ether	32.0	24.5	77	12	15	63-126	
4-Chloro-3-methylphenol	32.0	26.4	83	8	27	64-127	
4-Chloroaniline	32.0	9.73	30	32	22	16-124	F2
4-Chlorophenyl phenyl ether	32.0	25.8	81	6	16	61-120	
4-Methylphenol	32.0	21.0	66	7	24	36-120	
4-Nitroaniline	32.0	25.4	80	7	24	32-150	
4-Nitrophenol	64.0	48.5	76	12	48	23-132	
Acenaphthene	32.0	25.1	78	5	24	48-120	
Acenaphthylene	32.0	25.1	79	5	18	63-120	
Acetophenone	32.0	24.4	76	4	20	53-120	
Anthracene	32.0	23.4	73	15	15	65-122	
Atrazine	64.0	53.5	84	11	20	50-150	
Benzaldehyde	64.0	43.2	68	0	20	10-150	
Benzo(a)anthracene	32.0	18.7	58	22	15	43-124	F2
Benzo(a)pyrene	32.0	16.7	52	28	15	23-125	F2
Benzo(b)fluoranthene	32.0	15.9	50	25	15	27-127	F2
Benzo(g,h,i)perylene	32.0	16.5	51	31	15	16-147	F2
Benzo(k)fluoranthene	32.0	17.5	55	31	22	20-124	F2
Biphenyl	32.0	24.8	77	0	20	57-120	
bis (2-chloroisopropyl) ether	32.0	23.3	73	3	24	28-121	
Bis(2-chloroethoxy)methane	32.0	23.8	74	2	17	44-128	
Bis(2-chloroethyl)ether	32.0	26.0	81	13	21	45-120	
Bis(2-ethylhexyl) phthalate	32.0	15.2	48	29	15	16-150	F2
Butyl benzyl phthalate	32.0	22.2	69	12	16	51-140	
Caprolactam	64.0	19.7	31	7	20	10-120	
Carbazole	32.0	29.9	94	11	20	16-148	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins Buffalo Job No.: 480-220419-1

SDG No.:

Lab File ID: W100258677.d DFTPP Injection Date: 06/10/2024

Instrument ID: HP5973W DFTPP Injection Time: 12:42

Analysis Batch No.: 715009

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10-80% of Base Peak	46.3	
68	Less than 2% of mass 69	0.0	(0.0) 1
69	Mass 69 Relative abundance	46.9	
70	Less than 2% of mass 69	0.2	(0.5) 1
127	10-80% of Base Peak	55.9	
197	Less than 2% of mass 198	0.0	
198	Base peak	100.0	
199	5-9% of mass 198	7.0	
275	10-60% of Base Peak	30.8	
365	Greater than 1% of mass 198	5.0	
441	present but less than 24% of mass 442	20.0	(16.1) 2
442	Greater than 50% of mass 198	124.3	
443	15-24% of mass 442	24.6	(19.8) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 480-715009/3	W100258678.d	06/10/2024	13:11
	MB 480-714822/1-A	W100258682.d	06/10/2024	15:04
	LCS 480-714822/2-A	W100258683.d	06/10/2024	15:32
SW-01-2 MS	480-220419-1 MS	W100258684.d	06/10/2024	16:00
SW-01-2 MSD	480-220419-1 MSD	W100258685.d	06/10/2024	16:28
SW-01-2	480-220419-1	W100258692.d	06/10/2024	19:42
SW-01-2-FD	480-220419-2	W100258696.d	06/10/2024	21:32
SW-01-3	480-220419-3	W100258697.d	06/10/2024	22:00
SW-01-1	480-220419-4	W100258698.d	06/10/2024	22:28

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Buffalo Job No.: 480-220419-1

SDG No.:

Lab Sample ID: CCVIS 480-715009/3 Calibration Date: 06/10/2024 13:11

Instrument ID: HP5973W Calib Start Date: 06/05/2024 13:13

GC Column: RXI-5Sil MS ID: 0.25(mm) Calib End Date: 06/05/2024 16:25

Lab File ID: W100258678.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Biphenyl	Lin2		1.464	0.0100	4130	4000	3.4	20.0
2-Chloronaphthalene	Ave	1.113	1.167	0.8000	4190	4000	4.8	20.0
2-Nitroaniline	Lin2		0.3597	0.0100	4380	4000	9.5	20.0
Dimethyl phthalate	Ave	1.142	1.201	0.0100	4210	4000	5.2	20.0
1,3-Dinitrobenzene	Lin2		0.1082	0.0100	4360	4000	9.0	20.0
2,6-Dinitrotoluene	Lin2		0.2955	0.2000	4120	4000	3.0	20.0
Acenaphthylene	Lin2		1.740	0.9000	4230	4000	5.7	20.0
3-Nitroaniline	Lin2		0.1963	0.0100	2960	4000	-25.9*	20.0
Acenaphthene	Lin2		1.164	0.9000	4140	4000	3.5	20.0
2,4-Dinitrophenol	Lin1		0.1198	0.0100	8580	8000	7.2	20.0
4-Nitrophenol	Lin2		0.1486	0.0100	9320	8000	16.5	20.0
2,4-Dinitrotoluene	Lin2		0.3835	0.2000	4150	4000	3.7	20.0
Dibenzofuran	Lin2		1.578	0.8000	4230	4000	5.8	20.0
2,3,4,6-Tetrachlorophenol	Lin2		0.2451	0.0100	4070	4000	1.9	20.0
Hexadecane	Lin2		0.8707	0.0100	4080	4000	2.0	20.0
Diethyl phthalate	Lin2		1.286	0.0100	4210	4000	5.2	20.0
4-Chlorophenyl phenyl ether	Ave	0.5857	0.6276	0.4000	4290	4000	7.1	20.0
Fluorene	Lin2		1.267	0.9000	4160	4000	4.1	20.0
4-Nitroaniline	Lin2		0.2952	0.0100	4100	4000	2.6	20.0
4,6-Dinitro-2-methylphenol	Lin2		0.1085	0.0100	8230	8000	2.8	20.0
Diphenylamine	Lin2		0.5875	0.0100	3380	3420	-1.3	20.0
N-Nitrosodiphenylamine	Lin2		0.5023	0.0100	3950	4000	-1.3	20.0
1,2-Diphenylhydrazine	Ave	1.331	1.420	0.0100	4270	4000	6.7	20.0
trans-Azobenzene	Ave	0.7961	0.7945	0.0100	3990	4000	-0.2	20.0
4-Bromophenyl phenyl ether	Ave	0.2071	0.2174	0.1000	4200	4000	5.0	20.0
Hexachlorobenzene	Ave	0.2465	0.2642	0.1000	4290	4000	7.2	20.0
Atrazine	Ave	0.3251	0.3587	0.0100	8830	8000	10.3	20.0
n-Octadecane	Ave	0.5304	0.5232	0.0100	3950	4000	-1.3	20.0
Pentachlorophenol	Lin1		0.0817	0.0500	6140	8000	-23.2	50.0
Phenanthrene	Lin2		1.029	0.7000	4030	4000	0.9	20.0
Anthracene	Lin2		1.058	0.7000	4160	4000	3.9	20.0
Carbazole	Lin1		0.6669	0.0100	3560	4000	-11.0	20.0
Di-n-butyl phthalate	Lin1		1.276	0.0100	4430	4000	10.8	20.0
Fluoranthene	Lin2		1.077	0.6000	4190	4000	4.7	20.0
Benzidine	Lin2		0.1851	0.0100	5400	8000	-32.4	50.0
Pyrene	Lin2		1.377	0.6000	4150	4000	3.7	20.0
Butyl benzyl phthalate	Lin2		0.7095	0.0100	4020	4000	0.5	20.0
Bis(2-ethylhexyl) phthalate	Lin2		1.011	0.0100	4100	4000	2.5	20.0
3,3'-Dichlorobenzidine	Lin1		0.3281	0.0100	6750	8000	-15.6	50.0
Benzo(a)anthracene	Lin2		1.368	0.8000	4290	4000	7.3	20.0
Chrysene	Ave	1.215	1.220	0.7000	4020	4000	0.5	20.0

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Buffalo Job No.: 480-220419-1

SDG No.:

Client Sample ID: SW-01-2 Lab Sample ID: 480-220419-1

Instrument ID (1): HP6890-5 Instrument ID (2): HP6890-5

Date Analyzed (1): 06/06/2024 11:53 Date Analyzed (2): 06/06/2024 11:53

GC Column (1): RTX-CLPI ID: 0.53(mm) GC Column (2): RTX-CLPII ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
alpha-BHC	1		3.11	3.09	3.15	0.017		31.6
	2		3.39	3.35	3.41	0.012		
delta-BHC	1		3.61	3.58	3.64	0.014		0.3
	2		4.08	4.07	4.13	0.014		
4,4'-DDT	1		5.93	5.90	5.96	0.033		30.0
	2		6.60	6.56	6.62	0.024		
Methoxychlor	1		6.43	6.40	6.46	0.11		72.1
	2		7.32	7.26	7.32	0.050		
Endrin ketone	1		6.99	6.93	6.99	0.019		21.2
	2		7.58	7.54	7.60	0.015		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Buffalo Job No.: 480-220419-1

SDG No.:

Client Sample ID: SW-01-3 Lab Sample ID: 480-220419-3

Instrument ID (1): HP6890-5 Instrument ID (2): HP6890-5

Date Analyzed (1): 06/06/2024 13:50 Date Analyzed (2): 06/06/2024 13:50

GC Column (1): RTX-CLPI ID: 0.53(mm) GC Column (2): RTX-CLPII ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
gamma-BHC (Lindane)	1		3.39	3.35	3.41	0.010		36.2
	2		3.72	3.69	3.75	0.015		
4,4'-DDD	1		5.65	5.61	5.67	0.011		16.4
	2		6.28	6.24	6.30	0.013		
4,4'-DDT	1		5.93	5.90	5.96	0.046		63.1
	2		6.60	6.56	6.62	0.024		
Methoxychlor	1		6.45	6.40	6.46	0.078		38.7
	2		7.32	7.26	7.32	0.052		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Buffalo Job No.: 480-220419-1

SDG No.:

Client Sample ID: SW-01-2-FD Lab Sample ID: 480-220419-2

Instrument ID (1): HP6890-5 Instrument ID (2): HP6890-5

Date Analyzed (1): 06/06/2024 13:31 Date Analyzed (2): 06/06/2024 13:31

GC Column (1): RTX-CLPI ID: 0.53(mm) GC Column (2): RTX-CLPII ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
4,4'-DDD	1		5.65	5.61	5.67	0.018		9.9
	2		6.28	6.24	6.30	0.020		
4,4'-DDT	1		5.93	5.90	5.96	0.032		19.6
	2		6.60	6.56	6.62	0.026		
Methoxychlor	1		6.44	6.40	6.46	0.091		98.8
	2		7.29	7.26	7.32	0.031		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Buffalo Job No.: 480-220419-1

SDG No.:

Client Sample ID: SW-01-1 Lab Sample ID: 480-220419-4

Instrument ID (1): HP6890-5 Instrument ID (2): HP6890-5

Date Analyzed (1): 06/06/2024 14:10 Date Analyzed (2): 06/06/2024 14:10

GC Column (1): RTX-CLPI ID: 0.53(mm) GC Column (2): RTX-CLPII ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
4,4'-DDD	1		5.65	5.61	5.67	0.021		17.3
	2		6.28	6.24	6.30	0.026		
Endrin aldehyde	1		6.21	6.20	6.26	0.028		14.2
	2		6.71	6.70	6.76	0.024		
Methoxychlor	1		6.42	6.40	6.46	0.17		125.5
	2		7.29	7.26	7.32	0.038		

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-220419-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 480-714469/1-A

Matrix: Water | Lab File ID: 5_70411.D

Analysis Method: 8081B | Date Collected:

Extraction Method: 3510C | Date Extracted: 06/05/2024 09:14

Sample wt/vol: 250(mL) | Date Analyzed: 06/06/2024 10:55

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-CLPI ID: 0.53(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 714613 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
72-54-8	4,4'-DDD	ND		0.050	0.0092
72-55-9	4,4'-DDE	ND		0.050	0.012
50-29-3	4,4'-DDT	ND		0.050	0.011
309-00-2	Aldrin	ND		0.050	0.0081
319-84-6	alpha-BHC	0.00886	J	0.050	0.0077
5103-71-9	cis-Chlordane	ND		0.050	0.015
319-85-7	beta-BHC	ND		0.050	0.025
319-86-8	delta-BHC	ND		0.050	0.010
60-57-1	Dieldrin	ND		0.050	0.0098
959-98-8	Endosulfan I	ND		0.050	0.011
33213-65-9	Endosulfan II	ND		0.050	0.012
1031-07-8	Endosulfan sulfate	ND		0.050	0.016
72-20-8	Endrin	ND		0.050	0.014
7421-93-4	Endrin aldehyde	ND		0.050	0.016
53494-70-5	Endrin ketone	ND		0.050	0.012
58-89-9	gamma-BHC (Lindane)	0.00896	J	0.050	0.0080
5103-74-2	trans-Chlordane	ND		0.050	0.011
76-44-8	Heptachlor	ND		0.050	0.0085
1024-57-3	Heptachlor epoxide	ND		0.050	0.0074
72-43-5	Methoxychlor	ND		0.050	0.014
8001-35-2	Toxaphene	ND		0.50	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	47		20-120
877-09-8	Tetrachloro-m-xylene	49		44-120

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: Ethan Smith	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-196949-40791.1
Client Contact: Ms. Ann Marie Kropovitch	Phone: 716-912-4452	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: AECOM	PWSID:			Job #:
Address: 50 Lakefront Boulevard Suite 111	Due Date Requested: STD			
City: Buffalo	TAT Requested (days): Per PO			
State, Zip: NY, 14202	Compliance Project: Δ Yes Δ No			
Phone: 614-790-2274(Tel)	PO #: 1120269 Task 300			
Email: ann.marie.kropovitch@aecom.com	WO #: Ann.Marie.Kropovitch@aecom.com			
Project Name: Tank 75 - Sediment Disposal Char	Project #: 48027595			
Site:	SSOW#:			

Analysis Requested

Preservation Codes: N - None

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9012_ReactiveCN, 9034_Reactive, 9095B	1010A, 1664B, 9045D	6010C, 7470A, 8081B, 8151A, 8270D	8260C - TCLP Volatiles	8015C_DAI_GLY - Ethylene Glycol	D240_87 - Heat of Combustion (BTU)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N	N	N		
SED-01-WC	6/3/24	1500	G	Solid			X	X	X	X	X	X	6	
SED-02-WC		1600		Solid			X	X	X	X	X	X	6	
SED-03-WC		1630		Solid			X	X	X	X	X	X	6	
SED-04-WC		1700		Solid			X	X	X	X	X	X	6	
SED-05-WC		1735		Solid			X	X	X	X	X	X	6	
~~FB-060324~~	~~6/3/24~~	-	G	Solid						X			2	SK
				Solid										
				Solid										
				Solid										
				Solid										
				Solid										

480-220421 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: Add Ethan.Smith@aecom.com and Edyta.ChroStkowska@aecom.com

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: to all lab correspondence

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Ethan Smith	6/3/24 1900	AECOM	SM	6/3/24 1900	Eurofins

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.2 3.2 ICE

Ver: 04/02/2024

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-87878.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing Southeast L		Accreditations Required (See note): NELAP - New York		Job #: 480-220421-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 6/17/2024			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site:	SSOW#:			

Preservation Codes: -

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015D_DAI/3580A Ethylene Glycol	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SED-01-WC (480-220421-1)	6/3/24	15:00 Eastern		Solid			X	1	
SED-02-WC (480-220421-2)	6/3/24	16:00 Eastern		Solid			X	1	
SED-03-WC (480-220421-3)	6/3/24	16:30 Eastern		Solid			X	1	
SED-04-WC (480-220421-4)	6/3/24	17:00 Eastern		Solid			X	1	
SED-05-WC (480-220421-5)	6/3/24	17:35 Eastern		Solid			X	1	

Note. Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	6/5/24 1600	TA	[signature]	6/6/24 927	
2	[signature]	6/6/24 927		[signature]		
3						

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.7° IR10

Ver: 04/02/2024

Job Narrative
480-220421-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 6/3/2024 7:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.2º C and 3.9º C.

GC Semi VOA
Method 8015D: The following sample was received outside of holding time: SED-04-WC (480-220421-4).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
Method 9045D: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: SED-01-WC (480-220421-1), SED-02-WC (480-220421-2), SED-03-WC (480-220421-3), SED-04-WC (480-220421-4) and SED-05-WC (480-220421-5).

Method D240-87: When prepped for Heat of Combustion/BTU analysis, the following samples did not combust: SED-03-WC (480-220421-3) and SED-05-WC (480-220421-5). The sample(s) was run in duplicate to confirm. The result(s) has been reported as "Did Not Fire" (DNF).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Kropovitch, Ann

Subject: FW: 480-221432 Tank 75 Analysis HT Question

From: John Beninati <John.Beninati@et.eurofinsus.com>
Sent: Friday, July 12, 2024 11:16 AM
To: Kropovitch, Ann <ann.marie.kropovitch@aecom.com>
Subject: RE: 480-221432 Tank 75 Analysis HT Question

Good morning Ann,

This was a lab shipping error as sample 4 volume was sent to the Pensacola lab separately after it was determined they were missing sample volume. Pensacola provided the following response:

- Although it was listed on the WS-COC, the sample was not received in Pensacola with the rest of the job/samples. Sample 4 was rec'd on 7/6.

John Beninati, P.G.
Project Manager

Eurofins Environment Testing US - Buffalo
10 Hazelwood Drive
Amherst, New York 14228

Direct: 716-504-9874
John.Beninati@ET.EurofinsUS.com
www.EurofinsUS.com/Env

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10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing

Client Information

Client Contact: Ms. Ann Marie Kropovitch	Sampler: Ethan Smith
Company: AECOM	Phone: 716-912-4456
Address: 50 Lakefront Boulevard Suite 111	Due Date Requested: STD
City: Buffalo	TAT Requested (days): RUSH
State, Zip: NY, 14202	Compliance Project: Δ Yes Δ No
Phone: 614-790-2274(Tel)	PO #: 1120269
Email: ann.marie.kropovitch@aecom.com	WO #: Ann.Marie.Kropovitch@aecom.com
Project Name: Tank 75 - Surface Water	Project #: 48027595
Site:	SSOW#:

Lab PM: Beninati, John	Carrier Tracking No(s):
E-Mail: John.Beninati@et.eurofinsus.com	State of Origin:
PWSID:	

COC No: 480-196724-40768.3
Page: Page 3 ~~of~~ lot 1
Job #:

Preservation Codes:
A - HCL
D - HNO3
B - NaOH
N - None

Other:

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL VOCs + TICs	6010D - TAL Metals ICP	6010D - TAL Metals ICP - Dissolved FF	9012B_NP - Cyanide, Total	8082A - TCL PCBs	8270D - TCL SVOCs + TICs	7470A - Mercury	7470A - Mercury - Dissolved FF	9012B_NP - Cyanide, Total - Dissolved FF	8081B - TCL Pesticides	1633 - 1633 Standard List	8270D_IWQD_TCL_SVOA_QL_MS2 1,4-D, oper	TOC	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	D	D	B	N	N	D	D	B	N	N	N	A		
SED-RB-060424	6/4/24	1315	G	Water	N	N	X	X		X	X	X	X			X	X	X	X	4	
SW-RB-060424	6/4/24	1400	G	Water	N	N	X	X	X	X	X	X	X	X	X	X	X		X	20	lab to filter
FRB Blank	6/4/24	~	G	Water			X													2	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	

480-220471 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:
add Ethan.Smith@aecom.com and edyta.charostkowska@aecom.com to all lab correspondance

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:	
Relinquished by:	Date/Time: 6/4/24 1600	Company: AECOM	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 6/4/24 1600	Company DTO

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.0 3.1 9 5.2 5.1 4 3.7 3.6 # 17IR

Ver: 04/02/2024

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691 7991

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-87862.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note): NELAP New York		Job #: 480-220471-1
Address: 180 S. Van Buren Avenue,	Due Date Requested: 6/17/2024			Preservation Codes:
City: Barberton	TAT Requested (days):			
State, Zip: OH, 44203				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site:	SSOW#:			Other: PFAS 25

Analysis Requested

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633/1633_SPE 1633 Standard List	1633_DRAFT_TSS/ Percent Suspend Solids PFAS	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SED-RB-060424 (480-220471-1)	6/4/24	13:15 Eastern		Water			X	X	3	
SW-RB-06424 (480-220471-2)	6/4/24	14:00 Eastern		Water			X	X	3	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*
Deliverable Requested I, II, III IV Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[illegible]	6/5/24 1600	FA	TAMMY ROYER	6-6-24 930	EETN C
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Job Narrative
480-220471-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 6/4/2024 4:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 3.0°C, 3.6°C, 3.7°C, 3.9°C, 5.2°C and 5.4°C.

GC/MS VOA
Method 8260C: The continuing calibration verification (CCV) associated with batch 480-714555 recovered outside acceptance criteria, low biased, for Chloromethane and 1,2,4-Trichlorobenzene. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 480-714555 recovered outside control limits for the following analytes: cis-1,3-Dichloropropene and trans-1,3-Dichloropropene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 480-714691 recovered outside control limits for the following analytes: 1,2-Dichloroethane, 1,1,1-Trichloroethane and Acetone. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. The associated samples are impacted: SED-RB-060424 (480-220471-1) and SW-RB-06424 (480-220471-2).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-714691 recovered above the upper control limit for 1,1,1-Trichloroethane, 1,2-Dichloroethane, Chlorodibromomethane, Carbon tetrachloride, Tetrachloroethene and Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: SED-RB-060424 (480-220471-1) and SW-RB-06424 (480-220471-2).

Method 8260C: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 480-714691 recovered outside control limits for the following analytes: Acetone, Chloromethane, Vinyl chloride, trans-1,3-Dichloropropene, Bromoform and Bromomethane. The associated samples are impacted: SED-RB-060424 (480-220471-1) and SW-RB-06424 (480-220471-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 8270D: The continuing calibration verification (CCV) associated with batch 480-715312 recovered above the upper control limit for 4-Nitrophenol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: SED-RB-060424 (480-220471-1) and SW-RB-06424 (480-220471-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

PCBs
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary

page.

Pesticides
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

PFAS
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

DATA USABILITY SUMMARY REPORT

ASHLAND TANK 75 INVESTIGATION
4625 RIVER ROAD
TONAWANDA, NEW YORK 14150

Analyses Performed by:

EUROFINS – AMHERST, NY and BARBERTON, OH

Prepared for:

NEW YORK STATE DEPARTMENT OF ENVIROMENTAL CONSERVATION
625 BROADWAY
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SEPTEMBER 2024

CONTENTS

I. INTRODUCTION

This Data Usability Summary Report (DUSR) has been prepared following the guidelines provided in New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation *DER-10, Technical Guidance for Site Investigation and Remediation, Appendix 2B - Guidance for Data Deliverables and the Development of Data Usability Summary Reports*, May 2010. Discussed in this DUSR are the analytical data for 37 soil samples, 5 field duplicates (FDs), 3 soil matrix spike/matrix spike duplicate (MS/MSD) pairs, and 2 rinse blanks (RB) collected on July 7 – August 9, 2024.

Field Sample ID	**Lab Sample ID**
SB-10-0-0.2	480-221432-1
SB-10-39-42	480-221432-2
SB-10-48-49	480-221432-3
SB-01-0-0.2	480-221432-4
HA-01-0-0.2	480-221523-1
HA-01-2.5-3.5	480-221523-2
HA-08-0-0.2	480-221523-3
HA-08-3.5-4.0	480-221523-4
HA-07-0-0.2	480-221523-5
HA-07-3.0-4.0	480-221523-6
SB-01-26.0-31.7	480-221553-1
HA-06-0.0-0.2	480-221553-2
HA-06-3.0-4.0	480-221553-3
HA-06-3.0-4.0-FD	480-221553-4
HA-05-0.0-0.2	480-221553-5
HA-05-3.0-4.0	480-221553-6
HA-04-0.0-0.2	480-221553-7
HA-04-0.0-0.2-FD	480-221553-8
HA-04-1.3-1.5	480-221553-9
HA-03-0.0-0.2	480-221553-10
HA-03-2.3-2.5	480-221553-11
HA-02-0.0-0.2	480-221553-12

HA-02-3.0-4.0	480-221553-13
HA-02-3.0-4.0-FD	480-221553-14
SB-01-43.0-45.0	480-221553-15
SB-04-0.0-0.2	480-221553-16
RB-07112024	480-221553-17
RB-07122024	480-221629-1
SB-04-0.5-2.0	480-221629-2
SB-04-0.5-2.0-FD	480-221629-3
SB-04-38.0-42.0	480-221629-4
SB-05-0.0-0.2	480-221655-1
SB-05-27.0-29.0	480-221655-2
SB-05-32.0-33.0	480-221655-3
SB-03-0.0-0.2	480-221655-4
SB-08-26.0-28.0	480-222473-1
SB-08-28.0-30.0	480-222473-2
SB-07-1.0-2.0	480-222473-3
SB-07-33.0-35.0	480-222473-4
SB-03-5.0-7.0	480-222440-1
SB-03-28.0-30.0	480-222440-2
SB-02-0.0-0.2	480-222440-3
SB-02-0.0-0.2-FD	480-222440-4
SB-02-10.0-11.0	480-222440-5
SB-02-28.0-30.0	480-222440-6
SB-09-0.0-0.2	480-222440-7
SB-09-4.0-5.0	480-222440-8
SB-09-28.0-30.0	480-222440-9
SB-08-0.0-0.2	480-222440-10
SB-07-0.0-0.2	480-222440-11

The samples were collected at the Ashland Tank 75 site located in Tonawanda, NY and sent to Eurofins [Amherst, NY, Barberton, OH] for analysis. Eurofins is a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory.

II. ANALYTICAL METHODOLOGIES AND DATA VALIDATION PROCEDURES

The samples were analyzed for the following parameters (not all samples were analyzed for all parameters):

Parameter	Method
Volatile Organic Compounds (VOCs)	SW8260C
Semi-Volatile Organic Compounds (SVOCs)	SW8270D
1,4-Dioxane	SW8270D Selective Ion Monitoring (SIM)
Pesticides	SW8081B
PCBs (Polychlorinated Biphenyls)	SW8082A
PFAS (Per- and Polyfluoroalkyl Substances)	EPA Method 1633
Total Metals/Mercury	SW6010D/7470A/7471B
Total Cyanide (CN)	SW9012B

A limited data validation was performed following the guidelines in the following USEPA Region II documents:

- *Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry, SW-846 Method 8260B & 8260C, SOP HW-24, Rev. 4,* October 2014;
- *Validating Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry, SW-846 Method 8270D, SOP HW-22, Rev. 5*, December 2010;
- *Polychlorinated Biphenyl (PCB) Aroclor Data Validation, SOP HW-37A, Rev. 0*, February 2018;
- *Validating Pesticide Compounds Organochlorine Pesticides by Gas Chromatography, SW-846, Method 8081B, SOP HW-44, Rev. 3.1*, December 2010;
- *Sampling, Analysis, and Assessment of Per- and Perfluoroalkyl Substances under NYSDEC Part 375 Remedial Programs, Appendix H*, April 2023;
- *ICP-AES Data Validation, SOP HW-3a, Rev. 1*, September 2016; and

- *Mercury and Cyanide Data Validation, SOP HW-3c, Rev. 1*, September 2016.

The limited validation included a review of: completeness of all required deliverables; holding times; quality control (QC) results [blanks, instrument tunings, calibration standards, duplicate analyses, MS/MSD recoveries, surrogate/internal standard recoveries, and laboratory control sample (LCS) recoveries] to determine if the data are within the protocol-required limits and specifications; a determination that all samples were analyzed using established and agreed upon analytical protocols; an evaluation of the raw data to confirm the results provided in the data summary sheets; and laboratory data qualifiers.

Definitions of USEPA data qualifiers are presented at the end of this text. A summary of data qualifications has been presented in Table 1. Validated Form 1s have been presented in Attachment A. Documentation supporting the qualification of data is presented in Attachment B. Only analytical deviations affecting data usability are discussed in this report.

III. DATA DELIVERABLE COMPLETENESS

Full deliverable data packages (i.e., NYSDEC ASP Category B or equivalent) were provided by the laboratory and included all reporting forms and raw data necessary to fully evaluate and verify the reported analytical results.

IV. SAMPLE RECEIPT/PRESERVATION/HOLDING TIMES

All samples were received by the laboratory intact, properly preserved and under proper chain-of-custody (COC) with the following exception.

- Samples RB-07112024 and RB-07122024 were correctly in improper container for PFAS. All results for PFAS in these samples have been qualified ‘J’ or ‘UJ.’

All samples were analyzed within the required holding times (HT).

V. NON-CONFORMANCES

- **Calibration**

  The percent difference (%D) between the initial calibration (ICAL) and the continuing calibration (CCAL) relative response factors (RRFs) samples exceeded 20% and showed a low bias for the following VOC compound: 1,1,2,2-tetrachloroethane. The results for this compound in the associated samples listed on Table 1 have been qualified ‘UJ’.

The %D between the ICAL and the CCAL RRF exceeded 20% and showed a low bias for the following SVOC compound: 3-nitroaniline. The results for this compound in the samples listed on Table 1 have been qualified 'UJ'.

The low level metals CCVs were above the QC limits for aluminum (Al), copper (Cu), iron (Fe), potassium (K), lead (Pb), and zinc (Zn). Please note the associated samples were over 10x the RL, no qualification was necessary.

- **Matrix Spike/Matrix Spike Duplicate**

The VOC MS/MSD performed on sample HA-01-2.5-3.5 showed the %Rs of 1,1,2,2-tetrachloroethane, 1,1,2-trichloro-1,2,2-trifluoroethane, 1,1,2-trichloroethane, 1,2,4-trichlorobenzene, 1,2-dibromo-3-chloropropane, 1,2-dibromoethane (ethylene dibromide), 1,2-dichorobemzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, acetone, benzene, bromodichloromethane, bromoform, carbon tetrachloride, chlorobenzene, cis-1,3-dichloropropene, cyclohexane, ethylbenzene, isopropylbenzene (cumene), methyl acetate, methyl ethyl ketone (2-butanone), methylcyclohexane, styrene, tetrachloroethylene (PCE), toluene, trichloroethylene (TCE), and xylenes as being below the QC limits. The %Rs of these compounds were acceptable in the LCS. The results for these compounds have been qualified 'J' or 'UJ' in this sample.

The VOC MS/MSD performed on sample HA-05-3.0-4.0 showed the %Rs of 1,1,2,2-tetrachloroethane, 1,1,2-trichloroethane, 1,2,4-trichlorobenzene, 1,2-dibromo-3-chloropropane, 1,2-dibromoethane (ethylene dibromomide), 1,2-dichorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 2-hexanone, acetone, chlorobenzene, cis-1,3-dichloropropene, cyclohexane, ethylbenzene, isopropylbenzene (cumene), methyl ethyl ketone (2-butanone), methyl isobutyl ketone (4-methyl-2-pentanone), methylcyclohexane, styrene, PCE, toluene, and t-1,2-dichloroethene as being below the QC limits. The %Rs of these compounds were acceptable in the LCS. The results for these compounds have been qualified 'UJ' in this sample.

The pesticide MS/MSD performed on sample HA-01-2.5-3.5 showed the %Rs of alpha chlordane, beta endosulfan, dieldrin, endrin, endrin aldehyde, gamma BHC (lindane), heptachlor, and heptachlor epoxide as being below the QC limits. The %Rs of these compounds were acceptable in the LCS. The results for these compounds have been qualified 'UJ' in this sample.

The SVOC MS/MSD performed on sample SB-10-0-0.2 showed the %Rs of hexachlorocyclopentadiene as being below the QC limits. The %Rs of this compound were acceptable in the LCS. The result for this compound has been qualified 'UJ' in this sample.

The metals MS/MSD performed on sample SB-10-0-0.2 showed the %Rs of antimony (Sb) and selenium (Se) as being below the QC limits. The post-digestion spike %Rs were acceptable. The results for these metals have been qualified 'J' in this sample.

The metals MS/MSD performed on sample HA-01-2.5-3.5 showed the %Rs of Sb and Se as being below the QC limits. The post-digestion spike %Rs were acceptable for Sb but low for Se. The results for these metals have been qualified 'UJ' in this sample.

The metals MS/MSD performed on sample HA-05-3.0-4.0 showed the %Rs of Sb, arsenic (As), manganese (Mn), and Se as being below the QC limits. The post-digestion spikes were below the QC limits. The results for these metals have been qualified 'J-' or 'UJ' in this sample as noted on Table 1 below.

The metals MS/MSD performed on sample SB-05-0.0-0.2 showed the %Rs of Sb, Pb, and zinc (Zn) as being outside the QC limits. No post digestion spike was performed. The results for these metals have been qualified 'J-,' or 'J+' in this sample as noted on Table 1.

The metals MS/MSD performed on sample SB-07-1.0-2.0 showed the %Rs of Sb, As, barium (Ba), beryllium (Be), cadmium (Cd), chromium (Cr), copper (Cu), nickel (Ni), Se, silver (Ag), vanadium (V), and Zn as being below the lower QC limits. The post digestion spike %Rs were also below the QC limit. The results for these metals have been qualified 'R', 'J-', or 'UJ' in this sample.

The metals MS/MSD performed on sample SB-02-0.0-0.2 showed the %Rs of Sb, Pb, V, and Zn as being outside the QC limits. The post digestion spike was acceptable with the exception of Pb. The results for these metals have been qualified 'J' or 'J-' in this sample.

The wet chemistry MS/MSDs performed on samples HA-01-2.5-3.5 and SB-05-0.0-0.2 had %Rs less than the QC limit for cyanide (CN). The result for CN in these sample have been qualified 'J' or 'UJ.'

The wet chemistry MS/MSDs performed on samples SB-02-0.0-0.2, SB-09-0.0-0.2, and SB-09-4.0-5.0 had %Rs less than the QC limit for cyanide (CN). The %Rs were less than 30% and no post digestion spike was performed. The results for CN in these samples have been qualified 'R' or 'J-'.

- **Method Blanks/Laboratory Blanks/Rinse Blanks**

The method blanks, continuing calibration blanks (CCBs), and/or rinse blanks were detected for alpha-BHC, gamma-BHC, 4,4-DDE, Ba, calcium (Ca), Cd, Cu, iron (Fe), Pb, manganese (Mn), potassium (K), Zn, perfluorobutyric acide (PFBA), and perfluorooctanesulfonic acid at concentrations greater than the method detection limit (MDL) but less than the reporting limit (RL). The rinse blanks was detected for Ba and Na at a concentration greater than the RL. Those samples that were less than the RL have been qualified 'U' at the RL as listed on Table 1.

The method blank was detected for Fe at concentrations greater than the RL. Since the associated samples were greater than 10x the blank result no qualification was necessary. The 'B' qualifier applied by the lab has been removed.

- **Serial Dilution**

The metals serial dilution performed on sample SB-10-0-0.2 had the percent difference (%D) of metals Ca, Fe, Mn, Ni, and Zn being greater than the QC limit. The results for these metals in this sample have been qualified J.

The metals serial dilution performed on sample HA-01-2.5-3.5 had the %D of metals Ca, Cr, Fe, Mn, Ni, and Zn being greater than the QC limit. The results for these metals in this sample have been qualified J.

The metals serial dilution performed on sample HA-05-3.0-4.0 had the %D of metals aluminum (Al), Be, Ca, Cr, Fe, Mg. K, V, and Zn being greater than the QC limit. The results for these metals in this sample have been qualified J.

The metals serial dilution performed on sample SB-07-1.0-2.0 had the %D of metals Al, Ba, Be, Ca, Fe, Mg, and Mn being greater than the QC limit. The results for Ba and Be were previously qualified for an MS/MSD outlier. The remaining metals have been qualified J.

The metals serial dilution performed on sample SB-02-0.0-0.2 had the %D of metal Fe being greater than the QC limit. The result for Fe in this sample have been qualified J.

VI. SAMPLE RESULTS AND REPORTING

All sample results were reported in accordance with method requirements and were adjusted for sample volume and percent solids, where applicable. Results reported below the RL, but greater than the MDL, are qualified 'J' by the laboratory.

Field duplicates were collected at locations SB-02-0.0-0.2, SB-04-0.5-2.0, HA-02-3.0-4.0, HA-04-0.0-0.2, and HA-06-3.0-4.0. The samples exhibited good analytical/field precision (i.e., relative percent difference (RPD) between results < 50% if both results > RL). If one result was >RL and the other non-detect, the results were qualified 'J'/"UJ' if the difference between the results and RL was greater than the RL.

Several samples were analyzed at dilutions for SVOCs and pesticides due to elevated levels of target/non-target compounds, and/or sample matrix. A florisil cleanup was performed on the pesticide extracts for several samples due to matrix effects. The non-detect results represent the lowest achievable at the dilutions. Due to the dilutions the surrogate recoveries were not evaluated

The mass ion ratios of some PFAS were outside of the QC limits for identification. The affected samples/compounds have been listed on Table 1. Using analyst judgement, the compounds were reported as detections and qualified 'I' by the laboratory. The 'I' qualifier has been changed to 'JN.' The results reported represent the estimated maximum possible concentration (EMPC) of the compounds.

The RPD between the pesticide columns was evaluated and the samples in Table 1 qualified in accordance with the following table:

%RPD between Column	Qualification
26-70%	J
%D>50 %, hit < RL	U

VII. SUMMARY

All sample analyses were found to be compliant with the method criteria, except where previously noted. Those results qualified 'R' are unusable. Those results qualified 'J,' 'J+,' 'J-', 'JN,' and 'UJ,' are considered conditionally usable. Those results qualified 'U' are considered non-detect. All other sample results are usable as reported. AECOM does not recommend the recollection of any samples at this time.

Prepared By: **Ann Marie Kropovitch, Chemist** **Date:** 9/5/2024

Reviewed By: **Peter R. Fairbanks, Senior Chemist** **Date:** 9/5/2024

Table 1

Summary of Sample Qualifications

VOCs			
SAMPLE	**COMPOUND**	**QUALIFIER**	**REASON**
HA-02-3.0-4.0 and HA-03-2.3-2.5	1,1,2,2-tetrachloroethane	UJ	CCAL%D > QC limit (20%), low bias
HA-01-2.5-3.5	1,1,2,2-tetrachloroethane, 1,1,2-trichloro-1,2,2-trifluoroethane, 1,1,2-trichloroethane, 1,2,4-trichlorobenzene, 1,2-dibromo-3-chloropropane, 1,2-dibromoethane (ethylene dibromomide), 1,2-dichorobemzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, acetone, benzene, bromodichloromethane, bromoform, carbon tetrachloride, chlorobenzene, cis-1,3-dichloropropene, cyclohexane, ethylbenzene, isopropylbenzene (cumene), methyl acetate, methyl ethyl ketone (2-butanone), methylcyclohexane, styrene, PCE, toluene, TCE, and xylenes	J/UJ	MS/MSD < QC limit, LCS ok
HA-05-3.0-4.0	1,1,2,2-tetrachloroethane, 1,1,2-trichloroethane, 1,2,4-trichlorobenzene, 1,2-dibromo-3-chloropropane, 1,2-dibromoethane (ethylene dibromomide), 1,2-dichorobemzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 2-hexanone, acetone, chlorobenzene, cis-1,3-dichloropropene, cyclohexane, ethylbenzene, isopropylbenzene (cumene), methyl ethyl ketone (2-butanone), methyl isobutyl ketone (4-methyl-2-pentanone) methylcyclohexane, styrene, PCE, toluene, and t-1,2-dichloroethene	UJ	MS/MSD < QC limit, LCS ok
SVOCs			
RB-07122024 and RB-07112024	3-nitroaniline	UJ	CCAL%D > QC limit (20%), low bias
SB-10-0-0.2	hexachlorocyclopentadiene	UJ	MS/MSD %R < QC limit
PFAS			
RB-07122024 and RB-07112024	All PFAS	J/UJ	Sample collected in incorrect container type

Table 1

Summary of Sample Qualifications

SAMPLE	COMPOUND	QUALIFIER	REASON
SB-04-0.5-2.0 and SB-04-0.5-2.0-FD	perfluorooctane sulfonic acid	U at RL	MBLK Contamination
HA-01-0-0.2	perfluorohexanoic acid (PFHxA)	JN	Ion Ratio > criteria, reported value is EMPC
SB-07-0.0-0.2	Perfluorononanoic acid and perfluoroundecanoic acid (PFUnA)	JN	Ion Ratio > criteria, reported value is EMPC
PESTICIDES			
SB-10-0-0.2 and HA-01-2.5-3.5	4,4'-DDT	J	%D between 26-70%
SB-10-39-42	methoxychlor	J	%D between 26-70%
SB-10-0-0.2, HA-08-0-0.2, and HA-07-3.0-4.0	endrin ketone	U at RL	%D>50%, Result < RL
HA-08-0-0.2	4,4'-DDT	U at RL	%D>50%, Result < RL
HA-07-0-0.2	dieldrin	U at RL	%D>50%, Result < RL
HA-07-3.0-4.0	methoxychlor	U at RL	%D>50%, Result < RL
SB-10-0-0.2, HA-01-0-0.2, HA-01-2.5-3.5, HA-07-0-0.2, HA-08-3.5-4.0	a-BHC	U at RL	Mblk Contamination
HA-08-0-0.2, HA-08-3.5-4.0, and SB-07-1.0-2.0	g-BHC	U at RL	Mblk Contamination
HA-01-2.5-3.5	alpha chlordane, beta endosulfan, dieldrin, endrin, endrin aldehyde, gamma BHC (lindane), heptachlor, and heptachlor epoxide	UJ	MS/MSD %R < QC limit
Metals			
SB-10-0-0.2	Sb and Se	J	MS/MSD %R < QC limit, post OK
HA-01-2.5-3.5	Sb and Se	UJ	MS/MSD %R < QC limit. Post OK Sb, low for Se.
HA-05-3.0-4.0	Sb, As, Mn, and Se	J-/UJ	MS/MSD %R < QC limit. Post low
SB-05-0.0-0.2	Sb and Pb	J-	MS/MSD %R < QC limit. No Post.

Table 1

Summary of Sample Qualifications

SAMPLE	COMPOUND	QUALIFIER	REASON
SB-05-0.0-0.2	Zn	J+	MS/MSD %R > QC limit. No Post.
SB-07-1.0-2.0-20240809	As, Ba, Be, Cr, C), Ni, Ag, V, and Zn	J-	MS/MSD %R < QC limit, Post < QC limit.
SB-07-1.0-2.0-20240809	Cd and Se	UJ	MS/MSD %R < QC limit, Post < QC limit.
SB-07-1.0-2.0-20240809	Sb	R	MS/MSD %R < QC limit (<30%). Post < QC limit.
SB-02-0.0-0.2	Sb, Pb, and V		MS/MSD %R < QC limit, Post OK
SB-02-0.0-0.2	Zn	J-	MSD %R < QC limit, Post < QC limit.
SB-10-0-0.2	Ca, Fe, Mn, Ni, and Zn	J	Serial %D ≥ 15%
HA-01-2.5-3.5	Ca, Cr, Ca, Mn, Ni, and Zn.	J	Serial %D ≥ 15%
HA-05-3.0-4.0	Al, Be, Ca, Cr, Fe, Mg. K, V, Zn	J	Serial %D ≥ 15%
SB-07-1.0-2.0	Al, Ca, Fe, Mg, and Mn	J	Serial %D ≥ 15%
SB-02-0.0-0.2	Fe	J	Serial %D ≥ 15%
SB-07-33.0-35.0, SB-08-26.0-28.0, SB-08-28.0-30.0, SB-02-28.0-30.0, SB-03-28.0-30.0, and SB-09-28.0-30.0	Cd	U at RL	Mblk/CCB Contamination
Wet Chemistry			
HA-01-2.5-3.5	CN	J	MS/MSD %R < QC limit.
SB-05-0.0-0.2	CN	UJ	MS/MSD %R < QC limit.
SB-02-0.0-0.2 and SB-09-4.0-5.0	CN	R	MS/MSD %R < 30%, no post spike
SB-09-0.0-0.2	CN	J-	MS/MSD %R < 30%, no post spike

DEFINITIONS OF USEPA REGION II DATA QUALIFIERS

U – The analyte was analyzed for but was not detected above the reported sample quantitation limit.

J – The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ – The result is an estimated quantity, but the result may be biased high.

J- – The result is an estimated quantity, but the result may be biased low.

UJ – The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

JN - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

R – The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

ATTACHMENT A

VALIDATED FORM 1s

Client Sample ID: SB-10-0-0.2
Lab Sample ID: 480-221432-1

Date Collected: 07/08/24 11:45
Matrix: Solid

Date Received: 07/09/24 17:43
Percent Solids: 81.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		4100	1100	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
2,4,6-Trichlorophenol	ND		4100	820	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
2,4-Dichlorophenol	ND		4100	440	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
2,4-Dimethylphenol	ND		4100	990	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
2,4-Dinitrophenol	ND		40000	19000	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
2,4-Dinitrotoluene	ND		4100	850	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
2,6-Dinitrotoluene	ND		4100	480	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
2-Chloronaphthalene	ND		4100	680	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
2-Chlorophenol	ND		8000	750	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
2-Methylnaphthalene	ND		4100	820	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
2-Methylphenol	ND		4100	480	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
2-Nitroaniline	ND		8000	600	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
2-Nitrophenol	ND		4100	1200	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
3,3'-Dichlorobenzidine	ND		8000	4800	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
3-Nitroaniline	ND		8000	1100	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
4,6-Dinitro-2-methylphenol	ND		8000	4100	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
4-Bromophenyl phenyl ether	ND		4100	580	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
4-Chloro-3-methylphenol	ND		4100	1000	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
4-Chloroaniline	ND		4100	1000	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
4-Chlorophenyl phenyl ether	ND		4100	510	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
4-Methylphenol	ND		8000	480	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
4-Nitroaniline	ND		8000	2200	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
4-Nitrophenol	ND		8000	2900	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Acenaphthene	ND		4100	600	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Acenaphthylene	ND		4100	530	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Acetophenone	ND		4100	560	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Anthracene	ND		4100	1000	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Atrazine	ND		4100	1400	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Benzaldehyde	ND		4100	3300	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Benzo[a]anthracene	ND		4100	410	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Benzo[a]pyrene	ND		4100	600	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Benzo[b]fluoranthene	ND		4100	650	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Benzo[g,h,i]perylene	ND		4100	440	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Benzo[k]fluoranthene	ND		4100	530	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Biphenyl	ND		4100	600	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
bis (2-chloroisopropyl) ether	ND		4100	820	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Bis(2-chloroethoxy)methane	ND		4100	870	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Bis(2-chloroethyl)ether	ND		4100	530	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Bis(2-ethylhexyl) phthalate	ND		4100	1400	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Butyl benzyl phthalate	ND		4100	680	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Caprolactam	ND		4100	1200	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Carbazole	ND		4100	480	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Chrysene	ND		4100	920	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Dibenz(a,h)anthracene	ND		4100	730	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Dibenzofuran	ND		4100	480	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Diethyl phthalate	ND		4100	530	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Dimethyl phthalate	ND		4100	480	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Di-n-butyl phthalate	ND		4100	700	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Di-n-octyl phthalate	ND		4100	480	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20

Client Sample ID: SB-10-0-0.2
Lab Sample ID: 480-221432-1

Date Collected: 07/08/24 11:45
Matrix: Solid

Date Received: 07/09/24 17:43
Percent Solids: 81.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		4100	440	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Fluorene	ND		4100	480	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Hexachlorobenzene	ND		4100	560	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Hexachlorobutadiene	ND		4100	600	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Hexachlorocyclopentadiene	ND	UJ	4100	560	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Hexachloroethane	ND		4100	530	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Indeno[1,2,3-cd]pyrene	ND		4100	510	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Isophorone	ND		4100	870	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Naphthalene	ND		4100	530	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Nitrobenzene	ND		4100	460	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
N-Nitrosodi-n-propylamine	ND		4100	700	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
N-Nitrosodiphenylamine	ND		4100	3300	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Pentachlorophenol	ND		8000	4100	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Phenanthrene	ND		4100	600	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Phenol	ND		4100	630	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Pyrene	ND		4100	480	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*7400*	*T J*	*ug/Kg*	☼	*12.88*	*N/A*	*07/11/24 07:25*	*07/12/24 21:42*	*20*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*100*		*26 - 143*	*07/11/24 07:25*	*07/12/24 21:42*	*20*
2-Fluorobiphenyl	*100*		*50 - 121*	*07/11/24 07:25*	*07/12/24 21:42*	*20*
2-Fluorophenol	*97*		*36 - 120*	*07/11/24 07:25*	*07/12/24 21:42*	*20*
Nitrobenzene-d5	*88*		*40 - 121*	*07/11/24 07:25*	*07/12/24 21:42*	*20*
Phenol-d5	*94*		*41 - 120*	*07/11/24 07:25*	*07/12/24 21:42*	*20*
p-Terphenyl-d14	*97*		*46 - 143*	*07/11/24 07:25*	*07/12/24 21:42*	*20*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	**25**	**J**	71	14	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
4,4'-DDE	ND		71	15	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
4,4'-DDT	**68**	**J**	71	17	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
Aldrin	ND		71	17	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
alpha-BHC	ND	U	71	13	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
cis-Chlordane	ND		71	35	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
beta-BHC	ND		71	13	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
delta-BHC	ND		71	13	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
Dieldrin	ND		71	17	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
Endosulfan I	ND		71	14	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
Endosulfan II	ND		71	13	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
Endosulfan sulfate	ND		71	13	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
Endrin	ND		71	14	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
Endrin aldehyde	ND		71	18	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
Endrin ketone	ND	U	71	17	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
gamma-BHC (Lindane)	ND		71	13	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
trans-Chlordane	ND		71	23	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
Heptachlor	ND		71	15	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
Heptachlor epoxide	ND		71	18	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
Methoxychlor	ND		71	14	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20

Client Sample ID: SB-10-0-0.2

Date Collected: 07/08/24 11:45
Date Received: 07/09/24 17:43

Lab Sample ID: 480-221432-1

Matrix: Solid
Percent Solids: 81.8

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	ND		710	410	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*193*	*S1+*	*45 - 120*	*07/12/24 08:32*	*07/16/24 16:31*	*20*
DCB Decachlorobiphenyl	*184*	*S1+*	*45 - 120*	*07/12/24 08:32*	*07/16/24 16:31*	*20*
Tetrachloro-m-xylene	*120*		*30 - 124*	*07/12/24 08:32*	*07/16/24 16:31*	*20*
Tetrachloro-m-xylene	*224*	*S1+*	*30 - 124*	*07/12/24 08:32*	*07/16/24 16:31*	*20*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.26	0.051	mg/Kg	☼	07/10/24 16:42	07/12/24 14:25	1
PCB-1221	ND		0.26	0.051	mg/Kg	☼	07/10/24 16:42	07/12/24 14:25	1
PCB-1232	ND		0.26	0.051	mg/Kg	☼	07/10/24 16:42	07/12/24 14:25	1
PCB-1242	ND		0.26	0.051	mg/Kg	☼	07/10/24 16:42	07/12/24 14:25	1
PCB-1248	ND		0.26	0.051	mg/Kg	☼	07/10/24 16:42	07/12/24 14:25	1
PCB-1254	ND		0.26	0.12	mg/Kg	☼	07/10/24 16:42	07/12/24 14:25	1
PCB-1260	ND		0.26	0.12	mg/Kg	☼	07/10/24 16:42	07/12/24 14:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*102*		*60 - 154*	*07/10/24 16:42*	*07/12/24 14:25*	*1*
Tetrachloro-m-xylene	*96*		*60 - 154*	*07/10/24 16:42*	*07/12/24 14:25*	*1*
DCB Decachlorobiphenyl	*98*		*65 - 174*	*07/10/24 16:42*	*07/12/24 14:25*	*1*
DCB Decachlorobiphenyl	*99*		*65 - 174*	*07/10/24 16:42*	*07/12/24 14:25*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**18800**		11.9	10.2	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Antimony	**0.88**	**J**	17.8	0.63	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Arsenic	**5.8**		2.4	1.0	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Barium	**139**		0.59	0.17	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Beryllium	**1.1**		0.24	0.048	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Cadmium	**0.31**		0.24	0.083	mg/Kg	☼	07/10/24 14:41	07/11/24 19:21	1
Calcium	**38900**	J	59.4	32.1	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Chromium	**36.1**		0.59	0.43	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Cobalt	**10.8**		0.59	0.12	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Copper	**54.2**		1.2	0.68	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Iron	**22500**	J	11.9	10.1	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Lead	**60.4**		1.2	0.55	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Magnesium	**12400**		23.8	10.1	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Manganese	**658**	J	1.2	0.33	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Nickel	**27.4**	J	5.9	0.30	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Potassium	**4640**		35.6	28.8	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Selenium	**1.2**	**J**	4.8	0.95	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Silver	**0.25**	**J**	0.71	0.24	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Sodium	**211**		166	72.8	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Thallium	ND		7.1	0.90	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Vanadium	**35.6**		0.59	0.15	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Zinc	**114**	J	2.4	1.2	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1

Client Sample ID: SB-10-0-0.2
Lab Sample ID: 480-221432-1

Date Collected: 07/08/24 11:45
Matrix: Solid
Date Received: 07/09/24 17:43
Percent Solids: 81.8

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	3.3		0.12	0.027	mg/Kg	☼	07/11/24 11:25	07/11/24 14:31	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.58	mg/Kg	☼	07/18/24 12:15	07/18/24 16:20	1

Client Sample ID: SB-10-39-42
Lab Sample ID: 480-221432-2

Date Collected: 07/09/24 13:15
Matrix: Solid
Date Received: 07/09/24 17:43
Percent Solids: 72.6

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.6	0.41	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
1,1,2,2-Tetrachloroethane	ND		5.6	0.91	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.6	1.3	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
1,1,2-Trichloroethane	ND		5.6	0.73	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
1,1-Dichloroethane	ND		5.6	0.69	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
1,1-Dichloroethene	ND		5.6	0.69	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
1,2,4-Trichlorobenzene	ND		5.6	0.34	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
1,2-Dibromo-3-Chloropropane	ND		5.6	2.8	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
1,2-Dibromoethane	ND		5.6	0.72	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
1,2-Dichlorobenzene	ND		5.6	0.44	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
1,2-Dichloroethane	ND		5.6	0.28	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
1,2-Dichloropropane	ND		5.6	2.8	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
1,3-Dichlorobenzene	ND		5.6	0.29	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
1,4-Dichlorobenzene	ND		5.6	0.79	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
2-Butanone (MEK)	ND		28	2.1	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
2-Hexanone	ND		28	2.8	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
4-Methyl-2-pentanone (MIBK)	ND		28	1.8	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Acetone	8.9	J	28	4.7	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Benzene	ND		5.6	0.28	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Bromodichloromethane	ND		5.6	0.75	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Bromoform	ND		5.6	2.8	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Bromomethane	ND		5.6	0.51	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Carbon disulfide	ND		5.6	2.8	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Carbon tetrachloride	ND		5.6	0.55	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Chlorobenzene	ND		5.6	0.74	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Chloroethane	ND		5.6	1.3	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Chloroform	ND		5.6	0.35	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Chloromethane	ND		5.6	0.34	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
cis-1,2-Dichloroethene	ND		5.6	0.72	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
cis-1,3-Dichloropropene	ND		5.6	0.81	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Cyclohexane	ND		5.6	0.79	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Dibromochloromethane	ND		5.6	0.72	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Dichlorodifluoromethane	ND		5.6	0.47	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Ethylbenzene	ND		5.6	0.39	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Isopropylbenzene	ND		5.6	0.85	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Methyl acetate	ND		28	3.4	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Methyl tert-butyl ether	ND		5.6	0.55	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Methylcyclohexane	ND		5.6	0.86	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1

Client Sample ID: SB-10-39-42
Date Collected: 07/09/24 13:15
Date Received: 07/09/24 17:43

Lab Sample ID: 480-221432-2
Matrix: Solid
Percent Solids: 72.6

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		5.6	2.6	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Styrene	ND		5.6	0.28	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Tetrachloroethene	ND		5.6	0.76	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Toluene	ND		5.6	0.43	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
trans-1,2-Dichloroethene	ND		5.6	0.58	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
trans-1,3-Dichloropropene	ND		5.6	2.5	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Trichloroethene	ND		5.6	1.2	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Trichlorofluoromethane	ND		5.6	0.53	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Vinyl chloride	ND		5.6	0.69	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Xylenes, Total	ND		11	0.95	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/10/24 10:30*	*07/11/24 22:37*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*64 - 126*	*07/10/24 10:30*	*07/11/24 22:37*	*1*
4-Bromofluorobenzene (Surr)	*102*		*72 - 126*	*07/10/24 10:30*	*07/11/24 22:37*	*1*
Dibromofluoromethane (Surr)	*104*		*60 - 140*	*07/10/24 10:30*	*07/11/24 22:37*	*1*
Toluene-d8 (Surr)	*102*		*71 - 125*	*07/10/24 10:30*	*07/11/24 22:37*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		230	62	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
2,4,6-Trichlorophenol	ND		230	46	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
2,4-Dichlorophenol	ND		230	24	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
2,4-Dimethylphenol	ND		230	55	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
2,4-Dinitrophenol	ND		2200	1100	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
2,4-Dinitrotoluene	ND		230	47	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
2,6-Dinitrotoluene	ND		230	27	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
2-Chloronaphthalene	ND		230	38	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
2-Chlorophenol	ND		450	42	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
2-Methylnaphthalene	ND		230	46	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
2-Methylphenol	ND		230	27	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
2-Nitroaniline	ND		450	34	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
2-Nitrophenol	ND		230	65	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
3,3'-Dichlorobenzidine	ND		450	270	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
3-Nitroaniline	ND		450	64	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
4,6-Dinitro-2-methylphenol	ND		450	230	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
4-Bromophenyl phenyl ether	ND		230	32	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
4-Chloro-3-methylphenol	ND		230	57	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
4-Chloroaniline	ND		230	57	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
4-Chlorophenyl phenyl ether	ND		230	28	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
4-Methylphenol	ND		450	27	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
4-Nitroaniline	ND		450	120	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
4-Nitrophenol	ND		450	160	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Acenaphthene	ND		230	34	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Acenaphthylene	ND		230	30	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Acetophenone	ND		230	31	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Anthracene	ND		230	57	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Atrazine	ND		230	80	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1

Client Sample ID: SB-10-39-42
Date Collected: 07/09/24 13:15
Date Received: 07/09/24 17:43

Lab Sample ID: 480-221432-2
Matrix: Solid
Percent Solids: 72.6

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzaldehyde	ND		230	180	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Benzo[a]anthracene	ND		230	23	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Benzo[a]pyrene	ND		230	34	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Benzo[b]fluoranthene	ND		230	37	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Benzo[g,h,i]perylene	ND		230	24	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Benzo[k]fluoranthene	ND		230	30	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Biphenyl	ND		230	34	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
bis (2-chloroisopropyl) ether	ND		230	46	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Bis(2-chloroethoxy)methane	ND		230	49	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Bis(2-chloroethyl)ether	ND		230	30	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Bis(2-ethylhexyl) phthalate	ND		230	78	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Butyl benzyl phthalate	ND		230	38	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Caprolactam	ND		230	69	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Carbazole	ND		230	27	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Chrysene	ND		230	51	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Dibenz(a,h)anthracene	ND		230	41	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Dibenzofuran	ND		230	27	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Diethyl phthalate	ND		230	30	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Dimethyl phthalate	ND		230	27	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Di-n-butyl phthalate	ND		230	39	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Di-n-octyl phthalate	ND		230	27	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Fluoranthene	ND		230	24	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Fluorene	ND		230	27	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Hexachlorobenzene	ND		230	31	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Hexachlorobutadiene	ND		230	34	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Hexachlorocyclopentadiene	ND		230	31	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Hexachloroethane	ND		230	30	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Indeno[1,2,3-cd]pyrene	ND		230	28	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Isophorone	ND		230	49	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Naphthalene	ND		230	30	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Nitrobenzene	ND		230	26	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
N-Nitrosodi-n-propylamine	ND		230	39	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
N-Nitrosodiphenylamine	ND		230	190	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Pentachlorophenol	ND		450	230	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Phenanthrene	ND		230	34	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Phenol	ND		230	35	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Pyrene	ND		230	27	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*840*	*T J*	*ug/Kg*	☼	*4.57*	*N/A*	*07/11/24 07:25*	*07/12/24 22:10*	*1*
Pentadecane	*220*	*T J N*	*ug/Kg*	☼	*9.99*	*629-62-9*	*07/11/24 07:25*	*07/12/24 22:10*	*1*
Hexadecane	*250*	*T J N*	*ug/Kg*	☼	*10.44*	*544-76-3*	*07/11/24 07:25*	*07/12/24 22:10*	*1*
Heptadecane	*370*	*T J N*	*ug/Kg*	☼	*10.87*	*629-78-7*	*07/11/24 07:25*	*07/12/24 22:10*	*1*
Octadecane	*220*	*T J N*	*ug/Kg*	☼	*11.25*	*593-45-3*	*07/11/24 07:25*	*07/12/24 22:10*	*1*
Nonadecane	*210*	*T J N*	*ug/Kg*	☼	*11.61*	*629-92-5*	*07/11/24 07:25*	*07/12/24 22:10*	*1*
Eicosane	*280*	*T J N*	*ug/Kg*	☼	*12.29*	*112-95-8*	*07/11/24 07:25*	*07/12/24 22:10*	*1*
Unknown	*490*	*T J*	*ug/Kg*	☼	*12.57*	*N/A*	*07/11/24 07:25*	*07/12/24 22:10*	*1*
Unknown	*250*	*T J*	*ug/Kg*	☼	*12.75*	*N/A*	*07/11/24 07:25*	*07/12/24 22:10*	*1*
Unknown	*310*	*T J*	*ug/Kg*	☼	*12.87*	*N/A*	*07/11/24 07:25*	*07/12/24 22:10*	*1*
Tetracosane	*180*	*T J N*	*ug/Kg*	☼	*13.60*	*646-31-1*	*07/11/24 07:25*	*07/12/24 22:10*	*1*

Client Sample ID: SB-10-39-42
Date Collected: 07/09/24 13:15
Date Received: 07/09/24 17:43

Lab Sample ID: 480-221432-2
Matrix: Solid
Percent Solids: 72.6

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	88		26 - 143	07/11/24 07:25	07/12/24 22:10	1
2-Fluorobiphenyl	81		50 - 121	07/11/24 07:25	07/12/24 22:10	1
2-Fluorophenol	78		36 - 120	07/11/24 07:25	07/12/24 22:10	1
Nitrobenzene-d5	74		40 - 121	07/11/24 07:25	07/12/24 22:10	1
Phenol-d5	83		41 - 120	07/11/24 07:25	07/12/24 22:10	1
p-Terphenyl-d14	93		46 - 143	07/11/24 07:25	07/12/24 22:10	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.3	0.44	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
4,4'-DDE	ND		2.3	0.48	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
4,4'-DDT	ND		2.3	0.53	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
Aldrin	ND		2.3	0.56	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
alpha-BHC	ND		2.3	0.41	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
cis-Chlordane	ND		2.3	1.1	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
beta-BHC	ND		2.3	0.41	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
delta-BHC	ND		2.3	0.42	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
Dieldrin	ND		2.3	0.55	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
Endosulfan I	ND		2.3	0.44	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
Endosulfan II	ND		2.3	0.41	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
Endosulfan sulfate	ND		2.3	0.42	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
Endrin	ND		2.3	0.45	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
Endrin aldehyde	ND		2.3	0.58	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
Endrin ketone	ND		2.3	0.56	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
gamma-BHC (Lindane)	ND		2.3	0.42	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
trans-Chlordane	ND		2.3	0.72	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
Heptachlor	ND		2.3	0.49	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
Heptachlor epoxide	ND		2.3	0.59	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
Methoxychlor	**0.96**	**J**	2.3	0.46	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
Toxaphene	ND		23	13	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	74		45 - 120	07/11/24 07:14	07/11/24 15:39	1
DCB Decachlorobiphenyl	73		45 - 120	07/11/24 07:14	07/11/24 15:39	1
Tetrachloro-m-xylene	59		30 - 124	07/11/24 07:14	07/11/24 15:39	1
Tetrachloro-m-xylene	66		30 - 124	07/11/24 07:14	07/11/24 15:39	1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.32	0.062	mg/Kg	☼	07/10/24 16:42	07/12/24 14:42	1
PCB-1221	ND		0.32	0.062	mg/Kg	☼	07/10/24 16:42	07/12/24 14:42	1
PCB-1232	ND		0.32	0.062	mg/Kg	☼	07/10/24 16:42	07/12/24 14:42	1
PCB-1242	ND		0.32	0.062	mg/Kg	☼	07/10/24 16:42	07/12/24 14:42	1
PCB-1248	ND		0.32	0.062	mg/Kg	☼	07/10/24 16:42	07/12/24 14:42	1
PCB-1254	ND		0.32	0.15	mg/Kg	☼	07/10/24 16:42	07/12/24 14:42	1
PCB-1260	ND		0.32	0.15	mg/Kg	☼	07/10/24 16:42	07/12/24 14:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	109		60 - 154	07/10/24 16:42	07/12/24 14:42	1
Tetrachloro-m-xylene	102		60 - 154	07/10/24 16:42	07/12/24 14:42	1
DCB Decachlorobiphenyl	101		65 - 174	07/10/24 16:42	07/12/24 14:42	1

Client Sample ID: SB-10-39-42
Lab Sample ID: 480-221432-2

Date Collected: 07/09/24 13:15
Matrix: Solid
Date Received: 07/09/24 17:43
Percent Solids: 72.6

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*104*		*65 - 174*	*07/10/24 16:42*	*07/12/24 14:42*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**32500**		13.4	11.5	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Antimony	ND		20.1	0.71	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Arsenic	**4.6**		2.7	1.2	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Barium	**191**		0.67	0.19	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Beryllium	**1.4**		0.27	0.054	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Cadmium	**0.27**		0.27	0.094	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Calcium	**46800**		67.0	36.2	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Chromium	**38.3**		0.67	0.48	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Cobalt	**17.0**		0.67	0.13	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Copper	**24.2**		1.3	0.76	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Iron	**28700**		13.4	11.4	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Lead	**12.8**		1.3	0.62	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Magnesium	**16300**		26.8	11.4	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Manganese	**592**		1.3	0.38	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Nickel	**33.1**		6.7	0.33	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Potassium	**11300**		40.2	32.5	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Selenium	**1.4**	**J**	5.4	1.1	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Silver	**0.35**	**J**	0.80	0.27	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Sodium	**728**		188	82.1	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Thallium	ND		8.0	1.0	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Vanadium	**58.3**		0.67	0.17	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Zinc	**76.7**		2.7	1.4	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.013**	**J**	0.027	0.0062	mg/Kg	☼	07/11/24 11:25	07/11/24 14:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.4	0.65	mg/Kg	☼	07/18/24 12:15	07/18/24 16:22	1

Client Sample ID: SB-10-48-49
Lab Sample ID: 480-221432-3

Date Collected: 07/09/24 14:25
Matrix: Solid
Date Received: 07/09/24 17:43
Percent Solids: 76.6

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.4	0.32	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
1,1,2,2-Tetrachloroethane	ND		4.4	0.71	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.4	1.0	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
1,1,2-Trichloroethane	ND		4.4	0.57	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
1,1-Dichloroethane	ND		4.4	0.54	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
1,1-Dichloroethene	ND		4.4	0.54	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
1,2,4-Trichlorobenzene	ND		4.4	0.27	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
1,2-Dibromo-3-Chloropropane	ND		4.4	2.2	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
1,2-Dibromoethane	ND		4.4	0.56	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1

Client Sample ID: SB-10-48-49
Date Collected: 07/09/24 14:25
Date Received: 07/09/24 17:43

Lab Sample ID: 480-221432-3
Matrix: Solid
Percent Solids: 76.6

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		4.4	0.34	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
1,2-Dichloroethane	ND		4.4	0.22	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
1,2-Dichloropropane	ND		4.4	2.2	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
1,3-Dichlorobenzene	ND		4.4	0.23	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
1,4-Dichlorobenzene	ND		4.4	0.62	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
2-Butanone (MEK)	ND		22	1.6	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
2-Hexanone	ND		22	2.2	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
4-Methyl-2-pentanone (MIBK)	ND		22	1.4	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Acetone	**5.4**	**J**	22	3.7	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Benzene	ND		4.4	0.22	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Bromodichloromethane	ND		4.4	0.59	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Bromoform	ND		4.4	2.2	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Bromomethane	ND		4.4	0.40	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Carbon disulfide	ND		4.4	2.2	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Carbon tetrachloride	ND		4.4	0.43	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Chlorobenzene	ND		4.4	0.58	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Chloroethane	ND		4.4	0.99	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Chloroform	ND		4.4	0.27	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Chloromethane	ND		4.4	0.27	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
cis-1,2-Dichloroethene	ND		4.4	0.56	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
cis-1,3-Dichloropropene	ND		4.4	0.63	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Cyclohexane	ND		4.4	0.62	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Dibromochloromethane	ND		4.4	0.56	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Dichlorodifluoromethane	ND		4.4	0.36	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Ethylbenzene	ND		4.4	0.30	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Isopropylbenzene	ND		4.4	0.66	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Methyl acetate	ND		22	2.7	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Methyl tert-butyl ether	ND		4.4	0.43	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Methylcyclohexane	ND		4.4	0.67	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Methylene Chloride	ND		4.4	2.0	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Styrene	ND		4.4	0.22	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Tetrachloroethene	ND		4.4	0.59	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Toluene	ND		4.4	0.33	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
trans-1,2-Dichloroethene	ND		4.4	0.45	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
trans-1,3-Dichloropropene	ND		4.4	1.9	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Trichloroethene	ND		4.4	0.97	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Trichlorofluoromethane	ND		4.4	0.42	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Vinyl chloride	ND		4.4	0.54	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Xylenes, Total	ND		8.8	0.74	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/10/24 10:30*	*07/11/24 23:01*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*64 - 126*	*07/10/24 10:30*	*07/11/24 23:01*	*1*
4-Bromofluorobenzene (Surr)	*103*		*72 - 126*	*07/10/24 10:30*	*07/11/24 23:01*	*1*
Dibromofluoromethane (Surr)	*103*		*60 - 140*	*07/10/24 10:30*	*07/11/24 23:01*	*1*
Toluene-d8 (Surr)	*100*		*71 - 125*	*07/10/24 10:30*	*07/11/24 23:01*	*1*

Client Sample ID: SB-10-48-49
Date Collected: 07/09/24 14:25
Date Received: 07/09/24 17:43

Lab Sample ID: 480-221432-3
Matrix: Solid
Percent Solids: 76.6

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		220	60	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
2,4,6-Trichlorophenol	ND		220	44	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
2,4-Dichlorophenol	ND		220	23	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
2,4-Dimethylphenol	ND		220	53	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
2,4-Dinitrophenol	ND		2200	1000	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
2,4-Dinitrotoluene	ND		220	46	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
2,6-Dinitrotoluene	ND		220	26	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
2-Chloronaphthalene	ND		220	37	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
2-Chlorophenol	ND		430	40	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
2-Methylnaphthalene	ND		220	44	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
2-Methylphenol	ND		220	26	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
2-Nitroaniline	ND		430	33	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
2-Nitrophenol	ND		220	63	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
3,3'-Dichlorobenzidine	ND		430	260	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
3-Nitroaniline	ND		430	61	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
4,6-Dinitro-2-methylphenol	ND		430	220	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
4-Bromophenyl phenyl ether	ND		220	31	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
4-Chloro-3-methylphenol	ND		220	55	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
4-Chloroaniline	ND		220	55	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
4-Chlorophenyl phenyl ether	ND		220	27	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
4-Methylphenol	ND		430	26	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
4-Nitroaniline	ND		430	120	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
4-Nitrophenol	ND		430	160	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Acenaphthene	ND		220	33	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Acenaphthylene	ND		220	29	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Acetophenone	ND		220	30	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Anthracene	ND		220	55	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Atrazine	ND		220	77	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Benzaldehyde	ND		220	180	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Benzo[a]anthracene	ND		220	22	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Benzo[a]pyrene	ND		220	33	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Benzo[b]fluoranthene	ND		220	35	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Benzo[g,h,i]perylene	ND		220	23	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Benzo[k]fluoranthene	ND		220	29	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Biphenyl	ND		220	33	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
bis (2-chloroisopropyl) ether	ND		220	44	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Bis(2-chloroethoxy)methane	ND		220	47	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Bis(2-chloroethyl)ether	ND		220	29	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Bis(2-ethylhexyl) phthalate	ND		220	76	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Butyl benzyl phthalate	ND		220	37	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Caprolactam	ND		220	66	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Carbazole	ND		220	26	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Chrysene	ND		220	50	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Dibenz(a,h)anthracene	ND		220	39	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Dibenzofuran	ND		220	26	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Diethyl phthalate	ND		220	29	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Dimethyl phthalate	ND		220	26	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Di-n-butyl phthalate	ND		220	38	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Di-n-octyl phthalate	ND		220	26	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1

Client Sample ID: SB-10-48-49
Date Collected: 07/09/24 14:25
Date Received: 07/09/24 17:43

Lab Sample ID: 480-221432-3
Matrix: Solid
Percent Solids: 76.6

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		220	23	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Fluorene	ND		220	26	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Hexachlorobenzene	ND		220	30	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Hexachlorobutadiene	ND		220	33	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Hexachlorocyclopentadiene	ND		220	30	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Hexachloroethane	ND		220	29	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Indeno[1,2,3-cd]pyrene	ND		220	27	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Isophorone	ND		220	47	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Naphthalene	ND		220	29	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Nitrobenzene	ND		220	25	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
N-Nitrosodi-n-propylamine	ND		220	38	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
N-Nitrosodiphenylamine	ND		220	180	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Pentachlorophenol	ND		430	220	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Phenanthrene	ND		220	33	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Phenol	ND		220	34	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Pyrene	ND		220	26	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*760*	*T J*	*ug/Kg*	☼	*4.56*	*N/A*	*07/11/24 07:25*	*07/15/24 14:23*	*1*
Hexadecane	*190*	*T J N*	*ug/Kg*	☼	*10.44*	*544-76-3*	*07/11/24 07:25*	*07/15/24 14:23*	*1*
Heptadecane	*260*	*T J N*	*ug/Kg*	☼	*10.87*	*629-78-7*	*07/11/24 07:25*	*07/15/24 14:23*	*1*
Octadecane	*180*	*T J N*	*ug/Kg*	☼	*11.25*	*593-45-3*	*07/11/24 07:25*	*07/15/24 14:23*	*1*
Heneicosane	*270*	*T J N*	*ug/Kg*	☼	*12.29*	*629-94-7*	*07/11/24 07:25*	*07/15/24 14:23*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*76*		*26 - 143*	*07/11/24 07:25*	*07/15/24 14:23*	*1*
2-Fluorobiphenyl	*73*		*50 - 121*	*07/11/24 07:25*	*07/15/24 14:23*	*1*
2-Fluorophenol	*76*		*36 - 120*	*07/11/24 07:25*	*07/15/24 14:23*	*1*
Nitrobenzene-d5	*76*		*40 - 121*	*07/11/24 07:25*	*07/15/24 14:23*	*1*
Phenol-d5	*81*		*41 - 120*	*07/11/24 07:25*	*07/15/24 14:23*	*1*
p-Terphenyl-d14	*80*		*46 - 143*	*07/11/24 07:25*	*07/15/24 14:23*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.2	0.42	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
4,4'-DDE	ND		2.2	0.45	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
4,4'-DDT	ND		2.2	0.51	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
Aldrin	ND		2.2	0.53	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
alpha-BHC	ND		2.2	0.39	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
cis-Chlordane	ND		2.2	1.1	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
beta-BHC	ND		2.2	0.39	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
delta-BHC	ND		2.2	0.40	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
Dieldrin	ND		2.2	0.52	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
Endosulfan I	ND		2.2	0.42	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
Endosulfan II	ND		2.2	0.39	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
Endosulfan sulfate	ND		2.2	0.40	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
Endrin	ND		2.2	0.43	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
Endrin aldehyde	ND		2.2	0.55	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
Endrin ketone	ND		2.2	0.53	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
gamma-BHC (Lindane)	ND		2.2	0.40	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1

Client Sample ID: SB-10-48-49

Date Collected: 07/09/24 14:25
Date Received: 07/09/24 17:43

Lab Sample ID: 480-221432-3

Matrix: Solid
Percent Solids: 76.6

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-Chlordane	ND		2.2	0.69	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
Heptachlor	ND		2.2	0.47	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
Heptachlor epoxide	ND		2.2	0.56	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
Methoxychlor	ND		2.2	0.44	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
Toxaphene	ND		22	13	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*81*		*45 - 120*	*07/11/24 07:14*	*07/11/24 15:59*	*1*
DCB Decachlorobiphenyl	*81*		*45 - 120*	*07/11/24 07:14*	*07/11/24 15:59*	*1*
Tetrachloro-m-xylene	*64*		*30 - 124*	*07/11/24 07:14*	*07/11/24 15:59*	*1*
Tetrachloro-m-xylene	*71*		*30 - 124*	*07/11/24 07:14*	*07/11/24 15:59*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.31	0.060	mg/Kg	☼	07/10/24 16:42	07/12/24 14:59	1
PCB-1221	ND		0.31	0.060	mg/Kg	☼	07/10/24 16:42	07/12/24 14:59	1
PCB-1232	ND		0.31	0.060	mg/Kg	☼	07/10/24 16:42	07/12/24 14:59	1
PCB-1242	ND		0.31	0.060	mg/Kg	☼	07/10/24 16:42	07/12/24 14:59	1
PCB-1248	ND		0.31	0.060	mg/Kg	☼	07/10/24 16:42	07/12/24 14:59	1
PCB-1254	ND		0.31	0.14	mg/Kg	☼	07/10/24 16:42	07/12/24 14:59	1
PCB-1260	ND		0.31	0.14	mg/Kg	☼	07/10/24 16:42	07/12/24 14:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*110*		*60 - 154*	*07/10/24 16:42*	*07/12/24 14:59*	*1*
Tetrachloro-m-xylene	*101*		*60 - 154*	*07/10/24 16:42*	*07/12/24 14:59*	*1*
DCB Decachlorobiphenyl	*104*		*65 - 174*	*07/10/24 16:42*	*07/12/24 14:59*	*1*
DCB Decachlorobiphenyl	*107*		*65 - 174*	*07/10/24 16:42*	*07/12/24 14:59*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**22600**		12.7	10.9	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Antimony	ND		19.0	0.67	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Arsenic	**3.7**		2.5	1.1	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Barium	**148**		0.63	0.18	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Beryllium	**1.0**		0.25	0.051	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Cadmium	**0.28**		0.25	0.089	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Calcium	**47800**		63.3	34.2	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Chromium	**26.1**		0.63	0.46	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Cobalt	**13.2**		0.63	0.13	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Copper	**22.1**		1.3	0.72	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Iron	**23000**		12.7	10.7	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Lead	**13.9**		1.3	0.58	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Magnesium	**17200**		25.3	10.7	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Manganese	**550**		1.3	0.35	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Nickel	**26.1**		6.3	0.32	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Potassium	**7750**		38.0	30.7	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Selenium	ND		5.1	1.0	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Silver	**0.35**	**J**	0.76	0.25	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Sodium	**458**		177	77.6	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Thallium	ND		7.6	0.96	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1

Client Sample ID: SB-10-48-49
Lab Sample ID: 480-221432-3

Date Collected: 07/09/24 14:25
Matrix: Solid
Date Received: 07/09/24 17:43
Percent Solids: 76.6

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	41.1		0.63	0.16	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Zinc	62.6		2.5	1.3	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.011	J	0.027	0.0062	mg/Kg	☼	07/11/24 11:25	07/11/24 14:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.58	mg/Kg	☼	07/18/24 12:15	07/18/24 16:26	1

Client Sample ID: SB-01-0-0.2
Lab Sample ID: 480-221432-4

Date Collected: 07/09/24 15:45
Matrix: Solid
Date Received: 07/09/24 17:43
Percent Solids: 98.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		1000	560	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
2,4,5-Trichlorophenol	ND		1700	470	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
2,4,6-Trichlorophenol	ND		1700	340	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
2,4-Dichlorophenol	ND		1700	180	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
2,4-Dimethylphenol	ND		1700	420	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
2,4-Dinitrophenol	ND		17000	8000	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
2,4-Dinitrotoluene	ND		1700	350	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
2,6-Dinitrotoluene	ND		1700	200	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
2-Chloronaphthalene	ND		1700	280	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
2-Chlorophenol	ND		3300	310	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
2-Methylnaphthalene	ND		1700	340	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
2-Methylphenol	ND		1700	200	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
2-Nitroaniline	ND		3300	250	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
2-Nitrophenol	ND		1700	490	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
3,3'-Dichlorobenzidine	ND		3300	2000	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
3-Nitroaniline	ND		3300	480	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
4,6-Dinitro-2-methylphenol	ND		3300	1700	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
4-Bromophenyl phenyl ether	ND		1700	240	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
4-Chloro-3-methylphenol	ND		1700	430	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
4-Chloroaniline	ND		1700	430	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
4-Chlorophenyl phenyl ether	ND		1700	210	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
4-Methylphenol	ND		3300	200	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
4-Nitroaniline	ND		3300	900	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
4-Nitrophenol	ND		3300	1200	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Acenaphthene	ND		1700	250	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Acenaphthylene	ND		1700	220	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Acetophenone	ND		1700	230	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Anthracene	ND		1700	430	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Atrazine	ND		1700	600	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Benzaldehyde	ND		1700	1400	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Benzo[a]anthracene	ND		1700	170	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Benzo[a]pyrene	ND		1700	250	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Benzo[b]fluoranthene	ND		1700	270	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10

Client Sample ID: SB-01-0-0.2
Date Collected: 07/09/24 15:45
Date Received: 07/09/24 17:43

Lab Sample ID: 480-221432-4
Matrix: Solid
Percent Solids: 98.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	ND		1700	180	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Benzo[k]fluoranthene	ND		1700	220	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Biphenyl	ND		1700	250	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
bis (2-chloroisopropyl) ether	ND		1700	340	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Bis(2-chloroethoxy)methane	ND		1700	370	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Bis(2-chloroethyl)ether	ND		1700	220	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Bis(2-ethylhexyl) phthalate	ND		1700	590	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Butyl benzyl phthalate	ND		1700	280	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Caprolactam	ND		1700	520	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Carbazole	ND		1700	200	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Chrysene	ND		1700	390	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Dibenz(a,h)anthracene	ND		1700	300	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Dibenzofuran	ND		1700	200	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Diethyl phthalate	ND		1700	220	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Dimethyl phthalate	ND		1700	200	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Di-n-butyl phthalate	ND		1700	290	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Di-n-octyl phthalate	ND		1700	200	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Fluoranthene	ND		1700	180	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Fluorene	ND		1700	200	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Hexachlorobenzene	ND		1700	230	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Hexachlorobutadiene	ND		1700	250	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Hexachlorocyclopentadiene	ND		1700	230	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Hexachloroethane	ND		1700	220	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Indeno[1,2,3-cd]pyrene	ND		1700	210	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Isophorone	ND		1700	370	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Naphthalene	ND		1700	220	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Nitrobenzene	ND		1700	190	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
N-Nitrosodi-n-propylamine	ND		1700	290	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
N-Nitrosodiphenylamine	ND		1700	1400	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Pentachlorophenol	ND		3300	1700	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Phenanthrene	ND		1700	250	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Phenol	ND		1700	260	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Pyrene	ND		1700	200	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/11/24 07:25*	*07/15/24 14:52*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*85*		*26 - 143*	*07/11/24 07:25*	*07/15/24 14:52*	*10*
2-Fluorobiphenyl	*81*		*50 - 121*	*07/11/24 07:25*	*07/15/24 14:52*	*10*
2-Fluorophenol	*77*		*36 - 120*	*07/11/24 07:25*	*07/15/24 14:52*	*10*
Nitrobenzene-d5	*79*		*40 - 121*	*07/11/24 07:25*	*07/15/24 14:52*	*10*
Phenol-d5	*84*		*41 - 120*	*07/11/24 07:25*	*07/15/24 14:52*	*10*
p-Terphenyl-d14	*80*		*46 - 143*	*07/11/24 07:25*	*07/15/24 14:52*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		34	6.5	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
4,4'-DDE	ND		34	7.0	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
4,4'-DDT	ND		34	7.8	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20

Client Sample ID: SB-01-0-0.2
Lab Sample ID: 480-221432-4

Date Collected: 07/09/24 15:45
Matrix: Solid

Date Received: 07/09/24 17:43
Percent Solids: 98.0

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		34	8.2	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
alpha-BHC	ND		34	6.0	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
cis-Chlordane	ND		34	17	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
beta-BHC	ND		34	6.0	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
delta-BHC	ND		34	6.2	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
Dieldrin	ND		34	8.0	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
Endosulfan I	ND		34	6.4	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
Endosulfan II	ND		34	6.0	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
Endosulfan sulfate	ND		34	6.2	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
Endrin	ND		34	6.6	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
Endrin aldehyde	ND		34	8.6	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
Endrin ketone	ND		34	8.2	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
gamma-BHC (Lindane)	ND		34	6.1	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
trans-Chlordane	ND		34	11	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
Heptachlor	ND		34	7.3	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
Heptachlor epoxide	ND		34	8.6	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
Methoxychlor	ND		34	6.8	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
Toxaphene	ND		340	190	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/11/24 07:14*	*07/11/24 16:19*	*20*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/11/24 07:14*	*07/11/24 16:19*	*20*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/11/24 07:14*	*07/11/24 16:19*	*20*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/11/24 07:14*	*07/11/24 16:19*	*20*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.18	0.035	mg/Kg	☼	07/10/24 16:42	07/12/24 13:52	1
PCB-1221	ND		0.18	0.035	mg/Kg	☼	07/10/24 16:42	07/12/24 13:52	1
PCB-1232	ND		0.18	0.035	mg/Kg	☼	07/10/24 16:42	07/12/24 13:52	1
PCB-1242	ND		0.18	0.035	mg/Kg	☼	07/10/24 16:42	07/12/24 13:52	1
PCB-1248	ND		0.18	0.035	mg/Kg	☼	07/10/24 16:42	07/12/24 13:52	1
PCB-1254	ND		0.18	0.084	mg/Kg	☼	07/10/24 16:42	07/12/24 13:52	1
PCB-1260	ND		0.18	0.084	mg/Kg	☼	07/10/24 16:42	07/12/24 13:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*104*		*60 - 154*	*07/10/24 16:42*	*07/12/24 13:52*	*1*
Tetrachloro-m-xylene	*94*		*60 - 154*	*07/10/24 16:42*	*07/12/24 13:52*	*1*
DCB Decachlorobiphenyl	*98*		*65 - 174*	*07/10/24 16:42*	*07/12/24 13:52*	*1*
DCB Decachlorobiphenyl	*97*		*65 - 174*	*07/10/24 16:42*	*07/12/24 13:52*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.67	0.17	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluoropentanoic acid (PFPeA)	ND		0.34	0.084	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluorohexanoic acid (PFHxA)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluoroheptanoic acid (PFHpA)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluorooctanoic acid (PFOA)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluorononanoic acid (PFNA)	**0.050**	**J**	0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluorodecanoic acid (PFDA)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1

Client Sample ID: SB-01-0-0.2
Lab Sample ID: 480-221432-4

Date Collected: 07/09/24 15:45
Matrix: Solid

Date Received: 07/09/24 17:43
Percent Solids: 98.0

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid (PFUnA)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluorododecanoic acid (PFDoA)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluorooctanesulfonic acid (PFOS)	**0.16**	**J**	0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluorononanesulfonic acid (PFNS)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		0.67	0.17	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		0.67	0.17	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		0.67	0.17	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1.7	0.42	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1.7	0.42	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.67	0.17	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.67	0.17	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.34	0.084	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		0.67	0.17	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		0.67	0.17	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.34	0.084	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		0.84	0.21	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		4.2	1.0	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		4.2	1.0	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.34	0.084	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1

Client Sample ID: SB-01-0-0.2
Date Collected: 07/09/24 15:45
Date Received: 07/09/24 17:43

Lab Sample ID: 480-221432-4
Matrix: Solid
Percent Solids: 98.0

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	108		20 - 150	07/15/24 08:23	07/16/24 08:17	1
13C5 PFPeA	92.1		20 - 150	07/15/24 08:23	07/16/24 08:17	1
13C5 PFHxA	91.2		20 - 150	07/15/24 08:23	07/16/24 08:17	1
13C4 PFHpA	86.6		20 - 150	07/15/24 08:23	07/16/24 08:17	1
13C8 PFOA	85.9		20 - 150	07/15/24 08:23	07/16/24 08:17	1
13C9 PFNA	106		20 - 150	07/15/24 08:23	07/16/24 08:17	1
13C6 PFDA	111		20 - 150	07/15/24 08:23	07/16/24 08:17	1
13C7 PFUnA	102		20 - 150	07/15/24 08:23	07/16/24 08:17	1
13C2 PFTeDA	67.8		20 - 150	07/15/24 08:23	07/16/24 08:17	1
13C3 PFBS	90.3		20 - 150	07/15/24 08:23	07/16/24 08:17	1
13C3 PFHxS	89.4		20 - 150	07/15/24 08:23	07/16/24 08:17	1
13C8 PFOS	103		20 - 150	07/15/24 08:23	07/16/24 08:17	1
13C8 FOSA	99.5		20 - 150	07/15/24 08:23	07/16/24 08:17	1
d3-NMeFOSAA	105		20 - 150	07/15/24 08:23	07/16/24 08:17	1
d5-NEtFOSAA	136		20 - 150	07/15/24 08:23	07/16/24 08:17	1
M2-4:2 FTS	97.5		20 - 150	07/15/24 08:23	07/16/24 08:17	1
M2-6:2 FTS	100		20 - 150	07/15/24 08:23	07/16/24 08:17	1
M2-8:2 FTS	94.8		20 - 150	07/15/24 08:23	07/16/24 08:17	1
13C3 HFPO-DA	88.2		20 - 150	07/15/24 08:23	07/16/24 08:17	1
d7-N-MeFOSE-M	82.3		20 - 150	07/15/24 08:23	07/16/24 08:17	1
d9-N-EtFOSE-M	71.5		20 - 150	07/15/24 08:23	07/16/24 08:17	1
d5-NEtPFOSA	88.1		20 - 150	07/15/24 08:23	07/16/24 08:17	1
d3-NMePFOSA	87.2		20 - 150	07/15/24 08:23	07/16/24 08:17	1
13C2-PFDoDA	102		20 - 150	07/15/24 08:23	07/16/24 08:17	1

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.34	0.084	ug/Kg	☼	07/15/24 08:23	07/19/24 21:10	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	102		20 - 150	07/15/24 08:23	07/19/24 21:10	1
13C5 PFPeA	84.7		20 - 150	07/15/24 08:23	07/19/24 21:10	1
13C5 PFHxA	90.9		20 - 150	07/15/24 08:23	07/19/24 21:10	1
13C4 PFHpA	88.3		20 - 150	07/15/24 08:23	07/19/24 21:10	1
13C8 PFOA	89.4		20 - 150	07/15/24 08:23	07/19/24 21:10	1
13C9 PFNA	97.2		20 - 150	07/15/24 08:23	07/19/24 21:10	1
13C6 PFDA	85.1		20 - 150	07/15/24 08:23	07/19/24 21:10	1
13C7 PFUnA	99.2		20 - 150	07/15/24 08:23	07/19/24 21:10	1
13C2 PFTeDA	93.4		20 - 150	07/15/24 08:23	07/19/24 21:10	1
13C3 PFBS	90.7		20 - 150	07/15/24 08:23	07/19/24 21:10	1
13C3 PFHxS	91.0		20 - 150	07/15/24 08:23	07/19/24 21:10	1
13C8 PFOS	95.4		20 - 150	07/15/24 08:23	07/19/24 21:10	1
13C8 FOSA	108		20 - 150	07/15/24 08:23	07/19/24 21:10	1
d3-NMeFOSAA	95.7		20 - 150	07/15/24 08:23	07/19/24 21:10	1
d5-NEtFOSAA	127		20 - 150	07/15/24 08:23	07/19/24 21:10	1
M2-4:2 FTS	99.0		20 - 150	07/15/24 08:23	07/19/24 21:10	1
M2-6:2 FTS	123		20 - 150	07/15/24 08:23	07/19/24 21:10	1
M2-8:2 FTS	126		20 - 150	07/15/24 08:23	07/19/24 21:10	1
13C3 HFPO-DA	80.2		20 - 150	07/15/24 08:23	07/19/24 21:10	1
d7-N-MeFOSE-M	115		20 - 150	07/15/24 08:23	07/19/24 21:10	1
d9-N-EtFOSE-M	95.3		20 - 150	07/15/24 08:23	07/19/24 21:10	1

Client Sample ID: SB-01-0-0.2
Lab Sample ID: 480-221432-4

Date Collected: 07/09/24 15:45
Matrix: Solid

Date Received: 07/09/24 17:43
Percent Solids: 98.0

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS - RA (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
d5-NEtPFOSA	*86.0*		*20 - 150*	*07/15/24 08:23*	*07/19/24 21:10*	*1*
d3-NMePFOSA	*89.7*		*20 - 150*	*07/15/24 08:23*	*07/19/24 21:10*	*1*
13C2-PFDoDA	*89.7*		*20 - 150*	*07/15/24 08:23*	*07/19/24 21:10*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**5290**		10.4	9.0	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Antimony	ND		15.7	0.55	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Arsenic	**59.2**		2.1	0.92	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Barium	**111**		0.52	0.15	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Beryllium	**0.93**		0.21	0.042	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Cadmium	**0.63**		0.21	0.073	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Calcium	**2950**		52.2	28.2	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Chromium	**190**		0.52	0.38	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Cobalt	**15.8**		0.52	0.10	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Copper	**47.3**		1.0	0.59	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Iron	**10600**		10.4	8.9	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Lead	**577**		1.0	0.48	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Magnesium	**1380**		20.9	8.9	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Manganese	**90.8**		1.0	0.29	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Nickel	**873**		5.2	0.26	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Potassium	**425**		31.3	25.3	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Selenium	ND		4.2	0.83	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Silver	**1.0**		0.63	0.21	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Sodium	**234**		146	64.0	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Thallium	**0.95**	**J**	6.3	0.79	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Vanadium	**107**		2.6	0.68	mg/Kg	☼	07/10/24 14:41	07/11/24 19:36	5
Zinc	**65.1**		2.1	1.1	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.37**		0.020	0.0046	mg/Kg	☼	07/11/24 11:25	07/11/24 14:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.99	0.48	mg/Kg	☼	07/18/24 12:15	07/18/24 16:27	1

Client Sample ID: HA-01-0-0.2
Date Collected: 07/10/24 07:40
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-1
Matrix: Solid
Percent Solids: 43.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		23000	13000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
2,4,5-Trichlorophenol	ND		39000	11000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
2,4,6-Trichlorophenol	ND		39000	7800	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
2,4-Dichlorophenol	ND		39000	4100	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
2,4-Dimethylphenol	ND		39000	9400	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
2,4-Dinitrophenol	ND		380000	180000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
2,4-Dinitrotoluene	ND		39000	8000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
2,6-Dinitrotoluene	ND		39000	4600	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
2-Chloronaphthalene	ND		39000	6400	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
2-Chlorophenol	ND		75000	7100	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
2-Methylnaphthalene	ND		39000	7800	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
2-Methylphenol	ND		39000	4600	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
2-Nitroaniline	ND		75000	5700	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
2-Nitrophenol	ND		39000	11000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
3,3'-Dichlorobenzidine	ND		75000	46000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
3-Nitroaniline	ND		75000	11000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
4,6-Dinitro-2-methylphenol	ND		75000	39000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
4-Bromophenyl phenyl ether	ND		39000	5500	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
4-Chloro-3-methylphenol	ND		39000	9600	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
4-Chloroaniline	ND		39000	9600	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
4-Chlorophenyl phenyl ether	ND		39000	4800	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
4-Methylphenol	ND		75000	4600	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
4-Nitroaniline	ND		75000	20000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
4-Nitrophenol	ND		75000	27000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Acenaphthene	ND		39000	5700	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Acenaphthylene	ND		39000	5000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Acetophenone	ND		39000	5300	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Anthracene	ND		39000	9600	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Atrazine	ND		39000	13000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Benzaldehyde	ND		39000	31000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Benzo[a]anthracene	ND		39000	3900	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Benzo[a]pyrene	ND		39000	5700	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Benzo[b]fluoranthene	ND		39000	6200	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Benzo[g,h,i]perylene	ND		39000	4100	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Benzo[k]fluoranthene	ND		39000	5000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Biphenyl	ND		39000	5700	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
bis (2-chloroisopropyl) ether	ND		39000	7800	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Bis(2-chloroethoxy)methane	ND		39000	8200	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Bis(2-chloroethyl)ether	ND		39000	5000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Bis(2-ethylhexyl) phthalate	ND		39000	13000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Butyl benzyl phthalate	ND		39000	6400	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Caprolactam	ND		39000	12000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Carbazole	ND		39000	4600	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Chrysene	ND		39000	8700	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Dibenz(a,h)anthracene	ND		39000	6900	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Dibenzofuran	ND		39000	4600	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Diethyl phthalate	ND		39000	5000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Dimethyl phthalate	ND		39000	4600	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Di-n-butyl phthalate	ND		39000	6600	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10

Client Sample ID: HA-01-0-0.2
Date Collected: 07/10/24 07:40
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-1
Matrix: Solid
Percent Solids: 43.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate	ND		39000	4600	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Fluoranthene	ND		39000	4100	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Fluorene	ND		39000	4600	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Hexachlorobenzene	ND		39000	5300	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Hexachlorobutadiene	ND		39000	5700	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Hexachlorocyclopentadiene	ND		39000	5300	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Hexachloroethane	ND		39000	5000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Indeno[1,2,3-cd]pyrene	ND		39000	4800	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Isophorone	ND		39000	8200	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Naphthalene	ND		39000	5000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Nitrobenzene	ND		39000	4300	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
N-Nitrosodi-n-propylamine	ND		39000	6600	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
N-Nitrosodiphenylamine	ND		39000	32000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Pentachlorophenol	ND		75000	39000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Phenanthrene	ND		39000	5700	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Phenol	ND		39000	5900	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Pyrene	ND		39000	4600	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Methylene Chloride	*710000*	*T J N*	*ug/Kg*	☼	*2.05*	*75-09-2*	*07/11/24 16:47*	*07/13/24 00:10*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*0*	*S1-*	*26 - 143*	*07/11/24 16:47*	*07/13/24 00:10*	*10*
2-Fluorobiphenyl	*61*		*50 - 121*	*07/11/24 16:47*	*07/13/24 00:10*	*10*
2-Fluorophenol	*58*		*36 - 120*	*07/11/24 16:47*	*07/13/24 00:10*	*10*
Nitrobenzene-d5	*65*		*40 - 121*	*07/11/24 16:47*	*07/13/24 00:10*	*10*
Phenol-d5	*132*	*S1+*	*41 - 120*	*07/11/24 16:47*	*07/13/24 00:10*	*10*
p-Terphenyl-d14	*74*		*46 - 143*	*07/11/24 16:47*	*07/13/24 00:10*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		190	38	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
4,4'-DDE	ND		190	41	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
4,4'-DDT	**160**	**J**	190	45	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
Aldrin	ND		190	48	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
alpha-BHC	ND	U	190	35	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
cis-Chlordane	ND		190	96	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
beta-BHC	ND		190	35	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
delta-BHC	ND		190	36	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
Dieldrin	ND		190	46	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
Endosulfan I	ND		190	37	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
Endosulfan II	ND		190	35	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
Endosulfan sulfate	ND		190	36	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
Endrin	ND		190	38	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
Endrin aldehyde	ND		190	49	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
Endrin ketone	ND		190	48	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
gamma-BHC (Lindane)	ND		190	35	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
trans-Chlordane	ND		190	61	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
Heptachlor	ND		190	42	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
Heptachlor epoxide	ND		190	50	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50

Client Sample ID: HA-01-0-0.2
Date Collected: 07/10/24 07:40
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-1
Matrix: Solid
Percent Solids: 43.0

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methoxychlor	ND		190	39	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
Toxaphene	ND		1900	1100	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*1093*	*S1+*	*45 - 120*	*07/12/24 06:39*	*07/16/24 14:34*	*50*
DCB Decachlorobiphenyl	*1385*	*S1+*	*45 - 120*	*07/12/24 06:39*	*07/16/24 14:34*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/12/24 06:39*	*07/16/24 14:34*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/12/24 06:39*	*07/16/24 14:34*	*50*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.55	0.11	mg/Kg	☼	07/12/24 06:45	07/17/24 01:16	1
PCB-1221	ND		0.55	0.11	mg/Kg	☼	07/12/24 06:45	07/17/24 01:16	1
PCB-1232	ND		0.55	0.11	mg/Kg	☼	07/12/24 06:45	07/17/24 01:16	1
PCB-1242	ND		0.55	0.11	mg/Kg	☼	07/12/24 06:45	07/17/24 01:16	1
PCB-1248	ND		0.55	0.11	mg/Kg	☼	07/12/24 06:45	07/17/24 01:16	1
PCB-1254	ND		0.55	0.26	mg/Kg	☼	07/12/24 06:45	07/17/24 01:16	1
PCB-1260	**0.51**	**J**	0.55	0.26	mg/Kg	☼	07/12/24 06:45	07/17/24 01:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*64*		*60 - 154*	*07/12/24 06:45*	*07/17/24 01:16*	*1*
Tetrachloro-m-xylene	*61*		*60 - 154*	*07/12/24 06:45*	*07/17/24 01:16*	*1*
DCB Decachlorobiphenyl	*68*		*65 - 174*	*07/12/24 06:45*	*07/17/24 01:16*	*1*
DCB Decachlorobiphenyl	*55*	*S1-*	*65 - 174*	*07/12/24 06:45*	*07/17/24 01:16*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.5	0.37	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluoropentanoic acid (PFPeA)	ND		0.75	0.19	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluorohexanoic acid (PFHxA)	**0.63**	JN	0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluoroheptanoic acid (PFHpA)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluorooctanoic acid (PFOA)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluorononanoic acid (PFNA)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluorodecanoic acid (PFDA)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluoroundecanoic acid (PFUnA)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluorododecanoic acid (PFDoA)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluorononanesulfonic acid (PFNS)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1.5	0.37	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1.5	0.37	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1

Client Sample ID: HA-01-0-0.2
Date Collected: 07/10/24 07:40
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-1
Matrix: Solid
Percent Solids: 43.0

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1.5	0.37	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		3.7	0.94	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		3.7	0.94	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.5	0.37	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.5	0.37	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.75	0.19	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		1.5	0.37	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		1.5	0.37	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.75	0.19	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1.9	0.47	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		9.4	2.3	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		9.4	2.3	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.75	0.19	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*106*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
13C5 PFPeA	*73.1*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
13C5 PFHxA	*78.9*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
13C4 PFHpA	*73.6*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
13C8 PFOA	*78.6*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
13C9 PFNA	*94.6*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
13C6 PFDA	*116*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
13C7 PFUnA	*105*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
13C2 PFTeDA	*70.3*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
13C3 PFBS	*94.0*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
13C3 PFHxS	*83.4*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
13C8 PFOS	*110*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
13C8 FOSA	*156*	*5+	*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
d3-NMeFOSAA	*115*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
d5-NEtFOSAA	*134*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
M2-4:2 FTS	*122*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*

Client Sample ID: HA-01-0-0.2
Date Collected: 07/10/24 07:40
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-1
Matrix: Solid
Percent Solids: 43.0

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-6:2 FTS	*150*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
M2-8:2 FTS	*133*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
13C3 HFPO-DA	*69.3*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
d7-N-MeFOSE-M	*82.4*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
d9-N-EtFOSE-M	*75.3*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
d5-NEtPFOSA	*76.8*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
d3-NMePFOSA	*82.8*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
13C2-PFDoDA	*105*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.75	0.19	ug/Kg	☼	07/15/24 08:23	07/19/24 21:24	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*100*		*20 - 150*	*07/15/24 08:23*	*07/19/24 21:24*	*1*
13C5 PFPeA	*66.0*		*20 - 150*	*07/15/24 08:23*	*07/19/24 21:24*	*1*
13C5 PFHxA	*76.2*		*20 - 150*	*07/15/24 08:23*	*07/19/24 21:24*	*1*
13C4 PFHpA	*70.1*		*20 - 150*	*07/15/24 08:23*	*07/19/24 21:24*	*1*
13C8 PFOA	*78.6*		*20 - 150*	*07/15/24 08:23*	*07/19/24 21:24*	*1*
13C9 PFNA	*104*		*20 - 150*	*07/15/24 08:23*	*07/19/24 21:24*	*1*
13C6 PFDA	*86.5*		*20 - 150*	*07/15/24 08:23*	*07/19/24 21:24*	*1*
13C7 PFUnA	*98.7*		*20 - 150*	*07/15/24 08:23*	*07/19/24 21:24*	*1*
13C2 PFTeDA	*80.4*		*20 - 150*	*07/15/24 08:23*	*07/19/24 21:24*	*1*
13C3 PFBS	*88.8*		*20 - 150*	*07/15/24 08:23*	*07/19/24 21:24*	*1*
13C3 PFHxS	*89.2*		*20 - 150*	*07/15/24 08:23*	*07/19/24 21:24*	*1*
13C8 PFOS	*107*		*20 - 150*	*07/15/24 08:23*	*07/19/24 21:24*	*1*
13C8 FOSA	*143*		*20 - 150*	*07/15/24 08:23*	*07/19/24 21:24*	*1*
d3-NMeFOSAA	*110*		*20 - 150*	*07/15/24 08:23*	*07/19/24 21:24*	*1*
d5-NEtFOSAA	*129*		*20 - 150*	*07/15/24 08:23*	*07/19/24 21:24*	*1*
M2-4:2 FTS	*134*		*20 - 150*	*07/15/24 08:23*	*07/19/24 21:24*	*1*
M2-6:2 FTS	*179*	**5+*	*20 - 150*	*07/15/24 08:23*	*07/19/24 21:24*	*1*
M2-8:2 FTS	*174*	**5+*	*20 - 150*	*07/15/24 08:23*	*07/19/24 21:24*	*1*
13C3 HFPO-DA	*63.6*		*20 - 150*	*07/15/24 08:23*	*07/19/24 21:24*	*1*
d7-N-MeFOSE-M	*82.9*		*20 - 150*	*07/15/24 08:23*	*07/19/24 21:24*	*1*
d9-N-EtFOSE-M	*80.9*		*20 - 150*	*07/15/24 08:23*	*07/19/24 21:24*	*1*
d5-NEtPFOSA	*72.1*		*20 - 150*	*07/15/24 08:23*	*07/19/24 21:24*	*1*
d3-NMePFOSA	*82.0*		*20 - 150*	*07/15/24 08:23*	*07/19/24 21:24*	*1*
13C2-PFDoDA	*86.2*		*20 - 150*	*07/15/24 08:23*	*07/19/24 21:24*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**9430**		23.4	20.1	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Antimony	**2.3**	**J**	35.0	1.2	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Arsenic	**5.2**		4.7	2.1	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Barium	**76.1**		1.2	0.33	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Beryllium	**0.76**		0.47	0.093	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Cadmium	**0.59**		0.47	0.16	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Calcium	**30800**		117	63.0	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Chromium	**32.3**		1.2	0.84	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Cobalt	**4.6**		1.2	0.23	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1

Client Sample ID: HA-01-0-0.2
Lab Sample ID: 480-221523-1

Date Collected: 07/10/24 07:40
Matrix: Solid

Date Received: 07/11/24 14:29
Percent Solids: 43.0

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	**32.7**		2.3	1.3	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Iron	**12700**		23.4	19.8	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Lead	**113**		2.3	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Magnesium	**9220**		46.7	19.8	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Manganese	**410**		2.3	0.65	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Nickel	**22.1**		11.7	0.58	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Potassium	**2490**		70.1	56.6	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Selenium	ND		9.3	1.9	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Silver	ND		1.4	0.47	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Sodium	**169**	**J**	327	143	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Thallium	ND		14.0	1.8	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Vanadium	**30.0**		1.2	0.30	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Zinc	**158**		4.7	2.4	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.19**		0.047	0.011	mg/Kg	☼	07/15/24 09:13	07/15/24 11:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	**1.7**	**J**	2.1	1.0	mg/Kg	☼	07/18/24 12:15	07/18/24 16:29	1

Client Sample ID: HA-01-2.5-3.5
Lab Sample ID: 480-221523-2

Date Collected: 07/10/24 09:30
Matrix: Solid

Date Received: 07/11/24 14:29
Percent Solids: 78.0

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.0	0.29	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
1,1,2,2-Tetrachloroethane	ND	UJ	4.0	0.65	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	UJ	4.0	0.92	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
1,1,2-Trichloroethane	ND	UJ	4.0	0.52	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
1,1-Dichloroethane	**0.73**	**J**	4.0	0.49	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
1,1-Dichloroethene	ND		4.0	0.49	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
1,2,4-Trichlorobenzene	ND	UJ	4.0	0.24	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
1,2-Dibromo-3-Chloropropane	ND	UJ	4.0	2.0	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
1,2-Dibromoethane	ND	UJ	4.0	0.52	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
1,2-Dichlorobenzene	ND	UJ	4.0	0.31	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
1,2-Dichloroethane	ND		4.0	0.20	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
1,2-Dichloropropane	ND		4.0	2.0	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
1,3-Dichlorobenzene	ND	UJ	4.0	0.21	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
1,4-Dichlorobenzene	ND	UJ	4.0	0.56	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
2-Butanone (MEK)	**3.7**	**J**	20	1.5	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
2-Hexanone	ND		20	2.0	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
4-Methyl-2-pentanone (MIBK)	ND		20	1.3	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Acetone	**19**	**J**	20	3.4	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Benzene	**0.91**	**J**	4.0	0.20	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Bromodichloromethane	ND	UJ	4.0	0.54	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Bromoform	ND	UJ	4.0	2.0	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Bromomethane	ND		4.0	0.36	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1

Client Sample ID: HA-01-2.5-3.5
Date Collected: 07/10/24 09:30
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-2
Matrix: Solid
Percent Solids: 78.0

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	ND		4.0	2.0	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Carbon tetrachloride	ND	UJ	4.0	0.39	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Chlorobenzene	ND	UJ	4.0	0.53	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Chloroethane	ND		4.0	0.91	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Chloroform	ND		4.0	0.25	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Chloromethane	ND		4.0	0.24	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
cis-1,2-Dichloroethene	ND		4.0	0.51	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
cis-1,3-Dichloropropene	ND	UJ	4.0	0.58	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Cyclohexane	**2.0**	**J**	4.0	0.56	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Dibromochloromethane	ND		4.0	0.51	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Dichlorodifluoromethane	ND		4.0	0.33	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Ethylbenzene	**0.79**	**J**	4.0	0.28	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Isopropylbenzene	**1.7**	**J**	4.0	0.61	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Methyl acetate	ND	UJ	20	2.4	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Methyl tert-butyl ether	ND		4.0	0.39	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Methylcyclohexane	**3.9**	**J**	4.0	0.61	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Methylene Chloride	ND		4.0	1.8	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Styrene	ND	UJ	4.0	0.20	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Tetrachloroethene	**0.77**	**J**	4.0	0.54	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Toluene	**0.38**	**J**	4.0	0.30	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
trans-1,2-Dichloroethene	ND		4.0	0.41	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
trans-1,3-Dichloropropene	ND		4.0	1.8	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Trichloroethene	ND	UJ	4.0	0.88	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Trichlorofluoromethane	ND		4.0	0.38	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Vinyl chloride	ND		4.0	0.49	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Xylenes, Total	**1.2**	**J**	8.0	0.68	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*53*	*T J*	*ug/Kg*	☼	*9.54*	*N/A*	*07/11/24 10:00*	*07/12/24 01:00*	*1*
Unknown	*48*	*T J*	*ug/Kg*	☼	*9.85*	*N/A*	*07/11/24 10:00*	*07/12/24 01:00*	*1*
Naphthalene, decahydro-, trans-	*95*	*T J N*	*ug/Kg*	☼	*10.89*	*493-02-7*	*07/11/24 10:00*	*07/12/24 01:00*	*1*
Unknown	*49*	*T J*	*ug/Kg*	☼	*11.00*	*N/A*	*07/11/24 10:00*	*07/12/24 01:00*	*1*
Unknown	*46*	*T J*	*ug/Kg*	☼	*11.06*	*N/A*	*07/11/24 10:00*	*07/12/24 01:00*	*1*
Unknown	*60*	*T J*	*ug/Kg*	☼	*11.18*	*N/A*	*07/11/24 10:00*	*07/12/24 01:00*	*1*
trans-Decalin, 2-methyl-	*62*	*T J N*	*ug/Kg*	☼	*11.47*	*1000152-47-3*	*07/11/24 10:00*	*07/12/24 01:00*	*1*
Unknown	*57*	*T J*	*ug/Kg*	☼	*11.55*	*N/A*	*07/11/24 10:00*	*07/12/24 01:00*	*1*
Naphthalene, decahydro-2-methyl-	*67*	*T J N*	*ug/Kg*	☼	*11.66*	*2958-76-1*	*07/11/24 10:00*	*07/12/24 01:00*	*1*
Unknown	*49*	*T J*	*ug/Kg*	☼	*12.00*	*N/A*	*07/11/24 10:00*	*07/12/24 01:00*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*64 - 126*	*07/11/24 10:00*	*07/12/24 01:00*	*1*
4-Bromofluorobenzene (Surr)	*93*		*72 - 126*	*07/11/24 10:00*	*07/12/24 01:00*	*1*
Dibromofluoromethane (Surr)	*106*		*60 - 140*	*07/11/24 10:00*	*07/12/24 01:00*	*1*
Toluene-d8 (Surr)	*100*		*71 - 125*	*07/11/24 10:00*	*07/12/24 01:00*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		1100	290	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
2,4,6-Trichlorophenol	ND		1100	210	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5

Client Sample ID: HA-01-2.5-3.5
Lab Sample ID: 480-221523-2

Date Collected: 07/10/24 09:30
Matrix: Solid

Date Received: 07/11/24 14:29
Percent Solids: 78.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		1100	110	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
2,4-Dimethylphenol	ND		1100	260	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
2,4-Dinitrophenol	ND		10000	4900	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
2,4-Dinitrotoluene	ND		1100	220	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
2,6-Dinitrotoluene	ND		1100	130	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
2-Chloronaphthalene	ND		1100	180	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
2-Chlorophenol	ND		2100	190	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
2-Methylnaphthalene	ND		1100	210	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
2-Methylphenol	ND		1100	130	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
2-Nitroaniline	ND		2100	160	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
2-Nitrophenol	ND		1100	300	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
3,3'-Dichlorobenzidine	ND		2100	1300	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
3-Nitroaniline	ND		2100	300	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
4,6-Dinitro-2-methylphenol	ND		2100	1100	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
4-Bromophenyl phenyl ether	ND		1100	150	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
4-Chloro-3-methylphenol	ND		1100	260	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
4-Chloroaniline	ND		1100	260	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
4-Chlorophenyl phenyl ether	ND		1100	130	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
4-Methylphenol	ND		2100	130	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
4-Nitroaniline	ND		2100	560	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
4-Nitrophenol	ND		2100	750	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Acenaphthene	ND		1100	160	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Acenaphthylene	ND		1100	140	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Acetophenone	ND		1100	140	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Anthracene	ND		1100	260	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Atrazine	ND		1100	370	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Benzaldehyde	ND		1100	850	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Benzo[a]anthracene	ND		1100	110	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Benzo[a]pyrene	**170**	**J**	1100	160	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Benzo[b]fluoranthene	ND		1100	170	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Benzo[g,h,i]perylene	**200**	**J**	1100	110	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Benzo[k]fluoranthene	ND		1100	140	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Biphenyl	ND		1100	160	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
bis (2-chloroisopropyl) ether	ND		1100	210	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Bis(2-chloroethoxy)methane	ND		1100	230	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Bis(2-chloroethyl)ether	ND		1100	140	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Bis(2-ethylhexyl) phthalate	ND		1100	360	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Butyl benzyl phthalate	ND		1100	180	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Caprolactam	ND		1100	320	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Carbazole	ND		1100	130	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Chrysene	**250**	**J**	1100	240	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Dibenz(a,h)anthracene	ND		1100	190	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Dibenzofuran	ND		1100	130	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Diethyl phthalate	ND		1100	140	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Dimethyl phthalate	ND		1100	130	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Di-n-butyl phthalate	ND		1100	180	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Di-n-octyl phthalate	ND		1100	130	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Fluoranthene	ND		1100	110	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Fluorene	ND		1100	130	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5

Client Sample ID: HA-01-2.5-3.5
Date Collected: 07/10/24 09:30
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-2
Matrix: Solid
Percent Solids: 78.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	ND		1100	140	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Hexachlorobutadiene	ND		1100	160	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Hexachlorocyclopentadiene	ND		1100	140	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Hexachloroethane	ND		1100	140	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Indeno[1,2,3-cd]pyrene	ND		1100	130	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Isophorone	ND		1100	230	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Naphthalene	ND		1100	140	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Nitrobenzene	ND		1100	120	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
N-Nitrosodi-n-propylamine	ND		1100	180	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
N-Nitrosodiphenylamine	ND		1100	870	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Pentachlorophenol	ND		2100	1100	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Phenanthrene	ND		1100	160	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Phenol	ND		1100	160	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Pyrene	**650**	**J**	1100	130	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*7700*	*T J*	*ug/Kg*	☼	*1.98*	*N/A*	*07/11/24 16:47*	*07/12/24 21:39*	*5*
Unknown	*1100*	*T J*	*ug/Kg*	☼	*3.44*	*N/A*	*07/11/24 16:47*	*07/12/24 21:39*	*5*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*87*		*26 - 143*	*07/11/24 16:47*	*07/12/24 21:39*	*5*
2-Fluorobiphenyl	*86*		*50 - 121*	*07/11/24 16:47*	*07/12/24 21:39*	*5*
2-Fluorophenol	*78*		*36 - 120*	*07/11/24 16:47*	*07/12/24 21:39*	*5*
Nitrobenzene-d5	*81*		*40 - 121*	*07/11/24 16:47*	*07/12/24 21:39*	*5*
Phenol-d5	*82*		*41 - 120*	*07/11/24 16:47*	*07/12/24 21:39*	*5*
p-Terphenyl-d14	*83*		*46 - 143*	*07/11/24 16:47*	*07/12/24 21:39*	*5*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		42	8.1	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
4,4'-DDE	ND		42	8.7	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
4,4'-DDT	**29**	**J**	42	9.7	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
Aldrin	ND		42	10	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
alpha-BHC	ND	U	42	7.5	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
cis-Chlordane	ND	UJ	42	21	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
beta-BHC	ND		42	7.5	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
delta-BHC	ND		42	7.7	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
Dieldrin	ND	UJ	42	10	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
Endosulfan I	ND	UJ	42	8.0	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
Endosulfan II	ND		42	7.5	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
Endosulfan sulfate	ND		42	7.8	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
Endrin	ND	UJ	42	8.2	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
Endrin aldehyde	ND	UJ	42	11	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
Endrin ketone	ND		42	10	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
gamma-BHC (Lindane)	ND	UJ	42	7.6	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
trans-Chlordane	ND		42	13	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
Heptachlor	ND	UJ	42	9.0	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
Heptachlor epoxide	ND	UJ	42	11	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
Methoxychlor	ND		42	8.5	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
Toxaphene	ND		420	240	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20

Client Sample ID: HA-01-2.5-3.5
Date Collected: 07/10/24 09:30
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-2
Matrix: Solid
Percent Solids: 78.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*189*	*S1+*	*45 - 120*	*07/12/24 06:39*	*07/16/24 14:15*	*20*
DCB Decachlorobiphenyl	*167*	*S1+*	*45 - 120*	*07/12/24 06:39*	*07/16/24 14:15*	*20*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/12/24 06:39*	*07/16/24 14:15*	*20*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/12/24 06:39*	*07/16/24 14:15*	*20*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.23	0.046	mg/Kg	☼	07/12/24 06:45	07/17/24 02:39	1
PCB-1221	ND		0.23	0.046	mg/Kg	☼	07/12/24 06:45	07/17/24 02:39	1
PCB-1232	ND		0.23	0.046	mg/Kg	☼	07/12/24 06:45	07/17/24 02:39	1
PCB-1242	ND		0.23	0.046	mg/Kg	☼	07/12/24 06:45	07/17/24 02:39	1
PCB-1248	ND		0.23	0.046	mg/Kg	☼	07/12/24 06:45	07/17/24 02:39	1
PCB-1254	ND		0.23	0.11	mg/Kg	☼	07/12/24 06:45	07/17/24 02:39	1
PCB-1260	ND		0.23	0.11	mg/Kg	☼	07/12/24 06:45	07/17/24 02:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*66*		*60 - 154*	*07/12/24 06:45*	*07/17/24 02:39*	*1*
Tetrachloro-m-xylene	*65*		*60 - 154*	*07/12/24 06:45*	*07/17/24 02:39*	*1*
DCB Decachlorobiphenyl	*89*		*65 - 174*	*07/12/24 06:45*	*07/17/24 02:39*	*1*
DCB Decachlorobiphenyl	*70*		*65 - 174*	*07/12/24 06:45*	*07/17/24 02:39*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**19700**		12.5	10.8	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Antimony	ND	UJ	18.7	0.66	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Arsenic	**3.4**		2.5	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Barium	**114**		0.62	0.17	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Beryllium	**0.84**		0.25	0.050	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Cadmium	**0.27**		0.25	0.087	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Calcium	**47500**	J	62.4	33.7	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Chromium	**24.0**	J	0.62	0.45	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Cobalt	**10.9**		0.62	0.12	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Copper	**18.0**		1.2	0.71	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Iron	**19300**	J	12.5	10.6	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Lead	**12.7**		1.2	0.57	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Magnesium	**14300**		25.0	10.6	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Manganese	**467**	J	1.2	0.35	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Nickel	**22.0**	J	6.2	0.31	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Potassium	**6070**		37.5	30.3	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Selenium	ND	UJ	5.0	1.0	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Silver	**0.29**	J	0.75	0.25	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Sodium	**239**		175	76.6	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Thallium	ND		7.5	0.95	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Vanadium	**37.0**		0.62	0.16	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Zinc	**57.7**	J	2.5	1.3	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.012**	J	0.025	0.0057	mg/Kg	☼	07/15/24 09:13	07/15/24 11:55	1

Client Sample ID: HA-01-2.5-3.5
Lab Sample ID: 480-221523-2

Date Collected: 07/10/24 09:30
Matrix: Solid
Date Received: 07/11/24 14:29
Percent Solids: 78.0

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND	UJ	1.2	0.58	mg/Kg	☼	07/18/24 12:15	07/18/24 16:16	1

Client Sample ID: HA-08-0-0.2
Lab Sample ID: 480-221523-3

Date Collected: 07/10/24 10:30
Matrix: Solid
Date Received: 07/11/24 14:29
Percent Solids: 78.5

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		2100	580	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
2,4,6-Trichlorophenol	ND		2100	430	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
2,4-Dichlorophenol	ND		2100	230	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
2,4-Dimethylphenol	ND		2100	520	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
2,4-Dinitrophenol	ND		21000	9900	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
2,4-Dinitrotoluene	ND		2100	440	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
2,6-Dinitrotoluene	ND		2100	250	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
2-Chloronaphthalene	ND		2100	350	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
2-Chlorophenol	ND		4200	390	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
2-Methylnaphthalene	ND		2100	430	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
2-Methylphenol	ND		2100	250	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
2-Nitroaniline	ND		4200	310	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
2-Nitrophenol	ND		2100	600	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
3,3'-Dichlorobenzidine	ND		4200	2500	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
3-Nitroaniline	ND		4200	590	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
4,6-Dinitro-2-methylphenol	ND		4200	2100	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
4-Bromophenyl phenyl ether	ND		2100	300	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
4-Chloro-3-methylphenol	ND		2100	530	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
4-Chloroaniline	ND		2100	530	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
4-Chlorophenyl phenyl ether	ND		2100	260	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
4-Methylphenol	ND		4200	250	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
4-Nitroaniline	ND		4200	1100	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
4-Nitrophenol	ND		4200	1500	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Acenaphthene	ND		2100	310	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Acenaphthylene	ND		2100	280	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Acetophenone	ND		2100	290	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Anthracene	ND		2100	530	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Atrazine	ND		2100	740	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Benzaldehyde	ND		2100	1700	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Benzo[a]anthracene	**440**	**J**	2100	210	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Benzo[a]pyrene	**380**	**J**	2100	310	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Benzo[b]fluoranthene	**490**	**J**	2100	340	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Benzo[g,h,i]perylene	**360**	**J**	2100	230	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Benzo[k]fluoranthene	ND		2100	280	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Biphenyl	ND		2100	310	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
bis (2-chloroisopropyl) ether	ND		2100	430	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Bis(2-chloroethoxy)methane	ND		2100	450	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Bis(2-chloroethyl)ether	ND		2100	280	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Bis(2-ethylhexyl) phthalate	ND		2100	730	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Butyl benzyl phthalate	ND		2100	350	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Caprolactam	ND		2100	640	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Carbazole	ND		2100	250	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10

Client Sample ID: HA-08-0-0.2
Date Collected: 07/10/24 10:30
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-3
Matrix: Solid
Percent Solids: 78.5

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	ND		2100	480	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Dibenz(a,h)anthracene	ND		2100	380	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Dibenzofuran	ND		2100	250	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Diethyl phthalate	ND		2100	280	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Dimethyl phthalate	ND		2100	250	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Di-n-butyl phthalate	ND		2100	370	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Di-n-octyl phthalate	ND		2100	250	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Fluoranthene	**500**	**J**	2100	230	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Fluorene	ND		2100	250	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Hexachlorobenzene	ND		2100	290	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Hexachlorobutadiene	ND		2100	310	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Hexachlorocyclopentadiene	ND		2100	290	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Hexachloroethane	ND		2100	280	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Indeno[1,2,3-cd]pyrene	**280**	**J**	2100	260	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Isophorone	ND		2100	450	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Naphthalene	ND		2100	280	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Nitrobenzene	ND		2100	240	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
N-Nitrosodi-n-propylamine	ND		2100	370	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
N-Nitrosodiphenylamine	ND		2100	1700	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Pentachlorophenol	ND		4200	2100	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Phenanthrene	ND		2100	310	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Phenol	ND		2100	330	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Pyrene	**430**	**J**	2100	250	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*8700*	*T J*	*ug/Kg*	☼	*1.97*	*N/A*	*07/11/24 16:47*	*07/13/24 00:39*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*88*		*26 - 143*	*07/11/24 16:47*	*07/13/24 00:39*	*10*
2-Fluorobiphenyl	*88*		*50 - 121*	*07/11/24 16:47*	*07/13/24 00:39*	*10*
2-Fluorophenol	*79*		*36 - 120*	*07/11/24 16:47*	*07/13/24 00:39*	*10*
Nitrobenzene-d5	*72*		*40 - 121*	*07/11/24 16:47*	*07/13/24 00:39*	*10*
Phenol-d5	*78*		*41 - 120*	*07/11/24 16:47*	*07/13/24 00:39*	*10*
p-Terphenyl-d14	*85*		*46 - 143*	*07/11/24 16:47*	*07/13/24 00:39*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		42	8.1	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
4,4'-DDE	ND		42	8.8	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
4,4'-DDT	**ND**	**U**	42	9.8	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
Aldrin	ND		42	10	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
alpha-BHC	ND		42	7.5	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
cis-Chlordane	ND		42	21	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
beta-BHC	ND		42	7.5	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
delta-BHC	ND		42	7.8	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
Dieldrin	ND		42	10	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
Endosulfan I	ND		42	8.0	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
Endosulfan II	ND		42	7.5	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
Endosulfan sulfate	ND		42	7.8	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
Endrin	ND		42	8.3	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20

Client Sample ID: HA-08-0-0.2
Date Collected: 07/10/24 10:30
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-3
Matrix: Solid
Percent Solids: 78.5

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin aldehyde	ND		42	11	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
Endrin ketone	ND	U	42	10	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
gamma-BHC (Lindane)	ND	U	42	7.7	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
trans-Chlordane	ND		42	13	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
Heptachlor	ND		42	9.1	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
Heptachlor epoxide	ND		42	11	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
Methoxychlor	ND		42	8.5	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
Toxaphene	ND		420	240	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*178*	*S1+*	*45 - 120*	*07/12/24 06:39*	*07/16/24 14:54*	*20*
DCB Decachlorobiphenyl	*362*	*S1+*	*45 - 120*	*07/12/24 06:39*	*07/16/24 14:54*	*20*
Tetrachloro-m-xylene	*107*		*30 - 124*	*07/12/24 06:39*	*07/16/24 14:54*	*20*
Tetrachloro-m-xylene	*246*	*S1+*	*30 - 124*	*07/12/24 06:39*	*07/16/24 14:54*	*20*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.28	0.055	mg/Kg	☼	07/12/24 06:45	07/15/24 05:53	1
PCB-1221	ND		0.28	0.055	mg/Kg	☼	07/12/24 06:45	07/15/24 05:53	1
PCB-1232	ND		0.28	0.055	mg/Kg	☼	07/12/24 06:45	07/15/24 05:53	1
PCB-1242	ND		0.28	0.055	mg/Kg	☼	07/12/24 06:45	07/15/24 05:53	1
PCB-1248	ND		0.28	0.055	mg/Kg	☼	07/12/24 06:45	07/15/24 05:53	1
PCB-1254	ND		0.28	0.13	mg/Kg	☼	07/12/24 06:45	07/15/24 05:53	1
PCB-1260	ND		0.28	0.13	mg/Kg	☼	07/12/24 06:45	07/15/24 05:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*67*		*60 - 154*	*07/12/24 06:45*	*07/15/24 05:53*	*1*
Tetrachloro-m-xylene	*63*		*60 - 154*	*07/12/24 06:45*	*07/15/24 05:53*	*1*
DCB Decachlorobiphenyl	*55*	*S1-*	*65 - 174*	*07/12/24 06:45*	*07/15/24 05:53*	*1*
DCB Decachlorobiphenyl	*58*	*S1-*	*65 - 174*	*07/12/24 06:45*	*07/15/24 05:53*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**19400**		13.5	11.7	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Antimony	**0.72**	**J**	20.3	0.72	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Arsenic	**5.2**		2.7	1.2	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Barium	**129**		0.68	0.19	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Beryllium	**1.5**		0.27	0.054	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Cadmium	**0.43**		0.27	0.095	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Calcium	**47000**		67.6	36.5	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Chromium	**27.0**		0.68	0.49	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Cobalt	**14.1**		0.68	0.14	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Copper	**40.3**		1.4	0.77	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Iron	**21300**		13.5	11.5	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Lead	**61.9**		1.4	0.62	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Magnesium	**14200**		27.0	11.5	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Manganese	**784**		1.4	0.38	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Nickel	**32.0**		6.8	0.34	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Potassium	**4350**		40.6	32.8	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Selenium	ND		5.4	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1

Client Sample ID: HA-08-0-0.2
Lab Sample ID: 480-221523-3

Date Collected: 07/10/24 10:30
Matrix: Solid
Date Received: 07/11/24 14:29
Percent Solids: 78.5

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.81	0.27	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Sodium	**247**		189	82.9	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Thallium	ND		8.1	1.0	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Vanadium	**36.1**		0.68	0.18	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Zinc	**115**		2.7	1.4	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.85**		0.026	0.0059	mg/Kg	☼	07/15/24 09:13	07/15/24 12:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	**2.9**		1.1	0.54	mg/Kg	☼	07/18/24 12:15	07/18/24 16:30	1

Client Sample ID: HA-08-3.5-4.0
Lab Sample ID: 480-221523-4

Date Collected: 07/10/24 10:50
Matrix: Solid
Date Received: 07/11/24 14:29
Percent Solids: 71.0

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.5	0.33	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
1,1,2,2-Tetrachloroethane	ND		4.5	0.73	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.5	1.0	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
1,1,2-Trichloroethane	ND		4.5	0.59	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
1,1-Dichloroethane	ND		4.5	0.55	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
1,1-Dichloroethene	ND		4.5	0.55	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
1,2,4-Trichlorobenzene	ND		4.5	0.27	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
1,2-Dibromo-3-Chloropropane	ND		4.5	2.3	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
1,2-Dibromoethane	ND		4.5	0.58	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
1,2-Dichlorobenzene	ND		4.5	0.35	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
1,2-Dichloroethane	ND		4.5	0.23	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
1,2-Dichloropropane	ND		4.5	2.3	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
1,3-Dichlorobenzene	ND		4.5	0.23	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
1,4-Dichlorobenzene	ND		4.5	0.63	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
2-Butanone (MEK)	**3.3**	**J**	23	1.7	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
2-Hexanone	ND		23	2.3	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
4-Methyl-2-pentanone (MIBK)	ND		23	1.5	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Acetone	**21**	**J**	23	3.8	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Benzene	ND		4.5	0.22	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Bromodichloromethane	ND		4.5	0.61	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Bromoform	ND		4.5	2.3	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Bromomethane	ND		4.5	0.41	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Carbon disulfide	ND		4.5	2.3	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Carbon tetrachloride	ND		4.5	0.44	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Chlorobenzene	ND		4.5	0.60	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Chloroethane	ND		4.5	1.0	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Chloroform	ND		4.5	0.28	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Chloromethane	ND		4.5	0.27	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
cis-1,2-Dichloroethene	ND		4.5	0.58	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
cis-1,3-Dichloropropene	ND		4.5	0.65	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1

Client Sample ID: HA-08-3.5-4.0
Date Collected: 07/10/24 10:50
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-4
Matrix: Solid
Percent Solids: 71.0

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	ND		4.5	0.63	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Dibromochloromethane	ND		4.5	0.58	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Dichlorodifluoromethane	ND		4.5	0.37	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Ethylbenzene	ND		4.5	0.31	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Isopropylbenzene	ND		4.5	0.68	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Methyl acetate	ND		23	2.7	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Methyl tert-butyl ether	ND		4.5	0.44	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Methylcyclohexane	ND		4.5	0.69	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Methylene Chloride	ND		4.5	2.1	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Styrene	ND		4.5	0.23	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Tetrachloroethene	ND		4.5	0.61	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Toluene	ND		4.5	0.34	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
trans-1,2-Dichloroethene	ND		4.5	0.47	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
trans-1,3-Dichloropropene	ND		4.5	2.0	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Trichloroethene	ND		4.5	0.99	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Trichlorofluoromethane	ND		4.5	0.43	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Vinyl chloride	ND		4.5	0.55	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Xylenes, Total	ND		9.0	0.76	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/11/24 10:00*	*07/12/24 01:23*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*64 - 126*	*07/11/24 10:00*	*07/12/24 01:23*	*1*
4-Bromofluorobenzene (Surr)	*105*		*72 - 126*	*07/11/24 10:00*	*07/12/24 01:23*	*1*
Dibromofluoromethane (Surr)	*106*		*60 - 140*	*07/11/24 10:00*	*07/12/24 01:23*	*1*
Toluene-d8 (Surr)	*99*		*71 - 125*	*07/11/24 10:00*	*07/12/24 01:23*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		240	64	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
2,4,6-Trichlorophenol	ND		240	47	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
2,4-Dichlorophenol	ND		240	25	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
2,4-Dimethylphenol	ND		240	57	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
2,4-Dinitrophenol	ND		2300	1100	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
2,4-Dinitrotoluene	ND		240	48	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
2,6-Dinitrotoluene	ND		240	28	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
2-Chloronaphthalene	ND		240	39	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
2-Chlorophenol	ND		460	43	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
2-Methylnaphthalene	ND		240	47	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
2-Methylphenol	ND		240	28	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
2-Nitroaniline	ND		460	35	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
2-Nitrophenol	ND		240	66	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
3,3'-Dichlorobenzidine	ND		460	280	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
3-Nitroaniline	ND		460	65	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
4,6-Dinitro-2-methylphenol	ND		460	240	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
4-Bromophenyl phenyl ether	ND		240	33	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
4-Chloro-3-methylphenol	ND		240	58	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
4-Chloroaniline	ND		240	58	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
4-Chlorophenyl phenyl ether	ND		240	29	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1

Client Sample ID: HA-08-3.5-4.0
Lab Sample ID: 480-221523-4

Date Collected: 07/10/24 10:50
Matrix: Solid

Date Received: 07/11/24 14:29
Percent Solids: 71.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methylphenol	ND		460	28	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
4-Nitroaniline	ND		460	120	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
4-Nitrophenol	ND		460	160	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Acenaphthene	ND		240	35	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Acenaphthylene	ND		240	30	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Acetophenone	ND		240	32	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Anthracene	ND		240	58	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Atrazine	ND		240	82	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Benzaldehyde	ND		240	190	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Benzo[a]anthracene	ND		240	24	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Benzo[a]pyrene	ND		240	35	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Benzo[b]fluoranthene	ND		240	37	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Benzo[g,h,i]perylene	ND		240	25	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Benzo[k]fluoranthene	ND		240	30	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Biphenyl	ND		240	35	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
bis (2-chloroisopropyl) ether	ND		240	47	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Bis(2-chloroethoxy)methane	ND		240	50	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Bis(2-chloroethyl)ether	ND		240	30	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Bis(2-ethylhexyl) phthalate	ND		240	80	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Butyl benzyl phthalate	ND		240	39	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Caprolactam	ND		240	71	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Carbazole	ND		240	28	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Chrysene	ND		240	53	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Dibenz(a,h)anthracene	ND		240	42	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Dibenzofuran	ND		240	28	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Diethyl phthalate	ND		240	30	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Dimethyl phthalate	ND		240	28	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Di-n-butyl phthalate	ND		240	40	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Di-n-octyl phthalate	ND		240	28	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Fluoranthene	ND		240	25	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Fluorene	ND		240	28	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Hexachlorobenzene	ND		240	32	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Hexachlorobutadiene	ND		240	35	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Hexachlorocyclopentadiene	ND		240	32	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Hexachloroethane	ND		240	30	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Indeno[1,2,3-cd]pyrene	ND		240	29	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Isophorone	ND		240	50	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Naphthalene	ND		240	30	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Nitrobenzene	ND		240	26	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
N-Nitrosodi-n-propylamine	ND		240	40	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
N-Nitrosodiphenylamine	ND		240	190	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Pentachlorophenol	ND		460	240	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Phenanthrene	ND		240	35	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Phenol	ND		240	36	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Pyrene	ND		240	28	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*300*	*T J*	*ug/Kg*	☼	*1.84*	*N/A*	*07/11/24 16:47*	*07/13/24 01:07*	*1*
Unknown	*2700*	*T J*	*ug/Kg*	☼	*1.97*	*N/A*	*07/11/24 16:47*	*07/13/24 01:07*	*1*
Unknown	*1000*	*T J*	*ug/Kg*	☼	*3.43*	*N/A*	*07/11/24 16:47*	*07/13/24 01:07*	*1*

Client Sample ID: HA-08-3.5-4.0
Date Collected: 07/10/24 10:50
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-4
Matrix: Solid
Percent Solids: 71.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	87		26 - 143	07/11/24 16:47	07/13/24 01:07	1
2-Fluorobiphenyl	86		50 - 121	07/11/24 16:47	07/13/24 01:07	1
2-Fluorophenol	77		36 - 120	07/11/24 16:47	07/13/24 01:07	1
Nitrobenzene-d5	79		40 - 121	07/11/24 16:47	07/13/24 01:07	1
Phenol-d5	80		41 - 120	07/11/24 16:47	07/13/24 01:07	1
p-Terphenyl-d14	90		46 - 143	07/11/24 16:47	07/13/24 01:07	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.3	0.44	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
4,4'-DDE	ND		2.3	0.48	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
4,4'-DDT	**1.6**	**J**	2.3	0.53	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
Aldrin	ND		2.3	0.56	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
alpha-BHC	ND	U	2.3	0.41	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
cis-Chlordane	ND		2.3	1.1	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
beta-BHC	ND		2.3	0.41	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
delta-BHC	ND		2.3	0.42	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
Dieldrin	ND		2.3	0.55	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
Endosulfan I	ND		2.3	0.44	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
Endosulfan II	ND		2.3	0.41	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
Endosulfan sulfate	ND		2.3	0.42	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
Endrin	ND		2.3	0.45	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
Endrin aldehyde	ND		2.3	0.58	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
Endrin ketone	ND		2.3	0.56	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
gamma-BHC (Lindane)	ND	U	2.3	0.42	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
trans-Chlordane	ND		2.3	0.72	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
Heptachlor	ND		2.3	0.49	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
Heptachlor epoxide	ND		2.3	0.59	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
Methoxychlor	**2.9**		2.3	0.46	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
Toxaphene	ND		23	13	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	78		45 - 120	07/12/24 06:39	07/16/24 15:13	1
DCB Decachlorobiphenyl	74		45 - 120	07/12/24 06:39	07/16/24 15:13	1
Tetrachloro-m-xylene	68		30 - 124	07/12/24 06:39	07/16/24 15:13	1
Tetrachloro-m-xylene	62		30 - 124	07/12/24 06:39	07/16/24 15:13	1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.25	0.049	mg/Kg	☼	07/12/24 06:45	07/15/24 06:10	1
PCB-1221	ND		0.25	0.049	mg/Kg	☼	07/12/24 06:45	07/15/24 06:10	1
PCB-1232	ND		0.25	0.049	mg/Kg	☼	07/12/24 06:45	07/15/24 06:10	1
PCB-1242	ND		0.25	0.049	mg/Kg	☼	07/12/24 06:45	07/15/24 06:10	1
PCB-1248	ND		0.25	0.049	mg/Kg	☼	07/12/24 06:45	07/15/24 06:10	1
PCB-1254	ND		0.25	0.12	mg/Kg	☼	07/12/24 06:45	07/15/24 06:10	1
PCB-1260	ND		0.25	0.12	mg/Kg	☼	07/12/24 06:45	07/15/24 06:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	89		60 - 154	07/12/24 06:45	07/15/24 06:10	1
Tetrachloro-m-xylene	87		60 - 154	07/12/24 06:45	07/15/24 06:10	1
DCB Decachlorobiphenyl	77		65 - 174	07/12/24 06:45	07/15/24 06:10	1

Client Sample ID: HA-08-3.5-4.0
Lab Sample ID: 480-221523-4

Date Collected: 07/10/24 10:50
Matrix: Solid
Date Received: 07/11/24 14:29
Percent Solids: 71.0

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*81*		*65 - 174*	*07/12/24 06:45*	*07/15/24 06:10*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**21500**		14.6	12.6	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Antimony	ND		21.9	0.77	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Arsenic	**4.9**		2.9	1.3	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Barium	**109**		0.73	0.20	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Beryllium	**0.79**		0.29	0.058	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Cadmium	**0.56**		0.29	0.10	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Calcium	**2900**		72.8	39.3	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Chromium	**23.6**		0.73	0.52	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Cobalt	**12.3**		0.73	0.15	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Copper	**11.6**		1.5	0.83	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Iron	**20100**		14.6	12.4	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Lead	**26.5**		1.5	0.67	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Magnesium	**4260**		29.1	12.4	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Manganese	**374**		1.5	0.41	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Nickel	**20.1**		7.3	0.36	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Potassium	**2700**		43.7	35.3	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Selenium	ND		5.8	1.2	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Silver	ND		0.87	0.29	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Sodium	**112**	**J**	204	89.3	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Thallium	ND		8.7	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Vanadium	**40.7**		0.73	0.19	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Zinc	**107**		2.9	1.5	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.20**		0.029	0.0066	mg/Kg	☼	07/15/24 09:13	07/15/24 12:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.59	mg/Kg	☼	07/18/24 12:15	07/18/24 16:32	1

Client Sample ID: HA-07-0-0.2
Lab Sample ID: 480-221523-5

Date Collected: 07/10/24 12:00
Matrix: Solid
Date Received: 07/11/24 14:29
Percent Solids: 81.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		2000	550	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
2,4,6-Trichlorophenol	ND		2000	400	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
2,4-Dichlorophenol	ND		2000	210	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
2,4-Dimethylphenol	ND		2000	490	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
2,4-Dinitrophenol	ND		20000	9300	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
2,4-Dinitrotoluene	ND		2000	420	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
2,6-Dinitrotoluene	ND		2000	240	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
2-Chloronaphthalene	ND		2000	330	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
2-Chlorophenol	ND		3900	370	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10

Client Sample ID: HA-07-0-0.2
Lab Sample ID: 480-221523-5

Date Collected: 07/10/24 12:00
Matrix: Solid

Date Received: 07/11/24 14:29
Percent Solids: 81.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		2000	400	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
2-Methylphenol	ND		2000	240	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
2-Nitroaniline	ND		3900	300	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
2-Nitrophenol	ND		2000	570	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
3,3'-Dichlorobenzidine	ND		3900	2400	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
3-Nitroaniline	ND		3900	560	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
4,6-Dinitro-2-methylphenol	ND		3900	2000	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
4-Bromophenyl phenyl ether	ND		2000	290	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
4-Chloro-3-methylphenol	ND		2000	500	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
4-Chloroaniline	ND		2000	500	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
4-Chlorophenyl phenyl ether	ND		2000	250	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
4-Methylphenol	ND		3900	240	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
4-Nitroaniline	ND		3900	1100	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
4-Nitrophenol	ND		3900	1400	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Acenaphthene	ND		2000	300	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Acenaphthylene	**300**	**J**	2000	260	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Acetophenone	ND		2000	270	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Anthracene	ND		2000	500	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Atrazine	ND		2000	700	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Benzaldehyde	ND		2000	1600	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Benzo[a]anthracene	**200**	**J**	2000	200	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Benzo[a]pyrene	ND		2000	300	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Benzo[b]fluoranthene	**370**	**J**	2000	320	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Benzo[g,h,i]perylene	**400**	**J**	2000	210	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Benzo[k]fluoranthene	ND		2000	260	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Biphenyl	ND		2000	300	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
bis (2-chloroisopropyl) ether	ND		2000	400	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Bis(2-chloroethoxy)methane	ND		2000	430	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Bis(2-chloroethyl)ether	ND		2000	260	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Bis(2-ethylhexyl) phthalate	ND		2000	690	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Butyl benzyl phthalate	ND		2000	330	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Caprolactam	ND		2000	610	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Carbazole	ND		2000	240	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Chrysene	ND		2000	450	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Dibenz(a,h)anthracene	ND		2000	360	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Dibenzofuran	ND		2000	240	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Diethyl phthalate	ND		2000	260	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Dimethyl phthalate	ND		2000	240	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Di-n-butyl phthalate	ND		2000	350	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Di-n-octyl phthalate	ND		2000	240	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Fluoranthene	**220**	**J**	2000	210	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Fluorene	ND		2000	240	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Hexachlorobenzene	ND		2000	270	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Hexachlorobutadiene	ND		2000	300	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Hexachlorocyclopentadiene	ND		2000	270	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Hexachloroethane	ND		2000	260	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Indeno[1,2,3-cd]pyrene	**250**	**J**	2000	250	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Isophorone	ND		2000	430	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Naphthalene	ND		2000	260	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10

Client Sample ID: HA-07-0-0.2
Date Collected: 07/10/24 12:00
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-5
Matrix: Solid
Percent Solids: 81.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		2000	230	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
N-Nitrosodi-n-propylamine	ND		2000	350	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
N-Nitrosodiphenylamine	ND		2000	1600	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Pentachlorophenol	ND		3900	2000	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Phenanthrene	ND		2000	300	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Phenol	ND		2000	310	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Pyrene	ND		2000	240	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*2500*	*T J*	*ug/Kg*	☼	*16.49*	*N/A*	*07/11/24 16:47*	*07/15/24 16:07*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*82*		*26 - 143*	*07/11/24 16:47*	*07/15/24 16:07*	*10*
2-Fluorobiphenyl	*73*		*50 - 121*	*07/11/24 16:47*	*07/15/24 16:07*	*10*
2-Fluorophenol	*61*		*36 - 120*	*07/11/24 16:47*	*07/15/24 16:07*	*10*
Nitrobenzene-d5	*62*		*40 - 121*	*07/11/24 16:47*	*07/15/24 16:07*	*10*
Phenol-d5	*66*		*41 - 120*	*07/11/24 16:47*	*07/15/24 16:07*	*10*
p-Terphenyl-d14	*81*		*46 - 143*	*07/11/24 16:47*	*07/15/24 16:07*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		41	7.9	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
4,4'-DDE	ND		41	8.5	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
4,4'-DDT	**94**		41	9.5	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
Aldrin	ND		41	10	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
alpha-BHC	ND	U	41	7.3	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
cis-Chlordane	ND		41	20	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
beta-BHC	ND		41	7.3	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
delta-BHC	ND		41	7.5	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
Dieldrin	ND	U	41	9.7	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
Endosulfan I	ND		41	7.8	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
Endosulfan II	ND		41	7.3	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
Endosulfan sulfate	ND		41	7.6	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
Endrin	ND		41	8.0	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
Endrin aldehyde	ND		41	10	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
Endrin ketone	**30**	**J**	41	10	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
gamma-BHC (Lindane)	ND		41	7.4	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
trans-Chlordane	ND		41	13	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
Heptachlor	ND		41	8.8	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
Heptachlor epoxide	ND		41	10	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
Methoxychlor	ND		41	8.3	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
Toxaphene	ND		410	240	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*190*	*S1+*	*45 - 120*	*07/12/24 06:39*	*07/16/24 15:33*	*20*
DCB Decachlorobiphenyl	*324*	*S1+*	*45 - 120*	*07/12/24 06:39*	*07/16/24 15:33*	*20*
Tetrachloro-m-xylene	*110*		*30 - 124*	*07/12/24 06:39*	*07/16/24 15:33*	*20*
Tetrachloro-m-xylene	*231*	*S1+*	*30 - 124*	*07/12/24 06:39*	*07/16/24 15:33*	*20*

Client Sample ID: HA-07-0-0.2
Lab Sample ID: 480-221523-5

Date Collected: 07/10/24 12:00
Matrix: Solid

Date Received: 07/11/24 14:29
Percent Solids: 81.8

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.21	0.041	mg/Kg	☼	07/12/24 06:45	07/15/24 06:27	1
PCB-1221	ND		0.21	0.041	mg/Kg	☼	07/12/24 06:45	07/15/24 06:27	1
PCB-1232	ND		0.21	0.041	mg/Kg	☼	07/12/24 06:45	07/15/24 06:27	1
PCB-1242	ND		0.21	0.041	mg/Kg	☼	07/12/24 06:45	07/15/24 06:27	1
PCB-1248	ND		0.21	0.041	mg/Kg	☼	07/12/24 06:45	07/15/24 06:27	1
PCB-1254	ND		0.21	0.098	mg/Kg	☼	07/12/24 06:45	07/15/24 06:27	1
PCB-1260	**0.48**		0.21	0.098	mg/Kg	☼	07/12/24 06:45	07/15/24 06:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*90*		*60 - 154*	*07/12/24 06:45*	*07/15/24 06:27*	*1*
Tetrachloro-m-xylene	*81*		*60 - 154*	*07/12/24 06:45*	*07/15/24 06:27*	*1*
DCB Decachlorobiphenyl	*75*		*65 - 174*	*07/12/24 06:45*	*07/15/24 06:27*	*1*
DCB Decachlorobiphenyl	*80*		*65 - 174*	*07/12/24 06:45*	*07/15/24 06:27*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**19300**		11.7	10.1	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Antimony	**0.79**	**J**	17.6	0.62	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Arsenic	**3.9**		2.3	1.0	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Barium	**125**		0.59	0.16	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Beryllium	**0.90**		0.23	0.047	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Cadmium	**0.34**		0.23	0.082	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Calcium	**35800**		58.5	31.6	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Chromium	**28.1**		0.59	0.42	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Cobalt	**10.8**		0.59	0.12	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Copper	**29.5**		1.2	0.67	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Iron	**19600**		11.7	9.9	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Lead	**39.9**		1.2	0.54	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Magnesium	**11900**		23.4	9.9	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Manganese	**492**		1.2	0.33	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Nickel	**23.8**		5.9	0.29	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Potassium	**5130**		35.1	28.4	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Selenium	ND		4.7	0.94	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Silver	**0.24**	**J**	0.70	0.23	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Sodium	**198**		164	71.7	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Thallium	ND		7.0	0.89	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Vanadium	**37.7**		0.59	0.15	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Zinc	**73.4**		2.3	1.2	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.64**		0.024	0.0054	mg/Kg	☼	07/15/24 09:13	07/15/24 12:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.57	mg/Kg	☼	07/18/24 12:15	07/18/24 16:33	1

Client Sample ID: HA-07-3.0-4.0
Lab Sample ID: 480-221523-6

Date Collected: 07/10/24 12:20
Matrix: Solid

Date Received: 07/11/24 14:29
Percent Solids: 86.5

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.9	0.36	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
1,1,2,2-Tetrachloroethane	ND		4.9	0.80	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.9	1.1	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
1,1,2-Trichloroethane	ND		4.9	0.64	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
1,1-Dichloroethane	ND		4.9	0.60	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
1,1-Dichloroethene	ND		4.9	0.60	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
1,2,4-Trichlorobenzene	ND		4.9	0.30	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
1,2-Dibromo-3-Chloropropane	ND		4.9	2.5	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
1,2-Dibromoethane	ND		4.9	0.63	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
1,2-Dichlorobenzene	ND		4.9	0.39	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
1,2-Dichloroethane	ND		4.9	0.25	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
1,2-Dichloropropane	ND		4.9	2.5	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
1,3-Dichlorobenzene	ND		4.9	0.25	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
1,4-Dichlorobenzene	ND		4.9	0.69	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
2-Hexanone	ND		25	2.5	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Acetone	ND		25	4.2	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Benzene	ND		4.9	0.24	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Bromodichloromethane	ND		4.9	0.66	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Bromoform	ND		4.9	2.5	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Bromomethane	ND		4.9	0.44	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Carbon disulfide	ND		4.9	2.5	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Carbon tetrachloride	ND		4.9	0.48	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Chlorobenzene	ND		4.9	0.65	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Chloroethane	ND		4.9	1.1	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Chloroform	ND		4.9	0.31	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Chloromethane	ND		4.9	0.30	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
cis-1,2-Dichloroethene	ND		4.9	0.63	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
cis-1,3-Dichloropropene	ND		4.9	0.71	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Cyclohexane	ND		4.9	0.69	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Dibromochloromethane	ND		4.9	0.63	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Dichlorodifluoromethane	ND		4.9	0.41	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Ethylbenzene	ND		4.9	0.34	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Isopropylbenzene	ND		4.9	0.74	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Methyl acetate	ND		25	3.0	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Methyl tert-butyl ether	ND		4.9	0.48	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Methylcyclohexane	ND		4.9	0.75	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Methylene Chloride	ND		4.9	2.3	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Styrene	ND		4.9	0.25	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Tetrachloroethene	ND		4.9	0.66	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Toluene	ND		4.9	0.37	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
trans-1,2-Dichloroethene	ND		4.9	0.51	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
trans-1,3-Dichloropropene	ND		4.9	2.2	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Trichloroethene	ND		4.9	1.1	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Trichlorofluoromethane	ND		4.9	0.47	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Vinyl chloride	ND		4.9	0.60	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Xylenes, Total	ND		9.9	0.83	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1

Client Sample ID: HA-07-3.0-4.0
Date Collected: 07/10/24 12:20
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-6
Matrix: Solid
Percent Solids: 86.5

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/Kg	☼		N/A	07/11/24 10:00	07/12/24 01:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	116		64 - 126	07/11/24 10:00	07/12/24 01:47	1
4-Bromofluorobenzene (Surr)	106		72 - 126	07/11/24 10:00	07/12/24 01:47	1
Dibromofluoromethane (Surr)	108		60 - 140	07/11/24 10:00	07/12/24 01:47	1
Toluene-d8 (Surr)	98		71 - 125	07/11/24 10:00	07/12/24 01:47	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		190	53	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
2,4,6-Trichlorophenol	ND		190	39	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
2,4-Dichlorophenol	ND		190	21	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
2,4-Dimethylphenol	ND		190	47	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
2,4-Dinitrophenol	ND		1900	900	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
2,4-Dinitrotoluene	ND		190	40	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
2,6-Dinitrotoluene	ND		190	23	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
2-Chloronaphthalene	ND		190	32	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
2-Chlorophenol	ND		380	35	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
2-Methylnaphthalene	ND		190	39	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
2-Methylphenol	ND		190	23	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
2-Nitroaniline	ND		380	29	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
2-Nitrophenol	ND		190	55	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
3,3'-Dichlorobenzidine	ND		380	230	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
3-Nitroaniline	ND		380	54	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
4,6-Dinitro-2-methylphenol	ND		380	190	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
4-Bromophenyl phenyl ether	ND		190	27	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
4-Chloro-3-methylphenol	ND		190	48	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
4-Chloroaniline	ND		190	48	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
4-Chlorophenyl phenyl ether	ND		190	24	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
4-Methylphenol	ND		380	23	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
4-Nitroaniline	ND		380	100	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
4-Nitrophenol	ND		380	140	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Acenaphthene	ND		190	29	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Acenaphthylene	ND		190	25	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Acetophenone	ND		190	26	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Anthracene	ND		190	48	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Atrazine	ND		190	67	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Benzaldehyde	ND		190	150	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Benzo[a]anthracene	ND		190	19	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Benzo[a]pyrene	ND		190	29	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Benzo[b]fluoranthene	ND		190	31	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Benzo[g,h,i]perylene	ND		190	21	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Benzo[k]fluoranthene	ND		190	25	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Biphenyl	ND		190	29	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
bis (2-chloroisopropyl) ether	ND		190	39	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Bis(2-chloroethoxy)methane	ND		190	41	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Bis(2-chloroethyl)ether	ND		190	25	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Bis(2-ethylhexyl) phthalate	ND		190	66	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Butyl benzyl phthalate	ND		190	32	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1

Client Sample ID: HA-07-3.0-4.0
Lab Sample ID: 480-221523-6

Date Collected: 07/10/24 12:20
Matrix: Solid

Date Received: 07/11/24 14:29
Percent Solids: 86.5

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Caprolactam	ND		190	58	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Carbazole	ND		190	23	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Chrysene	ND		190	43	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Dibenz(a,h)anthracene	ND		190	34	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Dibenzofuran	ND		190	23	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Diethyl phthalate	ND		190	25	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Dimethyl phthalate	ND		190	23	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Di-n-butyl phthalate	ND		190	33	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Di-n-octyl phthalate	ND		190	23	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Fluoranthene	ND		190	21	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Fluorene	ND		190	23	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Hexachlorobenzene	ND		190	26	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Hexachlorobutadiene	ND		190	29	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Hexachlorocyclopentadiene	ND		190	26	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Hexachloroethane	ND		190	25	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Indeno[1,2,3-cd]pyrene	ND		190	24	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Isophorone	ND		190	41	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Naphthalene	ND		190	25	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Nitrobenzene	ND		190	22	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
N-Nitrosodi-n-propylamine	ND		190	33	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
N-Nitrosodiphenylamine	ND		190	160	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Pentachlorophenol	ND		380	190	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Phenanthrene	ND		190	29	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Phenol	ND		190	30	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Pyrene	ND		190	23	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*2500*	*T J*	*ug/Kg*	☼	*1.98*	*N/A*	*07/11/24 16:47*	*07/15/24 16:36*	*1*
Unknown	*600*	*T J*	*ug/Kg*	☼	*3.43*	*N/A*	*07/11/24 16:47*	*07/15/24 16:36*	*1*
Erucylamide	*380*	*T J N*	*ug/Kg*	☼	*13.97*	*112-84-5*	*07/11/24 16:47*	*07/15/24 16:36*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*80*		*26 - 143*	*07/11/24 16:47*	*07/15/24 16:36*	*1*
2-Fluorobiphenyl	*60*		*50 - 121*	*07/11/24 16:47*	*07/15/24 16:36*	*1*
2-Fluorophenol	*51*		*36 - 120*	*07/11/24 16:47*	*07/15/24 16:36*	*1*
Nitrobenzene-d5	*57*		*40 - 121*	*07/11/24 16:47*	*07/15/24 16:36*	*1*
Phenol-d5	*55*		*41 - 120*	*07/11/24 16:47*	*07/15/24 16:36*	*1*
p-Terphenyl-d14	*89*		*46 - 143*	*07/11/24 16:47*	*07/15/24 16:36*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1.9	0.37	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
4,4'-DDE	ND		1.9	0.40	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
4,4'-DDT	ND		1.9	0.44	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
Aldrin	ND		1.9	0.46	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
alpha-BHC	ND		1.9	0.34	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
cis-Chlordane	ND		1.9	0.94	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
beta-BHC	ND		1.9	0.34	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
delta-BHC	ND		1.9	0.35	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
Dieldrin	ND		1.9	0.45	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1

Client Sample ID: HA-07-3.0-4.0
Date Collected: 07/10/24 12:20
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-6
Matrix: Solid
Percent Solids: 86.5

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I	ND		1.9	0.36	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
Endosulfan II	ND		1.9	0.34	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
Endosulfan sulfate	ND		1.9	0.35	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
Endrin	ND		1.9	0.37	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
Endrin aldehyde	ND		1.9	0.48	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
Endrin ketone	ND	U	1.9	0.46	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
gamma-BHC (Lindane)	ND		1.9	0.35	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
trans-Chlordane	ND		1.9	0.60	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
Heptachlor	ND		1.9	0.41	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
Heptachlor epoxide	ND		1.9	0.49	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
Methoxychlor	ND	U	1.9	0.39	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
Toxaphene	ND		19	11	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*80*		*45 - 120*	*07/12/24 06:39*	*07/16/24 15:52*	*1*
DCB Decachlorobiphenyl	*75*		*45 - 120*	*07/12/24 06:39*	*07/16/24 15:52*	*1*
Tetrachloro-m-xylene	*76*		*30 - 124*	*07/12/24 06:39*	*07/16/24 15:52*	*1*
Tetrachloro-m-xylene	*76*		*30 - 124*	*07/12/24 06:39*	*07/16/24 15:52*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.22	0.043	mg/Kg	☼	07/12/24 06:45	07/15/24 06:44	1
PCB-1221	ND		0.22	0.043	mg/Kg	☼	07/12/24 06:45	07/15/24 06:44	1
PCB-1232	ND		0.22	0.043	mg/Kg	☼	07/12/24 06:45	07/15/24 06:44	1
PCB-1242	ND		0.22	0.043	mg/Kg	☼	07/12/24 06:45	07/15/24 06:44	1
PCB-1248	ND		0.22	0.043	mg/Kg	☼	07/12/24 06:45	07/15/24 06:44	1
PCB-1254	ND		0.22	0.10	mg/Kg	☼	07/12/24 06:45	07/15/24 06:44	1
PCB-1260	ND		0.22	0.10	mg/Kg	☼	07/12/24 06:45	07/15/24 06:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*101*		*60 - 154*	*07/12/24 06:45*	*07/15/24 06:44*	*1*
Tetrachloro-m-xylene	*90*		*60 - 154*	*07/12/24 06:45*	*07/15/24 06:44*	*1*
DCB Decachlorobiphenyl	*88*		*65 - 174*	*07/12/24 06:45*	*07/15/24 06:44*	*1*
DCB Decachlorobiphenyl	*93*		*65 - 174*	*07/12/24 06:45*	*07/15/24 06:44*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**18700**		11.8	10.2	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Antimony	ND		17.7	0.62	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Arsenic	**3.8**		2.4	1.0	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Barium	**112**		0.59	0.16	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Beryllium	**0.82**		0.24	0.047	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Cadmium	**0.27**		0.24	0.082	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Calcium	**45900**		58.9	31.8	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Chromium	**22.0**		0.59	0.42	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Cobalt	**11.9**		0.59	0.12	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Copper	**18.2**		1.2	0.67	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Iron	**18900**		11.8	10	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Lead	**12.5**		1.2	0.54	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Magnesium	**13300**		23.6	10	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1

Client Sample ID: HA-07-3.0-4.0
Lab Sample ID: 480-221523-6

Date Collected: 07/10/24 12:20
Matrix: Solid

Date Received: 07/11/24 14:29
Percent Solids: 86.5

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**534**		1.2	0.33	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Nickel	**21.8**		5.9	0.29	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Potassium	**5130**		35.3	28.6	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Selenium	ND		4.7	0.94	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Silver	ND		0.71	0.24	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Sodium	**218**		165	72.2	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Thallium	ND		7.1	0.90	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Vanadium	**33.7**		0.59	0.15	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Zinc	**57.3**		2.4	1.2	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.015**	**J**	0.022	0.0051	mg/Kg	☼	07/15/24 09:13	07/15/24 12:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.1	0.55	mg/Kg	☼	07/18/24 12:15	07/18/24 16:35	1

Client Sample ID: SB-01-26.0-31.7

Date Collected: 07/11/24 08:35
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-1

Matrix: Solid
Percent Solids: 77.7

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/Kg	☼		N/A	07/12/24 10:00	07/14/24 16:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		64 - 126	07/12/24 10:00	07/14/24 16:59	1
4-Bromofluorobenzene (Surr)	106		72 - 126	07/12/24 10:00	07/14/24 16:59	1
Dibromofluoromethane (Surr)	103		60 - 140	07/12/24 10:00	07/14/24 16:59	1
Toluene-d8 (Surr)	97		71 - 125	07/12/24 10:00	07/14/24 16:59	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		130	70	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
2,4,5-Trichlorophenol	ND		220	59	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
2,4,6-Trichlorophenol	ND		220	43	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
2,4-Dichlorophenol	ND		220	23	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
2,4-Dimethylphenol	ND		220	52	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
2,4-Dinitrophenol	ND		2100	1000	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
2,4-Dinitrotoluene	ND		220	45	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
2,6-Dinitrotoluene	ND		220	26	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
2-Chloronaphthalene	ND		220	36	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
2-Chlorophenol	ND		420	40	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
2-Methylnaphthalene	ND		220	43	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
2-Methylphenol	ND		220	26	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
2-Nitroaniline	ND		420	32	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
2-Nitrophenol	ND		220	61	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
3,3'-Dichlorobenzidine	ND		420	260	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
3-Nitroaniline	ND		420	60	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
4,6-Dinitro-2-methylphenol	ND		420	220	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
4-Bromophenyl phenyl ether	ND		220	31	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
4-Chloro-3-methylphenol	ND		220	54	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
4-Chloroaniline	ND		220	54	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
4-Chlorophenyl phenyl ether	ND		220	27	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
4-Methylphenol	ND		420	26	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
4-Nitroaniline	ND		420	110	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
4-Nitrophenol	ND		420	150	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Acenaphthene	ND		220	32	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Acenaphthylene	ND		220	28	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Acetophenone	ND		220	29	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Anthracene	ND		220	54	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Atrazine	ND		220	75	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Benzaldehyde	ND		220	170	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Benzo[a]anthracene	ND		220	22	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Benzo[a]pyrene	ND		220	32	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Benzo[b]fluoranthene	ND		220	35	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Benzo[g,h,i]perylene	ND		220	23	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Benzo[k]fluoranthene	ND		220	28	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Biphenyl	ND		220	32	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
bis (2-chloroisopropyl) ether	ND		220	43	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Bis(2-chloroethoxy)methane	ND		220	46	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Bis(2-chloroethyl)ether	ND		220	28	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Bis(2-ethylhexyl) phthalate	ND		220	74	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1

Client Sample ID: SB-01-26.0-31.7
Lab Sample ID: 480-221553-1

Date Collected: 07/11/24 08:35
Matrix: Solid

Date Received: 07/12/24 17:50
Percent Solids: 77.7

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Butyl benzyl phthalate	ND		220	36	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Caprolactam	ND		220	65	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Carbazole	ND		220	26	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Chrysene	ND		220	49	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Dibenz(a,h)anthracene	ND		220	38	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Dibenzofuran	ND		220	26	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Diethyl phthalate	ND		220	28	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Dimethyl phthalate	ND		220	26	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Di-n-butyl phthalate	ND		220	37	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Di-n-octyl phthalate	ND		220	26	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Fluoranthene	ND		220	23	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Fluorene	ND		220	26	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Hexachlorobenzene	ND		220	29	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Hexachlorobutadiene	ND		220	32	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Hexachlorocyclopentadiene	ND		220	29	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Hexachloroethane	ND		220	28	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Indeno[1,2,3-cd]pyrene	ND		220	27	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Isophorone	ND		220	46	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Naphthalene	ND		220	28	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Nitrobenzene	ND		220	24	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
N-Nitrosodi-n-propylamine	ND		220	37	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
N-Nitrosodiphenylamine	ND		220	180	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Pentachlorophenol	ND		420	220	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Phenanthrene	ND		220	32	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Phenol	ND		220	33	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Pyrene	ND		220	26	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*2200*	*T J*	*ug/Kg*	☼	*1.94*	*N/A*	*07/15/24 07:53*	*07/19/24 14:40*	*1*
Unknown	*1000*	*T J*	*ug/Kg*	☼	*3.35*	*N/A*	*07/15/24 07:53*	*07/19/24 14:40*	*1*
Heptadecane	*200*	*T J N*	*ug/Kg*	☼	*10.34*	*629-78-7*	*07/15/24 07:53*	*07/19/24 14:40*	*1*
Heptacosane	*180*	*T J N*	*ug/Kg*	☼	*10.81*	*593-49-7*	*07/15/24 07:53*	*07/19/24 14:40*	*1*
Octacosane	*250*	*T J N*	*ug/Kg*	☼	*13.16*	*630-02-4*	*07/15/24 07:53*	*07/19/24 14:40*	*1*
Docosane	*200*	*T J N*	*ug/Kg*	☼	*13.43*	*629-97-0*	*07/15/24 07:53*	*07/19/24 14:40*	*1*
Hexacosane	*190*	*T J N*	*ug/Kg*	☼	*13.68*	*630-01-3*	*07/15/24 07:53*	*07/19/24 14:40*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*97*		*26 - 143*	*07/15/24 07:53*	*07/19/24 14:40*	*1*
2-Fluorobiphenyl	*86*		*50 - 121*	*07/15/24 07:53*	*07/19/24 14:40*	*1*
2-Fluorophenol	*66*		*36 - 120*	*07/15/24 07:53*	*07/19/24 14:40*	*1*
Nitrobenzene-d5	*84*		*40 - 121*	*07/15/24 07:53*	*07/19/24 14:40*	*1*
Phenol-d5	*86*		*41 - 120*	*07/15/24 07:53*	*07/19/24 14:40*	*1*
p-Terphenyl-d14	*109*		*46 - 143*	*07/15/24 07:53*	*07/19/24 14:40*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.1	0.42	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
4,4'-DDE	ND		2.1	0.45	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
4,4'-DDT	ND		2.1	0.50	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
Aldrin	ND		2.1	0.53	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1

Client Sample ID: SB-01-26.0-31.7
Lab Sample ID: 480-221553-1

Date Collected: 07/11/24 08:35
Matrix: Solid

Date Received: 07/12/24 17:50
Percent Solids: 77.7

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
alpha-BHC	ND		2.1	0.39	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
cis-Chlordane	ND		2.1	1.1	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
beta-BHC	ND		2.1	0.39	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
delta-BHC	ND		2.1	0.40	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
Dieldrin	ND		2.1	0.51	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
Endosulfan I	ND		2.1	0.41	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
Endosulfan II	ND		2.1	0.39	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
Endosulfan sulfate	ND		2.1	0.40	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
Endrin	ND		2.1	0.42	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
Endrin aldehyde	ND		2.1	0.55	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
Endrin ketone	ND		2.1	0.53	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
gamma-BHC (Lindane)	ND		2.1	0.39	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
trans-Chlordane	ND		2.1	0.68	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
Heptachlor	ND		2.1	0.46	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
Heptachlor epoxide	ND		2.1	0.55	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
Methoxychlor	ND		2.1	0.44	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
Toxaphene	ND		21	12	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*74*		*45 - 120*	*07/15/24 07:45*	*07/16/24 11:19*	*1*
DCB Decachlorobiphenyl	*75*		*45 - 120*	*07/15/24 07:45*	*07/16/24 11:19*	*1*
Tetrachloro-m-xylene	*61*		*30 - 124*	*07/15/24 07:45*	*07/16/24 11:19*	*1*
Tetrachloro-m-xylene	*68*		*30 - 124*	*07/15/24 07:45*	*07/16/24 11:19*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.28	0.054	mg/Kg	☼	07/15/24 08:01	07/18/24 05:49	1
PCB-1221	ND		0.28	0.054	mg/Kg	☼	07/15/24 08:01	07/18/24 05:49	1
PCB-1232	ND		0.28	0.054	mg/Kg	☼	07/15/24 08:01	07/18/24 05:49	1
PCB-1242	ND		0.28	0.054	mg/Kg	☼	07/15/24 08:01	07/18/24 05:49	1
PCB-1248	ND		0.28	0.054	mg/Kg	☼	07/15/24 08:01	07/18/24 05:49	1
PCB-1254	ND		0.28	0.13	mg/Kg	☼	07/15/24 08:01	07/18/24 05:49	1
PCB-1260	ND		0.28	0.13	mg/Kg	☼	07/15/24 08:01	07/18/24 05:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*135*		*60 - 154*	*07/15/24 08:01*	*07/18/24 05:49*	*1*
Tetrachloro-m-xylene	*114*		*60 - 154*	*07/15/24 08:01*	*07/18/24 05:49*	*1*
DCB Decachlorobiphenyl	*119*		*65 - 174*	*07/15/24 08:01*	*07/18/24 05:49*	*1*
DCB Decachlorobiphenyl	*132*		*65 - 174*	*07/15/24 08:01*	*07/18/24 05:49*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.82	0.21	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluoropentanoic acid (PFPeA)	ND		0.41	0.10	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluorohexanoic acid (PFHxA)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluoroheptanoic acid (PFHpA)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluorooctanoic acid (PFOA)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluorononanoic acid (PFNA)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluorodecanoic acid (PFDA)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluoroundecanoic acid (PFUnA)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1

Client Sample ID: SB-01-26.0-31.7
Lab Sample ID: 480-221553-1
Date Collected: 07/11/24 08:35
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 77.7

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorododecanoic acid (PFDoA)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluorononanesulfonic acid (PFNS)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		0.82	0.21	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		0.82	0.21	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		0.82	0.21	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		2.1	0.52	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		2.1	0.52	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.82	0.21	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.82	0.21	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.41	0.10	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		0.82	0.21	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		0.82	0.21	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.41	0.10	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1.0	0.26	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		5.2	1.3	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		5.2	1.3	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.41	0.10	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*102*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:11*	*1*

Client Sample ID: SB-01-26.0-31.7

Date Collected: 07/11/24 08:35
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-1

Matrix: Solid
Percent Solids: 77.7

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFPeA	89.3		20 - 150	07/15/24 08:23	07/16/24 09:11	1
13C5 PFHxA	90.7		20 - 150	07/15/24 08:23	07/16/24 09:11	1
13C4 PFHpA	83.8		20 - 150	07/15/24 08:23	07/16/24 09:11	1
13C8 PFOA	84.1		20 - 150	07/15/24 08:23	07/16/24 09:11	1
13C9 PFNA	89.9		20 - 150	07/15/24 08:23	07/16/24 09:11	1
13C6 PFDA	94.6		20 - 150	07/15/24 08:23	07/16/24 09:11	1
13C7 PFUnA	99.9		20 - 150	07/15/24 08:23	07/16/24 09:11	1
13C2 PFTeDA	65.2		20 - 150	07/15/24 08:23	07/16/24 09:11	1
13C3 PFBS	90.6		20 - 150	07/15/24 08:23	07/16/24 09:11	1
13C3 PFHxS	82.6		20 - 150	07/15/24 08:23	07/16/24 09:11	1
13C8 PFOS	92.4		20 - 150	07/15/24 08:23	07/16/24 09:11	1
13C8 FOSA	94.6		20 - 150	07/15/24 08:23	07/16/24 09:11	1
d3-NMeFOSAA	90.3		20 - 150	07/15/24 08:23	07/16/24 09:11	1
d5-NEtFOSAA	138		20 - 150	07/15/24 08:23	07/16/24 09:11	1
M2-4:2 FTS	91.8		20 - 150	07/15/24 08:23	07/16/24 09:11	1
M2-6:2 FTS	86.2		20 - 150	07/15/24 08:23	07/16/24 09:11	1
M2-8:2 FTS	81.0		20 - 150	07/15/24 08:23	07/16/24 09:11	1
13C3 HFPO-DA	82.7		20 - 150	07/15/24 08:23	07/16/24 09:11	1
d7-N-MeFOSE-M	75.5		20 - 150	07/15/24 08:23	07/16/24 09:11	1
d9-N-EtFOSE-M	69.4		20 - 150	07/15/24 08:23	07/16/24 09:11	1
d5-NEtPFOSA	78.5		20 - 150	07/15/24 08:23	07/16/24 09:11	1
d3-NMePFOSA	81.2		20 - 150	07/15/24 08:23	07/16/24 09:11	1
13C2-PFDoDA	91.4		20 - 150	07/15/24 08:23	07/16/24 09:11	1

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.41	0.10	ug/Kg	☼	07/15/24 08:23	07/19/24 21:38	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	100		20 - 150	07/15/24 08:23	07/19/24 21:38	1
13C5 PFPeA	87.9		20 - 150	07/15/24 08:23	07/19/24 21:38	1
13C5 PFHxA	96.1		20 - 150	07/15/24 08:23	07/19/24 21:38	1
13C4 PFHpA	86.7		20 - 150	07/15/24 08:23	07/19/24 21:38	1
13C8 PFOA	82.9		20 - 150	07/15/24 08:23	07/19/24 21:38	1
13C9 PFNA	94.6		20 - 150	07/15/24 08:23	07/19/24 21:38	1
13C6 PFDA	81.5		20 - 150	07/15/24 08:23	07/19/24 21:38	1
13C7 PFUnA	96.2		20 - 150	07/15/24 08:23	07/19/24 21:38	1
13C2 PFTeDA	86.7		20 - 150	07/15/24 08:23	07/19/24 21:38	1
13C3 PFBS	87.4		20 - 150	07/15/24 08:23	07/19/24 21:38	1
13C3 PFHxS	89.3		20 - 150	07/15/24 08:23	07/19/24 21:38	1
13C8 PFOS	92.3		20 - 150	07/15/24 08:23	07/19/24 21:38	1
13C8 FOSA	90.5		20 - 150	07/15/24 08:23	07/19/24 21:38	1
d3-NMeFOSAA	87.3		20 - 150	07/15/24 08:23	07/19/24 21:38	1
d5-NEtFOSAA	119		20 - 150	07/15/24 08:23	07/19/24 21:38	1
M2-4:2 FTS	105		20 - 150	07/15/24 08:23	07/19/24 21:38	1
M2-6:2 FTS	113		20 - 150	07/15/24 08:23	07/19/24 21:38	1
M2-8:2 FTS	120		20 - 150	07/15/24 08:23	07/19/24 21:38	1
13C3 HFPO-DA	87.5		20 - 150	07/15/24 08:23	07/19/24 21:38	1
d7-N-MeFOSE-M	86.4		20 - 150	07/15/24 08:23	07/19/24 21:38	1
d9-N-EtFOSE-M	96.6		20 - 150	07/15/24 08:23	07/19/24 21:38	1

Client Sample ID: SB-01-26.0-31.7
Lab Sample ID: 480-221553-1
Date Collected: 07/11/24 08:35
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 77.7

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS - RA (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
d5-NEtPFOSA	*79.4*		*20 - 150*	*07/15/24 08:23*	*07/19/24 21:38*	*1*
d3-NMePFOSA	*82.9*		*20 - 150*	*07/15/24 08:23*	*07/19/24 21:38*	*1*
13C2-PFDoDA	*87.7*		*20 - 150*	*07/15/24 08:23*	*07/19/24 21:38*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**19700**		12.4	10.7	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Antimony	ND		18.6	0.66	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Arsenic	**3.7**		2.5	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Barium	**120**		0.62	0.17	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Beryllium	**0.88**		0.25	0.050	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Cadmium	**0.18**	**J**	0.25	0.087	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Calcium	**44400**		61.9	33.4	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Chromium	**27.6**		0.62	0.45	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Cobalt	**11.9**		0.62	0.12	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Copper	**18.4**		1.2	0.71	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Iron	**20900**		12.4	10.5	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Lead	**10.0**		1.2	0.57	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Magnesium	**14800**		24.8	10.5	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Manganese	**515**		1.2	0.35	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Nickel	**28.4**		6.2	0.31	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Potassium	**6530**		37.2	30.0	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Selenium	ND		5.0	0.99	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Silver	**0.37**	**J**	0.74	0.25	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Sodium	**340**		173	75.9	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Thallium	ND		7.4	0.94	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Vanadium	**38.3**		0.62	0.16	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Zinc	**54.1**		2.5	1.3	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.020**	**J**	0.026	0.0061	mg/Kg	☼	07/15/24 09:13	07/15/24 11:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.1	0.54	mg/Kg	☼	07/18/24 12:15	07/18/24 16:37	1

Client Sample ID: HA-06-0.0-0.2
Lab Sample ID: 480-221553-2
Date Collected: 07/11/24 09:30
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 78.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		1100	290	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
2,4,6-Trichlorophenol	ND		1100	210	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
2,4-Dichlorophenol	ND		1100	110	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
2,4-Dimethylphenol	ND		1100	260	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
2,4-Dinitrophenol	ND		10000	4900	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
2,4-Dinitrotoluene	ND		1100	220	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
2,6-Dinitrotoluene	ND		1100	120	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
2-Chloronaphthalene	ND		1100	170	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5

Client Sample ID: HA-06-0.0-0.2
Lab Sample ID: 480-221553-2

Date Collected: 07/11/24 09:30
Matrix: Solid

Date Received: 07/12/24 17:50
Percent Solids: 78.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorophenol	ND		2100	190	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
2-Methylnaphthalene	ND		1100	210	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
2-Methylphenol	ND		1100	120	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
2-Nitroaniline	ND		2100	160	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
2-Nitrophenol	ND		1100	300	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
3,3'-Dichlorobenzidine	ND		2100	1200	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
3-Nitroaniline	ND		2100	290	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
4,6-Dinitro-2-methylphenol	ND		2100	1100	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
4-Bromophenyl phenyl ether	ND		1100	150	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
4-Chloro-3-methylphenol	ND		1100	260	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
4-Chloroaniline	ND		1100	260	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
4-Chlorophenyl phenyl ether	ND		1100	130	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
4-Methylphenol	ND		2100	120	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
4-Nitroaniline	ND		2100	550	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
4-Nitrophenol	ND		2100	740	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Acenaphthene	ND		1100	160	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Acenaphthylene	ND		1100	140	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Acetophenone	ND		1100	140	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Anthracene	ND		1100	260	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Atrazine	ND		1100	370	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Benzaldehyde	ND		1100	840	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Benzo[a]anthracene	ND		1100	110	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Benzo[a]pyrene	ND		1100	160	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Benzo[b]fluoranthene	ND		1100	170	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Benzo[g,h,i]perylene	**130**	**J**	1100	110	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Benzo[k]fluoranthene	ND		1100	140	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Biphenyl	ND		1100	160	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
bis (2-chloroisopropyl) ether	ND		1100	210	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Bis(2-chloroethoxy)methane	ND		1100	220	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Bis(2-chloroethyl)ether	ND		1100	140	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Bis(2-ethylhexyl) phthalate	ND		1100	360	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Butyl benzyl phthalate	ND		1100	170	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Caprolactam	ND		1100	320	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Carbazole	ND		1100	120	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Chrysene	ND		1100	240	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Dibenz(a,h)anthracene	ND		1100	190	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Dibenzofuran	ND		1100	120	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Diethyl phthalate	ND		1100	140	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Dimethyl phthalate	ND		1100	120	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Di-n-butyl phthalate	ND		1100	180	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Di-n-octyl phthalate	ND		1100	120	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Fluoranthene	ND		1100	110	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Fluorene	ND		1100	120	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Hexachlorobenzene	ND		1100	140	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Hexachlorobutadiene	ND		1100	160	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Hexachlorocyclopentadiene	ND		1100	140	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Hexachloroethane	ND		1100	140	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Indeno[1,2,3-cd]pyrene	ND		1100	130	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Isophorone	ND		1100	220	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5

Client Sample ID: HA-06-0.0-0.2
Date Collected: 07/11/24 09:30
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-2
Matrix: Solid
Percent Solids: 78.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1100	140	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Nitrobenzene	ND		1100	120	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
N-Nitrosodi-n-propylamine	ND		1100	180	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
N-Nitrosodiphenylamine	ND		1100	860	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Pentachlorophenol	ND		2100	1100	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Phenanthrene	ND		1100	160	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Phenol	ND		1100	160	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Pyrene	ND		1100	120	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*3300*	*T J*	*ug/Kg*	☼	*1.94*	*N/A*	*07/15/24 07:53*	*07/19/24 15:12*	*5*
Unknown	*1200*	*T J*	*ug/Kg*	☼	*3.37*	*N/A*	*07/15/24 07:53*	*07/19/24 15:12*	*5*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*103*		*26 - 143*	*07/15/24 07:53*	*07/19/24 15:12*	*5*
2-Fluorobiphenyl	*90*		*50 - 121*	*07/15/24 07:53*	*07/19/24 15:12*	*5*
2-Fluorophenol	*90*		*36 - 120*	*07/15/24 07:53*	*07/19/24 15:12*	*5*
Nitrobenzene-d5	*99*		*40 - 121*	*07/15/24 07:53*	*07/19/24 15:12*	*5*
Phenol-d5	*99*		*41 - 120*	*07/15/24 07:53*	*07/19/24 15:12*	*5*
p-Terphenyl-d14	*102*		*46 - 143*	*07/15/24 07:53*	*07/19/24 15:12*	*5*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		21	4.1	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
4,4'-DDE	ND		21	4.5	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
4,4'-DDT	ND		21	5.0	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
Aldrin	ND		21	5.2	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
alpha-BHC	ND		21	3.8	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
cis-Chlordane	ND		21	11	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
beta-BHC	ND		21	3.8	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
delta-BHC	ND		21	3.9	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
Dieldrin	ND		21	5.1	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
Endosulfan I	ND		21	4.1	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
Endosulfan II	ND		21	3.8	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
Endosulfan sulfate	ND		21	4.0	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
Endrin	ND		21	4.2	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
Endrin aldehyde	ND		21	5.4	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
Endrin ketone	ND		21	5.2	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
gamma-BHC (Lindane)	ND		21	3.9	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
trans-Chlordane	ND		21	6.7	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
Heptachlor	ND		21	4.6	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
Heptachlor epoxide	ND		21	5.5	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
Methoxychlor	ND		21	4.3	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
Toxaphene	ND		210	120	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*130*	*S1+*	*45 - 120*	*07/15/24 07:45*	*07/16/24 11:38*	*10*
DCB Decachlorobiphenyl	*109*		*45 - 120*	*07/15/24 07:45*	*07/16/24 11:38*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 11:38*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 11:38*	*10*

Client Sample ID: HA-06-0.0-0.2
Lab Sample ID: 480-221553-2

Date Collected: 07/11/24 09:30
Matrix: Solid

Date Received: 07/12/24 17:50
Percent Solids: 78.2

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.25	0.050	mg/Kg	☼	07/15/24 08:01	07/18/24 06:06	1
PCB-1221	ND		0.25	0.050	mg/Kg	☼	07/15/24 08:01	07/18/24 06:06	1
PCB-1232	ND		0.25	0.050	mg/Kg	☼	07/15/24 08:01	07/18/24 06:06	1
PCB-1242	ND		0.25	0.050	mg/Kg	☼	07/15/24 08:01	07/18/24 06:06	1
PCB-1248	ND		0.25	0.050	mg/Kg	☼	07/15/24 08:01	07/18/24 06:06	1
PCB-1254	ND		0.25	0.12	mg/Kg	☼	07/15/24 08:01	07/18/24 06:06	1
PCB-1260	ND		0.25	0.12	mg/Kg	☼	07/15/24 08:01	07/18/24 06:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*123*		*60 - 154*	*07/15/24 08:01*	*07/18/24 06:06*	*1*
Tetrachloro-m-xylene	*109*		*60 - 154*	*07/15/24 08:01*	*07/18/24 06:06*	*1*
DCB Decachlorobiphenyl	*109*		*65 - 174*	*07/15/24 08:01*	*07/18/24 06:06*	*1*
DCB Decachlorobiphenyl	*123*		*65 - 174*	*07/15/24 08:01*	*07/18/24 06:06*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**19600**		13.3	11.5	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Antimony	ND		19.9	0.70	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Arsenic	**4.1**		2.7	1.2	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Barium	**122**		0.66	0.19	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Beryllium	**0.88**		0.27	0.053	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Cadmium	**0.27**		0.27	0.093	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Calcium	**52100**		66.4	35.9	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Chromium	**27.4**		0.66	0.48	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Cobalt	**11.8**		0.66	0.13	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Copper	**23.0**		1.3	0.76	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Iron	**21000**		13.3	11.3	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Lead	**39.7**		1.3	0.61	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Magnesium	**16100**		26.6	11.3	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Manganese	**552**		1.3	0.37	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Nickel	**30.3**		6.6	0.33	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Potassium	**6080**		39.9	32.2	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Selenium	ND		5.3	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Silver	**0.38**	**J**	0.80	0.27	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Sodium	**274**		186	81.4	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Thallium	ND		8.0	1.0	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Vanadium	**44.1**		0.66	0.17	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Zinc	**75.3**		2.7	1.4	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.024**	**J**	0.026	0.0060	mg/Kg	☼	07/15/24 09:13	07/15/24 11:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.3	0.61	mg/Kg	☼	07/18/24 12:15	07/18/24 16:39	1

Client Sample ID: HA-06-3.0-4.0
Lab Sample ID: 480-221553-3

Date Collected: 07/11/24 09:50
Matrix: Solid

Date Received: 07/12/24 17:50
Percent Solids: 79.8

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		3.1	0.22	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
1,1,2,2-Tetrachloroethane	ND		3.1	0.50	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.1	0.70	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
1,1,2-Trichloroethane	ND		3.1	0.40	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
1,1-Dichloroethane	ND		3.1	0.37	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
1,1-Dichloroethene	ND		3.1	0.37	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
1,2,4-Trichlorobenzene	ND		3.1	0.19	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
1,2-Dibromo-3-Chloropropane	ND		3.1	1.5	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
1,2-Dibromoethane	ND		3.1	0.39	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
1,2-Dichlorobenzene	ND		3.1	0.24	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
1,2-Dichloroethane	ND		3.1	0.15	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
1,2-Dichloropropane	ND		3.1	1.5	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
1,3-Dichlorobenzene	ND		3.1	0.16	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
1,4-Dichlorobenzene	ND		3.1	0.43	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
2-Butanone (MEK)	ND		15	1.1	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
2-Hexanone	ND		15	1.5	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
4-Methyl-2-pentanone (MIBK)	ND		15	1.0	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Acetone	ND		15	2.6	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Benzene	ND		3.1	0.15	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Bromodichloromethane	ND		3.1	0.41	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Bromoform	ND		3.1	1.5	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Bromomethane	ND		3.1	0.28	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Carbon disulfide	ND		3.1	1.5	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Carbon tetrachloride	ND		3.1	0.30	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Chlorobenzene	ND		3.1	0.40	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Chloroethane	ND		3.1	0.69	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Chloroform	ND		3.1	0.19	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Chloromethane	ND		3.1	0.18	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
cis-1,2-Dichloroethene	ND		3.1	0.39	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
cis-1,3-Dichloropropene	ND		3.1	0.44	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Cyclohexane	ND		3.1	0.43	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Dibromochloromethane	ND		3.1	0.39	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Dichlorodifluoromethane	ND		3.1	0.25	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Ethylbenzene	ND		3.1	0.21	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Isopropylbenzene	ND		3.1	0.46	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Methyl acetate	ND		15	1.8	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Methyl tert-butyl ether	ND		3.1	0.30	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Methylcyclohexane	ND		3.1	0.46	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Methylene Chloride	ND		3.1	1.4	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Styrene	ND		3.1	0.15	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Tetrachloroethene	ND		3.1	0.41	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Toluene	ND		3.1	0.23	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
trans-1,2-Dichloroethene	ND		3.1	0.32	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
trans-1,3-Dichloropropene	ND		3.1	1.3	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Trichloroethene	ND		3.1	0.67	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Trichlorofluoromethane	ND		3.1	0.29	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Vinyl chloride	ND		3.1	0.37	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Xylenes, Total	ND		6.1	0.51	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1

Client Sample ID: HA-06-3.0-4.0
Date Collected: 07/11/24 09:50
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-3
Matrix: Solid
Percent Solids: 79.8

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/Kg	☼		N/A	07/12/24 10:00	07/14/24 17:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		64 - 126	07/12/24 10:00	07/14/24 17:23	1
4-Bromofluorobenzene (Surr)	109		72 - 126	07/12/24 10:00	07/14/24 17:23	1
Dibromofluoromethane (Surr)	107		60 - 140	07/12/24 10:00	07/14/24 17:23	1
Toluene-d8 (Surr)	97		71 - 125	07/12/24 10:00	07/14/24 17:23	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		210	56	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
2,4,6-Trichlorophenol	ND		210	41	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
2,4-Dichlorophenol	ND		210	22	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
2,4-Dimethylphenol	ND		210	50	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
2,4-Dinitrophenol	ND		2000	950	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
2,4-Dinitrotoluene	ND		210	43	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
2,6-Dinitrotoluene	ND		210	24	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
2-Chloronaphthalene	ND		210	34	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
2-Chlorophenol	ND		400	38	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
2-Methylnaphthalene	ND		210	41	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
2-Methylphenol	ND		210	24	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
2-Nitroaniline	ND		400	30	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
2-Nitrophenol	ND		210	58	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
3,3'-Dichlorobenzidine	ND		400	240	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
3-Nitroaniline	ND		400	57	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
4,6-Dinitro-2-methylphenol	ND		400	210	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
4-Bromophenyl phenyl ether	ND		210	29	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
4-Chloro-3-methylphenol	ND		210	51	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
4-Chloroaniline	ND		210	51	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
4-Chlorophenyl phenyl ether	ND		210	26	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
4-Methylphenol	ND		400	24	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
4-Nitroaniline	ND		400	110	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
4-Nitrophenol	ND		400	140	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Acenaphthene	ND		210	30	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Acenaphthylene	ND		210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Acetophenone	ND		210	28	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Anthracene	ND		210	51	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Atrazine	ND		210	72	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Benzaldehyde	ND		210	160	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Benzo[a]anthracene	ND		210	21	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Benzo[a]pyrene	ND		210	30	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Benzo[b]fluoranthene	ND		210	33	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Benzo[g,h,i]perylene	ND		210	22	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Benzo[k]fluoranthene	ND		210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Biphenyl	ND		210	30	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
bis (2-chloroisopropyl) ether	ND		210	41	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Bis(2-chloroethoxy)methane	ND		210	44	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Bis(2-chloroethyl)ether	ND		210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Bis(2-ethylhexyl) phthalate	ND		210	71	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Butyl benzyl phthalate	ND		210	34	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1

Client Sample ID: HA-06-3.0-4.0
Date Collected: 07/11/24 09:50
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-3
Matrix: Solid
Percent Solids: 79.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Caprolactam	ND		210	62	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Carbazole	ND		210	24	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Chrysene	ND		210	46	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Dibenz(a,h)anthracene	ND		210	37	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Dibenzofuran	ND		210	24	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Diethyl phthalate	ND		210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Dimethyl phthalate	ND		210	24	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Di-n-butyl phthalate	ND		210	35	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Di-n-octyl phthalate	ND		210	24	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Fluoranthene	ND		210	22	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Fluorene	ND		210	24	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Hexachlorobenzene	ND		210	28	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Hexachlorobutadiene	ND		210	30	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Hexachlorocyclopentadiene	ND		210	28	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Hexachloroethane	ND		210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Indeno[1,2,3-cd]pyrene	ND		210	26	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Isophorone	ND		210	44	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Naphthalene	ND		210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Nitrobenzene	ND		210	23	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
N-Nitrosodi-n-propylamine	ND		210	35	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
N-Nitrosodiphenylamine	ND		210	170	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Pentachlorophenol	ND		400	210	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Phenanthrene	ND		210	30	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Phenol	ND		210	32	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Pyrene	ND		210	24	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*390*	*T J*	*ug/Kg*	☼	*1.81*	*N/A*	*07/15/24 07:53*	*07/19/24 15:59*	*1*
Unknown	*1800*	*T J*	*ug/Kg*	☼	*1.93*	*N/A*	*07/15/24 07:53*	*07/19/24 15:59*	*1*
Unknown	*970*	*T J*	*ug/Kg*	☼	*3.35*	*N/A*	*07/15/24 07:53*	*07/19/24 15:59*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*100*		*26 - 143*	*07/15/24 07:53*	*07/19/24 15:59*	*1*
2-Fluorobiphenyl	*93*		*50 - 121*	*07/15/24 07:53*	*07/19/24 15:59*	*1*
2-Fluorophenol	*90*		*36 - 120*	*07/15/24 07:53*	*07/19/24 15:59*	*1*
Nitrobenzene-d5	*91*		*40 - 121*	*07/15/24 07:53*	*07/19/24 15:59*	*1*
Phenol-d5	*98*		*41 - 120*	*07/15/24 07:53*	*07/19/24 15:59*	*1*
p-Terphenyl-d14	*111*		*46 - 143*	*07/15/24 07:53*	*07/19/24 15:59*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.1	0.41	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
4,4'-DDE	ND		2.1	0.44	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
4,4'-DDT	ND		2.1	0.49	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
Aldrin	ND		2.1	0.51	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
alpha-BHC	ND		2.1	0.38	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
cis-Chlordane	ND		2.1	1.0	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
beta-BHC	ND		2.1	0.38	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
delta-BHC	ND		2.1	0.39	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
Dieldrin	ND		2.1	0.50	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1

Client Sample ID: HA-06-3.0-4.0
Date Collected: 07/11/24 09:50
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-3
Matrix: Solid
Percent Solids: 79.8

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I	ND		2.1	0.40	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
Endosulfan II	ND		2.1	0.38	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
Endosulfan sulfate	ND		2.1	0.39	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
Endrin	ND		2.1	0.41	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
Endrin aldehyde	ND		2.1	0.53	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
Endrin ketone	ND		2.1	0.51	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
gamma-BHC (Lindane)	ND		2.1	0.38	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
trans-Chlordane	ND		2.1	0.66	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
Heptachlor	ND		2.1	0.45	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
Heptachlor epoxide	ND		2.1	0.54	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
Methoxychlor	ND		2.1	0.43	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
Toxaphene	ND		21	12	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*82*		*45 - 120*	*07/15/24 07:45*	*07/16/24 11:58*	*1*
DCB Decachlorobiphenyl	*89*		*45 - 120*	*07/15/24 07:45*	*07/16/24 11:58*	*1*
Tetrachloro-m-xylene	*76*		*30 - 124*	*07/15/24 07:45*	*07/16/24 11:58*	*1*
Tetrachloro-m-xylene	*82*		*30 - 124*	*07/15/24 07:45*	*07/16/24 11:58*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.23	0.046	mg/Kg	☼	07/15/24 08:01	07/18/24 06:23	1
PCB-1221	ND		0.23	0.046	mg/Kg	☼	07/15/24 08:01	07/18/24 06:23	1
PCB-1232	ND		0.23	0.046	mg/Kg	☼	07/15/24 08:01	07/18/24 06:23	1
PCB-1242	ND		0.23	0.046	mg/Kg	☼	07/15/24 08:01	07/18/24 06:23	1
PCB-1248	ND		0.23	0.046	mg/Kg	☼	07/15/24 08:01	07/18/24 06:23	1
PCB-1254	ND		0.23	0.11	mg/Kg	☼	07/15/24 08:01	07/18/24 06:23	1
PCB-1260	ND		0.23	0.11	mg/Kg	☼	07/15/24 08:01	07/18/24 06:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*141*		*60 - 154*	*07/15/24 08:01*	*07/18/24 06:23*	*1*
Tetrachloro-m-xylene	*125*		*60 - 154*	*07/15/24 08:01*	*07/18/24 06:23*	*1*
DCB Decachlorobiphenyl	*126*		*65 - 174*	*07/15/24 08:01*	*07/18/24 06:23*	*1*
DCB Decachlorobiphenyl	*140*		*65 - 174*	*07/15/24 08:01*	*07/18/24 06:23*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**15500**		12.4	10.7	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Antimony	**0.79**	**J**	18.7	0.66	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Arsenic	**2.8**		2.5	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Barium	**90.1**		0.62	0.17	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Beryllium	**0.70**		0.25	0.050	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Cadmium	**0.14**	**J**	0.25	0.087	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Calcium	**38100**		62.2	33.6	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Chromium	**18.9**		0.62	0.45	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Cobalt	**7.2**		0.62	0.12	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Copper	**16.8**		1.2	0.71	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Iron	**17500**		12.4	10.6	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Lead	**14.3**		1.2	0.57	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Magnesium	**12400**		24.9	10.6	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1

Client Sample ID: HA-06-3.0-4.0
Lab Sample ID: 480-221553-3
Date Collected: 07/11/24 09:50
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 79.8

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**360**		1.2	0.35	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Nickel	**19.4**		6.2	0.31	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Potassium	**4450**		37.3	30.2	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Selenium	ND		5.0	1.0	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Silver	**0.34**	**J**	0.75	0.25	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Sodium	**276**		174	76.3	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Thallium	ND		7.5	0.95	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Vanadium	**32.1**		0.62	0.16	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Zinc	**44.8**		2.5	1.3	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.010**	**J**	0.026	0.0059	mg/Kg	☼	07/15/24 09:13	07/15/24 11:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.60	mg/Kg	☼	07/18/24 12:15	07/18/24 16:43	1

Client Sample ID: HA-06-3.0-4.0-FD
Lab Sample ID: 480-221553-4
Date Collected: 07/11/24 09:50
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 80.3

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		3.5	0.25	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
1,1,2,2-Tetrachloroethane	ND		3.5	0.56	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.5	0.79	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
1,1,2-Trichloroethane	ND		3.5	0.45	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
1,1-Dichloroethane	ND		3.5	0.42	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
1,1-Dichloroethene	ND		3.5	0.42	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
1,2,4-Trichlorobenzene	ND		3.5	0.21	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
1,2-Dibromo-3-Chloropropane	ND		3.5	1.7	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
1,2-Dibromoethane	ND		3.5	0.45	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
1,2-Dichlorobenzene	ND		3.5	0.27	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
1,2-Dichloroethane	ND		3.5	0.17	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
1,2-Dichloropropane	ND		3.5	1.7	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
1,3-Dichlorobenzene	ND		3.5	0.18	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
1,4-Dichlorobenzene	ND		3.5	0.49	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
2-Butanone (MEK)	ND		17	1.3	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
2-Hexanone	ND		17	1.7	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
4-Methyl-2-pentanone (MIBK)	ND		17	1.1	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Acetone	**5.2**	**J**	17	2.9	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Benzene	ND		3.5	0.17	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Bromodichloromethane	ND		3.5	0.47	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Bromoform	ND		3.5	1.7	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Bromomethane	ND		3.5	0.31	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Carbon disulfide	ND		3.5	1.7	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Carbon tetrachloride	ND		3.5	0.34	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Chlorobenzene	ND		3.5	0.46	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Chloroethane	ND		3.5	0.78	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1

Client Sample ID: HA-06-3.0-4.0-FD
Lab Sample ID: 480-221553-4

Date Collected: 07/11/24 09:50
Matrix: Solid

Date Received: 07/12/24 17:50
Percent Solids: 80.3

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		3.5	0.21	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Chloromethane	ND		3.5	0.21	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
cis-1,2-Dichloroethene	ND		3.5	0.44	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
cis-1,3-Dichloropropene	ND		3.5	0.50	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Cyclohexane	ND		3.5	0.49	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Dibromochloromethane	ND		3.5	0.44	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Dichlorodifluoromethane	ND		3.5	0.29	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Ethylbenzene	ND		3.5	0.24	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Isopropylbenzene	ND		3.5	0.52	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Methyl acetate	ND		17	2.1	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Methyl tert-butyl ether	ND		3.5	0.34	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Methylcyclohexane	ND		3.5	0.53	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Methylene Chloride	ND		3.5	1.6	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Styrene	ND		3.5	0.17	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Tetrachloroethene	ND		3.5	0.47	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Toluene	ND		3.5	0.26	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
trans-1,2-Dichloroethene	ND		3.5	0.36	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
trans-1,3-Dichloropropene	ND		3.5	1.5	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Trichloroethene	ND		3.5	0.76	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Trichlorofluoromethane	ND		3.5	0.33	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Vinyl chloride	ND		3.5	0.42	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Xylenes, Total	ND		6.9	0.58	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/12/24 10:00*	*07/14/24 17:47*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*64 - 126*	*07/12/24 10:00*	*07/14/24 17:47*	*1*
4-Bromofluorobenzene (Surr)	*107*		*72 - 126*	*07/12/24 10:00*	*07/14/24 17:47*	*1*
Dibromofluoromethane (Surr)	*101*		*60 - 140*	*07/12/24 10:00*	*07/14/24 17:47*	*1*
Toluene-d8 (Surr)	*97*		*71 - 125*	*07/12/24 10:00*	*07/14/24 17:47*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		210	57	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
2,4,6-Trichlorophenol	ND		210	42	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
2,4-Dichlorophenol	ND		210	22	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
2,4-Dimethylphenol	ND		210	51	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
2,4-Dinitrophenol	ND		2100	970	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
2,4-Dinitrotoluene	ND		210	43	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
2,6-Dinitrotoluene	ND		210	25	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
2-Chloronaphthalene	ND		210	35	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
2-Chlorophenol	ND		410	38	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
2-Methylnaphthalene	ND		210	42	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
2-Methylphenol	ND		210	25	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
2-Nitroaniline	ND		410	31	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
2-Nitrophenol	ND		210	60	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
3,3'-Dichlorobenzidine	ND		410	250	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
3-Nitroaniline	ND		410	58	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
4,6-Dinitro-2-methylphenol	ND		410	210	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1

Client Sample ID: HA-06-3.0-4.0-FD
Lab Sample ID: 480-221553-4

Date Collected: 07/11/24 09:50
Matrix: Solid

Date Received: 07/12/24 17:50
Percent Solids: 80.3

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Bromophenyl phenyl ether	ND		210	30	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
4-Chloro-3-methylphenol	ND		210	52	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
4-Chloroaniline	ND		210	52	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
4-Chlorophenyl phenyl ether	ND		210	26	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
4-Methylphenol	ND		410	25	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
4-Nitroaniline	ND		410	110	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
4-Nitrophenol	ND		410	150	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Acenaphthene	ND		210	31	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Acenaphthylene	ND		210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Acetophenone	ND		210	29	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Anthracene	ND		210	52	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Atrazine	ND		210	73	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Benzaldehyde	ND		210	170	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Benzo[a]anthracene	ND		210	21	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Benzo[a]pyrene	ND		210	31	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Benzo[b]fluoranthene	ND		210	33	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Benzo[g,h,i]perylene	ND		210	22	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Benzo[k]fluoranthene	ND		210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Biphenyl	ND		210	31	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
bis (2-chloroisopropyl) ether	ND		210	42	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Bis(2-chloroethoxy)methane	ND		210	45	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Bis(2-chloroethyl)ether	ND		210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Bis(2-ethylhexyl) phthalate	ND		210	72	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Butyl benzyl phthalate	ND		210	35	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Caprolactam	ND		210	63	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Carbazole	ND		210	25	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Chrysene	ND		210	47	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Dibenz(a,h)anthracene	ND		210	37	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Dibenzofuran	ND		210	25	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Diethyl phthalate	ND		210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Dimethyl phthalate	ND		210	25	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Di-n-butyl phthalate	ND		210	36	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Di-n-octyl phthalate	ND		210	25	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Fluoranthene	ND		210	22	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Fluorene	ND		210	25	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Hexachlorobenzene	ND		210	29	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Hexachlorobutadiene	ND		210	31	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Hexachlorocyclopentadiene	ND		210	29	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Hexachloroethane	ND		210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Indeno[1,2,3-cd]pyrene	ND		210	26	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Isophorone	ND		210	45	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Naphthalene	ND		210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Nitrobenzene	ND		210	24	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
N-Nitrosodi-n-propylamine	ND		210	36	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
N-Nitrosodiphenylamine	ND		210	170	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Pentachlorophenol	ND		410	210	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Phenanthrene	ND		210	31	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Phenol	ND		210	32	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Pyrene	ND		210	25	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1

Client Sample ID: HA-06-3.0-4.0-FD
Date Collected: 07/11/24 09:50
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-4
Matrix: Solid
Percent Solids: 80.3

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	610	T J	ug/Kg	☼	1.75	N/A	07/15/24 07:53	07/19/24 16:27	1
Unknown	2700	T J	ug/Kg	☼	1.94	N/A	07/15/24 07:53	07/19/24 16:27	1
Methylene Chloride	2700	T J N	ug/Kg	☼	2.00	75-09-2	07/15/24 07:53	07/19/24 16:27	1
Unknown	970	T J	ug/Kg	☼	3.35	N/A	07/15/24 07:53	07/19/24 16:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	116		26 - 143	07/15/24 07:53	07/19/24 16:27	1
2-Fluorobiphenyl	82		50 - 121	07/15/24 07:53	07/19/24 16:27	1
2-Fluorophenol	72		36 - 120	07/15/24 07:53	07/19/24 16:27	1
Nitrobenzene-d5	82		40 - 121	07/15/24 07:53	07/19/24 16:27	1
Phenol-d5	77		41 - 120	07/15/24 07:53	07/19/24 16:27	1
p-Terphenyl-d14	92		46 - 143	07/15/24 07:53	07/19/24 16:27	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.1	0.40	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
4,4'-DDE	ND		2.1	0.43	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
4,4'-DDT	ND		2.1	0.48	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
Aldrin	ND		2.1	0.51	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
alpha-BHC	ND		2.1	0.37	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
cis-Chlordane	ND		2.1	1.0	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
beta-BHC	ND		2.1	0.37	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
delta-BHC	ND		2.1	0.38	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
Dieldrin	ND		2.1	0.50	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
Endosulfan I	ND		2.1	0.40	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
Endosulfan II	ND		2.1	0.37	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
Endosulfan sulfate	ND		2.1	0.39	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
Endrin	ND		2.1	0.41	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
Endrin aldehyde	ND		2.1	0.53	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
Endrin ketone	ND		2.1	0.51	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
gamma-BHC (Lindane)	ND		2.1	0.38	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
trans-Chlordane	ND		2.1	0.66	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
Heptachlor	ND		2.1	0.45	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
Heptachlor epoxide	ND		2.1	0.53	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
Methoxychlor	ND		2.1	0.42	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
Toxaphene	ND		21	12	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	78		45 - 120	07/15/24 07:45	07/16/24 12:18	1
DCB Decachlorobiphenyl	80		45 - 120	07/15/24 07:45	07/16/24 12:18	1
Tetrachloro-m-xylene	70		30 - 124	07/15/24 07:45	07/16/24 12:18	1
Tetrachloro-m-xylene	74		30 - 124	07/15/24 07:45	07/16/24 12:18	1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.22	0.043	mg/Kg	☼	07/15/24 08:01	07/18/24 06:40	1
PCB-1221	ND		0.22	0.043	mg/Kg	☼	07/15/24 08:01	07/18/24 06:40	1
PCB-1232	ND		0.22	0.043	mg/Kg	☼	07/15/24 08:01	07/18/24 06:40	1
PCB-1242	ND		0.22	0.043	mg/Kg	☼	07/15/24 08:01	07/18/24 06:40	1
PCB-1248	ND		0.22	0.043	mg/Kg	☼	07/15/24 08:01	07/18/24 06:40	1
PCB-1254	ND		0.22	0.10	mg/Kg	☼	07/15/24 08:01	07/18/24 06:40	1

Client Sample ID: HA-06-3.0-4.0-FD
Lab Sample ID: 480-221553-4
Date Collected: 07/11/24 09:50
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 80.3

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1260	ND		0.22	0.10	mg/Kg	☼	07/15/24 08:01	07/18/24 06:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*124*		*60 - 154*	*07/15/24 08:01*	*07/18/24 06:40*	*1*
Tetrachloro-m-xylene	*108*		*60 - 154*	*07/15/24 08:01*	*07/18/24 06:40*	*1*
DCB Decachlorobiphenyl	*105*		*65 - 174*	*07/15/24 08:01*	*07/18/24 06:40*	*1*
DCB Decachlorobiphenyl	*117*		*65 - 174*	*07/15/24 08:01*	*07/18/24 06:40*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**16700**		12.5	10.8	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Antimony	ND		18.7	0.66	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Arsenic	**2.4**	**J**	2.5	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Barium	**133**		0.62	0.17	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Beryllium	**0.73**		0.25	0.050	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Cadmium	**0.16**	**J**	0.25	0.087	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Calcium	**42900**		62.5	33.7	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Chromium	**20.6**		0.62	0.45	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Cobalt	**9.8**		0.62	0.12	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Copper	**16.3**		1.2	0.71	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Iron	**18000**		12.5	10.6	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Lead	**11.8**		1.2	0.57	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Magnesium	**13200**		25.0	10.6	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Manganese	**511**		1.2	0.35	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Nickel	**23.3**		6.2	0.31	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Potassium	**4840**		37.5	30.3	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Selenium	ND		5.0	1.0	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Silver	**0.34**	**J**	0.75	0.25	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Sodium	**277**		175	76.6	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Thallium	ND		7.5	0.95	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Vanadium	**32.6**		0.62	0.16	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Zinc	**48.5**		2.5	1.3	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.011**	**J**	0.024	0.0055	mg/Kg	☼	07/15/24 09:13	07/15/24 11:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.60	mg/Kg	☼	07/18/24 13:15	07/18/24 16:53	1

Client Sample ID: HA-05-0.0-0.2
Lab Sample ID: 480-221553-5
Date Collected: 07/11/24 10:25
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 75.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		1100	300	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
2,4,6-Trichlorophenol	ND		1100	220	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
2,4-Dichlorophenol	ND		1100	120	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
2,4-Dimethylphenol	ND		1100	270	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5

Client Sample ID: HA-05-0.0-0.2
Lab Sample ID: 480-221553-5

Date Collected: 07/11/24 10:25
Matrix: Solid

Date Received: 07/12/24 17:50
Percent Solids: 75.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	ND		11000	5100	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
2,4-Dinitrotoluene	ND		1100	230	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
2,6-Dinitrotoluene	ND		1100	130	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
2-Chloronaphthalene	ND		1100	180	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
2-Chlorophenol	ND		2200	200	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
2-Methylnaphthalene	ND		1100	220	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
2-Methylphenol	ND		1100	130	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
2-Nitroaniline	ND		2200	160	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
2-Nitrophenol	ND		1100	310	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
3,3'-Dichlorobenzidine	ND		2200	1300	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
3-Nitroaniline	ND		2200	310	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
4,6-Dinitro-2-methylphenol	ND		2200	1100	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
4-Bromophenyl phenyl ether	ND		1100	160	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
4-Chloro-3-methylphenol	ND		1100	270	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
4-Chloroaniline	ND		1100	270	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
4-Chlorophenyl phenyl ether	ND		1100	140	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
4-Methylphenol	ND		2200	130	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
4-Nitroaniline	ND		2200	580	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
4-Nitrophenol	ND		2200	780	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Acenaphthene	ND		1100	160	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Acenaphthylene	ND		1100	140	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Acetophenone	ND		1100	150	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Anthracene	ND		1100	270	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Atrazine	ND		1100	390	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Benzaldehyde	ND		1100	880	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Benzo[a]anthracene	**180**	**J**	1100	110	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Benzo[a]pyrene	**220**	**J**	1100	160	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Benzo[b]fluoranthene	**300**	**J**	1100	180	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Benzo[g,h,i]perylene	**210**	**J**	1100	120	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Benzo[k]fluoranthene	**160**	**J**	1100	140	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Biphenyl	ND		1100	160	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
bis (2-chloroisopropyl) ether	ND		1100	220	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Bis(2-chloroethoxy)methane	ND		1100	240	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Bis(2-chloroethyl)ether	ND		1100	140	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Bis(2-ethylhexyl) phthalate	ND		1100	380	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Butyl benzyl phthalate	ND		1100	180	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Caprolactam	ND		1100	330	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Carbazole	ND		1100	130	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Chrysene	ND		1100	250	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Dibenz(a,h)anthracene	ND		1100	200	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Dibenzofuran	ND		1100	130	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Diethyl phthalate	ND		1100	140	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Dimethyl phthalate	ND		1100	130	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Di-n-butyl phthalate	ND		1100	190	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Di-n-octyl phthalate	ND		1100	130	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Fluoranthene	**690**	**J**	1100	120	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Fluorene	ND		1100	130	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Hexachlorobenzene	ND		1100	150	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Hexachlorobutadiene	ND		1100	160	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5

Client Sample ID: HA-05-0.0-0.2
Date Collected: 07/11/24 10:25
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-5
Matrix: Solid
Percent Solids: 75.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorocyclopentadiene	ND		1100	150	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Hexachloroethane	ND		1100	140	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Indeno[1,2,3-cd]pyrene	**160**	**J**	1100	140	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Isophorone	ND		1100	240	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Naphthalene	ND		1100	140	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Nitrobenzene	ND		1100	120	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
N-Nitrosodi-n-propylamine	ND		1100	190	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
N-Nitrosodiphenylamine	ND		1100	900	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Pentachlorophenol	ND		2200	1100	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Phenanthrene	**170**	**J**	1100	160	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Phenol	ND		1100	170	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Pyrene	**450**	**J**	1100	130	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tetracosane	*1700*	*T J N*	*ug/Kg*	☼	*14.19*	*646-31-1*	*07/15/24 07:53*	*07/19/24 16:54*	*5*
Unknown	*900*	*T J*	*ug/Kg*	☼	*15.61*	*N/A*	*07/15/24 07:53*	*07/19/24 16:54*	*5*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*86*		*26 - 143*	*07/15/24 07:53*	*07/19/24 16:54*	*5*
2-Fluorobiphenyl	*73*		*50 - 121*	*07/15/24 07:53*	*07/19/24 16:54*	*5*
2-Fluorophenol	*68*		*36 - 120*	*07/15/24 07:53*	*07/19/24 16:54*	*5*
Nitrobenzene-d5	*78*		*40 - 121*	*07/15/24 07:53*	*07/19/24 16:54*	*5*
Phenol-d5	*78*		*41 - 120*	*07/15/24 07:53*	*07/19/24 16:54*	*5*
p-Terphenyl-d14	*78*		*46 - 143*	*07/15/24 07:53*	*07/19/24 16:54*	*5*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		22	4.3	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
4,4'-DDE	ND		22	4.6	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
4,4'-DDT	ND		22	5.1	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
Aldrin	ND		22	5.4	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
alpha-BHC	ND		22	3.9	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
cis-Chlordane	ND		22	11	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
beta-BHC	ND		22	3.9	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
delta-BHC	ND		22	4.1	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
Dieldrin	ND		22	5.3	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
Endosulfan I	ND		22	4.2	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
Endosulfan II	ND		22	3.9	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
Endosulfan sulfate	ND		22	4.1	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
Endrin	ND		22	4.3	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
Endrin aldehyde	ND		22	5.6	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
Endrin ketone	ND		22	5.4	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
gamma-BHC (Lindane)	ND		22	4.0	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
trans-Chlordane	ND		22	7.0	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
Heptachlor	ND		22	4.7	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
Heptachlor epoxide	ND		22	5.7	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
Methoxychlor	ND		22	4.5	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
Toxaphene	ND		220	130	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10

Client Sample ID: HA-05-0.0-0.2
Date Collected: 07/11/24 10:25
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-5
Matrix: Solid
Percent Solids: 75.2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*109*		*45 - 120*	*07/15/24 07:45*	*07/16/24 12:37*	*10*
DCB Decachlorobiphenyl	*100*		*45 - 120*	*07/15/24 07:45*	*07/16/24 12:37*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 12:37*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 12:37*	*10*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.32	0.063	mg/Kg	☼	07/15/24 08:01	07/18/24 06:56	1
PCB-1221	ND		0.32	0.063	mg/Kg	☼	07/15/24 08:01	07/18/24 06:56	1
PCB-1232	ND		0.32	0.063	mg/Kg	☼	07/15/24 08:01	07/18/24 06:56	1
PCB-1242	ND		0.32	0.063	mg/Kg	☼	07/15/24 08:01	07/18/24 06:56	1
PCB-1248	ND		0.32	0.063	mg/Kg	☼	07/15/24 08:01	07/18/24 06:56	1
PCB-1254	ND		0.32	0.15	mg/Kg	☼	07/15/24 08:01	07/18/24 06:56	1
PCB-1260	ND		0.32	0.15	mg/Kg	☼	07/15/24 08:01	07/18/24 06:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*116*		*60 - 154*	*07/15/24 08:01*	*07/18/24 06:56*	*1*
Tetrachloro-m-xylene	*106*		*60 - 154*	*07/15/24 08:01*	*07/18/24 06:56*	*1*
DCB Decachlorobiphenyl	*102*		*65 - 174*	*07/15/24 08:01*	*07/18/24 06:56*	*1*
DCB Decachlorobiphenyl	*114*		*65 - 174*	*07/15/24 08:01*	*07/18/24 06:56*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**14500**		13.3	11.5	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Antimony	ND		20.0	0.71	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Arsenic	**4.4**		2.7	1.2	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Barium	**115**		0.67	0.19	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Beryllium	**2.4**		0.27	0.053	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Cadmium	**0.24**	**J**	0.27	0.093	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Calcium	**61700**		66.7	36.0	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Chromium	**13.5**		0.67	0.48	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Cobalt	**6.7**		0.67	0.13	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Copper	**14.0**		1.3	0.76	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Iron	**11700**		13.3	11.3	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Lead	**41.1**		1.3	0.61	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Magnesium	**19700**		26.7	11.3	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Manganese	**769**		1.3	0.37	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Nickel	**17.6**		6.7	0.33	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Potassium	**2370**		40.0	32.3	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Selenium	ND		5.3	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Silver	ND		0.80	0.27	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Sodium	**471**		187	81.7	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Thallium	ND		8.0	1.0	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Vanadium	**15.8**		0.67	0.17	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Zinc	**75.1**		2.7	1.4	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.069**		0.025	0.0059	mg/Kg	☼	07/15/24 09:13	07/15/24 11:21	1

Client Sample ID: HA-05-0.0-0.2
Lab Sample ID: 480-221553-5

Date Collected: 07/11/24 10:25
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 75.2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	4.7		1.1	0.54	mg/Kg	☼	07/18/24 13:15	07/18/24 16:55	1

Client Sample ID: HA-05-3.0-4.0
Lab Sample ID: 480-221553-6

Date Collected: 07/11/24 10:50
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 82.2

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.1	0.29	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
1,1,2,2-Tetrachloroethane	ND	UJ	4.1	0.66	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.1	0.92	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
1,1,2-Trichloroethane	ND	UJ	4.1	0.53	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
1,1-Dichloroethane	ND		4.1	0.49	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
1,1-Dichloroethene	ND		4.1	0.50	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
1,2,4-Trichlorobenzene	ND	UJ	4.1	0.25	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
1,2-Dibromo-3-Chloropropane	ND	UJ	4.1	2.0	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
1,2-Dibromoethane	ND	UJ	4.1	0.52	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
1,2-Dichlorobenzene	ND	UJ	4.1	0.32	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
1,2-Dichloroethane	ND		4.1	0.20	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
1,2-Dichloropropane	ND		4.1	2.0	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
1,3-Dichlorobenzene	ND	UJ	4.1	0.21	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
1,4-Dichlorobenzene	ND	UJ	4.1	0.57	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
2-Butanone (MEK)	ND	UJ	20	1.5	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
2-Hexanone	ND	UJ	20	2.0	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
4-Methyl-2-pentanone (MIBK)	ND	UJ	20	1.3	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Acetone	ND	UJ	20	3.4	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Benzene	ND		4.1	0.20	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Bromodichloromethane	ND		4.1	0.54	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Bromoform	ND		4.1	2.0	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Bromomethane	ND		4.1	0.36	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Carbon disulfide	ND		4.1	2.0	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Carbon tetrachloride	ND		4.1	0.39	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Chlorobenzene	ND	UJ	4.1	0.54	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Chloroethane	ND		4.1	0.92	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Chloroform	ND		4.1	0.25	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Chloromethane	ND		4.1	0.24	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
cis-1,2-Dichloroethene	ND	UJ	4.1	0.52	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
cis-1,3-Dichloropropene	ND		4.1	0.58	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Cyclohexane	ND	UJ	4.1	0.57	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Dibromochloromethane	ND		4.1	0.52	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Dichlorodifluoromethane	ND		4.1	0.33	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Ethylbenzene	ND	UJ	4.1	0.28	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Isopropylbenzene	ND	UJ	4.1	0.61	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Methyl acetate	ND		20	2.4	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Methyl tert-butyl ether	ND		4.1	0.40	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Methylcyclohexane	ND	UJ	4.1	0.62	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Methylene Chloride	ND		4.1	1.9	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Styrene	ND	UJ	4.1	0.20	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Tetrachloroethene	ND	UJ	4.1	0.54	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Toluene	ND	UJ	4.1	0.31	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1

Client Sample ID: HA-05-3.0-4.0
Date Collected: 07/11/24 10:50
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-6
Matrix: Solid
Percent Solids: 82.2

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND	UJ	4.1	0.42	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
trans-1,3-Dichloropropene	ND		4.1	1.8	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Trichloroethene	ND		4.1	0.89	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Trichlorofluoromethane	ND		4.1	0.38	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Vinyl chloride	ND		4.1	0.49	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Xylenes, Total	ND		8.1	0.68	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/12/24 10:00*	*07/14/24 18:10*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*64 - 126*	*07/12/24 10:00*	*07/14/24 18:10*	*1*
4-Bromofluorobenzene (Surr)	*106*		*72 - 126*	*07/12/24 10:00*	*07/14/24 18:10*	*1*
Dibromofluoromethane (Surr)	*104*		*60 - 140*	*07/12/24 10:00*	*07/14/24 18:10*	*1*
Toluene-d8 (Surr)	*97*		*71 - 125*	*07/12/24 10:00*	*07/14/24 18:10*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		120	66	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
2,4,5-Trichlorophenol	ND		210	55	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
2,4,6-Trichlorophenol	ND		210	41	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
2,4-Dichlorophenol	ND		210	22	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
2,4-Dimethylphenol	ND		210	49	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
2,4-Dinitrophenol	ND		2000	950	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
2,4-Dinitrotoluene	ND		210	42	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
2,6-Dinitrotoluene	ND		210	24	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
2-Chloronaphthalene	ND		210	34	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
2-Chlorophenol	ND		400	37	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
2-Methylnaphthalene	ND		210	41	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
2-Methylphenol	ND		210	24	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
2-Nitroaniline	ND		400	30	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
2-Nitrophenol	ND		210	58	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
3,3'-Dichlorobenzidine	ND		400	240	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
3-Nitroaniline	ND		400	57	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
4,6-Dinitro-2-methylphenol	ND		400	210	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
4-Bromophenyl phenyl ether	ND		210	29	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
4-Chloro-3-methylphenol	ND		210	51	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
4-Chloroaniline	ND		210	51	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
4-Chlorophenyl phenyl ether	ND		210	25	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
4-Methylphenol	ND		400	24	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
4-Nitroaniline	ND		400	110	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
4-Nitrophenol	ND		400	140	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Acenaphthene	ND		210	30	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Acenaphthylene	ND		210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Acetophenone	ND		210	28	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Anthracene	ND		210	51	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Atrazine	ND		210	71	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Benzaldehyde	ND		210	160	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Benzo[a]anthracene	ND		210	21	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Benzo[a]pyrene	ND		210	30	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1

Client Sample ID: HA-05-3.0-4.0
Lab Sample ID: 480-221553-6

Date Collected: 07/11/24 10:50
Matrix: Solid

Date Received: 07/12/24 17:50
Percent Solids: 82.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	ND		210	33	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Benzo[g,h,i]perylene	ND		210	22	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Benzo[k]fluoranthene	ND		210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Biphenyl	ND		210	30	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
bis (2-chloroisopropyl) ether	ND		210	41	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Bis(2-chloroethoxy)methane	ND		210	43	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Bis(2-chloroethyl)ether	ND		210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Bis(2-ethylhexyl) phthalate	ND		210	70	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Butyl benzyl phthalate	ND		210	34	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Caprolactam	ND		210	62	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Carbazole	ND		210	24	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Chrysene	ND		210	46	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Dibenz(a,h)anthracene	ND		210	36	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Dibenzofuran	ND		210	24	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Diethyl phthalate	ND		210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Dimethyl phthalate	ND		210	24	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Di-n-butyl phthalate	ND		210	35	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Di-n-octyl phthalate	ND		210	24	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Fluoranthene	ND		210	22	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Fluorene	ND		210	24	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Hexachlorobenzene	ND		210	28	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Hexachlorobutadiene	ND		210	30	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Hexachlorocyclopentadiene	ND		210	28	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Hexachloroethane	ND		210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Indeno[1,2,3-cd]pyrene	ND		210	25	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Isophorone	ND		210	43	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Naphthalene	ND		210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Nitrobenzene	ND		210	23	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
N-Nitrosodi-n-propylamine	ND		210	35	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
N-Nitrosodiphenylamine	ND		210	170	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Pentachlorophenol	ND		400	210	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Phenanthrene	ND		210	30	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Phenol	ND		210	31	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Pyrene	ND		210	24	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*230*	*T J*	*ug/Kg*	☼	*1.72*	*N/A*	*07/15/24 07:53*	*07/19/24 14:10*	*1*
Unknown	*2000*	*T J*	*ug/Kg*	☼	*1.93*	*N/A*	*07/15/24 07:53*	*07/19/24 14:10*	*1*
Methylene Chloride	*1900*	*T J N*	*ug/Kg*	☼	*2.00*	*75-09-2*	*07/15/24 07:53*	*07/19/24 14:10*	*1*
Unknown	*980*	*T J*	*ug/Kg*	☼	*3.35*	*N/A*	*07/15/24 07:53*	*07/19/24 14:10*	*1*
Ethanol, 2-(octadecyloxy)-	*170*	*T J N*	*ug/Kg*	☼	*13.16*	*2136-72-3*	*07/15/24 07:53*	*07/19/24 14:10*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*87*		*26 - 143*	*07/15/24 07:53*	*07/19/24 14:10*	*1*
2-Fluorobiphenyl	*79*		*50 - 121*	*07/15/24 07:53*	*07/19/24 14:10*	*1*
2-Fluorophenol	*71*		*36 - 120*	*07/15/24 07:53*	*07/19/24 14:10*	*1*
Nitrobenzene-d5	*100*		*40 - 121*	*07/15/24 07:53*	*07/19/24 14:10*	*1*
Phenol-d5	*86*		*41 - 120*	*07/15/24 07:53*	*07/19/24 14:10*	*1*
p-Terphenyl-d14	*99*		*46 - 143*	*07/15/24 07:53*	*07/19/24 14:10*	*1*

Client Sample ID: HA-05-3.0-4.0
Date Collected: 07/11/24 10:50
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-6
Matrix: Solid
Percent Solids: 82.2

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.0	0.39	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
4,4'-DDE	ND		2.0	0.42	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
4,4'-DDT	**0.61**	**J**	2.0	0.47	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
Aldrin	ND		2.0	0.49	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
alpha-BHC	ND		2.0	0.36	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
cis-Chlordane	ND		2.0	0.99	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
beta-BHC	ND		2.0	0.36	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
delta-BHC	ND		2.0	0.37	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
Dieldrin	ND		2.0	0.48	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
Endosulfan I	ND		2.0	0.38	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
Endosulfan II	ND		2.0	0.36	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
Endosulfan sulfate	ND		2.0	0.37	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
Endrin	ND		2.0	0.39	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
Endrin aldehyde	ND		2.0	0.51	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
Endrin ketone	ND		2.0	0.49	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
gamma-BHC (Lindane)	ND		2.0	0.37	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
trans-Chlordane	ND		2.0	0.63	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
Heptachlor	ND		2.0	0.43	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
Heptachlor epoxide	ND		2.0	0.51	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
Methoxychlor	ND		2.0	0.41	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
Toxaphene	ND		20	12	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*83*		*45 - 120*	*07/15/24 07:45*	*07/16/24 10:59*	*1*
DCB Decachlorobiphenyl	*99*		*45 - 120*	*07/15/24 07:45*	*07/16/24 10:59*	*1*
Tetrachloro-m-xylene	*93*		*30 - 124*	*07/15/24 07:45*	*07/16/24 10:59*	*1*
Tetrachloro-m-xylene	*89*		*30 - 124*	*07/15/24 07:45*	*07/16/24 10:59*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.22	0.043	mg/Kg	☼	07/15/24 08:01	07/18/24 05:32	1
PCB-1221	ND		0.22	0.043	mg/Kg	☼	07/15/24 08:01	07/18/24 05:32	1
PCB-1232	ND		0.22	0.043	mg/Kg	☼	07/15/24 08:01	07/18/24 05:32	1
PCB-1242	ND		0.22	0.043	mg/Kg	☼	07/15/24 08:01	07/18/24 05:32	1
PCB-1248	ND		0.22	0.043	mg/Kg	☼	07/15/24 08:01	07/18/24 05:32	1
PCB-1254	ND		0.22	0.10	mg/Kg	☼	07/15/24 08:01	07/18/24 05:32	1
PCB-1260	ND		0.22	0.10	mg/Kg	☼	07/15/24 08:01	07/18/24 05:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*134*		*60 - 154*	*07/15/24 08:01*	*07/18/24 05:32*	*1*
Tetrachloro-m-xylene	*117*		*60 - 154*	*07/15/24 08:01*	*07/18/24 05:32*	*1*
DCB Decachlorobiphenyl	*115*		*65 - 174*	*07/15/24 08:01*	*07/18/24 05:32*	*1*
DCB Decachlorobiphenyl	*128*		*65 - 174*	*07/15/24 08:01*	*07/18/24 05:32*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.80	0.20	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluoropentanoic acid (PFPeA)	ND		0.40	0.099	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluorohexanoic acid (PFHxA)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluoroheptanoic acid (PFHpA)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1

Client Sample ID: HA-05-3.0-4.0
Lab Sample ID: 480-221553-6

Date Collected: 07/11/24 10:50
Matrix: Solid

Date Received: 07/12/24 17:50
Percent Solids: 82.2

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluorononanoic acid (PFNA)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluorodecanoic acid (PFDA)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluoroundecanoic acid (PFUnA)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluorododecanoic acid (PFDoA)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluorooctanesulfonic acid (PFOS)	**0.089**	**J**	0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluorononanesulfonic acid (PFNS)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		0.80	0.20	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		0.80	0.20	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		0.80	0.20	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		2.0	0.50	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		2.0	0.50	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.80	0.20	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.80	0.20	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.40	0.099	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		0.80	0.20	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		0.80	0.20	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.40	0.099	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		0.99	0.25	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		5.0	1.2	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		5.0	1.2	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1

Client Sample ID: HA-05-3.0-4.0
Date Collected: 07/11/24 10:50
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-6
Matrix: Solid
Percent Solids: 82.2

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorodecanesulfonic acid (PFDS)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.40	0.099	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*94.6*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
13C5 PFPeA	*85.3*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
13C5 PFHxA	*86.3*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
13C4 PFHpA	*75.3*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
13C8 PFOA	*72.7*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
13C9 PFNA	*85.4*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
13C6 PFDA	*96.4*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
13C7 PFUnA	*87.9*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
13C2 PFTeDA	*63.5*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
13C3 PFBS	*84.8*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
13C3 PFHxS	*78.5*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
13C8 PFOS	*92.8*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
13C8 FOSA	*85.8*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
d3-NMeFOSAA	*85.7*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
d5-NEtFOSAA	*122*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
M2-4:2 FTS	*81.8*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
M2-6:2 FTS	*84.7*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
M2-8:2 FTS	*75.0*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
13C3 HFPO-DA	*78.0*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
d7-N-MeFOSE-M	*75.4*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
d9-N-EtFOSE-M	*62.1*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
d5-NEtPFOSA	*69.5*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
d3-NMePFOSA	*67.6*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
13C2-PFDoDA	*87.6*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.40	0.099	ug/Kg	☼	07/15/24 08:23	07/25/24 22:39	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*98.8*		*20 - 150*	*07/15/24 08:23*	*07/25/24 22:39*	*1*
13C5 PFPeA	*95.5*		*20 - 150*	*07/15/24 08:23*	*07/25/24 22:39*	*1*
13C5 PFHxA	*94.3*		*20 - 150*	*07/15/24 08:23*	*07/25/24 22:39*	*1*
13C4 PFHpA	*91.8*		*20 - 150*	*07/15/24 08:23*	*07/25/24 22:39*	*1*
13C8 PFOA	*91.6*		*20 - 150*	*07/15/24 08:23*	*07/25/24 22:39*	*1*
13C9 PFNA	*94.2*		*20 - 150*	*07/15/24 08:23*	*07/25/24 22:39*	*1*
13C6 PFDA	*106*		*20 - 150*	*07/15/24 08:23*	*07/25/24 22:39*	*1*
13C7 PFUnA	*91.1*		*20 - 150*	*07/15/24 08:23*	*07/25/24 22:39*	*1*
13C2 PFTeDA	*68.8*		*20 - 150*	*07/15/24 08:23*	*07/25/24 22:39*	*1*
13C3 PFBS	*89.5*		*20 - 150*	*07/15/24 08:23*	*07/25/24 22:39*	*1*
13C3 PFHxS	*92.0*		*20 - 150*	*07/15/24 08:23*	*07/25/24 22:39*	*1*
13C8 PFOS	*90.0*		*20 - 150*	*07/15/24 08:23*	*07/25/24 22:39*	*1*
13C8 FOSA	*72.2*		*20 - 150*	*07/15/24 08:23*	*07/25/24 22:39*	*1*
d3-NMeFOSAA	*85.3*		*20 - 150*	*07/15/24 08:23*	*07/25/24 22:39*	*1*
d5-NEtFOSAA	*80.7*		*20 - 150*	*07/15/24 08:23*	*07/25/24 22:39*	*1*
M2-4:2 FTS	*131*		*20 - 150*	*07/15/24 08:23*	*07/25/24 22:39*	*1*

Client Sample ID: HA-05-3.0-4.0
Lab Sample ID: 480-221553-6

Date Collected: 07/11/24 10:50
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 82.2

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS - RA (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	134		20 - 150	07/15/24 08:23	07/25/24 22:39	1
M2-8:2 FTS	130		20 - 150	07/15/24 08:23	07/25/24 22:39	1
13C3 HFPO-DA	89.4		20 - 150	07/15/24 08:23	07/25/24 22:39	1
d7-N-MeFOSE-M	65.5		20 - 150	07/15/24 08:23	07/25/24 22:39	1
d9-N-EtFOSE-M	64.1		20 - 150	07/15/24 08:23	07/25/24 22:39	1
d5-NEtPFOSA	60.7		20 - 150	07/15/24 08:23	07/25/24 22:39	1
d3-NMePFOSA	59.3		20 - 150	07/15/24 08:23	07/25/24 22:39	1
13C2-PFDoDA	80.0		20 - 150	07/15/24 08:23	07/25/24 22:39	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	26900	J	12.1	10.4	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Antimony	ND	UJ	18.1	0.64	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Arsenic	4.1	J-	2.4	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Barium	162		0.60	0.17	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Beryllium	2.0	J	0.24	0.048	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Cadmium	0.20	J	0.24	0.085	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Calcium	27500	J	60.4	32.6	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Chromium	28.3	J	0.60	0.44	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Cobalt	14.9		0.60	0.12	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Copper	14.9		1.2	0.69	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Iron	20500	J	12.1	10.3	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Lead	15.1		1.2	0.56	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Magnesium	9980	J	24.2	10.3	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Manganese	512	J-	1.2	0.34	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Nickel	32.1		6.0	0.30	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Potassium	4880	J	36.3	29.3	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Selenium	ND	UJ	4.8	0.97	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Silver	0.34	J	0.73	0.24	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Sodium	277		169	74.1	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Thallium	ND		7.3	0.92	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Vanadium	41.0	J	0.60	0.16	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Zinc	59.6	J	2.4	1.2	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.010	J	0.023	0.0053	mg/Kg	☼	07/15/24 09:13	07/15/24 11:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND	F1	1.2	0.58	mg/Kg	☼	07/18/24 13:15	07/18/24 16:49	1

Client Sample ID: HA-04-0.0-0.2
Lab Sample ID: 480-221553-7

Date Collected: 07/11/24 11:30
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 78.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		21000	5800	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
2,4,6-Trichlorophenol	ND		21000	4300	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
2,4-Dichlorophenol	ND		21000	2300	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10

Client Sample ID: HA-04-0.0-0.2
Lab Sample ID: 480-221553-7

Date Collected: 07/11/24 11:30
Matrix: Solid

Date Received: 07/12/24 17:50
Percent Solids: 78.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	ND		21000	5200	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
2,4-Dinitrophenol	ND		210000	99000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
2,4-Dinitrotoluene	ND		21000	4400	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
2,6-Dinitrotoluene	ND		21000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
2-Chloronaphthalene	ND		21000	3500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
2-Chlorophenol	ND		42000	3900	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
2-Methylnaphthalene	ND		21000	4300	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
2-Methylphenol	ND		21000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
2-Nitroaniline	ND		42000	3100	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
2-Nitrophenol	ND		21000	6000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
3,3'-Dichlorobenzidine	ND		42000	25000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
3-Nitroaniline	ND		42000	5900	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
4,6-Dinitro-2-methylphenol	ND		42000	21000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
4-Bromophenyl phenyl ether	ND		21000	3000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
4-Chloro-3-methylphenol	ND		21000	5300	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
4-Chloroaniline	ND		21000	5300	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
4-Chlorophenyl phenyl ether	ND		21000	2600	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
4-Methylphenol	ND		42000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
4-Nitroaniline	ND		42000	11000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
4-Nitrophenol	ND		42000	15000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Acenaphthene	ND		21000	3100	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Acenaphthylene	ND		21000	2800	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Acetophenone	ND		21000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Anthracene	ND		21000	5300	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Atrazine	ND		21000	7400	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Benzaldehyde	ND		21000	17000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Benzo[a]anthracene	ND		21000	2100	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Benzo[a]pyrene	ND		21000	3100	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Benzo[b]fluoranthene	ND		21000	3400	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Benzo[g,h,i]perylene	ND		21000	2300	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Benzo[k]fluoranthene	ND		21000	2800	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Biphenyl	ND		21000	3100	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
bis (2-chloroisopropyl) ether	ND		21000	4300	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Bis(2-chloroethoxy)methane	ND		21000	4500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Bis(2-chloroethyl)ether	ND		21000	2800	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Bis(2-ethylhexyl) phthalate	ND		21000	7300	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Butyl benzyl phthalate	ND		21000	3500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Caprolactam	ND		21000	6400	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Carbazole	ND		21000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Chrysene	ND		21000	4800	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Dibenz(a,h)anthracene	ND		21000	3800	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Dibenzofuran	ND		21000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Diethyl phthalate	ND		21000	2800	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Dimethyl phthalate	ND		21000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Di-n-butyl phthalate	ND		21000	3600	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Di-n-octyl phthalate	ND		21000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Fluoranthene	ND		21000	2300	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Fluorene	ND		21000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Hexachlorobenzene	ND		21000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10

Client Sample ID: HA-04-0.0-0.2
Date Collected: 07/11/24 11:30
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-7
Matrix: Solid
Percent Solids: 78.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND		21000	3100	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Hexachlorocyclopentadiene	ND		21000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Hexachloroethane	ND		21000	2800	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Indeno[1,2,3-cd]pyrene	ND		21000	2600	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Isophorone	ND		21000	4500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Naphthalene	ND		21000	2800	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Nitrobenzene	ND		21000	2400	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
N-Nitrosodi-n-propylamine	ND		21000	3600	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
N-Nitrosodiphenylamine	ND		21000	17000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Pentachlorophenol	ND		42000	21000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Phenanthrene	ND		21000	3100	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Phenol	ND		21000	3300	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Pyrene	ND		21000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/15/24 07:53*	*07/19/24 17:25*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*254*	*S1+*	*26 - 143*	*07/15/24 07:53*	*07/19/24 17:25*	*10*
2-Fluorobiphenyl	*118*		*50 - 121*	*07/15/24 07:53*	*07/19/24 17:25*	*10*
2-Fluorophenol	*72*		*36 - 120*	*07/15/24 07:53*	*07/19/24 17:25*	*10*
Nitrobenzene-d5	*117*		*40 - 121*	*07/15/24 07:53*	*07/19/24 17:25*	*10*
Phenol-d5	*171*	*S1+*	*41 - 120*	*07/15/24 07:53*	*07/19/24 17:25*	*10*
p-Terphenyl-d14	*102*		*46 - 143*	*07/15/24 07:53*	*07/19/24 17:25*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		110	21	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
4,4'-DDE	ND		110	22	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
4,4'-DDT	ND		110	25	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
Aldrin	ND		110	26	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
alpha-BHC	ND		110	19	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
cis-Chlordane	ND		110	53	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
beta-BHC	ND		110	19	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
delta-BHC	ND		110	20	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
Dieldrin	ND		110	25	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
Endosulfan I	ND		110	20	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
Endosulfan II	ND		110	19	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
Endosulfan sulfate	ND		110	20	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
Endrin	ND		110	21	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
Endrin aldehyde	ND		110	27	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
Endrin ketone	ND		110	26	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
gamma-BHC (Lindane)	ND		110	19	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
trans-Chlordane	ND		110	34	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
Heptachlor	ND		110	23	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
Heptachlor epoxide	ND		110	27	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
Methoxychlor	ND		110	22	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
Toxaphene	ND		1100	620	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50

Client Sample ID: HA-04-0.0-0.2
Date Collected: 07/11/24 11:30
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-7
Matrix: Solid
Percent Solids: 78.4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*688*	*S1+*	*45 - 120*	*07/15/24 07:45*	*07/16/24 12:57*	*50*
DCB Decachlorobiphenyl	*560*	*S1+*	*45 - 120*	*07/15/24 07:45*	*07/16/24 12:57*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 12:57*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 12:57*	*50*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.27	0.054	mg/Kg	☼	07/15/24 08:01	07/18/24 07:13	1
PCB-1221	ND		0.27	0.054	mg/Kg	☼	07/15/24 08:01	07/18/24 07:13	1
PCB-1232	ND		0.27	0.054	mg/Kg	☼	07/15/24 08:01	07/18/24 07:13	1
PCB-1242	ND		0.27	0.054	mg/Kg	☼	07/15/24 08:01	07/18/24 07:13	1
PCB-1248	ND		0.27	0.054	mg/Kg	☼	07/15/24 08:01	07/18/24 07:13	1
PCB-1254	ND		0.27	0.13	mg/Kg	☼	07/15/24 08:01	07/18/24 07:13	1
PCB-1260	**0.38**		0.27	0.13	mg/Kg	☼	07/15/24 08:01	07/18/24 07:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*102*		*60 - 154*	*07/15/24 08:01*	*07/18/24 07:13*	*1*
Tetrachloro-m-xylene	*93*		*60 - 154*	*07/15/24 08:01*	*07/18/24 07:13*	*1*
DCB Decachlorobiphenyl	*78*		*65 - 174*	*07/15/24 08:01*	*07/18/24 07:13*	*1*
DCB Decachlorobiphenyl	*80*		*65 - 174*	*07/15/24 08:01*	*07/18/24 07:13*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**24700**		12.8	11.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Antimony	**1.3**	**J**	19.3	0.68	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Arsenic	**7.1**		2.6	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Barium	**154**		0.64	0.18	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Beryllium	**1.3**		0.26	0.051	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Cadmium	**0.94**		0.26	0.090	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Calcium	**33300**		64.2	34.7	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Chromium	**38.3**		0.64	0.46	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Cobalt	**14.6**		0.64	0.13	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Copper	**39.9**		1.3	0.73	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Iron	**27500**		12.8	10.9	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Lead	**61.7**		1.3	0.59	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Magnesium	**10900**		25.7	10.9	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Manganese	**832**		1.3	0.36	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Nickel	**38.6**		6.4	0.32	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Potassium	**5330**		38.5	31.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Selenium	ND		5.1	1.0	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Silver	**0.28**	**J**	0.77	0.26	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Sodium	**266**		180	78.8	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Thallium	ND		7.7	0.98	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Vanadium	**55.6**		0.64	0.17	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Zinc	**166**		2.6	1.3	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.10**		0.025	0.0058	mg/Kg	☼	07/15/24 09:13	07/15/24 11:30	1

Client Sample ID: HA-04-0.0-0.2
Lab Sample ID: 480-221553-7

Date Collected: 07/11/24 11:30
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 78.4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.1	0.52	mg/Kg	☼	07/18/24 13:15	07/18/24 16:56	1

Client Sample ID: HA-04-0.0-0.2-FD
Lab Sample ID: 480-221553-8

Date Collected: 07/11/24 11:30
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 79.9

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		21000	5700	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
2,4,6-Trichlorophenol	ND		21000	4200	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
2,4-Dichlorophenol	ND		21000	2200	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
2,4-Dimethylphenol	ND		21000	5100	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
2,4-Dinitrophenol	ND		210000	97000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
2,4-Dinitrotoluene	ND		21000	4300	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
2,6-Dinitrotoluene	ND		21000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
2-Chloronaphthalene	ND		21000	3500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
2-Chlorophenol	ND		41000	3900	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
2-Methylnaphthalene	ND		21000	4200	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
2-Methylphenol	ND		21000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
2-Nitroaniline	ND		41000	3100	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
2-Nitrophenol	ND		21000	6000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
3,3'-Dichlorobenzidine	ND		41000	25000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
3-Nitroaniline	ND		41000	5800	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
4,6-Dinitro-2-methylphenol	ND		41000	21000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
4-Bromophenyl phenyl ether	ND		21000	3000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
4-Chloro-3-methylphenol	ND		21000	5200	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
4-Chloroaniline	ND		21000	5200	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
4-Chlorophenyl phenyl ether	ND		21000	2600	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
4-Methylphenol	ND		41000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
4-Nitroaniline	ND		41000	11000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
4-Nitrophenol	ND		41000	15000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Acenaphthene	ND		21000	3100	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Acenaphthylene	ND		21000	2700	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Acetophenone	ND		21000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Anthracene	ND		21000	5200	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Atrazine	ND		21000	7300	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Benzaldehyde	ND		21000	17000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Benzo[a]anthracene	ND		21000	2100	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Benzo[a]pyrene	ND		21000	3100	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Benzo[b]fluoranthene	ND		21000	3400	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Benzo[g,h,i]perylene	ND		21000	2200	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Benzo[k]fluoranthene	ND		21000	2700	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Biphenyl	ND		21000	3100	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
bis (2-chloroisopropyl) ether	ND		21000	4200	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Bis(2-chloroethoxy)methane	ND		21000	4500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Bis(2-chloroethyl)ether	ND		21000	2700	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Bis(2-ethylhexyl) phthalate	ND		21000	7200	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Butyl benzyl phthalate	ND		21000	3500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Caprolactam	ND		21000	6300	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Carbazole	ND		21000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10

Client Sample ID: HA-04-0.0-0.2-FD
Lab Sample ID: 480-221553-8
Date Collected: 07/11/24 11:30
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 79.9

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	ND		21000	4700	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Dibenz(a,h)anthracene	ND		21000	3700	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Dibenzofuran	ND		21000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Diethyl phthalate	ND		21000	2700	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Dimethyl phthalate	ND		21000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Di-n-butyl phthalate	ND		21000	3600	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Di-n-octyl phthalate	ND		21000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Fluoranthene	ND		21000	2200	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Fluorene	ND		21000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Hexachlorobenzene	ND		21000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Hexachlorobutadiene	ND		21000	3100	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Hexachlorocyclopentadiene	ND		21000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Hexachloroethane	ND		21000	2700	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Indeno[1,2,3-cd]pyrene	ND		21000	2600	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Isophorone	ND		21000	4500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Naphthalene	ND		21000	2700	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Nitrobenzene	ND		21000	2400	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
N-Nitrosodi-n-propylamine	ND		21000	3600	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
N-Nitrosodiphenylamine	ND		21000	17000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Pentachlorophenol	ND		41000	21000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Phenanthrene	ND		21000	3100	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Phenol	ND		21000	3200	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Pyrene	ND		21000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/15/24 07:53*	*07/19/24 17:51*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*198*	*S1+*	*26 - 143*	*07/15/24 07:53*	*07/19/24 17:51*	*10*
2-Fluorobiphenyl	*86*		*50 - 121*	*07/15/24 07:53*	*07/19/24 17:51*	*10*
2-Fluorophenol	*99*		*36 - 120*	*07/15/24 07:53*	*07/19/24 17:51*	*10*
Nitrobenzene-d5	*83*		*40 - 121*	*07/15/24 07:53*	*07/19/24 17:51*	*10*
Phenol-d5	*191*	*S1+*	*41 - 120*	*07/15/24 07:53*	*07/19/24 17:51*	*10*
p-Terphenyl-d14	*104*		*46 - 143*	*07/15/24 07:53*	*07/19/24 17:51*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		100	20	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
4,4'-DDE	ND		100	22	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
4,4'-DDT	ND		100	24	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
Aldrin	ND		100	25	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
alpha-BHC	ND		100	19	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
cis-Chlordane	ND		100	51	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
beta-BHC	ND		100	19	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
delta-BHC	ND		100	19	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
Dieldrin	ND		100	25	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
Endosulfan I	ND		100	20	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
Endosulfan II	ND		100	19	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
Endosulfan sulfate	ND		100	19	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
Endrin	ND		100	20	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50

Client Sample ID: HA-04-0.0-0.2-FD
Lab Sample ID: 480-221553-8

Date Collected: 07/11/24 11:30
Matrix: Solid

Date Received: 07/12/24 17:50
Percent Solids: 79.9

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin aldehyde	ND		100	26	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
Endrin ketone	ND		100	25	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
gamma-BHC (Lindane)	ND		100	19	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
trans-Chlordane	ND		100	33	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
Heptachlor	ND		100	22	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
Heptachlor epoxide	ND		100	27	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
Methoxychlor	ND		100	21	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
Toxaphene	ND		1000	600	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/15/24 07:45*	*07/16/24 13:17*	*50*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/15/24 07:45*	*07/16/24 13:17*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 13:17*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 13:17*	*50*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.27	0.052	mg/Kg	☼	07/15/24 08:01	07/18/24 07:30	1
PCB-1221	ND		0.27	0.052	mg/Kg	☼	07/15/24 08:01	07/18/24 07:30	1
PCB-1232	ND		0.27	0.052	mg/Kg	☼	07/15/24 08:01	07/18/24 07:30	1
PCB-1242	ND		0.27	0.052	mg/Kg	☼	07/15/24 08:01	07/18/24 07:30	1
PCB-1248	ND		0.27	0.052	mg/Kg	☼	07/15/24 08:01	07/18/24 07:30	1
PCB-1254	ND		0.27	0.13	mg/Kg	☼	07/15/24 08:01	07/18/24 07:30	1
PCB-1260	**0.25**	**J**	0.27	0.13	mg/Kg	☼	07/15/24 08:01	07/18/24 07:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*111*		*60 - 154*	*07/15/24 08:01*	*07/18/24 07:30*	*1*
Tetrachloro-m-xylene	*96*		*60 - 154*	*07/15/24 08:01*	*07/18/24 07:30*	*1*
DCB Decachlorobiphenyl	*84*		*65 - 174*	*07/15/24 08:01*	*07/18/24 07:30*	*1*
DCB Decachlorobiphenyl	*87*		*65 - 174*	*07/15/24 08:01*	*07/18/24 07:30*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**19900**		12.9	11.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Antimony	**1.9**	**J**	19.4	0.69	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Arsenic	**7.6**		2.6	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Barium	**132**		0.65	0.18	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Beryllium	**1.3**		0.26	0.052	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Cadmium	**1.1**		0.26	0.091	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Calcium	**19100**		64.6	34.9	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Chromium	**41.1**		0.65	0.47	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Cobalt	**12.6**		0.65	0.13	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Copper	**43.9**		1.3	0.74	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Iron	**26400**		12.9	11.0	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Lead	**72.1**		1.3	0.59	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Magnesium	**10800**		25.9	11.0	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Manganese	**567**		1.3	0.36	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Nickel	**36.9**		6.5	0.32	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Potassium	**4150**		38.8	31.3	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Selenium	ND		5.2	1.0	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1

Client Sample ID: HA-04-0.0-0.2-FD
Lab Sample ID: 480-221553-8

Date Collected: 07/11/24 11:30
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 79.9

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.78	0.26	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Sodium	**280**		181	79.3	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Thallium	ND		7.8	0.98	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Vanadium	**50.9**		0.65	0.17	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Zinc	**190**		2.6	1.3	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.079**		0.025	0.0058	mg/Kg	☼	07/15/24 09:13	07/15/24 11:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.57	mg/Kg	☼	07/18/24 13:15	07/18/24 17:01	1

Client Sample ID: HA-04-1.3-1.5
Lab Sample ID: 480-221553-9

Date Collected: 07/11/24 11:50
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 80.9

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.8	0.35	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
1,1,2,2-Tetrachloroethane	ND		4.8	0.78	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.8	1.1	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
1,1,2-Trichloroethane	ND		4.8	0.62	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
1,1-Dichloroethane	ND		4.8	0.59	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
1,1-Dichloroethene	ND		4.8	0.59	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
1,2,4-Trichlorobenzene	ND		4.8	0.29	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
1,2-Dibromo-3-Chloropropane	ND		4.8	2.4	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
1,2-Dibromoethane	ND		4.8	0.62	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
1,2-Dichlorobenzene	ND		4.8	0.38	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
1,2-Dichloroethane	ND		4.8	0.24	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
1,2-Dichloropropane	ND		4.8	2.4	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
1,3-Dichlorobenzene	ND		4.8	0.25	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
1,4-Dichlorobenzene	ND		4.8	0.67	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
2-Butanone (MEK)	**12**	**J**	24	1.8	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
2-Hexanone	ND		24	2.4	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
4-Methyl-2-pentanone (MIBK)	ND		24	1.6	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Acetone	**61**		24	4.0	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Benzene	**2.2**	**J**	4.8	0.24	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Bromodichloromethane	ND		4.8	0.64	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Bromoform	ND		4.8	2.4	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Bromomethane	ND		4.8	0.43	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Carbon disulfide	ND		4.8	2.4	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Carbon tetrachloride	ND		4.8	0.46	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Chlorobenzene	ND		4.8	0.63	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Chloroethane	ND		4.8	1.1	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Chloroform	ND		4.8	0.30	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Chloromethane	ND		4.8	0.29	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
cis-1,2-Dichloroethene	ND		4.8	0.61	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
cis-1,3-Dichloropropene	ND		4.8	0.69	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1

Client Sample ID: HA-04-1.3-1.5
Date Collected: 07/11/24 11:50
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-9
Matrix: Solid
Percent Solids: 80.9

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	**1.2**	**J**	4.8	0.67	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Dibromochloromethane	ND		4.8	0.61	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Dichlorodifluoromethane	ND		4.8	0.40	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Ethylbenzene	**0.73**	**J**	4.8	0.33	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Isopropylbenzene	ND		4.8	0.72	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Methyl acetate	ND		24	2.9	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Methyl tert-butyl ether	ND		4.8	0.47	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Methylcyclohexane	**2.1**	**J**	4.8	0.73	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Methylene Chloride	ND		4.8	2.2	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Styrene	ND		4.8	0.24	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Tetrachloroethene	ND		4.8	0.64	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Toluene	**1.5**	**J**	4.8	0.36	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
trans-1,2-Dichloroethene	ND		4.8	0.50	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
trans-1,3-Dichloropropene	ND		4.8	2.1	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Trichloroethene	ND		4.8	1.1	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Trichlorofluoromethane	ND		4.8	0.45	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Vinyl chloride	ND		4.8	0.59	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Xylenes, Total	**8.6**	**J**	9.6	0.81	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
.beta.-Phellandrene	*34*	*T J N*	*ug/Kg*	☼	*9.84*	*555-10-2*	*07/12/24 10:00*	*07/14/24 18:34*	*1*
Benzene, 1,2,3,4-tetramethyl-	*42*	*T J N*	*ug/Kg*	☼	*12.05*	*488-23-3*	*07/12/24 10:00*	*07/14/24 18:34*	*1*
Unknown	*26*	*T J*	*ug/Kg*	☼	*12.45*	*N/A*	*07/12/24 10:00*	*07/14/24 18:34*	*1*
Unknown	*42*	*T J*	*ug/Kg*	☼	*12.59*	*N/A*	*07/12/24 10:00*	*07/14/24 18:34*	*1*
1H-Indene, 2,3-dihydro-4,6-dimethyl-	*30*	*T J N*	*ug/Kg*	☼	*12.91*	*1685-82-1*	*07/12/24 10:00*	*07/14/24 18:34*	*1*
Nonane, 3,7-dimethyl-	*35*	*T J N*	*ug/Kg*	☼	*13.41*	*17302-32-8*	*07/12/24 10:00*	*07/14/24 18:34*	*1*
Unknown	*30*	*T J*	*ug/Kg*	☼	*14.00*	*N/A*	*07/12/24 10:00*	*07/14/24 18:34*	*1*
Naphthalene, 2,7-dimethyl-	*33*	*T J N*	*ug/Kg*	☼	*14.34*	*582-16-1*	*07/12/24 10:00*	*07/14/24 18:34*	*1*
Naphthalene, 2,3-dimethyl-	*47*	*T J N*	*ug/Kg*	☼	*14.47*	*581-40-8*	*07/12/24 10:00*	*07/14/24 18:34*	*1*
Naphthalene, 2,6-dimethyl-	*39*	*T J N*	*ug/Kg*	☼	*14.50*	*581-42-0*	*07/12/24 10:00*	*07/14/24 18:34*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*64 - 126*	*07/12/24 10:00*	*07/14/24 18:34*	*1*
4-Bromofluorobenzene (Surr)	*105*		*72 - 126*	*07/12/24 10:00*	*07/14/24 18:34*	*1*
Dibromofluoromethane (Surr)	*109*		*60 - 140*	*07/12/24 10:00*	*07/14/24 18:34*	*1*
Toluene-d8 (Surr)	*99*		*71 - 125*	*07/12/24 10:00*	*07/14/24 18:34*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		41000	11000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
2,4,6-Trichlorophenol	ND		41000	8200	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
2,4-Dichlorophenol	ND		41000	4300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
2,4-Dimethylphenol	ND		41000	9900	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
2,4-Dinitrophenol	ND		400000	190000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
2,4-Dinitrotoluene	ND		41000	8400	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
2,6-Dinitrotoluene	ND		41000	4800	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
2-Chloronaphthalene	ND		41000	6800	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
2-Chlorophenol	ND		80000	7500	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
2-Methylnaphthalene	ND		41000	8200	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
2-Methylphenol	ND		41000	4800	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10

Client Sample ID: HA-04-1.3-1.5
Lab Sample ID: 480-221553-9

Date Collected: 07/11/24 11:50
Matrix: Solid

Date Received: 07/12/24 17:50
Percent Solids: 80.9

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		80000	6000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
2-Nitrophenol	ND		41000	12000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
3,3'-Dichlorobenzidine	ND		80000	48000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
3-Nitroaniline	ND		80000	11000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
4,6-Dinitro-2-methylphenol	ND		80000	41000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
4-Bromophenyl phenyl ether	ND		41000	5800	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
4-Chloro-3-methylphenol	ND		41000	10000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
4-Chloroaniline	ND		41000	10000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
4-Chlorophenyl phenyl ether	ND		41000	5100	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
4-Methylphenol	ND		80000	4800	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
4-Nitroaniline	ND		80000	21000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
4-Nitrophenol	ND		80000	29000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Acenaphthene	ND		41000	6000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Acenaphthylene	ND		41000	5300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Acetophenone	ND		41000	5500	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Anthracene	ND		41000	10000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Atrazine	ND		41000	14000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Benzaldehyde	ND		41000	33000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Benzo[a]anthracene	ND		41000	4100	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Benzo[a]pyrene	ND		41000	6000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Benzo[b]fluoranthene	ND		41000	6500	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Benzo[g,h,i]perylene	ND		41000	4300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Benzo[k]fluoranthene	ND		41000	5300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Biphenyl	ND		41000	6000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
bis (2-chloroisopropyl) ether	ND		41000	8200	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Bis(2-chloroethoxy)methane	ND		41000	8700	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Bis(2-chloroethyl)ether	ND		41000	5300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Bis(2-ethylhexyl) phthalate	ND		41000	14000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Butyl benzyl phthalate	ND		41000	6800	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Caprolactam	ND		41000	12000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Carbazole	ND		41000	4800	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Chrysene	ND		41000	9200	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Dibenz(a,h)anthracene	ND		41000	7200	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Dibenzofuran	ND		41000	4800	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Diethyl phthalate	ND		41000	5300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Dimethyl phthalate	ND		41000	4800	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Di-n-butyl phthalate	ND		41000	7000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Di-n-octyl phthalate	ND		41000	4800	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Fluoranthene	ND		41000	4300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Fluorene	ND		41000	4800	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Hexachlorobenzene	ND		41000	5500	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Hexachlorobutadiene	ND		41000	6000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Hexachlorocyclopentadiene	ND		41000	5500	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Hexachloroethane	ND		41000	5300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Indeno[1,2,3-cd]pyrene	ND		41000	5100	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Isophorone	ND		41000	8700	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Naphthalene	ND		41000	5300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Nitrobenzene	ND		41000	4600	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
N-Nitrosodi-n-propylamine	ND		41000	7000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10

Client Sample ID: HA-04-1.3-1.5
Date Collected: 07/11/24 11:50
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-9
Matrix: Solid
Percent Solids: 80.9

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodiphenylamine	ND		41000	33000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Pentachlorophenol	ND		80000	41000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Phenanthrene	ND		41000	6000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Phenol	ND		41000	6300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Pyrene	**6100**	**J**	41000	4800	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/15/24 07:53*	*07/19/24 18:19*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*218*	*S1+*	*26 - 143*	*07/15/24 07:53*	*07/19/24 18:19*	*10*
2-Fluorobiphenyl	*90*		*50 - 121*	*07/15/24 07:53*	*07/19/24 18:19*	*10*
2-Fluorophenol	*82*		*36 - 120*	*07/15/24 07:53*	*07/19/24 18:19*	*10*
Nitrobenzene-d5	*73*		*40 - 121*	*07/15/24 07:53*	*07/19/24 18:19*	*10*
Phenol-d5	*168*	*S1+*	*41 - 120*	*07/15/24 07:53*	*07/19/24 18:19*	*10*
p-Terphenyl-d14	*103*		*46 - 143*	*07/15/24 07:53*	*07/19/24 18:19*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		100	20	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
4,4'-DDE	ND		100	21	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
4,4'-DDT	**33**	**J**	100	24	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
Aldrin	ND		100	25	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
alpha-BHC	ND		100	18	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
cis-Chlordane	ND		100	51	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
beta-BHC	ND		100	18	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
delta-BHC	ND		100	19	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
Dieldrin	ND		100	24	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
Endosulfan I	ND		100	20	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
Endosulfan II	ND		100	18	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
Endosulfan sulfate	ND		100	19	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
Endrin	ND		100	20	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
Endrin aldehyde	**30**	**J**	100	26	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
Endrin ketone	ND		100	25	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
gamma-BHC (Lindane)	ND		100	19	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
trans-Chlordane	ND		100	32	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
Heptachlor	ND		100	22	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
Heptachlor epoxide	ND		100	26	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
Methoxychlor	ND		100	21	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
Toxaphene	ND		1000	590	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*1450*	*S1+*	*45 - 120*	*07/15/24 07:45*	*07/16/24 13:36*	*50*
DCB Decachlorobiphenyl	*3489*	*S1+*	*45 - 120*	*07/15/24 07:45*	*07/16/24 13:36*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 13:36*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 13:36*	*50*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.26	0.051	mg/Kg	☼	07/15/24 08:01	07/18/24 07:47	1
PCB-1221	ND		0.26	0.051	mg/Kg	☼	07/15/24 08:01	07/18/24 07:47	1

Client Sample ID: HA-04-1.3-1.5
Lab Sample ID: 480-221553-9

Date Collected: 07/11/24 11:50
Matrix: Solid

Date Received: 07/12/24 17:50
Percent Solids: 80.9

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1232	ND		0.26	0.051	mg/Kg	☼	07/15/24 08:01	07/18/24 07:47	1
PCB-1242	ND		0.26	0.051	mg/Kg	☼	07/15/24 08:01	07/18/24 07:47	1
PCB-1248	ND		0.26	0.051	mg/Kg	☼	07/15/24 08:01	07/18/24 07:47	1
PCB-1254	ND		0.26	0.12	mg/Kg	☼	07/15/24 08:01	07/18/24 07:47	1
PCB-1260	ND		0.26	0.12	mg/Kg	☼	07/15/24 08:01	07/18/24 07:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*92*		*60 - 154*	*07/15/24 08:01*	*07/18/24 07:47*	*1*
Tetrachloro-m-xylene	*78*		*60 - 154*	*07/15/24 08:01*	*07/18/24 07:47*	*1*
DCB Decachlorobiphenyl	*93*		*65 - 174*	*07/15/24 08:01*	*07/18/24 07:47*	*1*
DCB Decachlorobiphenyl	*95*		*65 - 174*	*07/15/24 08:01*	*07/18/24 07:47*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**21400**		11.7	10.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Antimony	**0.82**	**J**	17.6	0.62	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Arsenic	**3.3**		2.3	1.0	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Barium	**138**		0.59	0.16	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Beryllium	**1.2**		0.23	0.047	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Cadmium	**0.71**		0.23	0.082	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Calcium	**16900**		58.5	31.6	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Chromium	**25.8**		0.59	0.42	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Cobalt	**12.9**		0.59	0.12	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Copper	**26.2**		1.2	0.67	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Iron	**21000**		11.7	9.9	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Lead	**27.9**		1.2	0.54	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Magnesium	**7720**		23.4	9.9	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Manganese	**617**		1.2	0.33	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Nickel	**30.3**		5.9	0.29	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Potassium	**3840**		35.1	28.4	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Selenium	ND		4.7	0.94	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Silver	**0.36**	**J**	0.70	0.23	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Sodium	**127**	**J**	164	71.7	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Thallium	ND		7.0	0.89	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Vanadium	**39.0**		0.59	0.15	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Zinc	**105**		2.3	1.2	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.053**		0.025	0.0057	mg/Kg	☼	07/15/24 09:13	07/15/24 11:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.57	mg/Kg	☼	07/18/24 13:15	07/18/24 17:02	1

Client Sample ID: HA-03-0.0-0.2
Lab Sample ID: 480-221553-10

Date Collected: 07/11/24 12:15
Matrix: Solid

Date Received: 07/12/24 17:50
Percent Solids: 88.9

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		37000	9900	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
2,4,6-Trichlorophenol	ND		37000	7300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
2,4-Dichlorophenol	ND		37000	3900	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
2,4-Dimethylphenol	ND		37000	8800	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
2,4-Dinitrophenol	ND		360000	170000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
2,4-Dinitrotoluene	ND		37000	7500	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
2,6-Dinitrotoluene	ND		37000	4300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
2-Chloronaphthalene	ND		37000	6000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
2-Chlorophenol	ND		71000	6700	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
2-Methylnaphthalene	ND		37000	7300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
2-Methylphenol	ND		37000	4300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
2-Nitroaniline	ND		71000	5400	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
2-Nitrophenol	ND		37000	10000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
3,3'-Dichlorobenzidine	ND		71000	43000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
3-Nitroaniline	ND		71000	10000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
4,6-Dinitro-2-methylphenol	ND		71000	37000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
4-Bromophenyl phenyl ether	ND		37000	5200	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
4-Chloro-3-methylphenol	ND		37000	9000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
4-Chloroaniline	ND		37000	9000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
4-Chlorophenyl phenyl ether	ND		37000	4500	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
4-Methylphenol	ND		71000	4300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
4-Nitroaniline	ND		71000	19000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
4-Nitrophenol	ND		71000	26000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Acenaphthene	ND		37000	5400	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Acenaphthylene	ND		37000	4700	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Acetophenone	ND		37000	5000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Anthracene	ND		37000	9000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Atrazine	ND		37000	13000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Benzaldehyde	ND		37000	29000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Benzo[a]anthracene	ND		37000	3700	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Benzo[a]pyrene	ND		37000	5400	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Benzo[b]fluoranthene	ND		37000	5800	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Benzo[g,h,i]perylene	ND		37000	3900	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Benzo[k]fluoranthene	ND		37000	4700	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Biphenyl	ND		37000	5400	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
bis (2-chloroisopropyl) ether	ND		37000	7300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Bis(2-chloroethoxy)methane	ND		37000	7700	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Bis(2-chloroethyl)ether	ND		37000	4700	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Bis(2-ethylhexyl) phthalate	ND		37000	12000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Butyl benzyl phthalate	ND		37000	6000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Caprolactam	ND		37000	11000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Carbazole	ND		37000	4300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Chrysene	ND		37000	8200	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Dibenz(a,h)anthracene	ND		37000	6500	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Dibenzofuran	ND		37000	4300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Diethyl phthalate	ND		37000	4700	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Dimethyl phthalate	ND		37000	4300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Di-n-butyl phthalate	ND		37000	6200	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Di-n-octyl phthalate	ND		37000	4300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10

Client Sample ID: HA-03-0.0-0.2
Lab Sample ID: 480-221553-10

Date Collected: 07/11/24 12:15
Matrix: Solid

Date Received: 07/12/24 17:50
Percent Solids: 88.9

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		37000	3900	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Fluorene	ND		37000	4300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Hexachlorobenzene	ND		37000	5000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Hexachlorobutadiene	ND		37000	5400	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Hexachlorocyclopentadiene	ND		37000	5000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Hexachloroethane	ND		37000	4700	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Indeno[1,2,3-cd]pyrene	ND		37000	4500	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Isophorone	ND		37000	7700	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Naphthalene	ND		37000	4700	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Nitrobenzene	ND		37000	4100	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
N-Nitrosodi-n-propylamine	ND		37000	6200	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
N-Nitrosodiphenylamine	ND		37000	30000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Pentachlorophenol	ND		71000	37000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Phenanthrene	ND		37000	5400	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Phenol	ND		37000	5600	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Pyrene	ND		37000	4300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/15/24 07:53*	*07/19/24 18:45*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*197*	*S1+*	*26 - 143*	*07/15/24 07:53*	*07/19/24 18:45*	*10*
2-Fluorobiphenyl	*87*		*50 - 121*	*07/15/24 07:53*	*07/19/24 18:45*	*10*
2-Fluorophenol	*56*		*36 - 120*	*07/15/24 07:53*	*07/19/24 18:45*	*10*
Nitrobenzene-d5	*83*		*40 - 121*	*07/15/24 07:53*	*07/19/24 18:45*	*10*
Phenol-d5	*175*	*S1+*	*41 - 120*	*07/15/24 07:53*	*07/19/24 18:45*	*10*
p-Terphenyl-d14	*0*	*S1-*	*46 - 143*	*07/15/24 07:53*	*07/19/24 18:45*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		93	18	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
4,4'-DDE	ND		93	19	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
4,4'-DDT	ND		93	22	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
Aldrin	ND		93	23	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
alpha-BHC	ND		93	17	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
cis-Chlordane	ND		93	46	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
beta-BHC	ND		93	17	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
delta-BHC	ND		93	17	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
Dieldrin	ND		93	22	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
Endosulfan I	ND		93	18	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
Endosulfan II	ND		93	17	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
Endosulfan sulfate	ND		93	17	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
Endrin	ND		93	18	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
Endrin aldehyde	ND		93	24	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
Endrin ketone	ND		93	23	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
gamma-BHC (Lindane)	ND		93	17	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
trans-Chlordane	ND		93	29	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
Heptachlor	ND		93	20	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
Heptachlor epoxide	ND		93	24	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
Methoxychlor	ND		93	19	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50

Client Sample ID: HA-03-0.0-0.2
Lab Sample ID: 480-221553-10

Date Collected: 07/11/24 12:15
Matrix: Solid

Date Received: 07/12/24 17:50
Percent Solids: 88.9

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	ND		930	540	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/15/24 07:45*	*07/16/24 13:56*	*50*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/15/24 07:45*	*07/16/24 13:56*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 13:56*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 13:56*	*50*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.24	0.047	mg/Kg	☼	07/15/24 08:01	07/18/24 08:03	1
PCB-1221	ND		0.24	0.047	mg/Kg	☼	07/15/24 08:01	07/18/24 08:03	1
PCB-1232	ND		0.24	0.047	mg/Kg	☼	07/15/24 08:01	07/18/24 08:03	1
PCB-1242	ND		0.24	0.047	mg/Kg	☼	07/15/24 08:01	07/18/24 08:03	1
PCB-1248	ND		0.24	0.047	mg/Kg	☼	07/15/24 08:01	07/18/24 08:03	1
PCB-1254	ND		0.24	0.11	mg/Kg	☼	07/15/24 08:01	07/18/24 08:03	1
PCB-1260	ND		0.24	0.11	mg/Kg	☼	07/15/24 08:01	07/18/24 08:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*105*		*60 - 154*	*07/15/24 08:01*	*07/18/24 08:03*	*1*
Tetrachloro-m-xylene	*93*		*60 - 154*	*07/15/24 08:01*	*07/18/24 08:03*	*1*
DCB Decachlorobiphenyl	*79*		*65 - 174*	*07/15/24 08:01*	*07/18/24 08:03*	*1*
DCB Decachlorobiphenyl	*77*		*65 - 174*	*07/15/24 08:01*	*07/18/24 08:03*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**16700**		11.0	9.5	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Antimony	**2.6**	**J**	16.5	0.58	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Arsenic	**14.0**		2.2	0.97	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Barium	**118**		0.55	0.15	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Beryllium	**2.2**		0.22	0.044	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Cadmium	**0.74**		0.22	0.077	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Calcium	**29400**		54.8	29.6	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Chromium	**35.0**		0.55	0.39	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Cobalt	**11.6**		0.55	0.11	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Copper	**46.4**		1.1	0.63	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Iron	**25400**		11.0	9.3	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Lead	**54.9**		1.1	0.50	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Magnesium	**11400**		21.9	9.3	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Manganese	**387**		1.1	0.31	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Nickel	**40.1**		5.5	0.27	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Potassium	**2960**		32.9	26.6	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Selenium	ND		4.4	0.88	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Silver	**0.23**	**J**	0.66	0.22	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Sodium	**326**		154	67.2	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Thallium	ND		6.6	0.83	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Vanadium	**47.1**		0.55	0.14	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Zinc	**159**		2.2	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1

Client Sample ID: HA-03-0.0-0.2
Lab Sample ID: 480-221553-10

Date Collected: 07/11/24 12:15
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 88.9

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.062**		0.022	0.0051	mg/Kg	☼	07/15/24 09:13	07/15/24 11:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	**0.60**	**J**	1.1	0.53	mg/Kg	☼	07/18/24 13:15	07/18/24 17:04	1

Client Sample ID: HA-03-2.3-2.5
Lab Sample ID: 480-221553-11

Date Collected: 07/11/24 13:00
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 94.7

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		480	130	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
1,1,2,2-Tetrachloroethane	ND	UJ	480	77	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		480	240	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
1,1,2-Trichloroethane	ND		480	100	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
1,1-Dichloroethane	ND		480	150	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
1,1-Dichloroethene	ND		480	170	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
1,2,4-Trichlorobenzene	ND		480	180	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
1,2-Dibromo-3-Chloropropane	ND		480	240	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
1,2-Dichlorobenzene	ND		480	120	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
1,2-Dichloroethane	ND		480	200	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
1,2-Dichloropropane	ND		480	77	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
1,3-Dichlorobenzene	ND		480	130	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
1,4-Dichlorobenzene	ND		480	67	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
2-Butanone (MEK)	ND		2400	1400	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
2-Hexanone	ND		2400	980	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
4-Methyl-2-pentanone (MIBK)	ND		2400	150	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Acetone	ND		2400	2000	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Benzene	**13000**		480	91	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Bromoform	ND		480	240	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Bromomethane	ND		480	100	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Carbon disulfide	ND		480	220	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Carbon tetrachloride	ND		480	120	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Chlorobenzene	ND		480	63	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Dibromochloromethane	ND		480	230	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Chloroethane	ND		480	99	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Chloroform	ND		480	330	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Chloromethane	ND		480	110	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
cis-1,2-Dichloroethene	ND		480	130	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Cyclohexane	ND		480	110	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Bromodichloromethane	ND		480	95	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Dichlorodifluoromethane	ND		480	210	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Ethylbenzene	**5400**		480	140	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
1,2-Dibromoethane	ND		480	84	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Isopropylbenzene	**740**		480	72	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Methyl acetate	**1900**	**J**	2400	230	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Methyl tert-butyl ether	ND		480	180	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Methylcyclohexane	**1900**		480	220	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Methylene Chloride	ND		480	94	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10

Client Sample ID: HA-03-2.3-2.5
Date Collected: 07/11/24 13:00
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-11
Matrix: Solid
Percent Solids: 94.7

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		480	64	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Toluene	**940**		480	130	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
trans-1,2-Dichloroethene	ND		480	110	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
trans-1,3-Dichloropropene	ND		480	47	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Trichloroethene	ND		480	130	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Trichlorofluoromethane	ND		480	220	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Vinyl chloride	ND		480	160	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Xylenes, Total	**15000**		950	260	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
cis-1,3-Dichloropropene	ND		480	110	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Styrene	ND		480	120	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
m-Xylene & p-Xylene	*12000*	*H*	*ug/Kg*	☼	*7.96*	*179601-23-1*	*07/15/24 09:29*	*07/15/24 16:16*	*10*
Benzene, cyclopropyl-	*36000*	*T H J N*	*ug/Kg*	☼	*10.40*	*873-49-4*	*07/15/24 09:29*	*07/15/24 16:16*	*10*
1-Phenyl-1-butene	*47000*	*T H J N*	*ug/Kg*	☼	*11.63*	*824-90-8*	*07/15/24 09:29*	*07/15/24 16:16*	*10*
Naphthalene	*84000*	*T H J N*	*ug/Kg*	☼	*12.19*	*91-20-3*	*07/15/24 09:29*	*07/15/24 16:16*	*10*
Benzocycloheptatriene	*190000*	*T H J N*	*ug/Kg*	☼	*13.10*	*264-09-5*	*07/15/24 09:29*	*07/15/24 16:16*	*10*
Naphthalene, 2-methyl-	*100000*	*T H J N*	*ug/Kg*	☼	*13.26*	*91-57-6*	*07/15/24 09:29*	*07/15/24 16:16*	*10*
Naphthalene, 1-ethyl-	*49000*	*T H J N*	*ug/Kg*	☼	*13.83*	*1127-76-0*	*07/15/24 09:29*	*07/15/24 16:16*	*10*
Naphthalene, 2,7-dimethyl-	*120000*	*T H J N*	*ug/Kg*	☼	*13.91*	*582-16-1*	*07/15/24 09:29*	*07/15/24 16:16*	*10*
Naphthalene, 2,3-dimethyl-	*160000*	*T H J N*	*ug/Kg*	☼	*14.04*	*581-40-8*	*07/15/24 09:29*	*07/15/24 16:16*	*10*
Naphthalene, 1,3-dimethyl-	*39000*	*T H J N*	*ug/Kg*	☼	*14.21*	*575-41-7*	*07/15/24 09:29*	*07/15/24 16:16*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*53 - 146*	*07/15/24 09:29*	*07/15/24 16:16*	*10*
4-Bromofluorobenzene (Surr)	*95*		*49 - 148*	*07/15/24 09:29*	*07/15/24 16:16*	*10*
Toluene-d8 (Surr)	*96*		*50 - 149*	*07/15/24 09:29*	*07/15/24 16:16*	*10*
Dibromofluoromethane (Surr)	*94*		*60 - 140*	*07/15/24 09:29*	*07/15/24 16:16*	*10*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		110000	29000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
2,4,6-Trichlorophenol	ND		110000	21000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
2,4-Dichlorophenol	ND		110000	11000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
2,4-Dimethylphenol	ND		110000	26000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
2,4-Dinitrophenol	ND		1000000	490000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
2,4-Dinitrotoluene	ND		110000	22000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
2,6-Dinitrotoluene	ND		110000	13000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
2-Chloronaphthalene	ND		110000	18000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
2-Chlorophenol	ND		210000	20000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
2-Methylnaphthalene	**470000**		110000	21000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
2-Methylphenol	ND		110000	13000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
2-Nitroaniline	ND		210000	16000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
2-Nitrophenol	ND		110000	30000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
3,3'-Dichlorobenzidine	ND		210000	130000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
3-Nitroaniline	ND		210000	30000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
4,6-Dinitro-2-methylphenol	ND		210000	110000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
4-Bromophenyl phenyl ether	ND		110000	15000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
4-Chloro-3-methylphenol	ND		110000	26000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
4-Chloroaniline	ND		110000	26000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10

Client Sample ID: HA-03-2.3-2.5
Date Collected: 07/11/24 13:00
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-11
Matrix: Solid
Percent Solids: 94.7

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	ND		110000	13000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
4-Methylphenol	ND		210000	13000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
4-Nitroaniline	ND		210000	56000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
4-Nitrophenol	ND		210000	75000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Acenaphthene	**47000**	**J**	110000	16000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Acenaphthylene	ND		110000	14000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Acetophenone	ND		110000	14000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Anthracene	**61000**	**J**	110000	26000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Atrazine	ND		110000	37000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Benzaldehyde	ND		110000	85000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Benzo[a]anthracene	**90000**	**J**	110000	11000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Benzo[a]pyrene	**46000**	**J**	110000	16000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Benzo[b]fluoranthene	**24000**	**J**	110000	17000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Benzo[g,h,i]perylene	**20000**	**J**	110000	11000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Benzo[k]fluoranthene	ND		110000	14000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Biphenyl	**23000**	**J**	110000	16000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
bis (2-chloroisopropyl) ether	ND		110000	21000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Bis(2-chloroethoxy)methane	ND		110000	23000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Bis(2-chloroethyl)ether	ND		110000	14000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Bis(2-ethylhexyl) phthalate	ND		110000	37000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Butyl benzyl phthalate	ND		110000	18000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Caprolactam	ND		110000	32000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Carbazole	**27000**	**J**	110000	13000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Chrysene	**170000**		110000	24000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Dibenz(a,h)anthracene	ND		110000	19000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Dibenzofuran	**31000**	**J**	110000	13000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Diethyl phthalate	ND		110000	14000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Dimethyl phthalate	ND		110000	13000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Di-n-butyl phthalate	ND		110000	18000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Di-n-octyl phthalate	ND		110000	13000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Fluoranthene	**36000**	**J**	110000	11000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Fluorene	**89000**	**J**	110000	13000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Hexachlorobenzene	ND		110000	14000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Hexachlorobutadiene	ND		110000	16000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Hexachlorocyclopentadiene	ND		110000	14000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Hexachloroethane	ND		110000	14000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Indeno[1,2,3-cd]pyrene	ND		110000	13000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Isophorone	ND		110000	23000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Naphthalene	**170000**		110000	14000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Nitrobenzene	ND		110000	12000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
N-Nitrosodi-n-propylamine	ND		110000	18000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
N-Nitrosodiphenylamine	**180000**		110000	87000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Pentachlorophenol	ND		210000	110000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Phenanthrene	**570000**		110000	16000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Phenol	ND		110000	16000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Pyrene	**170000**		110000	13000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Methylene Chloride	*2400000*	*T J N*	*ug/Kg*	☼	*2.01*	*75-09-2*	*07/15/24 07:53*	*07/19/24 19:14*	*10*
Naphthalene, 1,7-dimethyl-	*650000*	*T J N*	*ug/Kg*	☼	*8.76*	*575-37-1*	*07/15/24 07:53*	*07/19/24 19:14*	*10*

Client Sample ID: HA-03-2.3-2.5
Lab Sample ID: 480-221553-11

Date Collected: 07/11/24 13:00
Matrix: Solid

Date Received: 07/12/24 17:50
Percent Solids: 94.7

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Naphthalene, 1,6-dimethyl-	720000	T J N	ug/Kg	☼	8.85	575-43-9	07/15/24 07:53	07/19/24 19:14	10
Naphthalene, 2,3-dimethyl-	510000	T J N	ug/Kg	☼	8.99	581-40-8	07/15/24 07:53	07/19/24 19:14	10
Naphthalene, 2-(1-methylethyl)-	500000	T J N	ug/Kg	☼	9.38	2027-17-0	07/15/24 07:53	07/19/24 19:14	10
Pentadecane, 2,6,10-trimethyl-	540000	T J N	ug/Kg	☼	10.07	3892-00-0	07/15/24 07:53	07/19/24 19:14	10
Dibenzothiophene, 3-methyl-	640000	T J N	ug/Kg	☼	11.20	16587-52-3	07/15/24 07:53	07/19/24 19:14	10
Phenanthrene, 2-methyl-	890000	T J N	ug/Kg	☼	11.37	2531-84-2	07/15/24 07:53	07/19/24 19:14	10
Phenanthrene, 1-methyl-	1200000	T J N	ug/Kg	☼	11.39	832-69-9	07/15/24 07:53	07/19/24 19:14	10
Anthracene, 2-methyl-	820000	T J N	ug/Kg	☼	11.47	613-12-7	07/15/24 07:53	07/19/24 19:14	10
1H-Cyclopropa[l]phenanthrene,1a,9b-dihydro-	620000	T J N	ug/Kg	☼	11.49	949-41-7	07/15/24 07:53	07/19/24 19:14	10
2,8-Dimethyldibenzo(B,D)thiophene	630000	T J N	ug/Kg	☼	11.68	1207-15-4	07/15/24 07:53	07/19/24 19:14	10
Phenanthrene, 3,6-dimethyl-	540000	T J N	ug/Kg	☼	11.79	1576-67-6	07/15/24 07:53	07/19/24 19:14	10
Phenanthrene, 2,5-dimethyl-	780000	T J N	ug/Kg	☼	11.81	3674-66-6	07/15/24 07:53	07/19/24 19:14	10
Phenanthrene, 2,7-dimethyl-	630000	T J N	ug/Kg	☼	11.84	1576-69-8	07/15/24 07:53	07/19/24 19:14	10
Phenanthrene, 2,3-dimethyl-	1800000	T J N	ug/Kg	☼	11.88	3674-65-5	07/15/24 07:53	07/19/24 19:14	10
9,10-Dimethylanthracene	770000	T J N	ug/Kg	☼	11.91	781-43-1	07/15/24 07:53	07/19/24 19:14	10
Anthracene, 1,4-dimethyl-	640000	T J N	ug/Kg	☼	11.96	781-92-0	07/15/24 07:53	07/19/24 19:14	10
Phenanthrene, 2,3,5-trimethyl-	580000	T J N	ug/Kg	☼	12.26	3674-73-5	07/15/24 07:53	07/19/24 19:14	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	188	S1+	26 - 143	07/15/24 07:53	07/19/24 19:14	10
2-Fluorobiphenyl	106		50 - 121	07/15/24 07:53	07/19/24 19:14	10
2-Fluorophenol	86		36 - 120	07/15/24 07:53	07/19/24 19:14	10
Nitrobenzene-d5	81		40 - 121	07/15/24 07:53	07/19/24 19:14	10
Phenol-d5	174	S1+	41 - 120	07/15/24 07:53	07/19/24 19:14	10
p-Terphenyl-d14	116		46 - 143	07/15/24 07:53	07/19/24 19:14	10

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		510	99	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
4,4'-DDE	ND		510	110	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
4,4'-DDT	**140**	**J**	510	120	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
Aldrin	ND		510	130	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
alpha-BHC	ND		510	92	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
cis-Chlordane	ND		510	250	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
beta-BHC	ND		510	92	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
delta-BHC	ND		510	95	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
Dieldrin	ND		510	120	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
Endosulfan I	ND		510	98	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
Endosulfan II	ND		510	92	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
Endosulfan sulfate	ND		510	95	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
Endrin	ND		510	100	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
Endrin aldehyde	**170**	**J**	510	130	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
Endrin ketone	ND		510	130	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
gamma-BHC (Lindane)	ND		510	94	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
trans-Chlordane	ND		510	160	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
Heptachlor	ND		510	110	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
Heptachlor epoxide	ND		510	130	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
Methoxychlor	ND		510	100	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
Toxaphene	ND		5100	3000	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50

Client Sample ID: HA-03-2.3-2.5
Date Collected: 07/11/24 13:00
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-11
Matrix: Solid
Percent Solids: 94.7

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*2371*	*S1+*	*45 - 120*	*07/15/24 07:45*	*07/16/24 14:16*	*50*
DCB Decachlorobiphenyl	*7310*	*S1+*	*45 - 120*	*07/15/24 07:45*	*07/16/24 14:16*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 14:16*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 14:16*	*50*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		1.1	0.21	mg/Kg	☼	07/15/24 08:01	07/19/24 16:20	1
PCB-1221	ND		1.1	0.21	mg/Kg	☼	07/15/24 08:01	07/19/24 16:20	1
PCB-1232	ND		1.1	0.21	mg/Kg	☼	07/15/24 08:01	07/19/24 16:20	1
PCB-1242	ND		1.1	0.21	mg/Kg	☼	07/15/24 08:01	07/19/24 16:20	1
PCB-1248	ND		1.1	0.21	mg/Kg	☼	07/15/24 08:01	07/19/24 16:20	1
PCB-1254	ND		1.1	0.49	mg/Kg	☼	07/15/24 08:01	07/19/24 16:20	1
PCB-1260	ND		1.1	0.49	mg/Kg	☼	07/15/24 08:01	07/19/24 16:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*83*		*60 - 154*	*07/15/24 08:01*	*07/19/24 16:20*	*1*
Tetrachloro-m-xylene	*67*		*60 - 154*	*07/15/24 08:01*	*07/19/24 16:20*	*1*
DCB Decachlorobiphenyl	*80*		*65 - 174*	*07/15/24 08:01*	*07/19/24 16:20*	*1*
DCB Decachlorobiphenyl	*81*		*65 - 174*	*07/15/24 08:01*	*07/19/24 16:20*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**43500**		11.0	9.5	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Antimony	ND		16.5	0.58	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Arsenic	**64.3**		2.2	0.97	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Barium	**55.3**		0.55	0.15	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Beryllium	**0.49**		0.22	0.044	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Cadmium	ND		0.22	0.077	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Calcium	**7880**		54.9	29.6	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Chromium	**54.4**		0.55	0.40	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Cobalt	**7.6**		0.55	0.11	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Copper	**32.2**		1.1	0.63	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Iron	**19800**		11.0	9.3	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Lead	**74.0**		1.1	0.50	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Magnesium	**2750**		21.9	9.3	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Manganese	**208**		1.1	0.31	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Nickel	**113**		5.5	0.27	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Potassium	**705**		32.9	26.6	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Selenium	ND		4.4	0.88	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Silver	ND		0.66	0.22	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Sodium	**840**		154	67.3	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Thallium	ND		6.6	0.83	mg/Kg	☼	07/12/24 12:30	07/16/24 14:06	1
Vanadium	**106**		0.55	0.14	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Zinc	**46.9**		2.2	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.034**		0.020	0.0047	mg/Kg	☼	07/15/24 09:13	07/15/24 11:35	1

Client Sample ID: HA-03-2.3-2.5
Lab Sample ID: 480-221553-11
Date Collected: 07/11/24 13:00
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 94.7

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.0	0.49	mg/Kg	☼	07/18/24 13:15	07/18/24 17:05	1

Client Sample ID: HA-02-0.0-0.2
Lab Sample ID: 480-221553-12
Date Collected: 07/11/24 13:30
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 77.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		22000	6000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
2,4,6-Trichlorophenol	ND		22000	4400	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
2,4-Dichlorophenol	ND		22000	2300	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
2,4-Dimethylphenol	ND		22000	5300	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
2,4-Dinitrophenol	ND		220000	100000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
2,4-Dinitrotoluene	ND		22000	4500	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
2,6-Dinitrotoluene	ND		22000	2600	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
2-Chloronaphthalene	ND		22000	3600	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
2-Chlorophenol	ND		43000	4000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
2-Methylnaphthalene	ND		22000	4400	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
2-Methylphenol	ND		22000	2600	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
2-Nitroaniline	ND		43000	3200	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
2-Nitrophenol	ND		22000	6200	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
3,3'-Dichlorobenzidine	ND		43000	26000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
3-Nitroaniline	ND		43000	6100	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
4,6-Dinitro-2-methylphenol	ND		43000	22000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
4-Bromophenyl phenyl ether	ND		22000	3100	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
4-Chloro-3-methylphenol	ND		22000	5400	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
4-Chloroaniline	ND		22000	5400	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
4-Chlorophenyl phenyl ether	ND		22000	2700	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
4-Methylphenol	ND		43000	2600	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
4-Nitroaniline	ND		43000	12000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
4-Nitrophenol	ND		43000	15000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Acenaphthene	ND		22000	3200	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Acenaphthylene	ND		22000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Acetophenone	ND		22000	3000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Anthracene	ND		22000	5400	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Atrazine	ND		22000	7600	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Benzaldehyde	ND		22000	17000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Benzo[a]anthracene	ND		22000	2200	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Benzo[a]pyrene	ND		22000	3200	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Benzo[b]fluoranthene	ND		22000	3500	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Benzo[g,h,i]perylene	ND		22000	2300	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Benzo[k]fluoranthene	ND		22000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Biphenyl	ND		22000	3200	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
bis (2-chloroisopropyl) ether	ND		22000	4400	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Bis(2-chloroethoxy)methane	ND		22000	4700	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Bis(2-chloroethyl)ether	ND		22000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Bis(2-ethylhexyl) phthalate	ND		22000	7500	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Butyl benzyl phthalate	ND		22000	3600	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Caprolactam	ND		22000	6600	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Carbazole	ND		22000	2600	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10

Client Sample ID: HA-02-0.0-0.2
Lab Sample ID: 480-221553-12
Date Collected: 07/11/24 13:30
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 77.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	ND		22000	4900	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Dibenz(a,h)anthracene	ND		22000	3900	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Dibenzofuran	ND		22000	2600	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Diethyl phthalate	ND		22000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Dimethyl phthalate	ND		22000	2600	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Di-n-butyl phthalate	ND		22000	3800	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Di-n-octyl phthalate	ND		22000	2600	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Fluoranthene	ND		22000	2300	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Fluorene	ND		22000	2600	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Hexachlorobenzene	ND		22000	3000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Hexachlorobutadiene	ND		22000	3200	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Hexachlorocyclopentadiene	ND		22000	3000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Hexachloroethane	ND		22000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Indeno[1,2,3-cd]pyrene	ND		22000	2700	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Isophorone	ND		22000	4700	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Naphthalene	ND		22000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Nitrobenzene	ND		22000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
N-Nitrosodi-n-propylamine	ND		22000	3800	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
N-Nitrosodiphenylamine	ND		22000	18000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Pentachlorophenol	ND		43000	22000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Phenanthrene	ND		22000	3200	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Phenol	ND		22000	3400	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Pyrene	ND		22000	2600	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/15/24 07:53*	*07/19/24 19:42*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*236*	*S1+*	*26 - 143*	*07/15/24 07:53*	*07/19/24 19:42*	*10*
2-Fluorobiphenyl	*112*		*50 - 121*	*07/15/24 07:53*	*07/19/24 19:42*	*10*
2-Fluorophenol	*71*		*36 - 120*	*07/15/24 07:53*	*07/19/24 19:42*	*10*
Nitrobenzene-d5	*94*		*40 - 121*	*07/15/24 07:53*	*07/19/24 19:42*	*10*
Phenol-d5	*182*	*S1+*	*41 - 120*	*07/15/24 07:53*	*07/19/24 19:42*	*10*
p-Terphenyl-d14	*107*		*46 - 143*	*07/15/24 07:53*	*07/19/24 19:42*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		43	8.3	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
4,4'-DDE	ND		43	8.9	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
4,4'-DDT	ND		43	10	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
Aldrin	ND		43	10	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
alpha-BHC	ND		43	7.7	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
cis-Chlordane	ND		43	21	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
beta-BHC	ND		43	7.7	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
delta-BHC	ND		43	7.9	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
Dieldrin	ND		43	10	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
Endosulfan I	ND		43	8.2	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
Endosulfan II	ND		43	7.7	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
Endosulfan sulfate	ND		43	7.9	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
Endrin	ND		43	8.4	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20

Client Sample ID: HA-02-0.0-0.2
Lab Sample ID: 480-221553-12

Date Collected: 07/11/24 13:30
Matrix: Solid

Date Received: 07/12/24 17:50
Percent Solids: 77.0

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin aldehyde	ND		43	11	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
Endrin ketone	ND		43	10	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
gamma-BHC (Lindane)	ND		43	7.8	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
trans-Chlordane	ND		43	14	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
Heptachlor	ND		43	9.2	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
Heptachlor epoxide	ND		43	11	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
Methoxychlor	ND		43	8.7	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
Toxaphene	ND		430	250	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/15/24 07:45*	*07/16/24 14:35*	*20*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/15/24 07:45*	*07/16/24 14:35*	*20*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 14:35*	*20*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 14:35*	*20*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.28	0.054	mg/Kg	☼	07/15/24 08:01	07/18/24 08:37	1
PCB-1221	ND		0.28	0.054	mg/Kg	☼	07/15/24 08:01	07/18/24 08:37	1
PCB-1232	ND		0.28	0.054	mg/Kg	☼	07/15/24 08:01	07/18/24 08:37	1
PCB-1242	ND		0.28	0.054	mg/Kg	☼	07/15/24 08:01	07/18/24 08:37	1
PCB-1248	ND		0.28	0.054	mg/Kg	☼	07/15/24 08:01	07/18/24 08:37	1
PCB-1254	ND		0.28	0.13	mg/Kg	☼	07/15/24 08:01	07/18/24 08:37	1
PCB-1260	ND		0.28	0.13	mg/Kg	☼	07/15/24 08:01	07/18/24 08:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*113*		*60 - 154*	*07/15/24 08:01*	*07/18/24 08:37*	*1*
Tetrachloro-m-xylene	*101*		*60 - 154*	*07/15/24 08:01*	*07/18/24 08:37*	*1*
DCB Decachlorobiphenyl	*88*		*65 - 174*	*07/15/24 08:01*	*07/18/24 08:37*	*1*
DCB Decachlorobiphenyl	*94*		*65 - 174*	*07/15/24 08:01*	*07/18/24 08:37*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**13900**		12.9	11.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Antimony	**0.89**	**J**	19.4	0.68	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Arsenic	**8.2**		2.6	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Barium	**127**		0.65	0.18	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Beryllium	**1.0**		0.26	0.052	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Cadmium	**0.88**		0.26	0.090	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Calcium	**32500**		64.5	34.8	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Chromium	**35.7**		0.65	0.46	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Cobalt	**9.4**		0.65	0.13	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Copper	**38.2**		1.3	0.74	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Iron	**19100**		12.9	10.9	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Lead	**98.8**		1.3	0.59	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Magnesium	**12300**		25.8	10.9	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Manganese	**639**		1.3	0.36	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Nickel	**43.0**		6.5	0.32	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Potassium	**3530**		38.7	31.3	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Selenium	ND		5.2	1.0	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1

Client Sample ID: HA-02-0.0-0.2
Lab Sample ID: 480-221553-12

Date Collected: 07/11/24 13:30
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 77.0

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	**0.35**	**J**	0.77	0.26	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Sodium	**227**		181	79.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Thallium	ND		7.7	0.98	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Vanadium	**41.7**		0.65	0.17	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Zinc	**301**		2.6	1.3	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.42**		0.026	0.0061	mg/Kg	☼	07/15/24 09:13	07/15/24 11:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.60	mg/Kg	☼	07/18/24 13:15	07/18/24 17:06	1

Client Sample ID: HA-02-3.0-4.0
Lab Sample ID: 480-221553-13

Date Collected: 07/11/24 13:40
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 82.6

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1100	290	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
1,1,2,2-Tetrachloroethane	ND	UJ	1100	170	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1100	530	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
1,1,2-Trichloroethane	ND		1100	220	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
1,1-Dichloroethane	ND		1100	330	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
1,1-Dichloroethene	ND		1100	360	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
1,2,4-Trichlorobenzene	ND		1100	400	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
1,2-Dibromo-3-Chloropropane	ND		1100	530	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
1,2-Dichlorobenzene	ND		1100	270	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
1,2-Dichloroethane	ND		1100	430	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
1,2-Dichloropropane	ND		1100	170	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
1,3-Dichlorobenzene	ND		1100	280	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
1,4-Dichlorobenzene	ND		1100	150	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
2-Butanone (MEK)	ND		5300	3100	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
2-Hexanone	ND		5300	2200	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
4-Methyl-2-pentanone (MIBK)	ND		5300	340	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Acetone	ND		5300	4300	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Benzene	ND		1100	200	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Bromoform	ND		1100	530	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Bromomethane	ND		1100	230	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Carbon disulfide	ND		1100	480	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Carbon tetrachloride	ND		1100	270	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Chlorobenzene	ND		1100	140	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Dibromochloromethane	ND		1100	510	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Chloroethane	ND		1100	220	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Chloroform	ND		1100	720	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Chloromethane	ND		1100	250	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
cis-1,2-Dichloroethene	ND		1100	290	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Cyclohexane	ND		1100	230	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Bromodichloromethane	ND		1100	210	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20

Client Sample ID: HA-02-3.0-4.0
Lab Sample ID: 480-221553-13

Date Collected: 07/11/24 13:40
Matrix: Solid

Date Received: 07/12/24 17:50
Percent Solids: 82.6

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1100	460	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Ethylbenzene	ND		1100	310	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
1,2-Dibromoethane	ND		1100	180	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Isopropylbenzene	ND		1100	160	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Methyl acetate	ND		5300	500	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Methyl tert-butyl ether	ND		1100	400	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Methylcyclohexane	ND		1100	490	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Methylene Chloride	ND		1100	210	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Tetrachloroethene	ND		1100	140	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Toluene	ND		1100	280	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
trans-1,2-Dichloroethene	ND		1100	250	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
trans-1,3-Dichloropropene	ND		1100	100	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Trichloroethene	ND		1100	290	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Trichlorofluoromethane	ND		1100	490	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Vinyl chloride	ND		1100	350	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Xylenes, Total	ND		2100	580	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
cis-1,3-Dichloropropene	ND		1100	250	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Styrene	ND		1100	250	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Benzocycloheptatriene	*11000*	*T H J N*	*ug/Kg*	☼	*13.10*	*264-09-5*	*07/15/24 09:29*	*07/15/24 16:40*	*20*
Naphthalene, 1-ethyl-	*13000*	*T H J N*	*ug/Kg*	☼	*13.83*	*1127-76-0*	*07/15/24 09:29*	*07/15/24 16:40*	*20*
Naphthalene, 2,6-dimethyl-	*31000*	*T H J N*	*ug/Kg*	☼	*13.91*	*581-42-0*	*07/15/24 09:29*	*07/15/24 16:40*	*20*
Unknown	*48000*	*T H J*	*ug/Kg*	☼	*14.03*	*N/A*	*07/15/24 09:29*	*07/15/24 16:40*	*20*
Naphthalene, 2,3-dimethyl-	*23000*	*T H J N*	*ug/Kg*	☼	*14.21*	*581-40-8*	*07/15/24 09:29*	*07/15/24 16:40*	*20*
Naphthalene, 1,3-dimethyl-	*13000*	*T H J N*	*ug/Kg*	☼	*14.33*	*575-41-7*	*07/15/24 09:29*	*07/15/24 16:40*	*20*
Unknown	*28000*	*T H J*	*ug/Kg*	☼	*14.58*	*N/A*	*07/15/24 09:29*	*07/15/24 16:40*	*20*
Unknown	*41000*	*T H J*	*ug/Kg*	☼	*14.75*	*N/A*	*07/15/24 09:29*	*07/15/24 16:40*	*20*
Naphthalene, 1,4,6-trimethyl-	*41000*	*T H J N*	*ug/Kg*	☼	*14.80*	*2131-42-2*	*07/15/24 09:29*	*07/15/24 16:40*	*20*
Naphthalene, 2,3,6-trimethyl-	*28000*	*T H J N*	*ug/Kg*	☼	*14.94*	*829-26-5*	*07/15/24 09:29*	*07/15/24 16:40*	*20*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*53 - 146*	*07/15/24 09:29*	*07/15/24 16:40*	*20*
4-Bromofluorobenzene (Surr)	*93*		*49 - 148*	*07/15/24 09:29*	*07/15/24 16:40*	*20*
Toluene-d8 (Surr)	*95*		*50 - 149*	*07/15/24 09:29*	*07/15/24 16:40*	*20*
Dibromofluoromethane (Surr)	*90*		*60 - 140*	*07/15/24 09:29*	*07/15/24 16:40*	*20*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		200	55	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
2,4,6-Trichlorophenol	ND		200	41	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
2,4-Dichlorophenol	ND		200	21	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
2,4-Dimethylphenol	ND		200	49	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
2,4-Dinitrophenol	ND		2000	940	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
2,4-Dinitrotoluene	ND		200	42	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
2,6-Dinitrotoluene	ND		200	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
2-Chloronaphthalene	ND		200	33	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
2-Chlorophenol	ND		390	37	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
2-Methylnaphthalene	ND		200	41	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
2-Methylphenol	ND		200	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1

Client Sample ID: HA-02-3.0-4.0
Lab Sample ID: 480-221553-13

Date Collected: 07/11/24 13:40
Matrix: Solid

Date Received: 07/12/24 17:50
Percent Solids: 82.6

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		390	30	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
2-Nitrophenol	ND		200	57	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
3,3'-Dichlorobenzidine	ND		390	240	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
3-Nitroaniline	ND		390	56	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
4,6-Dinitro-2-methylphenol	ND		390	200	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
4-Bromophenyl phenyl ether	ND		200	29	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
4-Chloro-3-methylphenol	ND		200	50	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
4-Chloroaniline	ND		200	50	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
4-Chlorophenyl phenyl ether	ND		200	25	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
4-Methylphenol	ND		390	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
4-Nitroaniline	ND		390	110	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
4-Nitrophenol	ND		390	140	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Acenaphthene	ND		200	30	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Acenaphthylene	ND		200	26	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Acetophenone	ND		200	27	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Anthracene	ND		200	50	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Atrazine	ND		200	70	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Benzaldehyde	ND		200	160	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Benzo[a]anthracene	ND		200	20	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Benzo[a]pyrene	ND		200	30	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Benzo[b]fluoranthene	ND		200	32	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Benzo[g,h,i]perylene	ND		200	21	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Benzo[k]fluoranthene	ND		200	26	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Biphenyl	ND		200	30	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
bis (2-chloroisopropyl) ether	ND		200	41	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Bis(2-chloroethoxy)methane	ND		200	43	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Bis(2-chloroethyl)ether	ND		200	26	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Bis(2-ethylhexyl) phthalate	ND		200	69	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Butyl benzyl phthalate	ND		200	33	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Caprolactam	ND		200	61	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Carbazole	ND		200	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Chrysene	ND		200	45	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Dibenz(a,h)anthracene	ND		200	36	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Dibenzofuran	ND		200	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Diethyl phthalate	ND		200	26	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Dimethyl phthalate	ND		200	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Di-n-butyl phthalate	ND		200	35	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Di-n-octyl phthalate	ND		200	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Fluoranthene	ND		200	21	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Fluorene	ND		200	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Hexachlorobenzene	ND		200	27	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Hexachlorobutadiene	ND		200	30	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Hexachlorocyclopentadiene	ND		200	27	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Hexachloroethane	ND		200	26	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Indeno[1,2,3-cd]pyrene	ND		200	25	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Isophorone	ND		200	43	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Naphthalene	ND		200	26	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Nitrobenzene	ND		200	23	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
N-Nitrosodi-n-propylamine	ND		200	35	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1

Client Sample ID: HA-02-3.0-4.0
Lab Sample ID: 480-221553-13

Date Collected: 07/11/24 13:40
Matrix: Solid

Date Received: 07/12/24 17:50
Percent Solids: 82.6

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodiphenylamine	ND		200	160	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Pentachlorophenol	ND		390	200	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Phenanthrene	ND		200	30	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Phenol	ND		200	31	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Pyrene	ND		200	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*2400*	*T J*	*ug/Kg*	☼	*1.94*	*N/A*	*07/15/24 07:53*	*07/19/24 20:08*	*1*
Unknown	*1100*	*T J*	*ug/Kg*	☼	*3.35*	*N/A*	*07/15/24 07:53*	*07/19/24 20:08*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*97*		*26 - 143*	*07/15/24 07:53*	*07/19/24 20:08*	*1*
2-Fluorobiphenyl	*72*		*50 - 121*	*07/15/24 07:53*	*07/19/24 20:08*	*1*
2-Fluorophenol	*96*		*36 - 120*	*07/15/24 07:53*	*07/19/24 20:08*	*1*
Nitrobenzene-d5	*86*		*40 - 121*	*07/15/24 07:53*	*07/19/24 20:08*	*1*
Phenol-d5	*93*		*41 - 120*	*07/15/24 07:53*	*07/19/24 20:08*	*1*
p-Terphenyl-d14	*96*		*46 - 143*	*07/15/24 07:53*	*07/19/24 20:08*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.0	0.39	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
4,4'-DDE	ND		2.0	0.42	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
4,4'-DDT	ND		2.0	0.47	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
Aldrin	ND		2.0	0.50	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
alpha-BHC	ND		2.0	0.36	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
cis-Chlordane	ND		2.0	1.0	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
beta-BHC	ND		2.0	0.36	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
delta-BHC	ND		2.0	0.37	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
Dieldrin	ND		2.0	0.48	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
Endosulfan I	ND		2.0	0.39	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
Endosulfan II	ND		2.0	0.36	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
Endosulfan sulfate	ND		2.0	0.38	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
Endrin	ND		2.0	0.40	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
Endrin aldehyde	ND		2.0	0.51	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
Endrin ketone	ND		2.0	0.50	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
gamma-BHC (Lindane)	ND		2.0	0.37	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
trans-Chlordane	ND		2.0	0.64	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
Heptachlor	ND		2.0	0.44	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
Heptachlor epoxide	ND		2.0	0.52	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
Methoxychlor	ND		2.0	0.41	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
Toxaphene	ND		20	12	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*63*		*45 - 120*	*07/15/24 07:45*	*07/16/24 14:55*	*1*
DCB Decachlorobiphenyl	*66*		*45 - 120*	*07/15/24 07:45*	*07/16/24 14:55*	*1*
Tetrachloro-m-xylene	*69*		*30 - 124*	*07/15/24 07:45*	*07/16/24 14:55*	*1*
Tetrachloro-m-xylene	*75*		*30 - 124*	*07/15/24 07:45*	*07/16/24 14:55*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.25	0.050	mg/Kg	☼	07/15/24 08:01	07/18/24 08:54	1

Client Sample ID: HA-02-3.0-4.0
Lab Sample ID: 480-221553-13

Date Collected: 07/11/24 13:40
Matrix: Solid

Date Received: 07/12/24 17:50
Percent Solids: 82.6

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1221	ND		0.25	0.050	mg/Kg	☼	07/15/24 08:01	07/18/24 08:54	1
PCB-1232	ND		0.25	0.050	mg/Kg	☼	07/15/24 08:01	07/18/24 08:54	1
PCB-1242	ND		0.25	0.050	mg/Kg	☼	07/15/24 08:01	07/18/24 08:54	1
PCB-1248	ND		0.25	0.050	mg/Kg	☼	07/15/24 08:01	07/18/24 08:54	1
PCB-1254	ND		0.25	0.12	mg/Kg	☼	07/15/24 08:01	07/18/24 08:54	1
PCB-1260	ND		0.25	0.12	mg/Kg	☼	07/15/24 08:01	07/18/24 08:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*139*		*60 - 154*	*07/15/24 08:01*	*07/18/24 08:54*	*1*
Tetrachloro-m-xylene	*127*		*60 - 154*	*07/15/24 08:01*	*07/18/24 08:54*	*1*
DCB Decachlorobiphenyl	*124*		*65 - 174*	*07/15/24 08:01*	*07/18/24 08:54*	*1*
DCB Decachlorobiphenyl	*126*		*65 - 174*	*07/15/24 08:01*	*07/18/24 08:54*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**17900**		11.6	10.0	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Antimony	**0.76**	**J**	17.4	0.62	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Arsenic	**4.2**		2.3	1.0	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Barium	**107**		0.58	0.16	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Beryllium	**0.83**		0.23	0.046	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Cadmium	**0.18**	**J**	0.23	0.081	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Calcium	**53400**		58.0	31.3	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Chromium	**22.3**		0.58	0.42	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Cobalt	**10.7**		0.58	0.12	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Copper	**19.3**		1.2	0.66	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Iron	**19000**		11.6	9.8	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Lead	**17.2**		1.2	0.53	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Magnesium	**15200**		23.2	9.8	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Manganese	**522**		1.2	0.32	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Nickel	**26.9**		5.8	0.29	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Potassium	**5750**		34.8	28.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Selenium	ND		4.6	0.93	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Silver	ND		0.70	0.23	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Sodium	**288**		162	71.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Thallium	ND		7.0	0.88	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Vanadium	**35.1**		0.58	0.15	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Zinc	**69.8**		2.3	1.2	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.043**		0.025	0.0057	mg/Kg	☼	07/15/24 09:13	07/15/24 11:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.56	mg/Kg	☼	07/18/24 13:15	07/18/24 17:08	1

Client Sample ID: HA-02-3.0-4.0-FD
Lab Sample ID: 480-221553-14

Date Collected: 07/11/24 13:40
Matrix: Solid

Date Received: 07/12/24 17:50
Percent Solids: 83.4

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		3.3	0.24	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
1,1,2,2-Tetrachloroethane	ND		3.3	0.54	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.3	0.75	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
1,1,2-Trichloroethane	ND		3.3	0.43	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
1,1-Dichloroethane	ND		3.3	0.40	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
1,1-Dichloroethene	ND		3.3	0.40	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
1,2,4-Trichlorobenzene	ND		3.3	0.20	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
1,2-Dibromo-3-Chloropropane	ND		3.3	1.6	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
1,2-Dibromoethane	ND		3.3	0.42	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
1,2-Dichlorobenzene	ND		3.3	0.26	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
1,2-Dichloroethane	ND		3.3	0.17	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
1,2-Dichloropropane	ND		3.3	1.6	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
1,3-Dichlorobenzene	ND		3.3	0.17	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
1,4-Dichlorobenzene	ND		3.3	0.46	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
2-Butanone (MEK)	ND		16	1.2	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
2-Hexanone	ND		16	1.6	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
4-Methyl-2-pentanone (MIBK)	ND		16	1.1	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Acetone	ND		16	2.8	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Benzene	ND		3.3	0.16	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Bromodichloromethane	ND		3.3	0.44	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Bromoform	ND		3.3	1.6	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Bromomethane	ND		3.3	0.30	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Carbon disulfide	ND		3.3	1.6	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Carbon tetrachloride	ND		3.3	0.32	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Chlorobenzene	ND		3.3	0.44	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Chloroethane	ND		3.3	0.75	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Chloroform	ND		3.3	0.20	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Chloromethane	ND		3.3	0.20	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
cis-1,2-Dichloroethene	ND		3.3	0.42	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
cis-1,3-Dichloropropene	ND		3.3	0.48	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Cyclohexane	ND		3.3	0.46	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Dibromochloromethane	ND		3.3	0.42	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Dichlorodifluoromethane	ND		3.3	0.27	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Ethylbenzene	ND		3.3	0.23	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Isopropylbenzene	ND		3.3	0.50	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Methyl acetate	ND		16	2.0	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Methyl tert-butyl ether	ND		3.3	0.32	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Methylcyclohexane	ND		3.3	0.50	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Methylene Chloride	ND		3.3	1.5	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Styrene	ND		3.3	0.16	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Tetrachloroethene	ND		3.3	0.44	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Toluene	ND		3.3	0.25	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
trans-1,2-Dichloroethene	ND		3.3	0.34	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
trans-1,3-Dichloropropene	ND		3.3	1.5	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Trichloroethene	ND		3.3	0.73	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Trichlorofluoromethane	ND		3.3	0.31	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Vinyl chloride	ND		3.3	0.40	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Xylenes, Total	ND		6.6	0.55	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1

Client Sample ID: HA-02-3.0-4.0-FD
Date Collected: 07/11/24 13:40
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-14
Matrix: Solid
Percent Solids: 83.4

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/Kg	☼		N/A	07/12/24 10:00	07/17/24 00:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		64 - 126	07/12/24 10:00	07/17/24 00:07	1
4-Bromofluorobenzene (Surr)	108		72 - 126	07/12/24 10:00	07/17/24 00:07	1
Dibromofluoromethane (Surr)	104		60 - 140	07/12/24 10:00	07/17/24 00:07	1
Toluene-d8 (Surr)	96		71 - 125	07/12/24 10:00	07/17/24 00:07	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		200	54	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
2,4,6-Trichlorophenol	ND		200	40	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
2,4-Dichlorophenol	ND		200	21	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
2,4-Dimethylphenol	ND		200	48	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
2,4-Dinitrophenol	ND		2000	920	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
2,4-Dinitrotoluene	ND		200	41	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
2,6-Dinitrotoluene	ND		200	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
2-Chloronaphthalene	ND		200	33	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
2-Chlorophenol	ND		390	36	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
2-Methylnaphthalene	ND		200	40	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
2-Methylphenol	ND		200	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
2-Nitroaniline	ND		390	29	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
2-Nitrophenol	ND		200	56	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
3,3'-Dichlorobenzidine	ND		390	240	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
3-Nitroaniline	ND		390	55	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
4,6-Dinitro-2-methylphenol	ND		390	200	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
4-Bromophenyl phenyl ether	ND		200	28	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
4-Chloro-3-methylphenol	ND		200	49	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
4-Chloroaniline	ND		200	49	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
4-Chlorophenyl phenyl ether	ND		200	25	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
4-Methylphenol	ND		390	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
4-Nitroaniline	ND		390	100	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
4-Nitrophenol	ND		390	140	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Acenaphthene	ND		200	29	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Acenaphthylene	ND		200	26	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Acetophenone	ND		200	27	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Anthracene	ND		200	49	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Atrazine	ND		200	69	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Benzaldehyde	ND		200	160	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Benzo[a]anthracene	ND		200	20	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Benzo[a]pyrene	ND		200	29	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Benzo[b]fluoranthene	ND		200	32	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Benzo[g,h,i]perylene	ND		200	21	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Benzo[k]fluoranthene	ND		200	26	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Biphenyl	ND		200	29	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
bis (2-chloroisopropyl) ether	ND		200	40	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Bis(2-chloroethoxy)methane	ND		200	42	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Bis(2-chloroethyl)ether	ND		200	26	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Bis(2-ethylhexyl) phthalate	ND		200	68	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Butyl benzyl phthalate	ND		200	33	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1

Client Sample ID: HA-02-3.0-4.0-FD
Lab Sample ID: 480-221553-14
Date Collected: 07/11/24 13:40
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 83.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Caprolactam	ND		200	60	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Carbazole	ND		200	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Chrysene	ND		200	45	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Dibenz(a,h)anthracene	ND		200	35	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Dibenzofuran	ND		200	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Diethyl phthalate	ND		200	26	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Dimethyl phthalate	ND		200	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Di-n-butyl phthalate	ND		200	34	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Di-n-octyl phthalate	ND		200	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Fluoranthene	ND		200	21	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Fluorene	ND		200	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Hexachlorobenzene	ND		200	27	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Hexachlorobutadiene	ND		200	29	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Hexachlorocyclopentadiene	ND		200	27	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Hexachloroethane	ND		200	26	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Indeno[1,2,3-cd]pyrene	ND		200	25	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Isophorone	ND		200	42	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Naphthalene	ND		200	26	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Nitrobenzene	ND		200	22	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
N-Nitrosodi-n-propylamine	ND		200	34	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
N-Nitrosodiphenylamine	ND		200	160	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Pentachlorophenol	ND		390	200	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Phenanthrene	ND		200	29	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Phenol	ND		200	31	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Pyrene	ND		200	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*1700*	*T J*	*ug/Kg*	☼	*1.94*	*N/A*	*07/15/24 07:53*	*07/19/24 20:38*	*1*
Unknown	*650*	*T J*	*ug/Kg*	☼	*3.35*	*N/A*	*07/15/24 07:53*	*07/19/24 20:38*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*95*		*26 - 143*	*07/15/24 07:53*	*07/19/24 20:38*	*1*
2-Fluorobiphenyl	*67*		*50 - 121*	*07/15/24 07:53*	*07/19/24 20:38*	*1*
2-Fluorophenol	*53*		*36 - 120*	*07/15/24 07:53*	*07/19/24 20:38*	*1*
Nitrobenzene-d5	*60*		*40 - 121*	*07/15/24 07:53*	*07/19/24 20:38*	*1*
Phenol-d5	*70*		*41 - 120*	*07/15/24 07:53*	*07/19/24 20:38*	*1*
p-Terphenyl-d14	*93*		*46 - 143*	*07/15/24 07:53*	*07/19/24 20:38*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.0	0.38	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
4,4'-DDE	ND		2.0	0.41	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
4,4'-DDT	ND		2.0	0.46	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
Aldrin	ND		2.0	0.48	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
alpha-BHC	ND		2.0	0.35	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
cis-Chlordane	ND		2.0	0.97	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
beta-BHC	ND		2.0	0.35	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
delta-BHC	ND		2.0	0.36	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
Dieldrin	ND		2.0	0.47	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
Endosulfan I	ND		2.0	0.37	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1

Client Sample ID: HA-02-3.0-4.0-FD
Lab Sample ID: 480-221553-14
Date Collected: 07/11/24 13:40
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 83.4

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan II	ND		2.0	0.35	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
Endosulfan sulfate	ND		2.0	0.36	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
Endrin	ND		2.0	0.39	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
Endrin aldehyde	ND		2.0	0.50	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
Endrin ketone	ND		2.0	0.48	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
gamma-BHC (Lindane)	ND		2.0	0.36	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
trans-Chlordane	ND		2.0	0.62	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
Heptachlor	ND		2.0	0.42	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
Heptachlor epoxide	ND		2.0	0.50	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
Methoxychlor	ND		2.0	0.40	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
Toxaphene	ND		20	11	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*63*		*45 - 120*	*07/15/24 07:45*	*07/16/24 15:15*	*1*
DCB Decachlorobiphenyl	*66*		*45 - 120*	*07/15/24 07:45*	*07/16/24 15:15*	*1*
Tetrachloro-m-xylene	*69*		*30 - 124*	*07/15/24 07:45*	*07/16/24 15:15*	*1*
Tetrachloro-m-xylene	*75*		*30 - 124*	*07/15/24 07:45*	*07/16/24 15:15*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.25	0.049	mg/Kg	☼	07/15/24 08:01	07/18/24 09:10	1
PCB-1221	ND		0.25	0.049	mg/Kg	☼	07/15/24 08:01	07/18/24 09:10	1
PCB-1232	ND		0.25	0.049	mg/Kg	☼	07/15/24 08:01	07/18/24 09:10	1
PCB-1242	ND		0.25	0.049	mg/Kg	☼	07/15/24 08:01	07/18/24 09:10	1
PCB-1248	ND		0.25	0.049	mg/Kg	☼	07/15/24 08:01	07/18/24 09:10	1
PCB-1254	ND		0.25	0.12	mg/Kg	☼	07/15/24 08:01	07/18/24 09:10	1
PCB-1260	ND		0.25	0.12	mg/Kg	☼	07/15/24 08:01	07/18/24 09:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*149*		*60 - 154*	*07/15/24 08:01*	*07/18/24 09:10*	*1*
Tetrachloro-m-xylene	*132*		*60 - 154*	*07/15/24 08:01*	*07/18/24 09:10*	*1*
DCB Decachlorobiphenyl	*130*		*65 - 174*	*07/15/24 08:01*	*07/18/24 09:10*	*1*
DCB Decachlorobiphenyl	*134*		*65 - 174*	*07/15/24 08:01*	*07/18/24 09:10*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**19500**		12.0	10.4	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Antimony	ND		18.1	0.64	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Arsenic	**3.6**		2.4	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Barium	**122**		0.60	0.17	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Beryllium	**0.87**		0.24	0.048	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Cadmium	**0.18**	**J**	0.24	0.084	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Calcium	**53600**		60.2	32.5	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Chromium	**23.5**		0.60	0.43	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Cobalt	**10.6**		0.60	0.12	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Copper	**17.9**		1.2	0.69	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Iron	**20100**		12.0	10.2	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Lead	**11.7**		1.2	0.55	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Magnesium	**17400**		24.1	10.2	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Manganese	**434**		1.2	0.34	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1

Client Sample ID: HA-02-3.0-4.0-FD
Lab Sample ID: 480-221553-14
Date Collected: 07/11/24 13:40
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 83.4

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	**26.6**		6.0	0.30	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Potassium	**6330**		36.1	29.2	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Selenium	ND		4.8	0.96	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Silver	**0.32**	**J**	0.72	0.24	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Sodium	**296**		169	73.8	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Thallium	ND		7.2	0.91	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Vanadium	**37.0**		0.60	0.16	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Zinc	**58.8**		2.4	1.2	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.020**	**J**	0.024	0.0055	mg/Kg	☼	07/15/24 09:13	07/15/24 11:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.57	mg/Kg	☼	07/18/24 13:15	07/18/24 17:09	1

Client Sample ID: SB-01-43.0-45.0
Lab Sample ID: 480-221553-15
Date Collected: 07/11/24 13:46
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 73.1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.9	0.36	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
1,1,2,2-Tetrachloroethane	ND		4.9	0.80	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.9	1.1	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
1,1,2-Trichloroethane	ND		4.9	0.64	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
1,1-Dichloroethane	ND		4.9	0.60	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
1,1-Dichloroethene	ND		4.9	0.61	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
1,2,4-Trichlorobenzene	ND		4.9	0.30	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
1,2-Dibromo-3-Chloropropane	ND		4.9	2.5	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
1,2-Dibromoethane	ND		4.9	0.63	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
1,2-Dichlorobenzene	ND		4.9	0.39	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
1,2-Dichloroethane	ND		4.9	0.25	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
1,2-Dichloropropane	ND		4.9	2.5	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
1,3-Dichlorobenzene	ND		4.9	0.25	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
1,4-Dichlorobenzene	ND		4.9	0.69	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
2-Hexanone	ND		25	2.5	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Acetone	**11**	**J**	25	4.2	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Benzene	ND		4.9	0.24	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Bromodichloromethane	ND		4.9	0.66	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Bromoform	ND		4.9	2.5	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Bromomethane	ND		4.9	0.44	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Carbon disulfide	ND		4.9	2.5	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Carbon tetrachloride	ND		4.9	0.48	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Chlorobenzene	ND		4.9	0.65	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Chloroethane	ND		4.9	1.1	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Chloroform	ND		4.9	0.31	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1

Client Sample ID: SB-01-43.0-45.0
Lab Sample ID: 480-221553-15

Date Collected: 07/11/24 13:46
Matrix: Solid

Date Received: 07/12/24 17:50
Percent Solids: 73.1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		4.9	0.30	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
cis-1,2-Dichloroethene	ND		4.9	0.63	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
cis-1,3-Dichloropropene	ND		4.9	0.71	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Cyclohexane	ND		4.9	0.69	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Dibromochloromethane	ND		4.9	0.63	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Dichlorodifluoromethane	ND		4.9	0.41	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Ethylbenzene	ND		4.9	0.34	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Isopropylbenzene	ND		4.9	0.75	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Methyl acetate	ND		25	3.0	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Methyl tert-butyl ether	ND		4.9	0.49	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Methylcyclohexane	ND		4.9	0.75	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Methylene Chloride	ND		4.9	2.3	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Styrene	ND		4.9	0.25	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Tetrachloroethene	ND		4.9	0.66	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Toluene	ND		4.9	0.37	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
trans-1,2-Dichloroethene	ND		4.9	0.51	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
trans-1,3-Dichloropropene	ND		4.9	2.2	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Trichloroethene	ND		4.9	1.1	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Trichlorofluoromethane	ND		4.9	0.47	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Vinyl chloride	ND		4.9	0.60	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Xylenes, Total	ND		9.9	0.83	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/12/24 10:00*	*07/17/24 23:05*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*64 - 126*	*07/12/24 10:00*	*07/17/24 23:05*	*1*
4-Bromofluorobenzene (Surr)	*103*		*72 - 126*	*07/12/24 10:00*	*07/17/24 23:05*	*1*
Dibromofluoromethane (Surr)	*106*		*60 - 140*	*07/12/24 10:00*	*07/17/24 23:05*	*1*
Toluene-d8 (Surr)	*99*		*71 - 125*	*07/12/24 10:00*	*07/17/24 23:05*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		230	62	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
2,4,6-Trichlorophenol	ND		230	46	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
2,4-Dichlorophenol	ND		230	24	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
2,4-Dimethylphenol	ND		230	55	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
2,4-Dinitrophenol	ND		2200	1100	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
2,4-Dinitrotoluene	ND		230	47	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
2,6-Dinitrotoluene	ND		230	27	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
2-Chloronaphthalene	ND		230	38	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
2-Chlorophenol	ND		440	42	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
2-Methylnaphthalene	ND		230	46	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
2-Methylphenol	ND		230	27	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
2-Nitroaniline	ND		440	34	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
2-Nitrophenol	ND		230	64	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
3,3'-Dichlorobenzidine	ND		440	270	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
3-Nitroaniline	ND		440	63	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
4,6-Dinitro-2-methylphenol	ND		440	230	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
4-Bromophenyl phenyl ether	ND		230	32	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1

Client Sample ID: SB-01-43.0-45.0
Lab Sample ID: 480-221553-15
Date Collected: 07/11/24 13:46
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 73.1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chloro-3-methylphenol	ND		230	56	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
4-Chloroaniline	ND		230	56	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
4-Chlorophenyl phenyl ether	ND		230	28	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
4-Methylphenol	ND		440	27	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
4-Nitroaniline	ND		440	120	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
4-Nitrophenol	ND		440	160	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Acenaphthene	ND		230	34	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Acenaphthylene	ND		230	30	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Acetophenone	ND		230	31	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Anthracene	ND		230	56	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Atrazine	ND		230	79	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Benzaldehyde	ND		230	180	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Benzo[a]anthracene	ND		230	23	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Benzo[a]pyrene	ND		230	34	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Benzo[b]fluoranthene	ND		230	36	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Benzo[g,h,i]perylene	ND		230	24	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Benzo[k]fluoranthene	ND		230	30	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Biphenyl	ND		230	34	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
bis (2-chloroisopropyl) ether	ND		230	46	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Bis(2-chloroethoxy)methane	ND		230	48	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Bis(2-chloroethyl)ether	ND		230	30	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Bis(2-ethylhexyl) phthalate	ND		230	78	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Butyl benzyl phthalate	ND		230	38	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Caprolactam	ND		230	68	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Carbazole	ND		230	27	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Chrysene	ND		230	51	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Dibenz(a,h)anthracene	ND		230	40	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Dibenzofuran	ND		230	27	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Diethyl phthalate	ND		230	30	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Dimethyl phthalate	ND		230	27	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Di-n-butyl phthalate	ND		230	39	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Di-n-octyl phthalate	ND		230	27	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Fluoranthene	ND		230	24	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Fluorene	ND		230	27	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Hexachlorobenzene	ND		230	31	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Hexachlorobutadiene	ND		230	34	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Hexachlorocyclopentadiene	ND		230	31	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Hexachloroethane	ND		230	30	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Indeno[1,2,3-cd]pyrene	ND		230	28	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Isophorone	ND		230	48	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Naphthalene	ND		230	30	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Nitrobenzene	ND		230	26	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
N-Nitrosodi-n-propylamine	ND		230	39	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
N-Nitrosodiphenylamine	ND		230	190	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Pentachlorophenol	ND		440	230	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Phenanthrene	ND		230	34	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Phenol	ND		230	35	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Pyrene	ND		230	27	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1

Client Sample ID: SB-01-43.0-45.0
Date Collected: 07/11/24 13:46
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-15
Matrix: Solid
Percent Solids: 73.1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Methylene Chloride	520	T J N	ug/Kg	☼	1.74	75-09-2	07/15/24 07:53	07/19/24 21:07	1
Unknown	2100	T J	ug/Kg	☼	1.93	N/A	07/15/24 07:53	07/19/24 21:07	1
Unknown	1000	T J	ug/Kg	☼	3.35	N/A	07/15/24 07:53	07/19/24 21:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	92		26 - 143	07/15/24 07:53	07/19/24 21:07	1
2-Fluorobiphenyl	85		50 - 121	07/15/24 07:53	07/19/24 21:07	1
2-Fluorophenol	82		36 - 120	07/15/24 07:53	07/19/24 21:07	1
Nitrobenzene-d5	80		40 - 121	07/15/24 07:53	07/19/24 21:07	1
Phenol-d5	81		41 - 120	07/15/24 07:53	07/19/24 21:07	1
p-Terphenyl-d14	123		46 - 143	07/15/24 07:53	07/19/24 21:07	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.3	0.44	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
4,4'-DDE	ND		2.3	0.48	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
4,4'-DDT	ND		2.3	0.53	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
Aldrin	ND		2.3	0.56	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
alpha-BHC	ND		2.3	0.41	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
cis-Chlordane	ND		2.3	1.1	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
beta-BHC	ND		2.3	0.41	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
delta-BHC	ND		2.3	0.42	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
Dieldrin	ND		2.3	0.55	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
Endosulfan I	ND		2.3	0.44	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
Endosulfan II	ND		2.3	0.41	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
Endosulfan sulfate	ND		2.3	0.42	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
Endrin	ND		2.3	0.45	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
Endrin aldehyde	ND		2.3	0.58	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
Endrin ketone	ND		2.3	0.56	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
gamma-BHC (Lindane)	ND		2.3	0.42	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
trans-Chlordane	ND		2.3	0.72	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
Heptachlor	ND		2.3	0.49	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
Heptachlor epoxide	ND		2.3	0.59	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
Methoxychlor	ND		2.3	0.46	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
Toxaphene	ND		23	13	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	73		45 - 120	07/15/24 07:45	07/16/24 15:35	1
DCB Decachlorobiphenyl	75		45 - 120	07/15/24 07:45	07/16/24 15:35	1
Tetrachloro-m-xylene	67		30 - 124	07/15/24 07:45	07/16/24 15:35	1
Tetrachloro-m-xylene	77		30 - 124	07/15/24 07:45	07/16/24 15:35	1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.28	0.054	mg/Kg	☼	07/15/24 08:01	07/19/24 15:13	1
PCB-1221	ND		0.28	0.054	mg/Kg	☼	07/15/24 08:01	07/19/24 15:13	1
PCB-1232	ND		0.28	0.054	mg/Kg	☼	07/15/24 08:01	07/19/24 15:13	1
PCB-1242	ND		0.28	0.054	mg/Kg	☼	07/15/24 08:01	07/19/24 15:13	1
PCB-1248	ND		0.28	0.054	mg/Kg	☼	07/15/24 08:01	07/19/24 15:13	1
PCB-1254	ND		0.28	0.13	mg/Kg	☼	07/15/24 08:01	07/19/24 15:13	1
PCB-1260	ND		0.28	0.13	mg/Kg	☼	07/15/24 08:01	07/19/24 15:13	1

Client Sample ID: SB-01-43.0-45.0
Lab Sample ID: 480-221553-15

Date Collected: 07/11/24 13:46
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 73.1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*111*		*60 - 154*	*07/15/24 08:01*	*07/19/24 15:13*	*1*
Tetrachloro-m-xylene	*96*		*60 - 154*	*07/15/24 08:01*	*07/19/24 15:13*	*1*
DCB Decachlorobiphenyl	*93*		*65 - 174*	*07/15/24 08:01*	*07/19/24 15:13*	*1*
DCB Decachlorobiphenyl	*99*		*65 - 174*	*07/15/24 08:01*	*07/19/24 15:13*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**22700**		14.1	12.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Antimony	ND		21.1	0.75	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Arsenic	**3.5**		2.8	1.2	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Barium	**143**		0.70	0.20	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Beryllium	**1.0**		0.28	0.056	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Cadmium	**0.13**	**J**	0.28	0.099	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Calcium	**49900**		70.4	38.0	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Chromium	**29.6**		0.70	0.51	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Cobalt	**15.3**		0.70	0.14	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Copper	**23.0**		1.4	0.80	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Iron	**25000**		14.1	11.9	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Lead	**9.5**		1.4	0.65	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Magnesium	**13500**		28.2	11.9	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Manganese	**591**		1.4	0.39	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Nickel	**35.1**		7.0	0.35	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Potassium	**6860**		42.2	34.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Selenium	ND		5.6	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Silver	**0.37**	**J**	0.84	0.28	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Sodium	**390**		197	86.3	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Thallium	ND		8.4	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Vanadium	**43.5**		0.70	0.18	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Zinc	**58.4**		2.8	1.4	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0091**	**J**	0.028	0.0064	mg/Kg	☼	07/15/24 09:13	07/15/24 11:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.60	mg/Kg	☼	07/18/24 13:15	07/18/24 17:11	1

Client Sample ID: SB-04-0.0-0.2
Lab Sample ID: 480-221553-16

Date Collected: 07/11/24 14:55
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 74.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		23000	6200	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
2,4,6-Trichlorophenol	ND		23000	4500	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
2,4-Dichlorophenol	ND		23000	2400	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
2,4-Dimethylphenol	ND		23000	5500	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
2,4-Dinitrophenol	ND		220000	100000	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
2,4-Dinitrotoluene	ND		23000	4700	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
2,6-Dinitrotoluene	ND		23000	2700	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10

Client Sample ID: SB-04-0.0-0.2
Lab Sample ID: 480-221553-16

Date Collected: 07/11/24 14:55
Matrix: Solid

Date Received: 07/12/24 17:50
Percent Solids: 74.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	ND		23000	3700	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
2-Chlorophenol	ND		44000	4100	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
2-Methylnaphthalene	ND		23000	4500	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
2-Methylphenol	ND		23000	2700	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
2-Nitroaniline	ND		44000	3300	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
2-Nitrophenol	ND		23000	6400	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
3,3'-Dichlorobenzidine	ND		44000	27000	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
3-Nitroaniline	ND		44000	6300	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
4,6-Dinitro-2-methylphenol	ND		44000	23000	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
4-Bromophenyl phenyl ether	ND		23000	3200	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
4-Chloro-3-methylphenol	ND		23000	5600	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
4-Chloroaniline	ND		23000	5600	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
4-Chlorophenyl phenyl ether	ND		23000	2800	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
4-Methylphenol	ND		44000	2700	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
4-Nitroaniline	ND		44000	12000	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
4-Nitrophenol	ND		44000	16000	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Acenaphthene	ND		23000	3300	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Acenaphthylene	ND		23000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Acetophenone	ND		23000	3100	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Anthracene	ND		23000	5600	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Atrazine	ND		23000	7900	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Benzaldehyde	ND		23000	18000	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Benzo[a]anthracene	ND		23000	2300	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Benzo[a]pyrene	ND		23000	3300	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Benzo[b]fluoranthene	ND		23000	3600	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Benzo[g,h,i]perylene	ND		23000	2400	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Benzo[k]fluoranthene	ND		23000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Biphenyl	ND		23000	3300	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
bis (2-chloroisopropyl) ether	ND		23000	4500	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Bis(2-chloroethoxy)methane	ND		23000	4800	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Bis(2-chloroethyl)ether	ND		23000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Bis(2-ethylhexyl) phthalate	ND		23000	7800	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Butyl benzyl phthalate	ND		23000	3700	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Caprolactam	ND		23000	6800	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Carbazole	ND		23000	2700	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Chrysene	ND		23000	5100	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Dibenz(a,h)anthracene	ND		23000	4000	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Dibenzofuran	ND		23000	2700	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Diethyl phthalate	ND		23000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Dimethyl phthalate	ND		23000	2700	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Di-n-butyl phthalate	ND		23000	3900	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Di-n-octyl phthalate	ND		23000	2700	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Fluoranthene	ND		23000	2400	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Fluorene	ND		23000	2700	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Hexachlorobenzene	ND		23000	3100	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Hexachlorobutadiene	ND		23000	3300	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Hexachlorocyclopentadiene	ND		23000	3100	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Hexachloroethane	ND		23000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Indeno[1,2,3-cd]pyrene	ND		23000	2800	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10

Client Sample ID: SB-04-0.0-0.2
Lab Sample ID: 480-221553-16
Date Collected: 07/11/24 14:55
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 74.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isophorone	ND		23000	4800	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Naphthalene	ND		23000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Nitrobenzene	ND		23000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
N-Nitrosodi-n-propylamine	ND		23000	3900	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
N-Nitrosodiphenylamine	ND		23000	18000	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Pentachlorophenol	ND		44000	23000	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Phenanthrene	ND		23000	3300	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Phenol	ND		23000	3500	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Pyrene	ND		23000	2700	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/15/24 07:53*	*07/19/24 21:37*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*190*	*S1+*	*26 - 143*	*07/15/24 07:53*	*07/19/24 21:37*	*10*
2-Fluorobiphenyl	*104*		*50 - 121*	*07/15/24 07:53*	*07/19/24 21:37*	*10*
2-Fluorophenol	*86*		*36 - 120*	*07/15/24 07:53*	*07/19/24 21:37*	*10*
Nitrobenzene-d5	*109*		*40 - 121*	*07/15/24 07:53*	*07/19/24 21:37*	*10*
Phenol-d5	*185*	*S1+*	*41 - 120*	*07/15/24 07:53*	*07/19/24 21:37*	*10*
p-Terphenyl-d14	*100*		*46 - 143*	*07/15/24 07:53*	*07/19/24 21:37*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		110	22	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
4,4'-DDE	ND		110	24	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
4,4'-DDT	ND		110	26	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
Aldrin	ND		110	28	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
alpha-BHC	ND		110	20	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
cis-Chlordane	ND		110	56	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
beta-BHC	ND		110	20	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
delta-BHC	ND		110	21	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
Dieldrin	ND		110	27	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
Endosulfan I	ND		110	21	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
Endosulfan II	ND		110	20	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
Endosulfan sulfate	ND		110	21	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
Endrin	ND		110	22	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
Endrin aldehyde	ND		110	29	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
Endrin ketone	ND		110	28	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
gamma-BHC (Lindane)	ND		110	21	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
trans-Chlordane	ND		110	36	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
Heptachlor	ND		110	24	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
Heptachlor epoxide	ND		110	29	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
Methoxychlor	ND		110	23	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
Toxaphene	ND		1100	650	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/15/24 07:45*	*07/16/24 15:54*	*50*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/15/24 07:45*	*07/16/24 15:54*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 15:54*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 15:54*	*50*

Client Sample ID: SB-04-0.0-0.2
Lab Sample ID: 480-221553-16

Date Collected: 07/11/24 14:55
Matrix: Solid

Date Received: 07/12/24 17:50
Percent Solids: 74.0

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.31	0.061	mg/Kg	☼	07/15/24 08:01	07/19/24 16:03	1
PCB-1221	ND		0.31	0.061	mg/Kg	☼	07/15/24 08:01	07/19/24 16:03	1
PCB-1232	ND		0.31	0.061	mg/Kg	☼	07/15/24 08:01	07/19/24 16:03	1
PCB-1242	ND		0.31	0.061	mg/Kg	☼	07/15/24 08:01	07/19/24 16:03	1
PCB-1248	ND		0.31	0.061	mg/Kg	☼	07/15/24 08:01	07/19/24 16:03	1
PCB-1254	ND		0.31	0.15	mg/Kg	☼	07/15/24 08:01	07/19/24 16:03	1
PCB-1260	ND		0.31	0.15	mg/Kg	☼	07/15/24 08:01	07/19/24 16:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*80*		*60 - 154*	*07/15/24 08:01*	*07/19/24 16:03*	*1*
Tetrachloro-m-xylene	*72*		*60 - 154*	*07/15/24 08:01*	*07/19/24 16:03*	*1*
DCB Decachlorobiphenyl	*58*	*S1-*	*65 - 174*	*07/15/24 08:01*	*07/19/24 16:03*	*1*
DCB Decachlorobiphenyl	*58*	*S1-*	*65 - 174*	*07/15/24 08:01*	*07/19/24 16:03*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**14400**		13.4	11.5	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Antimony	**2.5**	**J**	20.0	0.71	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Arsenic	**11.4**		2.7	1.2	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Barium	**94.2**		0.67	0.19	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Beryllium	**2.1**		0.27	0.053	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Cadmium	**0.80**		0.27	0.094	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Calcium	**54600**		66.8	36.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Chromium	**32.0**		0.67	0.48	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Cobalt	**9.6**		0.67	0.13	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Copper	**41.1**		1.3	0.76	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Iron	**22100**		13.4	11.3	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Lead	**80.5**		1.3	0.61	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Magnesium	**31400**		26.7	11.3	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Manganese	**527**		1.3	0.37	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Nickel	**34.0**		6.7	0.33	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Potassium	**2660**		40.1	32.4	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Selenium	ND		5.3	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Silver	ND		0.80	0.27	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Sodium	**325**		187	81.9	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Thallium	ND		8.0	1.0	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Vanadium	**45.7**		0.67	0.17	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Zinc	**185**		2.7	1.4	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.041**		0.026	0.0060	mg/Kg	☼	07/15/24 09:13	07/15/24 11:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.3	0.62	mg/Kg	☼	07/18/24 13:15	07/18/24 17:12	1

Client Sample ID: RB-07112024
Lab Sample ID: 480-221553-17

Date Collected: 07/11/24 16:10
Matrix: Water
Date Received: 07/12/24 17:50

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/12/24 22:57	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/12/24 22:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/12/24 22:57	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/12/24 22:57	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/12/24 22:57	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/12/24 22:57	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/12/24 22:57	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/12/24 22:57	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/12/24 22:57	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/12/24 22:57	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/12/24 22:57	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/12/24 22:57	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/12/24 22:57	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/12/24 22:57	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/12/24 22:57	1
2-Hexanone	ND		5.0	1.2	ug/L			07/12/24 22:57	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/12/24 22:57	1
Acetone	ND		10	3.0	ug/L			07/12/24 22:57	1
Benzene	ND		1.0	0.41	ug/L			07/12/24 22:57	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/12/24 22:57	1
Bromoform	ND		1.0	0.26	ug/L			07/12/24 22:57	1
Bromomethane	ND		1.0	0.69	ug/L			07/12/24 22:57	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/12/24 22:57	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/12/24 22:57	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/12/24 22:57	1
Chloroethane	ND		1.0	0.32	ug/L			07/12/24 22:57	1
Chloroform	ND		1.0	0.34	ug/L			07/12/24 22:57	1
Chloromethane	ND		1.0	0.35	ug/L			07/12/24 22:57	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			07/12/24 22:57	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/12/24 22:57	1
Cyclohexane	ND		1.0	0.18	ug/L			07/12/24 22:57	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/12/24 22:57	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/12/24 22:57	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/12/24 22:57	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/12/24 22:57	1
Methyl acetate	ND		2.5	1.3	ug/L			07/12/24 22:57	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/12/24 22:57	1
Methylcyclohexane	ND		1.0	0.16	ug/L			07/12/24 22:57	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/12/24 22:57	1
Styrene	ND		1.0	0.73	ug/L			07/12/24 22:57	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/12/24 22:57	1
Toluene	ND		1.0	0.51	ug/L			07/12/24 22:57	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/12/24 22:57	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			07/12/24 22:57	1
Trichloroethene	ND		1.0	0.46	ug/L			07/12/24 22:57	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/12/24 22:57	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/12/24 22:57	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/12/24 22:57	1

Client Sample ID: RB-07112024

Date Collected: 07/11/24 16:10
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-17

Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A		07/12/24 22:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		77 - 120		07/12/24 22:57	1
4-Bromofluorobenzene (Surr)	91		73 - 120		07/12/24 22:57	1
Dibromofluoromethane (Surr)	91		75 - 123		07/12/24 22:57	1
Toluene-d8 (Surr)	95		80 - 120		07/12/24 22:57	1

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		07/14/24 09:20	07/15/24 19:05	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	28		15 - 110	07/14/24 09:20	07/15/24 19:05	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.2	0.50	ug/L		07/12/24 13:42	07/15/24 20:43	1
2,4,6-Trichlorophenol	ND		5.2	0.64	ug/L		07/12/24 13:42	07/15/24 20:43	1
2,4-Dichlorophenol	ND		5.2	0.53	ug/L		07/12/24 13:42	07/15/24 20:43	1
2,4-Dimethylphenol	ND		5.2	0.52	ug/L		07/12/24 13:42	07/15/24 20:43	1
2,4-Dinitrophenol	ND		10	2.3	ug/L		07/12/24 13:42	07/15/24 20:43	1
2,4-Dinitrotoluene	ND		5.2	0.47	ug/L		07/12/24 13:42	07/15/24 20:43	1
2,6-Dinitrotoluene	ND		5.2	0.42	ug/L		07/12/24 13:42	07/15/24 20:43	1
2-Chloronaphthalene	ND		5.2	0.48	ug/L		07/12/24 13:42	07/15/24 20:43	1
2-Chlorophenol	ND		5.2	0.55	ug/L		07/12/24 13:42	07/15/24 20:43	1
2-Methylnaphthalene	ND		5.2	0.63	ug/L		07/12/24 13:42	07/15/24 20:43	1
2-Methylphenol	ND		5.2	0.42	ug/L		07/12/24 13:42	07/15/24 20:43	1
2-Nitroaniline	ND		10	0.44	ug/L		07/12/24 13:42	07/15/24 20:43	1
2-Nitrophenol	ND		5.2	0.50	ug/L		07/12/24 13:42	07/15/24 20:43	1
3,3'-Dichlorobenzidine	ND		5.2	0.42	ug/L		07/12/24 13:42	07/15/24 20:43	1
3-Nitroaniline	ND	UJ	10	0.50	ug/L		07/12/24 13:42	07/15/24 20:43	1
4,6-Dinitro-2-methylphenol	ND		10	2.3	ug/L		07/12/24 13:42	07/15/24 20:43	1
4-Bromophenyl phenyl ether	ND		5.2	0.47	ug/L		07/12/24 13:42	07/15/24 20:43	1
4-Chloro-3-methylphenol	ND		5.2	0.47	ug/L		07/12/24 13:42	07/15/24 20:43	1
4-Chloroaniline	ND		5.2	0.61	ug/L		07/12/24 13:42	07/15/24 20:43	1
4-Chlorophenyl phenyl ether	ND		5.2	0.36	ug/L		07/12/24 13:42	07/15/24 20:43	1
4-Methylphenol	ND		10	0.38	ug/L		07/12/24 13:42	07/15/24 20:43	1
4-Nitroaniline	ND		10	0.26	ug/L		07/12/24 13:42	07/15/24 20:43	1
4-Nitrophenol	ND		10	1.6	ug/L		07/12/24 13:42	07/15/24 20:43	1
Acenaphthene	ND		5.2	0.43	ug/L		07/12/24 13:42	07/15/24 20:43	1
Acenaphthylene	ND		5.2	0.40	ug/L		07/12/24 13:42	07/15/24 20:43	1
Acetophenone	ND		5.2	0.56	ug/L		07/12/24 13:42	07/15/24 20:43	1
Anthracene	ND		5.2	0.29	ug/L		07/12/24 13:42	07/15/24 20:43	1
Atrazine	ND		5.2	0.48	ug/L		07/12/24 13:42	07/15/24 20:43	1
Benzaldehyde	ND		5.2	0.28	ug/L		07/12/24 13:42	07/15/24 20:43	1
Benzo(a)anthracene	ND		5.2	0.38	ug/L		07/12/24 13:42	07/15/24 20:43	1
Benzo(a)pyrene	ND		5.2	0.49	ug/L		07/12/24 13:42	07/15/24 20:43	1
Benzo(b)fluoranthene	ND		5.2	0.35	ug/L		07/12/24 13:42	07/15/24 20:43	1
Benzo(g,h,i)perylene	ND		5.2	0.36	ug/L		07/12/24 13:42	07/15/24 20:43	1
Benzo(k)fluoranthene	ND		5.2	0.76	ug/L		07/12/24 13:42	07/15/24 20:43	1

Client Sample ID: RB-07112024

Date Collected: 07/11/24 16:10
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-17

Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.2	0.68	ug/L		07/12/24 13:42	07/15/24 20:43	1
bis (2-chloroisopropyl) ether	ND		5.2	0.54	ug/L		07/12/24 13:42	07/15/24 20:43	1
Bis(2-chloroethoxy)methane	ND		5.2	0.36	ug/L		07/12/24 13:42	07/15/24 20:43	1
Bis(2-chloroethyl)ether	ND		5.2	0.42	ug/L		07/12/24 13:42	07/15/24 20:43	1
Bis(2-ethylhexyl) phthalate	ND		5.2	2.3	ug/L		07/12/24 13:42	07/15/24 20:43	1
Butyl benzyl phthalate	ND		5.2	1.0	ug/L		07/12/24 13:42	07/15/24 20:43	1
Caprolactam	ND		5.2	2.3	ug/L		07/12/24 13:42	07/15/24 20:43	1
Carbazole	ND		5.2	0.31	ug/L		07/12/24 13:42	07/15/24 20:43	1
Chrysene	ND		5.2	0.34	ug/L		07/12/24 13:42	07/15/24 20:43	1
Dibenz(a,h)anthracene	ND		5.2	0.44	ug/L		07/12/24 13:42	07/15/24 20:43	1
Dibenzofuran	ND		10	0.53	ug/L		07/12/24 13:42	07/15/24 20:43	1
Diethyl phthalate	ND		5.2	0.23	ug/L		07/12/24 13:42	07/15/24 20:43	1
Dimethyl phthalate	ND		5.2	0.38	ug/L		07/12/24 13:42	07/15/24 20:43	1
Di-n-butyl phthalate	ND		5.2	0.32	ug/L		07/12/24 13:42	07/15/24 20:43	1
Di-n-octyl phthalate	ND		5.2	0.49	ug/L		07/12/24 13:42	07/15/24 20:43	1
Fluoranthene	ND		5.2	0.42	ug/L		07/12/24 13:42	07/15/24 20:43	1
Fluorene	ND		5.2	0.38	ug/L		07/12/24 13:42	07/15/24 20:43	1
Hexachlorobenzene	ND		5.2	0.53	ug/L		07/12/24 13:42	07/15/24 20:43	1
Hexachlorobutadiene	ND		5.2	0.71	ug/L		07/12/24 13:42	07/15/24 20:43	1
Hexachlorocyclopentadiene	ND		5.2	0.61	ug/L		07/12/24 13:42	07/15/24 20:43	1
Hexachloroethane	ND		5.2	0.61	ug/L		07/12/24 13:42	07/15/24 20:43	1
Indeno(1,2,3-cd)pyrene	ND		5.2	0.49	ug/L		07/12/24 13:42	07/15/24 20:43	1
Isophorone	ND		5.2	0.45	ug/L		07/12/24 13:42	07/15/24 20:43	1
Naphthalene	ND		5.2	0.79	ug/L		07/12/24 13:42	07/15/24 20:43	1
Nitrobenzene	ND		5.2	0.30	ug/L		07/12/24 13:42	07/15/24 20:43	1
N-Nitrosodi-n-propylamine	ND		5.2	0.56	ug/L		07/12/24 13:42	07/15/24 20:43	1
N-Nitrosodiphenylamine	ND		5.2	0.53	ug/L		07/12/24 13:42	07/15/24 20:43	1
Pentachlorophenol	ND		10	2.3	ug/L		07/12/24 13:42	07/15/24 20:43	1
Phenanthrene	ND		5.2	0.46	ug/L		07/12/24 13:42	07/15/24 20:43	1
Phenol	ND		5.2	0.41	ug/L		07/12/24 13:42	07/15/24 20:43	1
Pyrene	ND		5.2	0.35	ug/L		07/12/24 13:42	07/15/24 20:43	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Furan, tetrahydro-	*4.1*	*T J N*	*ug/L*		*3.20*	*109-99-9*	*07/12/24 13:42*	*07/15/24 20:43*	*1*
Unknown	*3.3*	*T J*	*ug/L*		*3.27*	*N/A*	*07/12/24 13:42*	*07/15/24 20:43*	*1*
Unknown	*17*	*T J*	*ug/L*		*4.94*	*N/A*	*07/12/24 13:42*	*07/15/24 20:43*	*1*
Unknown	*2.4*	*T J*	*ug/L*		*5.38*	*N/A*	*07/12/24 13:42*	*07/15/24 20:43*	*1*
Unknown	*2.1*	*T J*	*ug/L*		*5.71*	*N/A*	*07/12/24 13:42*	*07/15/24 20:43*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*86*		*25 - 144*	*07/12/24 13:42*	*07/15/24 20:43*	*1*
2-Fluorobiphenyl	*80*		*53 - 126*	*07/12/24 13:42*	*07/15/24 20:43*	*1*
2-Fluorophenol	*63*		*24 - 120*	*07/12/24 13:42*	*07/15/24 20:43*	*1*
Nitrobenzene-d5	*71*		*29 - 129*	*07/12/24 13:42*	*07/15/24 20:43*	*1*
Phenol-d5	*45*		*10 - 120*	*07/12/24 13:42*	*07/15/24 20:43*	*1*
p-Terphenyl-d14	*84*		*33 - 132*	*07/12/24 13:42*	*07/15/24 20:43*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.052	0.0096	ug/L		07/16/24 09:36	07/17/24 11:15	1

Client Sample ID: RB-07112024
Lab Sample ID: 480-221553-17

Date Collected: 07/11/24 16:10
Matrix: Water

Date Received: 07/12/24 17:50

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDE	ND		0.052	0.012	ug/L		07/16/24 09:36	07/17/24 11:15	1
4,4'-DDT	ND		0.052	0.011	ug/L		07/16/24 09:36	07/17/24 11:15	1
Aldrin	ND		0.052	0.0084	ug/L		07/16/24 09:36	07/17/24 11:15	1
alpha-BHC	**0.010**	**J**	0.052	0.0080	ug/L		07/16/24 09:36	07/17/24 11:15	1
cis-Chlordane	ND		0.052	0.015	ug/L		07/16/24 09:36	07/17/24 11:15	1
beta-BHC	ND		0.052	0.026	ug/L		07/16/24 09:36	07/17/24 11:15	1
delta-BHC	ND		0.052	0.010	ug/L		07/16/24 09:36	07/17/24 11:15	1
Dieldrin	ND		0.052	0.010	ug/L		07/16/24 09:36	07/17/24 11:15	1
Endosulfan I	ND		0.052	0.011	ug/L		07/16/24 09:36	07/17/24 11:15	1
Endosulfan II	ND		0.052	0.013	ug/L		07/16/24 09:36	07/17/24 11:15	1
Endosulfan sulfate	ND		0.052	0.016	ug/L		07/16/24 09:36	07/17/24 11:15	1
Endrin	ND		0.052	0.014	ug/L		07/16/24 09:36	07/17/24 11:15	1
Endrin aldehyde	ND		0.052	0.017	ug/L		07/16/24 09:36	07/17/24 11:15	1
Endrin ketone	ND		0.052	0.013	ug/L		07/16/24 09:36	07/17/24 11:15	1
gamma-BHC (Lindane)	**0.013**	**J**	0.052	0.0083	ug/L		07/16/24 09:36	07/17/24 11:15	1
trans-Chlordane	ND		0.052	0.011	ug/L		07/16/24 09:36	07/17/24 11:15	1
Heptachlor	ND		0.052	0.0089	ug/L		07/16/24 09:36	07/17/24 11:15	1
Heptachlor epoxide	ND		0.052	0.0077	ug/L		07/16/24 09:36	07/17/24 11:15	1
Methoxychlor	ND		0.052	0.015	ug/L		07/16/24 09:36	07/17/24 11:15	1
Toxaphene	ND		0.52	0.13	ug/L		07/16/24 09:36	07/17/24 11:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*21*		*10 - 120*	*07/16/24 09:36*	*07/17/24 11:15*	*1*
DCB Decachlorobiphenyl	*21*		*10 - 120*	*07/16/24 09:36*	*07/17/24 11:15*	*1*
Tetrachloro-m-xylene	*77*		*10 - 120*	*07/16/24 09:36*	*07/17/24 11:15*	*1*
Tetrachloro-m-xylene	*64*		*10 - 120*	*07/16/24 09:36*	*07/17/24 11:15*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		07/16/24 13:19	07/17/24 00:25	1
PCB-1221	ND		0.50	0.18	ug/L		07/16/24 13:19	07/17/24 00:25	1
PCB-1232	ND		0.50	0.18	ug/L		07/16/24 13:19	07/17/24 00:25	1
PCB-1242	ND		0.50	0.18	ug/L		07/16/24 13:19	07/17/24 00:25	1
PCB-1248	ND		0.50	0.18	ug/L		07/16/24 13:19	07/17/24 00:25	1
PCB-1254	ND		0.50	0.25	ug/L		07/16/24 13:19	07/17/24 00:25	1
PCB-1260	ND		0.50	0.25	ug/L		07/16/24 13:19	07/17/24 00:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*49*		*10 - 123*	*07/16/24 13:19*	*07/17/24 00:25*	*1*
DCB Decachlorobiphenyl	*42*		*10 - 123*	*07/16/24 13:19*	*07/17/24 00:25*	*1*
Tetrachloro-m-xylene	*61*		*10 - 145*	*07/16/24 13:19*	*07/17/24 00:25*	*1*
Tetrachloro-m-xylene	*63*		*10 - 145*	*07/16/24 13:19*	*07/17/24 00:25*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**3.6**	**J**	7.8	2.1	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluoropentanoic acid (PFPeA)	ND	UJ	3.9	0.98	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluorohexanoic acid (PFHxA)	ND	UJ	2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluoroheptanoic acid (PFHpA)	ND	UJ	2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluorooctanoic acid (PFOA)	ND	UJ	2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1

Client Sample ID: RB-07112024

Date Collected: 07/11/24 16:10
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-17

Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanoic acid (PFNA)	ND	UJ	2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluorodecanoic acid (PFDA)	ND	UJ	2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluoroundecanoic acid (PFUnA)	ND	UJ	2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluorododecanoic acid (PFDoA)	ND	UJ	2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluorotridecanoic acid (PFTrDA)	ND	UJ	2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluorotetradecanoic acid (PFTeDA)	ND	UJ	2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluorobutanesulfonic acid (PFBS)	ND	UJ	2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluoropentanesulfonic acid (PFPeS)	ND	UJ	2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluorohexanesulfonic acid (PFHxS)	ND	UJ	2.0	0.51	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluoroheptanesulfonic acid (PFHpS)	ND	UJ	2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluorooctanesulfonic acid (PFOS)	ND	UJ	2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluorononanesulfonic acid (PFNS)	ND	UJ	2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluorododecanesulfonic acid (PFDoS)	ND	UJ	2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND	UJ	7.8	2.0	ng/L		07/15/24 08:20	07/15/24 18:00	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND	UJ	7.8	2.0	ng/L		07/15/24 08:20	07/15/24 18:00	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND	UJ	7.8	2.0	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluorooctanesulfonamide (PFOSA)	ND	UJ	2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND	UJ	2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND	UJ	2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND	UJ	2.0	0.61	ng/L		07/15/24 08:20	07/15/24 18:00	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND	UJ	2.0	0.51	ng/L		07/15/24 08:20	07/15/24 18:00	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND	UJ	20	4.9	ng/L		07/15/24 08:20	07/15/24 18:00	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND	UJ	20	4.9	ng/L		07/15/24 08:20	07/15/24 18:00	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	UJ	7.8	2.0	ng/L		07/15/24 08:20	07/15/24 18:00	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	UJ	7.8	2.0	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND	UJ	3.9	0.98	ng/L		07/15/24 08:20	07/15/24 18:00	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	UJ	3.9	1.2	ng/L		07/15/24 08:20	07/15/24 18:00	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND	UJ	7.8	2.0	ng/L		07/15/24 08:20	07/15/24 18:00	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND	UJ	7.8	2.0	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND	UJ	3.9	0.98	ng/L		07/15/24 08:20	07/15/24 18:00	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	UJ	9.8	2.4	ng/L		07/15/24 08:20	07/15/24 18:00	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	UJ	49	12	ng/L		07/15/24 08:20	07/15/24 18:00	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	UJ	49	15	ng/L		07/15/24 08:20	07/15/24 18:00	1

Client Sample ID: RB-07112024
Lab Sample ID: 480-221553-17

Date Collected: 07/11/24 16:10
Matrix: Water
Date Received: 07/12/24 17:50

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorodecanesulfonic acid (PFDS)	ND	UJ	2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	UJ	3.9	0.98	ng/L		07/15/24 08:20	07/15/24 18:00	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*101*		*10 - 130*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
13C5 PFPeA	*95.1*		*35 - 150*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
13C5 PFHxA	*99.8*		*55 - 150*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
13C4 PFHpA	*86.6*		*55 - 150*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
13C8 PFOA	*82.6*		*60 - 140*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
13C9 PFNA	*89.5*		*55 - 140*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
13C6 PFDA	*94.6*		*50 - 140*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
13C7 PFUnA	*97.4*		*30 - 140*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
13C2 PFTeDA	*62.0*		*10 - 130*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
13C3 PFBS	*94.5*		*55 - 150*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
13C3 PFHxS	*86.8*		*55 - 150*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
13C8 PFOS	*86.8*		*45 - 140*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
13C8 FOSA	*77.3*		*30 - 130*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
d3-NMeFOSAA	*48.5*		*45 - 200*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
d5-NEtFOSAA	*101*		*10 - 200*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
M2-4:2 FTS	*85.9*		*60 - 200*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
M2-6:2 FTS	*85.3*		*60 - 200*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
M2-8:2 FTS	*77.9*		*50 - 200*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
13C3 HFPO-DA	*92.9*		*25 - 160*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
d7-N-MeFOSE-M	*59.5*		*10 - 150*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
d9-N-EtFOSE-M	*50.6*		*10 - 150*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
d5-NEtPFOSA	*57.2*		*10 - 130*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
d3-NMePFOSA	*56.8*		*15 - 130*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
13C2-PFDoDA	*98.7*		*10 - 150*	*07/15/24 08:20*	*07/15/24 18:00*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		07/15/24 09:17	07/16/24 12:57	1
Antimony	ND		0.020	0.0068	mg/L		07/15/24 09:17	07/16/24 12:57	1
Arsenic	ND		0.015	0.0056	mg/L		07/15/24 09:17	07/16/24 12:57	1
Barium	**0.0023**		0.0020	0.00070	mg/L		07/15/24 09:17	07/16/24 12:57	1
Beryllium	ND		0.0020	0.00030	mg/L		07/15/24 09:17	07/16/24 12:57	1
Cadmium	ND		0.0020	0.00050	mg/L		07/15/24 09:17	07/16/24 12:57	1
Calcium	**0.34**	**J**	0.50	0.10	mg/L		07/15/24 09:17	07/16/24 12:57	1
Chromium	ND		0.0040	0.0010	mg/L		07/15/24 09:17	07/16/24 12:57	1
Cobalt	ND		0.0040	0.00063	mg/L		07/15/24 09:17	07/16/24 12:57	1
Copper	**0.0028**	**J**	0.010	0.0016	mg/L		07/15/24 09:17	07/16/24 12:57	1
Iron	**0.028**	**J**	0.050	0.019	mg/L		07/15/24 09:17	07/16/24 12:57	1
Lead	**0.010**		0.010	0.0030	mg/L		07/15/24 09:17	07/17/24 10:20	1
Magnesium	ND		0.20	0.043	mg/L		07/15/24 09:17	07/16/24 12:57	1
Manganese	**0.0022**	**J**	0.0030	0.00040	mg/L		07/15/24 09:17	07/16/24 12:57	1
Nickel	ND		0.010	0.0013	mg/L		07/15/24 09:17	07/16/24 12:57	1
Potassium	ND		0.50	0.10	mg/L		07/15/24 09:17	07/16/24 12:57	1
Selenium	ND		0.025	0.0087	mg/L		07/15/24 09:17	07/16/24 12:57	1
Silver	ND		0.0060	0.0017	mg/L		07/15/24 09:17	07/16/24 12:57	1
Sodium	**0.81**	**J**	1.0	0.32	mg/L		07/15/24 09:17	07/16/24 12:57	1

Client Sample ID: RB-07112024
Lab Sample ID: 480-221553-17

Date Collected: 07/11/24 16:10
Matrix: Water
Date Received: 07/12/24 17:50

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	ND		0.020	0.010	mg/L		07/15/24 09:17	07/16/24 12:57	1
Vanadium	ND		0.0050	0.0015	mg/L		07/15/24 09:17	07/16/24 12:57	1
Zinc	ND		0.010	0.0015	mg/L		07/15/24 09:17	07/16/24 12:57	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		07/18/24 10:07	07/18/24 16:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			07/12/24 23:47	1

Client Sample ID: RB-07122024
Lab Sample ID: 480-221629-1

Date Collected: 07/12/24 09:30
Matrix: Water

Date Received: 07/12/24 15:41

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/17/24 05:13	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/17/24 05:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/17/24 05:13	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/17/24 05:13	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/17/24 05:13	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/17/24 05:13	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/17/24 05:13	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/17/24 05:13	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/17/24 05:13	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/17/24 05:13	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/17/24 05:13	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/17/24 05:13	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/17/24 05:13	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/17/24 05:13	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/17/24 05:13	1
2-Hexanone	ND		5.0	1.2	ug/L			07/17/24 05:13	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/17/24 05:13	1
Acetone	ND		10	3.0	ug/L			07/17/24 05:13	1
Benzene	ND		1.0	0.41	ug/L			07/17/24 05:13	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/17/24 05:13	1
Bromoform	ND		1.0	0.26	ug/L			07/17/24 05:13	1
Bromomethane	ND		1.0	0.69	ug/L			07/17/24 05:13	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/17/24 05:13	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/17/24 05:13	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/17/24 05:13	1
Chloroethane	ND		1.0	0.32	ug/L			07/17/24 05:13	1
Chloroform	ND		1.0	0.34	ug/L			07/17/24 05:13	1
Chloromethane	ND		1.0	0.35	ug/L			07/17/24 05:13	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			07/17/24 05:13	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/17/24 05:13	1
Cyclohexane	ND		1.0	0.18	ug/L			07/17/24 05:13	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/17/24 05:13	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/17/24 05:13	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/17/24 05:13	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/17/24 05:13	1
Methyl acetate	ND		2.5	1.3	ug/L			07/17/24 05:13	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/17/24 05:13	1
Methylcyclohexane	ND		1.0	0.16	ug/L			07/17/24 05:13	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/17/24 05:13	1
Styrene	ND		1.0	0.73	ug/L			07/17/24 05:13	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/17/24 05:13	1
Toluene	ND		1.0	0.51	ug/L			07/17/24 05:13	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/17/24 05:13	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			07/17/24 05:13	1
Trichloroethene	ND		1.0	0.46	ug/L			07/17/24 05:13	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/17/24 05:13	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/17/24 05:13	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/17/24 05:13	1

Client Sample ID: RB-07122024
Date Collected: 07/12/24 09:30
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-1
Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A		07/17/24 05:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		77 - 120		07/17/24 05:13	1
4-Bromofluorobenzene (Surr)	91		73 - 120		07/17/24 05:13	1
Dibromofluoromethane (Surr)	88		75 - 123		07/17/24 05:13	1
Toluene-d8 (Surr)	94		80 - 120		07/17/24 05:13	1

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.23	0.11	ug/L		07/16/24 13:25	07/17/24 13:00	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	28		15 - 110	07/16/24 13:25	07/17/24 13:00	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		10	1.1	ug/L		07/15/24 13:29	07/16/24 18:46	1
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		07/15/24 13:29	07/16/24 18:46	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		07/15/24 13:29	07/16/24 18:46	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		07/15/24 13:29	07/16/24 18:46	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		07/15/24 13:29	07/16/24 18:46	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		07/15/24 13:29	07/16/24 18:46	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		07/15/24 13:29	07/16/24 18:46	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		07/15/24 13:29	07/16/24 18:46	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		07/15/24 13:29	07/16/24 18:46	1
2-Chlorophenol	ND		5.0	0.53	ug/L		07/15/24 13:29	07/16/24 18:46	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		07/15/24 13:29	07/16/24 18:46	1
2-Methylphenol	ND		5.0	0.40	ug/L		07/15/24 13:29	07/16/24 18:46	1
2-Nitroaniline	ND		10	0.42	ug/L		07/15/24 13:29	07/16/24 18:46	1
2-Nitrophenol	ND		5.0	0.48	ug/L		07/15/24 13:29	07/16/24 18:46	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		07/15/24 13:29	07/16/24 18:46	1
3-Nitroaniline	ND	UJ	10	0.48	ug/L		07/15/24 13:29	07/16/24 18:46	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		07/15/24 13:29	07/16/24 18:46	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		07/15/24 13:29	07/16/24 18:46	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		07/15/24 13:29	07/16/24 18:46	1
4-Chloroaniline	ND		5.0	0.59	ug/L		07/15/24 13:29	07/16/24 18:46	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		07/15/24 13:29	07/16/24 18:46	1
4-Methylphenol	ND		10	0.36	ug/L		07/15/24 13:29	07/16/24 18:46	1
4-Nitroaniline	ND		10	0.25	ug/L		07/15/24 13:29	07/16/24 18:46	1
4-Nitrophenol	ND		10	1.5	ug/L		07/15/24 13:29	07/16/24 18:46	1
Acenaphthene	ND		5.0	0.41	ug/L		07/15/24 13:29	07/16/24 18:46	1
Acenaphthylene	ND		5.0	0.38	ug/L		07/15/24 13:29	07/16/24 18:46	1
Acetophenone	ND		5.0	0.54	ug/L		07/15/24 13:29	07/16/24 18:46	1
Anthracene	ND		5.0	0.28	ug/L		07/15/24 13:29	07/16/24 18:46	1
Atrazine	ND		5.0	0.46	ug/L		07/15/24 13:29	07/16/24 18:46	1
Benzaldehyde	ND		5.0	0.27	ug/L		07/15/24 13:29	07/16/24 18:46	1
Benzo(a)anthracene	ND		5.0	0.36	ug/L		07/15/24 13:29	07/16/24 18:46	1
Benzo(a)pyrene	ND		5.0	0.47	ug/L		07/15/24 13:29	07/16/24 18:46	1
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L		07/15/24 13:29	07/16/24 18:46	1
Benzo(g,h,i)perylene	ND		5.0	0.35	ug/L		07/15/24 13:29	07/16/24 18:46	1

Client Sample ID: RB-07122024
Lab Sample ID: 480-221629-1

Date Collected: 07/12/24 09:30
Matrix: Water

Date Received: 07/12/24 15:41

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L		07/15/24 13:29	07/16/24 18:46	1
Biphenyl	ND		5.0	0.65	ug/L		07/15/24 13:29	07/16/24 18:46	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		07/15/24 13:29	07/16/24 18:46	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		07/15/24 13:29	07/16/24 18:46	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		07/15/24 13:29	07/16/24 18:46	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		07/15/24 13:29	07/16/24 18:46	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		07/15/24 13:29	07/16/24 18:46	1
Caprolactam	ND		5.0	2.2	ug/L		07/15/24 13:29	07/16/24 18:46	1
Carbazole	ND		5.0	0.30	ug/L		07/15/24 13:29	07/16/24 18:46	1
Chrysene	ND		5.0	0.33	ug/L		07/15/24 13:29	07/16/24 18:46	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		07/15/24 13:29	07/16/24 18:46	1
Dibenzofuran	ND		10	0.51	ug/L		07/15/24 13:29	07/16/24 18:46	1
Diethyl phthalate	ND		5.0	0.22	ug/L		07/15/24 13:29	07/16/24 18:46	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		07/15/24 13:29	07/16/24 18:46	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		07/15/24 13:29	07/16/24 18:46	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		07/15/24 13:29	07/16/24 18:46	1
Fluoranthene	ND		5.0	0.40	ug/L		07/15/24 13:29	07/16/24 18:46	1
Fluorene	ND		5.0	0.36	ug/L		07/15/24 13:29	07/16/24 18:46	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		07/15/24 13:29	07/16/24 18:46	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		07/15/24 13:29	07/16/24 18:46	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		07/15/24 13:29	07/16/24 18:46	1
Hexachloroethane	ND		5.0	0.59	ug/L		07/15/24 13:29	07/16/24 18:46	1
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L		07/15/24 13:29	07/16/24 18:46	1
Isophorone	ND		5.0	0.43	ug/L		07/15/24 13:29	07/16/24 18:46	1
Naphthalene	ND		5.0	0.76	ug/L		07/15/24 13:29	07/16/24 18:46	1
Nitrobenzene	ND		5.0	0.29	ug/L		07/15/24 13:29	07/16/24 18:46	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		07/15/24 13:29	07/16/24 18:46	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		07/15/24 13:29	07/16/24 18:46	1
Pentachlorophenol	ND		10	2.2	ug/L		07/15/24 13:29	07/16/24 18:46	1
Phenanthrene	ND		5.0	0.44	ug/L		07/15/24 13:29	07/16/24 18:46	1
Phenol	ND		5.0	0.39	ug/L		07/15/24 13:29	07/16/24 18:46	1
Pyrene	ND		5.0	0.34	ug/L		07/15/24 13:29	07/16/24 18:46	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Furan, tetrahydro-	*3.5*	*T J N*	*ug/L*		*3.17*	*109-99-9*	*07/15/24 13:29*	*07/16/24 18:46*	*1*
Unknown	*2.7*	*T J*	*ug/L*		*3.26*	*N/A*	*07/15/24 13:29*	*07/16/24 18:46*	*1*
Unknown	*42*	*T J*	*ug/L*		*4.94*	*N/A*	*07/15/24 13:29*	*07/16/24 18:46*	*1*
Unknown	*1.9*	*T J*	*ug/L*		*5.37*	*N/A*	*07/15/24 13:29*	*07/16/24 18:46*	*1*
Unknown	*1.6*	*T J*	*ug/L*		*5.71*	*N/A*	*07/15/24 13:29*	*07/16/24 18:46*	*1*
Tetracosane	*2.0*	*T J N*	*ug/L*		*12.92*	*646-31-1*	*07/15/24 13:29*	*07/16/24 18:46*	*1*
Heptadecane	*3.0*	*T J N*	*ug/L*		*13.25*	*629-78-7*	*07/15/24 13:29*	*07/16/24 18:46*	*1*
Heptacosane	*3.7*	*T J N*	*ug/L*		*13.91*	*593-49-7*	*07/15/24 13:29*	*07/16/24 18:46*	*1*
Hexadecane	*3.2*	*T J N*	*ug/L*		*14.26*	*544-76-3*	*07/15/24 13:29*	*07/16/24 18:46*	*1*
Nonacosane	*3.1*	*T J N*	*ug/L*		*14.65*	*630-03-5*	*07/15/24 13:29*	*07/16/24 18:46*	*1*
Nonadecane	*2.0*	*T J N*	*ug/L*		*15.08*	*629-92-5*	*07/15/24 13:29*	*07/16/24 18:46*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*82*		*25 - 144*	*07/15/24 13:29*	*07/16/24 18:46*	*1*
2-Fluorobiphenyl	*75*		*53 - 126*	*07/15/24 13:29*	*07/16/24 18:46*	*1*
2-Fluorophenol	*52*		*24 - 120*	*07/15/24 13:29*	*07/16/24 18:46*	*1*

Client Sample ID: RB-07122024
Lab Sample ID: 480-221629-1

Date Collected: 07/12/24 09:30
Matrix: Water

Date Received: 07/12/24 15:41

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*62*		*29 - 129*	*07/15/24 13:29*	*07/16/24 18:46*	*1*
Phenol-d5	*39*		*10 - 120*	*07/15/24 13:29*	*07/16/24 18:46*	*1*
p-Terphenyl-d14	*86*		*33 - 132*	*07/15/24 13:29*	*07/16/24 18:46*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.050	0.0092	ug/L		07/16/24 09:36	07/17/24 11:34	1
4,4'-DDE	ND		0.050	0.012	ug/L		07/16/24 09:36	07/17/24 11:34	1
4,4'-DDT	ND		0.050	0.011	ug/L		07/16/24 09:36	07/17/24 11:34	1
Aldrin	ND		0.050	0.0081	ug/L		07/16/24 09:36	07/17/24 11:34	1
alpha-BHC	**0.0083**	**J**	0.050	0.0077	ug/L		07/16/24 09:36	07/17/24 11:34	1
cis-Chlordane	ND		0.050	0.015	ug/L		07/16/24 09:36	07/17/24 11:34	1
beta-BHC	ND		0.050	0.025	ug/L		07/16/24 09:36	07/17/24 11:34	1
delta-BHC	ND		0.050	0.010	ug/L		07/16/24 09:36	07/17/24 11:34	1
Dieldrin	ND		0.050	0.0098	ug/L		07/16/24 09:36	07/17/24 11:34	1
Endosulfan I	ND		0.050	0.011	ug/L		07/16/24 09:36	07/17/24 11:34	1
Endosulfan II	ND		0.050	0.012	ug/L		07/16/24 09:36	07/17/24 11:34	1
Endosulfan sulfate	ND		0.050	0.016	ug/L		07/16/24 09:36	07/17/24 11:34	1
Endrin	ND		0.050	0.014	ug/L		07/16/24 09:36	07/17/24 11:34	1
Endrin aldehyde	ND		0.050	0.016	ug/L		07/16/24 09:36	07/17/24 11:34	1
Endrin ketone	ND		0.050	0.012	ug/L		07/16/24 09:36	07/17/24 11:34	1
gamma-BHC (Lindane)	ND		0.050	0.0080	ug/L		07/16/24 09:36	07/17/24 11:34	1
trans-Chlordane	ND		0.050	0.011	ug/L		07/16/24 09:36	07/17/24 11:34	1
Heptachlor	ND		0.050	0.0085	ug/L		07/16/24 09:36	07/17/24 11:34	1
Heptachlor epoxide	ND		0.050	0.0074	ug/L		07/16/24 09:36	07/17/24 11:34	1
Methoxychlor	ND		0.050	0.014	ug/L		07/16/24 09:36	07/17/24 11:34	1
Toxaphene	ND		0.50	0.12	ug/L		07/16/24 09:36	07/17/24 11:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*47*		*10 - 120*	*07/16/24 09:36*	*07/17/24 11:34*	*1*
DCB Decachlorobiphenyl	*44*		*10 - 120*	*07/16/24 09:36*	*07/17/24 11:34*	*1*
Tetrachloro-m-xylene	*62*		*10 - 120*	*07/16/24 09:36*	*07/17/24 11:34*	*1*
Tetrachloro-m-xylene	*56*		*10 - 120*	*07/16/24 09:36*	*07/17/24 11:34*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.60	0.21	ug/L		07/16/24 13:19	07/17/24 00:42	1
PCB-1221	ND		0.60	0.21	ug/L		07/16/24 13:19	07/17/24 00:42	1
PCB-1232	ND		0.60	0.21	ug/L		07/16/24 13:19	07/17/24 00:42	1
PCB-1242	ND		0.60	0.21	ug/L		07/16/24 13:19	07/17/24 00:42	1
PCB-1248	ND		0.60	0.21	ug/L		07/16/24 13:19	07/17/24 00:42	1
PCB-1254	ND		0.60	0.30	ug/L		07/16/24 13:19	07/17/24 00:42	1
PCB-1260	ND		0.60	0.30	ug/L		07/16/24 13:19	07/17/24 00:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*67*		*10 - 123*	*07/16/24 13:19*	*07/17/24 00:42*	*1*
DCB Decachlorobiphenyl	*58*		*10 - 123*	*07/16/24 13:19*	*07/17/24 00:42*	*1*
Tetrachloro-m-xylene	*60*		*10 - 145*	*07/16/24 13:19*	*07/17/24 00:42*	*1*
Tetrachloro-m-xylene	*59*		*10 - 145*	*07/16/24 13:19*	*07/17/24 00:42*	*1*

Client Sample ID: RB-07122024
Lab Sample ID: 480-221629-1

Date Collected: 07/12/24 09:30
Matrix: Water

Date Received: 07/12/24 15:41

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**4.1**	**J**	8.2	2.2	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluoropentanoic acid (PFPeA)	ND	UJ	4.1	1.0	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluorohexanoic acid (PFHxA)	ND	UJ	2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluoroheptanoic acid (PFHpA)	ND	UJ	2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluorooctanoic acid (PFOA)	ND	UJ	2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluorononanoic acid (PFNA)	ND	UJ	2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluorodecanoic acid (PFDA)	ND	UJ	2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluoroundecanoic acid (PFUnA)	ND	UJ	2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluorododecanoic acid (PFDoA)	ND	UJ	2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluorotridecanoic acid (PFTrDA)	ND	UJ	2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluorotetradecanoic acid (PFTeDA)	ND	UJ	2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluorobutanesulfonic acid (PFBS)	ND	UJ	2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluoropentanesulfonic acid (PFPeS)	ND	UJ	2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluorohexanesulfonic acid (PFHxS)	ND	UJ	2.1	0.53	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluoroheptanesulfonic acid (PFHpS)	ND	UJ	2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluorooctanesulfonic acid (PFOS)	ND	UJ	2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluorononanesulfonic acid (PFNS)	ND	UJ	2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluorododecanesulfonic acid (PFDoS)	ND	UJ	2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND	UJ	8.2	2.1	ng/L		07/17/24 14:24	07/18/24 05:55	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND	UJ	8.2	2.1	ng/L		07/17/24 14:24	07/18/24 05:55	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND	UJ	8.2	2.1	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluorooctanesulfonamide (PFOSA)	ND	UJ	2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND	UJ	2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND	UJ	2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND	UJ	2.1	0.64	ng/L		07/17/24 14:24	07/18/24 05:55	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND	UJ	2.1	0.53	ng/L		07/17/24 14:24	07/18/24 05:55	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND	UJ	21	5.1	ng/L		07/17/24 14:24	07/18/24 05:55	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND	UJ	21	5.1	ng/L		07/17/24 14:24	07/18/24 05:55	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	UJ	8.2	2.1	ng/L		07/17/24 14:24	07/18/24 05:55	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	UJ	8.2	2.1	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND	UJ	4.1	1.0	ng/L		07/17/24 14:24	07/18/24 05:55	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	UJ	4.1	1.3	ng/L		07/17/24 14:24	07/18/24 05:55	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND	UJ	8.2	2.1	ng/L		07/17/24 14:24	07/18/24 05:55	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND	UJ	8.2	2.1	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND	UJ	4.1	1.0	ng/L		07/17/24 14:24	07/18/24 05:55	1

Client Sample ID: RB-07122024
Lab Sample ID: 480-221629-1

Date Collected: 07/12/24 09:30
Matrix: Water

Date Received: 07/12/24 15:41

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	UJ	10	2.6	ng/L		07/17/24 14:24	07/18/24 05:55	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	UJ	51	13	ng/L		07/17/24 14:24	07/18/24 05:55	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	UJ	51	15	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluorodecanesulfonic acid (PFDS)	ND	UJ	2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	UJ	4.1	1.0	ng/L		07/17/24 14:24	07/18/24 05:55	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*105*		*10 - 130*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
13C5 PFPeA	*84.1*		*35 - 150*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
13C5 PFHxA	*88.9*		*55 - 150*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
13C4 PFHpA	*92.5*		*55 - 150*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
13C8 PFOA	*89.1*		*60 - 140*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
13C9 PFNA	*91.0*		*55 - 140*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
13C6 PFDA	*98.0*		*50 - 140*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
13C7 PFUnA	*89.5*		*30 - 140*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
13C2 PFTeDA	*70.5*		*10 - 130*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
13C3 PFBS	*87.1*		*55 - 150*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
13C3 PFHxS	*91.6*		*55 - 150*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
13C8 PFOS	*92.8*		*45 - 140*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
13C8 FOSA	*89.4*		*30 - 130*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
d3-NMeFOSAA	*87.8*		*45 - 200*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
d5-NEtFOSAA	*125*		*10 - 200*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
M2-4:2 FTS	*103*		*60 - 200*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
M2-6:2 FTS	*97.3*		*60 - 200*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
M2-8:2 FTS	*93.4*		*50 - 200*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
13C3 HFPO-DA	*87.4*		*25 - 160*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
d7-N-MeFOSE-M	*94.7*		*10 - 150*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
d9-N-EtFOSE-M	*94.7*		*10 - 150*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
d5-NEtPFOSA	*72.4*		*10 - 130*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
d3-NMePFOSA	*74.7*		*15 - 130*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
13C2-PFDoDA	*85.3*		*10 - 150*	*07/17/24 14:24*	*07/18/24 05:55*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		07/16/24 08:42	07/16/24 16:55	1
Antimony	ND		0.020	0.0068	mg/L		07/16/24 08:42	07/16/24 16:55	1
Arsenic	ND		0.015	0.0056	mg/L		07/16/24 08:42	07/16/24 16:55	1
Barium	ND		0.0020	0.00070	mg/L		07/16/24 08:42	07/16/24 16:55	1
Beryllium	ND		0.0020	0.00030	mg/L		07/16/24 08:42	07/16/24 16:55	1
Cadmium	ND		0.0020	0.00050	mg/L		07/16/24 08:42	07/16/24 16:55	1
Calcium	ND		0.50	0.10	mg/L		07/16/24 08:42	07/16/24 16:55	1
Chromium	ND		0.0040	0.0010	mg/L		07/16/24 08:42	07/16/24 16:55	1
Cobalt	ND		0.0040	0.00063	mg/L		07/16/24 08:42	07/16/24 16:55	1
Copper	ND		0.010	0.0016	mg/L		07/16/24 08:42	07/16/24 16:55	1
Iron	ND		0.050	0.019	mg/L		07/16/24 08:42	07/16/24 16:55	1
Lead	ND		0.010	0.0030	mg/L		07/16/24 08:42	07/17/24 15:39	1
Magnesium	ND		0.20	0.043	mg/L		07/16/24 08:42	07/16/24 16:55	1

Client Sample ID: RB-07122024
Lab Sample ID: 480-221629-1

Date Collected: 07/12/24 09:30
Matrix: Water
Date Received: 07/12/24 15:41

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**0.00044**	**J**	0.0030	0.00040	mg/L		07/16/24 08:42	07/16/24 16:55	1
Nickel	ND		0.010	0.0013	mg/L		07/16/24 08:42	07/16/24 16:55	1
Potassium	**0.39**	**J**	0.50	0.10	mg/L		07/16/24 08:42	07/16/24 16:55	1
Selenium	ND		0.025	0.0087	mg/L		07/16/24 08:42	07/16/24 16:55	1
Silver	ND		0.0060	0.0017	mg/L		07/16/24 08:42	07/16/24 16:55	1
Sodium	**1.0**		1.0	0.32	mg/L		07/16/24 08:42	07/16/24 16:55	1
Thallium	ND		0.020	0.010	mg/L		07/16/24 08:42	07/16/24 16:55	1
Vanadium	ND		0.0050	0.0015	mg/L		07/16/24 08:42	07/16/24 16:55	1
Zinc	ND		0.010	0.0015	mg/L		07/16/24 08:42	07/16/24 16:55	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		07/16/24 08:01	07/16/24 15:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			07/16/24 19:02	1

Client Sample ID: SB-04-0.5-2.0
Lab Sample ID: 480-221629-2

Date Collected: 07/12/24 11:45
Matrix: Solid
Date Received: 07/12/24 15:41
Percent Solids: 82.7

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		6.7	0.49	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
1,1,2,2-Tetrachloroethane	ND		6.7	1.1	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6.7	1.5	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
1,1,2-Trichloroethane	ND		6.7	0.88	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
1,1-Dichloroethane	ND		6.7	0.82	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
1,1-Dichloroethene	ND		6.7	0.83	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
1,2,4-Trichlorobenzene	ND		6.7	0.41	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
1,2-Dibromo-3-Chloropropane	ND		6.7	3.4	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
1,2-Dibromoethane	ND		6.7	0.87	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
1,2-Dichlorobenzene	ND		6.7	0.53	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
1,2-Dichloroethane	ND		6.7	0.34	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
1,2-Dichloropropane	ND		6.7	3.4	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
1,3-Dichlorobenzene	ND		6.7	0.35	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
1,4-Dichlorobenzene	ND		6.7	0.94	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
2-Butanone (MEK)	ND		34	2.5	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
2-Hexanone	ND		34	3.4	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
4-Methyl-2-pentanone (MIBK)	ND		34	2.2	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Acetone	ND		34	5.7	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Benzene	ND		6.7	0.33	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Bromodichloromethane	ND		6.7	0.90	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Bromoform	ND		6.7	3.4	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Bromomethane	ND		6.7	0.61	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Carbon disulfide	ND		6.7	3.4	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Carbon tetrachloride	ND		6.7	0.65	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Chlorobenzene	ND		6.7	0.89	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Chloroethane	ND		6.7	1.5	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1

Client Sample ID: SB-04-0.5-2.0
Lab Sample ID: 480-221629-2

Date Collected: 07/12/24 11:45
Matrix: Solid

Date Received: 07/12/24 15:41
Percent Solids: 82.7

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		6.7	0.42	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Chloromethane	ND		6.7	0.41	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
cis-1,2-Dichloroethene	ND		6.7	0.86	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
cis-1,3-Dichloropropene	ND		6.7	0.97	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Cyclohexane	ND		6.7	0.94	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Dibromochloromethane	ND		6.7	0.86	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Dichlorodifluoromethane	ND		6.7	0.56	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Ethylbenzene	ND		6.7	0.47	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Isopropylbenzene	ND		6.7	1.0	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Methyl acetate	ND		34	4.1	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Methyl tert-butyl ether	ND		6.7	0.66	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Methylcyclohexane	ND		6.7	1.0	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Methylene Chloride	4.7	J	6.7	3.1	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Styrene	ND		6.7	0.34	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Tetrachloroethene	ND		6.7	0.90	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Toluene	ND		6.7	0.51	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
trans-1,2-Dichloroethene	ND		6.7	0.70	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
trans-1,3-Dichloropropene	ND		6.7	3.0	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Trichloroethene	ND		6.7	1.5	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Trichlorofluoromethane	ND		6.7	0.64	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Vinyl chloride	ND		6.7	0.82	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Xylenes, Total	ND		13	1.1	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/12/24 16:30*	*07/17/24 00:54*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*64 - 126*	*07/12/24 16:30*	*07/17/24 00:54*	*1*
4-Bromofluorobenzene (Surr)	*99*		*72 - 126*	*07/12/24 16:30*	*07/17/24 00:54*	*1*
Dibromofluoromethane (Surr)	*95*		*60 - 140*	*07/12/24 16:30*	*07/17/24 00:54*	*1*
Toluene-d8 (Surr)	*99*		*71 - 125*	*07/12/24 16:30*	*07/17/24 00:54*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		5900	3200	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
2,4,5-Trichlorophenol	ND		10000	2700	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
2,4,6-Trichlorophenol	ND		10000	2000	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
2,4-Dichlorophenol	ND		10000	1100	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
2,4-Dimethylphenol	ND		10000	2400	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
2,4-Dinitrophenol	ND		98000	46000	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
2,4-Dinitrotoluene	ND		10000	2100	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
2,6-Dinitrotoluene	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
2-Chloronaphthalene	ND		10000	1700	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
2-Chlorophenol	ND		19000	1800	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
2-Methylnaphthalene	ND		10000	2000	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
2-Methylphenol	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
2-Nitroaniline	ND		19000	1500	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
2-Nitrophenol	ND		10000	2800	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
3,3'-Dichlorobenzidine	ND		19000	12000	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
3-Nitroaniline	ND		19000	2800	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5

Client Sample ID: SB-04-0.5-2.0
Date Collected: 07/12/24 11:45
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-2
Matrix: Solid
Percent Solids: 82.7

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,6-Dinitro-2-methylphenol	ND		19000	10000	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
4-Bromophenyl phenyl ether	ND		10000	1400	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
4-Chloro-3-methylphenol	ND		10000	2500	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
4-Chloroaniline	ND		10000	2500	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
4-Chlorophenyl phenyl ether	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
4-Methylphenol	ND		19000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
4-Nitroaniline	ND		19000	5300	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
4-Nitrophenol	ND		19000	7000	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Acenaphthene	ND		10000	1500	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Acenaphthylene	ND		10000	1300	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Acetophenone	ND		10000	1400	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Anthracene	ND		10000	2500	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Atrazine	ND		10000	3500	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Benzaldehyde	ND		10000	8000	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Benzo[a]anthracene	ND		10000	1000	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Benzo[a]pyrene	ND		10000	1500	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Benzo[b]fluoranthene	ND		10000	1600	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Benzo[g,h,i]perylene	ND		10000	1100	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Benzo[k]fluoranthene	ND		10000	1300	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Biphenyl	ND		10000	1500	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
bis (2-chloroisopropyl) ether	ND		10000	2000	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Bis(2-chloroethoxy)methane	ND		10000	2100	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Bis(2-chloroethyl)ether	ND		10000	1300	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Bis(2-ethylhexyl) phthalate	ND		10000	3400	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Butyl benzyl phthalate	ND		10000	1700	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Caprolactam	ND		10000	3000	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Carbazole	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Chrysene	ND		10000	2200	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Dibenz(a,h)anthracene	ND		10000	1800	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Dibenzofuran	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Diethyl phthalate	ND		10000	1300	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Dimethyl phthalate	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Di-n-butyl phthalate	ND		10000	1700	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Di-n-octyl phthalate	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Fluoranthene	ND		10000	1100	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Fluorene	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Hexachlorobenzene	ND		10000	1400	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Hexachlorobutadiene	ND		10000	1500	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Hexachlorocyclopentadiene	ND		10000	1400	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Hexachloroethane	ND		10000	1300	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Indeno[1,2,3-cd]pyrene	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Isophorone	ND		10000	2100	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Naphthalene	ND		10000	1300	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Nitrobenzene	ND		10000	1100	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
N-Nitrosodi-n-propylamine	ND		10000	1700	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
N-Nitrosodiphenylamine	ND		10000	8200	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Pentachlorophenol	ND		19000	10000	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Phenanthrene	ND		10000	1500	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Phenol	ND		10000	1500	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5

Client Sample ID: SB-04-0.5-2.0
Lab Sample ID: 480-221629-2

Date Collected: 07/12/24 11:45
Matrix: Solid

Date Received: 07/12/24 15:41
Percent Solids: 82.7

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/16/24 07:37*	*07/18/24 20:55*	*5*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*127*		*26 - 143*	*07/16/24 07:37*	*07/18/24 20:55*	*5*
2-Fluorobiphenyl	*73*		*50 - 121*	*07/16/24 07:37*	*07/18/24 20:55*	*5*
2-Fluorophenol	*94*		*36 - 120*	*07/16/24 07:37*	*07/18/24 20:55*	*5*
Nitrobenzene-d5	*50*		*40 - 121*	*07/16/24 07:37*	*07/18/24 20:55*	*5*
Phenol-d5	*59*		*41 - 120*	*07/16/24 07:37*	*07/18/24 20:55*	*5*
p-Terphenyl-d14	*77*		*46 - 143*	*07/16/24 07:37*	*07/18/24 20:55*	*5*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		99	19	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
4,4'-DDE	ND		99	21	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
4,4'-DDT	ND		99	23	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
Aldrin	ND		99	24	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
alpha-BHC	ND		99	18	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
cis-Chlordane	ND		99	49	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
beta-BHC	ND		99	18	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
delta-BHC	ND		99	18	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
Dieldrin	ND		99	24	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
Endosulfan I	ND		99	19	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
Endosulfan II	ND		99	18	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
Endosulfan sulfate	ND		99	18	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
Endrin	ND		99	20	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
Endrin aldehyde	ND		99	25	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
Endrin ketone	ND		99	24	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
gamma-BHC (Lindane)	ND		99	18	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
trans-Chlordane	ND		99	31	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
Heptachlor	ND		99	21	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
Heptachlor epoxide	ND		99	25	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
Methoxychlor	ND		99	20	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
Toxaphene	ND		990	570	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/16/24 16:34*	*07/17/24 13:00*	*50*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/16/24 16:34*	*07/17/24 13:00*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/16/24 16:34*	*07/17/24 13:00*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/16/24 16:34*	*07/17/24 13:00*	*50*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.26	0.051	mg/Kg	☼	07/16/24 16:39	07/17/24 23:40	1
PCB-1221	ND		0.26	0.051	mg/Kg	☼	07/16/24 16:39	07/17/24 23:40	1
PCB-1232	ND		0.26	0.051	mg/Kg	☼	07/16/24 16:39	07/17/24 23:40	1
PCB-1242	ND		0.26	0.051	mg/Kg	☼	07/16/24 16:39	07/17/24 23:40	1
PCB-1248	ND		0.26	0.051	mg/Kg	☼	07/16/24 16:39	07/17/24 23:40	1
PCB-1254	ND		0.26	0.12	mg/Kg	☼	07/16/24 16:39	07/17/24 23:40	1

Client Sample ID: SB-04-0.5-2.0
Date Collected: 07/12/24 11:45
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-2
Matrix: Solid
Percent Solids: 82.7

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1260	ND		0.26	0.12	mg/Kg	☼	07/16/24 16:39	07/17/24 23:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*98*		*60 - 154*	*07/16/24 16:39*	*07/17/24 23:40*	*1*
Tetrachloro-m-xylene	*90*		*60 - 154*	*07/16/24 16:39*	*07/17/24 23:40*	*1*
DCB Decachlorobiphenyl	*85*		*65 - 174*	*07/16/24 16:39*	*07/17/24 23:40*	*1*
DCB Decachlorobiphenyl	*88*		*65 - 174*	*07/16/24 16:39*	*07/17/24 23:40*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.79	0.20	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluoropentanoic acid (PFPeA)	ND		0.39	0.098	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluorohexanoic acid (PFHxA)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluoroheptanoic acid (PFHpA)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluorooctanoic acid (PFOA)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluorononanoic acid (PFNA)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluorodecanoic acid (PFDA)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluoroundecanoic acid (PFUnA)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluorododecanoic acid (PFDoA)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluorooctanesulfonic acid (PFOS)	ND	U	0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluorononanesulfonic acid (PFNS)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		0.79	0.20	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		0.79	0.20	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		0.79	0.20	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		2.0	0.49	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		2.0	0.49	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.79	0.20	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1

Client Sample ID: SB-04-0.5-2.0
Date Collected: 07/12/24 11:45
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-2
Matrix: Solid
Percent Solids: 82.7

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.79	0.20	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.39	0.098	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.39	0.098	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		0.79	0.20	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		0.79	0.20	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.39	0.098	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		0.98	0.25	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		4.9	1.2	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		4.9	1.2	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.39	0.098	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*100*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
13C5 PFPeA	*101*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
13C5 PFHxA	*103*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
13C4 PFHpA	*105*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
13C8 PFOA	*103*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
13C9 PFNA	*99.2*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
13C6 PFDA	*92.5*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
13C7 PFUnA	*103*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
13C2 PFTeDA	*87.1*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
13C3 PFBS	*97.4*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
13C3 PFHxS	*98.7*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
13C8 PFOS	*90.8*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
13C8 FOSA	*87.3*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
d3-NMeFOSAA	*90.4*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
d5-NEtFOSAA	*129*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
M2-4:2 FTS	*115*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
M2-6:2 FTS	*128*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
M2-8:2 FTS	*111*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
13C3 HFPO-DA	*102*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
d7-N-MeFOSE-M	*80.6*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
d9-N-EtFOSE-M	*80.4*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
d5-NEtPFOSA	*78.4*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
d3-NMePFOSA	*70.8*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
13C2-PFDoDA	*93.6*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**18300**		12.1	10.4	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Antimony	ND		18.2	0.64	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Arsenic	**4.8**		2.4	1.1	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1

Client Sample ID: SB-04-0.5-2.0
Lab Sample ID: 480-221629-2

Date Collected: 07/12/24 11:45
Matrix: Solid
Date Received: 07/12/24 15:41
Percent Solids: 82.7

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	123		0.61	0.17	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Beryllium	1.0		0.24	0.048	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Cadmium	1.2		0.24	0.085	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Calcium	23300		60.5	32.7	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Chromium	23.0		0.61	0.44	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Cobalt	11.9		0.61	0.12	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Copper	24.5		1.2	0.69	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Iron	20700		12.1	10.3	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Lead	36.1		1.2	0.56	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Magnesium	8980		24.2	10.3	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Manganese	693		1.2	0.34	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Nickel	24.8		6.1	0.30	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Potassium	3690		36.3	29.4	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Selenium	1.4	J	4.8	0.97	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Silver	ND		0.73	0.24	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Sodium	163	J	170	74.2	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Thallium	ND		7.3	0.92	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Vanadium	40.3		0.61	0.16	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Zinc	113		2.4	1.2	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.060		0.024	0.0056	mg/Kg	☼	07/17/24 08:25	07/17/24 10:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.1	0.54	mg/Kg	☼	07/19/24 13:18	07/19/24 15:48	1

Client Sample ID: SB-04-0.5-2.0-FD
Lab Sample ID: 480-221629-3

Date Collected: 07/12/24 11:45
Matrix: Solid
Date Received: 07/12/24 15:41
Percent Solids: 83.8

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.8	0.35	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
1,1,2,2-Tetrachloroethane	ND		4.8	0.78	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.8	1.1	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
1,1,2-Trichloroethane	ND		4.8	0.63	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
1,1-Dichloroethane	ND		4.8	0.59	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
1,1-Dichloroethene	ND		4.8	0.59	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
1,2,4-Trichlorobenzene	ND		4.8	0.29	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
1,2-Dibromo-3-Chloropropane	ND		4.8	2.4	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
1,2-Dibromoethane	ND		4.8	0.62	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
1,2-Dichlorobenzene	ND		4.8	0.38	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
1,2-Dichloroethane	ND		4.8	0.24	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
1,2-Dichloropropane	ND		4.8	2.4	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
1,3-Dichlorobenzene	ND		4.8	0.25	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
1,4-Dichlorobenzene	ND		4.8	0.67	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
2-Butanone (MEK)	ND		24	1.8	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
2-Hexanone	ND		24	2.4	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1

Client Sample ID: SB-04-0.5-2.0-FD
Lab Sample ID: 480-221629-3

Date Collected: 07/12/24 11:45
Matrix: Solid

Date Received: 07/12/24 15:41
Percent Solids: 83.8

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	ND		24	1.6	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Acetone	ND		24	4.1	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Benzene	ND		4.8	0.24	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Bromodichloromethane	ND		4.8	0.65	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Bromoform	ND		4.8	2.4	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Bromomethane	ND		4.8	0.43	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Carbon disulfide	ND		4.8	2.4	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Carbon tetrachloride	ND		4.8	0.47	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Chlorobenzene	ND		4.8	0.64	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Chloroethane	ND		4.8	1.1	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Chloroform	ND		4.8	0.30	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Chloromethane	ND		4.8	0.29	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
cis-1,2-Dichloroethene	ND		4.8	0.62	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
cis-1,3-Dichloropropene	ND		4.8	0.69	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Cyclohexane	ND		4.8	0.67	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Dibromochloromethane	ND		4.8	0.62	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Dichlorodifluoromethane	ND		4.8	0.40	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Ethylbenzene	ND		4.8	0.33	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Isopropylbenzene	ND		4.8	0.73	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Methyl acetate	ND		24	2.9	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Methyl tert-butyl ether	ND		4.8	0.47	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Methylcyclohexane	ND		4.8	0.73	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Methylene Chloride	ND		4.8	2.2	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Styrene	ND		4.8	0.24	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Tetrachloroethene	ND		4.8	0.65	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Toluene	ND		4.8	0.36	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
trans-1,2-Dichloroethene	ND		4.8	0.50	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
trans-1,3-Dichloropropene	ND		4.8	2.1	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Trichloroethene	ND		4.8	1.1	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Trichlorofluoromethane	ND		4.8	0.46	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Vinyl chloride	ND		4.8	0.59	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Xylenes, Total	ND		9.6	0.81	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/12/24 16:30*	*07/17/24 01:18*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*64 - 126*	*07/12/24 16:30*	*07/17/24 01:18*	*1*
4-Bromofluorobenzene (Surr)	*100*		*72 - 126*	*07/12/24 16:30*	*07/17/24 01:18*	*1*
Dibromofluoromethane (Surr)	*99*		*60 - 140*	*07/12/24 16:30*	*07/17/24 01:18*	*1*
Toluene-d8 (Surr)	*98*		*71 - 125*	*07/12/24 16:30*	*07/17/24 01:18*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		5900	3300	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
2,4,5-Trichlorophenol	ND		10000	2700	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
2,4,6-Trichlorophenol	ND		10000	2000	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
2,4-Dichlorophenol	ND		10000	1100	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
2,4-Dimethylphenol	ND		10000	2400	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
2,4-Dinitrophenol	ND		99000	47000	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5

Client Sample ID: SB-04-0.5-2.0-FD
Lab Sample ID: 480-221629-3

Date Collected: 07/12/24 11:45
Matrix: Solid

Date Received: 07/12/24 15:41
Percent Solids: 83.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		10000	2100	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
2,6-Dinitrotoluene	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
2-Chloronaphthalene	ND		10000	1700	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
2-Chlorophenol	ND		20000	1800	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
2-Methylnaphthalene	ND		10000	2000	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
2-Methylphenol	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
2-Nitroaniline	ND		20000	1500	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
2-Nitrophenol	ND		10000	2900	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
3,3'-Dichlorobenzidine	ND		20000	12000	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
3-Nitroaniline	ND		20000	2800	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
4,6-Dinitro-2-methylphenol	ND		20000	10000	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
4-Bromophenyl phenyl ether	ND		10000	1400	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
4-Chloro-3-methylphenol	ND		10000	2500	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
4-Chloroaniline	ND		10000	2500	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
4-Chlorophenyl phenyl ether	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
4-Methylphenol	ND		20000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
4-Nitroaniline	ND		20000	5300	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
4-Nitrophenol	ND		20000	7100	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Acenaphthene	ND		10000	1500	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Acenaphthylene	ND		10000	1300	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Acetophenone	ND		10000	1400	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Anthracene	ND		10000	2500	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Atrazine	ND		10000	3500	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Benzaldehyde	ND		10000	8000	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Benzo[a]anthracene	ND		10000	1000	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Benzo[a]pyrene	ND		10000	1500	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Benzo[b]fluoranthene	ND		10000	1600	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Benzo[g,h,i]perylene	ND		10000	1100	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Benzo[k]fluoranthene	ND		10000	1300	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Biphenyl	ND		10000	1500	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
bis (2-chloroisopropyl) ether	ND		10000	2000	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Bis(2-chloroethoxy)methane	ND		10000	2100	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Bis(2-chloroethyl)ether	ND		10000	1300	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Bis(2-ethylhexyl) phthalate	ND		10000	3400	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Butyl benzyl phthalate	ND		10000	1700	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Caprolactam	ND		10000	3000	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Carbazole	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Chrysene	ND		10000	2300	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Dibenz(a,h)anthracene	ND		10000	1800	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Dibenzofuran	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Diethyl phthalate	ND		10000	1300	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Dimethyl phthalate	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Di-n-butyl phthalate	ND		10000	1700	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Di-n-octyl phthalate	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Fluoranthene	ND		10000	1100	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Fluorene	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Hexachlorobenzene	ND		10000	1400	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Hexachlorobutadiene	ND		10000	1500	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Hexachlorocyclopentadiene	ND		10000	1400	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5

Client Sample ID: SB-04-0.5-2.0-FD
Lab Sample ID: 480-221629-3
Date Collected: 07/12/24 11:45
Matrix: Solid
Date Received: 07/12/24 15:41
Percent Solids: 83.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachloroethane	ND		10000	1300	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Indeno[1,2,3-cd]pyrene	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Isophorone	ND		10000	2100	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Naphthalene	ND		10000	1300	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Nitrobenzene	ND		10000	1100	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
N-Nitrosodi-n-propylamine	ND		10000	1700	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
N-Nitrosodiphenylamine	ND		10000	8200	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Pentachlorophenol	ND		20000	10000	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Phenanthrene	ND		10000	1500	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Phenol	ND		10000	1500	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Pyrene	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/16/24 07:37*	*07/18/24 21:22*	*5*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*127*		*26 - 143*	*07/16/24 07:37*	*07/18/24 21:22*	*5*
2-Fluorobiphenyl	*80*		*50 - 121*	*07/16/24 07:37*	*07/18/24 21:22*	*5*
2-Fluorophenol	*0*	*S1-*	*36 - 120*	*07/16/24 07:37*	*07/18/24 21:22*	*5*
Nitrobenzene-d5	*63*		*40 - 121*	*07/16/24 07:37*	*07/18/24 21:22*	*5*
Phenol-d5	*75*		*41 - 120*	*07/16/24 07:37*	*07/18/24 21:22*	*5*
p-Terphenyl-d14	*76*		*46 - 143*	*07/16/24 07:37*	*07/18/24 21:22*	*5*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		97	19	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
4,4'-DDE	ND		97	20	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
4,4'-DDT	ND		97	23	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
Aldrin	ND		97	24	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
alpha-BHC	ND		97	18	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
cis-Chlordane	ND		97	48	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
beta-BHC	ND		97	18	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
delta-BHC	ND		97	18	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
Dieldrin	ND		97	23	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
Endosulfan I	ND		97	19	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
Endosulfan II	ND		97	18	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
Endosulfan sulfate	ND		97	18	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
Endrin	ND		97	19	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
Endrin aldehyde	ND		97	25	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
Endrin ketone	ND		97	24	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
gamma-BHC (Lindane)	ND		97	18	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
trans-Chlordane	ND		97	31	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
Heptachlor	ND		97	21	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
Heptachlor epoxide	ND		97	25	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
Methoxychlor	ND		97	20	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
Toxaphene	ND		970	570	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/16/24 16:34*	*07/17/24 13:20*	*50*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/16/24 16:34*	*07/17/24 13:20*	*50*

Client Sample ID: SB-04-0.5-2.0-FD
Lab Sample ID: 480-221629-3

Date Collected: 07/12/24 11:45
Matrix: Solid

Date Received: 07/12/24 15:41
Percent Solids: 83.8

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/16/24 16:34*	*07/17/24 13:20*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/16/24 16:34*	*07/17/24 13:20*	*50*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.22	0.043	mg/Kg	☼	07/16/24 16:39	07/17/24 23:57	1
PCB-1221	ND		0.22	0.043	mg/Kg	☼	07/16/24 16:39	07/17/24 23:57	1
PCB-1232	ND		0.22	0.043	mg/Kg	☼	07/16/24 16:39	07/17/24 23:57	1
PCB-1242	ND		0.22	0.043	mg/Kg	☼	07/16/24 16:39	07/17/24 23:57	1
PCB-1248	ND		0.22	0.043	mg/Kg	☼	07/16/24 16:39	07/17/24 23:57	1
PCB-1254	ND		0.22	0.10	mg/Kg	☼	07/16/24 16:39	07/17/24 23:57	1
PCB-1260	ND		0.22	0.10	mg/Kg	☼	07/16/24 16:39	07/17/24 23:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*101*		*60 - 154*	*07/16/24 16:39*	*07/17/24 23:57*	*1*
Tetrachloro-m-xylene	*87*		*60 - 154*	*07/16/24 16:39*	*07/17/24 23:57*	*1*
DCB Decachlorobiphenyl	*87*		*65 - 174*	*07/16/24 16:39*	*07/17/24 23:57*	*1*
DCB Decachlorobiphenyl	*90*		*65 - 174*	*07/16/24 16:39*	*07/17/24 23:57*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.76	0.19	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluoropentanoic acid (PFPeA)	ND		0.38	0.094	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluorohexanoic acid (PFHxA)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluoroheptanoic acid (PFHpA)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluorooctanoic acid (PFOA)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluorononanoic acid (PFNA)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluorodecanoic acid (PFDA)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluoroundecanoic acid (PFUnA)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluorododecanoic acid (PFDoA)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluorooctanesulfonic acid (PFOS)	ND	U	0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluorononanesulfonic acid (PFNS)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		0.76	0.19	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		0.76	0.19	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		0.76	0.19	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1

Client Sample ID: SB-04-0.5-2.0-FD
Lab Sample ID: 480-221629-3

Date Collected: 07/12/24 11:45
Matrix: Solid

Date Received: 07/12/24 15:41
Percent Solids: 83.8

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1.9	0.47	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1.9	0.47	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.76	0.19	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.76	0.19	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.38	0.094	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.38	0.094	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		0.76	0.19	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		0.76	0.19	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.38	0.094	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		0.94	0.24	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		4.7	1.2	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		4.7	1.2	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.38	0.094	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*102*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
13C5 PFPeA	*88.3*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
13C5 PFHxA	*92.4*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
13C4 PFHpA	*95.4*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
13C8 PFOA	*82.8*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
13C9 PFNA	*98.3*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
13C6 PFDA	*100*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
13C7 PFUnA	*103*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
13C2 PFTeDA	*99.3*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
13C3 PFBS	*98.5*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
13C3 PFHxS	*101*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
13C8 PFOS	*97.1*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
13C8 FOSA	*99.9*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
d3-NMeFOSAA	*94.2*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
d5-NEtFOSAA	*113*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
M2-4:2 FTS	*112*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
M2-6:2 FTS	*129*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
M2-8:2 FTS	*129*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
13C3 HFPO-DA	*90.7*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*

Client Sample ID: SB-04-0.5-2.0-FD

Date Collected: 07/12/24 11:45
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-3

Matrix: Solid
Percent Solids: 83.8

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
d7-N-MeFOSE-M	*91.1*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
d9-N-EtFOSE-M	*90.0*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
d5-NEtPFOSA	*87.4*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
d3-NMePFOSA	*87.3*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
13C2-PFDoDA	*98.6*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**21700**		12.7	10.9	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Antimony	**1.3**	**J**	19.0	0.67	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Arsenic	**4.9**		2.5	1.1	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Barium	**132**		0.63	0.18	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Beryllium	**1.1**		0.25	0.051	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Cadmium	**0.79**		0.25	0.089	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Calcium	**28400**		63.5	34.3	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Chromium	**30.5**		0.63	0.46	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Cobalt	**12.6**		0.63	0.13	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Copper	**37.1**		1.3	0.72	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Iron	**23300**		12.7	10.8	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Lead	**37.5**		1.3	0.58	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Magnesium	**10700**		25.4	10.8	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Manganese	**712**		1.3	0.36	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Nickel	**26.5**		6.3	0.32	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Potassium	**4640**		38.1	30.8	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Selenium	**1.2**	**J**	5.1	1.0	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Silver	**0.29**	**J**	0.76	0.25	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Sodium	**167**	**J**	178	77.8	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Thallium	ND		7.6	0.96	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Vanadium	**41.0**		0.63	0.17	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Zinc	**136**		2.5	1.3	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.063**		0.024	0.0056	mg/Kg	☼	07/17/24 08:25	07/17/24 10:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.1	0.55	mg/Kg	☼	07/19/24 13:18	07/19/24 15:50	1

Client Sample ID: SB-04-38.0-42.0

Date Collected: 07/12/24 12:50
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-4

Matrix: Solid
Percent Solids: 73.4

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.3	0.38	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
1,1,2,2-Tetrachloroethane	ND		5.3	0.85	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.3	1.2	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
1,1,2-Trichloroethane	ND		5.3	0.68	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
1,1-Dichloroethane	ND		5.3	0.64	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
1,1-Dichloroethene	ND		5.3	0.64	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1

Client Sample ID: SB-04-38.0-42.0
Lab Sample ID: 480-221629-4

Date Collected: 07/12/24 12:50
Matrix: Solid

Date Received: 07/12/24 15:41
Percent Solids: 73.4

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		5.3	0.32	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
1,2-Dibromo-3-Chloropropane	ND		5.3	2.6	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
1,2-Dibromoethane	ND		5.3	0.68	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
1,2-Dichlorobenzene	ND		5.3	0.41	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
1,2-Dichloroethane	ND		5.3	0.26	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
1,2-Dichloropropane	ND		5.3	2.6	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
1,3-Dichlorobenzene	ND		5.3	0.27	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
1,4-Dichlorobenzene	ND		5.3	0.74	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
2-Butanone (MEK)	ND		26	1.9	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
2-Hexanone	ND		26	2.6	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
4-Methyl-2-pentanone (MIBK)	ND		26	1.7	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Acetone	**13**	**J**	26	4.4	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Benzene	ND		5.3	0.26	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Bromodichloromethane	ND		5.3	0.71	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Bromoform	ND		5.3	2.6	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Bromomethane	ND		5.3	0.47	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Carbon disulfide	ND		5.3	2.6	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Carbon tetrachloride	ND		5.3	0.51	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Chlorobenzene	ND		5.3	0.70	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Chloroethane	ND		5.3	1.2	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Chloroform	ND		5.3	0.33	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Chloromethane	ND		5.3	0.32	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
cis-1,2-Dichloroethene	ND		5.3	0.67	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
cis-1,3-Dichloropropene	ND		5.3	0.76	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Cyclohexane	ND		5.3	0.74	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Dibromochloromethane	ND		5.3	0.67	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Dichlorodifluoromethane	ND		5.3	0.44	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Ethylbenzene	ND		5.3	0.36	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Isopropylbenzene	ND		5.3	0.79	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Methyl acetate	ND		26	3.2	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Methyl tert-butyl ether	ND		5.3	0.52	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Methylcyclohexane	ND		5.3	0.80	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Methylene Chloride	**6.4**		5.3	2.4	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Styrene	ND		5.3	0.26	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Tetrachloroethene	ND		5.3	0.71	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Toluene	ND		5.3	0.40	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
trans-1,2-Dichloroethene	ND		5.3	0.54	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
trans-1,3-Dichloropropene	ND		5.3	2.3	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Trichloroethene	ND		5.3	1.2	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Trichlorofluoromethane	ND		5.3	0.50	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Vinyl chloride	ND		5.3	0.64	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Xylenes, Total	ND		11	0.89	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/12/24 16:30*	*07/17/24 01:42*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*64 - 126*	*07/12/24 16:30*	*07/17/24 01:42*	*1*
4-Bromofluorobenzene (Surr)	*101*		*72 - 126*	*07/12/24 16:30*	*07/17/24 01:42*	*1*
Dibromofluoromethane (Surr)	*98*		*60 - 140*	*07/12/24 16:30*	*07/17/24 01:42*	*1*

Client Sample ID: SB-04-38.0-42.0
Date Collected: 07/12/24 12:50
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-4
Matrix: Solid
Percent Solids: 73.4

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*71 - 125*	*07/12/24 16:30*	*07/17/24 01:42*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		130	73	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
2,4,5-Trichlorophenol	ND		230	61	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
2,4,6-Trichlorophenol	ND		230	45	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
2,4-Dichlorophenol	ND		230	24	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
2,4-Dimethylphenol	ND		230	55	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
2,4-Dinitrophenol	ND		2200	1000	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
2,4-Dinitrotoluene	ND		230	47	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
2,6-Dinitrotoluene	ND		230	27	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
2-Chloronaphthalene	ND		230	37	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
2-Chlorophenol	ND		440	41	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
2-Methylnaphthalene	ND		230	45	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
2-Methylphenol	ND		230	27	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
2-Nitroaniline	ND		440	33	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
2-Nitrophenol	ND		230	64	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
3,3'-Dichlorobenzidine	ND		440	270	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
3-Nitroaniline	ND		440	63	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
4,6-Dinitro-2-methylphenol	ND		440	230	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
4-Bromophenyl phenyl ether	ND		230	32	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
4-Chloro-3-methylphenol	ND		230	56	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
4-Chloroaniline	ND		230	56	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
4-Chlorophenyl phenyl ether	ND		230	28	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
4-Methylphenol	ND		440	27	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
4-Nitroaniline	ND		440	120	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
4-Nitrophenol	ND		440	160	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Acenaphthene	ND		230	33	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Acenaphthylene	ND		230	29	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Acetophenone	ND		230	31	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Anthracene	ND		230	56	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Atrazine	ND		230	79	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Benzaldehyde	ND		230	180	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Benzo[a]anthracene	ND		230	23	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Benzo[a]pyrene	ND		230	33	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Benzo[b]fluoranthene	ND		230	36	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Benzo[g,h,i]perylene	ND		230	24	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Benzo[k]fluoranthene	ND		230	29	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Biphenyl	ND		230	33	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
bis (2-chloroisopropyl) ether	ND		230	45	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Bis(2-chloroethoxy)methane	ND		230	48	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Bis(2-chloroethyl)ether	ND		230	29	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Bis(2-ethylhexyl) phthalate	ND		230	77	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Butyl benzyl phthalate	ND		230	37	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Caprolactam	ND		230	68	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Carbazole	ND		230	27	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Chrysene	ND		230	51	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Dibenz(a,h)anthracene	ND		230	40	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1

Client Sample ID: SB-04-38.0-42.0
Lab Sample ID: 480-221629-4

Date Collected: 07/12/24 12:50
Matrix: Solid

Date Received: 07/12/24 15:41
Percent Solids: 73.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	ND		230	27	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Diethyl phthalate	ND		230	29	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Dimethyl phthalate	ND		230	27	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Di-n-butyl phthalate	ND		230	39	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Di-n-octyl phthalate	ND		230	27	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Fluoranthene	ND		230	24	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Fluorene	ND		230	27	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Hexachlorobenzene	ND		230	31	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Hexachlorobutadiene	ND		230	33	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Hexachlorocyclopentadiene	ND		230	31	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Hexachloroethane	ND		230	29	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Indeno[1,2,3-cd]pyrene	ND		230	28	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Isophorone	ND		230	48	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Naphthalene	ND		230	29	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Nitrobenzene	ND		230	25	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
N-Nitrosodi-n-propylamine	ND		230	39	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
N-Nitrosodiphenylamine	ND		230	180	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Pentachlorophenol	ND		440	230	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Phenanthrene	ND		230	33	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Phenol	ND		230	35	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Pyrene	ND		230	27	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*740*	*T J*	*ug/Kg*	☼	*4.52*	*N/A*	*07/16/24 07:37*	*07/19/24 16:58*	*1*
Butyl citrate	*400*	*T J N*	*ug/Kg*	☼	*12.53*	*77-94-1*	*07/16/24 07:37*	*07/19/24 16:58*	*1*
Pregnan-20-one, (5.alpha.)-	*250*	*T J N*	*ug/Kg*	☼	*14.07*	*848-62-4*	*07/16/24 07:37*	*07/19/24 16:58*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*93*		*26 - 143*	*07/16/24 07:37*	*07/19/24 16:58*	*1*
2-Fluorobiphenyl	*77*		*50 - 121*	*07/16/24 07:37*	*07/19/24 16:58*	*1*
2-Fluorophenol	*74*		*36 - 120*	*07/16/24 07:37*	*07/19/24 16:58*	*1*
Nitrobenzene-d5	*71*		*40 - 121*	*07/16/24 07:37*	*07/19/24 16:58*	*1*
Phenol-d5	*77*		*41 - 120*	*07/16/24 07:37*	*07/19/24 16:58*	*1*
p-Terphenyl-d14	*90*		*46 - 143*	*07/16/24 07:37*	*07/19/24 16:58*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.2	0.43	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
4,4'-DDE	ND		2.2	0.47	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
4,4'-DDT	ND		2.2	0.52	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
Aldrin	ND		2.2	0.54	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
alpha-BHC	ND		2.2	0.40	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
cis-Chlordane	ND		2.2	1.1	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
beta-BHC	ND		2.2	0.40	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
delta-BHC	ND		2.2	0.41	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
Dieldrin	ND		2.2	0.53	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
Endosulfan I	ND		2.2	0.43	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
Endosulfan II	ND		2.2	0.40	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
Endosulfan sulfate	ND		2.2	0.41	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
Endrin	ND		2.2	0.44	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1

Client Sample ID: SB-04-38.0-42.0

Date Collected: 07/12/24 12:50
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-4

Matrix: Solid
Percent Solids: 73.4

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin aldehyde	ND		2.2	0.57	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
Endrin ketone	ND		2.2	0.54	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
gamma-BHC (Lindane)	ND		2.2	0.41	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
trans-Chlordane	ND		2.2	0.70	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
Heptachlor	ND		2.2	0.48	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
Heptachlor epoxide	ND		2.2	0.57	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
Methoxychlor	ND		2.2	0.45	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
Toxaphene	ND		22	13	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*65*		*45 - 120*	*07/16/24 16:34*	*07/17/24 13:39*	*1*
DCB Decachlorobiphenyl	*68*		*45 - 120*	*07/16/24 16:34*	*07/17/24 13:39*	*1*
Tetrachloro-m-xylene	*57*		*30 - 124*	*07/16/24 16:34*	*07/17/24 13:39*	*1*
Tetrachloro-m-xylene	*68*		*30 - 124*	*07/16/24 16:34*	*07/17/24 13:39*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.25	0.049	mg/Kg	☼	07/16/24 16:39	07/18/24 00:14	1
PCB-1221	ND		0.25	0.049	mg/Kg	☼	07/16/24 16:39	07/18/24 00:14	1
PCB-1232	ND		0.25	0.049	mg/Kg	☼	07/16/24 16:39	07/18/24 00:14	1
PCB-1242	ND		0.25	0.049	mg/Kg	☼	07/16/24 16:39	07/18/24 00:14	1
PCB-1248	ND		0.25	0.049	mg/Kg	☼	07/16/24 16:39	07/18/24 00:14	1
PCB-1254	ND		0.25	0.12	mg/Kg	☼	07/16/24 16:39	07/18/24 00:14	1
PCB-1260	ND		0.25	0.12	mg/Kg	☼	07/16/24 16:39	07/18/24 00:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*111*		*60 - 154*	*07/16/24 16:39*	*07/18/24 00:14*	*1*
Tetrachloro-m-xylene	*97*		*60 - 154*	*07/16/24 16:39*	*07/18/24 00:14*	*1*
DCB Decachlorobiphenyl	*98*		*65 - 174*	*07/16/24 16:39*	*07/18/24 00:14*	*1*
DCB Decachlorobiphenyl	*103*		*65 - 174*	*07/16/24 16:39*	*07/18/24 00:14*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.87	0.22	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluoropentanoic acid (PFPeA)	ND		0.44	0.11	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluorohexanoic acid (PFHxA)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluoroheptanoic acid (PFHpA)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluorooctanoic acid (PFOA)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluorononanoic acid (PFNA)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluorodecanoic acid (PFDA)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluoroundecanoic acid (PFUnA)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluorododecanoic acid (PFDoA)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1

Client Sample ID: SB-04-38.0-42.0
Lab Sample ID: 480-221629-4
Date Collected: 07/12/24 12:50
Matrix: Solid
Date Received: 07/12/24 15:41
Percent Solids: 73.4

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanesulfonic acid (PFNS)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		0.87	0.22	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		0.87	0.22	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		0.87	0.22	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		2.2	0.55	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		2.2	0.55	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.87	0.22	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.87	0.22	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.44	0.11	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.44	0.11	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		0.87	0.22	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		0.87	0.22	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.44	0.11	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1.1	0.27	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		5.5	1.4	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		5.5	1.4	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.44	0.11	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*102*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:29*	*1*
13C5 PFPeA	*102*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:29*	*1*
13C5 PFHxA	*104*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:29*	*1*
13C4 PFHpA	*104*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:29*	*1*
13C8 PFOA	*79.9*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:29*	*1*
13C9 PFNA	*100*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:29*	*1*
13C6 PFDA	*95.0*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:29*	*1*
13C7 PFUnA	*109*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:29*	*1*

Client Sample ID: SB-04-38.0-42.0
Date Collected: 07/12/24 12:50
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-4
Matrix: Solid
Percent Solids: 73.4

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFTeDA	93.9		20 - 150	07/18/24 08:14	07/18/24 18:29	1
13C3 PFBS	97.4		20 - 150	07/18/24 08:14	07/18/24 18:29	1
13C3 PFHxS	96.1		20 - 150	07/18/24 08:14	07/18/24 18:29	1
13C8 PFOS	94.9		20 - 150	07/18/24 08:14	07/18/24 18:29	1
13C8 FOSA	87.2		20 - 150	07/18/24 08:14	07/18/24 18:29	1
d3-NMeFOSAA	83.3		20 - 150	07/18/24 08:14	07/18/24 18:29	1
d5-NEtFOSAA	122		20 - 150	07/18/24 08:14	07/18/24 18:29	1
M2-4:2 FTS	107		20 - 150	07/18/24 08:14	07/18/24 18:29	1
M2-6:2 FTS	128		20 - 150	07/18/24 08:14	07/18/24 18:29	1
M2-8:2 FTS	108		20 - 150	07/18/24 08:14	07/18/24 18:29	1
13C3 HFPO-DA	100		20 - 150	07/18/24 08:14	07/18/24 18:29	1
d7-N-MeFOSE-M	87.7		20 - 150	07/18/24 08:14	07/18/24 18:29	1
d9-N-EtFOSE-M	89.1		20 - 150	07/18/24 08:14	07/18/24 18:29	1
d5-NEtPFOSA	87.9		20 - 150	07/18/24 08:14	07/18/24 18:29	1
d3-NMePFOSA	83.0		20 - 150	07/18/24 08:14	07/18/24 18:29	1
13C2-PFDoDA	96.5		20 - 150	07/18/24 08:14	07/18/24 18:29	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**27600**		13.0	11.2	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Antimony	ND		19.6	0.69	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Arsenic	**3.5**		2.6	1.1	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Barium	**170**		0.65	0.18	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Beryllium	**1.2**		0.26	0.052	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Cadmium	**0.31**		0.26	0.091	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Calcium	**46100**		65.2	35.2	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Chromium	**33.1**		0.65	0.47	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Cobalt	**15.0**		0.65	0.13	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Copper	**22.0**		1.3	0.74	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Iron	**26100**		13.0	11.1	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Lead	**10.2**		1.3	0.60	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Magnesium	**15500**		26.1	11.1	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Manganese	**568**		1.3	0.37	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Nickel	**30.0**		6.5	0.33	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Potassium	**9120**		39.1	31.6	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Selenium	ND		5.2	1.0	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Silver	**0.32**	**J**	0.78	0.26	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Sodium	**567**		183	80.0	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Thallium	ND		7.8	0.99	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Vanadium	**50.3**		0.65	0.17	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Zinc	**61.2**		2.6	1.3	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.019**	**J**	0.027	0.0062	mg/Kg	☼	07/17/24 08:25	07/17/24 10:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.3	0.65	mg/Kg	☼	07/19/24 13:18	07/19/24 15:51	1

Client Sample ID: SB-05-0.0-0.2
Date Collected: 07/15/24 09:35
Date Received: 07/15/24 15:57

Lab Sample ID: 480-221655-1
Matrix: Solid
Percent Solids: 93.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		18000	4800	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
2,4,6-Trichlorophenol	ND		18000	3600	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
2,4-Dichlorophenol	ND		18000	1900	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
2,4-Dimethylphenol	ND		18000	4300	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
2,4-Dinitrophenol	ND		170000	83000	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
2,4-Dinitrotoluene	ND		18000	3700	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
2,6-Dinitrotoluene	ND		18000	2100	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
2-Chloronaphthalene	ND		18000	3000	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
2-Chlorophenol	ND		35000	3300	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
2-Methylnaphthalene	ND		18000	3600	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
2-Methylphenol	ND		18000	2100	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
2-Nitroaniline	ND		35000	2600	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
2-Nitrophenol	ND		18000	5100	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
3,3'-Dichlorobenzidine	ND		35000	21000	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
3-Nitroaniline	ND		35000	5000	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
4,6-Dinitro-2-methylphenol	ND		35000	18000	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
4-Bromophenyl phenyl ether	ND		18000	2500	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
4-Chloro-3-methylphenol	ND		18000	4400	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
4-Chloroaniline	ND		18000	4400	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
4-Chlorophenyl phenyl ether	ND		18000	2200	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
4-Methylphenol	ND		35000	2100	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
4-Nitroaniline	ND		35000	9400	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
4-Nitrophenol	ND		35000	13000	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Acenaphthene	ND		18000	2600	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Acenaphthylene	ND		18000	2300	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Acetophenone	ND		18000	2400	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Anthracene	ND		18000	4400	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Atrazine	ND		18000	6200	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Benzaldehyde	ND		18000	14000	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Benzo[a]anthracene	ND		18000	1800	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Benzo[a]pyrene	ND		18000	2600	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Benzo[b]fluoranthene	ND		18000	2800	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Benzo[g,h,i]perylene	ND		18000	1900	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Benzo[k]fluoranthene	ND		18000	2300	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Biphenyl	ND		18000	2600	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
bis (2-chloroisopropyl) ether	ND		18000	3600	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Bis(2-chloroethoxy)methane	ND		18000	3800	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Bis(2-chloroethyl)ether	ND		18000	2300	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Bis(2-ethylhexyl) phthalate	ND		18000	6100	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Butyl benzyl phthalate	ND		18000	3000	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Caprolactam	ND		18000	5400	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Carbazole	ND		18000	2100	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Chrysene	ND		18000	4000	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Dibenz(a,h)anthracene	ND		18000	3200	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Dibenzofuran	ND		18000	2100	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Diethyl phthalate	ND		18000	2300	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Dimethyl phthalate	ND		18000	2100	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Di-n-butyl phthalate	ND		18000	3100	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Di-n-octyl phthalate	ND		18000	2100	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10

Client Sample ID: SB-05-0.0-0.2
Date Collected: 07/15/24 09:35
Date Received: 07/15/24 15:57

Lab Sample ID: 480-221655-1
Matrix: Solid
Percent Solids: 93.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		18000	1900	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Fluorene	ND		18000	2100	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Hexachlorobenzene	ND		18000	2400	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Hexachlorobutadiene	ND		18000	2600	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Hexachlorocyclopentadiene	ND		18000	2400	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Hexachloroethane	ND		18000	2300	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Indeno[1,2,3-cd]pyrene	ND		18000	2200	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Isophorone	ND		18000	3800	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Naphthalene	ND		18000	2300	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Nitrobenzene	ND		18000	2000	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
N-Nitrosodi-n-propylamine	ND		18000	3100	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
N-Nitrosodiphenylamine	ND		18000	15000	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Pentachlorophenol	ND		35000	18000	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Phenanthrene	ND		18000	2600	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Phenol	ND		18000	2700	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Pyrene	ND		18000	2100	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/17/24 07:16*	*07/18/24 18:23*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*237*	*S1+*	*26 - 143*	*07/17/24 07:16*	*07/18/24 18:23*	*10*
2-Fluorobiphenyl	*91*		*50 - 121*	*07/17/24 07:16*	*07/18/24 18:23*	*10*
2-Fluorophenol	*89*		*36 - 120*	*07/17/24 07:16*	*07/18/24 18:23*	*10*
Nitrobenzene-d5	*76*		*40 - 121*	*07/17/24 07:16*	*07/18/24 18:23*	*10*
Phenol-d5	*153*	*S1+*	*41 - 120*	*07/17/24 07:16*	*07/18/24 18:23*	*10*
p-Terphenyl-d14	*116*		*46 - 143*	*07/17/24 07:16*	*07/18/24 18:23*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		87	17	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
4,4'-DDE	ND		87	18	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
4,4'-DDT	ND		87	20	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
Aldrin	ND		87	21	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
alpha-BHC	ND		87	16	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
cis-Chlordane	ND		87	43	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
beta-BHC	ND		87	16	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
delta-BHC	ND		87	16	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
Dieldrin	ND		87	21	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
Endosulfan I	ND		87	17	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
Endosulfan II	ND		87	16	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
Endosulfan sulfate	ND		87	16	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
Endrin	ND		87	17	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
Endrin aldehyde	ND		87	22	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
Endrin ketone	ND		87	21	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
gamma-BHC (Lindane)	ND		87	16	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
trans-Chlordane	ND		87	28	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
Heptachlor	ND		87	19	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
Heptachlor epoxide	ND		87	22	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
Methoxychlor	ND		87	18	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50

Client Sample ID: SB-05-0.0-0.2
Date Collected: 07/15/24 09:35
Date Received: 07/15/24 15:57

Lab Sample ID: 480-221655-1
Matrix: Solid
Percent Solids: 93.2

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	ND		870	500	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/16/24 16:34*	*07/17/24 12:41*	*50*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/16/24 16:34*	*07/17/24 12:41*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/16/24 16:34*	*07/17/24 12:41*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/16/24 16:34*	*07/17/24 12:41*	*50*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.23	0.044	mg/Kg	☼	07/16/24 16:39	07/17/24 23:23	1
PCB-1221	ND		0.23	0.044	mg/Kg	☼	07/16/24 16:39	07/17/24 23:23	1
PCB-1232	ND		0.23	0.044	mg/Kg	☼	07/16/24 16:39	07/17/24 23:23	1
PCB-1242	ND		0.23	0.044	mg/Kg	☼	07/16/24 16:39	07/17/24 23:23	1
PCB-1248	ND		0.23	0.044	mg/Kg	☼	07/16/24 16:39	07/17/24 23:23	1
PCB-1254	ND		0.23	0.11	mg/Kg	☼	07/16/24 16:39	07/17/24 23:23	1
PCB-1260	ND		0.23	0.11	mg/Kg	☼	07/16/24 16:39	07/17/24 23:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*93*		*60 - 154*	*07/16/24 16:39*	*07/17/24 23:23*	*1*
Tetrachloro-m-xylene	*83*		*60 - 154*	*07/16/24 16:39*	*07/17/24 23:23*	*1*
DCB Decachlorobiphenyl	*81*		*65 - 174*	*07/16/24 16:39*	*07/17/24 23:23*	*1*
DCB Decachlorobiphenyl	*83*		*65 - 174*	*07/16/24 16:39*	*07/17/24 23:23*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**12300**		10.4	9.0	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Antimony	**2.1**	J-	15.6	0.55	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Arsenic	**8.6**		2.1	0.91	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Barium	**78.2**		0.52	0.15	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Beryllium	**1.1**		0.21	0.042	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Cadmium	**1.2**		0.21	0.073	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Calcium	**55200**		52.0	28.0	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Chromium	**24.5**		0.52	0.37	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Cobalt	**7.9**		0.52	0.10	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Copper	**27.3**		1.0	0.59	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Iron	**20800**		10.4	8.8	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Lead	**93.6**	J-	1.0	0.48	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Magnesium	**31900**		20.8	8.8	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Manganese	**465**		1.0	0.29	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Nickel	**19.7**		5.2	0.26	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Potassium	**2540**		31.2	25.2	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Selenium	**1.3**	J	4.2	0.83	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Silver	ND		0.62	0.21	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Sodium	**293**		145	63.7	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Thallium	ND		6.2	0.79	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Vanadium	**31.0**		0.52	0.14	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Zinc	**223**	J+	2.1	1.1	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1

Client Sample ID: SB-05-0.0-0.2
Lab Sample ID: 480-221655-1

Date Collected: 07/15/24 09:35
Matrix: Solid
Date Received: 07/15/24 15:57
Percent Solids: 93.2

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.031**		0.021	0.0049	mg/Kg	☼	07/17/24 08:25	07/17/24 10:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND	UJ	1.1	0.51	mg/Kg	☼	07/19/24 13:18	07/19/24 15:34	1

Client Sample ID: SB-05-27.0-29.0
Lab Sample ID: 480-221655-2

Date Collected: 07/15/24 11:45
Matrix: Solid
Date Received: 07/15/24 15:57
Percent Solids: 84.7

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		3.7	0.27	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
1,1,2,2-Tetrachloroethane	ND		3.7	0.59	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.7	0.83	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
1,1,2-Trichloroethane	ND		3.7	0.47	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
1,1-Dichloroethane	ND		3.7	0.45	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
1,1-Dichloroethene	ND		3.7	0.45	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
1,2,4-Trichlorobenzene	ND		3.7	0.22	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
1,2-Dibromo-3-Chloropropane	ND		3.7	1.8	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
1,2-Dibromoethane	ND		3.7	0.47	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
1,2-Dichlorobenzene	ND		3.7	0.29	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
1,2-Dichloroethane	ND		3.7	0.18	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
1,2-Dichloropropane	ND		3.7	1.8	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
1,3-Dichlorobenzene	ND		3.7	0.19	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
1,4-Dichlorobenzene	ND		3.7	0.51	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
2-Butanone (MEK)	ND		18	1.3	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
2-Hexanone	ND		18	1.8	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
4-Methyl-2-pentanone (MIBK)	ND		18	1.2	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Acetone	**7.4**	**J**	18	3.1	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Benzene	ND		3.7	0.18	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Bromodichloromethane	ND		3.7	0.49	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Bromoform	ND		3.7	1.8	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Bromomethane	ND		3.7	0.33	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Carbon disulfide	ND		3.7	1.8	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Carbon tetrachloride	ND		3.7	0.35	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Chlorobenzene	ND		3.7	0.48	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Chloroethane	ND		3.7	0.82	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Chloroform	ND		3.7	0.23	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Chloromethane	ND		3.7	0.22	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
cis-1,2-Dichloroethene	ND		3.7	0.47	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
cis-1,3-Dichloropropene	ND		3.7	0.53	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Cyclohexane	ND		3.7	0.51	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Dibromochloromethane	ND		3.7	0.47	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Dichlorodifluoromethane	ND		3.7	0.30	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Ethylbenzene	ND		3.7	0.25	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Isopropylbenzene	ND		3.7	0.55	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Methyl acetate	ND		18	2.2	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Methyl tert-butyl ether	ND		3.7	0.36	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Methylcyclohexane	ND		3.7	0.55	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1

Client Sample ID: SB-05-27.0-29.0
Lab Sample ID: 480-221655-2
Date Collected: 07/15/24 11:45
Matrix: Solid
Date Received: 07/15/24 15:57
Percent Solids: 84.7

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	2.9	J	3.7	1.7	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Styrene	ND		3.7	0.18	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Tetrachloroethene	ND		3.7	0.49	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Toluene	ND		3.7	0.28	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
trans-1,2-Dichloroethene	ND		3.7	0.38	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
trans-1,3-Dichloropropene	ND		3.7	1.6	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Trichloroethene	ND		3.7	0.80	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Trichlorofluoromethane	ND		3.7	0.35	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Vinyl chloride	ND		3.7	0.45	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Xylenes, Total	ND		7.3	0.61	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/16/24 10:00*	*07/17/24 02:06*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*64 - 126*	*07/16/24 10:00*	*07/17/24 02:06*	*1*
4-Bromofluorobenzene (Surr)	*103*		*72 - 126*	*07/16/24 10:00*	*07/17/24 02:06*	*1*
Dibromofluoromethane (Surr)	*103*		*60 - 140*	*07/16/24 10:00*	*07/17/24 02:06*	*1*
Toluene-d8 (Surr)	*97*		*71 - 125*	*07/16/24 10:00*	*07/17/24 02:06*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		200	54	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
2,4,6-Trichlorophenol	ND		200	40	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
2,4-Dichlorophenol	ND		200	21	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
2,4-Dimethylphenol	ND		200	48	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
2,4-Dinitrophenol	ND		1900	920	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
2,4-Dinitrotoluene	ND		200	41	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
2,6-Dinitrotoluene	ND		200	23	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
2-Chloronaphthalene	ND		200	33	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
2-Chlorophenol	ND		390	36	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
2-Methylnaphthalene	ND		200	40	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
2-Methylphenol	ND		200	23	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
2-Nitroaniline	ND		390	29	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
2-Nitrophenol	ND		200	56	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
3,3'-Dichlorobenzidine	ND		390	230	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
3-Nitroaniline	ND		390	55	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
4,6-Dinitro-2-methylphenol	ND		390	200	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
4-Bromophenyl phenyl ether	ND		200	28	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
4-Chloro-3-methylphenol	ND		200	49	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
4-Chloroaniline	ND		200	49	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
4-Chlorophenyl phenyl ether	ND		200	25	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
4-Methylphenol	ND		390	23	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
4-Nitroaniline	ND		390	100	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
4-Nitrophenol	ND		390	140	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Acenaphthene	ND		200	29	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Acenaphthylene	ND		200	26	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Acetophenone	ND		200	27	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Anthracene	ND		200	49	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Atrazine	ND		200	69	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1

Client Sample ID: SB-05-27.0-29.0
Lab Sample ID: 480-221655-2
Date Collected: 07/15/24 11:45
Matrix: Solid
Date Received: 07/15/24 15:57
Percent Solids: 84.7

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzaldehyde	ND		200	160	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Benzo[a]anthracene	ND		200	20	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Benzo[a]pyrene	ND		200	29	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Benzo[b]fluoranthene	ND		200	32	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Benzo[g,h,i]perylene	ND		200	21	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Benzo[k]fluoranthene	ND		200	26	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Biphenyl	ND		200	29	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
bis (2-chloroisopropyl) ether	ND		200	40	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Bis(2-chloroethoxy)methane	ND		200	42	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Bis(2-chloroethyl)ether	ND		200	26	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Bis(2-ethylhexyl) phthalate	ND		200	68	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Butyl benzyl phthalate	ND		200	33	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Caprolactam	ND		200	60	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Carbazole	ND		200	23	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Chrysene	ND		200	44	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Dibenz(a,h)anthracene	ND		200	35	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Dibenzofuran	ND		200	23	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Diethyl phthalate	ND		200	26	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Dimethyl phthalate	ND		200	23	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Di-n-butyl phthalate	ND		200	34	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Di-n-octyl phthalate	ND		200	23	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Fluoranthene	ND		200	21	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Fluorene	ND		200	23	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Hexachlorobenzene	ND		200	27	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Hexachlorobutadiene	ND		200	29	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Hexachlorocyclopentadiene	ND		200	27	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Hexachloroethane	ND		200	26	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Indeno[1,2,3-cd]pyrene	ND		200	25	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Isophorone	ND		200	42	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Naphthalene	ND		200	26	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Nitrobenzene	ND		200	22	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
N-Nitrosodi-n-propylamine	ND		200	34	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
N-Nitrosodiphenylamine	ND		200	160	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Pentachlorophenol	ND		390	200	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Phenanthrene	ND		200	29	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Phenol	ND		200	30	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Pyrene	ND		200	23	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*1500*	*T J*	*ug/Kg*	☼	*1.80*	*N/A*	*07/17/24 07:16*	*07/18/24 18:51*	*1*
Unknown	*2100*	*T J*	*ug/Kg*	☼	*1.94*	*N/A*	*07/17/24 07:16*	*07/18/24 18:51*	*1*
Unknown	*960*	*T J*	*ug/Kg*	☼	*3.35*	*N/A*	*07/17/24 07:16*	*07/18/24 18:51*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*103*		*26 - 143*	*07/17/24 07:16*	*07/18/24 18:51*	*1*
2-Fluorobiphenyl	*86*		*50 - 121*	*07/17/24 07:16*	*07/18/24 18:51*	*1*
2-Fluorophenol	*76*		*36 - 120*	*07/17/24 07:16*	*07/18/24 18:51*	*1*
Nitrobenzene-d5	*95*		*40 - 121*	*07/17/24 07:16*	*07/18/24 18:51*	*1*
Phenol-d5	*92*		*41 - 120*	*07/17/24 07:16*	*07/18/24 18:51*	*1*
p-Terphenyl-d14	*95*		*46 - 143*	*07/17/24 07:16*	*07/18/24 18:51*	*1*

Client Sample ID: SB-05-27.0-29.0
Date Collected: 07/15/24 11:45
Date Received: 07/15/24 15:57

Lab Sample ID: 480-221655-2
Matrix: Solid
Percent Solids: 84.7

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1.9	0.37	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
4,4'-DDE	ND		1.9	0.40	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
4,4'-DDT	ND		1.9	0.45	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
Aldrin	ND		1.9	0.47	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
alpha-BHC	ND		1.9	0.34	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
cis-Chlordane	ND		1.9	0.95	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
beta-BHC	ND		1.9	0.34	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
delta-BHC	ND		1.9	0.36	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
Dieldrin	ND		1.9	0.46	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
Endosulfan I	ND		1.9	0.37	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
Endosulfan II	ND		1.9	0.34	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
Endosulfan sulfate	ND		1.9	0.36	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
Endrin	ND		1.9	0.38	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
Endrin aldehyde	ND		1.9	0.49	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
Endrin ketone	ND		1.9	0.47	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
gamma-BHC (Lindane)	ND		1.9	0.35	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
trans-Chlordane	ND		1.9	0.61	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
Heptachlor	ND		1.9	0.41	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
Heptachlor epoxide	ND		1.9	0.49	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
Methoxychlor	ND		1.9	0.39	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
Toxaphene	ND		19	11	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*67*		*45 - 120*	*07/16/24 16:34*	*07/17/24 13:59*	*1*
DCB Decachlorobiphenyl	*69*		*45 - 120*	*07/16/24 16:34*	*07/17/24 13:59*	*1*
Tetrachloro-m-xylene	*61*		*30 - 124*	*07/16/24 16:34*	*07/17/24 13:59*	*1*
Tetrachloro-m-xylene	*69*		*30 - 124*	*07/16/24 16:34*	*07/17/24 13:59*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.22	0.043	mg/Kg	☼	07/16/24 16:39	07/18/24 00:30	1
PCB-1221	ND		0.22	0.043	mg/Kg	☼	07/16/24 16:39	07/18/24 00:30	1
PCB-1232	ND		0.22	0.043	mg/Kg	☼	07/16/24 16:39	07/18/24 00:30	1
PCB-1242	ND		0.22	0.043	mg/Kg	☼	07/16/24 16:39	07/18/24 00:30	1
PCB-1248	ND		0.22	0.043	mg/Kg	☼	07/16/24 16:39	07/18/24 00:30	1
PCB-1254	ND		0.22	0.10	mg/Kg	☼	07/16/24 16:39	07/18/24 00:30	1
PCB-1260	ND		0.22	0.10	mg/Kg	☼	07/16/24 16:39	07/18/24 00:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*116*		*60 - 154*	*07/16/24 16:39*	*07/18/24 00:30*	*1*
Tetrachloro-m-xylene	*99*		*60 - 154*	*07/16/24 16:39*	*07/18/24 00:30*	*1*
DCB Decachlorobiphenyl	*103*		*65 - 174*	*07/16/24 16:39*	*07/18/24 00:30*	*1*
DCB Decachlorobiphenyl	*110*		*65 - 174*	*07/16/24 16:39*	*07/18/24 00:30*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**19000**		12.5	10.8	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Antimony	ND		18.8	0.66	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Arsenic	**2.8**		2.5	1.1	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Barium	**122**		0.63	0.18	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1

Client Sample ID: SB-05-27.0-29.0
Lab Sample ID: 480-221655-2

Date Collected: 07/15/24 11:45
Matrix: Solid
Date Received: 07/15/24 15:57
Percent Solids: 84.7

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.82		0.25	0.050	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Cadmium	0.25		0.25	0.088	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Calcium	48000		62.7	33.9	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Chromium	23.2		0.63	0.45	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Cobalt	12.2		0.63	0.13	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Copper	16.8		1.3	0.72	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Iron	20400		12.5	10.6	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Lead	10.4		1.3	0.58	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Magnesium	15800		25.1	10.6	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Manganese	538		1.3	0.35	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Nickel	23.1		6.3	0.31	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Potassium	6300		37.6	30.4	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Selenium	1.4	J	5.0	1.0	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Silver	ND		0.75	0.25	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Sodium	383		176	76.9	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Thallium	ND		7.5	0.95	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Vanadium	35.9		0.63	0.16	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Zinc	58.1		2.5	1.3	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.011	J	0.023	0.0053	mg/Kg	☼	07/17/24 08:25	07/17/24 10:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.1	0.55	mg/Kg	☼	07/19/24 13:18	07/19/24 15:38	1

Client Sample ID: SB-05-32.0-33.0
Lab Sample ID: 480-221655-3

Date Collected: 07/15/24 12:10
Matrix: Solid
Date Received: 07/15/24 15:57
Percent Solids: 83.4

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.8	0.35	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
1,1,2,2-Tetrachloroethane	ND		4.8	0.78	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.8	1.1	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
1,1,2-Trichloroethane	ND		4.8	0.63	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
1,1-Dichloroethane	ND		4.8	0.59	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
1,1-Dichloroethene	ND		4.8	0.59	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
1,2,4-Trichlorobenzene	ND		4.8	0.29	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
1,2-Dibromo-3-Chloropropane	ND		4.8	2.4	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
1,2-Dibromoethane	ND		4.8	0.62	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
1,2-Dichlorobenzene	ND		4.8	0.38	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
1,2-Dichloroethane	ND		4.8	0.24	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
1,2-Dichloropropane	ND		4.8	2.4	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
1,3-Dichlorobenzene	ND		4.8	0.25	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
1,4-Dichlorobenzene	ND		4.8	0.67	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
2-Butanone (MEK)	ND		24	1.8	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
2-Hexanone	ND		24	2.4	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
4-Methyl-2-pentanone (MIBK)	ND		24	1.6	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1

Client Sample ID: SB-05-32.0-33.0
Lab Sample ID: 480-221655-3
Date Collected: 07/15/24 12:10
Matrix: Solid
Date Received: 07/15/24 15:57
Percent Solids: 83.4

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**8.7**	**J**	24	4.1	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Benzene	ND		4.8	0.24	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Bromodichloromethane	ND		4.8	0.65	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Bromoform	ND		4.8	2.4	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Bromomethane	ND		4.8	0.43	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Carbon disulfide	ND		4.8	2.4	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Carbon tetrachloride	ND		4.8	0.47	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Chlorobenzene	ND		4.8	0.64	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Chloroethane	ND		4.8	1.1	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Chloroform	ND		4.8	0.30	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Chloromethane	ND		4.8	0.29	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
cis-1,2-Dichloroethene	ND		4.8	0.62	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
cis-1,3-Dichloropropene	ND		4.8	0.69	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Cyclohexane	ND		4.8	0.67	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Dibromochloromethane	ND		4.8	0.62	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Dichlorodifluoromethane	ND		4.8	0.40	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Ethylbenzene	ND		4.8	0.33	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Isopropylbenzene	ND		4.8	0.73	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Methyl acetate	ND		24	2.9	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Methyl tert-butyl ether	ND		4.8	0.47	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Methylcyclohexane	ND		4.8	0.73	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Methylene Chloride	**5.0**		4.8	2.2	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Styrene	ND		4.8	0.24	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Tetrachloroethene	ND		4.8	0.65	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Toluene	ND		4.8	0.36	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
trans-1,2-Dichloroethene	ND		4.8	0.50	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
trans-1,3-Dichloropropene	ND		4.8	2.1	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Trichloroethene	ND		4.8	1.1	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Trichlorofluoromethane	ND		4.8	0.46	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Vinyl chloride	ND		4.8	0.59	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Xylenes, Total	ND		9.6	0.81	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/16/24 10:00*	*07/17/24 02:29*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*64 - 126*	*07/16/24 10:00*	*07/17/24 02:29*	*1*
4-Bromofluorobenzene (Surr)	*103*		*72 - 126*	*07/16/24 10:00*	*07/17/24 02:29*	*1*
Dibromofluoromethane (Surr)	*101*		*60 - 140*	*07/16/24 10:00*	*07/17/24 02:29*	*1*
Toluene-d8 (Surr)	*98*		*71 - 125*	*07/16/24 10:00*	*07/17/24 02:29*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		200	55	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
2,4,6-Trichlorophenol	ND		200	41	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
2,4-Dichlorophenol	ND		200	21	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
2,4-Dimethylphenol	ND		200	49	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
2,4-Dinitrophenol	ND		2000	930	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
2,4-Dinitrotoluene	ND		200	42	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
2,6-Dinitrotoluene	ND		200	24	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1

Client Sample ID: SB-05-32.0-33.0
Lab Sample ID: 480-221655-3

Date Collected: 07/15/24 12:10
Matrix: Solid

Date Received: 07/15/24 15:57
Percent Solids: 83.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	ND		200	33	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
2-Chlorophenol	ND		390	37	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
2-Methylnaphthalene	ND		200	41	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
2-Methylphenol	ND		200	24	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
2-Nitroaniline	ND		390	30	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
2-Nitrophenol	ND		200	57	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
3,3'-Dichlorobenzidine	ND		390	240	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
3-Nitroaniline	ND		390	56	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
4,6-Dinitro-2-methylphenol	ND		390	200	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
4-Bromophenyl phenyl ether	ND		200	29	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
4-Chloro-3-methylphenol	ND		200	50	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
4-Chloroaniline	ND		200	50	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
4-Chlorophenyl phenyl ether	ND		200	25	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
4-Methylphenol	ND		390	24	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
4-Nitroaniline	ND		390	110	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
4-Nitrophenol	ND		390	140	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Acenaphthene	ND		200	30	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Acenaphthylene	ND		200	26	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Acetophenone	ND		200	27	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Anthracene	ND		200	50	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Atrazine	ND		200	70	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Benzaldehyde	ND		200	160	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Benzo[a]anthracene	ND		200	20	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Benzo[a]pyrene	ND		200	30	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Benzo[b]fluoranthene	ND		200	32	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Benzo[g,h,i]perylene	ND		200	21	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Benzo[k]fluoranthene	ND		200	26	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Biphenyl	ND		200	30	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
bis (2-chloroisopropyl) ether	ND		200	41	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Bis(2-chloroethoxy)methane	ND		200	43	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Bis(2-chloroethyl)ether	ND		200	26	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Bis(2-ethylhexyl) phthalate	ND		200	69	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Butyl benzyl phthalate	ND		200	33	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Caprolactam	ND		200	61	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Carbazole	ND		200	24	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Chrysene	ND		200	45	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Dibenz(a,h)anthracene	ND		200	36	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Dibenzofuran	ND		200	24	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Diethyl phthalate	ND		200	26	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Dimethyl phthalate	ND		200	24	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Di-n-butyl phthalate	ND		200	35	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Di-n-octyl phthalate	ND		200	24	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Fluoranthene	ND		200	21	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Fluorene	ND		200	24	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Hexachlorobenzene	ND		200	27	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Hexachlorobutadiene	ND		200	30	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Hexachlorocyclopentadiene	ND		200	27	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Hexachloroethane	ND		200	26	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Indeno[1,2,3-cd]pyrene	ND		200	25	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1

Client Sample ID: SB-05-32.0-33.0
Lab Sample ID: 480-221655-3
Date Collected: 07/15/24 12:10
Matrix: Solid
Date Received: 07/15/24 15:57
Percent Solids: 83.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isophorone	ND		200	43	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Naphthalene	ND		200	26	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Nitrobenzene	ND		200	23	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
N-Nitrosodi-n-propylamine	ND		200	35	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
N-Nitrosodiphenylamine	ND		200	160	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Pentachlorophenol	ND		390	200	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Phenanthrene	ND		200	30	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Phenol	ND		200	31	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Pyrene	ND		200	24	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*220*	*T J*	*ug/Kg*	☼	*1.69*	*N/A*	*07/17/24 07:16*	*07/18/24 19:18*	*1*
Unknown	*2100*	*T J*	*ug/Kg*	☼	*1.94*	*N/A*	*07/17/24 07:16*	*07/18/24 19:18*	*1*
Unknown	*1100*	*T J*	*ug/Kg*	☼	*3.36*	*N/A*	*07/17/24 07:16*	*07/18/24 19:18*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*99*		*26 - 143*	*07/17/24 07:16*	*07/18/24 19:18*	*1*
2-Fluorobiphenyl	*91*		*50 - 121*	*07/17/24 07:16*	*07/18/24 19:18*	*1*
2-Fluorophenol	*94*		*36 - 120*	*07/17/24 07:16*	*07/18/24 19:18*	*1*
Nitrobenzene-d5	*76*		*40 - 121*	*07/17/24 07:16*	*07/18/24 19:18*	*1*
Phenol-d5	*101*		*41 - 120*	*07/17/24 07:16*	*07/18/24 19:18*	*1*
p-Terphenyl-d14	*91*		*46 - 143*	*07/17/24 07:16*	*07/18/24 19:18*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.0	0.39	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
4,4'-DDE	ND		2.0	0.42	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
4,4'-DDT	ND		2.0	0.47	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
Aldrin	ND		2.0	0.49	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
alpha-BHC	ND		2.0	0.36	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
cis-Chlordane	ND		2.0	0.99	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
beta-BHC	ND		2.0	0.36	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
delta-BHC	ND		2.0	0.37	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
Dieldrin	ND		2.0	0.48	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
Endosulfan I	ND		2.0	0.38	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
Endosulfan II	ND		2.0	0.36	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
Endosulfan sulfate	ND		2.0	0.37	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
Endrin	ND		2.0	0.39	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
Endrin aldehyde	ND		2.0	0.51	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
Endrin ketone	ND		2.0	0.49	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
gamma-BHC (Lindane)	ND		2.0	0.37	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
trans-Chlordane	ND		2.0	0.63	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
Heptachlor	ND		2.0	0.43	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
Heptachlor epoxide	ND		2.0	0.51	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
Methoxychlor	ND		2.0	0.41	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
Toxaphene	ND		20	12	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*69*		*45 - 120*	*07/16/24 16:34*	*07/17/24 14:19*	*1*
DCB Decachlorobiphenyl	*67*		*45 - 120*	*07/16/24 16:34*	*07/17/24 14:19*	*1*

Client Sample ID: SB-05-32.0-33.0
Date Collected: 07/15/24 12:10
Date Received: 07/15/24 15:57

Lab Sample ID: 480-221655-3
Matrix: Solid
Percent Solids: 83.4

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*57*		*30 - 124*	*07/16/24 16:34*	*07/17/24 14:19*	*1*
Tetrachloro-m-xylene	*71*		*30 - 124*	*07/16/24 16:34*	*07/17/24 14:19*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.21	0.042	mg/Kg	☼	07/16/24 16:39	07/18/24 00:47	1
PCB-1221	ND		0.21	0.042	mg/Kg	☼	07/16/24 16:39	07/18/24 00:47	1
PCB-1232	ND		0.21	0.042	mg/Kg	☼	07/16/24 16:39	07/18/24 00:47	1
PCB-1242	ND		0.21	0.042	mg/Kg	☼	07/16/24 16:39	07/18/24 00:47	1
PCB-1248	ND		0.21	0.042	mg/Kg	☼	07/16/24 16:39	07/18/24 00:47	1
PCB-1254	ND		0.21	0.10	mg/Kg	☼	07/16/24 16:39	07/18/24 00:47	1
PCB-1260	ND		0.21	0.10	mg/Kg	☼	07/16/24 16:39	07/18/24 00:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*114*		*60 - 154*	*07/16/24 16:39*	*07/18/24 00:47*	*1*
Tetrachloro-m-xylene	*97*		*60 - 154*	*07/16/24 16:39*	*07/18/24 00:47*	*1*
DCB Decachlorobiphenyl	*100*		*65 - 174*	*07/16/24 16:39*	*07/18/24 00:47*	*1*
DCB Decachlorobiphenyl	*109*		*65 - 174*	*07/16/24 16:39*	*07/18/24 00:47*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**19500**		12.7	11.0	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Antimony	**1.0**	**J**	19.1	0.68	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Arsenic	**2.8**		2.5	1.1	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Barium	**123**		0.64	0.18	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Beryllium	**0.84**		0.25	0.051	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Cadmium	**0.25**		0.25	0.089	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Calcium	**48600**		63.7	34.4	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Chromium	**23.7**		0.64	0.46	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Cobalt	**11.2**		0.64	0.13	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Copper	**16.2**		1.3	0.73	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Iron	**19700**		12.7	10.8	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Lead	**10**		1.3	0.59	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Magnesium	**16600**		25.5	10.8	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Manganese	**512**		1.3	0.36	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Nickel	**22.0**		6.4	0.32	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Potassium	**6740**		38.2	30.9	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Selenium	ND		5.1	1.0	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Silver	ND		0.76	0.25	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Sodium	**501**		178	78.2	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Thallium	ND		7.6	0.97	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Vanadium	**34.7**		0.64	0.17	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Zinc	**55.5**		2.5	1.3	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.010**	**J**	0.025	0.0057	mg/Kg	☼	07/17/24 08:25	07/17/24 10:21	1

Client Sample ID: SB-05-32.0-33.0
Lab Sample ID: 480-221655-3
Date Collected: 07/15/24 12:10
Matrix: Solid
Date Received: 07/15/24 15:57
Percent Solids: 83.4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.0	0.51	mg/Kg	☼	07/19/24 13:18	07/19/24 15:40	1

Client Sample ID: SB-03-0.0-0.2
Lab Sample ID: 480-221655-4
Date Collected: 07/15/24 12:20
Matrix: Solid
Date Received: 07/15/24 15:57
Percent Solids: 89.1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		1900	510	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
2,4,6-Trichlorophenol	ND		1900	380	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
2,4-Dichlorophenol	ND		1900	200	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
2,4-Dimethylphenol	ND		1900	450	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
2,4-Dinitrophenol	ND		18000	8700	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
2,4-Dinitrotoluene	ND		1900	390	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
2,6-Dinitrotoluene	ND		1900	220	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
2-Chloronaphthalene	ND		1900	310	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
2-Chlorophenol	ND		3700	340	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
2-Methylnaphthalene	ND		1900	380	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
2-Methylphenol	ND		1900	220	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
2-Nitroaniline	ND		3700	280	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
2-Nitrophenol	ND		1900	530	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
3,3'-Dichlorobenzidine	ND		3700	2200	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
3-Nitroaniline	ND		3700	520	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
4,6-Dinitro-2-methylphenol	ND		3700	1900	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
4-Bromophenyl phenyl ether	ND		1900	270	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
4-Chloro-3-methylphenol	ND		1900	470	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
4-Chloroaniline	ND		1900	470	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
4-Chlorophenyl phenyl ether	ND		1900	230	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
4-Methylphenol	ND		3700	220	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
4-Nitroaniline	ND		3700	990	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
4-Nitrophenol	ND		3700	1300	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Acenaphthene	ND		1900	280	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Acenaphthylene	ND		1900	240	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Acetophenone	ND		1900	250	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Anthracene	ND		1900	470	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Atrazine	ND		1900	650	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Benzaldehyde	ND		1900	1500	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Benzo[a]anthracene	**490**	**J**	1900	190	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Benzo[a]pyrene	**570**	**J**	1900	280	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Benzo[b]fluoranthene	**910**	**J**	1900	300	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Benzo[g,h,i]perylene	**430**	**J**	1900	200	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Benzo[k]fluoranthene	**330**	**J**	1900	240	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Biphenyl	ND		1900	280	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
bis (2-chloroisopropyl) ether	ND		1900	380	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Bis(2-chloroethoxy)methane	ND		1900	400	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Bis(2-chloroethyl)ether	ND		1900	240	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Bis(2-ethylhexyl) phthalate	ND		1900	640	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Butyl benzyl phthalate	ND		1900	310	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Caprolactam	ND		1900	570	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Carbazole	ND		1900	220	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10

Client Sample ID: SB-03-0.0-0.2
Date Collected: 07/15/24 12:20
Date Received: 07/15/24 15:57

Lab Sample ID: 480-221655-4
Matrix: Solid
Percent Solids: 89.1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	**610**	**J**	1900	420	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Dibenz(a,h)anthracene	ND		1900	330	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Dibenzofuran	ND		1900	220	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Diethyl phthalate	ND		1900	240	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Dimethyl phthalate	ND		1900	220	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Di-n-butyl phthalate	ND		1900	320	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Di-n-octyl phthalate	ND		1900	220	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Fluoranthene	**970**	**J**	1900	200	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Fluorene	ND		1900	220	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Hexachlorobenzene	ND		1900	250	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Hexachlorobutadiene	ND		1900	280	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Hexachlorocyclopentadiene	ND		1900	250	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Hexachloroethane	ND		1900	240	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Indeno[1,2,3-cd]pyrene	**400**	**J**	1900	230	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Isophorone	ND		1900	400	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Naphthalene	ND		1900	240	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Nitrobenzene	ND		1900	210	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
N-Nitrosodi-n-propylamine	ND		1900	320	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
N-Nitrosodiphenylamine	ND		1900	1500	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Pentachlorophenol	ND		3700	1900	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Phenanthrene	**450**	**J**	1900	280	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Phenol	ND		1900	290	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Pyrene	**730**	**J**	1900	220	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*2600*	*T J*	*ug/Kg*	☼	*1.73*	*N/A*	*07/17/24 07:16*	*07/18/24 19:46*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*95*		*26 - 143*	*07/17/24 07:16*	*07/18/24 19:46*	*10*
2-Fluorobiphenyl	*76*		*50 - 121*	*07/17/24 07:16*	*07/18/24 19:46*	*10*
2-Fluorophenol	*104*		*36 - 120*	*07/17/24 07:16*	*07/18/24 19:46*	*10*
Nitrobenzene-d5	*80*		*40 - 121*	*07/17/24 07:16*	*07/18/24 19:46*	*10*
Phenol-d5	*125*	*S1+*	*41 - 120*	*07/17/24 07:16*	*07/18/24 19:46*	*10*
p-Terphenyl-d14	*84*		*46 - 143*	*07/17/24 07:16*	*07/18/24 19:46*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		37	7.1	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
4,4'-DDE	ND		37	7.7	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
4,4'-DDT	ND		37	8.6	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
Aldrin	ND		37	9.0	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
alpha-BHC	ND		37	6.6	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
cis-Chlordane	ND		37	18	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
beta-BHC	ND		37	6.6	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
delta-BHC	ND		37	6.8	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
Dieldrin	ND		37	8.8	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
Endosulfan I	ND		37	7.0	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
Endosulfan II	ND		37	6.6	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
Endosulfan sulfate	ND		37	6.8	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
Endrin	ND		37	7.3	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20

Client Sample ID: SB-03-0.0-0.2
Date Collected: 07/15/24 12:20
Date Received: 07/15/24 15:57

Lab Sample ID: 480-221655-4
Matrix: Solid
Percent Solids: 89.1

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin aldehyde	ND		37	9.4	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
Endrin ketone	ND		37	9.0	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
gamma-BHC (Lindane)	ND		37	6.7	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
trans-Chlordane	ND		37	12	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
Heptachlor	ND		37	7.9	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
Heptachlor epoxide	ND		37	9.5	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
Methoxychlor	ND		37	7.5	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
Toxaphene	ND		370	210	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/16/24 16:34*	*07/17/24 14:38*	*20*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/16/24 16:34*	*07/17/24 14:38*	*20*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/16/24 16:34*	*07/17/24 14:38*	*20*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/16/24 16:34*	*07/17/24 14:38*	*20*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.22	0.042	mg/Kg	☼	07/16/24 16:39	07/18/24 01:04	1
PCB-1221	ND		0.22	0.042	mg/Kg	☼	07/16/24 16:39	07/18/24 01:04	1
PCB-1232	ND		0.22	0.042	mg/Kg	☼	07/16/24 16:39	07/18/24 01:04	1
PCB-1242	ND		0.22	0.042	mg/Kg	☼	07/16/24 16:39	07/18/24 01:04	1
PCB-1248	ND		0.22	0.042	mg/Kg	☼	07/16/24 16:39	07/18/24 01:04	1
PCB-1254	ND		0.22	0.10	mg/Kg	☼	07/16/24 16:39	07/18/24 01:04	1
PCB-1260	ND		0.22	0.10	mg/Kg	☼	07/16/24 16:39	07/18/24 01:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*107*		*60 - 154*	*07/16/24 16:39*	*07/18/24 01:04*	*1*
Tetrachloro-m-xylene	*94*		*60 - 154*	*07/16/24 16:39*	*07/18/24 01:04*	*1*
DCB Decachlorobiphenyl	*97*		*65 - 174*	*07/16/24 16:39*	*07/18/24 01:04*	*1*
DCB Decachlorobiphenyl	*108*		*65 - 174*	*07/16/24 16:39*	*07/18/24 01:04*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**17000**		10.8	9.3	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Antimony	**1.8**	**J**	16.2	0.57	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Arsenic	**4.6**		2.2	0.95	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Barium	**132**		0.54	0.15	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Beryllium	**0.97**		0.22	0.043	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Cadmium	**0.56**		0.22	0.076	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Calcium	**71500**		54.0	29.2	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Chromium	**28.6**		0.54	0.39	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Cobalt	**10.7**		0.54	0.11	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Copper	**45.2**		1.1	0.62	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Iron	**23100**		10.8	9.2	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Lead	**62.1**		1.1	0.50	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Magnesium	**15000**		21.6	9.2	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Manganese	**763**		1.1	0.30	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Nickel	**24.7**		5.4	0.27	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Potassium	**4020**		32.4	26.2	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Selenium	**1.2**	**J**	4.3	0.86	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1

Client Sample ID: SB-03-5.0-7.0
Lab Sample ID: 480-222440-1

Date Collected: 08/08/24 10:05
Matrix: Solid

Date Received: 08/08/24 17:09
Percent Solids: 76.1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.7	0.34	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
1,1,2,2-Tetrachloroethane	ND		4.7	0.77	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.7	1.1	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
1,1,2-Trichloroethane	ND		4.7	0.61	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
1,1-Dichloroethane	ND		4.7	0.58	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
1,1-Dichloroethene	ND		4.7	0.58	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
1,2,4-Trichlorobenzene	ND		4.7	0.29	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
1,2-Dibromo-3-Chloropropane	ND		4.7	2.4	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
1,2-Dibromoethane	ND		4.7	0.61	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
1,2-Dichlorobenzene	ND		4.7	0.37	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
1,2-Dichloroethane	ND		4.7	0.24	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
1,2-Dichloropropane	ND		4.7	2.4	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
1,3-Dichlorobenzene	ND		4.7	0.24	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
1,4-Dichlorobenzene	ND		4.7	0.66	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
2-Butanone (MEK)	**21**	**J**	24	1.7	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
2-Hexanone	ND		24	2.4	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
4-Methyl-2-pentanone (MIBK)	ND		24	1.6	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Acetone	**110**		24	4.0	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Benzene	ND		4.7	0.23	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Bromodichloromethane	ND		4.7	0.63	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Bromoform	ND		4.7	2.4	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Bromomethane	ND		4.7	0.43	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Carbon disulfide	ND		4.7	2.4	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Carbon tetrachloride	ND		4.7	0.46	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Chlorobenzene	ND		4.7	0.62	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Chloroethane	ND		4.7	1.1	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Chloroform	ND		4.7	0.29	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Chloromethane	ND		4.7	0.29	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
cis-1,2-Dichloroethene	ND		4.7	0.61	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
cis-1,3-Dichloropropene	ND		4.7	0.68	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Cyclohexane	ND		4.7	0.66	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Dibromochloromethane	ND		4.7	0.61	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Dichlorodifluoromethane	ND		4.7	0.39	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Ethylbenzene	ND		4.7	0.33	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Isopropylbenzene	ND		4.7	0.71	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Methyl acetate	ND		24	2.9	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Methyl tert-butyl ether	ND		4.7	0.46	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Methylcyclohexane	ND		4.7	0.72	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Methylene Chloride	**3.6**	**J**	4.7	2.2	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Styrene	ND		4.7	0.24	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Tetrachloroethene	ND		4.7	0.63	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Toluene	ND		4.7	0.36	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
trans-1,2-Dichloroethene	ND		4.7	0.49	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
trans-1,3-Dichloropropene	ND		4.7	2.1	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Trichloroethene	ND		4.7	1.0	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Trichlorofluoromethane	ND		4.7	0.45	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Vinyl chloride	ND		4.7	0.58	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Xylenes, Total	ND		9.5	0.79	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1

Client Sample ID: SB-03-5.0-7.0
Date Collected: 08/08/24 10:05
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-1
Matrix: Solid
Percent Solids: 76.1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/Kg	☼		N/A	08/09/24 15:00	08/13/24 02:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		64 - 126	08/09/24 15:00	08/13/24 02:42	1
4-Bromofluorobenzene (Surr)	94		72 - 126	08/09/24 15:00	08/13/24 02:42	1
Dibromofluoromethane (Surr)	108		60 - 140	08/09/24 15:00	08/13/24 02:42	1
Toluene-d8 (Surr)	96		71 - 125	08/09/24 15:00	08/13/24 02:42	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		220	59	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
2,4,6-Trichlorophenol	ND		220	44	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
2,4-Dichlorophenol	ND		220	23	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
2,4-Dimethylphenol	ND		220	53	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
2,4-Dinitrophenol	ND		2100	1000	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
2,4-Dinitrotoluene	ND		220	45	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
2,6-Dinitrotoluene	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
2-Chloronaphthalene	ND		220	36	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
2-Chlorophenol	ND		430	40	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
2-Methylnaphthalene	ND		220	44	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
2-Methylphenol	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
2-Nitroaniline	ND		430	32	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
2-Nitrophenol	ND		220	62	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
3,3'-Dichlorobenzidine	ND		430	260	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
3-Nitroaniline	ND		430	61	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
4,6-Dinitro-2-methylphenol	ND		430	220	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
4-Bromophenyl phenyl ether	ND		220	31	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
4-Chloro-3-methylphenol	ND		220	54	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
4-Chloroaniline	ND		220	54	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
4-Chlorophenyl phenyl ether	ND		220	27	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
4-Methylphenol	ND		430	26	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
4-Nitroaniline	ND		430	110	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
4-Nitrophenol	ND		430	150	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Acenaphthene	ND		220	32	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Acenaphthylene	ND		220	28	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Acetophenone	ND		220	30	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Anthracene	ND		220	54	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Atrazine	ND		220	76	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Benzaldehyde	ND		220	170	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Benzo[a]anthracene	ND		220	22	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Benzo[a]pyrene	ND		220	32	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Benzo[b]fluoranthene	ND		220	35	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Benzo[g,h,i]perylene	ND		220	23	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Benzo[k]fluoranthene	ND		220	28	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Biphenyl	ND		220	32	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
bis (2-chloroisopropyl) ether	ND		220	44	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Bis(2-chloroethoxy)methane	ND		220	47	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Bis(2-chloroethyl)ether	ND		220	28	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Bis(2-ethylhexyl) phthalate	ND		220	75	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Butyl benzyl phthalate	ND		220	36	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1

Client Sample ID: SB-03-5.0-7.0
Lab Sample ID: 480-222440-1

Date Collected: 08/08/24 10:05
Matrix: Solid

Date Received: 08/08/24 17:09
Percent Solids: 76.1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Caprolactam	ND		220	66	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Carbazole	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Chrysene	ND		220	49	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Dibenz(a,h)anthracene	ND		220	39	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Dibenzofuran	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Diethyl phthalate	ND		220	28	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Dimethyl phthalate	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Di-n-butyl phthalate	ND		220	37	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Di-n-octyl phthalate	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Fluoranthene	ND		220	23	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Fluorene	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Hexachlorobenzene	ND		220	30	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Hexachlorobutadiene	ND		220	32	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Hexachlorocyclopentadiene	ND		220	30	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Hexachloroethane	ND		220	28	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Indeno[1,2,3-cd]pyrene	ND		220	27	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Isophorone	ND		220	47	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Naphthalene	ND		220	28	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Nitrobenzene	ND		220	25	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
N-Nitrosodi-n-propylamine	ND		220	37	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
N-Nitrosodiphenylamine	ND		220	180	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Pentachlorophenol	ND		430	220	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Phenanthrene	ND		220	32	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Phenol	ND		220	34	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Pyrene	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*2800*	*T J*	*ug/Kg*	☼	*1.91*	*N/A*	*08/11/24 07:25*	*08/12/24 13:13*	*1*
Unknown	*5600*	*T J*	*ug/Kg*	☼	*3.30*	*N/A*	*08/11/24 07:25*	*08/12/24 13:13*	*1*
Unknown	*260*	*T J*	*ug/Kg*	☼	*3.97*	*N/A*	*08/11/24 07:25*	*08/12/24 13:13*	*1*
1-Docosene	*370*	*T J N*	*ug/Kg*	☼	*13.13*	*1599-67-3*	*08/11/24 07:25*	*08/12/24 13:13*	*1*
Unknown	*450*	*T J*	*ug/Kg*	☼	*13.67*	*N/A*	*08/11/24 07:25*	*08/12/24 13:13*	*1*
Perylene	*880*	*T J N*	*ug/Kg*	☼	*14.42*	*198-55-0*	*08/11/24 07:25*	*08/12/24 13:13*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*100*		*26 - 143*	*08/11/24 07:25*	*08/12/24 13:13*	*1*
2-Fluorobiphenyl	*90*		*50 - 121*	*08/11/24 07:25*	*08/12/24 13:13*	*1*
2-Fluorophenol	*82*		*36 - 120*	*08/11/24 07:25*	*08/12/24 13:13*	*1*
Nitrobenzene-d5	*87*		*40 - 121*	*08/11/24 07:25*	*08/12/24 13:13*	*1*
Phenol-d5	*89*		*41 - 120*	*08/11/24 07:25*	*08/12/24 13:13*	*1*
p-Terphenyl-d14	*92*		*46 - 143*	*08/11/24 07:25*	*08/12/24 13:13*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.2	0.42	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
4,4'-DDE	ND		2.2	0.45	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
4,4'-DDT	ND		2.2	0.50	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
Aldrin	ND		2.2	0.53	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
alpha-BHC	ND		2.2	0.39	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
cis-Chlordane	ND		2.2	1.1	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1

Client Sample ID: SB-03-5.0-7.0
Date Collected: 08/08/24 10:05
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-1
Matrix: Solid
Percent Solids: 76.1

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
beta-BHC	ND		2.2	0.39	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
delta-BHC	ND		2.2	0.40	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
Dieldrin	ND		2.2	0.52	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
Endosulfan I	ND		2.2	0.41	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
Endosulfan II	ND		2.2	0.39	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
Endosulfan sulfate	ND		2.2	0.40	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
Endrin	ND		2.2	0.43	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
Endrin aldehyde	ND		2.2	0.55	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
Endrin ketone	ND		2.2	0.53	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
gamma-BHC (Lindane)	ND		2.2	0.40	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
trans-Chlordane	ND		2.2	0.68	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
Heptachlor	ND		2.2	0.47	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
Heptachlor epoxide	ND		2.2	0.56	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
Methoxychlor	ND		2.2	0.44	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
Toxaphene	ND		22	13	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*82*		*45 - 120*	*08/13/24 07:15*	*08/15/24 11:23*	*1*
DCB Decachlorobiphenyl	*93*		*45 - 120*	*08/13/24 07:15*	*08/15/24 11:23*	*1*
Tetrachloro-m-xylene	*59*		*30 - 124*	*08/13/24 07:15*	*08/15/24 11:23*	*1*
Tetrachloro-m-xylene	*76*		*30 - 124*	*08/13/24 07:15*	*08/15/24 11:23*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.32	0.062	mg/Kg	☼	08/11/24 07:13	08/13/24 03:50	1
PCB-1221	ND		0.32	0.062	mg/Kg	☼	08/11/24 07:13	08/13/24 03:50	1
PCB-1232	ND		0.32	0.062	mg/Kg	☼	08/11/24 07:13	08/13/24 03:50	1
PCB-1242	ND		0.32	0.062	mg/Kg	☼	08/11/24 07:13	08/13/24 03:50	1
PCB-1248	ND		0.32	0.062	mg/Kg	☼	08/11/24 07:13	08/13/24 03:50	1
PCB-1254	ND		0.32	0.15	mg/Kg	☼	08/11/24 07:13	08/13/24 03:50	1
PCB-1260	ND		0.32	0.15	mg/Kg	☼	08/11/24 07:13	08/13/24 03:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*111*		*60 - 154*	*08/11/24 07:13*	*08/13/24 03:50*	*1*
Tetrachloro-m-xylene	*91*		*60 - 154*	*08/11/24 07:13*	*08/13/24 03:50*	*1*
DCB Decachlorobiphenyl	*105*		*65 - 174*	*08/11/24 07:13*	*08/13/24 03:50*	*1*
DCB Decachlorobiphenyl	*102*		*65 - 174*	*08/11/24 07:13*	*08/13/24 03:50*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**32500**		13.8	11.9	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Antimony	ND		20.7	0.73	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Arsenic	**4.3**		2.8	1.2	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Barium	**180**		0.69	0.19	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Beryllium	**1.2**		0.28	0.055	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Cadmium	**0.40**		0.28	0.097	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Calcium	**4100**		68.9	37.2	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Chromium	**36.6**		0.69	0.50	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Cobalt	**16.6**		0.69	0.14	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Copper	**11.3**		1.4	0.79	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1

Client Sample ID: SB-03-5.0-7.0
Lab Sample ID: 480-222440-1

Date Collected: 08/08/24 10:05
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 76.1

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	37000		13.8	11.7	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Lead	22.4		1.4	0.63	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Magnesium	5910		27.6	11.7	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Manganese	2770		1.4	0.39	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Nickel	23.6		6.9	0.34	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Potassium	5280		41.4	33.4	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Selenium	1.6	J	5.5	1.1	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Silver	0.50	J	0.83	0.28	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Sodium	174	J	193	84.5	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Thallium	ND		8.3	1.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Vanadium	63.3		0.69	0.18	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Zinc	109		2.8	1.4	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.048		0.027	0.0063	mg/Kg	☼	08/13/24 08:15	08/13/24 10:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.60	mg/Kg	☼	08/15/24 11:45	08/16/24 17:53	1

Client Sample ID: SB-03-28.0-30.0
Lab Sample ID: 480-222440-2

Date Collected: 08/08/24 10:15
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 70.9

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		7.2	0.52	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
1,1,2,2-Tetrachloroethane	ND		7.2	1.2	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		7.2	1.6	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
1,1,2-Trichloroethane	ND		7.2	0.94	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
1,1-Dichloroethane	ND		7.2	0.88	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
1,1-Dichloroethene	ND		7.2	0.88	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
1,2,4-Trichlorobenzene	ND		7.2	0.44	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
1,2-Dibromo-3-Chloropropane	ND		7.2	3.6	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
1,2-Dibromoethane	ND		7.2	0.93	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
1,2-Dichlorobenzene	ND		7.2	0.56	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
1,2-Dichloroethane	ND		7.2	0.36	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
1,2-Dichloropropane	ND		7.2	3.6	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
1,3-Dichlorobenzene	ND		7.2	0.37	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
1,4-Dichlorobenzene	ND		7.2	1.0	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
2-Butanone (MEK)	ND		36	2.6	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
2-Hexanone	ND		36	3.6	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
4-Methyl-2-pentanone (MIBK)	ND		36	2.4	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Acetone	20	J	36	6.1	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Benzene	ND		7.2	0.35	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Bromodichloromethane	ND		7.2	0.97	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Bromoform	ND		7.2	3.6	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Bromomethane	ND		7.2	0.65	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Carbon disulfide	ND		7.2	3.6	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1

Client Sample ID: SB-03-28.0-30.0
Lab Sample ID: 480-222440-2

Date Collected: 08/08/24 10:15
Matrix: Solid

Date Received: 08/08/24 17:09
Percent Solids: 70.9

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	ND		7.2	0.70	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Chlorobenzene	ND		7.2	0.95	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Chloroethane	ND		7.2	1.6	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Chloroform	ND		7.2	0.45	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Chloromethane	ND		7.2	0.44	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
cis-1,2-Dichloroethene	ND		7.2	0.92	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
cis-1,3-Dichloropropene	ND		7.2	1.0	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Cyclohexane	ND		7.2	1.0	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Dibromochloromethane	ND		7.2	0.92	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Dichlorodifluoromethane	ND		7.2	0.60	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Ethylbenzene	ND		7.2	0.50	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Isopropylbenzene	ND		7.2	1.1	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Methyl acetate	ND		36	4.4	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Methyl tert-butyl ether	ND		7.2	0.71	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Methylcyclohexane	ND		7.2	1.1	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Methylene Chloride	**3.8**	**J**	7.2	3.3	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Styrene	ND		7.2	0.36	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Tetrachloroethene	ND		7.2	0.97	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Toluene	ND		7.2	0.55	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
trans-1,2-Dichloroethene	ND		7.2	0.75	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
trans-1,3-Dichloropropene	ND		7.2	3.2	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Trichloroethene	ND		7.2	1.6	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Trichlorofluoromethane	ND		7.2	0.68	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Vinyl chloride	ND		7.2	0.88	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Xylenes, Total	ND		14	1.2	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*08/09/24 15:00*	*08/13/24 03:06*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*64 - 126*	*08/09/24 15:00*	*08/13/24 03:06*	*1*
4-Bromofluorobenzene (Surr)	*93*		*72 - 126*	*08/09/24 15:00*	*08/13/24 03:06*	*1*
Dibromofluoromethane (Surr)	*110*		*60 - 140*	*08/09/24 15:00*	*08/13/24 03:06*	*1*
Toluene-d8 (Surr)	*96*		*71 - 125*	*08/09/24 15:00*	*08/13/24 03:06*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		230	63	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
2,4,6-Trichlorophenol	ND		230	47	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
2,4-Dichlorophenol	ND		230	25	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
2,4-Dimethylphenol	ND		230	57	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
2,4-Dinitrophenol	ND		2300	1100	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
2,4-Dinitrotoluene	ND		230	48	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
2,6-Dinitrotoluene	ND		230	28	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
2-Chloronaphthalene	ND		230	39	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
2-Chlorophenol	ND		460	43	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
2-Methylnaphthalene	ND		230	47	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
2-Methylphenol	ND		230	28	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
2-Nitroaniline	ND		460	34	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
2-Nitrophenol	ND		230	66	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1

Client Sample ID: SB-03-28.0-30.0
Lab Sample ID: 480-222440-2

Date Collected: 08/08/24 10:15
Matrix: Solid

Date Received: 08/08/24 17:09
Percent Solids: 70.9

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	ND		460	280	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
3-Nitroaniline	ND		460	65	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
4,6-Dinitro-2-methylphenol	ND		460	230	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
4-Bromophenyl phenyl ether	ND		230	33	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
4-Chloro-3-methylphenol	ND		230	58	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
4-Chloroaniline	ND		230	58	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
4-Chlorophenyl phenyl ether	ND		230	29	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
4-Methylphenol	ND		460	28	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
4-Nitroaniline	ND		460	120	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
4-Nitrophenol	ND		460	160	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Acenaphthene	ND		230	34	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Acenaphthylene	ND		230	30	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Acetophenone	ND		230	32	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Anthracene	ND		230	58	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Atrazine	ND		230	81	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Benzaldehyde	ND		230	190	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Benzo[a]anthracene	ND		230	23	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Benzo[a]pyrene	ND		230	34	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Benzo[b]fluoranthene	ND		230	37	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Benzo[g,h,i]perylene	ND		230	25	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Benzo[k]fluoranthene	ND		230	30	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Biphenyl	ND		230	34	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
bis (2-chloroisopropyl) ether	ND		230	47	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Bis(2-chloroethoxy)methane	ND		230	50	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Bis(2-chloroethyl)ether	ND		230	30	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Bis(2-ethylhexyl) phthalate	ND		230	80	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Butyl benzyl phthalate	ND		230	39	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Caprolactam	ND		230	70	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Carbazole	ND		230	28	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Chrysene	ND		230	52	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Dibenz(a,h)anthracene	ND		230	41	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Dibenzofuran	ND		230	28	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Diethyl phthalate	ND		230	30	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Dimethyl phthalate	ND		230	28	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Di-n-butyl phthalate	ND		230	40	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Di-n-octyl phthalate	ND		230	28	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Fluoranthene	ND		230	25	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Fluorene	ND		230	28	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Hexachlorobenzene	ND		230	32	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Hexachlorobutadiene	ND		230	34	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Hexachlorocyclopentadiene	ND		230	32	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Hexachloroethane	ND		230	30	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Indeno[1,2,3-cd]pyrene	ND		230	29	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Isophorone	ND		230	50	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Naphthalene	ND		230	30	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Nitrobenzene	ND		230	26	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
N-Nitrosodi-n-propylamine	ND		230	40	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
N-Nitrosodiphenylamine	ND		230	190	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Pentachlorophenol	ND		460	230	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1

Client Sample ID: SB-03-28.0-30.0
Date Collected: 08/08/24 10:15
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-2
Matrix: Solid
Percent Solids: 70.9

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	ND		230	34	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Phenol	ND		230	36	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Pyrene	ND		230	28	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*520*	*T J*	*ug/Kg*	☼	*1.69*	*N/A*	*08/11/24 07:25*	*08/12/24 15:43*	*1*
Unknown	*2500*	*T J*	*ug/Kg*	☼	*1.92*	*N/A*	*08/11/24 07:25*	*08/12/24 15:43*	*1*
Unknown	*5000*	*T J*	*ug/Kg*	☼	*3.30*	*N/A*	*08/11/24 07:25*	*08/12/24 15:43*	*1*
Unknown	*260*	*T J*	*ug/Kg*	☼	*3.97*	*N/A*	*08/11/24 07:25*	*08/12/24 15:43*	*1*
Tetratetracontane	*190*	*T J N*	*ug/Kg*	☼	*13.14*	*7098-22-8*	*08/11/24 07:25*	*08/12/24 15:43*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*98*		*26 - 143*	*08/11/24 07:25*	*08/12/24 15:43*	*1*
2-Fluorobiphenyl	*82*		*50 - 121*	*08/11/24 07:25*	*08/12/24 15:43*	*1*
2-Fluorophenol	*77*		*36 - 120*	*08/11/24 07:25*	*08/12/24 15:43*	*1*
Nitrobenzene-d5	*82*		*40 - 121*	*08/11/24 07:25*	*08/12/24 15:43*	*1*
Phenol-d5	*86*		*41 - 120*	*08/11/24 07:25*	*08/12/24 15:43*	*1*
p-Terphenyl-d14	*89*		*46 - 143*	*08/11/24 07:25*	*08/12/24 15:43*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.3	0.45	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
4,4'-DDE	ND		2.3	0.48	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
4,4'-DDT	ND		2.3	0.54	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
Aldrin	ND		2.3	0.56	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
alpha-BHC	ND		2.3	0.41	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
cis-Chlordane	ND		2.3	1.1	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
beta-BHC	ND		2.3	0.41	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
delta-BHC	ND		2.3	0.43	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
Dieldrin	ND		2.3	0.55	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
Endosulfan I	ND		2.3	0.44	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
Endosulfan II	ND		2.3	0.41	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
Endosulfan sulfate	ND		2.3	0.43	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
Endrin	ND		2.3	0.45	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
Endrin aldehyde	ND		2.3	0.59	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
Endrin ketone	ND		2.3	0.56	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
gamma-BHC (Lindane)	ND		2.3	0.42	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
trans-Chlordane	ND		2.3	0.73	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
Heptachlor	ND		2.3	0.50	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
Heptachlor epoxide	ND		2.3	0.59	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
Methoxychlor	ND		2.3	0.47	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
Toxaphene	ND		23	13	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*80*		*45 - 120*	*08/13/24 07:15*	*08/15/24 11:43*	*1*
DCB Decachlorobiphenyl	*90*		*45 - 120*	*08/13/24 07:15*	*08/15/24 11:43*	*1*
Tetrachloro-m-xylene	*77*		*30 - 124*	*08/13/24 07:15*	*08/15/24 11:43*	*1*
Tetrachloro-m-xylene	*103*		*30 - 124*	*08/13/24 07:15*	*08/15/24 11:43*	*1*

Client Sample ID: SB-03-28.0-30.0
Lab Sample ID: 480-222440-2

Date Collected: 08/08/24 10:15
Matrix: Solid

Date Received: 08/08/24 17:09
Percent Solids: 70.9

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.31	0.062	mg/Kg	☼	08/11/24 07:13	08/13/24 04:08	1
PCB-1221	ND		0.31	0.062	mg/Kg	☼	08/11/24 07:13	08/13/24 04:08	1
PCB-1232	ND		0.31	0.062	mg/Kg	☼	08/11/24 07:13	08/13/24 04:08	1
PCB-1242	ND		0.31	0.062	mg/Kg	☼	08/11/24 07:13	08/13/24 04:08	1
PCB-1248	ND		0.31	0.062	mg/Kg	☼	08/11/24 07:13	08/13/24 04:08	1
PCB-1254	ND		0.31	0.15	mg/Kg	☼	08/11/24 07:13	08/13/24 04:08	1
PCB-1260	ND		0.31	0.15	mg/Kg	☼	08/11/24 07:13	08/13/24 04:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*105*		*60 - 154*	*08/11/24 07:13*	*08/13/24 04:08*	*1*
Tetrachloro-m-xylene	*87*		*60 - 154*	*08/11/24 07:13*	*08/13/24 04:08*	*1*
DCB Decachlorobiphenyl	*102*		*65 - 174*	*08/11/24 07:13*	*08/13/24 04:08*	*1*
DCB Decachlorobiphenyl	*98*		*65 - 174*	*08/11/24 07:13*	*08/13/24 04:08*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**24800**		13.8	11.9	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Antimony	ND		20.8	0.73	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Arsenic	**3.9**		2.8	1.2	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Barium	**143**		0.69	0.19	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Beryllium	**1.1**		0.28	0.055	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Cadmium	ND	U	0.28	0.097	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Calcium	**45900**		69.2	37.4	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Chromium	**32.7**		0.69	0.50	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Cobalt	**16.1**		0.69	0.14	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Copper	**23.9**		1.4	0.79	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Iron	**26500**		13.8	11.7	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Lead	**10.9**		1.4	0.64	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Magnesium	**14600**		27.7	11.7	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Manganese	**555**		1.4	0.39	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Nickel	**36.4**		6.9	0.35	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Potassium	**7560**		41.5	33.6	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Selenium	**1.1**	**J**	5.5	1.1	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Silver	ND		0.83	0.28	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Sodium	**384**		194	84.9	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Thallium	ND		8.3	1.1	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Vanadium	**47.9**		0.69	0.18	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Zinc	**68.1**		2.8	1.4	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.017**	**J**	0.029	0.0068	mg/Kg	☼	08/13/24 08:15	08/13/24 10:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.59	mg/Kg	☼	08/15/24 11:45	08/16/24 17:54	1

Client Sample ID: SB-02-0.0-0.2
Date Collected: 08/08/24 10:50
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-3
Matrix: Solid
Percent Solids: 71.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		24000	6400	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
2,4,6-Trichlorophenol	ND		24000	4700	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
2,4-Dichlorophenol	ND		24000	2500	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
2,4-Dimethylphenol	ND		24000	5700	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
2,4-Dinitrophenol	ND		230000	110000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
2,4-Dinitrotoluene	ND		24000	4800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
2,6-Dinitrotoluene	ND		24000	2800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
2-Chloronaphthalene	ND		24000	3900	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
2-Chlorophenol	ND		46000	4300	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
2-Methylnaphthalene	ND		24000	4700	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
2-Methylphenol	ND		24000	2800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
2-Nitroaniline	ND		46000	3500	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
2-Nitrophenol	ND		24000	6600	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
3,3'-Dichlorobenzidine	ND		46000	28000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
3-Nitroaniline	ND		46000	6500	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
4,6-Dinitro-2-methylphenol	ND		46000	24000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
4-Bromophenyl phenyl ether	ND		24000	3300	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
4-Chloro-3-methylphenol	ND		24000	5800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
4-Chloroaniline	ND		24000	5800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
4-Chlorophenyl phenyl ether	ND		24000	2900	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
4-Methylphenol	ND		46000	2800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
4-Nitroaniline	ND		46000	12000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
4-Nitrophenol	ND		46000	16000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Acenaphthene	ND		24000	3500	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Acenaphthylene	ND		24000	3000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Acetophenone	ND		24000	3200	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Anthracene	ND		24000	5800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Atrazine	ND		24000	8200	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Benzaldehyde	ND		24000	19000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Benzo[a]anthracene	ND		24000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Benzo[a]pyrene	ND		24000	3500	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Benzo[b]fluoranthene	ND		24000	3700	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Benzo[g,h,i]perylene	ND		24000	2500	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Benzo[k]fluoranthene	ND		24000	3000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Biphenyl	ND		24000	3500	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
bis (2-chloroisopropyl) ether	ND		24000	4700	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Bis(2-chloroethoxy)methane	ND		24000	5000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Bis(2-chloroethyl)ether	ND		24000	3000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Bis(2-ethylhexyl) phthalate	ND		24000	8000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Butyl benzyl phthalate	ND		24000	3900	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Caprolactam	ND		24000	7100	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Carbazole	ND		24000	2800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Chrysene	ND		24000	5300	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Dibenz(a,h)anthracene	ND		24000	4200	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Dibenzofuran	ND		24000	2800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Diethyl phthalate	ND		24000	3000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Dimethyl phthalate	ND		24000	2800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Di-n-butyl phthalate	ND		24000	4000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Di-n-octyl phthalate	ND		24000	2800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10

Client Sample ID: SB-02-0.0-0.2
Date Collected: 08/08/24 10:50
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-3
Matrix: Solid
Percent Solids: 71.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		24000	2500	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Fluorene	ND		24000	2800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Hexachlorobenzene	ND		24000	3200	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Hexachlorobutadiene	ND		24000	3500	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Hexachlorocyclopentadiene	ND		24000	3200	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Hexachloroethane	ND		24000	3000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Indeno[1,2,3-cd]pyrene	ND		24000	2900	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Isophorone	ND		24000	5000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Naphthalene	ND		24000	3000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Nitrobenzene	ND		24000	2600	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
N-Nitrosodi-n-propylamine	ND		24000	4000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
N-Nitrosodiphenylamine	ND		24000	19000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Pentachlorophenol	ND		46000	24000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Phenanthrene	ND		24000	3500	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Phenol	ND		24000	3600	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Pyrene	ND		24000	2800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*08/11/24 07:25*	*08/12/24 16:13*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*167*	*S1+*	*26 - 143*	*08/11/24 07:25*	*08/12/24 16:13*	*10*
2-Fluorobiphenyl	*91*		*50 - 121*	*08/11/24 07:25*	*08/12/24 16:13*	*10*
2-Fluorophenol	*128*	*S1+*	*36 - 120*	*08/11/24 07:25*	*08/12/24 16:13*	*10*
Nitrobenzene-d5	*89*		*40 - 121*	*08/11/24 07:25*	*08/12/24 16:13*	*10*
Phenol-d5	*93*		*41 - 120*	*08/11/24 07:25*	*08/12/24 16:13*	*10*
p-Terphenyl-d14	*98*		*46 - 143*	*08/11/24 07:25*	*08/12/24 16:13*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		120	22	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
4,4'-DDE	ND		120	24	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
4,4'-DDT	ND		120	27	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
Aldrin	ND		120	28	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
alpha-BHC	ND		120	21	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
cis-Chlordane	ND		120	57	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
beta-BHC	ND		120	21	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
delta-BHC	ND		120	21	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
Dieldrin	ND		120	28	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
Endosulfan I	ND		120	22	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
Endosulfan II	ND		120	21	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
Endosulfan sulfate	ND		120	21	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
Endrin	ND		120	23	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
Endrin aldehyde	ND		120	29	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
Endrin ketone	ND		120	28	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
gamma-BHC (Lindane)	ND		120	21	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
trans-Chlordane	ND		120	37	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
Heptachlor	ND		120	25	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
Heptachlor epoxide	ND		120	30	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
Methoxychlor	ND		120	23	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50

Client Sample ID: SB-02-0.0-0.2
Date Collected: 08/08/24 10:50
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-3
Matrix: Solid
Percent Solids: 71.8

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	ND		1200	670	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*08/13/24 07:15*	*08/15/24 12:03*	*50*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*08/13/24 07:15*	*08/15/24 12:03*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*08/13/24 07:15*	*08/15/24 12:03*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*08/13/24 07:15*	*08/15/24 12:03*	*50*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.34	0.067	mg/Kg	☼	08/11/24 07:13	08/13/24 04:26	1
PCB-1221	ND		0.34	0.067	mg/Kg	☼	08/11/24 07:13	08/13/24 04:26	1
PCB-1232	ND		0.34	0.067	mg/Kg	☼	08/11/24 07:13	08/13/24 04:26	1
PCB-1242	ND		0.34	0.067	mg/Kg	☼	08/11/24 07:13	08/13/24 04:26	1
PCB-1248	ND		0.34	0.067	mg/Kg	☼	08/11/24 07:13	08/13/24 04:26	1
PCB-1254	ND		0.34	0.16	mg/Kg	☼	08/11/24 07:13	08/13/24 04:26	1
PCB-1260	**0.29**	**J**	0.34	0.16	mg/Kg	☼	08/11/24 07:13	08/13/24 04:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*98*		*60 - 154*	*08/11/24 07:13*	*08/13/24 04:26*	*1*
Tetrachloro-m-xylene	*78*		*60 - 154*	*08/11/24 07:13*	*08/13/24 04:26*	*1*
DCB Decachlorobiphenyl	*79*		*65 - 174*	*08/11/24 07:13*	*08/13/24 04:26*	*1*
DCB Decachlorobiphenyl	*77*		*65 - 174*	*08/11/24 07:13*	*08/13/24 04:26*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**13700**		13.6	11.7	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Antimony	**1.8**	J	20.4	0.72	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Arsenic	**9.6**		2.7	1.2	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Barium	**109**		0.68	0.19	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Beryllium	**1.2**		0.27	0.054	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Cadmium	**1.1**		0.27	0.095	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Calcium	**68600**		68.0	36.7	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Chromium	**41.3**		0.68	0.49	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Cobalt	**9.1**		0.68	0.14	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Copper	**49.1**		1.4	0.78	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Iron	**19500**	J	13.6	11.5	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Lead	**376**	J	1.4	0.63	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Magnesium	**21800**		27.2	11.5	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Manganese	**710**		1.4	0.38	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Nickel	**62.1**		6.8	0.34	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Potassium	**2570**		40.8	33.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Selenium	ND		5.4	1.1	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Silver	ND		0.82	0.27	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Sodium	**253**		190	83.4	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Thallium	ND		8.2	1.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Vanadium	**154**	J	0.68	0.18	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Zinc	**291**	J-	2.7	1.4	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1

Client Sample ID: SB-02-0.0-0.2
Lab Sample ID: 480-222440-3

Date Collected: 08/08/24 10:50
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 71.8

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.22		0.027	0.0061	mg/Kg	☼	08/13/24 08:15	08/13/24 10:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	R		1.4	0.66	mg/Kg	☼	08/15/24 11:45	08/16/24 17:54	1

Client Sample ID: SB-02-0.0-0.2-FD
Lab Sample ID: 480-222440-4

Date Collected: 08/08/24 10:50
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 74.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		23000	6100	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
2,4,6-Trichlorophenol	ND		23000	4500	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
2,4-Dichlorophenol	ND		23000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
2,4-Dimethylphenol	ND		23000	5400	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
2,4-Dinitrophenol	ND		220000	100000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
2,4-Dinitrotoluene	ND		23000	4600	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
2,6-Dinitrotoluene	ND		23000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
2-Chloronaphthalene	ND		23000	3700	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
2-Chlorophenol	ND		44000	4100	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
2-Methylnaphthalene	ND		23000	4500	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
2-Methylphenol	ND		23000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
2-Nitroaniline	ND		44000	3300	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
2-Nitrophenol	ND		23000	6400	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
3,3'-Dichlorobenzidine	ND		44000	27000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
3-Nitroaniline	ND		44000	6200	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
4,6-Dinitro-2-methylphenol	ND		44000	23000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
4-Bromophenyl phenyl ether	ND		23000	3200	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
4-Chloro-3-methylphenol	ND		23000	5600	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
4-Chloroaniline	ND		23000	5600	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
4-Chlorophenyl phenyl ether	ND		23000	2800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
4-Methylphenol	ND		44000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
4-Nitroaniline	ND		44000	12000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
4-Nitrophenol	ND		44000	16000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Acenaphthene	ND		23000	3300	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Acenaphthylene	ND		23000	2900	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Acetophenone	ND		23000	3100	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Anthracene	ND		23000	5600	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Atrazine	ND		23000	7800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Benzaldehyde	ND		23000	18000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Benzo[a]anthracene	ND		23000	2300	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Benzo[a]pyrene	ND		23000	3300	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Benzo[b]fluoranthene	ND		23000	3600	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Benzo[g,h,i]perylene	ND		23000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Benzo[k]fluoranthene	ND		23000	2900	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Biphenyl	ND		23000	3300	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
bis (2-chloroisopropyl) ether	ND		23000	4500	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Bis(2-chloroethoxy)methane	ND		23000	4800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Bis(2-chloroethyl)ether	ND		23000	2900	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10

Client Sample ID: SB-02-0.0-0.2-FD
Lab Sample ID: 480-222440-4
Date Collected: 08/08/24 10:50
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 74.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND		23000	7700	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Butyl benzyl phthalate	ND		23000	3700	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Caprolactam	ND		23000	6800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Carbazole	ND		23000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Chrysene	ND		23000	5000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Dibenz(a,h)anthracene	ND		23000	4000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Dibenzofuran	ND		23000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Diethyl phthalate	ND		23000	2900	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Dimethyl phthalate	ND		23000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Di-n-butyl phthalate	ND		23000	3800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Di-n-octyl phthalate	ND		23000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Fluoranthene	ND		23000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Fluorene	ND		23000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Hexachlorobenzene	ND		23000	3100	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Hexachlorobutadiene	ND		23000	3300	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Hexachlorocyclopentadiene	ND		23000	3100	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Hexachloroethane	ND		23000	2900	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Indeno[1,2,3-cd]pyrene	ND		23000	2800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Isophorone	ND		23000	4800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Naphthalene	ND		23000	2900	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Nitrobenzene	ND		23000	2500	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
N-Nitrosodi-n-propylamine	ND		23000	3800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
N-Nitrosodiphenylamine	ND		23000	18000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Pentachlorophenol	ND		44000	23000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Phenanthrene	ND		23000	3300	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Phenol	ND		23000	3500	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Pyrene	ND		23000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*08/11/24 07:25*	*08/12/24 16:42*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*0*	*S1-*	*26 - 143*	*08/11/24 07:25*	*08/12/24 16:42*	*10*
2-Fluorobiphenyl	*80*		*50 - 121*	*08/11/24 07:25*	*08/12/24 16:42*	*10*
2-Fluorophenol	*0*	*S1-*	*36 - 120*	*08/11/24 07:25*	*08/12/24 16:42*	*10*
Nitrobenzene-d5	*74*		*40 - 121*	*08/11/24 07:25*	*08/12/24 16:42*	*10*
Phenol-d5	*83*		*41 - 120*	*08/11/24 07:25*	*08/12/24 16:42*	*10*
p-Terphenyl-d14	*93*		*46 - 143*	*08/11/24 07:25*	*08/12/24 16:42*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		110	21	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
4,4'-DDE	ND		110	23	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
4,4'-DDT	ND		110	26	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
Aldrin	ND		110	27	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
alpha-BHC	ND		110	20	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
cis-Chlordane	ND		110	54	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
beta-BHC	ND		110	20	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
delta-BHC	ND		110	20	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
Dieldrin	ND		110	26	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50

Client Sample ID: SB-02-0.0-0.2-FD
Date Collected: 08/08/24 10:50
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-4
Matrix: Solid
Percent Solids: 74.4

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I	ND		110	21	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
Endosulfan II	ND		110	20	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
Endosulfan sulfate	ND		110	20	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
Endrin	ND		110	22	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
Endrin aldehyde	ND		110	28	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
Endrin ketone	ND		110	27	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
gamma-BHC (Lindane)	ND		110	20	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
trans-Chlordane	ND		110	35	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
Heptachlor	ND		110	24	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
Heptachlor epoxide	ND		110	28	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
Methoxychlor	ND		110	22	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
Toxaphene	ND		1100	640	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*08/13/24 07:15*	*08/15/24 12:23*	*50*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*08/13/24 07:15*	*08/15/24 12:23*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*08/13/24 07:15*	*08/15/24 12:23*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*08/13/24 07:15*	*08/15/24 12:23*	*50*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.28	0.056	mg/Kg	☼	08/11/24 07:13	08/13/24 04:43	1
PCB-1221	ND		0.28	0.056	mg/Kg	☼	08/11/24 07:13	08/13/24 04:43	1
PCB-1232	ND		0.28	0.056	mg/Kg	☼	08/11/24 07:13	08/13/24 04:43	1
PCB-1242	ND		0.28	0.056	mg/Kg	☼	08/11/24 07:13	08/13/24 04:43	1
PCB-1248	ND		0.28	0.056	mg/Kg	☼	08/11/24 07:13	08/13/24 04:43	1
PCB-1254	ND		0.28	0.13	mg/Kg	☼	08/11/24 07:13	08/13/24 04:43	1
PCB-1260	**0.27**	**J**	0.28	0.13	mg/Kg	☼	08/11/24 07:13	08/13/24 04:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*107*		*60 - 154*	*08/11/24 07:13*	*08/13/24 04:43*	*1*
Tetrachloro-m-xylene	*87*		*60 - 154*	*08/11/24 07:13*	*08/13/24 04:43*	*1*
DCB Decachlorobiphenyl	*88*		*65 - 174*	*08/11/24 07:13*	*08/13/24 04:43*	*1*
DCB Decachlorobiphenyl	*87*		*65 - 174*	*08/11/24 07:13*	*08/13/24 04:43*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**13700**		13.9	12.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Antimony	**2.4**	**J**	20.8	0.74	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Arsenic	**8.1**		2.8	1.2	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Barium	**105**		0.69	0.19	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Beryllium	**1.1**		0.28	0.056	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Cadmium	**1.0**		0.28	0.097	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Calcium	**58900**		69.5	37.5	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Chromium	**39.1**		0.69	0.50	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Cobalt	**8.3**		0.69	0.14	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Copper	**45.3**		1.4	0.79	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Iron	**18900**		13.9	11.8	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Lead	**347**		1.4	0.64	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Magnesium	**19900**		27.8	11.8	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1

Client Sample ID: SB-02-0.0-0.2-FD
Lab Sample ID: 480-222440-4
Date Collected: 08/08/24 10:50
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 74.4

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**627**		1.4	0.39	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Nickel	**52.3**		6.9	0.35	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Potassium	**2840**		41.7	33.7	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Selenium	**1.3**	**J**	5.6	1.1	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Silver	ND		0.83	0.28	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Sodium	**263**		195	85.2	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Thallium	ND		8.3	1.1	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Vanadium	**113**		0.69	0.18	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Zinc	**290**		2.8	1.4	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.24**		0.028	0.0065	mg/Kg	☼	08/13/24 08:15	08/13/24 10:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.60	mg/Kg	☼	08/16/24 11:20	08/20/24 10:25	1

Client Sample ID: SB-02-10.0-11.0
Lab Sample ID: 480-222440-5
Date Collected: 08/08/24 12:25
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 83.8

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.2	0.31	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
1,1,2,2-Tetrachloroethane	ND		4.2	0.68	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.2	0.96	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
1,1,2-Trichloroethane	ND		4.2	0.55	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
1,1-Dichloroethane	ND		4.2	0.51	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
1,1-Dichloroethene	ND		4.2	0.52	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
1,2,4-Trichlorobenzene	ND		4.2	0.26	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
1,2-Dibromo-3-Chloropropane	ND		4.2	2.1	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
1,2-Dibromoethane	ND		4.2	0.54	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
1,2-Dichlorobenzene	ND		4.2	0.33	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
1,2-Dichloroethane	ND		4.2	0.21	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
1,2-Dichloropropane	ND		4.2	2.1	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
1,3-Dichlorobenzene	ND		4.2	0.22	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
1,4-Dichlorobenzene	ND		4.2	0.59	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
2-Butanone (MEK)	ND		21	1.5	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
2-Hexanone	ND		21	2.1	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
4-Methyl-2-pentanone (MIBK)	ND		21	1.4	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Acetone	ND		21	3.6	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Benzene	ND		4.2	0.21	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Bromodichloromethane	ND		4.2	0.57	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Bromoform	ND		4.2	2.1	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Bromomethane	ND		4.2	0.38	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Carbon disulfide	ND		4.2	2.1	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Carbon tetrachloride	ND		4.2	0.41	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Chlorobenzene	ND		4.2	0.56	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Chloroethane	ND		4.2	0.95	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1

Client Sample ID: SB-02-10.0-11.0
Lab Sample ID: 480-222440-5

Date Collected: 08/08/24 12:25
Matrix: Solid

Date Received: 08/08/24 17:09
Percent Solids: 83.8

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		4.2	0.26	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Chloromethane	ND		4.2	0.25	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
cis-1,2-Dichloroethene	ND		4.2	0.54	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
cis-1,3-Dichloropropene	ND		4.2	0.61	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Cyclohexane	ND		4.2	0.59	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Dibromochloromethane	ND		4.2	0.54	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Dichlorodifluoromethane	ND		4.2	0.35	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Ethylbenzene	ND		4.2	0.29	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Isopropylbenzene	ND		4.2	0.64	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Methyl acetate	ND		21	2.5	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Methyl tert-butyl ether	ND		4.2	0.41	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Methylcyclohexane	ND		4.2	0.64	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Methylene Chloride	ND		4.2	1.9	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Styrene	ND		4.2	0.21	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Tetrachloroethene	ND		4.2	0.57	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Toluene	ND		4.2	0.32	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
trans-1,2-Dichloroethene	ND		4.2	0.44	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
trans-1,3-Dichloropropene	ND		4.2	1.9	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Trichloroethene	ND		4.2	0.93	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Trichlorofluoromethane	ND		4.2	0.40	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Vinyl chloride	ND		4.2	0.51	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Xylenes, Total	ND		8.4	0.71	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*08/09/24 15:00*	*08/13/24 03:30*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*64 - 126*	*08/09/24 15:00*	*08/13/24 03:30*	*1*
4-Bromofluorobenzene (Surr)	*93*		*72 - 126*	*08/09/24 15:00*	*08/13/24 03:30*	*1*
Dibromofluoromethane (Surr)	*106*		*60 - 140*	*08/09/24 15:00*	*08/13/24 03:30*	*1*
Toluene-d8 (Surr)	*96*		*71 - 125*	*08/09/24 15:00*	*08/13/24 03:30*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		20000	5400	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
2,4,6-Trichlorophenol	ND		20000	4000	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
2,4-Dichlorophenol	ND		20000	2100	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
2,4-Dimethylphenol	ND		20000	4800	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
2,4-Dinitrophenol	ND		200000	92000	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
2,4-Dinitrotoluene	ND		20000	4100	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
2,6-Dinitrotoluene	ND		20000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
2-Chloronaphthalene	ND		20000	3300	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
2-Chlorophenol	ND		39000	3600	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
2-Methylnaphthalene	ND		20000	4000	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
2-Methylphenol	ND		20000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
2-Nitroaniline	ND		39000	2900	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
2-Nitrophenol	ND		20000	5600	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
3,3'-Dichlorobenzidine	ND		39000	24000	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
3-Nitroaniline	ND		39000	5500	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
4,6-Dinitro-2-methylphenol	ND		39000	20000	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10

Client Sample ID: SB-02-10.0-11.0
Lab Sample ID: 480-222440-5

Date Collected: 08/08/24 12:25
Matrix: Solid

Date Received: 08/08/24 17:09
Percent Solids: 83.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Bromophenyl phenyl ether	ND		20000	2800	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
4-Chloro-3-methylphenol	ND		20000	4900	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
4-Chloroaniline	ND		20000	4900	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
4-Chlorophenyl phenyl ether	ND		20000	2500	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
4-Methylphenol	ND		39000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
4-Nitroaniline	ND		39000	10000	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
4-Nitrophenol	ND		39000	14000	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Acenaphthene	ND		20000	2900	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Acenaphthylene	ND		20000	2600	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Acetophenone	ND		20000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Anthracene	ND		20000	4900	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Atrazine	ND		20000	6900	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Benzaldehyde	ND		20000	16000	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Benzo[a]anthracene	ND		20000	2000	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Benzo[a]pyrene	ND		20000	2900	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Benzo[b]fluoranthene	ND		20000	3200	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Benzo[g,h,i]perylene	ND		20000	2100	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Benzo[k]fluoranthene	ND		20000	2600	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Biphenyl	ND		20000	2900	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
bis (2-chloroisopropyl) ether	ND		20000	4000	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Bis(2-chloroethoxy)methane	ND		20000	4200	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Bis(2-chloroethyl)ether	ND		20000	2600	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Bis(2-ethylhexyl) phthalate	ND		20000	6800	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Butyl benzyl phthalate	ND		20000	3300	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Caprolactam	ND		20000	6000	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Carbazole	ND		20000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Chrysene	ND		20000	4500	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Dibenz(a,h)anthracene	ND		20000	3500	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Dibenzofuran	ND		20000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Diethyl phthalate	ND		20000	2600	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Dimethyl phthalate	ND		20000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Di-n-butyl phthalate	ND		20000	3400	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Di-n-octyl phthalate	ND		20000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Fluoranthene	ND		20000	2100	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Fluorene	ND		20000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Hexachlorobenzene	ND		20000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Hexachlorobutadiene	ND		20000	2900	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Hexachlorocyclopentadiene	ND		20000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Hexachloroethane	ND		20000	2600	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Indeno[1,2,3-cd]pyrene	ND		20000	2500	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Isophorone	ND		20000	4200	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Naphthalene	ND		20000	2600	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Nitrobenzene	ND		20000	2200	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
N-Nitrosodi-n-propylamine	ND		20000	3400	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
N-Nitrosodiphenylamine	ND		20000	16000	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Pentachlorophenol	ND		39000	20000	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Phenanthrene	ND		20000	2900	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Phenol	ND		20000	3100	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Pyrene	ND		20000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10

Client Sample ID: SB-02-10.0-11.0
Date Collected: 08/08/24 12:25
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-5
Matrix: Solid
Percent Solids: 83.8

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/Kg	☼		N/A	08/11/24 07:25	08/12/24 17:10	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	165	S1+	26 - 143	08/11/24 07:25	08/12/24 17:10	10
2-Fluorobiphenyl	93		50 - 121	08/11/24 07:25	08/12/24 17:10	10
2-Fluorophenol	0	S1-	36 - 120	08/11/24 07:25	08/12/24 17:10	10
Nitrobenzene-d5	74		40 - 121	08/11/24 07:25	08/12/24 17:10	10
Phenol-d5	59		41 - 120	08/11/24 07:25	08/12/24 17:10	10
p-Terphenyl-d14	96		46 - 143	08/11/24 07:25	08/12/24 17:10	10

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		98	19	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
4,4'-DDE	ND		98	20	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
4,4'-DDT	ND		98	23	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
Aldrin	ND		98	24	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
alpha-BHC	ND		98	18	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
cis-Chlordane	ND		98	49	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
beta-BHC	ND		98	18	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
delta-BHC	ND		98	18	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
Dieldrin	ND		98	23	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
Endosulfan I	ND		98	19	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
Endosulfan II	ND		98	18	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
Endosulfan sulfate	ND		98	18	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
Endrin	ND		98	19	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
Endrin aldehyde	ND		98	25	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
Endrin ketone	ND		98	24	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
gamma-BHC (Lindane)	ND		98	18	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
trans-Chlordane	ND		98	31	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
Heptachlor	ND		98	21	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
Heptachlor epoxide	ND		98	25	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
Methoxychlor	ND		98	20	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
Toxaphene	ND		980	570	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	0	S1-	45 - 120	08/13/24 07:15	08/15/24 12:42	50
DCB Decachlorobiphenyl	0	S1-	45 - 120	08/13/24 07:15	08/15/24 12:42	50
Tetrachloro-m-xylene	0	S1-	30 - 124	08/13/24 07:15	08/15/24 12:42	50
Tetrachloro-m-xylene	0	S1-	30 - 124	08/13/24 07:15	08/15/24 12:42	50

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.26	0.051	mg/Kg	☼	08/11/24 07:13	08/13/24 05:01	1
PCB-1221	ND		0.26	0.051	mg/Kg	☼	08/11/24 07:13	08/13/24 05:01	1
PCB-1232	ND		0.26	0.051	mg/Kg	☼	08/11/24 07:13	08/13/24 05:01	1
PCB-1242	ND		0.26	0.051	mg/Kg	☼	08/11/24 07:13	08/13/24 05:01	1
PCB-1248	ND		0.26	0.051	mg/Kg	☼	08/11/24 07:13	08/13/24 05:01	1
PCB-1254	ND		0.26	0.12	mg/Kg	☼	08/11/24 07:13	08/13/24 05:01	1
PCB-1260	**0.34**		0.26	0.12	mg/Kg	☼	08/11/24 07:13	08/13/24 05:01	1

Client Sample ID: SB-02-10.0-11.0
Lab Sample ID: 480-222440-5

Date Collected: 08/08/24 12:25
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 83.8

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*107*		*60 - 154*	*08/11/24 07:13*	*08/13/24 05:01*	*1*
Tetrachloro-m-xylene	*93*		*60 - 154*	*08/11/24 07:13*	*08/13/24 05:01*	*1*
DCB Decachlorobiphenyl	*96*		*65 - 174*	*08/11/24 07:13*	*08/13/24 05:01*	*1*
DCB Decachlorobiphenyl	*95*		*65 - 174*	*08/11/24 07:13*	*08/13/24 05:01*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**13700**		12.5	10.7	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Antimony	**4.9**	**J**	18.7	0.66	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Arsenic	**7.2**		2.5	1.1	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Barium	**104**		0.62	0.17	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Beryllium	**0.99**		0.25	0.050	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Cadmium	**0.79**		0.25	0.087	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Calcium	**60700**		62.3	33.6	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Chromium	**38.3**		0.62	0.45	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Cobalt	**9.5**		0.62	0.12	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Copper	**37.7**		1.2	0.71	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Iron	**18600**		12.5	10.6	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Lead	**394**		1.2	0.57	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Magnesium	**19300**		24.9	10.6	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Manganese	**591**		1.2	0.35	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Nickel	**42.2**		6.2	0.31	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Potassium	**3070**		37.4	30.2	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Selenium	ND		5.0	1.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Silver	ND		0.75	0.25	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Sodium	**220**		174	76.4	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Thallium	ND		7.5	0.95	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Vanadium	**77.3**		0.62	0.16	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Zinc	**173**		2.5	1.3	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.055**		0.024	0.0055	mg/Kg	☼	08/13/24 08:15	08/13/24 10:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.56	mg/Kg	☼	08/16/24 11:20	08/20/24 10:25	1

Client Sample ID: SB-02-28.0-30.0
Lab Sample ID: 480-222440-6

Date Collected: 08/08/24 12:35
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 75.4

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		3.9	0.28	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
1,1,2,2-Tetrachloroethane	ND		3.9	0.63	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.9	0.88	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
1,1,2-Trichloroethane	ND		3.9	0.50	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
1,1-Dichloroethane	ND		3.9	0.47	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
1,1-Dichloroethene	ND		3.9	0.47	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
1,2,4-Trichlorobenzene	ND		3.9	0.24	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1

Client Sample ID: SB-02-28.0-30.0
Lab Sample ID: 480-222440-6

Date Collected: 08/08/24 12:35
Matrix: Solid

Date Received: 08/08/24 17:09
Percent Solids: 75.4

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		3.9	1.9	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
1,2-Dibromoethane	ND		3.9	0.50	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
1,2-Dichlorobenzene	ND		3.9	0.30	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
1,2-Dichloroethane	ND		3.9	0.19	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
1,2-Dichloropropane	ND		3.9	1.9	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
1,3-Dichlorobenzene	ND		3.9	0.20	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
1,4-Dichlorobenzene	ND		3.9	0.54	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
2-Butanone (MEK)	ND		19	1.4	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
2-Hexanone	ND		19	1.9	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
4-Methyl-2-pentanone (MIBK)	ND		19	1.3	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Acetone	**16**	**J**	19	3.3	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Benzene	ND		3.9	0.19	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Bromodichloromethane	ND		3.9	0.52	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Bromoform	ND		3.9	1.9	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Bromomethane	ND		3.9	0.35	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Carbon disulfide	ND		3.9	1.9	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Carbon tetrachloride	ND		3.9	0.38	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Chlorobenzene	ND		3.9	0.51	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Chloroethane	ND		3.9	0.88	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Chloroform	ND		3.9	0.24	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Chloromethane	ND		3.9	0.23	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
cis-1,2-Dichloroethene	ND		3.9	0.50	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
cis-1,3-Dichloropropene	ND		3.9	0.56	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Cyclohexane	ND		3.9	0.54	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Dibromochloromethane	ND		3.9	0.50	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Dichlorodifluoromethane	ND		3.9	0.32	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Ethylbenzene	ND		3.9	0.27	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Isopropylbenzene	ND		3.9	0.58	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Methyl acetate	ND		19	2.3	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Methyl tert-butyl ether	ND		3.9	0.38	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Methylcyclohexane	ND		3.9	0.59	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Methylene Chloride	**2.5**	**J**	3.9	1.8	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Styrene	ND		3.9	0.19	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Tetrachloroethene	ND		3.9	0.52	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Toluene	ND		3.9	0.29	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
trans-1,2-Dichloroethene	ND		3.9	0.40	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
trans-1,3-Dichloropropene	ND		3.9	1.7	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Trichloroethene	ND		3.9	0.85	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Trichlorofluoromethane	ND		3.9	0.37	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Vinyl chloride	ND		3.9	0.47	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Xylenes, Total	ND		7.8	0.65	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*08/09/24 15:00*	*08/13/24 03:54*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*64 - 126*	*08/09/24 15:00*	*08/13/24 03:54*	*1*
4-Bromofluorobenzene (Surr)	*91*		*72 - 126*	*08/09/24 15:00*	*08/13/24 03:54*	*1*
Dibromofluoromethane (Surr)	*112*		*60 - 140*	*08/09/24 15:00*	*08/13/24 03:54*	*1*
Toluene-d8 (Surr)	*99*		*71 - 125*	*08/09/24 15:00*	*08/13/24 03:54*	*1*

Client Sample ID: SB-02-28.0-30.0
Lab Sample ID: 480-222440-6

Date Collected: 08/08/24 12:35
Matrix: Solid

Date Received: 08/08/24 17:09
Percent Solids: 75.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		220	60	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
2,4,6-Trichlorophenol	ND		220	44	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
2,4-Dichlorophenol	ND		220	23	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
2,4-Dimethylphenol	ND		220	53	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
2,4-Dinitrophenol	ND		2100	1000	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
2,4-Dinitrotoluene	ND		220	45	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
2,6-Dinitrotoluene	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
2-Chloronaphthalene	ND		220	36	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
2-Chlorophenol	ND		430	40	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
2-Methylnaphthalene	ND		220	44	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
2-Methylphenol	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
2-Nitroaniline	ND		430	32	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
2-Nitrophenol	ND		220	62	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
3,3'-Dichlorobenzidine	ND		430	260	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
3-Nitroaniline	ND		430	61	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
4,6-Dinitro-2-methylphenol	ND		430	220	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
4-Bromophenyl phenyl ether	ND		220	31	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
4-Chloro-3-methylphenol	ND		220	54	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
4-Chloroaniline	ND		220	54	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
4-Chlorophenyl phenyl ether	ND		220	27	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
4-Methylphenol	ND		430	26	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
4-Nitroaniline	ND		430	120	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
4-Nitrophenol	ND		430	150	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Acenaphthene	ND		220	32	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Acenaphthylene	ND		220	28	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Acetophenone	ND		220	30	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Anthracene	ND		220	54	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Atrazine	ND		220	76	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Benzaldehyde	ND		220	170	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Benzo[a]anthracene	ND		220	22	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Benzo[a]pyrene	ND		220	32	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Benzo[b]fluoranthene	ND		220	35	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Benzo[g,h,i]perylene	ND		220	23	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Benzo[k]fluoranthene	ND		220	28	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Biphenyl	ND		220	32	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
bis (2-chloroisopropyl) ether	ND		220	44	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Bis(2-chloroethoxy)methane	ND		220	47	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Bis(2-chloroethyl)ether	ND		220	28	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Bis(2-ethylhexyl) phthalate	ND		220	75	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Butyl benzyl phthalate	ND		220	36	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Caprolactam	ND		220	66	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Carbazole	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Chrysene	ND		220	49	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Dibenz(a,h)anthracene	ND		220	39	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Dibenzofuran	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Diethyl phthalate	ND		220	28	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Dimethyl phthalate	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Di-n-butyl phthalate	ND		220	38	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Di-n-octyl phthalate	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1

Client Sample ID: SB-02-28.0-30.0
Lab Sample ID: 480-222440-6

Date Collected: 08/08/24 12:35
Matrix: Solid

Date Received: 08/08/24 17:09
Percent Solids: 75.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		220	23	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Fluorene	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Hexachlorobenzene	ND		220	30	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Hexachlorobutadiene	ND		220	32	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Hexachlorocyclopentadiene	ND		220	30	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Hexachloroethane	ND		220	28	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Indeno[1,2,3-cd]pyrene	ND		220	27	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Isophorone	ND		220	47	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Naphthalene	ND		220	28	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Nitrobenzene	ND		220	25	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
N-Nitrosodi-n-propylamine	ND		220	38	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
N-Nitrosodiphenylamine	ND		220	180	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Pentachlorophenol	ND		430	220	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Phenanthrene	ND		220	32	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Phenol	ND		220	34	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Pyrene	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*2400*	*T J*	*ug/Kg*	☼	*1.92*	*N/A*	*08/11/24 07:25*	*08/12/24 17:39*	*1*
Unknown	*5100*	*T J*	*ug/Kg*	☼	*3.31*	*N/A*	*08/11/24 07:25*	*08/12/24 17:39*	*1*
Unknown	*240*	*T J*	*ug/Kg*	☼	*3.97*	*N/A*	*08/11/24 07:25*	*08/12/24 17:39*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*92*		*26 - 143*	*08/11/24 07:25*	*08/12/24 17:39*	*1*
2-Fluorobiphenyl	*81*		*50 - 121*	*08/11/24 07:25*	*08/12/24 17:39*	*1*
2-Fluorophenol	*76*		*36 - 120*	*08/11/24 07:25*	*08/12/24 17:39*	*1*
Nitrobenzene-d5	*81*		*40 - 121*	*08/11/24 07:25*	*08/12/24 17:39*	*1*
Phenol-d5	*84*		*41 - 120*	*08/11/24 07:25*	*08/12/24 17:39*	*1*
p-Terphenyl-d14	*85*		*46 - 143*	*08/11/24 07:25*	*08/12/24 17:39*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.2	0.42	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
4,4'-DDE	ND		2.2	0.45	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
4,4'-DDT	ND		2.2	0.51	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
Aldrin	ND		2.2	0.53	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
alpha-BHC	ND		2.2	0.39	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
cis-Chlordane	ND		2.2	1.1	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
beta-BHC	ND		2.2	0.39	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
delta-BHC	ND		2.2	0.40	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
Dieldrin	ND		2.2	0.52	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
Endosulfan I	ND		2.2	0.41	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
Endosulfan II	ND		2.2	0.39	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
Endosulfan sulfate	ND		2.2	0.40	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
Endrin	ND		2.2	0.43	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
Endrin aldehyde	ND		2.2	0.55	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
Endrin ketone	ND		2.2	0.53	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
gamma-BHC (Lindane)	ND		2.2	0.40	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
trans-Chlordane	ND		2.2	0.69	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
Heptachlor	ND		2.2	0.47	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1

Client Sample ID: SB-02-28.0-30.0
Lab Sample ID: 480-222440-6

Date Collected: 08/08/24 12:35
Matrix: Solid

Date Received: 08/08/24 17:09
Percent Solids: 75.4

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor epoxide	ND		2.2	0.56	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
Methoxychlor	ND		2.2	0.44	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
Toxaphene	ND		22	13	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*68*		*45 - 120*	*08/13/24 07:15*	*08/15/24 13:02*	*1*
DCB Decachlorobiphenyl	*88*		*45 - 120*	*08/13/24 07:15*	*08/15/24 13:02*	*1*
Tetrachloro-m-xylene	*70*		*30 - 124*	*08/13/24 07:15*	*08/15/24 13:02*	*1*
Tetrachloro-m-xylene	*80*		*30 - 124*	*08/13/24 07:15*	*08/15/24 13:02*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.31	0.061	mg/Kg	☼	08/11/24 07:13	08/13/24 05:18	1
PCB-1221	ND		0.31	0.061	mg/Kg	☼	08/11/24 07:13	08/13/24 05:18	1
PCB-1232	ND		0.31	0.061	mg/Kg	☼	08/11/24 07:13	08/13/24 05:18	1
PCB-1242	ND		0.31	0.061	mg/Kg	☼	08/11/24 07:13	08/13/24 05:18	1
PCB-1248	ND		0.31	0.061	mg/Kg	☼	08/11/24 07:13	08/13/24 05:18	1
PCB-1254	ND		0.31	0.15	mg/Kg	☼	08/11/24 07:13	08/13/24 05:18	1
PCB-1260	ND		0.31	0.15	mg/Kg	☼	08/11/24 07:13	08/13/24 05:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*120*		*60 - 154*	*08/11/24 07:13*	*08/13/24 05:18*	*1*
Tetrachloro-m-xylene	*98*		*60 - 154*	*08/11/24 07:13*	*08/13/24 05:18*	*1*
DCB Decachlorobiphenyl	*119*		*65 - 174*	*08/11/24 07:13*	*08/13/24 05:18*	*1*
DCB Decachlorobiphenyl	*115*		*65 - 174*	*08/11/24 07:13*	*08/13/24 05:18*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**27500**		13.0	11.2	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Antimony	ND		19.4	0.69	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Arsenic	**3.6**		2.6	1.1	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Barium	**166**		0.65	0.18	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Beryllium	**1.2**		0.26	0.052	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Cadmium	ND	U	0.26	0.091	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Calcium	**50700**		64.8	35.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Chromium	**34.8**		0.65	0.47	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Cobalt	**17.3**		0.65	0.13	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Copper	**25.1**		1.3	0.74	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Iron	**27700**		13.0	11.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Lead	**11.3**		1.3	0.60	mg/Kg	☼	08/12/24 14:53	08/14/24 15:41	1
Magnesium	**16000**		25.9	11.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Manganese	**625**		1.3	0.36	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Nickel	**39.1**		6.5	0.32	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Potassium	**8370**		38.9	31.4	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Selenium	ND		5.2	1.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Silver	**0.27**	**J**	0.78	0.26	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Sodium	**368**		181	79.5	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Thallium	ND		7.8	0.99	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Vanadium	**51.4**		0.65	0.17	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Zinc	**70.5**		2.6	1.3	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1

Client Sample ID: SB-02-28.0-30.0
Lab Sample ID: 480-222440-6

Date Collected: 08/08/24 12:35
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 75.4

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.016**	**J**	0.026	0.0059	mg/Kg	☼	08/13/24 08:15	08/13/24 10:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.3	0.61	mg/Kg	☼	08/16/24 11:20	08/20/24 10:25	1

Client Sample ID: SB-09-0.0-0.2
Lab Sample ID: 480-222440-7

Date Collected: 08/08/24 12:50
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 81.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		2100	560	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
2,4,6-Trichlorophenol	ND		2100	410	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
2,4-Dichlorophenol	ND		2100	220	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
2,4-Dimethylphenol	ND		2100	500	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
2,4-Dinitrophenol	ND		20000	9500	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
2,4-Dinitrotoluene	ND		2100	420	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
2,6-Dinitrotoluene	ND		2100	240	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
2-Chloronaphthalene	ND		2100	340	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
2-Chlorophenol	ND		4000	370	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
2-Methylnaphthalene	ND		2100	410	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
2-Methylphenol	ND		2100	240	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
2-Nitroaniline	ND		4000	300	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
2-Nitrophenol	ND		2100	580	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
3,3'-Dichlorobenzidine	ND		4000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
3-Nitroaniline	ND		4000	570	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
4,6-Dinitro-2-methylphenol	ND		4000	2100	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
4-Bromophenyl phenyl ether	ND		2100	290	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
4-Chloro-3-methylphenol	ND		2100	510	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
4-Chloroaniline	ND		2100	510	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
4-Chlorophenyl phenyl ether	ND		2100	250	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
4-Methylphenol	ND		4000	240	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
4-Nitroaniline	ND		4000	1100	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
4-Nitrophenol	ND		4000	1400	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Acenaphthene	ND		2100	300	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Acenaphthylene	**340**	**J**	2100	270	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Acetophenone	ND		2100	280	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Anthracene	ND		2100	510	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Atrazine	ND		2100	710	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Benzaldehyde	ND		2100	1600	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Benzo[a]anthracene	**600**	**J**	2100	210	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Benzo[a]pyrene	**680**	**J**	2100	300	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Benzo[b]fluoranthene	**800**	**J**	2100	330	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Benzo[g,h,i]perylene	**570**	**J**	2100	220	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Benzo[k]fluoranthene	**420**	**J**	2100	270	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Biphenyl	ND		2100	300	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
bis (2-chloroisopropyl) ether	ND		2100	410	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Bis(2-chloroethoxy)methane	ND		2100	430	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Bis(2-chloroethyl)ether	ND		2100	270	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10

Client Sample ID: SB-09-0.0-0.2
Date Collected: 08/08/24 12:50
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-7
Matrix: Solid
Percent Solids: 81.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND		2100	700	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Butyl benzyl phthalate	ND		2100	340	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Caprolactam	ND		2100	620	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Carbazole	ND		2100	240	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Chrysene	**640**	**J**	2100	460	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Dibenz(a,h)anthracene	ND		2100	360	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Dibenzofuran	ND		2100	240	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Diethyl phthalate	ND		2100	270	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Dimethyl phthalate	ND		2100	240	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Di-n-butyl phthalate	ND		2100	350	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Di-n-octyl phthalate	ND		2100	240	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Fluoranthene	**990**	**J**	2100	220	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Fluorene	ND		2100	240	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Hexachlorobenzene	ND		2100	280	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Hexachlorobutadiene	ND		2100	300	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Hexachlorocyclopentadiene	ND		2100	280	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Hexachloroethane	ND		2100	270	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Indeno[1,2,3-cd]pyrene	**440**	**J**	2100	250	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Isophorone	ND		2100	430	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Naphthalene	ND		2100	270	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Nitrobenzene	ND		2100	230	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
N-Nitrosodi-n-propylamine	ND		2100	350	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
N-Nitrosodiphenylamine	ND		2100	1700	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Pentachlorophenol	ND		4000	2100	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Phenanthrene	**420**	**J**	2100	300	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Phenol	ND		2100	310	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Pyrene	**750**	**J**	2100	240	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*5100*	*T J*	*ug/Kg*	☼	*3.31*	*N/A*	*08/11/24 07:25*	*08/12/24 18:08*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*91*		*26 - 143*	*08/11/24 07:25*	*08/12/24 18:08*	*10*
2-Fluorobiphenyl	*82*		*50 - 121*	*08/11/24 07:25*	*08/12/24 18:08*	*10*
2-Fluorophenol	*88*		*36 - 120*	*08/11/24 07:25*	*08/12/24 18:08*	*10*
Nitrobenzene-d5	*78*		*40 - 121*	*08/11/24 07:25*	*08/12/24 18:08*	*10*
Phenol-d5	*83*		*41 - 120*	*08/11/24 07:25*	*08/12/24 18:08*	*10*
p-Terphenyl-d14	*77*		*46 - 143*	*08/11/24 07:25*	*08/12/24 18:08*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		41	7.9	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
4,4'-DDE	ND		41	8.5	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
4,4'-DDT	ND		41	9.5	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
Aldrin	ND		41	10	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
alpha-BHC	ND		41	7.3	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
cis-Chlordane	ND		41	20	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
beta-BHC	ND		41	7.3	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
delta-BHC	ND		41	7.6	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
Dieldrin	ND		41	9.8	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20

Client Sample ID: SB-09-0.0-0.2
Lab Sample ID: 480-222440-7
Date Collected: 08/08/24 12:50
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 81.8

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I	ND		41	7.8	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
Endosulfan II	ND		41	7.3	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
Endosulfan sulfate	ND		41	7.6	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
Endrin	ND		41	8.1	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
Endrin aldehyde	ND		41	10	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
Endrin ketone	ND		41	10	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
gamma-BHC (Lindane)	ND		41	7.5	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
trans-Chlordane	ND		41	13	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
Heptachlor	ND		41	8.8	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
Heptachlor epoxide	ND		41	10	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
Methoxychlor	ND		41	8.3	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
Toxaphene	ND		410	240	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*334*	*S1+*	*45 - 120*	*08/13/24 07:15*	*08/15/24 13:21*	*20*
DCB Decachlorobiphenyl	*447*	*S1+*	*45 - 120*	*08/13/24 07:15*	*08/15/24 13:21*	*20*
Tetrachloro-m-xylene	*155*	*S1+*	*30 - 124*	*08/13/24 07:15*	*08/15/24 13:21*	*20*
Tetrachloro-m-xylene	*134*	*S1+*	*30 - 124*	*08/13/24 07:15*	*08/15/24 13:21*	*20*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.29	0.057	mg/Kg	☼	08/11/24 07:13	08/13/24 05:36	1
PCB-1221	ND		0.29	0.057	mg/Kg	☼	08/11/24 07:13	08/13/24 05:36	1
PCB-1232	ND		0.29	0.057	mg/Kg	☼	08/11/24 07:13	08/13/24 05:36	1
PCB-1242	ND		0.29	0.057	mg/Kg	☼	08/11/24 07:13	08/13/24 05:36	1
PCB-1248	ND		0.29	0.057	mg/Kg	☼	08/11/24 07:13	08/13/24 05:36	1
PCB-1254	ND		0.29	0.14	mg/Kg	☼	08/11/24 07:13	08/13/24 05:36	1
PCB-1260	ND		0.29	0.14	mg/Kg	☼	08/11/24 07:13	08/13/24 05:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*121*		*60 - 154*	*08/11/24 07:13*	*08/13/24 05:36*	*1*
Tetrachloro-m-xylene	*100*		*60 - 154*	*08/11/24 07:13*	*08/13/24 05:36*	*1*
DCB Decachlorobiphenyl	*111*		*65 - 174*	*08/11/24 07:13*	*08/13/24 05:36*	*1*
DCB Decachlorobiphenyl	*108*		*65 - 174*	*08/11/24 07:13*	*08/13/24 05:36*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**19000**		12.8	11.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Antimony	ND		19.1	0.68	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Arsenic	**5.4**		2.6	1.1	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Barium	**119**		0.64	0.18	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Beryllium	**1.1**		0.26	0.051	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Cadmium	**0.38**		0.26	0.089	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Calcium	**37600**		63.8	34.4	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Chromium	**33.7**		0.64	0.46	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Cobalt	**11.3**		0.64	0.13	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Copper	**38.1**		1.3	0.73	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Iron	**20700**		12.8	10.8	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Lead	**52.2**		1.3	0.59	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Magnesium	**12400**		25.5	10.8	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1

Client Sample ID: SB-09-0.0-0.2
Lab Sample ID: 480-222440-7

Date Collected: 08/08/24 12:50
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 81.8

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**605**		1.3	0.36	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Nickel	**30.9**		6.4	0.32	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Potassium	**4420**		38.3	30.9	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Selenium	ND		5.1	1.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Silver	ND		0.77	0.26	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Sodium	**190**		179	78.2	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Thallium	ND		7.7	0.97	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Vanadium	**37.1**		0.64	0.17	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Zinc	**102**		2.6	1.3	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.21**		0.026	0.0059	mg/Kg	☼	08/13/24 08:15	08/13/24 10:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	**4.7**	J-	1.1	0.55	mg/Kg	☼	08/16/24 11:20	08/20/24 10:29	1

Client Sample ID: SB-09-4.0-5.0
Lab Sample ID: 480-222440-8

Date Collected: 08/08/24 14:50
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 75.4

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.6	0.34	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
1,1,2,2-Tetrachloroethane	ND		4.6	0.75	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.6	1.1	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
1,1,2-Trichloroethane	ND		4.6	0.60	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
1,1-Dichloroethane	ND		4.6	0.56	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
1,1-Dichloroethene	ND		4.6	0.57	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
1,2,4-Trichlorobenzene	ND		4.6	0.28	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
1,2-Dibromo-3-Chloropropane	ND		4.6	2.3	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
1,2-Dibromoethane	ND		4.6	0.59	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
1,2-Dichlorobenzene	ND		4.6	0.36	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
1,2-Dichloroethane	ND		4.6	0.23	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
1,2-Dichloropropane	ND		4.6	2.3	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
1,3-Dichlorobenzene	ND		4.6	0.24	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
1,4-Dichlorobenzene	ND		4.6	0.65	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
2-Butanone (MEK)	**6.7**	**J**	23	1.7	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
2-Hexanone	ND		23	2.3	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
4-Methyl-2-pentanone (MIBK)	ND		23	1.5	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Acetone	**26**		23	3.9	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Benzene	ND		4.6	0.23	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Bromodichloromethane	ND		4.6	0.62	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Bromoform	ND		4.6	2.3	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Bromomethane	ND		4.6	0.42	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Carbon disulfide	ND		4.6	2.3	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Carbon tetrachloride	ND		4.6	0.45	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Chlorobenzene	ND		4.6	0.61	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Chloroethane	ND		4.6	1.0	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1

Client Sample ID: SB-09-4.0-5.0
Lab Sample ID: 480-222440-8

Date Collected: 08/08/24 14:50
Matrix: Solid

Date Received: 08/08/24 17:09
Percent Solids: 75.4

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		4.6	0.29	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Chloromethane	ND		4.6	0.28	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
cis-1,2-Dichloroethene	ND		4.6	0.59	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
cis-1,3-Dichloropropene	ND		4.6	0.67	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Cyclohexane	ND		4.6	0.65	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Dibromochloromethane	ND		4.6	0.59	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Dichlorodifluoromethane	ND		4.6	0.38	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Ethylbenzene	ND		4.6	0.32	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Isopropylbenzene	ND		4.6	0.70	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Methyl acetate	ND		23	2.8	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Methyl tert-butyl ether	ND		4.6	0.45	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Methylcyclohexane	ND		4.6	0.70	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Methylene Chloride	**3.4**	**J**	4.6	2.1	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Styrene	ND		4.6	0.23	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Tetrachloroethene	ND		4.6	0.62	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Toluene	ND		4.6	0.35	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
trans-1,2-Dichloroethene	ND		4.6	0.48	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
trans-1,3-Dichloropropene	ND		4.6	2.0	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Trichloroethene	ND		4.6	1.0	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Trichlorofluoromethane	ND		4.6	0.44	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Vinyl chloride	ND		4.6	0.56	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Xylenes, Total	ND		9.2	0.78	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*08/09/24 15:00*	*08/13/24 04:17*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*64 - 126*	*08/09/24 15:00*	*08/13/24 04:17*	*1*
4-Bromofluorobenzene (Surr)	*95*		*72 - 126*	*08/09/24 15:00*	*08/13/24 04:17*	*1*
Dibromofluoromethane (Surr)	*108*		*60 - 140*	*08/09/24 15:00*	*08/13/24 04:17*	*1*
Toluene-d8 (Surr)	*96*		*71 - 125*	*08/09/24 15:00*	*08/13/24 04:17*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		220	61	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
2,4,6-Trichlorophenol	ND		220	45	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
2,4-Dichlorophenol	ND		220	24	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
2,4-Dimethylphenol	ND		220	54	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
2,4-Dinitrophenol	ND		2200	1000	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
2,4-Dinitrotoluene	ND		220	46	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
2,6-Dinitrotoluene	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
2-Chloronaphthalene	ND		220	37	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
2-Chlorophenol	ND		430	41	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
2-Methylnaphthalene	ND		220	45	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
2-Methylphenol	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
2-Nitroaniline	ND		430	33	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
2-Nitrophenol	ND		220	63	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
3,3'-Dichlorobenzidine	ND		430	260	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
3-Nitroaniline	ND		430	62	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
4,6-Dinitro-2-methylphenol	ND		430	220	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1

Client Sample ID: SB-09-4.0-5.0
Lab Sample ID: 480-222440-8

Date Collected: 08/08/24 14:50
Matrix: Solid

Date Received: 08/08/24 17:09
Percent Solids: 75.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Bromophenyl phenyl ether	ND		220	32	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
4-Chloro-3-methylphenol	ND		220	55	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
4-Chloroaniline	ND		220	55	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
4-Chlorophenyl phenyl ether	ND		220	28	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
4-Methylphenol	ND		430	26	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
4-Nitroaniline	ND		430	120	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
4-Nitrophenol	ND		430	160	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Acenaphthene	ND		220	33	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Acenaphthylene	ND		220	29	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Acetophenone	ND		220	30	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Anthracene	ND		220	55	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Atrazine	ND		220	78	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Benzaldehyde	ND		220	180	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Benzo[a]anthracene	ND		220	22	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Benzo[a]pyrene	ND		220	33	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Benzo[b]fluoranthene	ND		220	36	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Benzo[g,h,i]perylene	ND		220	24	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Benzo[k]fluoranthene	ND		220	29	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Biphenyl	ND		220	33	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
bis (2-chloroisopropyl) ether	ND		220	45	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Bis(2-chloroethoxy)methane	ND		220	47	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Bis(2-chloroethyl)ether	ND		220	29	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Bis(2-ethylhexyl) phthalate	ND		220	76	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Butyl benzyl phthalate	ND		220	37	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Caprolactam	ND		220	67	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Carbazole	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Chrysene	ND		220	50	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Dibenz(a,h)anthracene	ND		220	40	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Dibenzofuran	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Diethyl phthalate	ND		220	29	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Dimethyl phthalate	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Di-n-butyl phthalate	ND		220	38	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Di-n-octyl phthalate	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Fluoranthene	ND		220	24	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Fluorene	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Hexachlorobenzene	ND		220	30	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Hexachlorobutadiene	ND		220	33	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Hexachlorocyclopentadiene	ND		220	30	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Hexachloroethane	ND		220	29	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Indeno[1,2,3-cd]pyrene	ND		220	28	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Isophorone	ND		220	47	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Naphthalene	ND		220	29	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Nitrobenzene	ND		220	25	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
N-Nitrosodi-n-propylamine	ND		220	38	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
N-Nitrosodiphenylamine	ND		220	180	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Pentachlorophenol	ND		430	220	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Phenanthrene	ND		220	33	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Phenol	ND		220	34	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Pyrene	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1

Client Sample ID: SB-09-4.0-5.0
Date Collected: 08/08/24 14:50
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-8
Matrix: Solid
Percent Solids: 75.4

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	1800	T J	ug/Kg	☼	1.79	N/A	08/11/24 07:25	08/12/24 18:36	1
Unknown	3500	T J	ug/Kg	☼	1.92	N/A	08/11/24 07:25	08/12/24 18:36	1
Unknown	4800	T J	ug/Kg	☼	3.30	N/A	08/11/24 07:25	08/12/24 18:36	1
Unknown	220	T J	ug/Kg	☼	3.97	N/A	08/11/24 07:25	08/12/24 18:36	1
Phosphonic acid, dioctadecyl ester	290	T J N	ug/Kg	☼	13.13	19047-85-9	08/11/24 07:25	08/12/24 18:36	1
1-Nonadecene	410	T J N	ug/Kg	☼	13.67	18435-45-5	08/11/24 07:25	08/12/24 18:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	65		26 - 143	08/11/24 07:25	08/12/24 18:36	1
2-Fluorobiphenyl	74		50 - 121	08/11/24 07:25	08/12/24 18:36	1
2-Fluorophenol	58		36 - 120	08/11/24 07:25	08/12/24 18:36	1
Nitrobenzene-d5	69		40 - 121	08/11/24 07:25	08/12/24 18:36	1
Phenol-d5	68		41 - 120	08/11/24 07:25	08/12/24 18:36	1
p-Terphenyl-d14	80		46 - 143	08/11/24 07:25	08/12/24 18:36	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.2	0.42	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
4,4'-DDE	ND		2.2	0.45	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
4,4'-DDT	ND		2.2	0.50	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
Aldrin	ND		2.2	0.53	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
alpha-BHC	ND		2.2	0.39	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
cis-Chlordane	ND		2.2	1.1	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
beta-BHC	ND		2.2	0.39	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
delta-BHC	ND		2.2	0.40	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
Dieldrin	ND		2.2	0.52	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
Endosulfan I	ND		2.2	0.41	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
Endosulfan II	ND		2.2	0.39	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
Endosulfan sulfate	ND		2.2	0.40	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
Endrin	ND		2.2	0.43	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
Endrin aldehyde	ND		2.2	0.55	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
Endrin ketone	ND		2.2	0.53	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
gamma-BHC (Lindane)	ND		2.2	0.40	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
trans-Chlordane	ND		2.2	0.69	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
Heptachlor	ND		2.2	0.47	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
Heptachlor epoxide	ND		2.2	0.56	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
Methoxychlor	ND		2.2	0.44	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
Toxaphene	ND		22	13	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	66		45 - 120	08/13/24 07:15	08/15/24 13:41	1
DCB Decachlorobiphenyl	89		45 - 120	08/13/24 07:15	08/15/24 13:41	1
Tetrachloro-m-xylene	69		30 - 124	08/13/24 07:15	08/15/24 13:41	1
Tetrachloro-m-xylene	80		30 - 124	08/13/24 07:15	08/15/24 13:41	1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.28	0.054	mg/Kg	☼	08/11/24 07:13	08/13/24 05:53	1
PCB-1221	ND		0.28	0.054	mg/Kg	☼	08/11/24 07:13	08/13/24 05:53	1
PCB-1232	ND		0.28	0.054	mg/Kg	☼	08/11/24 07:13	08/13/24 05:53	1
PCB-1242	ND		0.28	0.054	mg/Kg	☼	08/11/24 07:13	08/13/24 05:53	1

Client Sample ID: SB-09-4.0-5.0
Lab Sample ID: 480-222440-8

Date Collected: 08/08/24 14:50
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 75.4

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1248	ND		0.28	0.054	mg/Kg	☼	08/11/24 07:13	08/13/24 05:53	1
PCB-1254	ND		0.28	0.13	mg/Kg	☼	08/11/24 07:13	08/13/24 05:53	1
PCB-1260	ND		0.28	0.13	mg/Kg	☼	08/11/24 07:13	08/13/24 05:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*127*		*60 - 154*	*08/11/24 07:13*	*08/13/24 05:53*	*1*
Tetrachloro-m-xylene	*100*		*60 - 154*	*08/11/24 07:13*	*08/13/24 05:53*	*1*
DCB Decachlorobiphenyl	*122*		*65 - 174*	*08/11/24 07:13*	*08/13/24 05:53*	*1*
DCB Decachlorobiphenyl	*118*		*65 - 174*	*08/11/24 07:13*	*08/13/24 05:53*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**24400**		12.8	11.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Antimony	ND		19.1	0.68	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Arsenic	**4.0**		2.6	1.1	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Barium	**129**		0.64	0.18	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Beryllium	**1.0**		0.26	0.051	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Cadmium	**0.33**		0.26	0.089	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Calcium	**7020**		63.8	34.4	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Chromium	**27.4**		0.64	0.46	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Cobalt	**15.4**		0.64	0.13	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Copper	**14.5**		1.3	0.73	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Iron	**24200**		12.8	10.8	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Lead	**19.2**		1.3	0.59	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Magnesium	**6630**		25.5	10.8	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Manganese	**1110**		1.3	0.36	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Nickel	**26.8**		6.4	0.32	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Potassium	**3840**		38.3	30.9	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Selenium	ND		5.1	1.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Silver	ND		0.77	0.26	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Sodium	**122**	**J**	179	78.2	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Thallium	ND		7.7	0.97	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Vanadium	**44.2**		0.64	0.17	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Zinc	**96.3**		2.6	1.3	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.047**		0.027	0.0062	mg/Kg	☼	08/13/24 08:15	08/13/24 10:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	R		1.2	0.56	mg/Kg	☼	08/16/24 12:10	08/20/24 10:32	1

Client Sample ID: SB-09-28.0-30.0
Lab Sample ID: 480-222440-9

Date Collected: 08/08/24 15:00
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 70.2

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		6.3	0.46	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
1,1,2,2-Tetrachloroethane	ND		6.3	1.0	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1

Client Sample ID: SB-09-28.0-30.0
Lab Sample ID: 480-222440-9

Date Collected: 08/08/24 15:00
Matrix: Solid

Date Received: 08/08/24 17:09
Percent Solids: 70.2

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6.3	1.4	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
1,1,2-Trichloroethane	ND		6.3	0.82	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
1,1-Dichloroethane	ND		6.3	0.77	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
1,1-Dichloroethene	ND		6.3	0.77	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
1,2,4-Trichlorobenzene	ND		6.3	0.38	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
1,2-Dibromo-3-Chloropropane	ND		6.3	3.2	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
1,2-Dibromoethane	ND		6.3	0.81	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
1,2-Dichlorobenzene	ND		6.3	0.49	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
1,2-Dichloroethane	ND		6.3	0.32	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
1,2-Dichloropropane	ND		6.3	3.2	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
1,3-Dichlorobenzene	ND		6.3	0.32	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
1,4-Dichlorobenzene	ND		6.3	0.88	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
2-Butanone (MEK)	ND		32	2.3	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
2-Hexanone	ND		32	3.2	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
4-Methyl-2-pentanone (MIBK)	ND		32	2.1	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Acetone	17	J	32	5.3	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Benzene	ND		6.3	0.31	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Bromodichloromethane	ND		6.3	0.85	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Bromoform	ND		6.3	3.2	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Bromomethane	ND		6.3	0.57	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Carbon disulfide	ND		6.3	3.2	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Carbon tetrachloride	ND		6.3	0.61	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Chlorobenzene	ND		6.3	0.83	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Chloroethane	ND		6.3	1.4	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Chloroform	ND		6.3	0.39	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Chloromethane	ND		6.3	0.38	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
cis-1,2-Dichloroethene	ND		6.3	0.81	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
cis-1,3-Dichloropropene	ND		6.3	0.91	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Cyclohexane	ND		6.3	0.88	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Dibromochloromethane	ND		6.3	0.81	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Dichlorodifluoromethane	ND		6.3	0.52	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Ethylbenzene	ND		6.3	0.44	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Isopropylbenzene	ND		6.3	0.95	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Methyl acetate	ND		32	3.8	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Methyl tert-butyl ether	ND		6.3	0.62	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Methylcyclohexane	ND		6.3	0.96	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Methylene Chloride	6.1	J	6.3	2.9	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Styrene	ND		6.3	0.32	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Tetrachloroethene	ND		6.3	0.85	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Toluene	ND		6.3	0.48	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
trans-1,2-Dichloroethene	ND		6.3	0.65	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
trans-1,3-Dichloropropene	ND		6.3	2.8	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Trichloroethene	ND		6.3	1.4	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Trichlorofluoromethane	ND		6.3	0.60	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Vinyl chloride	ND		6.3	0.77	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Xylenes, Total	ND		13	1.1	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*08/09/24 15:00*	*08/13/24 04:41*	*1*

Client Sample ID: SB-09-28.0-30.0
Date Collected: 08/08/24 15:00
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-9
Matrix: Solid
Percent Solids: 70.2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*64 - 126*	*08/09/24 15:00*	*08/13/24 04:41*	*1*
4-Bromofluorobenzene (Surr)	*91*		*72 - 126*	*08/09/24 15:00*	*08/13/24 04:41*	*1*
Dibromofluoromethane (Surr)	*107*		*60 - 140*	*08/09/24 15:00*	*08/13/24 04:41*	*1*
Toluene-d8 (Surr)	*96*		*71 - 125*	*08/09/24 15:00*	*08/13/24 04:41*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		240	65	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
2,4,6-Trichlorophenol	ND		240	48	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
2,4-Dichlorophenol	ND		240	25	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
2,4-Dimethylphenol	ND		240	58	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
2,4-Dinitrophenol	ND		2300	1100	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
2,4-Dinitrotoluene	ND		240	49	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
2,6-Dinitrotoluene	ND		240	28	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
2-Chloronaphthalene	ND		240	39	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
2-Chlorophenol	ND		460	43	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
2-Methylnaphthalene	ND		240	48	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
2-Methylphenol	ND		240	28	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
2-Nitroaniline	ND		460	35	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
2-Nitrophenol	ND		240	67	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
3,3'-Dichlorobenzidine	ND		460	280	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
3-Nitroaniline	ND		460	66	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
4,6-Dinitro-2-methylphenol	ND		460	240	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
4-Bromophenyl phenyl ether	ND		240	34	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
4-Chloro-3-methylphenol	ND		240	59	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
4-Chloroaniline	ND		240	59	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
4-Chlorophenyl phenyl ether	ND		240	29	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
4-Methylphenol	ND		460	28	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
4-Nitroaniline	ND		460	120	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
4-Nitrophenol	ND		460	170	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Acenaphthene	ND		240	35	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Acenaphthylene	ND		240	31	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Acetophenone	ND		240	32	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Anthracene	ND		240	59	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Atrazine	ND		240	83	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Benzaldehyde	ND		240	190	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Benzo[a]anthracene	ND		240	24	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Benzo[a]pyrene	ND		240	35	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Benzo[b]fluoranthene	ND		240	38	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Benzo[g,h,i]perylene	ND		240	25	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Benzo[k]fluoranthene	ND		240	31	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Biphenyl	ND		240	35	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
bis (2-chloroisopropyl) ether	ND		240	48	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Bis(2-chloroethoxy)methane	ND		240	51	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Bis(2-chloroethyl)ether	ND		240	31	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Bis(2-ethylhexyl) phthalate	ND		240	81	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Butyl benzyl phthalate	ND		240	39	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Caprolactam	ND		240	72	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Carbazole	ND		240	28	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Chrysene	ND		240	53	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1

Client Sample ID: SB-09-28.0-30.0
Lab Sample ID: 480-222440-9
Date Collected: 08/08/24 15:00
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 70.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		240	42	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Dibenzofuran	ND		240	28	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Diethyl phthalate	ND		240	31	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Dimethyl phthalate	ND		240	28	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Di-n-butyl phthalate	ND		240	41	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Di-n-octyl phthalate	ND		240	28	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Fluoranthene	ND		240	25	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Fluorene	ND		240	28	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Hexachlorobenzene	ND		240	32	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Hexachlorobutadiene	ND		240	35	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Hexachlorocyclopentadiene	ND		240	32	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Hexachloroethane	ND		240	31	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Indeno[1,2,3-cd]pyrene	ND		240	29	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Isophorone	ND		240	51	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Naphthalene	ND		240	31	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Nitrobenzene	ND		240	27	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
N-Nitrosodi-n-propylamine	ND		240	41	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
N-Nitrosodiphenylamine	ND		240	190	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Pentachlorophenol	ND		460	240	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Phenanthrene	ND		240	35	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Phenol	ND		240	36	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Pyrene	ND		240	28	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*3800*	*T J*	*ug/Kg*	☼	*1.92*	*N/A*	*08/11/24 07:25*	*08/12/24 19:04*	*1*
Unknown	*5000*	*T J*	*ug/Kg*	☼	*3.30*	*N/A*	*08/11/24 07:25*	*08/12/24 19:04*	*1*
Unknown	*240*	*T J*	*ug/Kg*	☼	*3.97*	*N/A*	*08/11/24 07:25*	*08/12/24 19:04*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*90*		*26 - 143*	*08/11/24 07:25*	*08/12/24 19:04*	*1*
2-Fluorobiphenyl	*74*		*50 - 121*	*08/11/24 07:25*	*08/12/24 19:04*	*1*
2-Fluorophenol	*70*		*36 - 120*	*08/11/24 07:25*	*08/12/24 19:04*	*1*
Nitrobenzene-d5	*77*		*40 - 121*	*08/11/24 07:25*	*08/12/24 19:04*	*1*
Phenol-d5	*75*		*41 - 120*	*08/11/24 07:25*	*08/12/24 19:04*	*1*
p-Terphenyl-d14	*78*		*46 - 143*	*08/11/24 07:25*	*08/12/24 19:04*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.3	0.45	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
4,4'-DDE	ND		2.3	0.48	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
4,4'-DDT	ND		2.3	0.54	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
Aldrin	ND		2.3	0.57	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
alpha-BHC	ND		2.3	0.42	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
cis-Chlordane	ND		2.3	1.1	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
beta-BHC	ND		2.3	0.42	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
delta-BHC	ND		2.3	0.43	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
Dieldrin	ND		2.3	0.55	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
Endosulfan I	ND		2.3	0.44	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
Endosulfan II	ND		2.3	0.42	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
Endosulfan sulfate	ND		2.3	0.43	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1

Client Sample ID: SB-09-28.0-30.0
Lab Sample ID: 480-222440-9

Date Collected: 08/08/24 15:00
Matrix: Solid

Date Received: 08/08/24 17:09
Percent Solids: 70.2

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin	ND		2.3	0.46	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
Endrin aldehyde	ND		2.3	0.59	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
Endrin ketone	ND		2.3	0.57	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
gamma-BHC (Lindane)	ND		2.3	0.42	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
trans-Chlordane	ND		2.3	0.73	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
Heptachlor	ND		2.3	0.50	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
Heptachlor epoxide	ND		2.3	0.60	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
Methoxychlor	ND		2.3	0.47	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
Toxaphene	ND		23	13	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*72*		*45 - 120*	*08/13/24 07:15*	*08/15/24 14:01*	*1*
DCB Decachlorobiphenyl	*87*		*45 - 120*	*08/13/24 07:15*	*08/15/24 14:01*	*1*
Tetrachloro-m-xylene	*65*		*30 - 124*	*08/13/24 07:15*	*08/15/24 14:01*	*1*
Tetrachloro-m-xylene	*79*		*30 - 124*	*08/13/24 07:15*	*08/15/24 14:01*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.33	0.065	mg/Kg	☼	08/11/24 07:13	08/13/24 06:11	1
PCB-1221	ND		0.33	0.065	mg/Kg	☼	08/11/24 07:13	08/13/24 06:11	1
PCB-1232	ND		0.33	0.065	mg/Kg	☼	08/11/24 07:13	08/13/24 06:11	1
PCB-1242	ND		0.33	0.065	mg/Kg	☼	08/11/24 07:13	08/13/24 06:11	1
PCB-1248	ND		0.33	0.065	mg/Kg	☼	08/11/24 07:13	08/13/24 06:11	1
PCB-1254	ND		0.33	0.16	mg/Kg	☼	08/11/24 07:13	08/13/24 06:11	1
PCB-1260	ND		0.33	0.16	mg/Kg	☼	08/11/24 07:13	08/13/24 06:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*120*		*60 - 154*	*08/11/24 07:13*	*08/13/24 06:11*	*1*
Tetrachloro-m-xylene	*99*		*60 - 154*	*08/11/24 07:13*	*08/13/24 06:11*	*1*
DCB Decachlorobiphenyl	*119*		*65 - 174*	*08/11/24 07:13*	*08/13/24 06:11*	*1*
DCB Decachlorobiphenyl	*115*		*65 - 174*	*08/11/24 07:13*	*08/13/24 06:11*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**32000**		14.5	12.5	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Antimony	ND		21.8	0.77	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Arsenic	**4.1**		2.9	1.3	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Barium	**163**		0.73	0.20	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Beryllium	**1.5**		0.29	0.058	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Cadmium	ND	U	0.29	0.10	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Calcium	**45400**		72.5	39.1	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Chromium	**40.1**		0.73	0.52	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Cobalt	**18.9**		0.73	0.15	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Copper	**26.4**		1.5	0.83	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Iron	**31000**		14.5	12.3	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Lead	**11.5**		1.5	0.67	mg/Kg	☼	08/12/24 14:53	08/14/24 15:43	1
Magnesium	**16400**		29.0	12.3	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Manganese	**604**		1.5	0.41	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Nickel	**43.1**		7.3	0.36	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Potassium	**9790**		43.5	35.1	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1

Client Sample ID: SB-09-28.0-30.0
Lab Sample ID: 480-222440-9

Date Collected: 08/08/24 15:00
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 70.2

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	**1.2**	**J**	5.8	1.2	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Silver	ND		0.87	0.29	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Sodium	**434**		203	88.9	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Thallium	ND		8.7	1.1	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Vanadium	**59.9**		0.73	0.19	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Zinc	**75.2**		2.9	1.5	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.018**	**J**	0.029	0.0066	mg/Kg	☼	08/13/24 08:15	08/13/24 10:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.4	0.68	mg/Kg	☼	08/16/24 12:10	08/20/24 10:33	1

Client Sample ID: SB-08-0.0-0.2
Lab Sample ID: 480-222440-10

Date Collected: 08/08/24 15:10
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 90.5

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		19000	5000	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
2,4,6-Trichlorophenol	ND		19000	3700	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
2,4-Dichlorophenol	ND		19000	2000	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
2,4-Dimethylphenol	ND		19000	4500	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
2,4-Dinitrophenol	ND		180000	86000	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
2,4-Dinitrotoluene	ND		19000	3800	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
2,6-Dinitrotoluene	ND		19000	2200	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
2-Chloronaphthalene	ND		19000	3100	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
2-Chlorophenol	ND		36000	3400	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
2-Methylnaphthalene	ND		19000	3700	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
2-Methylphenol	ND		19000	2200	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
2-Nitroaniline	ND		36000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
2-Nitrophenol	ND		19000	5200	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
3,3'-Dichlorobenzidine	ND		36000	22000	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
3-Nitroaniline	ND		36000	5100	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
4,6-Dinitro-2-methylphenol	ND		36000	19000	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
4-Bromophenyl phenyl ether	ND		19000	2600	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
4-Chloro-3-methylphenol	ND		19000	4600	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
4-Chloroaniline	ND		19000	4600	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
4-Chlorophenyl phenyl ether	ND		19000	2300	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
4-Methylphenol	ND		36000	2200	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
4-Nitroaniline	ND		36000	9700	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
4-Nitrophenol	ND		36000	13000	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Acenaphthene	ND		19000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Acenaphthylene	ND		19000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Acetophenone	ND		19000	2500	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Anthracene	ND		19000	4600	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Atrazine	ND		19000	6400	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Benzaldehyde	ND		19000	15000	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10

Client Sample ID: SB-08-0.0-0.2
Lab Sample ID: 480-222440-10
Date Collected: 08/08/24 15:10
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 90.5

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		19000	1900	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Benzo[a]pyrene	ND		19000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Benzo[b]fluoranthene	ND		19000	2900	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Benzo[g,h,i]perylene	**5300**	**J**	19000	2000	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Benzo[k]fluoranthene	ND		19000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Biphenyl	ND		19000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
bis (2-chloroisopropyl) ether	ND		19000	3700	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Bis(2-chloroethoxy)methane	ND		19000	3900	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Bis(2-chloroethyl)ether	ND		19000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Bis(2-ethylhexyl) phthalate	ND		19000	6300	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Butyl benzyl phthalate	ND		19000	3100	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Caprolactam	ND		19000	5600	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Carbazole	ND		19000	2200	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Chrysene	ND		19000	4100	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Dibenz(a,h)anthracene	ND		19000	3300	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Dibenzofuran	ND		19000	2200	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Diethyl phthalate	ND		19000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Dimethyl phthalate	ND		19000	2200	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Di-n-butyl phthalate	ND		19000	3200	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Di-n-octyl phthalate	ND		19000	2200	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Fluoranthene	ND		19000	2000	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Fluorene	ND		19000	2200	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Hexachlorobenzene	ND		19000	2500	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Hexachlorobutadiene	ND		19000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Hexachlorocyclopentadiene	ND		19000	2500	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Hexachloroethane	ND		19000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Indeno[1,2,3-cd]pyrene	ND		19000	2300	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Isophorone	ND		19000	3900	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Naphthalene	ND		19000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Nitrobenzene	ND		19000	2100	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
N-Nitrosodi-n-propylamine	ND		19000	3200	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
N-Nitrosodiphenylamine	ND		19000	15000	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Pentachlorophenol	ND		36000	19000	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Phenanthrene	ND		19000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Phenol	ND		19000	2800	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Pyrene	ND		19000	2200	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*08/11/24 07:25*	*08/12/24 19:33*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*0*	*S1-*	*26 - 143*	*08/11/24 07:25*	*08/12/24 19:33*	*10*
2-Fluorobiphenyl	*72*		*50 - 121*	*08/11/24 07:25*	*08/12/24 19:33*	*10*
2-Fluorophenol	*0*	*S1-*	*36 - 120*	*08/11/24 07:25*	*08/12/24 19:33*	*10*
Nitrobenzene-d5	*76*		*40 - 121*	*08/11/24 07:25*	*08/12/24 19:33*	*10*
Phenol-d5	*73*		*41 - 120*	*08/11/24 07:25*	*08/12/24 19:33*	*10*
p-Terphenyl-d14	*85*		*46 - 143*	*08/11/24 07:25*	*08/12/24 19:33*	*10*

Client Sample ID: SB-08-0.0-0.2
Date Collected: 08/08/24 15:10
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-10
Matrix: Solid
Percent Solids: 90.5

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		91	18	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
4,4'-DDE	ND		91	19	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
4,4'-DDT	ND		91	21	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
Aldrin	ND		91	22	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
alpha-BHC	ND		91	16	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
cis-Chlordane	ND		91	45	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
beta-BHC	ND		91	16	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
delta-BHC	ND		91	17	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
Dieldrin	ND		91	22	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
Endosulfan I	ND		91	17	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
Endosulfan II	ND		91	16	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
Endosulfan sulfate	ND		91	17	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
Endrin	ND		91	18	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
Endrin aldehyde	ND		91	23	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
Endrin ketone	ND		91	22	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
gamma-BHC (Lindane)	ND		91	17	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
trans-Chlordane	ND		91	29	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
Heptachlor	ND		91	20	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
Heptachlor epoxide	ND		91	23	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
Methoxychlor	ND		91	18	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
Toxaphene	ND		910	530	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*08/13/24 07:15*	*08/15/24 14:20*	*50*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*08/13/24 07:15*	*08/15/24 14:20*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*08/13/24 07:15*	*08/15/24 14:20*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*08/13/24 07:15*	*08/15/24 14:20*	*50*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.26	0.051	mg/Kg	☼	08/11/24 07:13	08/13/24 06:29	1
PCB-1221	ND		0.26	0.051	mg/Kg	☼	08/11/24 07:13	08/13/24 06:29	1
PCB-1232	ND		0.26	0.051	mg/Kg	☼	08/11/24 07:13	08/13/24 06:29	1
PCB-1242	ND		0.26	0.051	mg/Kg	☼	08/11/24 07:13	08/13/24 06:29	1
PCB-1248	ND		0.26	0.051	mg/Kg	☼	08/11/24 07:13	08/13/24 06:29	1
PCB-1254	ND		0.26	0.12	mg/Kg	☼	08/11/24 07:13	08/13/24 06:29	1
PCB-1260	**0.31**		0.26	0.12	mg/Kg	☼	08/11/24 07:13	08/13/24 06:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*108*		*60 - 154*	*08/11/24 07:13*	*08/13/24 06:29*	*1*
Tetrachloro-m-xylene	*89*		*60 - 154*	*08/11/24 07:13*	*08/13/24 06:29*	*1*
DCB Decachlorobiphenyl	*86*		*65 - 174*	*08/11/24 07:13*	*08/13/24 06:29*	*1*
DCB Decachlorobiphenyl	*90*		*65 - 174*	*08/11/24 07:13*	*08/13/24 06:29*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**15000**		10.6	9.1	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Antimony	**0.62**	**J**	15.9	0.56	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Arsenic	**12.3**		2.1	0.93	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Barium	**98.6**		0.53	0.15	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1

Client Sample ID: SB-08-0.0-0.2
Lab Sample ID: 480-222440-10

Date Collected: 08/08/24 15:10
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 90.5

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.99		0.21	0.042	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Cadmium	1.1		0.21	0.074	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Calcium	61900		53.0	28.6	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Chromium	110		0.53	0.38	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Cobalt	10.4		0.53	0.11	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Copper	146		1.1	0.60	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Iron	20300		10.6	9.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Lead	591		1.1	0.49	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Magnesium	23300		21.2	9.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Manganese	671		1.1	0.30	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Nickel	74.3		5.3	0.26	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Potassium	2960		31.8	25.7	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Selenium	1.2	J	4.2	0.85	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Silver	0.21	J	0.64	0.21	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Sodium	246		148	65.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Thallium	ND		6.4	0.81	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Vanadium	131		0.53	0.14	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Zinc	262		2.1	1.1	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.77		0.022	0.0051	mg/Kg	☼	08/13/24 08:15	08/13/24 10:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	4.3		1.1	0.51	mg/Kg	☼	08/16/24 12:10	08/20/24 10:34	1

Client Sample ID: SB-07-0.0-0.2
Lab Sample ID: 480-222440-11

Date Collected: 08/08/24 15:25
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 88.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		1100	610	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
2,4,5-Trichlorophenol	ND		1900	510	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
2,4,6-Trichlorophenol	ND		1900	380	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
2,4-Dichlorophenol	ND		1900	200	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
2,4-Dimethylphenol	ND		1900	460	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
2,4-Dinitrophenol	ND		18000	8700	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
2,4-Dinitrotoluene	ND		1900	390	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
2,6-Dinitrotoluene	ND		1900	220	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
2-Chloronaphthalene	ND		1900	310	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
2-Chlorophenol	ND		3700	340	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
2-Methylnaphthalene	ND		1900	380	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
2-Methylphenol	ND		1900	220	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
2-Nitroaniline	ND		3700	280	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
2-Nitrophenol	ND		1900	530	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
3,3'-Dichlorobenzidine	ND		3700	2200	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
3-Nitroaniline	ND		3700	520	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
4,6-Dinitro-2-methylphenol	ND		3700	1900	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10

Client Sample ID: SB-07-0.0-0.2
Lab Sample ID: 480-222440-11

Date Collected: 08/08/24 15:25
Matrix: Solid

Date Received: 08/08/24 17:09
Percent Solids: 88.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Bromophenyl phenyl ether	ND		1900	270	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
4-Chloro-3-methylphenol	ND		1900	470	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
4-Chloroaniline	ND		1900	470	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
4-Chlorophenyl phenyl ether	ND		1900	230	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
4-Methylphenol	ND		3700	220	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
4-Nitroaniline	ND		3700	990	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
4-Nitrophenol	ND		3700	1300	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Acenaphthene	ND		1900	280	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Acenaphthylene	ND		1900	240	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Acetophenone	ND		1900	260	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Anthracene	ND		1900	470	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Atrazine	ND		1900	660	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Benzaldehyde	ND		1900	1500	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Benzo[a]anthracene	ND		1900	190	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Benzo[a]pyrene	ND		1900	280	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Benzo[b]fluoranthene	ND		1900	300	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Benzo[g,h,i]perylene	ND		1900	200	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Benzo[k]fluoranthene	ND		1900	240	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Biphenyl	ND		1900	280	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
bis (2-chloroisopropyl) ether	ND		1900	380	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Bis(2-chloroethoxy)methane	ND		1900	400	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Bis(2-chloroethyl)ether	ND		1900	240	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Bis(2-ethylhexyl) phthalate	ND		1900	650	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Butyl benzyl phthalate	ND		1900	310	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Caprolactam	ND		1900	570	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Carbazole	ND		1900	220	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Chrysene	ND		1900	420	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Dibenz(a,h)anthracene	ND		1900	330	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Dibenzofuran	ND		1900	220	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Diethyl phthalate	ND		1900	240	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Dimethyl phthalate	ND		1900	220	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Di-n-butyl phthalate	ND		1900	320	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Di-n-octyl phthalate	ND		1900	220	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Fluoranthene	**210**	**J**	1900	200	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Fluorene	ND		1900	220	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Hexachlorobenzene	ND		1900	260	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Hexachlorobutadiene	ND		1900	280	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Hexachlorocyclopentadiene	ND		1900	260	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Hexachloroethane	ND		1900	240	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Indeno[1,2,3-cd]pyrene	ND		1900	230	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Isophorone	ND		1900	400	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Naphthalene	ND		1900	240	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Nitrobenzene	ND		1900	210	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
N-Nitrosodi-n-propylamine	ND		1900	320	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
N-Nitrosodiphenylamine	ND		1900	1500	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Pentachlorophenol	ND		3700	1900	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Phenanthrene	ND		1900	280	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Phenol	ND		1900	290	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Pyrene	ND		1900	220	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10

Client Sample ID: SB-07-0.0-0.2
Date Collected: 08/08/24 15:25
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-11
Matrix: Solid
Percent Solids: 88.8

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	3700	T J	ug/Kg	☼	3.32	N/A	08/11/24 07:25	08/12/24 20:01	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	82		26 - 143	08/11/24 07:25	08/12/24 20:01	10
2-Fluorobiphenyl	73		50 - 121	08/11/24 07:25	08/12/24 20:01	10
2-Fluorophenol	71		36 - 120	08/11/24 07:25	08/12/24 20:01	10
Nitrobenzene-d5	74		40 - 121	08/11/24 07:25	08/12/24 20:01	10
Phenol-d5	72		41 - 120	08/11/24 07:25	08/12/24 20:01	10
p-Terphenyl-d14	71		46 - 143	08/11/24 07:25	08/12/24 20:01	10

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		19	3.6	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
4,4'-DDE	ND		19	3.9	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
4,4'-DDT	ND		19	4.4	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
Aldrin	ND		19	4.6	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
alpha-BHC	ND		19	3.4	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
cis-Chlordane	ND		19	9.3	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
beta-BHC	ND		19	3.4	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
delta-BHC	ND		19	3.5	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
Dieldrin	ND		19	4.5	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
Endosulfan I	ND		19	3.6	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
Endosulfan II	ND		19	3.4	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
Endosulfan sulfate	ND		19	3.5	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
Endrin	ND		19	3.7	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
Endrin aldehyde	ND		19	4.8	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
Endrin ketone	ND		19	4.6	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
gamma-BHC (Lindane)	ND		19	3.4	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
trans-Chlordane	ND		19	5.9	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
Heptachlor	ND		19	4.0	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
Heptachlor epoxide	ND		19	4.8	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
Methoxychlor	ND		19	3.8	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
Toxaphene	ND		190	110	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	181	S1+	45 - 120	08/13/24 07:15	08/16/24 16:23	10
DCB Decachlorobiphenyl	154	S1+	45 - 120	08/13/24 07:15	08/16/24 16:23	10
Tetrachloro-m-xylene	103		30 - 124	08/13/24 07:15	08/16/24 16:23	10
Tetrachloro-m-xylene	114		30 - 124	08/13/24 07:15	08/16/24 16:23	10

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.27	0.053	mg/Kg	☼	08/11/24 07:13	08/13/24 06:46	1
PCB-1221	ND		0.27	0.053	mg/Kg	☼	08/11/24 07:13	08/13/24 06:46	1
PCB-1232	ND		0.27	0.053	mg/Kg	☼	08/11/24 07:13	08/13/24 06:46	1
PCB-1242	ND		0.27	0.053	mg/Kg	☼	08/11/24 07:13	08/13/24 06:46	1
PCB-1248	ND		0.27	0.053	mg/Kg	☼	08/11/24 07:13	08/13/24 06:46	1
PCB-1254	ND		0.27	0.13	mg/Kg	☼	08/11/24 07:13	08/13/24 06:46	1
PCB-1260	ND		0.27	0.13	mg/Kg	☼	08/11/24 07:13	08/13/24 06:46	1

Client Sample ID: SB-07-0.0-0.2
Lab Sample ID: 480-222440-11

Date Collected: 08/08/24 15:25
Matrix: Solid

Date Received: 08/08/24 17:09
Percent Solids: 88.8

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*106*		*60 - 154*	*08/11/24 07:13*	*08/13/24 06:46*	*1*
Tetrachloro-m-xylene	*86*		*60 - 154*	*08/11/24 07:13*	*08/13/24 06:46*	*1*
DCB Decachlorobiphenyl	*96*		*65 - 174*	*08/11/24 07:13*	*08/13/24 06:46*	*1*
DCB Decachlorobiphenyl	*95*		*65 - 174*	*08/11/24 07:13*	*08/13/24 06:46*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.78	0.20	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluoropentanoic acid (PFPeA)	ND		0.39	0.098	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluorohexanoic acid (PFHxA)	ND		0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluoroheptanoic acid (PFHpA)	ND		0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluorooctanoic acid (PFOA)	ND		0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluorononanoic acid (PFNA)	**0.073**	JN	0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluorodecanoic acid (PFDA)	**0.12**	**J**	0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluoroundecanoic acid (PFUnA)	**0.16**	JN	0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluorododecanoic acid (PFDoA)	**0.070**	**J**	0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluorotridecanoic acid (PFTrDA)	**0.057**	**J**	0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluorooctanesulfonic acid (PFOS)	**0.19**	**J**	0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluorononanesulfonic acid (PFNS)	ND		0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		0.78	0.20	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		0.78	0.20	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		0.78	0.20	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		2.0	0.49	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		2.0	0.49	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.78	0.20	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.78	0.20	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1

Client Sample ID: SB-07-0.0-0.2
Lab Sample ID: 480-222440-11
Date Collected: 08/08/24 15:25
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 88.8

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.39	0.098	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.39	0.098	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		0.78	0.20	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		0.78	0.20	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.39	0.098	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		0.98	0.24	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		4.9	1.2	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		4.9	1.2	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.39	0.098	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*81.9*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
13C5 PFPeA	*75.2*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
13C5 PFHxA	*77.4*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
13C4 PFHpA	*78.1*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
13C8 PFOA	*82.9*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
13C9 PFNA	*82.6*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
13C6 PFDA	*94.9*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
13C7 PFUnA	*95.5*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
13C2 PFTeDA	*53.7*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
13C3 PFBS	*92.3*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
13C3 PFHxS	*91.2*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
13C8 PFOS	*86.3*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
13C8 FOSA	*77.6*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
d3-NMeFOSAA	*82.0*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
d5-NEtFOSAA	*77.5*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
M2-4:2 FTS	*116*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
M2-6:2 FTS	*125*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
M2-8:2 FTS	*106*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
13C3 HFPO-DA	*78.3*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
d7-N-MeFOSE-M	*75.1*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
d9-N-EtFOSE-M	*80.1*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
d5-NEtPFOSA	*76.4*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
d3-NMePFOSA	*71.4*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
13C2-PFDoDA	*72.1*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**13400**		11.4	9.8	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Antimony	ND		17.1	0.61	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Arsenic	**4.7**		2.3	1.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Barium	**121**		0.57	0.16	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Beryllium	**3.4**		0.23	0.046	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1

Client Sample ID: SB-07-0.0-0.2
Date Collected: 08/08/24 15:25
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-11
Matrix: Solid
Percent Solids: 88.8

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.23	0.080	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Calcium	**64900**		57.1	30.8	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Chromium	**15.7**		0.57	0.41	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Cobalt	**4.6**		0.57	0.11	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Copper	**11.0**		1.1	0.65	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Iron	**10400**		11.4	9.7	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Lead	**13.7**		1.1	0.53	mg/Kg	☼	08/12/24 14:53	08/14/24 15:45	1
Magnesium	**11400**		22.8	9.7	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Manganese	**872**		1.1	0.32	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Nickel	**15.2**		5.7	0.29	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Potassium	**791**		34.3	27.7	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Selenium	ND		4.6	0.91	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Silver	ND		0.69	0.23	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Sodium	**788**		160	70.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Thallium	ND		6.9	0.87	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Vanadium	**6.1**		0.57	0.15	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Zinc	**70.3**		2.3	1.2	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.024**		0.022	0.0050	mg/Kg	☼	08/13/24 08:15	08/13/24 10:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	**0.85**	**J**	1.1	0.53	mg/Kg	☼	08/16/24 12:10	08/20/24 10:36	1

Client: Ashland LLC
Job ID: 480-221655-1
Project/Site: Tank 75 - Soil Analysis

Client Sample ID: SB-03-0.0-0.2
Lab Sample ID: 480-221655-4
Date Collected: 07/15/24 12:20
Matrix: Solid
Date Received: 07/15/24 15:57
Percent Solids: 89.1

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.34	J	0.65	0.22	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Sodium	225		151	66.2	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Thallium	ND		6.5	0.82	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Vanadium	32.7		0.54	0.14	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Zinc	117		2.2	1.1	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14		0.022	0.0051	mg/Kg	☼	07/17/24 08:25	07/17/24 10:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	2.1		1.1	0.53	mg/Kg	☼	07/19/24 13:18	07/19/24 15:44	1

Client Sample ID: SB-08-26.0-28.0
Date Collected: 08/09/24 08:50
Date Received: 08/09/24 13:27

Lab Sample ID: 480-222473-1
Matrix: Solid
Percent Solids: 82.2

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		3.9	0.29	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
1,1,2,2-Tetrachloroethane	ND		3.9	0.64	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.9	0.90	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
1,1,2-Trichloroethane	ND		3.9	0.51	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
1,1-Dichloroethane	ND		3.9	0.48	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
1,1-Dichloroethene	ND		3.9	0.48	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
1,2,4-Trichlorobenzene	ND		3.9	0.24	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
1,2-Dibromo-3-Chloropropane	ND		3.9	2.0	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
1,2-Dibromoethane	ND		3.9	0.51	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
1,2-Dichlorobenzene	ND		3.9	0.31	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
1,2-Dichloroethane	ND		3.9	0.20	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
1,2-Dichloropropane	ND		3.9	2.0	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
1,3-Dichlorobenzene	ND		3.9	0.20	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
1,4-Dichlorobenzene	ND		3.9	0.55	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
2-Butanone (MEK)	ND		20	1.4	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
2-Hexanone	ND		20	2.0	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
4-Methyl-2-pentanone (MIBK)	ND		20	1.3	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Acetone	ND		20	3.3	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Benzene	ND		3.9	0.19	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Bromodichloromethane	ND		3.9	0.53	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Bromoform	ND		3.9	2.0	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Bromomethane	ND		3.9	0.35	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Carbon disulfide	ND		3.9	2.0	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Carbon tetrachloride	ND		3.9	0.38	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Chlorobenzene	ND		3.9	0.52	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Chloroethane	ND		3.9	0.89	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Chloroform	ND		3.9	0.24	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Chloromethane	ND		3.9	0.24	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
cis-1,2-Dichloroethene	ND		3.9	0.50	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
cis-1,3-Dichloropropene	ND		3.9	0.57	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Cyclohexane	ND		3.9	0.55	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Dibromochloromethane	ND		3.9	0.50	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Dichlorodifluoromethane	ND		3.9	0.33	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Ethylbenzene	ND		3.9	0.27	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Isopropylbenzene	ND		3.9	0.59	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Methyl acetate	ND		20	2.4	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Methyl tert-butyl ether	ND		3.9	0.39	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Methylcyclohexane	ND		3.9	0.60	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Methylene Chloride	ND		3.9	1.8	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Styrene	ND		3.9	0.20	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Tetrachloroethene	ND		3.9	0.53	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Toluene	ND		3.9	0.30	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
trans-1,2-Dichloroethene	ND		3.9	0.41	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
trans-1,3-Dichloropropene	ND		3.9	1.7	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Trichloroethene	ND		3.9	0.87	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Trichlorofluoromethane	ND		3.9	0.37	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Vinyl chloride	ND		3.9	0.48	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Xylenes, Total	ND		7.9	0.66	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1

Client Sample ID: SB-08-26.0-28.0
Date Collected: 08/09/24 08:50
Date Received: 08/09/24 13:27

Lab Sample ID: 480-222473-1
Matrix: Solid
Percent Solids: 82.2

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/Kg	☼		N/A	08/09/24 17:45	08/13/24 16:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		64 - 126	08/09/24 17:45	08/13/24 16:24	1
4-Bromofluorobenzene (Surr)	95		72 - 126	08/09/24 17:45	08/13/24 16:24	1
Dibromofluoromethane (Surr)	103		60 - 140	08/09/24 17:45	08/13/24 16:24	1
Toluene-d8 (Surr)	96		71 - 125	08/09/24 17:45	08/13/24 16:24	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		200	55	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
2,4,6-Trichlorophenol	ND		200	41	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
2,4-Dichlorophenol	ND		200	22	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
2,4-Dimethylphenol	ND		200	49	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
2,4-Dinitrophenol	ND		2000	940	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
2,4-Dinitrotoluene	ND		200	42	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
2,6-Dinitrotoluene	ND		200	24	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
2-Chloronaphthalene	ND		200	34	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
2-Chlorophenol	ND		400	37	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
2-Methylnaphthalene	ND		200	41	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
2-Methylphenol	ND		200	24	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
2-Nitroaniline	ND		400	30	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
2-Nitrophenol	ND		200	58	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
3,3'-Dichlorobenzidine	ND		400	240	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
3-Nitroaniline	ND		400	57	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
4,6-Dinitro-2-methylphenol	ND		400	200	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
4-Bromophenyl phenyl ether	ND		200	29	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
4-Chloro-3-methylphenol	ND		200	51	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
4-Chloroaniline	ND		200	51	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
4-Chlorophenyl phenyl ether	ND		200	25	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
4-Methylphenol	ND		400	24	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
4-Nitroaniline	ND		400	110	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
4-Nitrophenol	ND		400	140	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Acenaphthene	ND		200	30	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Acenaphthylene	ND		200	26	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Acetophenone	ND		200	28	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Anthracene	ND		200	51	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Atrazine	ND		200	71	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Benzaldehyde	ND		200	160	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Benzo[a]anthracene	ND		200	20	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Benzo[a]pyrene	ND		200	30	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Benzo[b]fluoranthene	ND		200	32	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Benzo[g,h,i]perylene	ND		200	22	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Benzo[k]fluoranthene	ND		200	26	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Biphenyl	ND		200	30	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
bis (2-chloroisopropyl) ether	ND		200	41	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Bis(2-chloroethoxy)methane	ND		200	43	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Bis(2-chloroethyl)ether	ND		200	26	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Bis(2-ethylhexyl) phthalate	ND		200	70	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Butyl benzyl phthalate	ND		200	34	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1

Client Sample ID: SB-08-26.0-28.0
Lab Sample ID: 480-222473-1
Date Collected: 08/09/24 08:50
Matrix: Solid
Date Received: 08/09/24 13:27
Percent Solids: 82.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Caprolactam	ND		200	61	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Carbazole	ND		200	24	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Chrysene	ND		200	46	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Dibenz(a,h)anthracene	ND		200	36	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Dibenzofuran	ND		200	24	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Diethyl phthalate	ND		200	26	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Dimethyl phthalate	ND		200	24	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Di-n-butyl phthalate	ND		200	35	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Di-n-octyl phthalate	ND		200	24	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Fluoranthene	ND		200	22	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Fluorene	ND		200	24	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Hexachlorobenzene	ND		200	28	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Hexachlorobutadiene	ND		200	30	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Hexachlorocyclopentadiene	ND		200	28	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Hexachloroethane	ND		200	26	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Indeno[1,2,3-cd]pyrene	ND		200	25	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Isophorone	ND		200	43	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Naphthalene	ND		200	26	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Nitrobenzene	ND		200	23	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
N-Nitrosodi-n-propylamine	ND		200	35	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
N-Nitrosodiphenylamine	ND		200	170	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Pentachlorophenol	ND		400	200	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Phenanthrene	ND		200	30	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Phenol	ND		200	31	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Pyrene	ND		200	24	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*3000*	*T J*	*ug/Kg*	☼	*1.92*	*N/A*	*08/13/24 07:23*	*08/16/24 03:45*	*1*
Unknown	*4700*	*T J*	*ug/Kg*	☼	*3.30*	*N/A*	*08/13/24 07:23*	*08/16/24 03:45*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*94*		*26 - 143*	*08/13/24 07:23*	*08/16/24 03:45*	*1*
2-Fluorobiphenyl	*81*		*50 - 121*	*08/13/24 07:23*	*08/16/24 03:45*	*1*
2-Fluorophenol	*73*		*36 - 120*	*08/13/24 07:23*	*08/16/24 03:45*	*1*
Nitrobenzene-d5	*80*		*40 - 121*	*08/13/24 07:23*	*08/16/24 03:45*	*1*
Phenol-d5	*82*		*41 - 120*	*08/13/24 07:23*	*08/16/24 03:45*	*1*
p-Terphenyl-d14	*87*		*46 - 143*	*08/13/24 07:23*	*08/16/24 03:45*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.0	0.38	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
4,4'-DDE	ND		2.0	0.41	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
4,4'-DDT	ND		2.0	0.46	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
Aldrin	ND		2.0	0.49	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
alpha-BHC	ND		2.0	0.36	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
cis-Chlordane	ND		2.0	0.98	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
beta-BHC	ND		2.0	0.36	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
delta-BHC	ND		2.0	0.37	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
Dieldrin	ND		2.0	0.47	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
Endosulfan I	ND		2.0	0.38	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1

Client Sample ID: SB-08-26.0-28.0
Lab Sample ID: 480-222473-1
Date Collected: 08/09/24 08:50
Matrix: Solid
Date Received: 08/09/24 13:27
Percent Solids: 82.2

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan II	ND		2.0	0.36	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
Endosulfan sulfate	ND		2.0	0.37	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
Endrin	ND		2.0	0.39	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
Endrin aldehyde	ND		2.0	0.50	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
Endrin ketone	ND		2.0	0.49	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
gamma-BHC (Lindane)	ND		2.0	0.36	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
trans-Chlordane	ND		2.0	0.63	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
Heptachlor	ND		2.0	0.43	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
Heptachlor epoxide	ND		2.0	0.51	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
Methoxychlor	ND		2.0	0.40	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
Toxaphene	ND		20	11	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*94*		*45 - 120*	*08/15/24 15:16*	*08/16/24 18:41*	*1*
DCB Decachlorobiphenyl	*104*		*45 - 120*	*08/15/24 15:16*	*08/16/24 18:41*	*1*
Tetrachloro-m-xylene	*70*		*30 - 124*	*08/15/24 15:16*	*08/16/24 18:41*	*1*
Tetrachloro-m-xylene	*84*		*30 - 124*	*08/15/24 15:16*	*08/16/24 18:41*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.25	0.049	mg/Kg	☼	08/14/24 07:38	08/15/24 23:32	1
PCB-1221	ND		0.25	0.049	mg/Kg	☼	08/14/24 07:38	08/15/24 23:32	1
PCB-1232	ND		0.25	0.049	mg/Kg	☼	08/14/24 07:38	08/15/24 23:32	1
PCB-1242	ND		0.25	0.049	mg/Kg	☼	08/14/24 07:38	08/15/24 23:32	1
PCB-1248	ND		0.25	0.049	mg/Kg	☼	08/14/24 07:38	08/15/24 23:32	1
PCB-1254	ND		0.25	0.12	mg/Kg	☼	08/14/24 07:38	08/15/24 23:32	1
PCB-1260	ND		0.25	0.12	mg/Kg	☼	08/14/24 07:38	08/15/24 23:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*108*		*60 - 154*	*08/14/24 07:38*	*08/15/24 23:32*	*1*
Tetrachloro-m-xylene	*91*		*60 - 154*	*08/14/24 07:38*	*08/15/24 23:32*	*1*
DCB Decachlorobiphenyl	*98*		*65 - 174*	*08/14/24 07:38*	*08/15/24 23:32*	*1*
DCB Decachlorobiphenyl	*104*		*65 - 174*	*08/14/24 07:38*	*08/15/24 23:32*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**19200**		11.7	10.1	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Antimony	ND		17.5	0.62	mg/Kg	☼	08/13/24 13:33	08/15/24 13:28	1
Arsenic	**3.6**		2.3	1.0	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Barium	**124**		0.58	0.16	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Beryllium	**0.85**		0.23	0.047	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Cadmium	ND	U	0.23	0.082	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Calcium	**41900**		58.4	31.5	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Chromium	**24.5**		0.58	0.42	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Cobalt	**13.2**		0.58	0.12	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Copper	**18.2**		1.2	0.67	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Iron	**20300**		11.7	9.9	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Lead	**10.0**		1.2	0.54	mg/Kg	☼	08/13/24 13:33	08/15/24 13:28	1
Magnesium	**14800**		23.4	9.9	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Manganese	**488**		1.2	0.33	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1

Client Sample ID: SB-08-26.0-28.0
Lab Sample ID: 480-222473-1
Date Collected: 08/09/24 08:50
Matrix: Solid
Date Received: 08/09/24 13:27
Percent Solids: 82.2

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	**25.2**		5.8	0.29	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Potassium	**6320**		35.0	28.3	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Selenium	ND		4.7	0.93	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Silver	**0.29**	**J**	0.70	0.23	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Sodium	**287**		163	71.6	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Thallium	ND		7.0	0.89	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Vanadium	**36.3**		0.58	0.15	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Zinc	**55.5**		2.3	1.2	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.016**	**J**	0.023	0.0053	mg/Kg	☼	08/13/24 08:15	08/13/24 11:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.58	mg/Kg	☼	08/16/24 12:10	08/20/24 10:37	1

Client Sample ID: SB-08-28.0-30.0
Lab Sample ID: 480-222473-2
Date Collected: 08/09/24 09:00
Matrix: Solid
Date Received: 08/09/24 13:27
Percent Solids: 73.9

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.3	0.31	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
1,1,2,2-Tetrachloroethane	ND		4.3	0.69	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.3	0.97	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
1,1,2-Trichloroethane	ND		4.3	0.55	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
1,1-Dichloroethane	ND		4.3	0.52	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
1,1-Dichloroethene	ND		4.3	0.52	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
1,2,4-Trichlorobenzene	ND		4.3	0.26	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
1,2-Dibromo-3-Chloropropane	ND		4.3	2.1	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
1,2-Dibromoethane	ND		4.3	0.55	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
1,2-Dichlorobenzene	ND		4.3	0.33	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
1,2-Dichloroethane	ND		4.3	0.21	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
1,2-Dichloropropane	ND		4.3	2.1	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
1,3-Dichlorobenzene	ND		4.3	0.22	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
1,4-Dichlorobenzene	ND		4.3	0.60	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
2-Butanone (MEK)	ND		21	1.6	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
2-Hexanone	ND		21	2.1	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
4-Methyl-2-pentanone (MIBK)	ND		21	1.4	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Acetone	**22**		21	3.6	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Benzene	ND		4.3	0.21	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Bromodichloromethane	ND		4.3	0.57	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Bromoform	ND		4.3	2.1	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Bromomethane	ND		4.3	0.38	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Carbon disulfide	ND		4.3	2.1	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Carbon tetrachloride	ND		4.3	0.41	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Chlorobenzene	ND		4.3	0.56	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Chloroethane	ND		4.3	0.96	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Chloroform	ND		4.3	0.26	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1

Client Sample ID: SB-08-28.0-30.0
Date Collected: 08/09/24 09:00
Date Received: 08/09/24 13:27

Lab Sample ID: 480-222473-2
Matrix: Solid
Percent Solids: 73.9

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		4.3	0.26	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
cis-1,2-Dichloroethene	ND		4.3	0.54	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
cis-1,3-Dichloropropene	ND		4.3	0.61	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Cyclohexane	ND		4.3	0.60	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Dibromochloromethane	ND		4.3	0.54	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Dichlorodifluoromethane	ND		4.3	0.35	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Ethylbenzene	ND		4.3	0.29	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Isopropylbenzene	ND		4.3	0.64	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Methyl acetate	ND		21	2.6	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Methyl tert-butyl ether	ND		4.3	0.42	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Methylcyclohexane	ND		4.3	0.65	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Methylene Chloride	ND		4.3	2.0	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Styrene	ND		4.3	0.21	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Tetrachloroethene	ND		4.3	0.57	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Toluene	ND		4.3	0.32	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
trans-1,2-Dichloroethene	ND		4.3	0.44	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
trans-1,3-Dichloropropene	ND		4.3	1.9	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Trichloroethene	ND		4.3	0.94	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Trichlorofluoromethane	ND		4.3	0.40	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Vinyl chloride	ND		4.3	0.52	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Xylenes, Total	ND		8.5	0.71	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*08/09/24 17:45*	*08/13/24 16:48*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*64 - 126*	*08/09/24 17:45*	*08/13/24 16:48*	*1*
4-Bromofluorobenzene (Surr)	*95*		*72 - 126*	*08/09/24 17:45*	*08/13/24 16:48*	*1*
Dibromofluoromethane (Surr)	*109*		*60 - 140*	*08/09/24 17:45*	*08/13/24 16:48*	*1*
Toluene-d8 (Surr)	*97*		*71 - 125*	*08/09/24 17:45*	*08/13/24 16:48*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		230	61	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
2,4,6-Trichlorophenol	ND		230	45	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
2,4-Dichlorophenol	ND		230	24	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
2,4-Dimethylphenol	ND		230	54	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
2,4-Dinitrophenol	ND		2200	1000	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
2,4-Dinitrotoluene	ND		230	46	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
2,6-Dinitrotoluene	ND		230	27	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
2-Chloronaphthalene	ND		230	37	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
2-Chlorophenol	ND		440	41	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
2-Methylnaphthalene	ND		230	45	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
2-Methylphenol	ND		230	27	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
2-Nitroaniline	ND		440	33	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
2-Nitrophenol	ND		230	64	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
3,3'-Dichlorobenzidine	ND		440	270	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
3-Nitroaniline	ND		440	62	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
4,6-Dinitro-2-methylphenol	ND		440	230	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
4-Bromophenyl phenyl ether	ND		230	32	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1

Client Sample ID: SB-08-28.0-30.0
Lab Sample ID: 480-222473-2
Date Collected: 08/09/24 09:00
Matrix: Solid
Date Received: 08/09/24 13:27
Percent Solids: 73.9

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chloro-3-methylphenol	ND		230	56	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
4-Chloroaniline	ND		230	56	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
4-Chlorophenyl phenyl ether	ND		230	28	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
4-Methylphenol	ND		440	27	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
4-Nitroaniline	ND		440	120	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
4-Nitrophenol	ND		440	160	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Acenaphthene	ND		230	33	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Acenaphthylene	ND		230	29	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Acetophenone	ND		230	30	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Anthracene	ND		230	56	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Atrazine	ND		230	78	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Benzaldehyde	ND		230	180	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Benzo[a]anthracene	ND		230	23	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Benzo[a]pyrene	ND		230	33	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Benzo[b]fluoranthene	ND		230	36	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Benzo[g,h,i]perylene	ND		230	24	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Benzo[k]fluoranthene	ND		230	29	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Biphenyl	ND		230	33	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
bis (2-chloroisopropyl) ether	ND		230	45	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Bis(2-chloroethoxy)methane	ND		230	48	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Bis(2-chloroethyl)ether	ND		230	29	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Bis(2-ethylhexyl) phthalate	ND		230	77	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Butyl benzyl phthalate	ND		230	37	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Caprolactam	ND		230	68	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Carbazole	ND		230	27	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Chrysene	ND		230	50	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Dibenz(a,h)anthracene	ND		230	40	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Dibenzofuran	ND		230	27	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Diethyl phthalate	ND		230	29	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Dimethyl phthalate	ND		230	27	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Di-n-butyl phthalate	ND		230	38	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Di-n-octyl phthalate	ND		230	27	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Fluoranthene	ND		230	24	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Fluorene	ND		230	27	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Hexachlorobenzene	ND		230	30	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Hexachlorobutadiene	ND		230	33	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Hexachlorocyclopentadiene	ND		230	30	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Hexachloroethane	ND		230	29	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Indeno[1,2,3-cd]pyrene	ND		230	28	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Isophorone	ND		230	48	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Naphthalene	ND		230	29	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Nitrobenzene	ND		230	25	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
N-Nitrosodi-n-propylamine	ND		230	38	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
N-Nitrosodiphenylamine	ND		230	180	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Pentachlorophenol	ND		440	230	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Phenanthrene	ND		230	33	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Phenol	ND		230	34	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Pyrene	ND		230	27	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1

Client Sample ID: SB-08-28.0-30.0
Date Collected: 08/09/24 09:00
Date Received: 08/09/24 13:27

Lab Sample ID: 480-222473-2
Matrix: Solid
Percent Solids: 73.9

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	660	T J	ug/Kg	☼	1.72	N/A	08/13/24 07:23	08/16/24 04:13	1
Unknown	4300	T J	ug/Kg	☼	1.92	N/A	08/13/24 07:23	08/16/24 04:13	1
Unknown	5500	T J	ug/Kg	☼	3.30	N/A	08/13/24 07:23	08/16/24 04:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	95		26 - 143	08/13/24 07:23	08/16/24 04:13	1
2-Fluorobiphenyl	81		50 - 121	08/13/24 07:23	08/16/24 04:13	1
2-Fluorophenol	78		36 - 120	08/13/24 07:23	08/16/24 04:13	1
Nitrobenzene-d5	81		40 - 121	08/13/24 07:23	08/16/24 04:13	1
Phenol-d5	86		41 - 120	08/13/24 07:23	08/16/24 04:13	1
p-Terphenyl-d14	90		46 - 143	08/13/24 07:23	08/16/24 04:13	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.2	0.44	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
4,4'-DDE	ND		2.2	0.47	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
4,4'-DDT	ND		2.2	0.52	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
Aldrin	ND		2.2	0.55	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
alpha-BHC	ND		2.2	0.40	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
cis-Chlordane	ND		2.2	1.1	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
beta-BHC	ND		2.2	0.40	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
delta-BHC	ND		2.2	0.42	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
Dieldrin	ND		2.2	0.54	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
Endosulfan I	ND		2.2	0.43	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
Endosulfan II	ND		2.2	0.40	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
Endosulfan sulfate	ND		2.2	0.42	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
Endrin	ND		2.2	0.44	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
Endrin aldehyde	ND		2.2	0.57	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
Endrin ketone	ND		2.2	0.55	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
gamma-BHC (Lindane)	ND		2.2	0.41	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
trans-Chlordane	ND		2.2	0.71	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
Heptachlor	ND		2.2	0.49	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
Heptachlor epoxide	ND		2.2	0.58	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
Methoxychlor	ND		2.2	0.46	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
Toxaphene	ND		22	13	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	87		45 - 120	08/15/24 15:16	08/16/24 19:00	1
DCB Decachlorobiphenyl	100		45 - 120	08/15/24 15:16	08/16/24 19:00	1
Tetrachloro-m-xylene	68		30 - 124	08/15/24 15:16	08/16/24 19:00	1
Tetrachloro-m-xylene	80		30 - 124	08/15/24 15:16	08/16/24 19:00	1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.28	0.055	mg/Kg	☼	08/14/24 07:38	08/15/24 23:50	1
PCB-1221	ND		0.28	0.055	mg/Kg	☼	08/14/24 07:38	08/15/24 23:50	1
PCB-1232	ND		0.28	0.055	mg/Kg	☼	08/14/24 07:38	08/15/24 23:50	1
PCB-1242	ND		0.28	0.055	mg/Kg	☼	08/14/24 07:38	08/15/24 23:50	1
PCB-1248	ND		0.28	0.055	mg/Kg	☼	08/14/24 07:38	08/15/24 23:50	1
PCB-1254	ND		0.28	0.13	mg/Kg	☼	08/14/24 07:38	08/15/24 23:50	1
PCB-1260	ND		0.28	0.13	mg/Kg	☼	08/14/24 07:38	08/15/24 23:50	1

Client Sample ID: SB-08-28.0-30.0
Lab Sample ID: 480-222473-2

Date Collected: 08/09/24 09:00
Matrix: Solid
Date Received: 08/09/24 13:27
Percent Solids: 73.9

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*99*		*60 - 154*	*08/14/24 07:38*	*08/15/24 23:50*	*1*
Tetrachloro-m-xylene	*81*		*60 - 154*	*08/14/24 07:38*	*08/15/24 23:50*	*1*
DCB Decachlorobiphenyl	*90*		*65 - 174*	*08/14/24 07:38*	*08/15/24 23:50*	*1*
DCB Decachlorobiphenyl	*95*		*65 - 174*	*08/14/24 07:38*	*08/15/24 23:50*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**25500**		13.5	11.6	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Antimony	ND		20.3	0.72	mg/Kg	☼	08/13/24 13:33	08/15/24 13:29	1
Arsenic	**9.1**		2.7	1.2	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Barium	**101**		0.68	0.19	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Beryllium	**1.1**		0.27	0.054	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Cadmium	ND	U	0.27	0.095	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Calcium	**34100**		67.6	36.5	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Chromium	**32.5**		0.68	0.49	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Cobalt	**15.9**		0.68	0.14	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Copper	**24.5**		1.4	0.77	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Iron	**25200**		13.5	11.5	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Lead	**12.8**		1.4	0.62	mg/Kg	☼	08/13/24 13:33	08/15/24 13:29	1
Magnesium	**17500**		27.0	11.5	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Manganese	**440**		1.4	0.38	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Nickel	**33.1**		6.8	0.34	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Potassium	**8150**		40.5	32.8	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Selenium	ND		5.4	1.1	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Silver	**0.37**	**J**	0.81	0.27	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Sodium	**365**		189	82.9	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Thallium	ND		8.1	1.0	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Vanadium	**47.9**		0.68	0.18	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Zinc	**71.0**		2.7	1.4	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.020**	**J**	0.026	0.0060	mg/Kg	☼	08/13/24 08:15	08/13/24 11:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.56	mg/Kg	☼	08/16/24 12:10	08/20/24 10:38	1

Client Sample ID: SB-07-1.0-2.0
Lab Sample ID: 480-222473-3

Date Collected: 08/09/24 09:20
Matrix: Solid
Date Received: 08/09/24 13:27
Percent Solids: 84.5

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		8.6	0.62	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
1,1,2,2-Tetrachloroethane	ND		8.6	1.4	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		8.6	2.0	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
1,1,2-Trichloroethane	ND		8.6	1.1	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
1,1-Dichloroethane	ND		8.6	1.1	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
1,1-Dichloroethene	ND		8.6	1.1	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
1,2,4-Trichlorobenzene	ND		8.6	0.52	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1

Client Sample ID: SB-07-1.0-2.0
Date Collected: 08/09/24 09:20
Date Received: 08/09/24 13:27

Lab Sample ID: 480-222473-3
Matrix: Solid
Percent Solids: 84.5

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		8.6	4.3	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
1,2-Dibromoethane	ND		8.6	1.1	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
1,2-Dichlorobenzene	ND		8.6	0.67	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
1,2-Dichloroethane	ND		8.6	0.43	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
1,2-Dichloropropane	ND		8.6	4.3	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
1,3-Dichlorobenzene	ND		8.6	0.44	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
1,4-Dichlorobenzene	ND		8.6	1.2	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
2-Butanone (MEK)	ND		43	3.2	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
2-Hexanone	ND		43	4.3	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
4-Methyl-2-pentanone (MIBK)	ND		43	2.8	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Acetone	ND		43	7.2	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Benzene	ND		8.6	0.42	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Bromodichloromethane	ND		8.6	1.2	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Bromoform	ND		8.6	4.3	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Bromomethane	ND		8.6	0.77	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Carbon disulfide	ND		8.6	4.3	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Carbon tetrachloride	ND		8.6	0.83	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Chlorobenzene	ND		8.6	1.1	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Chloroethane	ND		8.6	1.9	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Chloroform	ND		8.6	0.53	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Chloromethane	ND		8.6	0.52	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
cis-1,2-Dichloroethene	ND		8.6	1.1	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
cis-1,3-Dichloropropene	ND		8.6	1.2	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Cyclohexane	ND		8.6	1.2	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Dibromochloromethane	ND		8.6	1.1	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Dichlorodifluoromethane	ND		8.6	0.71	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Ethylbenzene	ND		8.6	0.59	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Isopropylbenzene	ND		8.6	1.3	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Methyl acetate	ND		43	5.2	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Methyl tert-butyl ether	ND		8.6	0.85	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Methylcyclohexane	ND		8.6	1.3	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Methylene Chloride	ND		8.6	4.0	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Styrene	ND		8.6	0.43	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Tetrachloroethene	ND		8.6	1.2	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Toluene	ND		8.6	0.65	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
trans-1,2-Dichloroethene	ND		8.6	0.89	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
trans-1,3-Dichloropropene	ND		8.6	3.8	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Trichloroethene	ND		8.6	1.9	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Trichlorofluoromethane	ND		8.6	0.81	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Vinyl chloride	ND		8.6	1.1	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Xylenes, Total	ND		17	1.4	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*08/09/24 17:45*	*08/13/24 17:11*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*64 - 126*	*08/09/24 17:45*	*08/13/24 17:11*	*1*
4-Bromofluorobenzene (Surr)	*94*		*72 - 126*	*08/09/24 17:45*	*08/13/24 17:11*	*1*
Dibromofluoromethane (Surr)	*107*		*60 - 140*	*08/09/24 17:45*	*08/13/24 17:11*	*1*
Toluene-d8 (Surr)	*95*		*71 - 125*	*08/09/24 17:45*	*08/13/24 17:11*	*1*

Client Sample ID: SB-07-1.0-2.0
Date Collected: 08/09/24 09:20
Date Received: 08/09/24 13:27

Lab Sample ID: 480-222473-3
Matrix: Solid
Percent Solids: 84.5

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		200	53	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
2,4,6-Trichlorophenol	ND		200	40	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
2,4-Dichlorophenol	ND		200	21	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
2,4-Dimethylphenol	ND		200	48	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
2,4-Dinitrophenol	ND		1900	910	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
2,4-Dinitrotoluene	ND		200	41	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
2,6-Dinitrotoluene	ND		200	23	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
2-Chloronaphthalene	ND		200	33	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
2-Chlorophenol	ND		380	36	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
2-Methylnaphthalene	ND		200	40	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
2-Methylphenol	ND		200	23	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
2-Nitroaniline	ND		380	29	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
2-Nitrophenol	ND		200	56	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
3,3'-Dichlorobenzidine	ND		380	230	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
3-Nitroaniline	ND		380	55	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
4,6-Dinitro-2-methylphenol	ND		380	200	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
4-Bromophenyl phenyl ether	ND		200	28	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
4-Chloro-3-methylphenol	ND		200	49	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
4-Chloroaniline	ND		200	49	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
4-Chlorophenyl phenyl ether	ND		200	24	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
4-Methylphenol	ND		380	23	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
4-Nitroaniline	ND		380	100	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
4-Nitrophenol	ND		380	140	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Acenaphthene	ND		200	29	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Acenaphthylene	ND		200	26	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Acetophenone	ND		200	27	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Anthracene	ND		200	49	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Atrazine	ND		200	69	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Benzaldehyde	ND		200	160	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Benzo[a]anthracene	ND		200	20	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Benzo[a]pyrene	**30**	**J**	200	29	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Benzo[b]fluoranthene	**41**	**J**	200	31	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Benzo[g,h,i]perylene	**30**	**J**	200	21	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Benzo[k]fluoranthene	ND		200	26	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Biphenyl	ND		200	29	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
bis (2-chloroisopropyl) ether	ND		200	40	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Bis(2-chloroethoxy)methane	ND		200	42	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Bis(2-chloroethyl)ether	ND		200	26	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Bis(2-ethylhexyl) phthalate	ND		200	67	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Butyl benzyl phthalate	ND		200	33	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Caprolactam	ND		200	59	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Carbazole	ND		200	23	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Chrysene	ND		200	44	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Dibenz(a,h)anthracene	ND		200	35	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Dibenzofuran	ND		200	23	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Diethyl phthalate	ND		200	26	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Dimethyl phthalate	ND		200	23	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Di-n-butyl phthalate	ND		200	34	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Di-n-octyl phthalate	ND		200	23	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1

Client Sample ID: SB-07-1.0-2.0
Date Collected: 08/09/24 09:20
Date Received: 08/09/24 13:27

Lab Sample ID: 480-222473-3
Matrix: Solid
Percent Solids: 84.5

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	**36**	**J**	200	21	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Fluorene	ND		200	23	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Hexachlorobenzene	ND		200	27	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Hexachlorobutadiene	ND		200	29	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Hexachlorocyclopentadiene	ND		200	27	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Hexachloroethane	ND		200	26	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Indeno[1,2,3-cd]pyrene	ND		200	24	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Isophorone	ND		200	42	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Naphthalene	ND		200	26	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Nitrobenzene	ND		200	22	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
N-Nitrosodi-n-propylamine	ND		200	34	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
N-Nitrosodiphenylamine	ND		200	160	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Pentachlorophenol	ND		380	200	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Phenanthrene	ND		200	29	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Phenol	ND		200	30	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Pyrene	**29**	**J**	200	23	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*1000*	*T J*	*ug/Kg*	☼	*1.77*	*N/A*	*08/13/24 07:23*	*08/16/24 04:41*	*1*
Unknown	*3200*	*T J*	*ug/Kg*	☼	*1.92*	*N/A*	*08/13/24 07:23*	*08/16/24 04:41*	*1*
Unknown	*3900*	*T J*	*ug/Kg*	☼	*3.31*	*N/A*	*08/13/24 07:23*	*08/16/24 04:41*	*1*
Unknown	*210*	*T J*	*ug/Kg*	☼	*4.65*	*N/A*	*08/13/24 07:23*	*08/16/24 04:41*	*1*
Unknown	*380*	*T J*	*ug/Kg*	☼	*9.48*	*N/A*	*08/13/24 07:23*	*08/16/24 04:41*	*1*
Unknown	*510*	*T J*	*ug/Kg*	☼	*13.80*	*N/A*	*08/13/24 07:23*	*08/16/24 04:41*	*1*
Unknown	*290*	*T J*	*ug/Kg*	☼	*15.59*	*N/A*	*08/13/24 07:23*	*08/16/24 04:41*	*1*
Unknown	*360*	*T J*	*ug/Kg*	☼	*16.07*	*N/A*	*08/13/24 07:23*	*08/16/24 04:41*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*70*		*26 - 143*	*08/13/24 07:23*	*08/16/24 04:41*	*1*
2-Fluorobiphenyl	*85*		*50 - 121*	*08/13/24 07:23*	*08/16/24 04:41*	*1*
2-Fluorophenol	*61*		*36 - 120*	*08/13/24 07:23*	*08/16/24 04:41*	*1*
Nitrobenzene-d5	*84*		*40 - 121*	*08/13/24 07:23*	*08/16/24 04:41*	*1*
Phenol-d5	*78*		*41 - 120*	*08/13/24 07:23*	*08/16/24 04:41*	*1*
p-Terphenyl-d14	*90*		*46 - 143*	*08/13/24 07:23*	*08/16/24 04:41*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.0	0.38	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
4,4'-DDE	ND		2.0	0.41	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
4,4'-DDT	ND		2.0	0.46	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
Aldrin	ND		2.0	0.48	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
alpha-BHC	ND		2.0	0.35	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
cis-Chlordane	ND		2.0	0.97	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
beta-BHC	ND		2.0	0.35	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
delta-BHC	ND		2.0	0.36	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
Dieldrin	ND		2.0	0.47	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
Endosulfan I	ND		2.0	0.37	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
Endosulfan II	ND		2.0	0.35	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
Endosulfan sulfate	ND		2.0	0.36	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
Endrin	ND		2.0	0.39	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1

Client Sample ID: SB-07-1.0-2.0
Date Collected: 08/09/24 09:20
Date Received: 08/09/24 13:27

Lab Sample ID: 480-222473-3
Matrix: Solid
Percent Solids: 84.5

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin aldehyde	ND		2.0	0.50	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
Endrin ketone	ND		2.0	0.48	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
gamma-BHC (Lindane)	ND	U	2.0	0.36	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
trans-Chlordane	ND		2.0	0.62	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
Heptachlor	ND		2.0	0.42	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
Heptachlor epoxide	ND		2.0	0.50	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
Methoxychlor	ND		2.0	0.40	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
Toxaphene	ND		20	11	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*75*		*45 - 120*	*08/15/24 15:16*	*08/16/24 19:20*	*1*
DCB Decachlorobiphenyl	*104*		*45 - 120*	*08/15/24 15:16*	*08/16/24 19:20*	*1*
Tetrachloro-m-xylene	*73*		*30 - 124*	*08/15/24 15:16*	*08/16/24 19:20*	*1*
Tetrachloro-m-xylene	*83*		*30 - 124*	*08/15/24 15:16*	*08/16/24 19:20*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.29	0.056	mg/Kg	☼	08/14/24 07:38	08/16/24 00:43	1
PCB-1221	ND		0.29	0.056	mg/Kg	☼	08/14/24 07:38	08/16/24 00:43	1
PCB-1232	ND		0.29	0.056	mg/Kg	☼	08/14/24 07:38	08/16/24 00:43	1
PCB-1242	ND		0.29	0.056	mg/Kg	☼	08/14/24 07:38	08/16/24 00:43	1
PCB-1248	ND		0.29	0.056	mg/Kg	☼	08/14/24 07:38	08/16/24 00:43	1
PCB-1254	ND		0.29	0.13	mg/Kg	☼	08/14/24 07:38	08/16/24 00:43	1
PCB-1260	ND		0.29	0.13	mg/Kg	☼	08/14/24 07:38	08/16/24 00:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*112*		*60 - 154*	*08/14/24 07:38*	*08/16/24 00:43*	*1*
Tetrachloro-m-xylene	*95*		*60 - 154*	*08/14/24 07:38*	*08/16/24 00:43*	*1*
DCB Decachlorobiphenyl	*101*		*65 - 174*	*08/14/24 07:38*	*08/16/24 00:43*	*1*
DCB Decachlorobiphenyl	*108*		*65 - 174*	*08/14/24 07:38*	*08/16/24 00:43*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**13200**	J	12.4	10.7	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Antimony	R		18.6	0.66	mg/Kg	☼	08/13/24 13:33	08/15/24 13:31	1
Arsenic	**5.1**	J-	2.5	1.1	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Barium	**102**	J-	0.62	0.17	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Beryllium	**3.3**	J-	0.25	0.049	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Cadmium	ND	UJ	0.25	0.087	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Calcium	**66100**	J	61.8	33.4	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Chromium	**8.7**	J-	0.62	0.45	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Cobalt	**4.5**		0.62	0.12	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Copper	**3.8**	J-	1.2	0.70	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Iron	**6580**	J	12.4	10.5	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Lead	**5.8**		1.2	0.57	mg/Kg	☼	08/13/24 13:33	08/15/24 13:31	1
Magnesium	**12200**	J	24.7	10.5	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Manganese	**919**	J	1.2	0.35	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Nickel	**2.1**	J-	6.2	0.31	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Potassium	**625**		37.1	30.0	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Selenium	ND	UJ	4.9	0.99	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1

Client Sample ID: SB-07-1.0-2.0
Lab Sample ID: 480-222473-3

Date Collected: 08/09/24 09:20
Matrix: Solid
Date Received: 08/09/24 13:27
Percent Solids: 84.5

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	**0.38**	J-	0.74	0.25	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Sodium	**861**		173	75.8	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Thallium	ND		7.4	0.94	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Vanadium	**2.8**	J-	0.62	0.16	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Zinc	**6.6**	J-	2.5	1.3	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.013**	J	0.023	0.0054	mg/Kg	☼	08/13/24 08:15	08/13/24 11:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.0	0.49	mg/Kg	☼	08/16/24 12:10	08/20/24 10:40	1

Client Sample ID: SB-07-33.0-35.0
Lab Sample ID: 480-222473-4

Date Collected: 08/09/24 11:25
Matrix: Solid
Date Received: 08/09/24 13:27
Percent Solids: 76.0

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.2	0.38	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
1,1,2,2-Tetrachloroethane	ND		5.2	0.85	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.2	1.2	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
1,1,2-Trichloroethane	ND		5.2	0.68	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
1,1-Dichloroethane	ND		5.2	0.64	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
1,1-Dichloroethene	ND		5.2	0.64	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
1,2,4-Trichlorobenzene	ND		5.2	0.32	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
1,2-Dibromo-3-Chloropropane	ND		5.2	2.6	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
1,2-Dibromoethane	ND		5.2	0.67	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
1,2-Dichlorobenzene	ND		5.2	0.41	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
1,2-Dichloroethane	ND		5.2	0.26	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
1,2-Dichloropropane	ND		5.2	2.6	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
1,3-Dichlorobenzene	ND		5.2	0.27	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
1,4-Dichlorobenzene	ND		5.2	0.73	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
2-Butanone (MEK)	ND		26	1.9	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
2-Hexanone	ND		26	2.6	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
4-Methyl-2-pentanone (MIBK)	ND		26	1.7	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Acetone	**20**	J	26	4.4	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Benzene	ND		5.2	0.26	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Bromodichloromethane	ND		5.2	0.70	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Bromoform	ND		5.2	2.6	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Bromomethane	ND		5.2	0.47	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Carbon disulfide	ND		5.2	2.6	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Carbon tetrachloride	ND		5.2	0.51	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Chlorobenzene	ND		5.2	0.69	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Chloroethane	ND		5.2	1.2	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Chloroform	ND		5.2	0.32	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Chloromethane	ND		5.2	0.32	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
cis-1,2-Dichloroethene	ND		5.2	0.67	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
cis-1,3-Dichloropropene	ND		5.2	0.75	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1

Client Sample ID: SB-07-33.0-35.0
Date Collected: 08/09/24 11:25
Date Received: 08/09/24 13:27

Lab Sample ID: 480-222473-4
Matrix: Solid
Percent Solids: 76.0

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	ND		5.2	0.73	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Dibromochloromethane	ND		5.2	0.67	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Dichlorodifluoromethane	ND		5.2	0.43	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Ethylbenzene	ND		5.2	0.36	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Isopropylbenzene	ND		5.2	0.79	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Methyl acetate	ND		26	3.2	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Methyl tert-butyl ether	ND		5.2	0.51	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Methylcyclohexane	ND		5.2	0.80	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Methylene Chloride	ND		5.2	2.4	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Styrene	ND		5.2	0.26	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Tetrachloroethene	ND		5.2	0.70	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Toluene	ND		5.2	0.40	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
trans-1,2-Dichloroethene	ND		5.2	0.54	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
trans-1,3-Dichloropropene	ND		5.2	2.3	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Trichloroethene	ND		5.2	1.2	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Trichlorofluoromethane	ND		5.2	0.50	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Vinyl chloride	ND		5.2	0.64	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Xylenes, Total	ND		10	0.88	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*08/09/24 17:45*	*08/13/24 17:35*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*64 - 126*	*08/09/24 17:45*	*08/13/24 17:35*	*1*
4-Bromofluorobenzene (Surr)	*94*		*72 - 126*	*08/09/24 17:45*	*08/13/24 17:35*	*1*
Dibromofluoromethane (Surr)	*106*		*60 - 140*	*08/09/24 17:45*	*08/13/24 17:35*	*1*
Toluene-d8 (Surr)	*96*		*71 - 125*	*08/09/24 17:45*	*08/13/24 17:35*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		130	71	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
2,4,5-Trichlorophenol	ND		220	59	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
2,4,6-Trichlorophenol	ND		220	44	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
2,4-Dichlorophenol	ND		220	23	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
2,4-Dimethylphenol	ND		220	53	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
2,4-Dinitrophenol	ND		2100	1000	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
2,4-Dinitrotoluene	ND		220	45	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
2,6-Dinitrotoluene	ND		220	26	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
2-Chloronaphthalene	ND		220	36	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
2-Chlorophenol	ND		430	40	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
2-Methylnaphthalene	ND		220	44	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
2-Methylphenol	ND		220	26	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
2-Nitroaniline	ND		430	32	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
2-Nitrophenol	ND		220	62	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
3,3'-Dichlorobenzidine	ND		430	260	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
3-Nitroaniline	ND		430	61	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
4,6-Dinitro-2-methylphenol	ND		430	220	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
4-Bromophenyl phenyl ether	ND		220	31	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
4-Chloro-3-methylphenol	ND		220	54	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
4-Chloroaniline	ND		220	54	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1

Client Sample ID: SB-07-33.0-35.0
Lab Sample ID: 480-222473-4

Date Collected: 08/09/24 11:25
Matrix: Solid

Date Received: 08/09/24 13:27
Percent Solids: 76.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	ND		220	27	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
4-Methylphenol	ND		430	26	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
4-Nitroaniline	ND		430	110	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
4-Nitrophenol	ND		430	150	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Acenaphthene	ND		220	32	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Acenaphthylene	ND		220	28	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Acetophenone	ND		220	30	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Anthracene	ND		220	54	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Atrazine	ND		220	76	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Benzaldehyde	ND		220	170	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Benzo[a]anthracene	ND		220	22	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Benzo[a]pyrene	ND		220	32	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Benzo[b]fluoranthene	ND		220	35	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Benzo[g,h,i]perylene	ND		220	23	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Benzo[k]fluoranthene	ND		220	28	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Biphenyl	ND		220	32	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
bis (2-chloroisopropyl) ether	ND		220	44	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Bis(2-chloroethoxy)methane	ND		220	46	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Bis(2-chloroethyl)ether	ND		220	28	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Bis(2-ethylhexyl) phthalate	ND		220	75	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Butyl benzyl phthalate	ND		220	36	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Caprolactam	ND		220	66	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Carbazole	ND		220	26	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Chrysene	ND		220	49	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Dibenz(a,h)anthracene	ND		220	39	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Dibenzofuran	ND		220	26	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Diethyl phthalate	ND		220	28	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Dimethyl phthalate	ND		220	26	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Di-n-butyl phthalate	ND		220	37	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Di-n-octyl phthalate	ND		220	26	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Fluoranthene	ND		220	23	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Fluorene	ND		220	26	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Hexachlorobenzene	ND		220	30	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Hexachlorobutadiene	ND		220	32	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Hexachlorocyclopentadiene	ND		220	30	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Hexachloroethane	ND		220	28	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Indeno[1,2,3-cd]pyrene	ND		220	27	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Isophorone	ND		220	46	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Naphthalene	ND		220	28	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Nitrobenzene	ND		220	25	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
N-Nitrosodi-n-propylamine	ND		220	37	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
N-Nitrosodiphenylamine	ND		220	180	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Pentachlorophenol	ND		430	220	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Phenanthrene	ND		220	32	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Phenol	ND		220	34	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Pyrene	ND		220	26	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*480*	*T J*	*ug/Kg*	☼	*1.69*	*N/A*	*08/13/24 07:23*	*08/16/24 05:09*	*1*
Unknown	*4300*	*T J*	*ug/Kg*	☼	*1.92*	*N/A*	*08/13/24 07:23*	*08/16/24 05:09*	*1*

Client Sample ID: SB-07-33.0-35.0
Date Collected: 08/09/24 11:25
Date Received: 08/09/24 13:27

Lab Sample ID: 480-222473-4
Matrix: Solid
Percent Solids: 76.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	6000	T J	ug/Kg	☼	3.30	N/A	08/13/24 07:23	08/16/24 05:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	98		26 - 143	08/13/24 07:23	08/16/24 05:09	1
2-Fluorobiphenyl	88		50 - 121	08/13/24 07:23	08/16/24 05:09	1
2-Fluorophenol	89		36 - 120	08/13/24 07:23	08/16/24 05:09	1
Nitrobenzene-d5	91		40 - 121	08/13/24 07:23	08/16/24 05:09	1
Phenol-d5	95		41 - 120	08/13/24 07:23	08/16/24 05:09	1
p-Terphenyl-d14	92		46 - 143	08/13/24 07:23	08/16/24 05:09	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.2	0.42	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
4,4'-DDE	ND		2.2	0.45	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
4,4'-DDT	ND		2.2	0.50	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
Aldrin	ND		2.2	0.53	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
alpha-BHC	ND		2.2	0.39	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
cis-Chlordane	ND		2.2	1.1	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
beta-BHC	ND		2.2	0.39	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
delta-BHC	ND		2.2	0.40	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
Dieldrin	ND		2.2	0.52	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
Endosulfan I	ND		2.2	0.41	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
Endosulfan II	ND		2.2	0.39	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
Endosulfan sulfate	ND		2.2	0.40	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
Endrin	ND		2.2	0.43	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
Endrin aldehyde	ND		2.2	0.55	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
Endrin ketone	ND		2.2	0.53	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
gamma-BHC (Lindane)	ND		2.2	0.40	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
trans-Chlordane	ND		2.2	0.69	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
Heptachlor	ND		2.2	0.47	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
Heptachlor epoxide	ND		2.2	0.56	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
Methoxychlor	ND		2.2	0.44	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
Toxaphene	ND		22	13	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	95		45 - 120	08/15/24 15:16	08/16/24 19:40	1
DCB Decachlorobiphenyl	106		45 - 120	08/15/24 15:16	08/16/24 19:40	1
Tetrachloro-m-xylene	80		30 - 124	08/15/24 15:16	08/16/24 19:40	1
Tetrachloro-m-xylene	90		30 - 124	08/15/24 15:16	08/16/24 19:40	1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.28	0.054	mg/Kg	☼	08/14/24 07:38	08/16/24 01:00	1
PCB-1221	ND		0.28	0.054	mg/Kg	☼	08/14/24 07:38	08/16/24 01:00	1
PCB-1232	ND		0.28	0.054	mg/Kg	☼	08/14/24 07:38	08/16/24 01:00	1
PCB-1242	ND		0.28	0.054	mg/Kg	☼	08/14/24 07:38	08/16/24 01:00	1
PCB-1248	ND		0.28	0.054	mg/Kg	☼	08/14/24 07:38	08/16/24 01:00	1
PCB-1254	ND		0.28	0.13	mg/Kg	☼	08/14/24 07:38	08/16/24 01:00	1
PCB-1260	ND		0.28	0.13	mg/Kg	☼	08/14/24 07:38	08/16/24 01:00	1

Client Sample ID: SB-07-33.0-35.0
Date Collected: 08/09/24 11:25
Date Received: 08/09/24 13:27

Lab Sample ID: 480-222473-4
Matrix: Solid
Percent Solids: 76.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*108*		*60 - 154*	*08/14/24 07:38*	*08/16/24 01:00*	*1*
Tetrachloro-m-xylene	*94*		*60 - 154*	*08/14/24 07:38*	*08/16/24 01:00*	*1*
DCB Decachlorobiphenyl	*97*		*65 - 174*	*08/14/24 07:38*	*08/16/24 01:00*	*1*
DCB Decachlorobiphenyl	*103*		*65 - 174*	*08/14/24 07:38*	*08/16/24 01:00*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.91	0.23	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluoropentanoic acid (PFPeA)	ND		0.45	0.11	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluorohexanoic acid (PFHxA)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluoroheptanoic acid (PFHpA)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluorooctanoic acid (PFOA)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluorononanoic acid (PFNA)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluorodecanoic acid (PFDA)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluoroundecanoic acid (PFUnA)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluorododecanoic acid (PFDoA)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluorononanesulfonic acid (PFNS)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		0.91	0.23	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		0.91	0.23	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		0.91	0.23	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		2.3	0.57	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		2.3	0.57	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.91	0.23	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.91	0.23	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.45	0.11	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1

Client Sample ID: SB-07-33.0-35.0
Lab Sample ID: 480-222473-4

Date Collected: 08/09/24 11:25
Matrix: Solid

Date Received: 08/09/24 13:27
Percent Solids: 76.0

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.45	0.11	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		0.91	0.23	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		0.91	0.23	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.45	0.11	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1.1	0.28	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		5.7	1.4	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		5.7	1.4	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.45	0.11	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*78.9*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
13C5 PFPeA	*75.7*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
13C5 PFHxA	*75.6*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
13C4 PFHpA	*78.0*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
13C8 PFOA	*89.4*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
13C9 PFNA	*77.6*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
13C6 PFDA	*104*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
13C7 PFUnA	*113*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
13C2 PFTeDA	*73.9*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
13C3 PFBS	*90.2*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
13C3 PFHxS	*92.8*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
13C8 PFOS	*94.1*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
13C8 FOSA	*76.5*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
d3-NMeFOSAA	*78.0*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
d5-NEtFOSAA	*71.1*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
M2-4:2 FTS	*118*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
M2-6:2 FTS	*118*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
M2-8:2 FTS	*115*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
13C3 HFPO-DA	*80.0*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
d7-N-MeFOSE-M	*74.2*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
d9-N-EtFOSE-M	*79.3*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
d5-NEtPFOSA	*71.0*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
d3-NMePFOSA	*66.7*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
13C2-PFDoDA	*82.1*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**23900**		13.3	11.4	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Antimony	ND		19.9	0.70	mg/Kg	☼	08/13/24 13:33	08/15/24 13:46	1
Arsenic	**5.6**		2.7	1.2	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Barium	**132**		0.66	0.19	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Beryllium	**1.1**		0.27	0.053	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Cadmium	ND	U	0.27	0.093	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1

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Date Collected: 08/09/24 11:25
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Lab Sample ID: 480-222473-4
Matrix: Solid
Percent Solids: 76.0

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	42100		66.3	35.8	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Chromium	32.1		0.66	0.48	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Cobalt	14.9		0.66	0.13	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Copper	29.3		1.3	0.76	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Iron	24100		13.3	11.2	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Lead	13.4		1.3	0.61	mg/Kg	☼	08/13/24 13:33	08/15/24 16:16	1
Magnesium	17700		26.5	11.2	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Manganese	484		1.3	0.37	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Nickel	31.0		6.6	0.33	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Potassium	7540		39.8	32.1	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Selenium	ND		5.3	1.1	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Silver	0.34	J	0.80	0.27	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Sodium	374		186	81.3	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Thallium	ND		8.0	1.0	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Vanadium	44.4		0.66	0.17	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Zinc	69.3		2.7	1.4	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.021	J	0.027	0.0062	mg/Kg	☼	08/13/24 08:15	08/13/24 11:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.1	0.55	mg/Kg	☼	08/16/24 12:10	08/20/24 10:41	1

ATTACHMENT B

SUPPORT DOCUMENTATION

10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing

Client Information
Client Contact: Ethan Smith
Company: AECOM
Address: 50 Lakefront Boulevard Suite 111
City: Buffalo
State, Zip: NY, 14202
Phone: 614-790-2274(Tel) / (716)912-4456
Email: ethan.smith@aecom.com / [redacted]
Project Name: Tank 75 - Soil Analysis
Site: Tank 75 Site - Tonawanda, NY

Sampler: E. Smith / C. Horrocks
Phone: (716)912-4456
PWSID:
Due Date Requested:
TAT Requested (days): Standard
Compliance Project: Δ Yes Δ No
PO #: 1120269 Task 300
WO #: Ann.Marie.Kropovitch@aecom.com
Project #: 48027595
SSOW#:

Lab PM: Beninati, John
E-Mail: John.Beninati@et.eurofinsus.com
Carrier Tracking No(s):
State of Origin:

COC No: 480-197590-40883.1
Page: ~~Page 1 of 11~~ 1 of
Job #: 60730037

Analysis Requested

Preservation Codes:
N - None
A - HCL
D - HNO3
B - NaOH

Other:

Special Instructions/Note:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL VOCs + TICs	8081B, 8082A, 8270D	6010C, 7471B, 9012B	8270D - TCL SVOCs + 1,4 Dioxane, TICs	1633 - 1633 Standard List	8260C - TCL VOCs + TICs	8270D - TCL SVOCs +TICs	1633_DRAFT_TSS - Percent Suspend Solids PFAS	8082A - TCL PCBs	8081B - TCL Pesticides	6010C, 7470A	9012B_NP - Cyanide, Total	8270D_SIM_MS_ID - 1,4 Dioxane	Total Number of containers
			Preservation Code:				N	N	N	N	N	A	N	N	N	N	D	B	N	
SB-10-0-0.2	7-8-24	1145	G	Solid				X	X											3
SB-10-39-42	7-9-24	1315	G	Solid			X	X	X											7
SB-10-48-49	7-9-24	1425	G	Solid			X	X	X											7
SB-01-0-0.2	7-9-24	1545	G	Solid				X	X	X	X									5
				Solid																
				Solid																
				Solid																
				Solid																
				Solid																
				Solid																
				Solid																

480-221432 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

	Date/Time	Company		Date/Time	Company
Relinquished by: [signature]	7-9-24 1743	AECOM	Received by: [signature]	7/9/24 17:43	
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 5.9 ICE

Ver: 04/02/2024

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691 7991

Chain of Custody Record

eurofins
Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-88374.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note): NELAP New York		Job #: 480-221432-1
Address: 180 S. Van Buren Avenue,	Due Date Requested: 7/22/2024			Preservation Codes:
City: Barberton	TAT Requested (days):			
State, Zip: OH, 44203				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site:	SSOW#:			Other:

Analysis Requested

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633/1633_Shake 1633 Standard List	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SB-01-0-0.2 (480-221432-4)	7/9/24	15:45 Eastern		Solid			X	1	

PFAS 85-32

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested. I, II, III IV Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
KS	7/10/24 1600		JESSICA RIGDON	7-11-24 0930	EEN
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Job Narrative
480-221432-1

Receipt
The samples were received on 7/9/2024 5:43 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.9º C.

GC/MS VOA
Method 8260C: The continuing calibration verification (CCV) associated with batch 480-718233 recovered above the upper control limit for Carbon tetrachloride, Chloromethane and Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: SB-10-39-42 (480-221432-2) and SB-10-48-49 (480-221432-3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method 8270D: The following samples were diluted due to color, appearance, and viscosity: SB-10-0-0.2 (480-221432-1), (480-221432-A-1-B MS) and (480-221432-A-1-C MSD). Elevated reporting limits (RL) are provided.

Method 8270D: The following samples were diluted due to the nature of the sample matrix: (480-221432-A-1-B MS) and (480-221432-A-1-C MSD). Because of this dilution, the surrogate spike and matrix spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8270D: The following sample required a dilution due to the nature of the sample matrix: SB-10-0-0.2 (480-221432-1). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8270D: The following compound have been spiked at a level above the upper range of the initial calibration: 3,3'-Dichlorobenzidine. The laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) associated with preparation batch 480-718100 and analytical batch 480-718272 recovered within acceptable limits for this analyte and has been qualified with an "E" flag.

Method 8270D: The following sample was diluted due to color, appearance, and viscosity: SB-01-0-0.2 (480-221432-4). Elevated reporting limits (RL) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method 8081B: The following sample was diluted due to the nature of the sample matrix: SB-01-0-0.2 (480-221432-4). As such, surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method 8081B: The following samples were diluted due to the nature of the sample matrix: (480-221432-C-1-A MS) and (480-221432-C-1-B MSD). As such, spike and surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method 8081B: The following sample was diluted due to the nature of the sample matrix: SB-10-0-0.2 (480-221432-1). As such, surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method 8081B: The method blank for preparation batch 480-718243 and analytical batch 480-718529 contained alpha-BHC and gamma-BHC (Lindane) above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method 6010C: The method blank for preparation batch 480-718006 and analytical batch 480-718188 contained Iron above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

LCMS
Method 1633: The low level continuing calibration verification (CCVL) associated with batch 240-619961 recovered above the upper control limit for 3-Perfluoropropylpropanoic acid (3:3 FTCA). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 1633: The continuing calibration verification (CCV) recovered outside of control limits for IDA compound(s) 13C8 FOSA. Section 14.3.3 of the finalized EPA 1633 states that the recovery of target analytes for the CCV(s) must be within 70 - 130%, unless the analyte is not of concern for a given project. Since target analytes associated with this IDA are within spec, data is reported. The following sample is impacted: SB-01-0-0.2 (480-221432-4).

Method 1633: The low level laboratory control sample (LLCS) for preparation batch 240-619820 and analytical batch 240-619961 recovered outside control limits for the following analytes: 3-Perfluoropropylpropanoic acid (3:3 FTCA). These analytes were biased high in the LLCS and were not detected in the associated samples; therefore, the data have been reported.

Method 1633: The laboratory control sample (LCS) for preparation batch 240-619820 and analytical batch 240-619961 recovered outside control limits for the following analytes: 3-Perfluoropropylpropanoic acid (3:3 FTCA). These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method 3550C: The following samples required a Florisil clean-up, via 3620C, to reduce matrix interferences: SB-10-0-0.2 (480-221432-1), SB-01-0-0.2 (480-221432-4), (480-221432-C-1 MS) and (480-221432-C-1 MSD).

Method 3550C: Elevated reporting limits are provided for the following sample due to insufficient sample provided for preparation: SB-10-0-0.2 (480-221432-1).

Method 3550C: The following sample(s) required a Florisil clean-up, via 3620C, to reduce matrix interferences:

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Buffalo Job No.: 480-221432-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: X00000032122.d

Lab ID: 480-221432-1 MS Client ID: SB-10-0-0.2 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Chrysene	1610	ND	1740 J	108	64-120	
Dibenz(a,h)anthracene	1610	ND	1940 J	120	54-132	
Dibenzofuran	1610	ND	1600 J	99	62-120	
Diethyl phthalate	1610	ND	1620 J	100	66-120	
Dimethyl phthalate	1610	ND	1590 J	98	65-124	
Di-n-butyl phthalate	1610	ND	1660 J	103	58-130	
Di-n-octyl phthalate	1610	ND	1620 J	100	57-133	
Fluoranthene	1610	ND	1720 J	106	62-120	
Fluorene	1610	ND	1650 J	102	63-120	
Hexachlorobenzene	1610	ND	1650 J	102	60-120	
Hexachlorobutadiene	1610	ND	1470 J	91	45-120	
Hexachlorocyclopentadiene	1610	ND	ND	0	31-120	F1
Hexachloroethane	1610	ND	1200 J	74	21-120	
Indeno[1,2,3-cd]pyrene	1610	ND	1890 J	117	56-134	
Isophorone	1610	ND	1490 J	93	56-120	
Naphthalene	1610	ND	1490 J	92	46-120	
Nitrobenzene	1610	ND	1520 J	94	49-120	
N-Nitrosodi-n-propylamine	1610	ND	1740 J	108	46-120	
Pentachlorophenol	3230	ND	ND	NC	10-136	
Phenanthrene	1610	ND	1640 J	101	60-122	
Phenol	1610	ND	1570 J	98	50-120	
Pyrene	1610	ND	1800 J	112	61-133	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Buffalo Job No.: 480-221432-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: X00000032123.d

Lab ID: 480-221432-1 MSD Client ID: SB-10-0-0.2 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Chrysene	1630	1830 J	113	5	15	64-120	
Dibenz(a,h)anthracene	1630	2020 J	124	4	15	54-132	
Dibenzofuran	1630	1580 J	97	1	15	62-120	
Diethyl phthalate	1630	1610 J	99	1	15	66-120	
Dimethyl phthalate	1630	1600 J	98	1	15	65-124	
Di-n-butyl phthalate	1630	1790 J	110	7	15	58-130	
Di-n-octyl phthalate	1630	1770 J	109	9	16	57-133	
Fluoranthene	1630	1850 J	113	7	15	62-120	
Fluorene	1630	1640 J	101	1	15	63-120	
Hexachlorobenzene	1630	1770 J	108	7	15	60-120	
Hexachlorobutadiene	1630	1410 J	87	4	44	45-120	
Hexachlorocyclopentadiene	1630	ND	0	NC	49	31-120	F1
Hexachloroethane	1630	1150 J	71	4	46	21-120	
Indeno[1,2,3-cd]pyrene	1630	2020 J	124	7	15	56-134	
Isophorone	1630	1600 J	98	7	17	56-120	
Naphthalene	1630	1540 J	95	3	29	46-120	
Nitrobenzene	1630	1470 J	90	4	24	49-120	
N-Nitrosodi-n-propylamine	1630	1650 J	101	5	31	46-120	
Pentachlorophenol	3260	ND	NC	NC	35	10-136	
Phenanthrene	1630	1770 J	109	8	15	60-122	
Phenol	1630	1740 J	107	10	35	50-120	
Pyrene	1630	1900 J	117	6	35	61-133	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-221432-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 480-718243/1-A

Matrix: Solid | Lab File ID: 5_72044.D

Analysis Method: 8081B | Date Collected:

Extraction Method: 3550C | Date Extracted: 07/12/2024 06:39

Sample wt/vol: 30(g) | Date Analyzed: 07/16/2024 12:56

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-CLPI ID: 0.53(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 718529 | Units: ug/Kg

Preparation Batch No.: 718243 | Instrument ID: Hewlett Packard 6890 dual uE

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
72-54-8	4,4'-DDD	ND		1.7	0.32
72-55-9	4,4'-DDE	ND		1.7	0.35
50-29-3	4,4'-DDT	ND		1.7	0.39
309-00-2	Aldrin	ND		1.7	0.41
319-84-6	alpha-BHC	0.360	J	1.7	0.30
5103-71-9	cis-Chlordane	ND		1.7	0.83
319-85-7	beta-BHC	ND		1.7	0.30
319-86-8	delta-BHC	ND		1.7	0.31
60-57-1	Dieldrin	ND		1.7	0.40
959-98-8	Endosulfan I	ND		1.7	0.32
33213-65-9	Endosulfan II	ND		1.7	0.30
1031-07-8	Endosulfan sulfate	ND		1.7	0.31
72-20-8	Endrin	ND		1.7	0.33
7421-93-4	Endrin aldehyde	ND		1.7	0.43
53494-70-5	Endrin ketone	ND		1.7	0.41
58-89-9	gamma-BHC (Lindane)	0.433	J	1.7	0.31
5103-74-2	trans-Chlordane	ND		1.7	0.53
76-44-8	Heptachlor	ND		1.7	0.36
1024-57-3	Heptachlor epoxide	ND		1.7	0.43
72-43-5	Methoxychlor	ND		1.7	0.34
8001-35-2	Toxaphene	ND		17	9.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	102		45-120
877-09-8	Tetrachloro-m-xylene	81		30-124

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Buffalo Job No.: 480-221432-1

SDG No.:

Client Sample ID: SB-10-0-0.2 Lab Sample ID: 480-221432-1

Instrument ID (1): HP6890-5 Instrument ID (2): HP6890-5

Date Analyzed (1): 07/16/2024 16:31 Date Analyzed (2): 07/16/2024 16:31

GC Column (1): RTX-CLPI ID: 0.53(mm) GC Column (2): RTX-CLPII ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
alpha-BHC	1		3.09	3.07	3.13	15		10.1
	2		3.33	3.32	3.38	17		
4,4'-DDD	1		5.62	5.61	5.67	25		5.0
	2		6.25	6.19	6.25	24		
4,4'-DDT	1		5.90	5.89	5.95	68		29.0
	2		6.54	6.51	6.57	51		
Endrin ketone	1		6.95	6.92	6.98	24		56.1
	2		7.48	7.48	7.54	43		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Buffalo Job No.: 480-221432-1

SDG No.:

Client Sample ID: SB-10-39-42 Lab Sample ID: 480-221432-2

Instrument ID (1): HP6890-25 Instrument ID (2): HP6890-25

Date Analyzed (1): 07/11/2024 15:39 Date Analyzed (2): 07/11/2024 15:39

GC Column (1): RTX-CLPI ID: 0.53(mm) GC Column (2): RTX-CLPII ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Methoxychlor	1		5.87	5.85	5.91	0.69		32.5
	2		7.14	7.09	7.15	0.96		

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: SB-10-0-0.2 MS | Lab ID: 480-221432-1 MS

Lab Name: Eurofins Buffalo | Job No.: 480-221432-1

SDG No.:

Matrix: Solid | Concentration Units: mg/Kg

% Solids: 81.8

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Aluminum	26780		18800		1250	642	75-125	4	6010C
Antimony	55.70		0.88	J	122	45	75-125	F1	6010C
Arsenic	205.3		5.8		244	82	75-125		6010C
Barium	362.9		139		244	92	75-125		6010C
Beryllium	105.7		1.1		122	86	75-125		6010C
Cadmium	107.6		0.31		122	88	75-125		6010C
Calcium	43850		38900		6110	80	75-125	4	6010C
Chromium	141.0		36.1		122	86	75-125		6010C
Cobalt	134.4		10.8		122	101	75-125		6010C
Copper	164.6		54.2		122	90	75-125		6010C
Iron	22750		22500		1250	22	75-125	4	6010C
Lead	183.4		60.4		122	101	75-125		6010C
Magnesium	18130		12400		6110	93	75-125		6010C
Manganese	716.9		658		122	49	75-125	4	6010C
Nickel	128.7		27.4		122	83	75-125		6010C
Potassium	12980		4640		6110	137	75-125	F1	6010C
Selenium	189.9		1.2	J	244	77	75-125		6010C
Silver	10.71		0.25	J	12.2	86	75-125		6010C
Sodium	5516		211		6110	87	75-125		6010C
Thallium	244.8		ND		244	100	75-125		6010C
Vanadium	149.9		35.6		122	94	75-125		6010C
Zinc	218.1		114		122	85	75-125		6010C
Mercury	3.79		3.3		0.409	108	80-120	4	7471B

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: SB-10-0-0.2 MSD Lab ID: 480-221432-1 MSD

Lab Name: Eurofins Buffalo Job No.: 480-221432-1

SDG No.:

Matrix: Solid Concentration Units: mg/Kg

% Solids: 81.8

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Aluminum	27410		1200	716	75-125	2	20	4	6010C
Antimony	51.13		118	43	75-125	9	20	F1	6010C
Arsenic	194.0		236	80	75-125	6	20		6010C
Barium	354.5		236	91	75-125	2	20		6010C
Beryllium	101.4		118	85	75-125	4	20		6010C
Cadmium	93.70		118	79	75-125	14	20		6010C
Calcium	44510		5910	94	75-125	1	20	4	6010C
Chromium	140.0		118	88	75-125	1	20		6010C
Cobalt	130.7		118	102	75-125	3	20		6010C
Copper	157.4		118	87	75-125	4	20		6010C
Iron	22830		1200	30	75-125	0	20	4	6010C
Lead	183.6		118	104	75-125	0	20		6010C
Magnesium	18450		5910	102	75-125	2	20		6010C
Manganese	728.3		118	60	75-125	2	20	4	6010C
Nickel	127.4		118	85	75-125	1	20		6010C
Potassium	12830		5910	139	75-125	1	20	F1	6010C
Selenium	176.7		236	74	75-125	7	20	F1	6010C
Silver	10.29		11.8	85	75-125	4	20		6010C
Sodium	5369		5910	87	75-125	3	20		6010C
Thallium	235.1		236	100	75-125	4	20		6010C
Vanadium	146.1		118	94	75-125	3	20		6010C
Zinc	214.0		118	85	75-125	2	20		6010C
Mercury	3.84		0.400	123	80-120	1	20	4	7471B

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: SB-10-0-0.2 PDS Lab ID: 480-221432-1 PDS

Lab Name: Eurofins Buffalo Job No.: 480-221432-1

SDG No.:

Matrix: Solid Concentration Units: mg/Kg

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Aluminum	19240		18800		1210	NC	80-120		6010C
Antimony	105.5		0.88	J	119	88	80-120		6010C
Arsenic	216.1		5.8		238	89	80-120		6010C
Barium	355.9		139		238	91	80-120		6010C
Beryllium	110.1		1.1		119	92	80-120		6010C
Cadmium	110.1		0.31		119	92	80-120		6010C
Calcium	42730		38900		5940	64	80-120	W	6010C
Chromium	140.9		36.1		119	88	80-120		6010C
Cobalt	139.2		10.8		119	108	80-120		6010C
Copper	167.5		54.2		119	95	80-120		6010C
Iron	22560		22500		1210	NC	80-120		6010C
Lead	185.3		60.4		119	105	80-120		6010C
Magnesium	17440		12400		5940	84	80-120		6010C
Manganese	735.8		658		119	66	80-120	W	6010C
Nickel	130.3		27.4		119	87	80-120		6010C
Potassium	10090		4640		5940	92	80-120		6010C
Selenium	201.7		1.2	J	238	84	80-120		6010C
Silver	10.87		0.25	J	11.9	89	80-120		6010C
Sodium	5852		211		5940	95	80-120		6010C
Thallium	255.3		ND		238	107	80-120		6010C
Vanadium	140.9		35.6		119	89	80-120		6010C
Zinc	213.4		114		119	84	80-120		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VB - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 480-221432-1

SDG No:

Lab Name: Eurofins Buffalo Job No: 480-221432-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Aluminum	18800		20730		10		6010C
Antimony	0.88	J	ND		NC		6010C
Arsenic	5.8		7.44	J	NC		6010C
Barium	139		154.2		11	V	6010C
Beryllium	1.1		1.27		NC		6010C
Cadmium	0.31		ND		NC		6010C
Calcium	38900		45190		16	V	6010C
Chromium	36.1		41.09		14	V	6010C
Cobalt	10.8		10.59		1.8		6010C
Copper	54.2		56.22		3.7		6010C
Iron	22500		29240		30	V	6010C
Lead	60.4		58.31		3.4		6010C
Magnesium	12400		13720		10		6010C
Manganese	658		758.0		15	V	6010C
Nickel	27.4		32.04		17	V	6010C
Potassium	4640		5052		8.9		6010C
Selenium	1.2	J	ND		NC		6010C
Silver	0.25	J	ND		NC		6010C
Sodium	211		ND		NC		6010C
Thallium	ND		ND		NC		6010C
Vanadium	35.6		39.22		10		6010C
Zinc	114		134.3		18	V	6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins Environment Testing

Client Information
Client Contact: Ethan Smith
Company: AECOM
Address: 50 Lakefront Boulevard Suite 111
City: Buffalo
State, Zip: NY, 14202
Phone: 614-790-2274(Tel) / (716) 912-4456
Email: ethan.smith@aecom.com / edyta.doroszkowska@aecom.com
Project Name: Tank 75 - Soil Analysis
Site: Tank 75 Site - Tonawanda, NY

Sampler: E.Smith / C.Hawks / D.Vanmaster
Phone: (716)912-4456
PWSID:
Due Date Requested:
TAT Requested (days): Standard
Compliance Project: Δ Yes Δ No
PO #: 1120269 Task 300
WO #: Ann.Marie.Kropovitch@aecom.com
Project #: 48027595
SSOW#:

Lab PM: Beninati, John
E-Mail: John.Beninati@et.eurofinsus.com
Carrier Tracking No(s):
State of Origin:

COC No: 480-197590-40883.2
Page: ~~Page 2 of 11~~ 1 of 1
Job #: 60730037

Analysis Requested

Preservation Codes:
N - None
A - HCL
D - HNO3
B - NaOH
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL VOCs + TICs	8081B, 8082A, 8270D	6010C, 7471B, 9012B	8270D - TCL SVOCs + 1,4 Dioxane, TICs	1633 - 1633 Standard List	8260C - TCL VOCs + TICs	8270D - TCL SVOCs +TICs	1633_DRAFT_TSS - Percent Suspend Solids PFAS	8082A - TCL PCBs	8081B - TCL Pesticides	6010C, 7470A	9012B_NP - Cyanide, Total	8270D_SIM_MS_ID - 1,4 Dioxane	Total Number of containers	Spec
			Preservation Code:				N	N	N	N	N	A	N	N	N	N	D	B	N		
HA-01-0-0.2	7-10-24	0740	G	Solid				X	X	X	X									5	
HA-01-2.5-3.5	7-10-24	0930	G	Solid			X	X	X											7	
HA-01-2.5-3.5-MS	7-10-24	0930	G	Solid		Y	X	X	X											7	
HA-01-2.5-3.5-MSD	7-10-24	0930	G	Solid		Y	X	X	X											7	
HA-08-0-0.2	7-10-24	1030	G	Solid				X	X											3	
HA-08-3.5-4.0	7-10-24	1050	G	Solid			X	X	X											7	
HA-07-0-0.2	7-10-24	1200	G	Solid				X	X											3	
HA-07-3.0-4.0	7-10-24	1220	G	Solid			X	X	X											7	
				Solid																	
				Solid																	
				Solid																	

480-221523 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		7-10-24 1429	AECOM			
2						
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 8.1 6 #1 ICE

Ver: 04/02/2024

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691 7991

Chain of Custody Record

eurofins
Environment Testing

Client Information (Sub Contract Lab)	Sampler	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-88408.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note): NELAP New York		Job #: 480-221523-1
Address: 180 S. Van Buren Avenue,	Due Date Requested: 7/24/2024			Preservation Codes:
City: Barberton	TAT Requested (days):			
State, Zip: OH, 44203				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site:	SSOW#:			Other

Analysis Requested

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633/1633_Shake 1633 Standard List	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
HA-01-0-0.2 (480-221523-1)	7/10/24	07:40 Eastern		Solid			X	1	

85-35

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested. I, II, III IV Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Matthew Lwolb	7/12/24 1600	TA	MALISSA LOAR	7-13-24 9:10	
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Job Narrative
480-221523-1

Receipt
The samples were received on 7/11/2024 2:29 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 8.6º C.

GC/MS VOA
Method 8260C: The continuing calibration verification (CCV) associated with batch 480-718233 recovered above the upper control limit for Carbon tetrachloride, Chloromethane and Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: HA-01-2.5-3.5 (480-221523-2), HA-08-3.5-4.0 (480-221523-4) and HA-07-3.0-4.0 (480-221523-6).

Method 8260C: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 480-718232 and analytical batch 480-718233 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected.

Method 8260C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 480-718232 and analytical batch 480-718233 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method 8270D: The continuing calibration verification (CCV) associated with batch 480-718283 recovered above the upper control limit for Hexachlorocyclopentadiene and 2,4-Dimethylphenol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: HA-01-0-0.2 (480-221523-1), HA-01-2.5-3.5 (480-221523-2), HA-08-0-0.2 (480-221523-3) and HA-08-3.5-4.0 (480-221523-4).

Method 8270D: The following samples were diluted due to color, appearance and viscosity: HA-01-2.5-3.5 (480-221523-2), HA-01-2.5-3.5-MS (480-221523-2[MS]), HA-01-2.5-3.5-MSD (480-221523-2[MSD]) and HA-08-0-0.2 (480-221523-3). Elevated reporting limits (RL) are provided.

Method 8270D: Surrogate recovery for the following sample was outside control limits: HA-01-0-0.2 (480-221523-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8270D: The following sample was diluted due to color, appearance and viscosity: HA-07-0-0.2 (480-221523-5). Elevated reporting limits (RL) are provided.

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-718449 recovered above the upper control limit Hexachlorocyclopentadiene and 2,4-Dimethylphenol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: HA-07-0-0.2 (480-221523-5) and HA-07-3.0-4.0 (480-221523-6).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method 8082A: For method 8082A, the recovery of the one surrogate in samples HA-08-0-0.2 (480-221523-3) exceeds quality control limits due to the sample matrix. The recovery of the secondary surrogate is within quality control criteria; no corrective action is required.

Method 8081B: The following samples were diluted due to the nature of the sample matrix: HA-01-0-0.2 (480-221523-1), HA-01-2.5-3.5 (480-221523-2), HA-08-0-0.2 (480-221523-3) and HA-07-0-0.2 (480-221523-5). As such, surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method 8081B: The method blank for preparation batch 480-718243 and analytical batch 480-718529 contained alpha-BHC and gamma-BHC (Lindane) above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8081B: The following samples were diluted due to the nature of the sample matrix: HA-01-2.5-3.5-MS (480-221523-2[MS]) and HA-01-2.5-3.5-MSD (480-221523-2[MSD]). As such, spike and surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method 8081B: For method 8081 Pesticides, the majority of the peaks present in the sample extracts are biphenyls indicating the presence of Aroclors. The results of several confirmed positive peaks may be enhanced and due to the biphenyl peaks present, and may be considered estimated for: HA-07-0-0.2 (480-221523-5)

Method 8082A: The DCB Decachlorobiphenyl surrogate recovery for the following samples was outside acceptance limits (low biased) on the primary column: HA-01-0-0.2 (480-221523-1). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method 6010C: The low level continuing calibration verification (CCVL) associated with batch 480-718548 recovered above the upper control limit for Lead. The samples associated with this CCVL were 10x for the affected analytes; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

LCMS
Method 1633: The low level continuing calibration verification (CCVL) associated with batch 240-619961 recovered above the upper control limit for 3-Perfluoropropylpropanoic acid (3:3 FTCA). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 1633: The continuing calibration verification (CCV) recovered outside of control limits for IDA compound(s) 13C8 FOSA. Section 14.3.3 of the finalized EPA 1633 states that the recovery of target analytes for the CCV(s) must be within 70 - 130%, unless the analyte is not of concern for a given project. Since target analytes associated with this IDA are within spec, data is reported. The following sample is impacted: HA-01-0-0.2 (480-221523-1).

Method 1633: The low level laboratory control sample (LLCS) for preparation batch 240-619820 and analytical batch 240-619961 recovered outside control limits for the following analytes: 3-Perfluoropropylpropanoic acid (3:3 FTCA). These analytes were biased high in the LLCS and were not detected in the associated samples; therefore, the data have been reported.

Method 1633: The laboratory control sample (LCS) for preparation batch 240-619820 and analytical batch 240-619961 recovered outside control limits for the following analytes: 3-Perfluoropropylpropanoic acid (3:3 FTCA). These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method 3550C: Due to the matrix, the following sample could not be concentrated to the final method required volume: HA-01-0-0.2 (480-221523-1). The reporting limits (RLs) are elevated proportionately.

Method 3550C: The following sample(s) required a Florisil clean-up, via 3620C, to reduce matrix interferences:

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Buffalo Job No.: 480-221523-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: M15230.D

Lab ID: 480-221523-2 MS Client ID: HA-01-2.5-3.5-MS MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	48.0	ND	39.4	82	77-121	
1,1,2,2-Tetrachloroethane	48.0	ND	35.3	74	80-120	F1
1,1,2-Trichloro-1,2,2-trifluoroethane	48.0	ND	29.9	62	60-140	
1,1,2-Trichloroethane	48.0	ND	35.6	74	78-122	F1
1,1-Dichloroethane	48.0	0.73 J	43.1	88	73-126	
1,1-Dichloroethene	48.0	ND	42.3	88	59-125	
1,2,4-Trichlorobenzene	48.0	ND	6.78	14	64-120	F1
1,2-Dibromo-3-Chloropropane	48.0	ND	27.2	57	63-124	F1
1,2-Dibromoethane	48.0	ND	36.4	76	78-120	F1
1,2-Dichlorobenzene	48.0	ND	20.6	43	75-120	F1
1,2-Dichloroethane	48.0	ND	38.6	80	77-122	
1,2-Dichloropropane	48.0	ND	37.6	78	75-124	
1,3-Dichlorobenzene	48.0	ND	21.6	45	74-120	F1
1,4-Dichlorobenzene	48.0	ND	21.3	44	73-120	F1
2-Butanone (MEK)	240	3.7 J	156	63	70-134	F1
2-Hexanone	240	ND	164	68	59-130	
4-Methyl-2-pentanone (MIBK)	240	ND	168	70	65-133	
Acetone	240	19 J	173	64	61-137	
Benzene	48.0	0.91 J	39.2	80	79-127	
Bromodichloromethane	48.0	ND	39.1	81	80-122	
Bromoform	48.0	ND	34.8	73	68-126	
Bromomethane	48.0	ND	55.5	116	37-149	
Carbon disulfide	48.0	ND	40.6	85	64-131	
Carbon tetrachloride	48.0	ND	38.1	79	75-135	
Chlorobenzene	48.0	ND	30.2	63	76-124	F1
Chloroethane	48.0	ND	59.5	124	69-135	
Chloroform	48.0	ND	41.7	87	80-120	
Chloromethane	48.0	ND	56.7	118	63-127	
cis-1,2-Dichloroethene	48.0	ND	43.0	90	80-120	
cis-1,3-Dichloropropene	48.0	ND	38.0	79	80-120	F1
Cyclohexane	48.0	2.0 J	21.6	41	65-120	F1
Dibromochloromethane	48.0	ND	38.8	81	76-125	
Dichlorodifluoromethane	48.0	ND	59.4	124	57-142	
Ethylbenzene	48.0	0.79 J	27.7	56	80-120	F1
Isopropylbenzene	48.0	1.7 J	25.8	50	72-120	F1
Methyl acetate	96.1	ND	85.6	89	55-136	
Methyl tert-butyl ether	48.0	ND	38.8	81	63-125	
Methylcyclohexane	48.0	3.9 J	15.6	24	60-140	F1
Methylene Chloride	48.0	ND	43.4	90	61-127	
Styrene	48.0	ND	27.6	58	80-120	F1
Tetrachloroethene	48.0	0.77 J	27.8	56	74-122	F1

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Buffalo Job No.: 480-221523-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: M15230.D

Lab ID: 480-221523-2 MS Client ID: HA-01-2.5-3.5-MS MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Toluene	48.0	0.38 J	33.2	68	74-128	F1
trans-1,2-Dichloroethene	48.0	ND	43.5	91	78-126	
Trichloroethene	48.0	ND	35.7	74	77-129	F1
Trichlorofluoromethane	48.0	ND	45.5	95	65-146	
Vinyl chloride	48.0	ND	53.4	111	61-133	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Buffalo Job No.: 480-221523-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: M15231.D

Lab ID: 480-221523-2 MSD Client ID: HA-01-2.5-3.5-MSD MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	39.6	30.4	77	26	30	77-121	
1,1,2,2-Tetrachloroethane	39.6	45.2	114	25	30	80-120	
1,1,2-Trichloro-1,2,2-trifluoroethane	39.6	21.6	55	32	30	60-140	F1 F2
1,1,2-Trichloroethane	39.6	29.1	73	20	30	78-122	F1
1,1-Dichloroethane	39.6	34.4	85	22	30	73-126	
1,1-Dichloroethene	39.6	32.6	82	26	30	59-125	
1,2,4-Trichlorobenzene	39.6	2.71 J	7	86	30	64-120	F1 F2
1,2-Dibromo-3-Chloropropane	39.6	23.0	58	17	30	63-124	F1
1,2-Dibromoethane	39.6	29.9	75	20	30	78-120	F1
1,2-Dichlorobenzene	39.6	14.5	36	35	30	75-120	F1 F2
1,2-Dichloroethane	39.6	32.0	81	19	30	77-122	
1,2-Dichloropropane	39.6	29.8	75	23	30	75-124	
1,3-Dichlorobenzene	39.6	15.6	39	32	30	74-120	F1 F2
1,4-Dichlorobenzene	39.6	14.6	37	37	30	73-120	F1 F2
2-Butanone (MEK)	198	98.7	48	45	30	70-134	F1 F2
2-Hexanone	198	134	68	20	30	59-130	
4-Methyl-2-pentanone (MIBK)	198	145	73	15	30	65-133	
Acetone	198	88.0	35	65	30	61-137	F1 F2
Benzene	39.6	30.7	75	24	30	79-127	F1
Bromodichloromethane	39.6	31.2	79	23	30	80-122	F1
Bromoform	39.6	25.9	65	29	30	68-126	F1
Bromomethane	39.6	51.1	129	8	30	37-149	
Carbon disulfide	39.6	30.6	77	28	30	64-131	
Carbon tetrachloride	39.6	28.4	72	29	30	75-135	F1
Chlorobenzene	39.6	22.6	57	29	30	76-124	F1
Chloroethane	39.6	49.4	125	18	30	69-135	
Chloroform	39.6	33.0	83	23	30	80-120	
Chloromethane	39.6	46.3	117	20	30	63-127	
cis-1,2-Dichloroethene	39.6	35.0	88	20	30	80-120	
cis-1,3-Dichloropropene	39.6	30.4	77	22	30	80-120	F1
Cyclohexane	39.6	14.8	32	37	30	65-120	F1 F2
Dibromochloromethane	39.6	31.0	78	22	30	76-125	
Dichlorodifluoromethane	39.6	45.5	115	26	30	57-142	
Ethylbenzene	39.6	20.5	50	30	30	80-120	F1
Isopropylbenzene	39.6	24.7	58	4	30	72-120	F1
Methyl acetate	79.3	59.1	74	37	30	55-136	F2
Methyl tert-butyl ether	39.6	31.0	78	22	30	63-125	
Methylcyclohexane	39.6	11.8	20	28	30	60-140	F1
Methylene Chloride	39.6	36.3	92	18	30	61-127	
Styrene	39.6	19.6	49	34	30	80-120	F1 F2
Tetrachloroethene	39.6	19.9	48	33	30	74-122	F1 F2

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Buffalo Job No.: 480-221523-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: M15231.D

Lab ID: 480-221523-2 MSD Client ID: HA-01-2.5-3.5-MSD MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Toluene	39.6	25.9	64	25	30	74-128	F1
trans-1,2-Dichloroethene	39.6	34.1	86	24	30	78-126	
Trichloroethene	39.6	27.3	69	27	30	77-129	F1
Trichlorofluoromethane	39.6	34.9	88	26	30	65-146	
Vinyl chloride	39.6	42.4	107	23	30	61-133	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-221523-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 480-718243/1-A

Matrix: Solid | Lab File ID: 5_72044.D

Analysis Method: 8081B | Date Collected:

Extraction Method: 3550C | Date Extracted: 07/12/2024 06:39

Sample wt/vol: 30(g) | Date Analyzed: 07/16/2024 12:56

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-CLPI ID: 0.53(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 718529 | Units: ug/Kg

Preparation Batch No.: 718243 | Instrument ID: Hewlett Packard 6890 dual uE

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
72-54-8	4,4'-DDD	ND		1.7	0.32
72-55-9	4,4'-DDE	ND		1.7	0.35
50-29-3	4,4'-DDT	ND		1.7	0.39
309-00-2	Aldrin	ND		1.7	0.41
319-84-6	alpha-BHC	0.360	J	1.7	0.30
5103-71-9	cis-Chlordane	ND		1.7	0.83
319-85-7	beta-BHC	ND		1.7	0.30
319-86-8	delta-BHC	ND		1.7	0.31
60-57-1	Dieldrin	ND		1.7	0.40
959-98-8	Endosulfan I	ND		1.7	0.32
33213-65-9	Endosulfan II	ND		1.7	0.30
1031-07-8	Endosulfan sulfate	ND		1.7	0.31
72-20-8	Endrin	ND		1.7	0.33
7421-93-4	Endrin aldehyde	ND		1.7	0.43
53494-70-5	Endrin ketone	ND		1.7	0.41
58-89-9	gamma-BHC (Lindane)	0.433	J	1.7	0.31
5103-74-2	trans-Chlordane	ND		1.7	0.53
76-44-8	Heptachlor	ND		1.7	0.36
1024-57-3	Heptachlor epoxide	ND		1.7	0.43
72-43-5	Methoxychlor	ND		1.7	0.34
8001-35-2	Toxaphene	ND		17	9.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	102		45-120
877-09-8	Tetrachloro-m-xylene	81		30-124

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Buffalo Job No.: 480-221523-1

SDG No.:

Client Sample ID: HA-01-2.5-3.5 Lab Sample ID: 480-221523-2

Instrument ID (1): HP6890-5 Instrument ID (2): HP6890-5

Date Analyzed (1): 07/16/2024 14:15 Date Analyzed (2): 07/16/2024 14:15

GC Column (1): RTX-CLPI ID: 0.53(mm) GC Column (2): RTX-CLPII ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
alpha-BHC	1		3.10	3.07	3.13	8.7		7.9
	2		3.33	3.32	3.38	9.4		
4,4'-DDT	1		5.90	5.89	5.95	29		62.7
	2		6.55	6.51	6.57	15		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Buffalo Job No.: 480-221523-1

SDG No.:

Client Sample ID: HA-08-0-0.2 Lab Sample ID: 480-221523-3

Instrument ID (1): HP6890-5 Instrument ID (2): HP6890-5

Date Analyzed (1): 07/16/2024 14:54 Date Analyzed (2): 07/16/2024 14:54

GC Column (1): RTX-CLPI ID: 0.53(mm) GC Column (2): RTX-CLPII ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
gamma-BHC (Lindane)	1		3.38	3.34	3.40	8.9		3.9
	2		3.70	3.65	3.71	8.5		
4,4'-DDT	1		5.90	5.89	5.95	38		60.1
	2		6.54	6.51	6.57	20		
Endrin ketone	1		6.95	6.92	6.98	13		108.3
	2		7.48	7.48	7.54	44		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Buffalo Job No.: 480-221523-1

SDG No.:

Client Sample ID: HA-07-0-0.2 Lab Sample ID: 480-221523-5

Instrument ID (1): HP6890-5 Instrument ID (2): HP6890-5

Date Analyzed (1): 07/16/2024 15:33 Date Analyzed (2): 07/16/2024 15:33

GC Column (1): RTX-CLPI ID: 0.53(mm) GC Column (2): RTX-CLPII ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
alpha-BHC	1		3.10	3.07	3.13	8.7		15.3
	2		3.33	3.32	3.38	10		
Dieldrin	1		5.33	5.30	5.36	25		85.7
	2		5.80	5.76	5.82	10		
4,4'-DDT	1		5.90	5.89	5.95	94		17.6
	2		6.55	6.51	6.57	79		
Endrin ketone	1		6.95	6.92	6.98	30		3.0
	2		7.48	7.48	7.54	31		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Buffalo Job No.: 480-221523-1

SDG No.:

Client Sample ID: HA-07-3.0-4.0 Lab Sample ID: 480-221523-6

Instrument ID (1): HP6890-5 Instrument ID (2): HP6890-5

Date Analyzed (1): 07/16/2024 15:52 Date Analyzed (2): 07/16/2024 15:52

GC Column (1): RTX-CLPI ID: 0.53(mm) GC Column (2): RTX-CLPII ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Methoxychlor	1		6.40	6.39	6.45	1.9		55.2
	2		7.26	7.21	7.27	1.1		
Endrin ketone	1		6.94	6.92	6.98	0.75		104.8
	2		7.49	7.48	7.54	2.4		

FORM III
PESTICIDES MATRIX SPIKE RECOVERY

Lab Name: Eurofins Buffalo Job No.: 480-221523-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 5_72046.D

Lab ID: 480-221523-2 MS Client ID: HA-01-2.5-3.5-MS MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
4,4'-DDD	21.2	ND	20.7 J	98	37-126	
4,4'-DDE	21.2	ND	17.7 J	83	34-120	
4,4'-DDT	21.2	29 J	42.2 J	64	43-123	
Aldrin	21.2	ND	17.1 J	81	37-125	
alpha-BHC	21.2	8.7 J	21.9 J	62	39-120	
cis-Chlordane	21.2	ND	ND	0	35-120	F1
beta-BHC	21.2	ND	20.2 J	95	36-120	
delta-BHC	21.2	ND	21.6 J	102	34-120	
Dieldrin	21.2	ND	15.1 J	71	45-120	
Endosulfan I	21.2	ND	12.5 J	59	39-120	
Endosulfan II	21.2	ND	23.2 J	109	34-126	
Endosulfan sulfate	21.2	ND	18.2 J	86	27-130	
Endrin	21.2	ND	13.0 J	61	47-121	
Endrin aldehyde	21.2	ND	ND	0	33-123	F1
Endrin ketone	21.2	ND	29.5 J	139	43-126	F1
gamma-BHC (Lindane)	21.2	ND	21.6 J	102	50-120	
trans-Chlordane	21.2	ND	21.4 J	101	31-120	
Heptachlor	21.2	ND	ND	0	42-120	F1
Heptachlor epoxide	21.2	ND	13.0 J	61	40-120	
Methoxychlor	21.2	ND	60.8	287	44-150	F1

Column to be used to flag recovery and RPD values

FORM III 8081B

FORM III
PESTICIDES MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Buffalo Job No.: 480-221523-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 5_72047.D

Lab ID: 480-221523-2 MSD Client ID: HA-01-2.5-3.5-MSD MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
4,4'-DDD	21.2	17.4 J	82	17	21	37-126	
4,4'-DDE	21.2	14.5 J	68	20	18	34-120	F2
4,4'-DDT	21.2	40.3 J	55	5	25	43-123	
Aldrin	21.2	13.2 J	62	26	12	37-125	F2
alpha-BHC	21.2	19.7 J	52	11	15	39-120	
cis-Chlordane	21.2	ND	0	NC	23	35-120	F1
beta-BHC	21.2	16.1 J	76	22	19	36-120	F2
delta-BHC	21.2	18.4 J	87	16	14	34-120	F2
Dieldrin	21.2	ND	0	NC	12	45-120	F1
Endosulfan I	21.2	ND	0	NC	18	39-120	F1
Endosulfan II	21.2	17.3 J	82	29	26	34-126	F2
Endosulfan sulfate	21.2	13.7 J	65	28	35	27-130	
Endrin	21.2	ND	0	NC	20	47-121	F1
Endrin aldehyde	21.2	ND	0	NC	47	33-123	F1
Endrin ketone	21.2	25.2 J	119	16	37	43-126	
gamma-BHC (Lindane)	21.2	18.2 J	86	17	12	50-120	F2
trans-Chlordane	21.2	16.8 J	79	24	15	31-120	F2
Heptachlor	21.2	ND	0	NC	22	42-120	F1
Heptachlor epoxide	21.2	ND	0	NC	15	40-120	F1
Methoxychlor	21.2	57.4	271	6	24	44-150	F1

Column to be used to flag recovery and RPD values

FORM III 8081B

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: HA-01-2.5-3.5-MS MS | Lab ID: 480-221523-2 MS

Lab Name: Eurofins Buffalo | Job No.: 480-221523-1

SDG No.:

Matrix: Solid | Concentration Units: mg/Kg

% Solids: 78.0

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Aluminum	27760		19700		1300	618	75-125	4	6010C
Antimony	47.77		ND		127	38	75-125	F1	6010C
Arsenic	194.8		3.4		254	75	75-125		6010C
Barium	362.4		114		254	98	75-125		6010C
Beryllium	107.4		0.84		127	84	75-125		6010C
Cadmium	109.5		0.27		127	86	75-125		6010C
Calcium	54620		47500		6360	111	75-125	4	6010C
Chromium	134.9		24.0		127	87	75-125		6010C
Cobalt	137.4		10.9		127	100	75-125		6010C
Copper	131.7		18.0		127	89	75-125		6010C
Iron	20950		19300		1300	123	75-125	4	6010C
Lead	135.9		12.7		127	97	75-125	^+	6010C
Magnesium	22590		14300		6360	131	75-125	F1	6010C
Manganese	597.2		467		127	103	75-125		6010C
Nickel	128.4		22.0		127	84	75-125		6010C
Potassium	14370		6070		6360	131	75-125	F1	6010C
Selenium	179.2		ND		254	70	75-125	F1	6010C
Silver	11.14		0.29	J	12.7	85	75-125		6010C
Sodium	5793		239		6360	87	75-125		6010C
Thallium	231.6		ND		254	91	75-125		6010C
Vanadium	153.4		37.0		127	92	75-125		6010C
Zinc	160.8		57.7		127	81	75-125		6010C
Mercury	0.416		0.012	J	0.419	96	80-120		7471B

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: HA-01-2.5-3.5-MSD MSD | Lab ID: 480-221523-2 MSD

Lab Name: Eurofins Buffalo | Job No.: 480-221523-1

SDG No.:

Matrix: Solid | Concentration Units: mg/Kg

% Solids: 78.0

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Aluminum	26280		1340	487	75-125	5	20	4	6010C
Antimony	49.08		131	37	75-125	3	20	F1	6010C
Arsenic	198.1		263	74	75-125	2	20	F1	6010C
Barium	351.2		263	90	75-125	3	20		6010C
Beryllium	109.9		131	83	75-125	2	20		6010C
Cadmium	111.7		131	85	75-125	2	20		6010C
Calcium	57180		6570	147	75-125	5	20	4	6010C
Chromium	135.6		131	85	75-125	1	20		6010C
Cobalt	139.5		131	98	75-125	1	20		6010C
Copper	133.2		131	88	75-125	1	20		6010C
Iron	20020		1340	50	75-125	5	20	4	6010C
Lead	138.9		131	96	75-125	2	20	^+	6010C
Magnesium	20040		6570	88	75-125	12	20		6010C
Manganese	567.8		131	77	75-125	5	20		6010C
Nickel	129.0		131	81	75-125	0	20		6010C
Potassium	13810		6570	118	75-125	4	20		6010C
Selenium	183.8		263	70	75-125	3	20	F1	6010C
Silver	11.38		13.1	84	75-125	2	20		6010C
Sodium	5912		6570	86	75-125	2	20		6010C
Thallium	235.6		263	90	75-125	2	20		6010C
Vanadium	152.8		131	88	75-125	0	20		6010C
Zinc	159.2		131	77	75-125	1	20		6010C
Mercury	0.424		0.426	97	80-120	2	20		7471B

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: HA-01-2.5-3.5 PDS Lab ID: 480-221523-2 PDS

Lab Name: Eurofins Buffalo Job No.: 480-221523-1

SDG No.:

Matrix: Solid Concentration Units: mg/Kg

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Aluminum	19580		19700		1270	NC	80-120		6010C
Antimony	104.1		ND		125	83	80-120		6010C
Arsenic	202.0		3.4		250	80	80-120		6010C
Barium	327.8		114		250	86	80-120		6010C
Beryllium	108.9		0.84		125	87	80-120		6010C
Cadmium	112.1		0.27		125	90	80-120		6010C
Calcium	49930		47500		6240	38	80-120	W	6010C
Chromium	131.4		24.0		125	86	80-120		6010C
Cobalt	138.3		10.9		125	102	80-120		6010C
Copper	132.5		18.0		125	92	80-120		6010C
Iron	19400		19300		1270	NC	80-120		6010C
Lead	138.6		12.7		125	101	80-120		6010C
Magnesium	18810		14300		6240	73	80-120	W	6010C
Manganese	537.5		467		125	57	80-120	W	6010C
Nickel	129.2		22.0		125	86	80-120		6010C
Potassium	11230		6070		6240	83	80-120		6010C
Selenium	189.2		ND		250	76	80-120	W	6010C
Silver	11.05		0.29	J	12.5	86	80-120		6010C
Sodium	5887		239		6240	90	80-120		6010C
Thallium	237.4		ND		250	95	80-120		6010C
Vanadium	144.3		37.0		125	86	80-120		6010C
Zinc	155.4		57.7		125	78	80-120	W	6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VB - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 480-221523-2

SDG No:

Lab Name: Eurofins Buffalo Job No: 480-221523-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Aluminum	19700		22440		14	V	6010C
Antimony	ND		ND		NC		6010C
Arsenic	3.4		ND		NC		6010C
Barium	114		129.8		14	V	6010C
Beryllium	0.84		0.954	J	NC		6010C
Cadmium	0.27		0.456	J	NC		6010C
Calcium	47500		56490		19	V	6010C
Chromium	24.0		27.98		16	V	6010C
Cobalt	10.9		10.91		0.48		6010C
Copper	18.0		19.20		6.4		6010C
Iron	19300		25360		31	V	6010C
Lead	12.7		14.14		NC		6010C
Magnesium	14300		16080		13	V	6010C
Manganese	467		546.2		17	V	6010C
Nickel	22.0		25.55	J	16	V	6010C
Potassium	6070		6695		10		6010C
Selenium	ND		ND		NC		6010C
Silver	0.29	J	ND		NC		6010C
Sodium	239		ND		NC		6010C
Thallium	ND		ND		NC		6010C
Vanadium	37.0		41.51		12	V	6010C
Zinc	57.7		73.61		27	V	6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins Buffalo Job No.: 480-221523-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 718934	Date: 07/18/2024 16:17		Prep Batch: 718886		Date: 07/18/2024 12:15						
9012B	480-221523-2	Cyanide, Total	ND		mg/Kg						F1
9012B	480-221523-2 MS	Cyanide, Total	0.988	J	mg/Kg	1.44	69	85-115			F1

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins Buffalo Job No.: 480-221523-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 718934	Date: 07/18/2024 16:19		Prep Batch: 718886		Date: 07/18/2024 12:15						
9012B	480-221523-2 MSD	Cyanide, Total	1.06	J	mg/Kg	1.50	70	85-115	7	15	F1

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM V-IN

10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins Environment Testing

Client Information	Sampler: E. Smith / C. Hemmacks / D. Kumaraker	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-197590-40883.7
Client Contact: Ethan Smith	Phone: (716) 912-4456	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin:	Page: Page 1 of 2
Company: AECOM	PWSID:			Job #: 60730037
Address: 50 Lakefront Boulevard Suite 111	Due Date Requested:			Preservation Codes:
City: Buffalo	TAT Requested (days): Standard			
State, Zip: NY, 14202	Compliance Project: Δ Yes Δ No			
Phone: 614-790-2274(Tel) / (716)912-4456	PO #: 1120269 Task 300			
Email: ethan.smith@aecom.com / edyla.chmielewska@aecom.com	WO #: Ann.Marie.Kropovitch@aecom.com			
Project Name: Tank 75 - Soil Analysis	Project #: 48027595			
Site: Tank 75 Site - Tonawanda, NY	SSOW#:			

480-221553 Chain of Custody

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL VOCs + TICs	8081B, 8082A, 8270D	6010C, 7471B, 9012B	8270D - TCL SVOCs + 1,4 Dioxane, TICs	1633 - 1633 Standard List	8260C - TCL VOCs + TICs	8270D - TCL SVOCs +TICs	1633_DRAFT_TSS - Percent Suspend Solids PFAS	8082A - TCL PCBs	8081B - TCL Pesticides	6010C, 7470A	9012B_NP - Cyanide, Total	8270D_SIM_MS_ID - 1,4 Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N	N	A	N	N	N	N	D	B	N		
SB-01-26.0-31.7	7-11-24	0835	G	Solid			X	X	X	X	X									9	
HA-06-0.0-0.2	7-11-24	0930	G	Solid				X	X											3	
HA-06-3.0-4.0	7-11-24	0950	G	Solid			X	X	X											7	
HA-06-3.0-4.0-FD	7-11-24	0950	G	Solid			X	X	X											7	
HA-05-0.0-0.2	7-11-24	1025	G	Solid				X	X											3	
HA-05-3.0-4.0	7-11-24	1050	G	Solid			X	X	X	X	X									9	
HA-05-3.0-4.0-MS	7-11-24	1050	G	Solid		Y	X	X	X	X	X									9	
HA-05-3.0-4.0-MSD	7-11-24	1050	G	Solid		Y	X	X	X	X	X									9	
HA-04-0.0-0.2	7-11-24	1130	G	Solid				X	X												
HA-04-0.0-0.2-FD	7-11-24	1130	G	Solid				X	X												
HA-04-1.3-1.5	7-11-24	1150	G	Solid			X	X	X												No MS/MSD Discussed mark

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	7-11-24 1750	AECOM	LC	7/11/24 17:50	
	Relinquished by	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 5.1 4.7 4.3 3.9 5.2 ICE

Ver: 04/02/2024

Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins
Environment Testing

Client Information

Client Contact: Ethan Smith
Company: AECOM
Address: 50 Lakefront Boulevard Suite 111
City: Buffalo
State, Zip: NY, 14202
Phone: 614-790-2274(Tel) / (716) 912-4456
Email: ethan.smith@aecom.com/[illegible]@aecom.com
Project Name: Tank 75 - Soil Analysis
Site: Tank 75 Site - Tonawanda, NY

Sampler: E. Smith/C. Herocks/D. Vammerter
Phone: (716) 912-4456
PWSID:
Due Date Requested:
TAT Requested (days): Standard
Compliance Project: Δ Yes Δ No
PO #: 1120269 Task 300
WO #: Ann.Marie.Kropovitch@aecom.com
Project #: 48027595
SSOW#:

Lab PM: Beninati, John
E-Mail: John.Beninati@et.eurofinsus.com
Carrier Tracking No(s):
State of Origin:

COC No: 480-197590-40883.10
Page: ~~Page 10 of 11~~ 2 of 2
Job #: 60730037

Preservation Codes:
N - None
A - HCL
D - HNO3
B - NaOH

Other:

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL VOCs + TICs	8081B, 8082A, 8270D	6010C, 7471B, 9012B	8270D - TCL SVOCs + 1,4 Dioxane, TICs	1633 - 1633 Standard List	8260C - TCL VOCs + TICs	8270D - TCL SVOCs +TICs	1633_DRAFT_TSS - Percent Suspend Solids PFAS	8082A - TCL PCBs	8081B - TCL Pesticides	6010C, 7470A	9012B_NP - Cyanide, Total	8270D_SIM_MS_ID - 1,4 Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:		☒	☒	N	N	N	N	N	A	N	N	N	N	D	B	N	☒	
HA-03-0.0-0.2	7-11-24	1215	G	Solid				X	X											3	
HA-03-2.3-2.5	7-11-24	1300	G	Solid			X	X	X											7	
HA-02-0.0-0.2	7-11-24	1330	G	Solid				X	X											3	
HA-02-3.0-4.0	7-11-24	1340	G	Solid			X	X	X											7	
HA-02-3.0-4.0-FD	7-11-24	1340	G	Solid			X	X	X											7	
SB-01-43.0-45.0	7-11-24	1346	G	Solid			X	X	X											7	
SB-04-0.0-0.2	7-11-24	1455	G	Solid				X	X											3	
RB-07112024	7-11-24	1610	G	~~Solid~~ water								X	X	X	X	X	X	X	X	16	
				Solid																	
				Solid																	
				Solid																	

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ☒ *Unknown* ☐ *Radiological*

Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* ______ *Months*

Special Instructions/QC Requirements:

Empty Kit Relinquished by:
Date:
Time:
Method of Shipment

Relinquished by	Date/Time: 7-11-24 1750	Company AECOM	Received by: LC	Date/Time: 7/11/24 17:50	Company
Relinquished by	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks:

Ver: 04/02/2024

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-88410.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note): NELAP New York		Job #: 480-221553-1
Address: 180 S. Van Buren Avenue,	Due Date Requested: 7/25/2024			Preservation Codes:
City: Barberton	TAT Requested (days):			
State, Zip: OH, 44203				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site:	SSOW#:			Other:

Analysis Requested

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633/1633_Shake 1633 Standard List	1633/1633_SPE 1633 Standard List	1633_DRAFT_TSS/ Percent Suspend Solids PFAS	Total Number of containers	Special Instructions/Note:
			Preservation Code:								85-35
SB-01-26.0-31 7 (480-221553-1)	7/11/24	08:35 Eastern		Solid			X			1	
HA-05-3.0-4.0 (480-221553-6)	7/11/24	10:50 Eastern		Solid			X			1	
HA-05-3.0-4.0-MS (480-221553-6MS)	7/11/24	10:50 Eastern	MS	Solid			X			1	
HA-05-3.0-4.0-MSD (480-221553-6MSD)	7/11/24	10:50 Eastern	MSD	Solid			X			1	
RB-07112024 (480-221553-17)	7/11/24	16:10 Eastern		Water				X	X	3	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I II III IV Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature] 1405	7/12/24 1605	EET A	MELISSA LUAR	7-13-24 930	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Job Narrative
480-221553-1

Receipt
The samples were received on 7/12/2024 5:50 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 3.9º C, 4.3º C, 4.7º C, 5.1º C and 5.2º C.

GC/MS VOA
Method 8260C: Due to the coelution of Ethyl Acetate with 2-Butanone in the full spike solution, these analytes exceeded control limits in the laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) associated with batch 480-718296 . The following sample was affected : RB-07112024 (480-221553-17).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-718389 recovered above the upper control limit for 1,1,1-Trichloroethane, Carbon tetrachloride, Dibromochloromethane, Chloromethane, Dichlorodifluoromethane, Trichlorofluoromethane and Vinyl chloride. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: SB-01-26.0-31.7 (480-221553-1), HA-06-3.0-4.0 (480-221553-3), HA-06-3.0-4.0-FD (480-221553-4), HA-05-3.0-4.0 (480-221553-6) and HA-04-1.3-1.5 (480-221553-9).

Method 8260C: The following samples were analyzed using medium level soil analysis and diluted due to the abundance of non-target analytes: HA-03-2.3-2.5 (480-221553-11) and HA-02-3.0-4.0 (480-221553-13). Elevated reporting limits (RLs) are provided.

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-718408 recovered outside acceptance criteria, low biased, for 1,1,2,2-Tetrachloroethane, Methyl tert-butyl ether, and 1,2,4-Trichlorobenzene. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported. The associated samples are impacted: HA-03-2.3-2.5 (480-221553-11) and HA-02-3.0-4.0 (480-221553-13).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-718659 recovered above the upper control limit for Carbon tetrachloride. The sample(s) associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The associated sample is impacted: HA-02-3.0-4.0-FD (480-221553-14).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-718794 recovered above the upper control limit for Carbon tetrachloride. The sample(s) associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: SB-01-43.0-45.0 (480-221553-15).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method 8270D: The continuing calibration verification (CCV) associated with batch 480-718502 recovered above the upper control limit for 2,4-Dimethylphenol and Hexachlorocyclopentadiene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: RB-07112024 (480-221553-17).

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-718502 recovered outside acceptance criteria, low biased, for 3-Nitroaniline. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D: Surrogate recovery for the following samples were outside control limits: HA-04-0.0-0.2 (480-221553-7), HA-04-0.0-0.2-FD (480-221553-8), HA-04-1.3-1.5 (480-221553-9), HA-03-0.0-0.2 (480-221553-10), HA-03-2.3-2.5 (480-221553-11), HA-02-0.0-0.2 (480-221553-12) and SB-04-0.0-0.2 (480-221553-16). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8270D: The following samples were diluted due to color, appearance and viscosity: HA-06-0.0-0.2 (480-221553-2), HA-05-0.0-0.2 (480-221553-5), HA-04-0.0-0.2 (480-221553-7), HA-04-0.0-0.2-FD (480-221553-8), HA-04-1.3-1.5 (480-221553-9), HA-03-0.0-0.2 (480-221553-10), HA-03-2.3-2.5 (480-221553-11), HA-02-0.0-0.2 (480-221553-12) and SB-04-0.0-0.2 (480-221553-16). Elevated reporting limits (RL) are provided.

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-718990 recovered above the upper control limit for multiple analytes. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: SB-01-26.0-31.7 (480-221553-1), HA-06-0.0-0.2 (480-221553-2), HA-06-3.0-4.0 (480-221553-3), HA-06-3.0-4.0-FD (480-221553-4), HA-05-0.0-0.2 (480-221553-5), HA-05-3.0-4.0 (480-221553-6), HA-04-0.0-0.2 (480-221553-7), HA-04-0.0-0.2-FD (480-221553-8), HA-04-1.3-1.5 (480-221553-9), HA-03-0.0-0.2 (480-221553-10), HA-03-2.3-2.5 (480-221553-11), HA-02-0.0-0.2 (480-221553-12), HA-02-3.0-4.0 (480-221553-13), HA-02-3.0-4.0-FD (480-221553-14) and SB-04-0.0-0.2 (480-221553-16).

Method 8270D: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 480-718403 and analytical batch 480-718990 recovered outside control limits for the following analytes: 2,4-Dimethylphenol, Diethyl phthalate and Fluorene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The following compounds have been spiked at level above the upper range of the initial calibration: Atrazine. The laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) recovered within acceptable limits for these analytes and have been qualified with an "E" flag. (LCS 480-718403/2-A) .

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-718990 recovered above the upper control limit for multiple analytes. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: SB-01-43.0-45.0 (480-221553-15).

Method 8270D: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 480-718403 and analytical batch 480-718990 recovered outside control limits for the following analytes: 2,4-Dimethylphenol, Diethyl phthalate and Fluorene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA

Method 8081B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 480-718399 and analytical batch 480-718531 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits. HA-05-3.0-4.0 (480-221553-6)

Method 8081B: The following samples were diluted due to the nature of the sample matrix: HA-06-0.0-0.2 (480-221553-2), HA-05-0.0-0.2 (480-221553-5), HA-04-0.0-0.2 (480-221553-7), HA-04-0.0-0.2-FD (480-221553-8), HA-04-1.3-1.5 (480-221553-9), HA-03-0.0-0.2 (480-221553-10), HA-03-2.3-2.5 (480-221553-11), HA-02-0.0-0.2 (480-221553-12) and SB-04-0.0-0.2 (480-221553-16). As such, surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method 8081B: The laboratory control sample duplicate (LCSD) for preparation batch 480-718568 and analytical batch 480-718688 recovered outside control limits for the following analytes: 4,4'-DDT. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

Method 8081B: The method blank for preparation batch 480-718568 and analytical batch 480-718688 contained alpha-BHC and gamma-BHC (Lindane) above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8082A: For method 8082, the recovery of the one surrogate in samples SB-04-0.0-0.2 (480-221553-16) exceeds quality control limits due to the sample matrix. The recovery of the secondary surrogate is within quality control criteria; no corrective action is required.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method 6010C: The low level continuing calibration verification (CCVL) associated with batch 480-718597 recovered above the upper control limit for potassium. The samples associated with this CCVL were non-detects for the affected analytes; therefore, the data have been reported.

Method 6010C: The low level continuing calibration verification (CCVL) associated with batch 480-718597 recovered above the upper control limit for Potassium. The samples associated with this CCVL were 10x for the affected analytes; therefore, the data have been reported.

Method 6010C: The method blank for preparation batch 480-718289 and analytical batch 480-718597 contained Aluminum and Iron above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method 6010C: The low level continuing calibration verification (CCVL) associated with batch 480-718597 recovered above the upper control limit for lead. The samples associated with this CCVL were 10x for the affected analytes; therefore, the data have been reported.

Method 6010C: The low level continuing calibration verification (CCVL) associated with batch 480-718628 recovered above the upper control limit for Zinc. The samples associated with this CCVL were 10x for the affected analytes; therefore, the data have been reported.

Method 6010C: The low level continuing calibration verification (CCVL) associated with batch 480-718628 recovered above the upper control limit for Zinc. The samples associated with this CCVL were non-detects for the affected analytes; therefore, the data have been reported.

Method 6010C: The low level continuing calibration verification (CCVL) associated with batch 480-718734 recovered above the upper control limit for Lead.The samples associated with this CCVL were non-detects for the affected analytes; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

LCMS

Method 1633: The low level continuing calibration verification (CCVL) associated with batch 240-619841 recovered above the upper control limit for 3-Perfluoropropylpropanoic acid (3:3 FTCA). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 1633: The low level continuing calibration verification (CCVL) associated with batch 240-619841 recovered outside of control limits for IDA compound(s) d9-N-EtFOSE-M. Section 14.3.3 of the finalized EPA 1633 states that the recovery of target analytes for the CCV(s) must be within 70 - 130%, unless the analyte is not of concern for a given project. Since target analytes associated with this IDA are within spec, data is reported.

Method 1633: The continuing calibration verification (CCV) associated with batch 240-619841 recovered above the upper control limit for 3-Perfluoropropylpropanoic acid (3:3 FTCA). The samples associated with this CCV were below the reporting limit for the affected analytes; therefore, the data have been reported.

Method 1633: The laboratory control sample (LCS) for preparation batch 240-619819 and analytical batch 240-619841 recovered outside control limits for the following analytes: 3-Perfluoropropylpropanoic acid (3:3 FTCA). These analytes were biased high in the LCS and were below the reporting limit in the associated samples; therefore, the data have been reported.

Method 1633: The continuing calibration verification (CCV) associated with batch 240-619841 recovered above the upper control limit for Perfluorotridecanoic acid (PFTrDA) and 3-Perfluoropropylpropanoic acid (3:3 FTCA). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 1633: The continuing calibration verification (CCV) recovered outside of control limits for IDA compound(s) 13C2 PFTeDA. Section 14.3.3 of the finalized EPA 1633 states that the recovery of target analytes for the CCV(s) must be within 70 - 130%, unless the analyte is not of concern for a given project. Since target analytes associated with this IDA are within spec, data is reported. The following sample is impacted: RB-07112024 (480-221553-17).

Method 1633: The low level continuing calibration verification (CCVL) associated with batch 240-619961 recovered above the upper control limit for 3-Perfluoropropylpropanoic acid (3:3 FTCA). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 1633: The continuing calibration verification (CCV) recovered outside of control limits for IDA compound(s) 13C8 FOSA. Section 14.3.3 of the finalized EPA 1633 states that the recovery of target analytes for the CCV(s) must be within 70 - 130%, unless the analyte is not of concern for a given project. Since target analytes associated with this IDA are within spec, data is reported. The following samples are impacted: SB-01-26.0-31.7 (480-221553-1) and HA-05-3.0-4.0 (480-221553-6).

Method 1633: The low level laboratory control sample (LLCS) for preparation batch 240-619820 and analytical batch 240-619961 recovered outside control limits for the following analytes: 3-Perfluoropropylpropanoic acid (3:3 FTCA). These analytes were biased high in the LLCS and were not detected in the associated samples; therefore, the data have been reported.

Method 1633: The laboratory control sample (LCS) for preparation batch 240-619820 and analytical batch 240-619961 recovered outside control limits for the following analytes: 3-Perfluoropropylpropanoic acid (3:3 FTCA). These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 1633: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 240-619820 and analytical batch 240-619961 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample duplicate (LCS) precision was within acceptance limits.

Method 1633: The following sample was collected in an improper container: RB-07112024 (480-221553-17). Laboratory proceed with analysis.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method 3550C: Due to the matrix, the initial volume(s) used for the following sample deviated from the standard procedure: HA-03-2.3-2.5 (480-221553-11). The reporting limits (RLs) have been adjusted proportionately.

Method 3550C: Due to the matrix, the initial volume(s) used for the following samples deviated from the standard procedure: HA-04-1.3-1.5 (480-221553-9), HA-03-0.0-0.2 (480-221553-10) and HA-03-2.3-2.5 (480-221553-11). The reporting limits (RLs) have been adjusted proportionately.

Method 3550C: The following samples required a Florisil clean-up, via EPA Method3620C, to reduce matrix interferences: HA-06-0.0-0.2 (480-221553-2), HA-05-0.0-0.2 (480-221553-5), HA-05-3.0-4.0 (480-221553-6), HA-05-3.0-4.0-MS (480-221553-6[MS]), HA-05-3.0-4.0-MSD (480-221553-6[MSD]), HA-04-0.0-0.2 (480-221553-7), HA-04-0.0-0.2-FD (480-221553-8), HA-04-1.3-1.5 (480-221553-9), HA-03-0.0-0.2 (480-221553-10), HA-03-2.3-2.5 (480-221553-11), HA-02-0.0-0.2 (480-221553-12) and SB-04-0.0-0.2 (480-221553-16).

Method 3550C: Due to the matrix, the following samples could not be concentrated to the final method required volume: HA-04-0.0-0.2 (480-221553-7), HA-04-0.0-0.2-FD (480-221553-8), HA-04-1.3-1.5 (480-221553-9), HA-03-0.0-0.2 (480-221553-10), HA-03-2.3-2.5 (480-221553-11), HA-02-0.0-0.2 (480-221553-12) and SB-04-0.0-0.2 (480-221553-16). The reporting limits (RLs) are elevated proportionately.

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-718568.

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-718610.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Buffalo Job No.: 480-221553-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: M15260.D

Lab ID: 480-221553-6 MS Client ID: HA-05-3.0-4.0-MS MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	41.5	ND	33.3	80	77-121	
1,1,2,2-Tetrachloroethane	41.5	ND	24.9	60	80-120	F1
1,1,2-Trichloro-1,2,2-trifluoroethane	41.5	ND	30.2	73	60-140	
1,1,2-Trichloroethane	41.5	ND	29.7	72	78-122	F1
1,1-Dichloroethane	41.5	ND	32.2	78	73-126	
1,1-Dichloroethene	41.5	ND	31.0	75	59-125	
1,2,4-Trichlorobenzene	41.5	ND	16.5	40	64-120	F1
1,2-Dibromo-3-Chloropropane	41.5	ND	21.9	53	63-124	F1
1,2-Dibromoethane	41.5	ND	31.7	76	78-120	F1
1,2-Dichlorobenzene	41.5	ND	23.1	56	75-120	F1
1,2-Dichloroethane	41.5	ND	32.2	78	77-122	
1,2-Dichloropropane	41.5	ND	32.9	79	75-124	
1,3-Dichlorobenzene	41.5	ND	23.7	57	74-120	F1
1,4-Dichlorobenzene	41.5	ND	23.5	57	73-120	F1
2-Butanone (MEK)	207	ND	119	57	70-134	F1
2-Hexanone	207	ND	106	51	59-130	F1
4-Methyl-2-pentanone (MIBK)	207	ND	117	56	65-133	F1
Acetone	207	ND	117	57	61-137	F1
Benzene	41.5	ND	32.8	79	79-127	
Bromodichloromethane	41.5	ND	35.3	85	80-122	
Bromoform	41.5	ND	32.8	79	68-126	
Bromomethane	41.5	ND	40.6	98	37-149	
Carbon disulfide	41.5	ND	28.0	68	64-131	
Carbon tetrachloride	41.5	ND	35.6	86	75-135	
Chlorobenzene	41.5	ND	30.4	73	76-124	F1
Chloroethane	41.5	ND	42.3	102	69-135	
Chloroform	41.5	ND	33.0	80	80-120	
Chloromethane	41.5	ND	37.6	91	63-127	
cis-1,2-Dichloroethene	41.5	ND	32.7	79	80-120	F1
cis-1,3-Dichloropropene	41.5	ND	34.5	83	80-120	
Cyclohexane	41.5	ND	26.0	63	65-120	F1
Dibromochloromethane	41.5	ND	33.9	82	76-125	
Dichlorodifluoromethane	41.5	ND	39.6	95	57-142	
Ethylbenzene	41.5	ND	28.9	70	80-120	F1
Isopropylbenzene	41.5	ND	27.0	65	72-120	F1
Methyl acetate	83.0	ND	70.6	85	55-136	
Methyl tert-butyl ether	41.5	ND	30.6	74	63-125	
Methylcyclohexane	41.5	ND	23.1	56	60-140	F1
Methylene Chloride	41.5	ND	32.8	79	61-127	
Styrene	41.5	ND	29.6	71	80-120	F1
Tetrachloroethene	41.5	ND	29.7	72	74-122	F1

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Buffalo Job No.: 480-221553-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: M15260.D

Lab ID: 480-221553-6 MS Client ID: HA-05-3.0-4.0-MS MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Toluene	41.5	ND	30.3	73	74-128	F1
trans-1,2-Dichloroethene	41.5	ND	31.3	75	78-126	F1
Trichloroethene	41.5	ND	32.6	78	77-129	
Trichlorofluoromethane	41.5	ND	35.9	87	65-146	
Vinyl chloride	41.5	ND	35.3	85	61-133	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Buffalo Job No.: 480-221553-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: M15261.D

Lab ID: 480-221553-6 MSD Client ID: HA-05-3.0-4.0-MSD MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	51.4	42.2	82	24	30	77-121	
1,1,2,2-Tetrachloroethane	51.4	32.0	62	25	30	80-120	F1
1,1,2-Trichloro-1,2,2-trifluoroethane	51.4	36.8	72	20	30	60-140	
1,1,2-Trichloroethane	51.4	38.6	75	26	30	78-122	F1
1,1-Dichloroethane	51.4	40.7	79	23	30	73-126	
1,1-Dichloroethene	51.4	38.3	74	21	30	59-125	
1,2,4-Trichlorobenzene	51.4	22.7	44	32	30	64-120	F2 F1
1,2-Dibromo-3-Chloropropane	51.4	28.4	55	26	30	63-124	F1
1,2-Dibromoethane	51.4	40.6	79	25	30	78-120	
1,2-Dichlorobenzene	51.4	31.6	62	31	30	75-120	F2 F1
1,2-Dichloroethane	51.4	41.1	80	24	30	77-122	
1,2-Dichloropropane	51.4	42.0	82	24	30	75-124	
1,3-Dichlorobenzene	51.4	32.3	63	31	30	74-120	F2 F1
1,4-Dichlorobenzene	51.4	31.5	61	29	30	73-120	F1
2-Butanone (MEK)	257	146	57	20	30	70-134	F1
2-Hexanone	257	143	56	30	30	59-130	F1
4-Methyl-2-pentanone (MIBK)	257	154	60	27	30	65-133	F1
Acetone	257	149	58	24	30	61-137	F1
Benzene	51.4	41.5	81	24	30	79-127	
Bromodichloromethane	51.4	46.1	90	26	30	80-122	
Bromoform	51.4	44.3	86	30	30	68-126	
Bromomethane	51.4	48.8	95	18	30	37-149	
Carbon disulfide	51.4	34.5	67	21	30	64-131	
Carbon tetrachloride	51.4	45.7	89	25	30	75-135	
Chlorobenzene	51.4	39.3	76	26	30	76-124	
Chloroethane	51.4	52.5	102	21	30	69-135	
Chloroform	51.4	42.4	83	25	30	80-120	
Chloromethane	51.4	46.6	91	21	30	63-127	
cis-1,2-Dichloroethene	51.4	41.9	81	25	30	80-120	
cis-1,3-Dichloropropene	51.4	42.9	83	22	30	80-120	
Cyclohexane	51.4	32.5	63	22	30	65-120	F1
Dibromochloromethane	51.4	45.7	89	30	30	76-125	
Dichlorodifluoromethane	51.4	47.6	93	18	30	57-142	
Ethylbenzene	51.4	37.8	73	27	30	80-120	F1
Isopropylbenzene	51.4	35.1	68	26	30	72-120	F1
Methyl acetate	103	86.6	84	20	30	55-136	
Methyl tert-butyl ether	51.4	39.6	77	26	30	63-125	
Methylcyclohexane	51.4	30.1	58	26	30	60-140	F1
Methylene Chloride	51.4	42.4	82	25	30	61-127	
Styrene	51.4	38.0	74	25	30	80-120	F1
Tetrachloroethene	51.4	38.2	74	25	30	74-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Buffalo Job No.: 480-221553-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: M15261.D

Lab ID: 480-221553-6 MSD Client ID: HA-05-3.0-4.0-MSD MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Toluene	51.4	38.7	75	24	30	74-128	
trans-1,2-Dichloroethene	51.4	39.2	76	22	30	78-126	F1
Trichloroethene	51.4	40.1	78	21	30	77-129	
Trichlorofluoromethane	51.4	43.7	85	19	30	65-146	
Vinyl chloride	51.4	41.7	81	17	30	61-133	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Buffalo Job No.: 480-221553-1

SDG No.:

Lab File ID: S0457.d BFB Injection Date: 07/15/2024

Instrument ID: HP5973S BFB Injection Time: 10:28

Analysis Batch No.: 718408

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.4	
75	30.0 - 60.0 % of mass 95	49.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	Greater than 50% of mass 95	83.2	
175	5.0 - 9.0 % of mass 174	6.9	(8.2) 1
176	95.0 - 101.0 % of mass 174	81.2	(97.6) 1
177	5.0 - 9.0 % of mass 176	5.7	(7.1) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 480-718408/4	S0458.d	07/15/2024	13:04
	LCS 480-718435/1-A	S0461.d	07/15/2024	14:27
	MB 480-718435/3-A	S0464.d	07/15/2024	15:38
HA-03-2.3-2.5	480-221553-11	S0465.d	07/15/2024	16:16
HA-02-3.0-4.0	480-221553-13	S0466.d	07/15/2024	16:40

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Buffalo Job No.: 480-221553-1

SDG No.:

Lab Sample ID: CCVIS 480-718408/4 Calibration Date: 07/15/2024 13:04

Instrument ID: HP5973S Calib Start Date: 06/25/2024 16:35

GC Column: ZB-624 (20) ID: 0.18(mm) Calib End Date: 06/25/2024 19:18

Lab File ID: S0458.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Lin1		1.651	0.1000	20.3	25.0	-18.7	20.0
1,2-Dichloropropane	Ave	1.286	1.122	0.1000	21.8	25.0	-12.7	20.0
Dibromomethane	Ave	0.9103	0.7685	0.1000	21.1	25.0	-15.6	20.0
1,4-Dioxane	Lin1		0.0045		839	500	67.9*	50.0
Bromodichloromethane	Ave	1.583	1.437	0.2000	22.7	25.0	-9.2	20.0
2-Chloroethyl vinyl ether	Ave	0.8080	0.8184		25.3	25.0	1.3	20.0
cis-1,3-Dichloropropene	Ave	1.861	1.802	0.2000	24.2	25.0	-3.2	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.007	0.8339	0.1000	103	125	-17.2	20.0
Toluene	Ave	1.798	1.531	0.4000	21.3	25.0	-14.8	20.0
trans-1,3-Dichloropropene	Ave	0.8832	0.8138	0.1000	23.0	25.0	-7.9	20.0
Ethyl methacrylate	Ave	0.8419	0.7635		22.7	25.0	-9.3	20.0
1,1,2-Trichloroethane	Ave	0.5188	0.4183	0.1000	20.2	25.0	-19.4	20.0
Tetrachloroethene	Ave	0.6907	0.6698	0.2000	24.2	25.0	-3.0	20.0
1,3-Dichloropropane	Ave	1.022	0.9113		22.3	25.0	-10.9	20.0
2-Hexanone	Ave	0.6055	0.5636	0.1000	116	125	-6.9	20.0
Dibromochloromethane	Ave	0.6245	0.5422	0.1000	21.7	25.0	-13.2	20.0
1,2-Dibromoethane	Ave	0.6493	0.5683		21.9	25.0	-12.5	20.0
Chlorobenzene	Ave	1.905	1.706	0.5000	22.4	25.0	-10.4	20.0
Ethylbenzene	Ave	3.038	2.828	0.1000	23.3	25.0	-6.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.6654	0.5583		21.0	25.0	-16.1	20.0
m-Xylene & p-Xylene	Ave	1.165	1.112	0.1000	23.8	25.0	-4.6	20.0
o-Xylene	Ave	1.263	1.110	0.3000	22.0	25.0	-12.1	20.0
Styrene	Ave	1.854	1.717	0.3000	23.2	25.0	-7.4	20.0
Bromoform	Ave	0.4214	0.3688	0.1000	21.9	25.0	-12.5	50.0
Isopropylbenzene	Ave	2.723	2.434	0.1000	22.4	25.0	-10.6	20.0
Bromobenzene	Ave	0.7872	0.6652		21.1	25.0	-15.5	20.0
1,1,2,2-Tetrachloroethane	Ave	0.8687	0.6901	0.3000	19.9	25.0	-20.6*	20.0
N-Propylbenzene	Ave	3.184	2.912		22.9	25.0	-8.5	20.0
1,2,3-Trichloropropane	Ave	0.2978	0.2450		20.6	25.0	-17.7	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2384	0.2249		23.6	25.0	-5.7	50.0
2-Chlorotoluene	Ave	0.6969	0.6224		22.3	25.0	-10.7	20.0
1,3,5-Trimethylbenzene	Ave	2.347	2.085		22.2	25.0	-11.2	20.0
4-Chlorotoluene	Ave	0.7130	0.6145		21.5	25.0	-13.8	20.0
tert-Butylbenzene	Lin1		0.5053		21.3	25.0	-14.8	20.0
1,2,4-Trimethylbenzene	Ave	2.422	2.257		23.3	25.0	-6.8	20.0
sec-Butylbenzene	Ave	2.888	2.681		23.2	25.0	-7.1	20.0
1,3-Dichlorobenzene	Ave	1.483	1.286	0.6000	21.7	25.0	-13.3	20.0
4-Isopropyltoluene	Ave	2.544	2.390		23.5	25.0	-6.1	20.0
1,4-Dichlorobenzene	Ave	1.579	1.349	0.5000	21.4	25.0	-14.6	20.0
n-Butylbenzene	Ave	2.134	1.984		23.2	25.0	-7.1	20.0
1,2-Dichlorobenzene	Ave	1.552	1.280	0.4000	20.6	25.0	-17.5	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins Buffalo Job No.: 480-221553-1

SDG No.:

Lab File ID: W100259136.d DFTPP Injection Date: 07/15/2024

Instrument ID: HP5973W DFTPP Injection Time: 17:08

Analysis Batch No.: 718502

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10-80% of Base Peak	42.4	
68	Less than 2% of mass 69	0.0	(0.0) 1
69	Mass 69 Relative abundance	47.3	
70	Less than 2% of mass 69	0.3	(0.6) 1
127	10-80% of Base Peak	55.9	
197	Less than 2% of mass 198	0.0	
198	Base peak	100.0	
199	5-9% of mass 198	6.8	
275	10-60% of Base Peak	29.2	
365	Greater than 1% of mass 198	4.6	
441	present but less than 24% of mass 442	18.0	(15.1) 2
442	Greater than 50% of mass 198	118.7	
443	15-24% of mass 442	23.5	(19.8) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 480-718502/3	W100259137.d	07/15/2024	17:35
	MB 480-718325/1-A	W100259139.d	07/15/2024	18:29
	LCS 480-718325/2-A	W100259140.d	07/15/2024	18:56
RB-07112024	480-221553-17	W100259144.d	07/15/2024	20:43

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Buffalo | Job No.: 480-221553-1

SDG No.:

Lab Sample ID: CCVIS 480-718502/3 | Calibration Date: 07/15/2024 17:35

Instrument ID: HP5973W | Calib Start Date: 06/27/2024 12:10

GC Column: RXI-5Sil MS ID: 0.25(mm) | Calib End Date: 06/27/2024 15:18

Lab File ID: W100259137.d | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Biphenyl	Lin2		1.455	0.0100	3920	4000	-2.0	20.0
2-Chloronaphthalene	Ave	1.167	1.144	0.8000	3920	4000	-2.0	20.0
2-Nitroaniline	Lin2		0.3579	0.0100	3700	4000	-7.4	20.0
Dimethyl phthalate	Ave	1.218	1.295	0.0100	4250	4000	6.3	20.0
1,3-Dinitrobenzene	Lin2		0.1086	0.0100	4110	4000	2.7	20.0
2,6-Dinitrotoluene	Lin2		0.3005	0.2000	3950	4000	-1.2	20.0
Acenaphthylene	Lin2		1.841	0.9000	4270	4000	6.7	20.0
3-Nitroaniline	Lin2		0.2235	0.0100	2880	4000	-28.1*	20.0
2,4-Dinitrophenol	Lin2		0.1025	0.0100	6710	8000	-16.2	20.0
Acenaphthene	Lin2		1.165	0.9000	3950	4000	-1.2	20.0
4-Nitrophenol	Lin2		0.1573	0.0100	7180	8000	-10.3	20.0
2,4-Dinitrotoluene	Lin2		0.3910	0.2000	3970	4000	-0.7	20.0
Dibenzofuran	Lin2		1.553	0.8000	3970	4000	-0.6	20.0
2,3,4,6-Tetrachlorophenol	Lin2		0.2396	0.0100	3760	4000	-6.0	20.0
Hexadecane	Lin2		0.9051	0.0100	4070	4000	1.8	20.0
Diethyl phthalate	Lin2		1.327	0.0100	4070	4000	1.7	20.0
4-Chlorophenyl phenyl ether	Ave	0.5954	0.6093	0.4000	4090	4000	2.3	20.0
4-Nitroaniline	Lin2		0.3137	0.0100	3940	4000	-1.6	20.0
Fluorene	Lin2		1.264	0.9000	3990	4000	-0.2	20.0
4,6-Dinitro-2-methylphenol	Lin2		0.1097	0.0100	7750	8000	-3.1	20.0
Diphenylamine	Lin2		0.6170	0.0100	3280	3420	-4.0	20.0
N-Nitrosodiphenylamine	Lin2		0.5276	0.0100	3840	4000	-4.0	20.0
1,2-Diphenylhydrazine	Ave	1.563	1.579	0.0100	4040	4000	1.0	20.0
trans-Azobenzene	Ave	0.9582	0.9401	0.0100	3920	4000	-1.9	20.0
4-Bromophenyl phenyl ether	Ave	0.2088	0.2074	0.1000	3970	4000	-0.7	20.0
Atrazine	Lin2		0.3768	0.0100	8680	8000	8.5	20.0
Hexachlorobenzene	Lin2		0.2372	0.1000	4180	4000	4.6	20.0
n-Octadecane	Ave	0.5584	0.5553	0.0100	3980	4000	-0.5	20.0
Pentachlorophenol	Lin1		0.0881	0.0500	5600	8000	-29.9	50.0
Phenanthrene	Lin2		1.114	0.7000	4120	4000	3.0	20.0
Anthracene	Lin2		1.112	0.7000	4120	4000	3.1	20.0
Carbazole	Lin1		0.7317	0.0100	3490	4000	-12.7	20.0
Di-n-butyl phthalate	Ave	1.319	1.388	0.0100	4210	4000	5.2	20.0
Fluoranthene	Lin2		1.083	0.6000	4020	4000	0.5	20.0
Benzidine	Ave	0.4050	0.3330	0.0100	6580	8000	-17.8	50.0
Pyrene	Lin2		1.351	0.6000	3940	4000	-1.5	20.0
Butyl benzyl phthalate	Lin2		0.7397	0.0100	4010	4000	0.2	20.0
Bis(2-ethylhexyl) phthalate	Lin2		1.055	0.0100	4130	4000	3.3	20.0
3,3'-Dichlorobenzidine	Lin1		0.3849	0.0100	7620	8000	-4.7	50.0
Benzo(a)anthracene	Lin2		1.353	0.8000	4180	4000	4.4	20.0
Chrysene	Ave	1.239	1.214	0.7000	3920	4000	-2.0	20.0

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: HA-05-3.0-4.0-MS MS Lab ID: 480-221553-6 MS

Lab Name: Eurofins Buffalo Job No.: 480-221553-1

SDG No.:

Matrix: Solid Concentration Units: mg/Kg

% Solids: 82.2

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Aluminum	35880		26900		1240	726	75-125	4	6010C
Antimony	46.96		ND		121	39	75-125	F1	6010C
Arsenic	184.6		4.1		242	74	75-125	F1	6010C
Barium	397.1		162		242	97	75-125		6010C
Beryllium	102.5		2.0		121	83	75-125		6010C
Cadmium	100.2		0.20	J	121	83	75-125		6010C
Calcium	16910		27500		6060	-175	75-125	4	6010C
Chromium	137.1		28.3		121	90	75-125		6010C
Cobalt	131.0		14.9		121	96	75-125		6010C
Copper	124.9		14.9		121	91	75-125		6010C
Iron	24540		20500		1240	330	75-125	4	6010C
Lead	129.4		15.1		121	94	75-125		6010C
Magnesium	15820		9980		6060	96	75-125		6010C
Manganese	584.8		512		121	60	75-125	4	6010C
Nickel	154.4		32.1		121	101	75-125		6010C
Potassium	14370		4880		6060	157	75-125	F1	6010C
Selenium	167.3		ND		242	69	75-125	F1	6010C
Silver	10.34		0.34	J	12.1	82	75-125		6010C
Sodium	5183		277		6060	81	75-125		6010C
Thallium	224.3		ND		242	93	75-125		6010C
Vanadium	158.8		41.0		121	97	75-125		6010C
Zinc	167.3		59.6		121	89	75-125		6010C
Mercury	0.437		0.010	J	0.398	107	80-120		7471B

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: HA-05-3.0-4.0-MSD MSD Lab ID: 480-221553-6 MSD

Lab Name: Eurofins Buffalo Job No.: 480-221553-1

SDG No.:

Matrix: Solid Concentration Units: mg/Kg

% Solids: 82.2

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Aluminum	36280		1210	776	75-125	1	20	4	6010C
Antimony	38.03		118	32	75-125	21	20	F1 F2	6010C
Arsenic	172.5		236	71	75-125	7	20	F1	6010C
Barium	403.5		236	102	75-125	2	20		6010C
Beryllium	94.13		118	78	75-125	8	20		6010C
Cadmium	93.50		118	79	75-125	7	20		6010C
Calcium	25140		5910	-40	75-125	39	20	4 F2	6010C
Chromium	128.6		118	85	75-125	6	20		6010C
Cobalt	131.7		118	99	75-125	0	20		6010C
Copper	119.4		118	88	75-125	5	20		6010C
Iron	24930		1210	371	75-125	2	20	4	6010C
Lead	132.8		118	100	75-125	3	20		6010C
Magnesium	15580		5910	95	75-125	2	20		6010C
Manganese	574.3		118	53	75-125	2	20	4	6010C
Nickel	156.8		118	105	75-125	2	20		6010C
Potassium	13770		5910	150	75-125	4	20	F1	6010C
Selenium	155.4		236	66	75-125	7	20	F1	6010C
Silver	9.69		11.8	79	75-125	6	20		6010C
Sodium	4802		5910	77	75-125	8	20		6010C
Thallium	220.8		236	93	75-125	2	20		6010C
Vanadium	152.4		118	94	75-125	4	20		6010C
Zinc	165.1		118	89	75-125	1	20		6010C
Mercury	0.443		0.403	108	80-120	1	20		7471B

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: HA-05-3.0-4.0 PDS Lab ID: 480-221553-6 PDS

Lab Name: Eurofins Buffalo Job No.: 480-221553-1

SDG No.:

Matrix: Solid Concentration Units: mg/Kg

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Aluminum	26400		26900		1230	NC	80-120		6010C
Antimony	82.91		ND		121	69	80-120	W	6010C
Arsenic	162.0		4.1		242	65	80-120	W	6010C
Barium	314.8		162		242	63	80-120	W	6010C
Beryllium	86.25		2.0		121	70	80-120	W	6010C
Cadmium	86.43		0.20	J	121	71	80-120	W	6010C
Calcium	29870		27500		6040	39	80-120	W	6010C
Chromium	111.1		28.3		121	69	80-120	W	6010C
Cobalt	127.6		14.9		121	93	80-120		6010C
Copper	105.2		14.9		121	75	80-120	W	6010C
Iron	20200		20500		1230	NC	80-120		6010C
Lead	127.7		15.1		121	93	80-120		6010C
Magnesium	13610		9980		6040	60	80-120	W	6010C
Manganese	561.3		512		121	41	80-120	W	6010C
Nickel	146.1		32.1		121	94	80-120		6010C
Potassium	8897		4880		6040	66	80-120	W	6010C
Selenium	147.8		ND		242	61	80-120	W	6010C
Silver	8.76		0.34	J	12.1	70	80-120	W	6010C
Sodium	4577		277		6040	71	80-120	W	6010C
Thallium	220.5		ND		242	91	80-120		6010C
Vanadium	123.7		41.0		121	68	80-120	W	6010C
Zinc	135.8		59.6		121	63	80-120	W	6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VB - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 480-221553-6

SDG No:

Lab Name: Eurofins Buffalo Job No: 480-221553-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Aluminum	26900		34630		29	V	6010C
Antimony	ND		ND		NC		6010C
Arsenic	4.1		5.94	J	NC		6010C
Barium	162		208.6		29	V	6010C
Beryllium	2.0		2.59		31	V	6010C
Cadmium	0.20	J	ND		NC		6010C
Calcium	27500		36940		34	V	6010C
Chromium	28.3		36.64		30	V	6010C
Cobalt	14.9		14.73		1.3		6010C
Copper	14.9		16.36		NC		6010C
Iron	20500		31780		55	V	6010C
Lead	15.1		15.81		4.9		6010C
Magnesium	9980		12720		27	V	6010C
Manganese	512		689.4		35	V	6010C
Nickel	32.1		32.61		1.4		6010C
Potassium	4880		6148		26	V	6010C
Selenium	ND		ND		NC		6010C
Silver	0.34	J	ND		NC		6010C
Sodium	277		ND		NC		6010C
Thallium	ND		ND		NC		6010C
Vanadium	41.0		52.20		27	V	6010C
Zinc	59.6		82.02		38	V	6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins
Environment Testing

Client Information	Sampler: E. Smith / C. Horrocks	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-197590-40883.9
Client Contact: Ethan Smith	Phone: (716) 912-4456	E-Mail: John Beninati@et.eurofinsus.com	State of Origin:	Page: ~~Page 5 of 11~~ 1 of 1
Company: AECOM	PWSID:			Job #: 60730037
Address: 50 Lakefront Boulevard Suite 111	Due Date Requested:			
City: Buffalo	TAT Requested (days): Standard			
State, Zip: NY, 14202	Compliance Project: Δ Yes Δ No			
Phone: 614-790-2274(Tel)	PO #: 1120269 Task 300			
Email: ethan.smith@aecom.com [illegible]	WO #: Ann Marie Kropovitch@aecom.com			
Project Name: Tank 75 - Soil Analysis	Project #: 48027595			
Site: Tank 75 Site - Tonawanda, NY	SSOW#:			

Analysis Requested

Preservation Codes:
N - None
A - HCL
D - HNO3
B - NaOH

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Wwater, Ssolid, Owaste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL VOCs + TICs	8081B, 8082A, 8270D	6010C, 7471B, 9012B	8270D - TCL SVOCs + 1,4 Dioxane, TICs	1633 - 1633 Standard List	8260C - TCL VOCs + TICs	8270D - TCL SVOCs +TICs	1633_DRAFT_TSS - Percent Suspend Solids PFAS	8082A - TCL PCBs	8081B - TCL Pesticides	6010C, 7470A	9012B_NP - Cyanide, Total	8270D_SIM_MS_ID - 1,4 Dioxane	Total Number of containers	Special Instructions/Note:
Preservation Code:							N	N	N	N	N	A	N	N	N	N	D	B	N		
RB - 07122024	7-12-24	0930	G	~~Solid~~ water								X	X	X	X	X	X	X	X	16	
SB-04-0.5-2.0	7-12-24	1145	G	Solid			X	X	X	X	X									9	
SB-04-0.5-2.0-FD	7-12-24	1145	G	Solid			X	X	X	X	X									9	
SB-04-38.0-42.0	7-12-24	1250	G	Solid			X	X	X	X	X									9	
				Solid																	
				Solid																	
				Solid																	
				Solid																	
				Solid																	
				Solid																	
				Solid																	

480-221629 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	7-12-24 1541	AECOM	[signature]	7/12/24 1541	TA
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 7.2 5.8 6.6 # ITL

Ver: 04/02/2024

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins
Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-88481 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note): NELAP New York		Job #: 480-221629-1
Address: 180 S. Van Buren Avenue,	Due Date Requested: 7/25/2024			
City: Barberton	TAT Requested (days):			
State, Zip: OH, 44203				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site:	SSOW#:			

Analysis Requested

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633/1633_SPE 1633 Standard List	1633_DRAFT TSS/ Percent Suspend Solids PFAS	1633/1633_Shake 1633 Standard List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
RB-07122024 (480-221629-1)	7/12/24	09:30 Eastern		Water			X	X		3	
SB-04-0.5-2.0 (480-221629-2)	7/12/24	11:45 Eastern		Solid					X	1	
SB-04-0.5-2.0-FD (480-221629-3)	7/12/24	11:45 Eastern		Solid					X	1	
SB-04-38.0-42.0 (480-221629-4)	7/12/24	12:50 Eastern		Solid					X	1	

Preservation Codes: Other

R0886-46

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I II III IV Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
KS					
Relinquished by:	Date/Time:	Company	Received by: 7/16/24 1600	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: Randell Ward	Date/Time: 7/17/24 940	Company EET INC

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Job Narrative
480-221629-1

Receipt
The samples were received on 7/12/2024 3:41 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 5.8º C, 6.6º C and 7.2º C.

GC/MS VOA
Method 8260C: The continuing calibration verification (CCV) associated with batch 480-718659 recovered above the upper control limit for Carbon tetrachloride. The sample(s) associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The associated samples are impacted: SB-04-0.5-2.0 (480-221629-2), SB-04-0.5-2.0-FD (480-221629-3) and SB-04-38.0-42.0 (480-221629-4).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method 8270D: The continuing calibration verification (CCV) associated with batch 480-718596 recovered above the upper control limit for Hexachlorocyclopentadiene and 2,4-Dimethylphenol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: RB-07122024 (480-221629-1).

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-718596 recovered outside acceptance criteria, low biased, for 3-Nitroaniline. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D: The following samples were diluted due to color, appearance, and viscosity: SB-04-0.5-2.0 (480-221629-2) and SB-04-0.5-2.0-FD (480-221629-3). Elevated reporting limits (RL) are provided.

Method 8270D: The following sample required a dilution due to the nature of the sample matrix: SB-04-0.5-2.0 (480-221629-2). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8270D: The laboratory control sample (LCS) for preparation batch 480-718528 and analytical batch 480-718824 recovered outside control limits for the following analytes: 3,3'-Dichlorobenzidine. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The following sample was diluted due to the nature of the sample matrix: SB-04-0.5-2.0-FD (480-221629-3). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

Method 8270D: The laboratory control sample (LCS) for preparation batch 480-718528 and analytical batch 480-718966 recovered outside control limits for the following analytes: 3,3'-Dichlorobenzidine. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The following compound have been spiked at a level above the upper range of the initial calibration: 3,3'-Dichlorobenzidine The laboratory control sample (LCS) associated with preparation batch 480-718528 and analytical batch 480-718573 recovered within acceptable limits for this analyte and have been qualified with an "E" flag.

(LCS 480-718528/2-A)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method 8081B: The laboratory control sample duplicate (LCSD) for preparation batch 480-718568 and analytical batch 480-718688 recovered outside control limits for the following analytes: 4,4'-DDT. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

Method 8081B: The method blank for preparation batch 480-718568 and analytical batch 480-718688 contained alpha-BHC and gamma-BHC (Lindane) above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not

performed.

Method 8081B: The following samples were diluted due to the nature of the sample matrix: SB-04-0.5-2.0 (480-221629-2) and SB-04-0.5-2.0-FD (480-221629-3). As such, surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method 8081B: The continuing calibration verification (CCV) associated with batch 480-718686 recovered above the upper control limit for Methoxychlor. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: SB-04-0.5-2.0 (480-221629-2), SB-04-0.5-2.0-FD (480-221629-3) and SB-04-38.0-42.0 (480-221629-4).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method 6010C: The low level continuing calibration verification (CCVL) associated with batch 480-718781 recovered above the upper control limit for Lead. The samples associated with this CCVL were non-detects for the affected analytes; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

LCMS
Method 1633: The following sample was collected in an improper container: RB-07122024 (480-221629-1). Laboratory proceed with analysis.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
Method 9012B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 480-719044 and analytical batch 480-719060 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-718568.

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-718610.

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-718611.

Method 3550C: Due to the matrix, the following samples could not be concentrated to the final method required volume: SB-04-0.5-2.0 (480-221629-2) and SB-04-0.5-2.0-FD (480-221629-3). The reporting limits (RLs) are elevated proportionately.

Method 3550C: The following samples required a Florisil clean-up, via EPA Method 3620C, to reduce matrix interferences: SB-04-0.5-2.0 (480-221629-2) and SB-04-0.5-2.0-FD (480-221629-3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins Buffalo Job No.: 480-221629-1

SDG No.:

Lab File ID: W100259160.d DFTPP Injection Date: 07/16/2024

Instrument ID: HP5973W DFTPP Injection Time: 12:55

Analysis Batch No.: 718596

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10-80% of Base Peak	41.2	
68	Less than 2% of mass 69	0.0	(0.0) 1
69	Mass 69 Relative abundance	46.5	
70	Less than 2% of mass 69	0.2	(0.5) 1
127	10-80% of Base Peak	55.2	
197	Less than 2% of mass 198	0.0	
198	Base peak	100.0	
199	5-9% of mass 198	6.8	
275	10-60% of Base Peak	28.7	
365	Greater than 1% of mass 198	4.4	
441	present but less than 24% of mass 442	18.7	(15.7) 2
442	Greater than 50% of mass 198	119.2	
443	15-24% of mass 442	24.2	(20.3) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 480-718596/3	W100259161.d	07/16/2024	13:25
	MB 480-718459/1-A	W100259169.d	07/16/2024	16:59
	LCS 480-718459/2-A	W100259170.d	07/16/2024	17:26
	LCSD 480-718459/3-A	W100259171.d	07/16/2024	17:52
RB-07122024	480-221629-1	W100259173.d	07/16/2024	18:46

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Buffalo Job No.: 480-221629-1

SDG No.:

Lab Sample ID: CCVIS 480-718596/3 Calibration Date: 07/16/2024 13:25

Instrument ID: HP5973W Calib Start Date: 06/27/2024 12:10

GC Column: RXI-5Sil MS ID: 0.25(mm) Calib End Date: 06/27/2024 15:18

Lab File ID: W100259161.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Biphenyl	Lin2		1.461	0.0100	3940	4000	-1.5	20.0
2-Chloronaphthalene	Ave	1.167	1.154	0.8000	3960	4000	-1.1	20.0
2-Nitroaniline	Lin2		0.3420	0.0100	3550	4000	-11.3	20.0
Dimethyl phthalate	Ave	1.218	1.286	0.0100	4220	4000	5.6	20.0
1,3-Dinitrobenzene	Lin2		0.0974	0.0100	3700	4000	-7.4	20.0
2,6-Dinitrotoluene	Lin2		0.2936	0.2000	3860	4000	-3.4	20.0
Acenaphthylene	Lin2		1.829	0.9000	4240	4000	6.1	20.0
3-Nitroaniline	Lin2		0.2436	0.0100	3120	4000	-21.9*	20.0
2,4-Dinitrophenol	Lin2		0.1073	0.0100	6960	8000	-13.0	20.0
Acenaphthene	Lin2		1.173	0.9000	3980	4000	-0.5	20.0
4-Nitrophenol	Lin2		0.1509	0.0100	6910	8000	-13.6	20.0
2,4-Dinitrotoluene	Lin2		0.3725	0.2000	3790	4000	-5.2	20.0
Dibenzofuran	Lin2		1.529	0.8000	3910	4000	-2.2	20.0
2,3,4,6-Tetrachlorophenol	Lin2		0.2442	0.0100	3830	4000	-4.3	20.0
Hexadecane	Lin2		0.9004	0.0100	4050	4000	1.3	20.0
Diethyl phthalate	Lin2		1.316	0.0100	4030	4000	0.8	20.0
4-Chlorophenyl phenyl ether	Ave	0.5954	0.6006	0.4000	4030	4000	0.9	20.0
4-Nitroaniline	Lin2		0.3103	0.0100	3890	4000	-2.7	20.0
Fluorene	Lin2		1.257	0.9000	3970	4000	-0.7	20.0
4,6-Dinitro-2-methylphenol	Lin2		0.1122	0.0100	7910	8000	-1.1	20.0
Diphenylamine	Lin2		0.6217	0.0100	3310	3420	-3.3	20.0
N-Nitrosodiphenylamine	Lin2		0.5316	0.0100	3870	4000	-3.3	20.0
1,2-Diphenylhydrazine	Ave	1.563	1.556	0.0100	3980	4000	-0.5	20.0
trans-Azobenzene	Ave	0.9582	0.9520	0.0100	3970	4000	-0.6	20.0
4-Bromophenyl phenyl ether	Ave	0.2088	0.2116	0.1000	4050	4000	1.4	20.0
Atrazine	Lin2		0.3714	0.0100	8560	8000	6.9	20.0
Hexachlorobenzene	Lin2		0.2343	0.1000	4130	4000	3.3	20.0
n-Octadecane	Ave	0.5584	0.5590	0.0100	4000	4000	0.1	20.0
Pentachlorophenol	Lin1		0.1055	0.0500	6610	8000	-17.3	50.0
Phenanthrene	Lin2		1.084	0.7000	4010	4000	0.2	20.0
Anthracene	Lin2		1.071	0.7000	3970	4000	-0.8	20.0
Carbazole	Lin1		0.7450	0.0100	3560	4000	-11.1	20.0
Di-n-butyl phthalate	Ave	1.319	1.388	0.0100	4210	4000	5.2	20.0
Fluoranthene	Lin2		1.084	0.6000	4020	4000	0.5	20.0
Benzidine	Ave	0.4050	0.4280	0.0100	8450	8000	5.7	50.0
Pyrene	Lin2		1.311	0.6000	3820	4000	-4.5	20.0
Butyl benzyl phthalate	Lin2		0.6946	0.0100	3770	4000	-5.8	20.0
Bis(2-ethylhexyl) phthalate	Lin2		0.9692	0.0100	3800	4000	-4.9	20.0
3,3'-Dichlorobenzidine	Lin1		0.4294	0.0100	8500	8000	6.3	50.0
Benzo(a)anthracene	Lin2		1.316	0.8000	4060	4000	1.6	20.0
Chrysene	Ave	1.239	1.220	0.7000	3940	4000	-1.5	20.0

FORM IV
PFAS METHOD BLANK SUMMARY

Lab Name: Eurofins Cleveland Job No.: 480-221629-1

SDG No.:

Lab File ID: 2024_07_18BLDrerunsrushwateri Lab Sample ID: MB 240-620309/1-A

Matrix: Solid Date Extracted: 07/18/2024 08:14

Instrument ID: LCMS04 Date Analyzed: 07/18/2024 16:54

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LLCS 240-620309/2-A	2024_07_18BLDrerunsrushwaterinj27.d	07/18/2024 17:08
	LCS 240-620309/3-A	2024_07_18BLDrerunsrushwaterinj28.d	07/18/2024 17:21
SB-04-0.5-2.0	480-221629-2	2024_07_18BLDrerunsrushwaterinj31.d	07/18/2024 18:02
SB-04-0.5-2.0-FD	480-221629-3	2024_07_18BLDrerunsrushwaterinj32.d	07/18/2024 18:16
SB-04-38.0-42.0	480-221629-4	2024_07_18BLDrerunsrushwaterinj33.d	07/18/2024 18:29

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Cleveland | Job No.: 480-221629-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-620309/1-A

Matrix: Solid | Lab File ID: 2024_07_18BLDrerunsrushwaterin

Analysis Method: 1633 | Date Collected:

Extraction Method: 1633 Shake | Date Extracted: 07/18/2024 08:14

Sample wt/vol: 1.25(g) | Date Analyzed: 07/18/2024 16:54

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: ID:

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 620319 | Units: ug/Kg

Preparation Batch No.: 620309 | Instrument ID: Sciex 5500+

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	ND		0.80	0.20
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		0.40	0.10
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		0.20	0.050
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		0.20	0.050
335-67-1	Perfluorooctanoic acid (PFOA)	ND		0.20	0.050
375-95-1	Perfluorononanoic acid (PFNA)	ND		0.20	0.050
335-76-2	Perfluorodecanoic acid (PFDA)	ND		0.20	0.050
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		0.20	0.050
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		0.20	0.050
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	ND		0.20	0.050
376-06-7	Perfluorotetradecanoic acid (PFTeDA)	ND		0.20	0.050
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		0.20	0.050
2706-91-4	Perfluoropentanesulfonic acid (PFPeS)	ND		0.20	0.050
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		0.20	0.050
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	ND		0.20	0.050
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.196	J	0.20	0.050
68259-12-1	Perfluorononanesulfonic acid (PFNS)	ND		0.20	0.050
79780-39-5	Perfluorododecanesulfonic acid (PFDoS)	ND		0.20	0.050
757124-72-4	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		0.80	0.20
27619-97-2	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		0.80	0.20
39108-34-4	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		0.80	0.20
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND		0.20	0.050
31506-32-8	N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.20	0.050
4151-50-2	N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.20	0.050
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.20	0.050

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins Environment Testing

Client Information	Sampler: E. Smith / C. Horrocks	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-197590-40883.6
Client Contact: Ethan Smith	Phone: (716) 912-4456	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: AECOM	PWSID:			Job #:

Address: 50 Lakefront Boulevard Suite 111	Due Date Requested:	Analysis Requested
City: Buffalo	TAT Requested (days): Standard	
State, Zip: NY, 14202	Compliance Project: Δ Yes Δ No	
Phone: 614-790-2274(Tel) / (716) 912-4456	PO #: 1120269 Task 300	
Email: ethan.smith@aecom.com / leclyja.chorostkowska@aecom.com	WO #: Ann.Marie.Kropovitch@aecom.com	
Project Name: Tank 75 - Soil Analysis	Project #: 48027595	
Site: Tank 75 Site, Tonawanda, NY	SSOW#:	

Preservation Codes:
N - None
A - HCL
D - HNO3
B - NaOH

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL VOCs + TICs	8081B, 8082A, 8270D	6010C, 7471B, 9012B	8270D - TCL SVOCs + 1,4 Dioxane, TICs	1633 - 1633 Standard List	8260C - TCL VOCs + TICs	8270D - TCL SVOCs +TICs	1633_DRAFT_TSS - Percent Suspend Solids PFAS	8082A - TCL PCBs	8081B - TCL Pesticides	6010C, 7470A	9012B_NP - Cyanide, Total	8270D_SIM_MS_ID - 1,4 Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N	N	A	N	N	N	N	D	B	N		
SB-05-0.0-0.2	7-15-24	0935	G	Solid				X	X											3	
SB-05-0.0-0.2-MS	7-15-24	0935	G	Solid		Y		X	X											3	
SB-05-0.0-0.2-MSD	7-15-24	0935	G	Solid		Y		X	X											3	
SB-05-27.0-29.0	7-15-24	1145	G	Solid			X	X	X											7	
SB-05-32.0-33.0	7-15-24	1210	G	Solid			X	X	X											7	
SB-03-0.0-0.2	7-15-24	1220	G	Solid				X	X											3	
				Solid																	
				Solid																	
				Solid																	
				Solid																	
				Solid																	

480-221655 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by:	Date/Time: 7/16/24 1557	Company: AECOM	Received by:	Date/Time: 7/15/24 1557	Company: TA
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.2 ICE

Ver: 04/02/2024

Job Narrative
480-221655-1

Receipt
The samples were received on 7/15/2024 3:57 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.2º C.

GC/MS VOA
Method 8260C: The continuing calibration verification (CCV) associated with batch 480-718659 recovered above the upper control limit for Carbon tetrachloride. The sample(s) associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The associated samples are impacted: SB-05-27.0-29.0 (480-221655-2) and SB-05-32.0-33.0 (480-221655-3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method 8270D: Surrogate recovery for the following samples were outside control limits: SB-05-0.0-0.2 (480-221655-1), SB-05-0.0-0.2-MS (480-221655-1[MS]) and SB-05-0.0-0.2-MSD (480-221655-1[MSD]). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: SB-03-0.0-0.2 (480-221655-4) and (LCS 480-718672/2-A). These results have been reported and qualified.

Method 8270D: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 480-718672 and analytical batch 480-718832 recovered outside control limits for the following analytes: 4-Methylphenol, Benzaldehyde, Benzo[b]fluoranthene and bis (2-chloroisopropyl) ether. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-718832 recovered above the upper control limit for 2,4-Dimethylphenol, Di-n-octyl phthalate, Hexachlorocyclopentadiene and Pyrene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: SB-05-0.0-0.2 (480-221655-1), SB-05-0.0-0.2-MS (480-221655-1[MS]), SB-05-0.0-0.2-MSD (480-221655-1[MSD]), SB-05-27.0-29.0 (480-221655-2), SB-05-32.0-33.0 (480-221655-3) and SB-03-0.0-0.2 (480-221655-4).

Method 8270D: The following compound has been spiked at a level above the upper range of the initial calibration: Benzaldehyde The laboratory control sample (LCS) associated with preparation batch 480-718672 and analytical batch 480-718832 recovered within acceptable limits for this analyte and has been qualified with an "E" flag.

(LCS 480-718672/2-A)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method 8081B: The following samples were diluted due to the nature of the sample matrix: SB-05-0.0-0.2 (480-221655-1) and SB-03-0.0-0.2 (480-221655-4). As such, surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method 8081B: The following samples were diluted due to the nature of the sample matrix: SB-05-0.0-0.2-MS (480-221655-1[MS]) and SB-05-0.0-0.2-MSD (480-221655-1[MSD]). As such, spike and surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method 8081B: The continuing calibration verification (CCV) associated with batch 480-718686 recovered above the upper control limit for Methoxychlor. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: SB-05-0.0-0.2 (480-221655-1), SB-05-27.0-29.0 (480-221655-2), SB-05-32.0-33.0 (480-221655-3) and SB-03-0.0-0.2 (480-221655-4).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Method 9012B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 480-719044 and analytical batch 480-719060 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method 3550C: The following samples required a Florisil clean-up, via EPA Method 3620C, to reduce matrix interferences: SB-05-0.0-0.2 (480-221655-1), SB-05-0.0-0.2-MS (480-221655-1[MS]), SB-05-0.0-0.2-MSD (480-221655-1[MSD]) and SB-03-0.0-0.2 (480-221655-4).

Method 3550C: Due to the matrix, the following samples could not be concentrated to the final method required volume: SB-05-0.0-0.2 (480-221655-1), SB-05-0.0-0.2-MS (480-221655-1[MS]) and SB-05-0.0-0.2-MSD (480-221655-1[MSD]). The reporting limits (RLs) are elevated proportionately.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: SB-05-0.0-0.2-MS MS Lab ID: 480-221655-1 MS

Lab Name: Eurofins Buffalo Job No.: 480-221655-1

SDG No.:

Matrix: Solid Concentration Units: mg/Kg

% Solids: 93.3

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Aluminum	21580		12300		1120	835	75-125	4	6010C
Antimony	59.06		2.1	J	109	52	75-125	F1	6010C
Arsenic	200.1		8.6		219	88	75-125		6010C
Barium	307.4		78.2		219	105	75-125		6010C
Beryllium	100.8		1.1		109	91	75-125		6010C
Cadmium	103.7		1.2		109	94	75-125		6010C
Calcium	44330		55200		5470	-199	75-125	4	6010C
Chromium	124.7		24.5		109	92	75-125		6010C
Cobalt	125.1		7.9		109	107	75-125		6010C
Copper	130.9		27.3		109	95	75-125		6010C
Iron	21970		20800		1120	103	75-125	4	6010C
Lead	174.9		93.6		109	74	75-125	F1	6010C
Magnesium	28980		31900		5470	-53	75-125	4	6010C
Manganese	703.1		465		109	218	75-125	4	6010C
Nickel	118.5		19.7		109	90	75-125		6010C
Potassium	10240		2540		5470	141	75-125	F1	6010C
Selenium	179.3		1.3	J	219	81	75-125		6010C
Silver	10.31		ND		10.9	94	75-125		6010C
Sodium	5285		293		5470	91	75-125		6010C
Thallium	229.5		ND		219	105	75-125		6010C
Vanadium	143.0		31.0		109	102	75-125		6010C
Zinc	416.3		223		109	177	75-125	F1	6010C
Mercury	0.395		0.031		0.363	100	80-120		7471B

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: SB-05-0.0-0.2-MSD MSD Lab ID: 480-221655-1 MSD

Lab Name: Eurofins Buffalo Job No.: 480-221655-1

SDG No.:

Matrix: Solid Concentration Units: mg/Kg

% Solids: 93.3

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Aluminum	16610		1160	374	75-125	26	20	4 F2	6010C
Antimony	73.24		114	63	75-125	21	20	F1 F2	6010C
Arsenic	211.1		228	89	75-125	5	20		6010C
Barium	305.7		228	100	75-125	1	20		6010C
Beryllium	103.2		114	90	75-125	2	20		6010C
Cadmium	106.6		114	93	75-125	3	20		6010C
Calcium	79970		5690	435	75-125	57	20	E 4 F2	6010C
Chromium	130.0		114	93	75-125	4	20		6010C
Cobalt	125.3		114	103	75-125	0	20		6010C
Copper	155.2		114	112	75-125	17	20		6010C
Iron	32740		1160	1027	75-125	39	20	4 F2	6010C
Lead	202.8		114	96	75-125	15	20		6010C
Magnesium	50450		5690	327	75-125	54	20	4 F2	6010C
Manganese	653.5		114	166	75-125	7	20	4	6010C
Nickel	125.3		114	93	75-125	6	20		6010C
Potassium	8548		5690	106	75-125	18	20		6010C
Selenium	183.2		228	80	75-125	2	20		6010C
Silver	10.70		11.4	94	75-125	4	20		6010C
Sodium	5716		5690	95	75-125	8	20		6010C
Thallium	230.2		228	101	75-125	0	20		6010C
Vanadium	139.4		114	95	75-125	3	20		6010C
Zinc	1617		114	1225	75-125	118	20	F1 F2	6010C
Mercury	0.385		0.356	100	80-120	3	20		7471B

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins Buffalo Job No.: 480-221655-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 719060	Date: 07/19/2024 15:35		Prep Batch: 719044		Date: 07/19/2024 13:18						
9012B	480-221655-1	Cyanide, Total	ND		mg/Kg						F1
9012B	480-221655-1 MS	Cyanide, Total	0.802	J	mg/Kg	1.26	64	85-115			F1

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins Buffalo Job No.: 480-221655-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 719060	Date: 07/19/2024 15:37		Prep Batch: 719044		Date: 07/19/2024 13:18						
9012B	480-221655-1 MSD	Cyanide, Total	ND		mg/Kg	1.26	0	85-115	NC	15	F1

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM V-IN

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins Environment Testing

Client Information	Sampler: E. Smith / C. Horrocks / C. Finn	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-197590-40883.5
Client Contact: Ethan Smith	Phone: (716)912-4456	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin:	Page: ~~Page 5 of 11~~ 1 of 1
Company: AECOM	PWSID:			Job #:
Address: 50 Lakefront Boulevard Suite 111	Due Date Requested: Standard			
City: Buffalo	TAT Requested (days): Standard			
State, Zip: NY, 14202	Compliance Project: Δ Yes Δ No			
Phone: 614-790-2274(Tel) / (716)912-4456	PO #: 1120269 Task 300			
Email: ethan.smith@aecom.com / edyta.charostkowska@aecom.com	WO #: Ann Marie.Kropovitch@aecom.com			
Project Name: Tank 75 - Soil Analysis	Project #: 48027595			
Site: Tank 75 Site, Tonawanda, NY	SSOW#:			

Analysis Requested

Preservation Codes: N - None; A - HCL; D - HNO3; B - NaOH; Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL VOCs + TICs	8081B, 8082A, 8270D	6010C, 7471B, 9012B	8270D - TCL SVOCs + 1,4 Dioxane, TICs	1633 - 1633 Standard List	8260C - TCL VOCs + TICs	8270D - TCL SVOCs +TICs	1633_DRAFT_TSS - Percent Suspend Solids PFAS	8082A - TCL PCBs	8081B - TCL Pesticides	6010C, 7470A	9012B_NP - Cyanide, Total	8270D_SIM_MS_ID - 1,4 Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N	N	A	N	N	N	N	D	B	N		
SB-03-5.0-7.0	8-8-24	1005	G	Solid			X	X	X											7	
SB-03-28.0-30.0	8-8-24	1015	G	Solid			X	X	X											7	
SB-02-0.0-0.2	8-8-24	1050	G	Solid				X	X											2	
SB-02-0.0-0.2-FD	8-8-24	1050	G	Solid				X	X												
SB-02-10.0-11.0	8-8-24	1225	G	Solid			X	X	X												
SB-02-28.0-30.0	8-8-24	1235	G	Solid			X	X	X												
SB-09-0.0-0.2	8-8-24	1250	G	Solid				X	X												
SB-09-4.0-5.0	8-8-24	1450	G	Solid			X	X	X											1	
SB-09-28.0-30.0	8-8-24	1500	G	Solid			X	X	X											7	
SB-08-0.0-0.2	8-8-24	1510	G	Solid				X	X											3	
SB-07-0.0-0.2	8-8-24	1525	G	Solid				X	X	X	X									5	

480-222440 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time	Company	Received by:	Date/Time:	Company
1	[signature]	8-8-24 1707	AECOM	[signature]	8/8/24 5:09 pm	Eurofins Buffalo
2	Relinquished by:	Date/Time	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 5.7 6.2 3.9 # IR

Ver: 04/02/2024

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

1.0/2.0

Chain of Custody Record

eurofins
Environment Testing

Client Information (Sub Contract Lab)	Sampler	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-88889.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note): NELAP New York		Job #: 480-222440-1
Address: 180 S. Van Buren Avenue,	Due Date Requested: 8/21/2024			
City: Barberton	TAT Requested (days):			
State, Zip: OH, 44203				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Soil Analysis	Project #: 48027595			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

Other

PFAS-081-09

Special Instructions/Note:

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633/1633_Shake 1633 Standard List	Total Number of containers
			Preservation Code:					
SB-07-0.0-0.2 (480-222440-11)	8/8/24	15:25 Eastern		Solid			X	1

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If al requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*
Deliverable Requested: I II, III IV Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	8/12/24 1600	TA	JESSICA RIGDON	8 13 24 0900	EBTNC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Job Narrative
480-222440-1

Receipt
The samples were received on 8/8/2024 5:09 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 3.9º C, 5.7º C and 6.2º C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA
Method 8270D: The following samples were diluted due to color, appearance, and viscosity: SB-02-0.0-0.2 (480-222440-3), SB-02-0.0-0.2-FD (480-222440-4), SB-02-10.0-11.0 (480-222440-5), SB-09-0.0-0.2 (480-222440-7), SB-08-0.0-0.2 (480-222440-10) and SB-07-0.0-0.2 (480-222440-11). Elevated reporting limits (RL) are provided.

Method 8270D: The following samples were diluted due to the nature of the sample matrix: SB-02-0.0-0.2-FD (480-222440-4), SB-02-10.0-11.0 (480-222440-5) and SB-08-0.0-0.2 (480-222440-10). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

Method 8270D: The following sample required a dilution due to the nature of the sample matrix: SB-02-0.0-0.2 (480-222440-3). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8270D: The following compound have been spiked at a level above the upper range of the initial calibration: 3,3'-Dichlorobenzidine and Caprolactam. The laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) associated with preparation batch 480-721348 and analytical batch 480-721404 recovered within acceptable limits for this analyte and has been qualified with an "E" flag.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

LCMS
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method 3550C: Due to the matrix, the following samples could not be concentrated to the final method required volume: SB-02-0.0-0.2 (480-222440-3), SB-02-0.0-0.2-FD (480-222440-4), SB-02-10.0-11.0 (480-222440-5) and SB-08-0.0-0.2 (480-222440-10). The reporting limits (RLs) are elevated proportionately.

Method 3550C: The following samples required a Florisil clean-up, via EPA Method 3620C, to reduce matrix interferences: SB-02-0.0-0.2 (480-222440-3), SB-02-0.0-0.2-FD (480-222440-4), SB-02-10.0-11.0 (480-222440-5), SB-09-0.0-0.2 (480-222440-7), SB-08-0.0-0.2 (480-222440-10) and SB-07-0.0-0.2 (480-222440-11).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

3-IN
METHOD BLANK
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222440-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 480-721473/1-A

Instrument Code: ICAP3 Batch No.: 721715

CAS No.	Analyte	Concentration	C	Q	Method
7429-90-5	Aluminum	ND			6010C
7440-36-0	Antimony	ND			6010C
7440-38-2	Arsenic	ND			6010C
7440-39-3	Barium	0.165	J		6010C
7440-41-7	Beryllium	ND			6010C
7440-43-9	Cadmium	0.0958	J		6010C
7440-70-2	Calcium	ND			6010C
7440-47-3	Chromium	ND			6010C
7440-48-4	Cobalt	ND			6010C
7440-50-8	Copper	ND			6010C
7439-89-6	Iron	ND			6010C
7439-92-1	Lead	ND			6010C
7439-95-4	Magnesium	ND			6010C
7439-96-5	Manganese	ND			6010C
7440-02-0	Nickel	ND			6010C
7440-09-7	Potassium	ND			6010C
7782-49-2	Selenium	ND			6010C
7440-22-4	Silver	ND			6010C
7440-23-5	Sodium	ND			6010C
7440-28-0	Thallium	ND			6010C
7440-62-2	Vanadium	ND			6010C
7440-66-6	Zinc	1.48	J		6010C

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: SB-02-0.0-0.2 MS Lab ID: 480-222440-3 MS

Lab Name: Eurofins Buffalo Job No.: 480-222440-1

SDG No.:

Matrix: Solid Concentration Units: mg/Kg

% Solids: 71.8

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Aluminum	17450		13700		1400	269	75-125	4	6010C
Antimony	74.56		1.8	J	137	53	75-125	F1	6010C
Arsenic	248.4		9.6		274	87	75-125		6010C
Barium	336.1		109		274	83	75-125		6010C
Beryllium	121.4		1.2		137	88	75-125		6010C
Cadmium	127.5		1.1		137	92	75-125		6010C
Calcium	75180		68600		6850	96	75-125	4	6010C
Chromium	164.5		41.3		137	90	75-125		6010C
Cobalt	143.7		9.1		137	98	75-125		6010C
Copper	191.5		49.1		137	104	75-125		6010C
Iron	24750		19500		1400	373	75-125	4	6010C
Lead	512.0		376		137	99	75-125	^+	6010C
Magnesium	32320		21800		6850	154	75-125	F1	6010C
Manganese	816.6		710		137	78	75-125	4	6010C
Nickel	194.2		62.1		137	96	75-125		6010C
Potassium	10040		2570		6850	109	75-125		6010C
Selenium	226.0		ND		274	82	75-125		6010C
Silver	12.71		ND		13.7	93	75-125		6010C
Sodium	6472		253		6850	91	75-125		6010C
Thallium	264.0		ND		274	96	75-125		6010C
Vanadium	245.3		154		137	67	75-125	F1	6010C
Zinc	391.0		291		137	73	75-125	F1	6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: SB-02-0.0-0.2 MSD Lab ID: 480-222440-3 MSD

Lab Name: Eurofins Buffalo Job No.: 480-222440-1

SDG No.:

Matrix: Solid Concentration Units: mg/Kg

% Solids: 71.8

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Aluminum	17780		1440	283	75-125	2	20	4	6010C
Antimony	79.39		141	55	75-125	6	20	F1	6010C
Arsenic	261.3		283	89	75-125	5	20		6010C
Barium	341.0		283	82	75-125	1	20		6010C
Beryllium	125.7		141	88	75-125	3	20		6010C
Cadmium	132.7		141	93	75-125	4	20		6010C
Calcium	84260		7070	222	75-125	11	20	4	6010C
Chromium	166.0		141	88	75-125	1	20		6010C
Cobalt	147.3		141	98	75-125	2	20		6010C
Copper	195.0		141	103	75-125	2	20		6010C
Iron	19880		1440	23	75-125	22	20	4 F2	6010C
Lead	452.1		141	54	75-125	12	20	F1 ^+	6010C
Magnesium	32860		7070	157	75-125	2	20	F1	6010C
Manganese	724.6		141	11	75-125	12	20	4	6010C
Nickel	211.6		141	106	75-125	9	20		6010C
Potassium	10410		7070	111	75-125	4	20		6010C
Selenium	237.4		283	84	75-125	5	20		6010C
Silver	13.35		14.1	94	75-125	5	20		6010C
Sodium	6708		7070	91	75-125	4	20		6010C
Thallium	272.7		283	96	75-125	3	20		6010C
Vanadium	538.1		141	272	75-125	75	20	F1 F2	6010C
Zinc	364.7		141	52	75-125	7	20	F1	6010C

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: SB-02-0.0-0.2 PDS Lab ID: 480-222440-3 PDS

Lab Name: Eurofins Buffalo Job No.: 480-222440-1

SDG No.:

Matrix: Solid Concentration Units: mg/Kg

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Aluminum	14190		13700		1390	36	80-120	W	6010C
Antimony	131.0		1.8	J	136	95	80-120		6010C
Arsenic	266.4		9.6		272	94	80-120		6010C
Barium	355.9		109		272	91	80-120		6010C
Beryllium	131.3		1.2		136	96	80-120		6010C
Cadmium	135.1		1.1		136	99	80-120		6010C
Calcium	70020		68600		6800	NC	80-120		6010C
Chromium	165.7		41.3		136	92	80-120		6010C
Cobalt	152.3		9.1		136	105	80-120		6010C
Copper	191.1		49.1		136	104	80-120		6010C
Iron	19730		19500		1390	NC	80-120		6010C
Lead	505.9		376		136	95	80-120	^+	6010C
Magnesium	27060		21800		6800	78	80-120	W	6010C
Manganese	786.4		710		136	56	80-120	W	6010C
Nickel	205.8		62.1		136	106	80-120		6010C
Potassium	9158		2570		6800	97	80-120		6010C
Selenium	248.4		ND		272	91	80-120		6010C
Silver	12.25		ND		13.6	90	80-120		6010C
Sodium	6917		253		6800	98	80-120		6010C
Thallium	299.2		ND		272	110	80-120		6010C
Vanadium	275.5		154		136	90	80-120		6010C
Zinc	385.1		291		136	69	80-120	W	6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VB - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 480-222440-3

SDG No:

Lab Name: Eurofins Buffalo Job No: 480-222440-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Aluminum	13700		13510		1.3		6010C
Antimony	1.8	J	ND		NC		6010C
Arsenic	9.6		9.18	J	NC		6010C
Barium	109		110.5		1.3		6010C
Beryllium	1.2		1.22	J	NC		6010C
Cadmium	1.1		0.985	J	NC		6010C
Calcium	68600		73300		6.9		6010C
Chromium	41.3		44.10		6.8		6010C
Cobalt	9.1		8.75		3.4		6010C
Copper	49.1		43.94		10		6010C
Iron	19500		22740		16	V	6010C
Lead	376		351.2		6.6	^+	6010C
Magnesium	21800		21780		0.01		6010C
Manganese	710		751.2		5.9		6010C
Nickel	62.1		58.37		6.1		6010C
Potassium	2570		2515		2.0		6010C
Selenium	ND		ND		NC		6010C
Silver	ND		ND		NC		6010C
Sodium	253		ND		NC		6010C
Thallium	ND		ND		NC		6010C
Vanadium	154		159.9		4.0		6010C
Zinc	291		328.7		13	V	6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins Buffalo Job No.: 480-222440-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 722303	Date: 08/16/2024 17:57		Prep Batch: 721982		Date: 08/15/2024 11:45						
9012B	480-222440-3	Cyanide, Total	ND		mg/Kg						F1
9012B	480-222440-3 MS	Cyanide, Total	1.51		mg/Kg	8.05	19	85-115			F1
Batch ID: 722470	Date: 08/20/2024 10:29		Prep Batch: 722127		Date: 08/16/2024 11:20						
9012B	480-222440-7	Cyanide, Total	4.7		mg/Kg						F1
9012B	480-222440-7 MS	Cyanide, Total	5.97		mg/Kg	7.09	18	85-115			F1
Batch ID: 722470	Date: 08/20/2024 10:33		Prep Batch: 722129		Date: 08/16/2024 12:10						
9012B	480-222440-8	Cyanide, Total	ND		mg/Kg						F1
9012B	480-222440-8 MS	Cyanide, Total	0.969	J	mg/Kg	7.02	14	85-115			F1

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM V-IN

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing

Client Information
Client Contact: Ethan Smith
Company: AECOM
Address: 50 Lakefront Boulevard Suite 111
City: Buffalo
State, Zip: NY, 14202
Phone: 614-790-2274(Tel) / (716)912-4456
Email: ethan.smith@aecom.com / ledyte.chorostkowska@aecom.com
Project Name: Tank 75 - Soil Analysis
Site: Tank 75 Site, Tonawanda, NY

Sampler: E. Smith / C. Horrocks / C. Finn
Phone: (716)912-4456
PWSID:
Due Date Requested: Standard
TAT Requested (days): Standard
Compliance Project: Δ Yes Δ No
PO #: 1120269 Task 300
WO #: Ann.Marie.Kropovitch@aecom.com
Project #: 48027595
SSOW#:

Lab PM: Beninati, John
E-Mail: John.Beninati@et.eurofinsus.com
Carrier Tracking No(s):
State of Origin:

COC No: 480-197590-40883.4
Page: ~~Page 1 of 1~~ 1 of 1
Job #:

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL VOCs + TICs	8081B, 8082A, 8270D	6010C, 7471B, 9012B	8270D - TCL SVOCs + 1,4 Dioxane, TICs	1633 - 1633 Standard List	8260C - TCL VOCs + TICs	8270D - TCL SVOCs + TICs	1633_DRAFT_TSS - Percent Suspend Solids PFAS	8082A - TCL PCBs	8081B - TCL Pesticides	6010C, 7470A	9012B_NP - Cyanide, Total	8270D_SIM_MS_ID - 1,4 Dioxane	Total Number of containers
			Preservation Code:				N	N	N	N	N	A	N	N	N	N	D	B	N	
SB-08-26.0-28.0	8-9-24	0850	G	Solid			X	X	X											7
SB-08-28.0-30.0	8-9-24	0900	G	Solid			X	X	X											7
SB-07-1.0-2.0	8-9-24	0920	G	Solid			X	X	X											7
SB-07-33.0-35.0	8-9-24	1125	G	Solid			X	X	X	X	X									9
				Solid																
				Solid																
				Solid																
				Solid																
				Solid																
				Solid																
				Solid																
				Solid																

Preservation Codes:
N - None
A - HCL
D - HNO3
B - NaOH
Other:

Special Instructions/Note:

480-222473 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:
Date:
Time:
Method of Shipment:

	Date/Time	Company		Date/Time	Company
Relinquished by:	8-9-24 1327	AECOM	Received by:	8/9/24 1327	TA
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: S.9 6.7 # 171

Ver: 04/02/2024

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

1.0/2.0

Chain of Custody Record

eurofins
Environment Testing

Client Information (Sub Contract Lab)	Sampler	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-88907 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note): NELAP New York		Job #: 480-222473-1
Address: 180 S. Van Buren Avenue,	Due Date Requested: 8/22/2024			Preservation Codes:
City: Barberton	TAT Requested (days):			
State, Zip: OH, 44203				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis Soil Analysis	Project #: 48027595			
Site:	SSOW#:			Other

Analysis Requested

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633/1633_Shake 1633 Standard List	Total Number of containers	Special Instructions/Note:
			Preservation Code:						PFAS-081-09
SB-07-33.0-35.0 (480-222473-4)	8/9/24	11.25 Eastern		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I II III IV Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Matthew Ickes	8/12/24 1600	TA	JESSICA RIGDON	8.13.24 0900	EETNC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Job Narrative
480-222473-1

Receipt
The samples were received on 8/9/2024 1:27 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 5.9º C and 6.7º C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA
Method 8270D: The following compound has been spiked at a level above the upper range of the initial calibration: Benzaldehyde and Caprolactam. The laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) associated with preparation batch 480-721531 and analytical batch 480-721937 recovered within acceptable limits for this analyte and has been qualified with an "E" flag.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method 8081B: The method blank for preparation batch 480-721994 and analytical batch 480-722116 contained gamma-BHC (Lindane) above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method 6010C: The low level continuing calibration verification (CCVL) associated with batch 480-721848 recovered above the upper control limit for Copper. The samples associated with this CCVL were 10x for the affected analytes; therefore, the data have been reported.

Method 6010C: The low level continuing calibration verification (CCVL) associated with batch 480-722016 recovered above the upper control limit for Lead. The samples associated with this CCVL were 10x for the affected analytes; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

LCMS
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

FORM IV
PESTICIDES METHOD BLANK SUMMARY

Lab Name: Eurofins Buffalo Job No.: 480-222473-1

SDG No.:

Lab Sample ID: MB 480-721994/1-A

Matrix: Solid Date Extracted: 08/15/2024 15:16

Lab File ID:(1) 25_82-172.D Lab File ID:(2) 25_82-172.D

Date Analyzed:(1) 08/16/2024 17:22 Date Analyzed:(2) 08/16/2024 17:22

Instrument ID:(1) HP6890-25 Instrument ID:(2) HP6890-25

GC Column:(1) RTX-CLPI ID: 0.53(mm) GC Column:(2) RTX-CLPII ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 480-721994/2-A	08/16/2024 17:41	08/16/2024 17:41
SB-08-26.0-28.0 MS	480-222473-1 MS	08/16/2024 18:01	08/16/2024 18:01
SB-08-26.0-28.0 MSD	480-222473-1 MSD	08/16/2024 18:21	08/16/2024 18:21
SB-08-26.0-28.0	480-222473-1	08/16/2024 18:41	08/16/2024 18:41
SB-08-28.0-30.0	480-222473-2	08/16/2024 19:00	08/16/2024 19:00
SB-07-1.0-2.0	480-222473-3	08/16/2024 19:20	08/16/2024 19:20
SB-07-33.0-35.0	480-222473-4	08/16/2024 19:40	08/16/2024 19:40

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-222473-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 480-721994/1-A

Matrix: Solid | Lab File ID: 25_82-172.D

Analysis Method: 8081B | Date Collected:

Extraction Method: 3550C | Date Extracted: 08/15/2024 15:16

Sample wt/vol: 30(g) | Date Analyzed: 08/16/2024 17:22

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-CLPI ID: 0.53(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 722116 | Units: ug/Kg

Preparation Batch No.: 721994 | Instrument ID: Hewlett Packard 6890 dual uE

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
72-54-8	4,4'-DDD	0.630	J	1.7	0.32
72-55-9	4,4'-DDE	ND		1.7	0.35
50-29-3	4,4'-DDT	ND		1.7	0.39
309-00-2	Aldrin	ND		1.7	0.41
319-84-6	alpha-BHC	ND		1.7	0.30
5103-71-9	cis-Chlordane	ND		1.7	0.83
319-85-7	beta-BHC	ND		1.7	0.30
319-86-8	delta-BHC	ND		1.7	0.31
60-57-1	Dieldrin	ND		1.7	0.40
959-98-8	Endosulfan I	ND		1.7	0.32
33213-65-9	Endosulfan II	ND		1.7	0.30
1031-07-8	Endosulfan sulfate	ND		1.7	0.31
72-20-8	Endrin	ND		1.7	0.33
7421-93-4	Endrin aldehyde	ND		1.7	0.43
53494-70-5	Endrin ketone	ND		1.7	0.41
58-89-9	gamma-BHC (Lindane)	0.456	J	1.7	0.31
5103-74-2	trans-Chlordane	ND		1.7	0.53
76-44-8	Heptachlor	ND		1.7	0.36
1024-57-3	Heptachlor epoxide	ND		1.7	0.43
72-43-5	Methoxychlor	ND		1.7	0.34
8001-35-2	Toxaphene	ND		17	9.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	67		45-120
877-09-8	Tetrachloro-m-xylene	64		30-124

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222473-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	ICB 480-721848/6 08/14/2024 14:57		CCB 480-721848/18 08/14/2024 15:20		CCB 480-721848/29 08/14/2024 15:41			
		Found	C	Found	C	Found	C	Found	C
Aluminum	0.20	ND		ND		ND			
Arsenic	0.015	ND		ND		ND			
Barium	0.0020	ND		ND		ND			
Beryllium	0.0020	ND		ND		ND			
Cadmium	0.0020	ND		0.000678	J	ND			
Calcium	0.50	ND		ND		ND			
Chromium	0.0040	ND		ND		ND			
Cobalt	0.0040	ND		ND		ND			
Copper	0.010	ND		ND		ND			
Iron	0.050	ND		0.0334	J	ND			
Magnesium	0.20	ND		ND		ND			
Manganese	0.0030	0.000504	J	0.000780	J	ND			
Nickel	0.010	ND		ND		ND			
Potassium	0.50	ND		ND		ND			
Selenium	0.025	ND		ND		ND			
Silver	0.0060	ND		ND		ND			
Sodium	1.0	ND		ND		ND			
Thallium	0.020	ND		ND		ND			
Vanadium	0.0050	ND		ND		ND			
Zinc	0.010	ND		ND		ND			
Antimony	0.020	ND		ND		ND			
Lead	0.010	ND		ND		ND			

Italicized analytes were not requested for this sequence.

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: SB-07-1.0-2.0 MS | Lab ID: 480-222473-3 MS

Lab Name: Eurofins Buffalo | Job No.: 480-222473-1

SDG No.:

Matrix: Solid | Concentration Units: mg/Kg

% Solids: 84.5

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Aluminum	14310		13200		1260	88	75-125	4	6010C
Antimony	13.08	J	ND		124	11	75-125	F1	6010C
Arsenic	90.78		5.1		248	35	75-125	F1	6010C
Barium	221.5		102		248	48	75-125	F1	6010C
Beryllium	46.90		3.3		124	35	75-125	F1	6010C
Cadmium	46.28		ND		124	37	75-125	F1	6010C
Calcium	77070		66100		6190	177	75-125	4	6010C
Chromium	53.85		8.7		124	36	75-125	F1	6010C
Cobalt	127.8		4.5		124	100	75-125		6010C
Copper	59.97		3.8		124	45	75-125	^+ F1	6010C
Iron	14360		6580		1260	616	75-125	4	6010C
Lead	126.8		4.8		124	99	75-125	^+	6010C
Magnesium	15740		12200		6190	57	75-125	F1	6010C
Manganese	963.4		919		124	36	75-125	4	6010C
Nickel	44.72		2.1	J	124	34	75-125	F1	6010C
Potassium	3121		625		6190	40	75-125	F1	6010C
Selenium	76.25		ND		248	31	75-125	F1	6010C
Silver	5.17		0.38	J	12.4	39	75-125	F1	6010C
Sodium	3171		861		6190	37	75-125	F1	6010C
Thallium	188.3		ND		248	76	75-125		6010C
Vanadium	47.65		2.8		124	36	75-125	F1	6010C
Zinc	51.02		6.6		124	36	75-125	F1	6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: SB-07-1.0-2.0 MSD Lab ID: 480-222473-3 MSD

Lab Name: Eurofins Buffalo Job No.: 480-222473-1

SDG No.:

Matrix: Solid Concentration Units: mg/Kg

% Solids: 84.5

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Aluminum	13170		1230	-2	75-125	8	20	4	6010C
Antimony	8.13	J	120	7	75-125	47	20	F2 F1	6010C
Arsenic	81.86		241	32	75-125	10	20	F1	6010C
Barium	216.4		241	48	75-125	2	20	F1	6010C
Beryllium	42.80		120	33	75-125	9	20	F1	6010C
Cadmium	42.70		120	35	75-125	8	20	F1	6010C
Calcium	69210		6020	51	75-125	11	20	4	6010C
Chromium	50.46		120	35	75-125	7	20	F1	6010C
Cobalt	117.9		120	94	75-125	8	20		6010C
Copper	52.59		120	41	75-125	13	20	^+ F1	6010C
Iron	14490		1230	644	75-125	1	20	4	6010C
Lead	122.0		120	97	75-125	4	20	^+	6010C
Magnesium	13770		6020	26	75-125	13	20	F1	6010C
Manganese	1034		120	95	75-125	7	20	4	6010C
Nickel	40.38		120	32	75-125	10	20	F1	6010C
Potassium	2902		6020	38	75-125	7	20	F1	6010C
Selenium	68.99		241	29	75-125	10	20	F1	6010C
Silver	4.86		12.0	37	75-125	6	20	F1	6010C
Sodium	2989		6020	35	75-125	6	20	F1	6010C
Thallium	212.1		241	88	75-125	12	20		6010C
Vanadium	46.32		120	36	75-125	3	20	F1	6010C
Zinc	41.66		120	29	75-125	20	20	F1	6010C

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: _____ Lab ID: 480-222473-B-3-A PDS

Lab Name: Eurofins Buffalo Job No.: 480-222473-1

SDG No.: _____

Matrix: Solid Concentration Units: mg/Kg

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Aluminum	13220		13200		1260	NC	80-120		6010C
Antimony	37.93		ND		124	31	80-120	W	6010C
Arsenic	75.56		5.1		247	28	80-120	W	6010C
Barium	173.1		102		247	29	80-120	W	6010C
Beryllium	37.92		3.3		124	28	80-120	W	6010C
Cadmium	37.53		ND		124	30	80-120	W	6010C
Calcium	66150		66100		6180	NC	80-120		6010C
Chromium	43.62		8.7		124	28	80-120	W	6010C
Cobalt	121.6		4.5		124	95	80-120		6010C
Copper	43.79		3.8		124	32	80-120	W ^+	6010C
Iron	6760		6580		1260	14	80-120	W	6010C
Lead	128.3		4.8		124	100	80-120		6010C
Magnesium	13690		12200		6180	24	80-120	W	6010C
Manganese	933.2		919		124	12	80-120	W	6010C
Nickel	35.39		2.1	J	124	27	80-120	W	6010C
Potassium	2542		625		6180	31	80-120	W	6010C
Selenium	66.55		ND		247	27	80-120	W	6010C
Silver	4.29		0.38	J	12.4	32	80-120	W	6010C
Sodium	2769		861		6180	31	80-120	W	6010C
Thallium	218.3		ND		247	88	80-120		6010C
Vanadium	38.83		2.8		124	29	80-120	W	6010C
Zinc	38.61		6.6		124	26	80-120	W	6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VB - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 480-222473-3

SDG No:

Lab Name: Eurofins Buffalo Job No: 480-222473-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Aluminum	13200		29520		124	V	6010C
Antimony	ND		ND		NC		6010C
Arsenic	5.1		12.79		NC		6010C
Barium	102		225.4		122	V	6010C
Beryllium	3.3		7.68		136	V	6010C
Cadmium	ND		ND		NC		6010C
Calcium	66100		170800		158	V	6010C
Chromium	8.7		20.50		NC		6010C
Cobalt	4.5		2.60	J	43	V	6010C
Copper	3.8		8.14		NC	^+	6010C
Iron	6580		18080		175	V	6010C
Lead	4.8		6.89		NC		6010C
Magnesium	12200		27450		125	V	6010C
Manganese	919		2226		142	V	6010C
Nickel	2.1	J	5.10	J	NC		6010C
Potassium	625		1378		NC		6010C
Selenium	ND		ND		NC		6010C
Silver	0.38	J	1.21	J	NC		6010C
Sodium	861		1897		NC		6010C
Thallium	ND		ND		NC		6010C
Vanadium	2.8		6.44		NC		6010C
Zinc	6.6		16.24		NC		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

Appendix M Laboratory Certificates

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Shannon Lloyd
Ashland LLC
PO BOX 2219
Columbus, Ohio 43216

Generated 5/21/2024 12:53:57 PM

JOB DESCRIPTION

Tank 75 Analysis

JOB NUMBER

480-219333-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

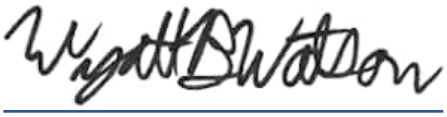
See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

Authorization



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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

LCMS

Qualifier	Qualifier Description
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
480-219333-1

Receipt
The samples were received on 4/29/2024 5:15 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 2.5º C, 2.7º C, 2.8º C, 2.9º C and 3.0º C.

GC/MS VOA
Method 8260C: The continuing calibration verification (CCV) associated with batch 480-710160 recovered above the upper control limit for 1,1-Dichloroethene, 1,1,2-Trichloro-1,2,2-trifluoroethane, Trichlorofluoromethane and Vinyl chloride. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: MW-03-042924 (480-219333-1), MW05-04-042924 (480-219333-2), MW-02S-042924 (480-219333-3), MW-02S-042924-FD (480-219333-4), MW05-01-042924 (480-219333-5), MW05-03-042924 (480-219333-6) and TB-042924 (480-219333-7).

Method 8260C: The following volatiles samples were diluted due to foaming at the time of purging during the original sample analysis: MW-03-042924 (480-219333-1), MW05-04-042924 (480-219333-2), MW05-04-042924-MS (480-219333-2[MS]), MW05-04-042924-MSD (480-219333-2[MSD]) and MW05-01-042924 (480-219333-5). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method 8270D: The continuing calibration verification (CCV) associated with batch 480-710333 recovered above the upper control limit for Benzo(g,h,i)perylene and Indeno(1,2,3-cd)pyrene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: MW-03-042924 (480-219333-1), MW05-04-042924 (480-219333-2), MW-02S-042924 (480-219333-3), MW-02S-042924-FD (480-219333-4), MW05-01-042924 (480-219333-5) and MW05-03-042924 (480-219333-6).

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-710333 recovered outside acceptance criteria, low biased, for 2,4-Dinitrophenol and Hexachlorocyclopentadiene. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D: The minimum response factor (RF) criteria for the continuing calibration verification (CCV) analyzed in batch 480-710333 was outside criteria for the following analyte(s): Pentachlorophenol. As indicated in the reference method, sample analysis may proceed; however, any detection or non-detection for the affected analyte(s) is considered estimated.

Method 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 480-710141 and analytical batch 480-710333 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method 8081B: Sulfur was present in this sample, creating an interference detecting some of the pesticide compounds. TBA was used to remove the sulfur interference. Since the recovery of Endrin Aldehyde is drastically reduced when using TBA cleanup, this compound has to be reported from a diluted run of the extract that has not been subject to the TBA cleanup. The sample, method blank, and LCS that have been TBA cleaned have been qualified with a RA identifier: MW-02S-042924-FD (480-219333-4), MW05-01-042924 (480-219333-5), (LCS 240-611588/2-A) and (MB 240-611588/1-A)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

LCMS
Method 1633: Isotope Dilution Analyte (IDA) recovery for the Low Continuing Calibration Verification (CCV Low) is above the method recommended limit for the following analytes: 13C8 FOSA . Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries, the following affected samples are non detect for associated target analytes. MW05-04-042924 (480-219333-2), MW-02S-042924 (480-219333-3), MW-02S-042924-FD (480-219333-4) and

MW05-01-042924 (480-219333-5)

Method 1633: Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following sample: MW05-04-042924 (480-219333-2) for M2-4:2 FTS . Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries, samples are non detect for associated target analytes.

Method 1633: Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following sample: MW05-01-042924 (480-219333-5) for M2-4:2 FTS and M2-8:2 FTS . Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries, samples are non detect for associated target analytes.

Method 1633: Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following sample: MW05-01-042924 (480-219333-5) for M2-6:2 FTS . Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries, samples were not ran at a dilution because diluting the sample to remove matrix affect on M2-6:2 FTS will dilute out the IDA's native compound, therefore the data is valid.

Method 1633: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 240-611570 and analytical batch 240-611678 was outside control limits. Sample matrix interference is suspected. The following compounds were affected: 3-Perfluoropropylpropanoic acid (3:3 FTCA), 3-Perfluoropentylpropanoic acid (5:3 FTCA) and 3-Perfluoroheptylpropanoic acid (7:3 FTCA)

Method 1633: Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for 13C6 PFDA in the CCV Low associated with the following sample: (480-219368-M-6-A). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries. The concentration for the associated native compound is within acceptance limits and data is reported with no corrective action.

Method 1633: Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for 13C6 PFDA in the CCV Low associated with the following samples: MW05-04-042924 (480-219333-2), MW05-04-042924-MS (480-219333-2[MS]) and MW05-04-042924-MSD (480-219333-2[MSD]). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries. The concentration for the associated native compound is within acceptance limits and data is reported with no corrective action.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Field Service / Mobile Lab
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Methods 9012B: The initial calibration verification (ICV) result for batch 480-710579 was above the upper control limit. The affected analytes are: Cyanide, Total. Sample results were non-detects, and have been reported as qualified data. MW-03-042924 (480-219333-1), MW-02S-042924 (480-219333-3), MW-02S-042924-FD (480-219333-4), MW05-01-042924 (480-219333-5), MW05-03-042924 (480-219333-6), (ICV 480-710579/15), (480-219368-K-6), (480-219368-L-6) and (480-219368-L-6 DU)

Methods 9012B: The continuing calibration verification (CCV) associated with batch 480-710579 recovered above the upper control limit for Cyanide, Total. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: MW-03-042924 (480-219333-1), MW-02S-042924 (480-219333-3) and (CCV 480-710579/19).

Methods 9012B: The continuing calibration blank (CCB) and method blank (MB) for analytical batch 480-710579 contained Cyanide, Total above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

Methods 9012B: The method blank for preparation batch 480-710579 contained Cyanide, Total above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

Methods 9012B: The continuing calibration blank (CCB) for analytical batch 480-710579 contained Cyanide, Total above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219333-1

Client Sample ID: MW-03-042924 — Lab Sample ID: 480-219333-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	93.4	J	200	47.3	ug/L	1		6010D	Total Recoverable
Barium	43.7	J	200	3.0	ug/L	1		6010D	Total Recoverable
Cadmium	1.0	J	5.0	0.45	ug/L	1		6010D	Total Recoverable
Calcium	77500		5000	307	ug/L	1		6010D	Total Recoverable
Chromium	0.93	J	10.0	0.76	ug/L	1		6010D	Total Recoverable
Cobalt	0.86	J	10.0	0.75	ug/L	1		6010D	Total Recoverable
Iron	180	J	200	82.7	ug/L	1		6010D	Total Recoverable
Magnesium	161000		5000	259	ug/L	1		6010D	Total Recoverable
Manganese	72.5		15.0	2.6	ug/L	1		6010D	Total Recoverable
Nickel	4.4	J	40.0	2.2	ug/L	1		6010D	Total Recoverable
Potassium	4090	J	5000	557	ug/L	1		6010D	Total Recoverable
Sodium	76800		5000	2110	ug/L	1		6010D	Total Recoverable
Arsenic	4.7	J	15.0	4.1	ug/L	1		6010D	Dissolved
Barium	18.8	J	200	3.0	ug/L	1		6010D	Dissolved
Cadmium	0.95	J	5.0	0.45	ug/L	1		6010D	Dissolved
Calcium	71200		5000	307	ug/L	1		6010D	Dissolved
Chromium	1.1	J	10.0	0.76	ug/L	1		6010D	Dissolved
Magnesium	175000		5000	259	ug/L	1		6010D	Dissolved
Manganese	15.7		15.0	2.6	ug/L	1		6010D	Dissolved
Nickel	2.4	J	40.0	2.2	ug/L	1		6010D	Dissolved
Potassium	4250	J	5000	557	ug/L	1		6010D	Dissolved
Sodium	85600		5000	2110	ug/L	1		6010D	Dissolved

Client Sample ID: MW05-04-042924 — Lab Sample ID: 480-219333-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	1.9		1.6	0.40	ng/L	1		1633	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.99	J	1.6	0.40	ng/L	1		1633	Total/NA
Perfluorooctanoic acid (PFOA)	4.0		1.6	0.40	ng/L	1		1633	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.2	J	1.6	0.40	ng/L	1		1633	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.73	J	1.6	0.40	ng/L	1		1633	Total/NA
Aluminum	205		200	47.3	ug/L	1		6010D	Total Recoverable
Arsenic	4.7	J	15.0	4.1	ug/L	1		6010D	Total Recoverable
Barium	136	J	200	3.0	ug/L	1		6010D	Total Recoverable
Cadmium	0.70	J	5.0	0.45	ug/L	1		6010D	Total Recoverable
Calcium	93000		5000	307	ug/L	1		6010D	Total Recoverable
Chromium	1.2	J	10.0	0.76	ug/L	1		6010D	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Client Sample ID: MW05-04-042924 (Continued) — Lab Sample ID: 480-219333-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	3.8	J	10.0	0.75	ug/L	1		6010D	Total Recoverable
Iron	383		200	82.7	ug/L	1		6010D	Total Recoverable
Magnesium	84200		5000	259	ug/L	1		6010D	Total Recoverable
Manganese	194		15.0	2.6	ug/L	1		6010D	Total Recoverable
Nickel	8.5	J	40.0	2.2	ug/L	1		6010D	Total Recoverable
Potassium	2920	J	5000	557	ug/L	1		6010D	Total Recoverable
Sodium	32200		5000	2110	ug/L	1		6010D	Total Recoverable
Vanadium	12.8	J B	50.0	5.6	ug/L	1		6010D	Total Recoverable
Arsenic	4.8	J	15.0	4.1	ug/L	1		6010D	Dissolved
Barium	140	J	200	3.0	ug/L	1		6010D	Dissolved
Cadmium	0.70	J	5.0	0.45	ug/L	1		6010D	Dissolved
Calcium	96700		5000	307	ug/L	1		6010D	Dissolved
Chromium	13.4		10.0	0.76	ug/L	1		6010D	Dissolved
Cobalt	4.1	J	10.0	0.75	ug/L	1		6010D	Dissolved
Magnesium	94500		5000	259	ug/L	1		6010D	Dissolved
Manganese	209		15.0	2.6	ug/L	1		6010D	Dissolved
Nickel	13.3	J	40.0	2.2	ug/L	1		6010D	Dissolved
Potassium	3550	J	5000	557	ug/L	1		6010D	Dissolved
Sodium	36200		5000	2110	ug/L	1		6010D	Dissolved
Vanadium	12.4	J B	50.0	5.6	ug/L	1		6010D	Dissolved
Cyanide, Total	0.0094	J B F1	0.010	0.0041	mg/L	1		9012B	Dissolved

Client Sample ID: MW-02S-042924 — Lab Sample ID: 480-219333-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.24		0.20	0.10	ug/L	1		8270D SIM ID	Total/NA
Perfluorooctanoic acid (PFOA)	0.92	J	1.6	0.41	ng/L	1		1633	Total/NA
Barium	59.9	J	200	3.0	ug/L	1		6010D	Total Recoverable
Cadmium	0.84	J	5.0	0.45	ug/L	1		6010D	Total Recoverable
Calcium	74200		5000	307	ug/L	1		6010D	Total Recoverable
Chromium	1.0	J	10.0	0.76	ug/L	1		6010D	Total Recoverable
Iron	157	J	200	82.7	ug/L	1		6010D	Total Recoverable
Magnesium	145000		5000	259	ug/L	1		6010D	Total Recoverable
Manganese	14.2	J	15.0	2.6	ug/L	1		6010D	Total Recoverable
Nickel	2.8	J	40.0	2.2	ug/L	1		6010D	Total Recoverable
Potassium	3630	J	5000	557	ug/L	1		6010D	Total Recoverable
Sodium	45900		5000	2110	ug/L	1		6010D	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-02S-042924 (Continued) — Lab Sample ID: 480-219333-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	5.9	J B	50.0	5.6	ug/L	1		6010D	Total Recoverable
Barium	60.8	J	200	3.0	ug/L	1		6010D	Dissolved
Cadmium	1.1	J	5.0	0.45	ug/L	1		6010D	Dissolved
Calcium	74800		5000	307	ug/L	1		6010D	Dissolved
Magnesium	147000		5000	259	ug/L	1		6010D	Dissolved
Manganese	7.8	J	15.0	2.6	ug/L	1		6010D	Dissolved
Potassium	3630	J	5000	557	ug/L	1		6010D	Dissolved
Sodium	46000		5000	2110	ug/L	1		6010D	Dissolved

Client Sample ID: MW-02S-042924-FD — Lab Sample ID: 480-219333-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.31		0.20	0.10	ug/L	1		8270D SIM ID	Total/NA
Perfluorooctanoic acid (PFOA)	1.0	J	1.7	0.44	ng/L	1		1633	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.58	J	1.7	0.44	ng/L	1		1633	Total/NA
Barium	60.1	J	200	3.0	ug/L	1		6010D	Total Recoverable
Cadmium	0.87	J	5.0	0.45	ug/L	1		6010D	Total Recoverable
Calcium	73200		5000	307	ug/L	1		6010D	Total Recoverable
Chromium	0.90	J	10.0	0.76	ug/L	1		6010D	Total Recoverable
Iron	136	J	200	82.7	ug/L	1		6010D	Total Recoverable
Magnesium	146000		5000	259	ug/L	1		6010D	Total Recoverable
Manganese	14.3	J	15.0	2.6	ug/L	1		6010D	Total Recoverable
Nickel	2.7	J	40.0	2.2	ug/L	1		6010D	Total Recoverable
Potassium	3530	J	5000	557	ug/L	1		6010D	Total Recoverable
Sodium	44500		5000	2110	ug/L	1		6010D	Total Recoverable
Barium	61.1	J	200	3.0	ug/L	1		6010D	Dissolved
Cadmium	0.83	J	5.0	0.45	ug/L	1		6010D	Dissolved
Calcium	75200		5000	307	ug/L	1		6010D	Dissolved
Chromium	1.1	J	10.0	0.76	ug/L	1		6010D	Dissolved
Magnesium	149000		5000	259	ug/L	1		6010D	Dissolved
Manganese	7.6	J	15.0	2.6	ug/L	1		6010D	Dissolved
Nickel	2.9	J	40.0	2.2	ug/L	1		6010D	Dissolved
Potassium	3730	J	5000	557	ug/L	1		6010D	Dissolved
Sodium	45900		5000	2110	ug/L	1		6010D	Dissolved

Client Sample ID: MW05-01-042924 — Lab Sample ID: 480-219333-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Di-n-butyl phthalate	0.31	J	5.0	0.31	ug/L	1		8270D	Total/NA
Perfluorobutanoic acid (PFBA)	9.2		6.4	1.7	ng/L	1		1633	Total/NA
Perfluoropentanoic acid (PFPeA)	2.5	J I	3.2	0.80	ng/L	1		1633	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.2	J	1.6	0.40	ng/L	1		1633	Total/NA
Perfluorooctanoic acid (PFOA)	3.7		1.6	0.40	ng/L	1		1633	Total/NA
Perfluorononanoic acid (PFNA)	3.2		1.6	0.40	ng/L	1		1633	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW05-01-042924 (Continued)

Lab Sample ID: 480-219333-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanesulfonic acid (PFBS)	2.4		1.6	0.40	ng/L	1		1633	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.59	J	1.6	0.41	ng/L	1		1633	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.4		1.6	0.40	ng/L	1		1633	Total/NA
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.9	J	6.4	1.6	ng/L	1		1633	Total/NA
Aluminum	613		200	47.3	ug/L	1		6010D	Total Recoverable
Barium	77.9	J	200	3.0	ug/L	1		6010D	Total Recoverable
Calcium	105000		5000	307	ug/L	1		6010D	Total Recoverable
Chromium	1.7	J	10.0	0.76	ug/L	1		6010D	Total Recoverable
Copper	7.4	J	25.0	3.5	ug/L	1		6010D	Total Recoverable
Iron	711		200	82.7	ug/L	1		6010D	Total Recoverable
Lead	7.6	J	10.0	2.8	ug/L	1		6010D	Total Recoverable
Magnesium	29700		5000	259	ug/L	1		6010D	Total Recoverable
Manganese	34.7		15.0	2.6	ug/L	1		6010D	Total Recoverable
Nickel	3.6	J	40.0	2.2	ug/L	1		6010D	Total Recoverable
Potassium	2940	J	5000	557	ug/L	1		6010D	Total Recoverable
Sodium	10400		5000	2110	ug/L	1		6010D	Total Recoverable
Vanadium	20.6	J B	50.0	5.6	ug/L	1		6010D	Total Recoverable
Arsenic	6.1	J	15.0	4.1	ug/L	1		6010D	Dissolved
Barium	71.2	J	200	3.0	ug/L	1		6010D	Dissolved
Calcium	104000		5000	307	ug/L	1		6010D	Dissolved
Chromium	1.0	J	10.0	0.76	ug/L	1		6010D	Dissolved
Copper	5.6	J	25.0	3.5	ug/L	1		6010D	Dissolved
Magnesium	31700		5000	259	ug/L	1		6010D	Dissolved
Manganese	26.0		15.0	2.6	ug/L	1		6010D	Dissolved
Nickel	3.3	J	40.0	2.2	ug/L	1		6010D	Dissolved
Potassium	2670	J	5000	557	ug/L	1		6010D	Dissolved
Sodium	10900		5000	2110	ug/L	1		6010D	Dissolved
Vanadium	18.1	J B	50.0	5.6	ug/L	1		6010D	Dissolved

Client Sample ID: MW05-03-042924

Lab Sample ID: 480-219333-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	4.8	J	10	3.0	ug/L	1		8260C	Total/NA
Aluminum	13600		200	47.3	ug/L	1		6010D	Total Recoverable
Arsenic	5.3	J	15.0	4.1	ug/L	1		6010D	Total Recoverable
Barium	91.4	J	200	3.0	ug/L	1		6010D	Total Recoverable
Cadmium	0.86	J	5.0	0.45	ug/L	1		6010D	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW05-03-042924 (Continued)

Lab Sample ID: 480-219333-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	283000		5000	307	ug/L	1		6010D	Total Recoverable
Chromium	18.1		10.0	0.76	ug/L	1		6010D	Total Recoverable
Cobalt	8.0	J	10.0	0.75	ug/L	1		6010D	Total Recoverable
Copper	10.7	J	25.0	3.5	ug/L	1		6010D	Total Recoverable
Iron	15300		200	82.7	ug/L	1		6010D	Total Recoverable
Lead	6.9	J	10.0	2.8	ug/L	1		6010D	Total Recoverable
Magnesium	109000		5000	259	ug/L	1		6010D	Total Recoverable
Manganese	333		15.0	2.6	ug/L	1		6010D	Total Recoverable
Nickel	20.1	J	40.0	2.2	ug/L	1		6010D	Total Recoverable
Potassium	8090		5000	557	ug/L	1		6010D	Total Recoverable
Sodium	34000		5000	2110	ug/L	1		6010D	Total Recoverable
Vanadium	40.3	J B	50.0	5.6	ug/L	1		6010D	Total Recoverable
Zinc	43.4	J	50.0	22.5	ug/L	1		6010D	Total Recoverable
Barium	19.2	J	200	3.0	ug/L	1		6010D	Dissolved
Cadmium	0.80	J	5.0	0.45	ug/L	1		6010D	Dissolved
Calcium	277000		5000	307	ug/L	1		6010D	Dissolved
Chromium	1.0	J	10.0	0.76	ug/L	1		6010D	Dissolved
Cobalt	1.0	J	10.0	0.75	ug/L	1		6010D	Dissolved
Copper	3.8	J	25.0	3.5	ug/L	1		6010D	Dissolved
Magnesium	111000		5000	259	ug/L	1		6010D	Dissolved
Manganese	55.6		15.0	2.6	ug/L	1		6010D	Dissolved
Nickel	5.1	J	40.0	2.2	ug/L	1		6010D	Dissolved
Potassium	4120	J	5000	557	ug/L	1		6010D	Dissolved
Selenium	7.0	J	20.0	6.0	ug/L	1		6010D	Dissolved
Sodium	36700		5000	2110	ug/L	1		6010D	Dissolved
Vanadium	15.6	J B	50.0	5.6	ug/L	1		6010D	Dissolved
Cyanide, Total	0.0093	J B ^2 ^1+	0.010	0.0041	mg/L	1		9012B	Dissolved

Client Sample ID: TB-042924

Lab Sample ID: 480-219333-7

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219333-1

Client Sample ID: MW-03-042924
Date Collected: 04/29/24 09:20
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-1
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0	1.6	ug/L			05/01/24 13:41	2
1,1,2,2-Tetrachloroethane	ND		2.0	0.42	ug/L			05/01/24 13:41	2
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0	0.62	ug/L			05/01/24 13:41	2
1,1,2-Trichloroethane	ND		2.0	0.46	ug/L			05/01/24 13:41	2
1,1-Dichloroethane	ND		2.0	0.76	ug/L			05/01/24 13:41	2
1,1-Dichloroethene	ND		2.0	0.58	ug/L			05/01/24 13:41	2
1,2,4-Trichlorobenzene	ND		2.0	0.82	ug/L			05/01/24 13:41	2
1,2-Dibromo-3-Chloropropane	ND		2.0	0.78	ug/L			05/01/24 13:41	2
1,2-Dibromoethane	ND		2.0	1.5	ug/L			05/01/24 13:41	2
1,2-Dichlorobenzene	ND		2.0	1.6	ug/L			05/01/24 13:41	2
1,2-Dichloroethane	ND		2.0	0.42	ug/L			05/01/24 13:41	2
1,2-Dichloropropane	ND		2.0	1.4	ug/L			05/01/24 13:41	2
1,3-Dichlorobenzene	ND		2.0	1.6	ug/L			05/01/24 13:41	2
1,4-Dichlorobenzene	ND		2.0	1.7	ug/L			05/01/24 13:41	2
2-Butanone (MEK)	ND		20	2.6	ug/L			05/01/24 13:41	2
2-Hexanone	ND		10	2.5	ug/L			05/01/24 13:41	2
4-Methyl-2-pentanone (MIBK)	ND		10	4.2	ug/L			05/01/24 13:41	2
Acetone	ND		20	6.0	ug/L			05/01/24 13:41	2
Benzene	ND		2.0	0.82	ug/L			05/01/24 13:41	2
Bromodichloromethane	ND		2.0	0.78	ug/L			05/01/24 13:41	2
Bromoform	ND		2.0	0.52	ug/L			05/01/24 13:41	2
Bromomethane	ND		2.0	1.4	ug/L			05/01/24 13:41	2
Carbon disulfide	ND		2.0	0.38	ug/L			05/01/24 13:41	2
Carbon tetrachloride	ND		2.0	0.54	ug/L			05/01/24 13:41	2
Chlorobenzene	ND		2.0	1.5	ug/L			05/01/24 13:41	2
Chloroethane	ND		2.0	0.64	ug/L			05/01/24 13:41	2
Chloroform	ND		2.0	0.68	ug/L			05/01/24 13:41	2
Chloromethane	ND		2.0	0.70	ug/L			05/01/24 13:41	2
cis-1,2-Dichloroethene	ND		2.0	1.6	ug/L			05/01/24 13:41	2
cis-1,3-Dichloropropene	ND		2.0	0.72	ug/L			05/01/24 13:41	2
Cyclohexane	ND		2.0	0.36	ug/L			05/01/24 13:41	2
Dibromochloromethane	ND		2.0	0.64	ug/L			05/01/24 13:41	2
Dichlorodifluoromethane	ND		2.0	1.4	ug/L			05/01/24 13:41	2
Ethylbenzene	ND		2.0	1.5	ug/L			05/01/24 13:41	2
Isopropylbenzene	ND		2.0	1.6	ug/L			05/01/24 13:41	2
Methyl acetate	ND		5.0	2.6	ug/L			05/01/24 13:41	2
Methyl tert-butyl ether	ND		2.0	0.32	ug/L			05/01/24 13:41	2
Methylcyclohexane	ND		2.0	0.32	ug/L			05/01/24 13:41	2
Methylene Chloride	ND		2.0	0.88	ug/L			05/01/24 13:41	2
Styrene	ND		2.0	1.5	ug/L			05/01/24 13:41	2
Tetrachloroethene	ND		2.0	0.72	ug/L			05/01/24 13:41	2
Toluene	ND		2.0	1.0	ug/L			05/01/24 13:41	2
trans-1,2-Dichloroethene	ND		2.0	1.8	ug/L			05/01/24 13:41	2
trans-1,3-Dichloropropene	ND		2.0	0.74	ug/L			05/01/24 13:41	2
Trichloroethene	ND		2.0	0.92	ug/L			05/01/24 13:41	2
Trichlorofluoromethane	ND		2.0	1.8	ug/L			05/01/24 13:41	2
Vinyl chloride	ND		2.0	1.8	ug/L			05/01/24 13:41	2
Xylenes, Total	ND		4.0	1.3	ug/L			05/01/24 13:41	2

Client Sample ID: MW-03-042924
Date Collected: 04/29/24 09:20
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-1
Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A		05/01/24 13:41	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		77 - 120		05/01/24 13:41	2
4-Bromofluorobenzene (Surr)	100		73 - 120		05/01/24 13:41	2
Dibromofluoromethane (Surr)	102		75 - 123		05/01/24 13:41	2
Toluene-d8 (Surr)	100		80 - 120		05/01/24 13:41	2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		05/01/24 09:25	05/02/24 16:41	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		05/01/24 09:25	05/02/24 16:41	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		05/01/24 09:25	05/02/24 16:41	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		05/01/24 09:25	05/02/24 16:41	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		05/01/24 09:25	05/02/24 16:41	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		05/01/24 09:25	05/02/24 16:41	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		05/01/24 09:25	05/02/24 16:41	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		05/01/24 09:25	05/02/24 16:41	1
2-Chlorophenol	ND		5.0	0.53	ug/L		05/01/24 09:25	05/02/24 16:41	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		05/01/24 09:25	05/02/24 16:41	1
2-Methylphenol	ND		5.0	0.40	ug/L		05/01/24 09:25	05/02/24 16:41	1
2-Nitroaniline	ND		10	0.42	ug/L		05/01/24 09:25	05/02/24 16:41	1
2-Nitrophenol	ND		5.0	0.48	ug/L		05/01/24 09:25	05/02/24 16:41	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		05/01/24 09:25	05/02/24 16:41	1
3-Nitroaniline	ND		10	0.48	ug/L		05/01/24 09:25	05/02/24 16:41	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		05/01/24 09:25	05/02/24 16:41	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		05/01/24 09:25	05/02/24 16:41	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		05/01/24 09:25	05/02/24 16:41	1
4-Chloroaniline	ND		5.0	0.59	ug/L		05/01/24 09:25	05/02/24 16:41	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		05/01/24 09:25	05/02/24 16:41	1
4-Methylphenol	ND		10	0.36	ug/L		05/01/24 09:25	05/02/24 16:41	1
4-Nitroaniline	ND		10	0.25	ug/L		05/01/24 09:25	05/02/24 16:41	1
4-Nitrophenol	ND		10	1.5	ug/L		05/01/24 09:25	05/02/24 16:41	1
Acenaphthene	ND		5.0	0.41	ug/L		05/01/24 09:25	05/02/24 16:41	1
Acenaphthylene	ND		5.0	0.38	ug/L		05/01/24 09:25	05/02/24 16:41	1
Acetophenone	ND		5.0	0.54	ug/L		05/01/24 09:25	05/02/24 16:41	1
Anthracene	ND		5.0	0.28	ug/L		05/01/24 09:25	05/02/24 16:41	1
Atrazine	ND		5.0	0.46	ug/L		05/01/24 09:25	05/02/24 16:41	1
Benzaldehyde	ND		5.0	0.27	ug/L		05/01/24 09:25	05/02/24 16:41	1
Benzo(a)anthracene	ND		5.0	0.36	ug/L		05/01/24 09:25	05/02/24 16:41	1
Benzo(a)pyrene	ND		5.0	0.47	ug/L		05/01/24 09:25	05/02/24 16:41	1
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L		05/01/24 09:25	05/02/24 16:41	1
Benzo(g,h,i)perylene	ND		5.0	0.35	ug/L		05/01/24 09:25	05/02/24 16:41	1
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L		05/01/24 09:25	05/02/24 16:41	1
Biphenyl	ND		5.0	0.65	ug/L		05/01/24 09:25	05/02/24 16:41	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		05/01/24 09:25	05/02/24 16:41	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		05/01/24 09:25	05/02/24 16:41	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		05/01/24 09:25	05/02/24 16:41	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		05/01/24 09:25	05/02/24 16:41	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		05/01/24 09:25	05/02/24 16:41	1

Client Sample ID: MW-03-042924

Date Collected: 04/29/24 09:20
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-1

Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Caprolactam	ND		5.0	2.2	ug/L		05/01/24 09:25	05/02/24 16:41	1
Carbazole	ND		5.0	0.30	ug/L		05/01/24 09:25	05/02/24 16:41	1
Chrysene	ND		5.0	0.33	ug/L		05/01/24 09:25	05/02/24 16:41	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		05/01/24 09:25	05/02/24 16:41	1
Dibenzofuran	ND		10	0.51	ug/L		05/01/24 09:25	05/02/24 16:41	1
Diethyl phthalate	ND		5.0	0.22	ug/L		05/01/24 09:25	05/02/24 16:41	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		05/01/24 09:25	05/02/24 16:41	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		05/01/24 09:25	05/02/24 16:41	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		05/01/24 09:25	05/02/24 16:41	1
Fluoranthene	ND		5.0	0.40	ug/L		05/01/24 09:25	05/02/24 16:41	1
Fluorene	ND		5.0	0.36	ug/L		05/01/24 09:25	05/02/24 16:41	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		05/01/24 09:25	05/02/24 16:41	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		05/01/24 09:25	05/02/24 16:41	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		05/01/24 09:25	05/02/24 16:41	1
Hexachloroethane	ND		5.0	0.59	ug/L		05/01/24 09:25	05/02/24 16:41	1
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L		05/01/24 09:25	05/02/24 16:41	1
Isophorone	ND		5.0	0.43	ug/L		05/01/24 09:25	05/02/24 16:41	1
Naphthalene	ND		5.0	0.76	ug/L		05/01/24 09:25	05/02/24 16:41	1
Nitrobenzene	ND		5.0	0.29	ug/L		05/01/24 09:25	05/02/24 16:41	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		05/01/24 09:25	05/02/24 16:41	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		05/01/24 09:25	05/02/24 16:41	1
Pentachlorophenol	ND		10	2.2	ug/L		05/01/24 09:25	05/02/24 16:41	1
Phenanthrene	ND		5.0	0.44	ug/L		05/01/24 09:25	05/02/24 16:41	1
Phenol	ND		5.0	0.39	ug/L		05/01/24 09:25	05/02/24 16:41	1
Pyrene	ND		5.0	0.34	ug/L		05/01/24 09:25	05/02/24 16:41	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Furan, tetrahydro-	*330*	*T J N*	*ug/L*		*2.76*	*109-99-9*	*05/01/24 09:25*	*05/02/24 16:41*	*1*
Unknown	*6.4*	*T J*	*ug/L*		*2.89*	*N/A*	*05/01/24 09:25*	*05/02/24 16:41*	*1*
Unknown	*1.9*	*T J*	*ug/L*		*3.08*	*N/A*	*05/01/24 09:25*	*05/02/24 16:41*	*1*
Chloroiodomethane	*1.6*	*T J N*	*ug/L*		*3.95*	*593-71-5*	*05/01/24 09:25*	*05/02/24 16:41*	*1*
Unknown	*24*	*T J*	*ug/L*		*5.12*	*N/A*	*05/01/24 09:25*	*05/02/24 16:41*	*1*
Unknown	*3.2*	*T J*	*ug/L*		*5.52*	*N/A*	*05/01/24 09:25*	*05/02/24 16:41*	*1*
Unknown	*2.8*	*T J*	*ug/L*		*5.64*	*N/A*	*05/01/24 09:25*	*05/02/24 16:41*	*1*
Unknown	*2.9*	*T J*	*ug/L*		*5.91*	*N/A*	*05/01/24 09:25*	*05/02/24 16:41*	*1*
Unknown	*1.9*	*T J*	*ug/L*		*6.04*	*N/A*	*05/01/24 09:25*	*05/02/24 16:41*	*1*
Unknown	*1.7*	*T J*	*ug/L*		*11.93*	*N/A*	*05/01/24 09:25*	*05/02/24 16:41*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*81*		*41 - 120*	*05/01/24 09:25*	*05/02/24 16:41*	*1*
2-Fluorobiphenyl	*71*		*48 - 120*	*05/01/24 09:25*	*05/02/24 16:41*	*1*
2-Fluorophenol	*54*		*35 - 120*	*05/01/24 09:25*	*05/02/24 16:41*	*1*
Nitrobenzene-d5	*64*		*46 - 120*	*05/01/24 09:25*	*05/02/24 16:41*	*1*
Phenol-d5	*41*		*22 - 120*	*05/01/24 09:25*	*05/02/24 16:41*	*1*
p-Terphenyl-d14	*67*		*60 - 148*	*05/01/24 09:25*	*05/02/24 16:41*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.20	0.021	ug/L		05/02/24 08:53	05/07/24 17:57	1
4,4'-DDE	ND		0.20	0.017	ug/L		05/02/24 08:53	05/07/24 17:57	1

Client Sample ID: MW-03-042924
Date Collected: 04/29/24 09:20
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-1
Matrix: Water

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDT	ND		0.20	0.019	ug/L		05/02/24 08:53	05/07/24 17:57	1
Aldrin	ND		0.20	0.026	ug/L		05/02/24 08:53	05/07/24 17:57	1
alpha-BHC	ND		0.20	0.021	ug/L		05/02/24 08:53	05/07/24 17:57	1
cis-Chlordane	ND		0.20	0.028	ug/L		05/02/24 08:53	05/07/24 17:57	1
beta-BHC	ND		0.20	0.037	ug/L		05/02/24 08:53	05/07/24 17:57	1
delta-BHC	ND		0.20	0.017	ug/L		05/02/24 08:53	05/07/24 17:57	1
Dieldrin	ND		0.20	0.026	ug/L		05/02/24 08:53	05/07/24 17:57	1
Endosulfan I	ND		0.20	0.015	ug/L		05/02/24 08:53	05/07/24 17:57	1
Endosulfan II	ND		0.20	0.025	ug/L		05/02/24 08:53	05/07/24 17:57	1
Endosulfan sulfate	ND		0.20	0.015	ug/L		05/02/24 08:53	05/07/24 17:57	1
Endrin	ND		0.20	0.026	ug/L		05/02/24 08:53	05/07/24 17:57	1
Endrin aldehyde	ND		0.20	0.018	ug/L		05/02/24 08:53	05/07/24 17:57	1
Endrin ketone	ND		0.20	0.016	ug/L		05/02/24 08:53	05/07/24 17:57	1
gamma-BHC (Lindane)	ND		0.20	0.024	ug/L		05/02/24 08:53	05/07/24 17:57	1
trans-Chlordane	ND		0.20	0.020	ug/L		05/02/24 08:53	05/07/24 17:57	1
Heptachlor	ND		0.20	0.033	ug/L		05/02/24 08:53	05/07/24 17:57	1
Heptachlor epoxide	ND		0.20	0.026	ug/L		05/02/24 08:53	05/07/24 17:57	1
Methoxychlor	ND		0.40	0.019	ug/L		05/02/24 08:53	05/07/24 17:57	1
Toxaphene	ND		8.0	0.23	ug/L		05/02/24 08:53	05/07/24 17:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*78*		*10 - 145*	*05/02/24 08:53*	*05/07/24 17:57*	*1*
DCB Decachlorobiphenyl	*75*		*10 - 145*	*05/02/24 08:53*	*05/07/24 17:57*	*1*
Tetrachloro-m-xylene	*64*		*10 - 123*	*05/02/24 08:53*	*05/07/24 17:57*	*1*
Tetrachloro-m-xylene	*60*		*10 - 123*	*05/02/24 08:53*	*05/07/24 17:57*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 22:42	1
PCB-1221	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 22:42	1
PCB-1232	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 22:42	1
PCB-1242	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 22:42	1
PCB-1248	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 22:42	1
PCB-1254	ND		0.50	0.25	ug/L		05/01/24 13:50	05/02/24 22:42	1
PCB-1260	ND		0.50	0.25	ug/L		05/01/24 13:50	05/02/24 22:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*77*		*19 - 120*	*05/01/24 13:50*	*05/02/24 22:42*	*1*
DCB Decachlorobiphenyl	*75*		*19 - 120*	*05/01/24 13:50*	*05/02/24 22:42*	*1*
Tetrachloro-m-xylene	*68*		*39 - 121*	*05/01/24 13:50*	*05/02/24 22:42*	*1*
Tetrachloro-m-xylene	*64*		*39 - 121*	*05/01/24 13:50*	*05/02/24 22:42*	*1*

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**93.4**	**J**	200	47.3	ug/L		05/16/24 16:30	05/18/24 10:35	1
Antimony	ND		20.0	7.5	ug/L		05/16/24 16:30	05/18/24 10:35	1
Arsenic	ND		15.0	4.1	ug/L		05/16/24 16:30	05/18/24 10:35	1
Barium	**43.7**	**J**	200	3.0	ug/L		05/16/24 16:30	05/18/24 10:35	1
Beryllium	ND		5.0	0.60	ug/L		05/16/24 16:30	05/18/24 10:35	1
Cadmium	**1.0**	**J**	5.0	0.45	ug/L		05/16/24 16:30	05/18/24 10:35	1

Client Sample ID: MW-03-042924
Date Collected: 04/29/24 09:20
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-1
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	77500		5000	307	ug/L		05/16/24 16:30	05/18/24 10:35	1
Chromium	0.93	J	10.0	0.76	ug/L		05/16/24 16:30	05/18/24 10:35	1
Cobalt	0.86	J	10.0	0.75	ug/L		05/16/24 16:30	05/18/24 10:35	1
Copper	ND		25.0	3.5	ug/L		05/16/24 16:30	05/18/24 10:35	1
Iron	180	J	200	82.7	ug/L		05/16/24 16:30	05/18/24 10:35	1
Lead	ND		10.0	2.8	ug/L		05/16/24 16:30	05/18/24 10:35	1
Magnesium	161000		5000	259	ug/L		05/16/24 16:30	05/18/24 10:35	1
Manganese	72.5		15.0	2.6	ug/L		05/16/24 16:30	05/18/24 10:35	1
Nickel	4.4	J	40.0	2.2	ug/L		05/16/24 16:30	05/18/24 10:35	1
Potassium	4090	J	5000	557	ug/L		05/16/24 16:30	05/18/24 10:35	1
Selenium	ND		20.0	6.0	ug/L		05/16/24 16:30	05/18/24 10:35	1
Silver	ND		10.0	0.62	ug/L		05/16/24 16:30	05/18/24 10:35	1
Sodium	76800		5000	2110	ug/L		05/16/24 16:30	05/18/24 10:35	1
Thallium	ND		20.0	2.7	ug/L		05/16/24 16:30	05/18/24 10:35	1
Vanadium	ND		50.0	5.6	ug/L		05/16/24 16:30	05/18/24 10:35	1
Zinc	ND		50.0	22.5	ug/L		05/16/24 16:30	05/18/24 10:35	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	47.3	ug/L		05/16/24 16:30	05/18/24 10:48	1
Antimony	ND		20.0	7.5	ug/L		05/16/24 16:30	05/18/24 10:48	1
Arsenic	4.7	J	15.0	4.1	ug/L		05/16/24 16:30	05/18/24 10:48	1
Barium	18.8	J	200	3.0	ug/L		05/16/24 16:30	05/18/24 10:48	1
Beryllium	ND		5.0	0.60	ug/L		05/16/24 16:30	05/18/24 10:48	1
Cadmium	0.95	J	5.0	0.45	ug/L		05/16/24 16:30	05/18/24 10:48	1
Calcium	71200		5000	307	ug/L		05/16/24 16:30	05/18/24 10:48	1
Chromium	1.1	J	10.0	0.76	ug/L		05/16/24 16:30	05/18/24 10:48	1
Cobalt	ND		10.0	0.75	ug/L		05/16/24 16:30	05/18/24 10:48	1
Copper	ND		25.0	3.5	ug/L		05/16/24 16:30	05/18/24 10:48	1
Iron	ND		200	82.7	ug/L		05/16/24 16:30	05/18/24 10:48	1
Lead	ND		10.0	2.8	ug/L		05/16/24 16:30	05/18/24 10:48	1
Magnesium	175000		5000	259	ug/L		05/16/24 16:30	05/18/24 10:48	1
Manganese	15.7		15.0	2.6	ug/L		05/16/24 16:30	05/18/24 10:48	1
Nickel	2.4	J	40.0	2.2	ug/L		05/16/24 16:30	05/18/24 10:48	1
Potassium	4250	J	5000	557	ug/L		05/16/24 16:30	05/18/24 10:48	1
Selenium	ND		20.0	6.0	ug/L		05/16/24 16:30	05/18/24 10:48	1
Silver	ND		10.0	0.62	ug/L		05/16/24 16:30	05/18/24 10:48	1
Sodium	85600		5000	2110	ug/L		05/16/24 16:30	05/18/24 10:48	1
Thallium	ND		20.0	2.7	ug/L		05/16/24 16:30	05/18/24 10:48	1
Vanadium	ND		50.0	5.6	ug/L		05/16/24 16:30	05/18/24 10:48	1
Zinc	ND		50.0	22.5	ug/L		05/16/24 16:30	05/18/24 10:48	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00040	0.000084	mg/L		05/02/24 11:04	05/02/24 17:00	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/02/24 11:04	05/02/24 17:36	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219333-1

Client Sample ID: MW-03-042924

Lab Sample ID: 480-219333-1

Date Collected: 04/29/24 09:20

Matrix: Water

Date Received: 04/29/24 17:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND	^1+ *+	0.010	0.0041	mg/L			05/02/24 23:27	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND	^1+	0.010	0.0041	mg/L			05/03/24 00:00	1

Client Sample ID: MW05-04-042924

Lab Sample ID: 480-219333-2

Date Collected: 04/29/24 10:45

Matrix: Water

Date Received: 04/29/24 17:15

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.0	3.3	ug/L			05/01/24 14:03	4
1,1,2,2-Tetrachloroethane	ND		4.0	0.84	ug/L			05/01/24 14:03	4
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.0	1.2	ug/L			05/01/24 14:03	4
1,1,2-Trichloroethane	ND		4.0	0.92	ug/L			05/01/24 14:03	4
1,1-Dichloroethane	ND		4.0	1.5	ug/L			05/01/24 14:03	4
1,1-Dichloroethene	ND		4.0	1.2	ug/L			05/01/24 14:03	4
1,2,4-Trichlorobenzene	ND		4.0	1.6	ug/L			05/01/24 14:03	4
1,2-Dibromo-3-Chloropropane	ND		4.0	1.6	ug/L			05/01/24 14:03	4
1,2-Dibromoethane	ND		4.0	2.9	ug/L			05/01/24 14:03	4
1,2-Dichlorobenzene	ND		4.0	3.2	ug/L			05/01/24 14:03	4
1,2-Dichloroethane	ND		4.0	0.84	ug/L			05/01/24 14:03	4
1,2-Dichloropropane	ND		4.0	2.9	ug/L			05/01/24 14:03	4
1,3-Dichlorobenzene	ND		4.0	3.1	ug/L			05/01/24 14:03	4
1,4-Dichlorobenzene	ND		4.0	3.4	ug/L			05/01/24 14:03	4
2-Butanone (MEK)	ND		40	5.3	ug/L			05/01/24 14:03	4
2-Hexanone	ND		20	5.0	ug/L			05/01/24 14:03	4
4-Methyl-2-pentanone (MIBK)	ND		20	8.4	ug/L			05/01/24 14:03	4
Acetone	ND		40	12	ug/L			05/01/24 14:03	4
Benzene	ND		4.0	1.6	ug/L			05/01/24 14:03	4
Bromodichloromethane	ND		4.0	1.6	ug/L			05/01/24 14:03	4
Bromoform	ND		4.0	1.0	ug/L			05/01/24 14:03	4
Bromomethane	ND		4.0	2.8	ug/L			05/01/24 14:03	4
Carbon disulfide	ND		4.0	0.76	ug/L			05/01/24 14:03	4
Carbon tetrachloride	ND		4.0	1.1	ug/L			05/01/24 14:03	4
Chlorobenzene	ND		4.0	3.0	ug/L			05/01/24 14:03	4
Chloroethane	ND		4.0	1.3	ug/L			05/01/24 14:03	4
Chloroform	ND		4.0	1.4	ug/L			05/01/24 14:03	4
Chloromethane	ND		4.0	1.4	ug/L			05/01/24 14:03	4
cis-1,2-Dichloroethene	ND		4.0	3.2	ug/L			05/01/24 14:03	4
cis-1,3-Dichloropropene	ND		4.0	1.4	ug/L			05/01/24 14:03	4
Cyclohexane	ND		4.0	0.72	ug/L			05/01/24 14:03	4
Dibromochloromethane	ND		4.0	1.3	ug/L			05/01/24 14:03	4
Dichlorodifluoromethane	ND		4.0	2.7	ug/L			05/01/24 14:03	4
Ethylbenzene	ND		4.0	3.0	ug/L			05/01/24 14:03	4
Isopropylbenzene	ND		4.0	3.2	ug/L			05/01/24 14:03	4
Methyl acetate	ND		10	5.2	ug/L			05/01/24 14:03	4
Methyl tert-butyl ether	ND		4.0	0.64	ug/L			05/01/24 14:03	4
Methylcyclohexane	ND		4.0	0.64	ug/L			05/01/24 14:03	4

Client Sample ID: MW05-04-042924
Date Collected: 04/29/24 10:45
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-2
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		4.0	1.8	ug/L			05/01/24 14:03	4
Styrene	ND		4.0	2.9	ug/L			05/01/24 14:03	4
Tetrachloroethene	ND		4.0	1.4	ug/L			05/01/24 14:03	4
Toluene	ND		4.0	2.0	ug/L			05/01/24 14:03	4
trans-1,2-Dichloroethene	ND		4.0	3.6	ug/L			05/01/24 14:03	4
trans-1,3-Dichloropropene	ND		4.0	1.5	ug/L			05/01/24 14:03	4
Trichloroethene	ND		4.0	1.8	ug/L			05/01/24 14:03	4
Trichlorofluoromethane	ND		4.0	3.5	ug/L			05/01/24 14:03	4
Vinyl chloride	ND		4.0	3.6	ug/L			05/01/24 14:03	4
Xylenes, Total	ND		8.0	2.6	ug/L			05/01/24 14:03	4

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*		*05/01/24 14:03*	*4*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*05/01/24 14:03*	*4*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*05/01/24 14:03*	*4*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*05/01/24 14:03*	*4*
Toluene-d8 (Surr)	*100*		*80 - 120*		*05/01/24 14:03*	*4*

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		04/30/24 13:54	05/02/24 21:08	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*34*		*15 - 110*	*04/30/24 13:54*	*05/02/24 21:08*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.2	0.50	ug/L		05/01/24 09:25	05/02/24 16:13	1
2,4,6-Trichlorophenol	ND		5.2	0.64	ug/L		05/01/24 09:25	05/02/24 16:13	1
2,4-Dichlorophenol	ND		5.2	0.53	ug/L		05/01/24 09:25	05/02/24 16:13	1
2,4-Dimethylphenol	ND		5.2	0.52	ug/L		05/01/24 09:25	05/02/24 16:13	1
2,4-Dinitrophenol	ND		10	2.3	ug/L		05/01/24 09:25	05/02/24 16:13	1
2,4-Dinitrotoluene	ND		5.2	0.47	ug/L		05/01/24 09:25	05/02/24 16:13	1
2,6-Dinitrotoluene	ND		5.2	0.42	ug/L		05/01/24 09:25	05/02/24 16:13	1
2-Chloronaphthalene	ND		5.2	0.48	ug/L		05/01/24 09:25	05/02/24 16:13	1
2-Chlorophenol	ND		5.2	0.55	ug/L		05/01/24 09:25	05/02/24 16:13	1
2-Methylnaphthalene	ND		5.2	0.63	ug/L		05/01/24 09:25	05/02/24 16:13	1
2-Methylphenol	ND		5.2	0.42	ug/L		05/01/24 09:25	05/02/24 16:13	1
2-Nitroaniline	ND		10	0.44	ug/L		05/01/24 09:25	05/02/24 16:13	1
2-Nitrophenol	ND		5.2	0.50	ug/L		05/01/24 09:25	05/02/24 16:13	1
3,3'-Dichlorobenzidine	ND	F1	5.2	0.42	ug/L		05/01/24 09:25	05/02/24 16:13	1
3-Nitroaniline	ND		10	0.50	ug/L		05/01/24 09:25	05/02/24 16:13	1
4,6-Dinitro-2-methylphenol	ND		10	2.3	ug/L		05/01/24 09:25	05/02/24 16:13	1
4-Bromophenyl phenyl ether	ND		5.2	0.47	ug/L		05/01/24 09:25	05/02/24 16:13	1
4-Chloro-3-methylphenol	ND		5.2	0.47	ug/L		05/01/24 09:25	05/02/24 16:13	1
4-Chloroaniline	ND		5.2	0.61	ug/L		05/01/24 09:25	05/02/24 16:13	1
4-Chlorophenyl phenyl ether	ND		5.2	0.36	ug/L		05/01/24 09:25	05/02/24 16:13	1
4-Methylphenol	ND		10	0.38	ug/L		05/01/24 09:25	05/02/24 16:13	1
4-Nitroaniline	ND		10	0.26	ug/L		05/01/24 09:25	05/02/24 16:13	1

Client Sample ID: MW05-04-042924
Date Collected: 04/29/24 10:45
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-2
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	ND		10	1.6	ug/L		05/01/24 09:25	05/02/24 16:13	1
Acenaphthene	ND		5.2	0.43	ug/L		05/01/24 09:25	05/02/24 16:13	1
Acenaphthylene	ND		5.2	0.40	ug/L		05/01/24 09:25	05/02/24 16:13	1
Acetophenone	ND		5.2	0.56	ug/L		05/01/24 09:25	05/02/24 16:13	1
Anthracene	ND		5.2	0.29	ug/L		05/01/24 09:25	05/02/24 16:13	1
Atrazine	ND		5.2	0.48	ug/L		05/01/24 09:25	05/02/24 16:13	1
Benzaldehyde	ND		5.2	0.28	ug/L		05/01/24 09:25	05/02/24 16:13	1
Benzo(a)anthracene	ND		5.2	0.38	ug/L		05/01/24 09:25	05/02/24 16:13	1
Benzo(a)pyrene	ND		5.2	0.49	ug/L		05/01/24 09:25	05/02/24 16:13	1
Benzo(b)fluoranthene	ND		5.2	0.35	ug/L		05/01/24 09:25	05/02/24 16:13	1
Benzo(g,h,i)perylene	ND		5.2	0.36	ug/L		05/01/24 09:25	05/02/24 16:13	1
Benzo(k)fluoranthene	ND		5.2	0.76	ug/L		05/01/24 09:25	05/02/24 16:13	1
Biphenyl	ND		5.2	0.68	ug/L		05/01/24 09:25	05/02/24 16:13	1
bis (2-chloroisopropyl) ether	ND		5.2	0.54	ug/L		05/01/24 09:25	05/02/24 16:13	1
Bis(2-chloroethoxy)methane	ND		5.2	0.36	ug/L		05/01/24 09:25	05/02/24 16:13	1
Bis(2-chloroethyl)ether	ND	F1	5.2	0.42	ug/L		05/01/24 09:25	05/02/24 16:13	1
Bis(2-ethylhexyl) phthalate	ND		5.2	2.3	ug/L		05/01/24 09:25	05/02/24 16:13	1
Butyl benzyl phthalate	ND		5.2	1.0	ug/L		05/01/24 09:25	05/02/24 16:13	1
Caprolactam	ND		5.2	2.3	ug/L		05/01/24 09:25	05/02/24 16:13	1
Carbazole	ND		5.2	0.31	ug/L		05/01/24 09:25	05/02/24 16:13	1
Chrysene	ND		5.2	0.34	ug/L		05/01/24 09:25	05/02/24 16:13	1
Dibenz(a,h)anthracene	ND		5.2	0.44	ug/L		05/01/24 09:25	05/02/24 16:13	1
Dibenzofuran	ND		10	0.53	ug/L		05/01/24 09:25	05/02/24 16:13	1
Diethyl phthalate	ND		5.2	0.23	ug/L		05/01/24 09:25	05/02/24 16:13	1
Dimethyl phthalate	ND		5.2	0.38	ug/L		05/01/24 09:25	05/02/24 16:13	1
Di-n-butyl phthalate	ND		5.2	0.32	ug/L		05/01/24 09:25	05/02/24 16:13	1
Di-n-octyl phthalate	ND		5.2	0.49	ug/L		05/01/24 09:25	05/02/24 16:13	1
Fluoranthene	ND		5.2	0.42	ug/L		05/01/24 09:25	05/02/24 16:13	1
Fluorene	ND		5.2	0.38	ug/L		05/01/24 09:25	05/02/24 16:13	1
Hexachlorobenzene	ND		5.2	0.53	ug/L		05/01/24 09:25	05/02/24 16:13	1
Hexachlorobutadiene	ND		5.2	0.71	ug/L		05/01/24 09:25	05/02/24 16:13	1
Hexachlorocyclopentadiene	ND		5.2	0.61	ug/L		05/01/24 09:25	05/02/24 16:13	1
Hexachloroethane	ND		5.2	0.61	ug/L		05/01/24 09:25	05/02/24 16:13	1
Indeno(1,2,3-cd)pyrene	ND		5.2	0.49	ug/L		05/01/24 09:25	05/02/24 16:13	1
Isophorone	ND		5.2	0.45	ug/L		05/01/24 09:25	05/02/24 16:13	1
Naphthalene	ND		5.2	0.79	ug/L		05/01/24 09:25	05/02/24 16:13	1
Nitrobenzene	ND		5.2	0.30	ug/L		05/01/24 09:25	05/02/24 16:13	1
N-Nitrosodi-n-propylamine	ND		5.2	0.56	ug/L		05/01/24 09:25	05/02/24 16:13	1
N-Nitrosodiphenylamine	ND		5.2	0.53	ug/L		05/01/24 09:25	05/02/24 16:13	1
Pentachlorophenol	ND		10	2.3	ug/L		05/01/24 09:25	05/02/24 16:13	1
Phenanthrene	ND		5.2	0.46	ug/L		05/01/24 09:25	05/02/24 16:13	1
Phenol	ND		5.2	0.41	ug/L		05/01/24 09:25	05/02/24 16:13	1
Pyrene	ND		5.2	0.35	ug/L		05/01/24 09:25	05/02/24 16:13	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*2.4*	*T J*	*ug/L*		*2.61*	*N/A*	*05/01/24 09:25*	*05/02/24 16:13*	*1*
Furan, tetrahydro-	*450*	*T J N*	*ug/L*		*2.77*	*109-99-9*	*05/01/24 09:25*	*05/02/24 16:13*	*1*
Unknown	*8.3*	*T J*	*ug/L*		*2.90*	*N/A*	*05/01/24 09:25*	*05/02/24 16:13*	*1*
Unknown	*2.6*	*T J*	*ug/L*		*3.09*	*N/A*	*05/01/24 09:25*	*05/02/24 16:13*	*1*
Chloroiodomethane	*1.7*	*T J N*	*ug/L*		*3.96*	*593-71-5*	*05/01/24 09:25*	*05/02/24 16:13*	*1*

Client Sample ID: MW05-04-042924
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Lab Sample ID: 480-219333-2
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	31	T J	ug/L		5.12	N/A	05/01/24 09:25	05/02/24 16:13	1
Unknown	4.2	T J	ug/L		5.53	N/A	05/01/24 09:25	05/02/24 16:13	1
Unknown	3.5	T J	ug/L		5.64	N/A	05/01/24 09:25	05/02/24 16:13	1
Unknown	3.8	T J	ug/L		5.91	N/A	05/01/24 09:25	05/02/24 16:13	1
Unknown	2.5	T J	ug/L		6.05	N/A	05/01/24 09:25	05/02/24 16:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	101		41 - 120	05/01/24 09:25	05/02/24 16:13	1
2-Fluorobiphenyl	92		48 - 120	05/01/24 09:25	05/02/24 16:13	1
2-Fluorophenol	71		35 - 120	05/01/24 09:25	05/02/24 16:13	1
Nitrobenzene-d5	79		46 - 120	05/01/24 09:25	05/02/24 16:13	1
Phenol-d5	56		22 - 120	05/01/24 09:25	05/02/24 16:13	1
p-Terphenyl-d14	72		60 - 148	05/01/24 09:25	05/02/24 16:13	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.21	0.022	ug/L		05/02/24 08:53	05/07/24 18:13	1
4,4'-DDE	ND		0.21	0.018	ug/L		05/02/24 08:53	05/07/24 18:13	1
4,4'-DDT	ND		0.21	0.020	ug/L		05/02/24 08:53	05/07/24 18:13	1
Aldrin	ND		0.21	0.027	ug/L		05/02/24 08:53	05/07/24 18:13	1
alpha-BHC	ND		0.21	0.022	ug/L		05/02/24 08:53	05/07/24 18:13	1
cis-Chlordane	ND		0.21	0.029	ug/L		05/02/24 08:53	05/07/24 18:13	1
beta-BHC	ND		0.21	0.039	ug/L		05/02/24 08:53	05/07/24 18:13	1
delta-BHC	ND		0.21	0.018	ug/L		05/02/24 08:53	05/07/24 18:13	1
Dieldrin	ND		0.21	0.027	ug/L		05/02/24 08:53	05/07/24 18:13	1
Endosulfan I	ND		0.21	0.015	ug/L		05/02/24 08:53	05/07/24 18:13	1
Endosulfan II	ND		0.21	0.026	ug/L		05/02/24 08:53	05/07/24 18:13	1
Endosulfan sulfate	ND		0.21	0.015	ug/L		05/02/24 08:53	05/07/24 18:13	1
Endrin	ND		0.21	0.027	ug/L		05/02/24 08:53	05/07/24 18:13	1
Endrin aldehyde	ND		0.21	0.019	ug/L		05/02/24 08:53	05/07/24 18:13	1
Endrin ketone	ND		0.21	0.017	ug/L		05/02/24 08:53	05/07/24 18:13	1
gamma-BHC (Lindane)	ND		0.21	0.025	ug/L		05/02/24 08:53	05/07/24 18:13	1
trans-Chlordane	ND		0.21	0.021	ug/L		05/02/24 08:53	05/07/24 18:13	1
Heptachlor	ND		0.21	0.034	ug/L		05/02/24 08:53	05/07/24 18:13	1
Heptachlor epoxide	ND		0.21	0.027	ug/L		05/02/24 08:53	05/07/24 18:13	1
Methoxychlor	ND		0.42	0.020	ug/L		05/02/24 08:53	05/07/24 18:13	1
Toxaphene	ND		8.3	0.24	ug/L		05/02/24 08:53	05/07/24 18:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	67		10 - 145	05/02/24 08:53	05/07/24 18:13	1
DCB Decachlorobiphenyl	58		10 - 145	05/02/24 08:53	05/07/24 18:13	1
Tetrachloro-m-xylene	57		10 - 123	05/02/24 08:53	05/07/24 18:13	1
Tetrachloro-m-xylene	54		10 - 123	05/02/24 08:53	05/07/24 18:13	1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 22:24	1
PCB-1221	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 22:24	1
PCB-1232	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 22:24	1
PCB-1242	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 22:24	1

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Lab Sample ID: 480-219333-2
Matrix: Water

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1248	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 22:24	1
PCB-1254	ND		0.50	0.25	ug/L		05/01/24 13:50	05/02/24 22:24	1
PCB-1260	ND		0.50	0.25	ug/L		05/01/24 13:50	05/02/24 22:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*46*		*19 - 120*	*05/01/24 13:50*	*05/02/24 22:24*	*1*
DCB Decachlorobiphenyl	*46*		*19 - 120*	*05/01/24 13:50*	*05/02/24 22:24*	*1*
Tetrachloro-m-xylene	*62*		*39 - 121*	*05/01/24 13:50*	*05/02/24 22:24*	*1*
Tetrachloro-m-xylene	*58*		*39 - 121*	*05/01/24 13:50*	*05/02/24 22:24*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	ND		3.2	0.79	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluorohexanoic acid (PFHxA)	**1.9**		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluoroheptanoic acid (PFHpA)	**0.99**	**J**	1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluorooctanoic acid (PFOA)	**4.0**		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluorobutanesulfonic acid (PFBS)	**1.2**	**J**	1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluorooctanesulfonic acid (PFOS)	**0.73**	**J**	1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		6.3	1.6	ng/L		05/02/24 08:21	05/02/24 21:20	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		6.3	1.6	ng/L		05/02/24 08:21	05/02/24 21:20	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		6.3	1.6	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	0.49	ng/L		05/02/24 08:21	05/02/24 21:20	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 21:20	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		16	4.0	ng/L		05/02/24 08:21	05/02/24 21:20	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		16	4.0	ng/L		05/02/24 08:21	05/02/24 21:20	1

Client Sample ID: MW05-04-042924
Date Collected: 04/29/24 10:45
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-2
Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		6.3	1.6	ng/L		05/02/24 08:21	05/02/24 21:20	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		6.3	1.6	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		3.2	0.79	ng/L		05/02/24 08:21	05/02/24 21:20	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		3.2	0.97	ng/L		05/02/24 08:21	05/02/24 21:20	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		6.3	1.6	ng/L		05/02/24 08:21	05/02/24 21:20	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		6.3	1.6	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		3.2	0.79	ng/L		05/02/24 08:21	05/02/24 21:20	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	F1	7.9	2.0	ng/L		05/02/24 08:21	05/02/24 21:20	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	F1	40	9.9	ng/L		05/02/24 08:21	05/02/24 21:20	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	F1	40	12	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 21:20	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		3.2	0.79	ng/L		05/02/24 08:21	05/02/24 21:20	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*100*		*10 - 130*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
13C5 PFPeA	*60.6*		*35 - 150*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
13C5 PFHxA	*75.2*		*55 - 150*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
13C4 PFHpA	*89.5*		*55 - 150*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
13C8 PFOA	*85.7*		*60 - 140*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
13C9 PFNA	*80.5*		*55 - 140*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
13C6 PFDA	*99.9*		*50 - 140*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
13C7 PFUnA	*75.9*		*30 - 140*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
13C2 PFTeDA	*46.0*		*10 - 130*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
13C3 PFBS	*92.7*		*55 - 150*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
13C3 PFHxS	*89.9*		*55 - 150*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
13C8 PFOS	*76.1*		*45 - 140*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
13C8 FOSA	*88.7*		*30 - 130*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
d3-NMeFOSAA	*96.2*		*45 - 200*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
d5-NEtFOSAA	*79.3*		*10 - 200*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
M2-4:2 FTS	*247*	**5+*	*60 - 200*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
M2-6:2 FTS	*183*		*60 - 200*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
M2-8:2 FTS	*161*		*50 - 200*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
13C3 HFPO-DA	*73.8*		*25 - 160*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
d7-N-MeFOSE-M	*66.1*		*10 - 150*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
d9-N-EtFOSE-M	*59.8*		*10 - 150*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
d5-NEtPFOSA	*49.8*		*10 - 130*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
d3-NMePFOSA	*55.1*		*15 - 130*	*05/02/24 08:21*	*05/02/24 21:20*	*1*
13C2-PFDoDA	*61.6*		*10 - 150*	*05/02/24 08:21*	*05/02/24 21:20*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		17	4.4	ng/L		05/03/24 12:06	05/03/24 21:20	1

Client Sample ID: MW05-04-042924

Date Collected: 04/29/24 10:45
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-2

Matrix: Water

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	103		10 - 130	05/03/24 12:06	05/03/24 21:20	1
13C5 PFPeA	82.8		35 - 150	05/03/24 12:06	05/03/24 21:20	1
13C5 PFHxA	84.8		55 - 150	05/03/24 12:06	05/03/24 21:20	1
13C4 PFHpA	90.0		55 - 150	05/03/24 12:06	05/03/24 21:20	1
13C8 PFOA	89.1		60 - 140	05/03/24 12:06	05/03/24 21:20	1
13C9 PFNA	97.8		55 - 140	05/03/24 12:06	05/03/24 21:20	1
13C6 PFDA	107		50 - 140	05/03/24 12:06	05/03/24 21:20	1
13C7 PFUnA	84.3		30 - 140	05/03/24 12:06	05/03/24 21:20	1
13C2 PFTeDA	62.9		10 - 130	05/03/24 12:06	05/03/24 21:20	1
13C3 PFBS	105		55 - 150	05/03/24 12:06	05/03/24 21:20	1
13C3 PFHxS	95.9		55 - 150	05/03/24 12:06	05/03/24 21:20	1
13C8 PFOS	88.2		45 - 140	05/03/24 12:06	05/03/24 21:20	1
13C8 FOSA	106		30 - 130	05/03/24 12:06	05/03/24 21:20	1
d3-NMeFOSAA	99.9		45 - 200	05/03/24 12:06	05/03/24 21:20	1
d5-NEtFOSAA	89.4		10 - 200	05/03/24 12:06	05/03/24 21:20	1
M2-4:2 FTS	217	*5+	60 - 200	05/03/24 12:06	05/03/24 21:20	1
M2-6:2 FTS	124		60 - 200	05/03/24 12:06	05/03/24 21:20	1
M2-8:2 FTS	134		50 - 200	05/03/24 12:06	05/03/24 21:20	1
13C3 HFPO-DA	84.3		25 - 160	05/03/24 12:06	05/03/24 21:20	1
d7-N-MeFOSE-M	81.3		10 - 150	05/03/24 12:06	05/03/24 21:20	1
d9-N-EtFOSE-M	74.5		10 - 150	05/03/24 12:06	05/03/24 21:20	1
d5-NEtPFOSA	66.4		10 - 130	05/03/24 12:06	05/03/24 21:20	1
d3-NMePFOSA	73.5		15 - 130	05/03/24 12:06	05/03/24 21:20	1
13C2-PFDoDA	69.4		10 - 150	05/03/24 12:06	05/03/24 21:20	1

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**205**		200	47.3	ug/L		05/16/24 16:30	05/18/24 09:02	1
Antimony	ND		20.0	7.5	ug/L		05/16/24 16:30	05/18/24 09:02	1
Arsenic	**4.7**	**J**	15.0	4.1	ug/L		05/16/24 16:30	05/18/24 09:02	1
Barium	**136**	**J**	200	3.0	ug/L		05/16/24 16:30	05/18/24 09:02	1
Beryllium	ND		5.0	0.60	ug/L		05/16/24 16:30	05/18/24 09:02	1
Cadmium	**0.70**	**J**	5.0	0.45	ug/L		05/16/24 16:30	05/18/24 09:02	1
Calcium	**93000**		5000	307	ug/L		05/16/24 16:30	05/18/24 09:02	1
Chromium	**1.2**	**J**	10.0	0.76	ug/L		05/16/24 16:30	05/18/24 09:02	1
Cobalt	**3.8**	**J**	10.0	0.75	ug/L		05/16/24 16:30	05/18/24 09:02	1
Copper	ND		25.0	3.5	ug/L		05/16/24 16:30	05/18/24 09:02	1
Iron	**383**		200	82.7	ug/L		05/16/24 16:30	05/18/24 09:02	1
Lead	ND		10.0	2.8	ug/L		05/16/24 16:30	05/18/24 09:02	1
Magnesium	**84200**		5000	259	ug/L		05/16/24 16:30	05/18/24 09:02	1
Manganese	**194**		15.0	2.6	ug/L		05/16/24 16:30	05/18/24 09:02	1
Nickel	**8.5**	**J**	40.0	2.2	ug/L		05/16/24 16:30	05/18/24 09:02	1
Potassium	**2920**	**J**	5000	557	ug/L		05/16/24 16:30	05/18/24 09:02	1
Selenium	ND		20.0	6.0	ug/L		05/16/24 16:30	05/18/24 09:02	1
Silver	ND		10.0	0.62	ug/L		05/16/24 16:30	05/18/24 09:02	1
Sodium	**32200**		5000	2110	ug/L		05/16/24 16:30	05/18/24 09:02	1
Thallium	ND		20.0	2.7	ug/L		05/16/24 16:30	05/18/24 09:02	1
Vanadium	**12.8**	**J B**	50.0	5.6	ug/L		05/16/24 16:30	05/18/24 09:02	1
Zinc	ND		50.0	22.5	ug/L		05/16/24 16:30	05/18/24 09:02	1

Client Sample ID: MW05-04-042924

Lab Sample ID: 480-219333-2

Date Collected: 04/29/24 10:45

Matrix: Water

Date Received: 04/29/24 17:15

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	47.3	ug/L		05/16/24 16:30	05/18/24 09:44	1
Antimony	ND		20.0	7.5	ug/L		05/16/24 16:30	05/18/24 09:44	1
Arsenic	**4.8**	**J**	15.0	4.1	ug/L		05/16/24 16:30	05/18/24 09:44	1
Barium	**140**	**J**	200	3.0	ug/L		05/16/24 16:30	05/18/24 09:44	1
Beryllium	ND		5.0	0.60	ug/L		05/16/24 16:30	05/18/24 09:44	1
Cadmium	**0.70**	**J**	5.0	0.45	ug/L		05/16/24 16:30	05/18/24 09:44	1
Calcium	**96700**		5000	307	ug/L		05/16/24 16:30	05/18/24 09:44	1
Chromium	**13.4**		10.0	0.76	ug/L		05/16/24 16:30	05/18/24 09:44	1
Cobalt	**4.1**	**J**	10.0	0.75	ug/L		05/16/24 16:30	05/18/24 09:44	1
Copper	ND		25.0	3.5	ug/L		05/16/24 16:30	05/18/24 09:44	1
Iron	ND		200	82.7	ug/L		05/16/24 16:30	05/18/24 09:44	1
Lead	ND		10.0	2.8	ug/L		05/16/24 16:30	05/18/24 09:44	1
Magnesium	**94500**		5000	259	ug/L		05/16/24 16:30	05/18/24 09:44	1
Manganese	**209**		15.0	2.6	ug/L		05/16/24 16:30	05/18/24 09:44	1
Nickel	**13.3**	**J**	40.0	2.2	ug/L		05/16/24 16:30	05/18/24 09:44	1
Potassium	**3550**	**J**	5000	557	ug/L		05/16/24 16:30	05/18/24 09:44	1
Selenium	ND		20.0	6.0	ug/L		05/16/24 16:30	05/18/24 09:44	1
Silver	ND		10.0	0.62	ug/L		05/16/24 16:30	05/18/24 09:44	1
Sodium	**36200**		5000	2110	ug/L		05/16/24 16:30	05/18/24 09:44	1
Thallium	ND		20.0	2.7	ug/L		05/16/24 16:30	05/18/24 09:44	1
Vanadium	**12.4**	**J B**	50.0	5.6	ug/L		05/16/24 16:30	05/18/24 09:44	1
Zinc	ND		50.0	22.5	ug/L		05/16/24 16:30	05/18/24 09:44	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00040	0.000084	mg/L		05/02/24 11:04	05/02/24 17:04	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/02/24 11:04	05/02/24 17:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			05/08/24 19:16	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	**0.0094**	**J B F1**	0.010	0.0041	mg/L			05/08/24 20:30	1

Client Sample ID: MW-02S-042924

Lab Sample ID: 480-219333-3

Date Collected: 04/29/24 13:06

Matrix: Water

Date Received: 04/29/24 17:15

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/01/24 14:25	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/01/24 14:25	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			05/01/24 14:25	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/01/24 14:25	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/01/24 14:25	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/01/24 14:25	1

Client Sample ID: MW-02S-042924
Date Collected: 04/29/24 13:06
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-3
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			05/01/24 14:25	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			05/01/24 14:25	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			05/01/24 14:25	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			05/01/24 14:25	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/01/24 14:25	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/01/24 14:25	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			05/01/24 14:25	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			05/01/24 14:25	1
2-Butanone (MEK)	ND		10	1.3	ug/L			05/01/24 14:25	1
2-Hexanone	ND		5.0	1.2	ug/L			05/01/24 14:25	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/01/24 14:25	1
Acetone	ND		10	3.0	ug/L			05/01/24 14:25	1
Benzene	ND		1.0	0.41	ug/L			05/01/24 14:25	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/01/24 14:25	1
Bromoform	ND		1.0	0.26	ug/L			05/01/24 14:25	1
Bromomethane	ND		1.0	0.69	ug/L			05/01/24 14:25	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/01/24 14:25	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/01/24 14:25	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/01/24 14:25	1
Chloroethane	ND		1.0	0.32	ug/L			05/01/24 14:25	1
Chloroform	ND		1.0	0.34	ug/L			05/01/24 14:25	1
Chloromethane	ND		1.0	0.35	ug/L			05/01/24 14:25	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			05/01/24 14:25	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/01/24 14:25	1
Cyclohexane	ND		1.0	0.18	ug/L			05/01/24 14:25	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/01/24 14:25	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/01/24 14:25	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/01/24 14:25	1
Isopropylbenzene	ND		1.0	0.79	ug/L			05/01/24 14:25	1
Methyl acetate	ND		2.5	1.3	ug/L			05/01/24 14:25	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/01/24 14:25	1
Methylcyclohexane	ND		1.0	0.16	ug/L			05/01/24 14:25	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/01/24 14:25	1
Styrene	ND		1.0	0.73	ug/L			05/01/24 14:25	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/01/24 14:25	1
Toluene	ND		1.0	0.51	ug/L			05/01/24 14:25	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			05/01/24 14:25	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/01/24 14:25	1
Trichloroethene	ND		1.0	0.46	ug/L			05/01/24 14:25	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			05/01/24 14:25	1
Vinyl chloride	ND		1.0	0.90	ug/L			05/01/24 14:25	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/01/24 14:25	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*		*05/01/24 14:25*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*		*05/01/24 14:25*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*05/01/24 14:25*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*05/01/24 14:25*	*1*

Client Sample ID: MW-02S-042924

Date Collected: 04/29/24 13:06
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-3

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*100*		*80 - 120*		*05/01/24 14:25*	*1*

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.24		0.20	0.10	ug/L		04/30/24 13:54	05/02/24 23:40	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*34*		*15 - 110*	*04/30/24 13:54*	*05/02/24 23:40*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		05/01/24 09:25	05/02/24 17:08	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		05/01/24 09:25	05/02/24 17:08	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		05/01/24 09:25	05/02/24 17:08	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		05/01/24 09:25	05/02/24 17:08	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		05/01/24 09:25	05/02/24 17:08	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		05/01/24 09:25	05/02/24 17:08	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		05/01/24 09:25	05/02/24 17:08	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		05/01/24 09:25	05/02/24 17:08	1
2-Chlorophenol	ND		5.0	0.53	ug/L		05/01/24 09:25	05/02/24 17:08	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		05/01/24 09:25	05/02/24 17:08	1
2-Methylphenol	ND		5.0	0.40	ug/L		05/01/24 09:25	05/02/24 17:08	1
2-Nitroaniline	ND		10	0.42	ug/L		05/01/24 09:25	05/02/24 17:08	1
2-Nitrophenol	ND		5.0	0.48	ug/L		05/01/24 09:25	05/02/24 17:08	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		05/01/24 09:25	05/02/24 17:08	1
3-Nitroaniline	ND		10	0.48	ug/L		05/01/24 09:25	05/02/24 17:08	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		05/01/24 09:25	05/02/24 17:08	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		05/01/24 09:25	05/02/24 17:08	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		05/01/24 09:25	05/02/24 17:08	1
4-Chloroaniline	ND		5.0	0.59	ug/L		05/01/24 09:25	05/02/24 17:08	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		05/01/24 09:25	05/02/24 17:08	1
4-Methylphenol	ND		10	0.36	ug/L		05/01/24 09:25	05/02/24 17:08	1
4-Nitroaniline	ND		10	0.25	ug/L		05/01/24 09:25	05/02/24 17:08	1
4-Nitrophenol	ND		10	1.5	ug/L		05/01/24 09:25	05/02/24 17:08	1
Acenaphthene	ND		5.0	0.41	ug/L		05/01/24 09:25	05/02/24 17:08	1
Acenaphthylene	ND		5.0	0.38	ug/L		05/01/24 09:25	05/02/24 17:08	1
Acetophenone	ND		5.0	0.54	ug/L		05/01/24 09:25	05/02/24 17:08	1
Anthracene	ND		5.0	0.28	ug/L		05/01/24 09:25	05/02/24 17:08	1
Atrazine	ND		5.0	0.46	ug/L		05/01/24 09:25	05/02/24 17:08	1
Benzaldehyde	ND		5.0	0.27	ug/L		05/01/24 09:25	05/02/24 17:08	1
Benzo(a)anthracene	ND		5.0	0.36	ug/L		05/01/24 09:25	05/02/24 17:08	1
Benzo(a)pyrene	ND		5.0	0.47	ug/L		05/01/24 09:25	05/02/24 17:08	1
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L		05/01/24 09:25	05/02/24 17:08	1
Benzo(g,h,i)perylene	ND		5.0	0.35	ug/L		05/01/24 09:25	05/02/24 17:08	1
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L		05/01/24 09:25	05/02/24 17:08	1
Biphenyl	ND		5.0	0.65	ug/L		05/01/24 09:25	05/02/24 17:08	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		05/01/24 09:25	05/02/24 17:08	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		05/01/24 09:25	05/02/24 17:08	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		05/01/24 09:25	05/02/24 17:08	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		05/01/24 09:25	05/02/24 17:08	1

Client Sample ID: MW-02S-042924
Date Collected: 04/29/24 13:06
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-3
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		05/01/24 09:25	05/02/24 17:08	1
Caprolactam	ND		5.0	2.2	ug/L		05/01/24 09:25	05/02/24 17:08	1
Carbazole	ND		5.0	0.30	ug/L		05/01/24 09:25	05/02/24 17:08	1
Chrysene	ND		5.0	0.33	ug/L		05/01/24 09:25	05/02/24 17:08	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		05/01/24 09:25	05/02/24 17:08	1
Dibenzofuran	ND		10	0.51	ug/L		05/01/24 09:25	05/02/24 17:08	1
Diethyl phthalate	ND		5.0	0.22	ug/L		05/01/24 09:25	05/02/24 17:08	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		05/01/24 09:25	05/02/24 17:08	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		05/01/24 09:25	05/02/24 17:08	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		05/01/24 09:25	05/02/24 17:08	1
Fluoranthene	ND		5.0	0.40	ug/L		05/01/24 09:25	05/02/24 17:08	1
Fluorene	ND		5.0	0.36	ug/L		05/01/24 09:25	05/02/24 17:08	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		05/01/24 09:25	05/02/24 17:08	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		05/01/24 09:25	05/02/24 17:08	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		05/01/24 09:25	05/02/24 17:08	1
Hexachloroethane	ND		5.0	0.59	ug/L		05/01/24 09:25	05/02/24 17:08	1
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L		05/01/24 09:25	05/02/24 17:08	1
Isophorone	ND		5.0	0.43	ug/L		05/01/24 09:25	05/02/24 17:08	1
Naphthalene	ND		5.0	0.76	ug/L		05/01/24 09:25	05/02/24 17:08	1
Nitrobenzene	ND		5.0	0.29	ug/L		05/01/24 09:25	05/02/24 17:08	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		05/01/24 09:25	05/02/24 17:08	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		05/01/24 09:25	05/02/24 17:08	1
Pentachlorophenol	ND		10	2.2	ug/L		05/01/24 09:25	05/02/24 17:08	1
Phenanthrene	ND		5.0	0.44	ug/L		05/01/24 09:25	05/02/24 17:08	1
Phenol	ND		5.0	0.39	ug/L		05/01/24 09:25	05/02/24 17:08	1
Pyrene	ND		5.0	0.34	ug/L		05/01/24 09:25	05/02/24 17:08	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Furan, tetrahydro-	*370*	*T J N*	*ug/L*		*2.76*	*109-99-9*	*05/01/24 09:25*	*05/02/24 17:08*	*1*
Unknown	*6.7*	*T J*	*ug/L*		*2.89*	*N/A*	*05/01/24 09:25*	*05/02/24 17:08*	*1*
Unknown	*2.2*	*T J*	*ug/L*		*3.08*	*N/A*	*05/01/24 09:25*	*05/02/24 17:08*	*1*
Unknown	*24*	*T J*	*ug/L*		*5.12*	*N/A*	*05/01/24 09:25*	*05/02/24 17:08*	*1*
Unknown	*3.5*	*T J*	*ug/L*		*5.52*	*N/A*	*05/01/24 09:25*	*05/02/24 17:08*	*1*
Unknown	*2.9*	*T J*	*ug/L*		*5.64*	*N/A*	*05/01/24 09:25*	*05/02/24 17:08*	*1*
Unknown	*3.2*	*T J*	*ug/L*		*5.91*	*N/A*	*05/01/24 09:25*	*05/02/24 17:08*	*1*
Unknown	*2.1*	*T J*	*ug/L*		*6.04*	*N/A*	*05/01/24 09:25*	*05/02/24 17:08*	*1*
Erucylamide	*4.3*	*T J N*	*ug/L*		*14.19*	*112-84-5*	*05/01/24 09:25*	*05/02/24 17:08*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*74*		*41 - 120*	*05/01/24 09:25*	*05/02/24 17:08*	*1*
2-Fluorobiphenyl	*74*		*48 - 120*	*05/01/24 09:25*	*05/02/24 17:08*	*1*
2-Fluorophenol	*57*		*35 - 120*	*05/01/24 09:25*	*05/02/24 17:08*	*1*
Nitrobenzene-d5	*66*		*46 - 120*	*05/01/24 09:25*	*05/02/24 17:08*	*1*
Phenol-d5	*42*		*22 - 120*	*05/01/24 09:25*	*05/02/24 17:08*	*1*
p-Terphenyl-d14	*70*		*60 - 148*	*05/01/24 09:25*	*05/02/24 17:08*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.20	0.021	ug/L		05/02/24 08:53	05/07/24 19:00	1
4,4'-DDE	ND		0.20	0.017	ug/L		05/02/24 08:53	05/07/24 19:00	1

Client Sample ID: MW-02S-042924
Date Collected: 04/29/24 13:06
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-3
Matrix: Water

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDT	ND		0.20	0.019	ug/L		05/02/24 08:53	05/07/24 19:00	1
Aldrin	ND		0.20	0.026	ug/L		05/02/24 08:53	05/07/24 19:00	1
alpha-BHC	ND		0.20	0.021	ug/L		05/02/24 08:53	05/07/24 19:00	1
cis-Chlordane	ND		0.20	0.028	ug/L		05/02/24 08:53	05/07/24 19:00	1
beta-BHC	ND		0.20	0.037	ug/L		05/02/24 08:53	05/07/24 19:00	1
delta-BHC	ND		0.20	0.017	ug/L		05/02/24 08:53	05/07/24 19:00	1
Dieldrin	ND		0.20	0.026	ug/L		05/02/24 08:53	05/07/24 19:00	1
Endosulfan I	ND		0.20	0.015	ug/L		05/02/24 08:53	05/07/24 19:00	1
Endosulfan II	ND		0.20	0.025	ug/L		05/02/24 08:53	05/07/24 19:00	1
Endosulfan sulfate	ND		0.20	0.015	ug/L		05/02/24 08:53	05/07/24 19:00	1
Endrin	ND		0.20	0.026	ug/L		05/02/24 08:53	05/07/24 19:00	1
Endrin aldehyde	ND		0.20	0.018	ug/L		05/02/24 08:53	05/07/24 19:00	1
Endrin ketone	ND		0.20	0.016	ug/L		05/02/24 08:53	05/07/24 19:00	1
gamma-BHC (Lindane)	ND		0.20	0.024	ug/L		05/02/24 08:53	05/07/24 19:00	1
trans-Chlordane	ND		0.20	0.020	ug/L		05/02/24 08:53	05/07/24 19:00	1
Heptachlor	ND		0.20	0.033	ug/L		05/02/24 08:53	05/07/24 19:00	1
Heptachlor epoxide	ND		0.20	0.026	ug/L		05/02/24 08:53	05/07/24 19:00	1
Methoxychlor	ND		0.40	0.019	ug/L		05/02/24 08:53	05/07/24 19:00	1
Toxaphene	ND		8.0	0.23	ug/L		05/02/24 08:53	05/07/24 19:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*79*		*10 - 145*	*05/02/24 08:53*	*05/07/24 19:00*	*1*
DCB Decachlorobiphenyl	*76*		*10 - 145*	*05/02/24 08:53*	*05/07/24 19:00*	*1*
Tetrachloro-m-xylene	*61*		*10 - 123*	*05/02/24 08:53*	*05/07/24 19:00*	*1*
Tetrachloro-m-xylene	*58*		*10 - 123*	*05/02/24 08:53*	*05/07/24 19:00*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 22:59	1
PCB-1221	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 22:59	1
PCB-1232	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 22:59	1
PCB-1242	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 22:59	1
PCB-1248	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 22:59	1
PCB-1254	ND		0.50	0.25	ug/L		05/01/24 13:50	05/02/24 22:59	1
PCB-1260	ND		0.50	0.25	ug/L		05/01/24 13:50	05/02/24 22:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*70*		*19 - 120*	*05/01/24 13:50*	*05/02/24 22:59*	*1*
DCB Decachlorobiphenyl	*69*		*19 - 120*	*05/01/24 13:50*	*05/02/24 22:59*	*1*
Tetrachloro-m-xylene	*76*		*39 - 121*	*05/01/24 13:50*	*05/02/24 22:59*	*1*
Tetrachloro-m-xylene	*72*		*39 - 121*	*05/01/24 13:50*	*05/02/24 22:59*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		6.6	1.8	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluoropentanoic acid (PFPeA)	ND		3.3	0.82	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluorooctanoic acid (PFOA)	**0.92**	**J**	1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219333-1

Client Sample ID: MW-02S-042924
Date Collected: 04/29/24 13:06
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-3
Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorodecanoic acid (PFDA)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.43	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		6.6	1.6	ng/L		05/02/24 08:21	05/02/24 22:05	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		6.6	1.6	ng/L		05/02/24 08:21	05/02/24 22:05	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		6.6	1.6	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	0.51	ng/L		05/02/24 08:21	05/02/24 22:05	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	0.43	ng/L		05/02/24 08:21	05/02/24 22:05	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		16	4.1	ng/L		05/02/24 08:21	05/02/24 22:05	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		16	4.1	ng/L		05/02/24 08:21	05/02/24 22:05	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		6.6	1.6	ng/L		05/02/24 08:21	05/02/24 22:05	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		6.6	1.6	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		3.3	0.82	ng/L		05/02/24 08:21	05/02/24 22:05	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		3.3	1.0	ng/L		05/02/24 08:21	05/02/24 22:05	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		6.6	1.6	ng/L		05/02/24 08:21	05/02/24 22:05	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		6.6	1.6	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		3.3	0.82	ng/L		05/02/24 08:21	05/02/24 22:05	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		8.2	2.1	ng/L		05/02/24 08:21	05/02/24 22:05	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		41	10	ng/L		05/02/24 08:21	05/02/24 22:05	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		41	12	ng/L		05/02/24 08:21	05/02/24 22:05	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.41	ng/L		05/02/24 08:21	05/02/24 22:05	1

Client Sample ID: MW-02S-042924
Date Collected: 04/29/24 13:06
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-3
Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		3.3	0.82	ng/L		05/02/24 08:21	05/02/24 22:05	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*101*		*10 - 130*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
13C5 PFPeA	*88.6*		*35 - 150*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
13C5 PFHxA	*84.5*		*55 - 150*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
13C4 PFHpA	*89.0*		*55 - 150*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
13C8 PFOA	*86.6*		*60 - 140*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
13C9 PFNA	*94.7*		*55 - 140*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
13C6 PFDA	*102*		*50 - 140*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
13C7 PFUnA	*80.9*		*30 - 140*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
13C2 PFTeDA	*55.9*		*10 - 130*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
13C3 PFBS	*96.5*		*55 - 150*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
13C3 PFHxS	*89.1*		*55 - 150*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
13C8 PFOS	*81.4*		*45 - 140*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
13C8 FOSA	*97.0*		*30 - 130*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
d3-NMeFOSAA	*92.5*		*45 - 200*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
d5-NEtFOSAA	*84.8*		*10 - 200*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
M2-4:2 FTS	*134*		*60 - 200*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
M2-6:2 FTS	*97.1*		*60 - 200*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
M2-8:2 FTS	*111*		*50 - 200*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
13C3 HFPO-DA	*87.3*		*25 - 160*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
d7-N-MeFOSE-M	*76.6*		*10 - 150*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
d9-N-EtFOSE-M	*72.1*		*10 - 150*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
d5-NEtPFOSA	*62.9*		*10 - 130*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
d3-NMePFOSA	*68.2*		*15 - 130*	*05/02/24 08:21*	*05/02/24 22:05*	*1*
13C2-PFDoDA	*65.8*		*10 - 150*	*05/02/24 08:21*	*05/02/24 22:05*	*1*

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	47.3	ug/L		05/16/24 16:30	05/18/24 10:53	1
Antimony	ND		20.0	7.5	ug/L		05/16/24 16:30	05/18/24 10:53	1
Arsenic	ND		15.0	4.1	ug/L		05/16/24 16:30	05/18/24 10:53	1
Barium	**59.9**	**J**	200	3.0	ug/L		05/16/24 16:30	05/18/24 10:53	1
Beryllium	ND		5.0	0.60	ug/L		05/16/24 16:30	05/18/24 10:53	1
Cadmium	**0.84**	**J**	5.0	0.45	ug/L		05/16/24 16:30	05/18/24 10:53	1
Calcium	**74200**		5000	307	ug/L		05/16/24 16:30	05/18/24 10:53	1
Chromium	**1.0**	**J**	10.0	0.76	ug/L		05/16/24 16:30	05/18/24 10:53	1
Cobalt	ND		10.0	0.75	ug/L		05/16/24 16:30	05/18/24 10:53	1
Copper	ND		25.0	3.5	ug/L		05/16/24 16:30	05/18/24 10:53	1
Iron	**157**	**J**	200	82.7	ug/L		05/16/24 16:30	05/18/24 10:53	1
Lead	ND		10.0	2.8	ug/L		05/16/24 16:30	05/18/24 10:53	1
Magnesium	**145000**		5000	259	ug/L		05/16/24 16:30	05/18/24 10:53	1
Manganese	**14.2**	**J**	15.0	2.6	ug/L		05/16/24 16:30	05/18/24 10:53	1
Nickel	**2.8**	**J**	40.0	2.2	ug/L		05/16/24 16:30	05/18/24 10:53	1
Potassium	**3630**	**J**	5000	557	ug/L		05/16/24 16:30	05/18/24 10:53	1
Selenium	ND		20.0	6.0	ug/L		05/16/24 16:30	05/18/24 10:53	1
Silver	ND		10.0	0.62	ug/L		05/16/24 16:30	05/18/24 10:53	1
Sodium	**45900**		5000	2110	ug/L		05/16/24 16:30	05/18/24 10:53	1
Thallium	ND		20.0	2.7	ug/L		05/16/24 16:30	05/18/24 10:53	1

Client Sample ID: MW-02S-042924

Date Collected: 04/29/24 13:06
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-3
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	5.9	J B	50.0	5.6	ug/L		05/16/24 16:30	05/18/24 10:53	1
Zinc	ND		50.0	22.5	ug/L		05/16/24 16:30	05/18/24 10:53	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	47.3	ug/L		05/16/24 16:30	05/18/24 10:57	1
Antimony	ND		20.0	7.5	ug/L		05/16/24 16:30	05/18/24 10:57	1
Arsenic	ND		15.0	4.1	ug/L		05/16/24 16:30	05/18/24 10:57	1
Barium	60.8	J	200	3.0	ug/L		05/16/24 16:30	05/18/24 10:57	1
Beryllium	ND		5.0	0.60	ug/L		05/16/24 16:30	05/18/24 10:57	1
Cadmium	1.1	J	5.0	0.45	ug/L		05/16/24 16:30	05/18/24 10:57	1
Calcium	74800		5000	307	ug/L		05/16/24 16:30	05/18/24 10:57	1
Chromium	ND		10.0	0.76	ug/L		05/16/24 16:30	05/18/24 10:57	1
Cobalt	ND		10.0	0.75	ug/L		05/16/24 16:30	05/18/24 10:57	1
Copper	ND		25.0	3.5	ug/L		05/16/24 16:30	05/18/24 10:57	1
Iron	ND		200	82.7	ug/L		05/16/24 16:30	05/18/24 10:57	1
Lead	ND		10.0	2.8	ug/L		05/16/24 16:30	05/18/24 10:57	1
Magnesium	147000		5000	259	ug/L		05/16/24 16:30	05/18/24 10:57	1
Manganese	7.8	J	15.0	2.6	ug/L		05/16/24 16:30	05/18/24 10:57	1
Nickel	ND		40.0	2.2	ug/L		05/16/24 16:30	05/18/24 10:57	1
Potassium	3630	J	5000	557	ug/L		05/16/24 16:30	05/18/24 10:57	1
Selenium	ND		20.0	6.0	ug/L		05/16/24 16:30	05/18/24 10:57	1
Silver	ND		10.0	0.62	ug/L		05/16/24 16:30	05/18/24 10:57	1
Sodium	46000		5000	2110	ug/L		05/16/24 16:30	05/18/24 10:57	1
Thallium	ND		20.0	2.7	ug/L		05/16/24 16:30	05/18/24 10:57	1
Vanadium	ND		50.0	5.6	ug/L		05/16/24 16:30	05/18/24 10:57	1
Zinc	ND		50.0	22.5	ug/L		05/16/24 16:30	05/18/24 10:57	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00040	0.000084	mg/L		05/02/24 11:04	05/02/24 17:09	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/02/24 11:04	05/02/24 17:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND	^1+ *+	0.010	0.0041	mg/L			05/02/24 23:30	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND	^1+	0.010	0.0041	mg/L			05/03/24 00:02	1

Client Sample ID: MW-02S-042924-FD

Date Collected: 04/29/24 13:15
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-4
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/01/24 14:48	1

Client Sample ID: MW-02S-042924-FD
Date Collected: 04/29/24 13:15
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-4
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/01/24 14:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			05/01/24 14:48	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/01/24 14:48	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/01/24 14:48	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/01/24 14:48	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			05/01/24 14:48	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			05/01/24 14:48	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			05/01/24 14:48	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			05/01/24 14:48	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/01/24 14:48	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/01/24 14:48	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			05/01/24 14:48	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			05/01/24 14:48	1
2-Butanone (MEK)	ND		10	1.3	ug/L			05/01/24 14:48	1
2-Hexanone	ND		5.0	1.2	ug/L			05/01/24 14:48	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/01/24 14:48	1
Acetone	ND		10	3.0	ug/L			05/01/24 14:48	1
Benzene	ND		1.0	0.41	ug/L			05/01/24 14:48	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/01/24 14:48	1
Bromoform	ND		1.0	0.26	ug/L			05/01/24 14:48	1
Bromomethane	ND		1.0	0.69	ug/L			05/01/24 14:48	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/01/24 14:48	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/01/24 14:48	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/01/24 14:48	1
Chloroethane	ND		1.0	0.32	ug/L			05/01/24 14:48	1
Chloroform	ND		1.0	0.34	ug/L			05/01/24 14:48	1
Chloromethane	ND		1.0	0.35	ug/L			05/01/24 14:48	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			05/01/24 14:48	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/01/24 14:48	1
Cyclohexane	ND		1.0	0.18	ug/L			05/01/24 14:48	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/01/24 14:48	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/01/24 14:48	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/01/24 14:48	1
Isopropylbenzene	ND		1.0	0.79	ug/L			05/01/24 14:48	1
Methyl acetate	ND		2.5	1.3	ug/L			05/01/24 14:48	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/01/24 14:48	1
Methylcyclohexane	ND		1.0	0.16	ug/L			05/01/24 14:48	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/01/24 14:48	1
Styrene	ND		1.0	0.73	ug/L			05/01/24 14:48	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/01/24 14:48	1
Toluene	ND		1.0	0.51	ug/L			05/01/24 14:48	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			05/01/24 14:48	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/01/24 14:48	1
Trichloroethene	ND		1.0	0.46	ug/L			05/01/24 14:48	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			05/01/24 14:48	1
Vinyl chloride	ND		1.0	0.90	ug/L			05/01/24 14:48	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/01/24 14:48	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*		*05/01/24 14:48*	*1*

Client Sample ID: MW-02S-042924-FD
Date Collected: 04/29/24 13:15
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-4
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*05/01/24 14:48*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*05/01/24 14:48*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 123*		*05/01/24 14:48*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*05/01/24 14:48*	*1*

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.31		0.20	0.10	ug/L		04/30/24 13:54	05/03/24 00:01	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*31*		*15 - 110*	*04/30/24 13:54*	*05/03/24 00:01*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.2	0.50	ug/L		05/01/24 09:25	05/02/24 17:36	1
2,4,6-Trichlorophenol	ND		5.2	0.64	ug/L		05/01/24 09:25	05/02/24 17:36	1
2,4-Dichlorophenol	ND		5.2	0.53	ug/L		05/01/24 09:25	05/02/24 17:36	1
2,4-Dimethylphenol	ND		5.2	0.52	ug/L		05/01/24 09:25	05/02/24 17:36	1
2,4-Dinitrophenol	ND		10	2.3	ug/L		05/01/24 09:25	05/02/24 17:36	1
2,4-Dinitrotoluene	ND		5.2	0.47	ug/L		05/01/24 09:25	05/02/24 17:36	1
2,6-Dinitrotoluene	ND		5.2	0.42	ug/L		05/01/24 09:25	05/02/24 17:36	1
2-Chloronaphthalene	ND		5.2	0.48	ug/L		05/01/24 09:25	05/02/24 17:36	1
2-Chlorophenol	ND		5.2	0.55	ug/L		05/01/24 09:25	05/02/24 17:36	1
2-Methylnaphthalene	ND		5.2	0.63	ug/L		05/01/24 09:25	05/02/24 17:36	1
2-Methylphenol	ND		5.2	0.42	ug/L		05/01/24 09:25	05/02/24 17:36	1
2-Nitroaniline	ND		10	0.44	ug/L		05/01/24 09:25	05/02/24 17:36	1
2-Nitrophenol	ND		5.2	0.50	ug/L		05/01/24 09:25	05/02/24 17:36	1
3,3'-Dichlorobenzidine	ND		5.2	0.42	ug/L		05/01/24 09:25	05/02/24 17:36	1
3-Nitroaniline	ND		10	0.50	ug/L		05/01/24 09:25	05/02/24 17:36	1
4,6-Dinitro-2-methylphenol	ND		10	2.3	ug/L		05/01/24 09:25	05/02/24 17:36	1
4-Bromophenyl phenyl ether	ND		5.2	0.47	ug/L		05/01/24 09:25	05/02/24 17:36	1
4-Chloro-3-methylphenol	ND		5.2	0.47	ug/L		05/01/24 09:25	05/02/24 17:36	1
4-Chloroaniline	ND		5.2	0.61	ug/L		05/01/24 09:25	05/02/24 17:36	1
4-Chlorophenyl phenyl ether	ND		5.2	0.36	ug/L		05/01/24 09:25	05/02/24 17:36	1
4-Methylphenol	ND		10	0.38	ug/L		05/01/24 09:25	05/02/24 17:36	1
4-Nitroaniline	ND		10	0.26	ug/L		05/01/24 09:25	05/02/24 17:36	1
4-Nitrophenol	ND		10	1.6	ug/L		05/01/24 09:25	05/02/24 17:36	1
Acenaphthene	ND		5.2	0.43	ug/L		05/01/24 09:25	05/02/24 17:36	1
Acenaphthylene	ND		5.2	0.40	ug/L		05/01/24 09:25	05/02/24 17:36	1
Acetophenone	ND		5.2	0.56	ug/L		05/01/24 09:25	05/02/24 17:36	1
Anthracene	ND		5.2	0.29	ug/L		05/01/24 09:25	05/02/24 17:36	1
Atrazine	ND		5.2	0.48	ug/L		05/01/24 09:25	05/02/24 17:36	1
Benzaldehyde	ND		5.2	0.28	ug/L		05/01/24 09:25	05/02/24 17:36	1
Benzo(a)anthracene	ND		5.2	0.38	ug/L		05/01/24 09:25	05/02/24 17:36	1
Benzo(a)pyrene	ND		5.2	0.49	ug/L		05/01/24 09:25	05/02/24 17:36	1
Benzo(b)fluoranthene	ND		5.2	0.35	ug/L		05/01/24 09:25	05/02/24 17:36	1
Benzo(g,h,i)perylene	ND		5.2	0.36	ug/L		05/01/24 09:25	05/02/24 17:36	1
Benzo(k)fluoranthene	ND		5.2	0.76	ug/L		05/01/24 09:25	05/02/24 17:36	1
Biphenyl	ND		5.2	0.68	ug/L		05/01/24 09:25	05/02/24 17:36	1
bis (2-chloroisopropyl) ether	ND		5.2	0.54	ug/L		05/01/24 09:25	05/02/24 17:36	1
Bis(2-chloroethoxy)methane	ND		5.2	0.36	ug/L		05/01/24 09:25	05/02/24 17:36	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219333-1

Client Sample ID: MW-02S-042924-FD

Date Collected: 04/29/24 13:15
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-4

Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethyl)ether	ND		5.2	0.42	ug/L		05/01/24 09:25	05/02/24 17:36	1
Bis(2-ethylhexyl) phthalate	ND		5.2	2.3	ug/L		05/01/24 09:25	05/02/24 17:36	1
Butyl benzyl phthalate	ND		5.2	1.0	ug/L		05/01/24 09:25	05/02/24 17:36	1
Caprolactam	ND		5.2	2.3	ug/L		05/01/24 09:25	05/02/24 17:36	1
Carbazole	ND		5.2	0.31	ug/L		05/01/24 09:25	05/02/24 17:36	1
Chrysene	ND		5.2	0.34	ug/L		05/01/24 09:25	05/02/24 17:36	1
Dibenz(a,h)anthracene	ND		5.2	0.44	ug/L		05/01/24 09:25	05/02/24 17:36	1
Dibenzofuran	ND		10	0.53	ug/L		05/01/24 09:25	05/02/24 17:36	1
Diethyl phthalate	ND		5.2	0.23	ug/L		05/01/24 09:25	05/02/24 17:36	1
Dimethyl phthalate	ND		5.2	0.38	ug/L		05/01/24 09:25	05/02/24 17:36	1
Di-n-butyl phthalate	ND		5.2	0.32	ug/L		05/01/24 09:25	05/02/24 17:36	1
Di-n-octyl phthalate	ND		5.2	0.49	ug/L		05/01/24 09:25	05/02/24 17:36	1
Fluoranthene	ND		5.2	0.42	ug/L		05/01/24 09:25	05/02/24 17:36	1
Fluorene	ND		5.2	0.38	ug/L		05/01/24 09:25	05/02/24 17:36	1
Hexachlorobenzene	ND		5.2	0.53	ug/L		05/01/24 09:25	05/02/24 17:36	1
Hexachlorobutadiene	ND		5.2	0.71	ug/L		05/01/24 09:25	05/02/24 17:36	1
Hexachlorocyclopentadiene	ND		5.2	0.61	ug/L		05/01/24 09:25	05/02/24 17:36	1
Hexachloroethane	ND		5.2	0.61	ug/L		05/01/24 09:25	05/02/24 17:36	1
Indeno(1,2,3-cd)pyrene	ND		5.2	0.49	ug/L		05/01/24 09:25	05/02/24 17:36	1
Isophorone	ND		5.2	0.45	ug/L		05/01/24 09:25	05/02/24 17:36	1
Naphthalene	ND		5.2	0.79	ug/L		05/01/24 09:25	05/02/24 17:36	1
Nitrobenzene	ND		5.2	0.30	ug/L		05/01/24 09:25	05/02/24 17:36	1
N-Nitrosodi-n-propylamine	ND		5.2	0.56	ug/L		05/01/24 09:25	05/02/24 17:36	1
N-Nitrosodiphenylamine	ND		5.2	0.53	ug/L		05/01/24 09:25	05/02/24 17:36	1
Pentachlorophenol	ND		10	2.3	ug/L		05/01/24 09:25	05/02/24 17:36	1
Phenanthrene	ND		5.2	0.46	ug/L		05/01/24 09:25	05/02/24 17:36	1
Phenol	ND		5.2	0.41	ug/L		05/01/24 09:25	05/02/24 17:36	1
Pyrene	ND		5.2	0.35	ug/L		05/01/24 09:25	05/02/24 17:36	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Furan, tetrahydro-	*360*	*T J N*	*ug/L*		*2.75*	*109-99-9*	*05/01/24 09:25*	*05/02/24 17:36*	*1*
Unknown	*6.1*	*T J*	*ug/L*		*2.89*	*N/A*	*05/01/24 09:25*	*05/02/24 17:36*	*1*
Unknown	*1.9*	*T J*	*ug/L*		*3.08*	*N/A*	*05/01/24 09:25*	*05/02/24 17:36*	*1*
Unknown	*22*	*T J*	*ug/L*		*5.12*	*N/A*	*05/01/24 09:25*	*05/02/24 17:36*	*1*
Unknown	*3.2*	*T J*	*ug/L*		*5.52*	*N/A*	*05/01/24 09:25*	*05/02/24 17:36*	*1*
Unknown	*2.6*	*T J*	*ug/L*		*5.64*	*N/A*	*05/01/24 09:25*	*05/02/24 17:36*	*1*
Unknown	*2.9*	*T J*	*ug/L*		*5.91*	*N/A*	*05/01/24 09:25*	*05/02/24 17:36*	*1*
Cyclohexane, 1-methyl-2-propyl-	*1.9*	*T J N*	*ug/L*		*6.05*	*4291-79-6*	*05/01/24 09:25*	*05/02/24 17:36*	*1*
Unknown	*1.8*	*T J*	*ug/L*		*11.93*	*N/A*	*05/01/24 09:25*	*05/02/24 17:36*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*68*		*41 - 120*	*05/01/24 09:25*	*05/02/24 17:36*	*1*
2-Fluorobiphenyl	*65*		*48 - 120*	*05/01/24 09:25*	*05/02/24 17:36*	*1*
2-Fluorophenol	*51*		*35 - 120*	*05/01/24 09:25*	*05/02/24 17:36*	*1*
Nitrobenzene-d5	*58*		*46 - 120*	*05/01/24 09:25*	*05/02/24 17:36*	*1*
Phenol-d5	*39*		*22 - 120*	*05/01/24 09:25*	*05/02/24 17:36*	*1*
p-Terphenyl-d14	*62*		*60 - 148*	*05/01/24 09:25*	*05/02/24 17:36*	*1*

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219333-1

Client Sample ID: MW-02S-042924-FD

Date Collected: 04/29/24 13:15
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-4

Matrix: Water

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.20	0.021	ug/L		05/02/24 08:53	05/06/24 17:18	1
4,4'-DDE	ND		0.20	0.017	ug/L		05/02/24 08:53	05/06/24 17:18	1
4,4'-DDT	ND		0.20	0.019	ug/L		05/02/24 08:53	05/06/24 17:18	1
Aldrin	ND		0.20	0.026	ug/L		05/02/24 08:53	05/06/24 17:18	1
alpha-BHC	ND		0.20	0.021	ug/L		05/02/24 08:53	05/06/24 17:18	1
cis-Chlordane	ND		0.20	0.028	ug/L		05/02/24 08:53	05/06/24 17:18	1
beta-BHC	ND		0.20	0.037	ug/L		05/02/24 08:53	05/06/24 17:18	1
delta-BHC	ND		0.20	0.017	ug/L		05/02/24 08:53	05/06/24 17:18	1
Dieldrin	ND		0.20	0.026	ug/L		05/02/24 08:53	05/06/24 17:18	1
Endosulfan I	ND		0.20	0.015	ug/L		05/02/24 08:53	05/06/24 17:18	1
Endosulfan II	ND		0.20	0.025	ug/L		05/02/24 08:53	05/06/24 17:18	1
Endosulfan sulfate	ND		0.20	0.015	ug/L		05/02/24 08:53	05/06/24 17:18	1
Endrin	ND		0.20	0.026	ug/L		05/02/24 08:53	05/06/24 17:18	1
Endrin aldehyde	ND		0.20	0.018	ug/L		05/02/24 08:53	05/07/24 19:16	1
Endrin ketone	ND		0.20	0.016	ug/L		05/02/24 08:53	05/06/24 17:18	1
gamma-BHC (Lindane)	ND		0.20	0.024	ug/L		05/02/24 08:53	05/06/24 17:18	1
trans-Chlordane	ND		0.20	0.020	ug/L		05/02/24 08:53	05/06/24 17:18	1
Heptachlor	ND		0.20	0.033	ug/L		05/02/24 08:53	05/06/24 17:18	1
Heptachlor epoxide	ND		0.20	0.026	ug/L		05/02/24 08:53	05/06/24 17:18	1
Methoxychlor	ND		0.40	0.019	ug/L		05/02/24 08:53	05/06/24 17:18	1
Toxaphene	ND		8.0	0.23	ug/L		05/02/24 08:53	05/06/24 17:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*59*		*10 - 145*	*05/02/24 08:53*	*05/06/24 17:18*	*1*
DCB Decachlorobiphenyl	*61*		*10 - 145*	*05/02/24 08:53*	*05/06/24 17:18*	*1*
DCB Decachlorobiphenyl	*66*		*10 - 145*	*05/02/24 08:53*	*05/07/24 19:16*	*1*
DCB Decachlorobiphenyl	*62*		*10 - 145*	*05/02/24 08:53*	*05/07/24 19:16*	*1*
Tetrachloro-m-xylene	*56*		*10 - 123*	*05/02/24 08:53*	*05/06/24 17:18*	*1*
Tetrachloro-m-xylene	*53*		*10 - 123*	*05/02/24 08:53*	*05/06/24 17:18*	*1*
Tetrachloro-m-xylene	*61*		*10 - 123*	*05/02/24 08:53*	*05/07/24 19:16*	*1*
Tetrachloro-m-xylene	*59*		*10 - 123*	*05/02/24 08:53*	*05/07/24 19:16*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 23:17	1
PCB-1221	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 23:17	1
PCB-1232	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 23:17	1
PCB-1242	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 23:17	1
PCB-1248	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 23:17	1
PCB-1254	ND		0.50	0.25	ug/L		05/01/24 13:50	05/02/24 23:17	1
PCB-1260	ND		0.50	0.25	ug/L		05/01/24 13:50	05/02/24 23:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*79*		*19 - 120*	*05/01/24 13:50*	*05/02/24 23:17*	*1*
DCB Decachlorobiphenyl	*76*		*19 - 120*	*05/01/24 13:50*	*05/02/24 23:17*	*1*
Tetrachloro-m-xylene	*76*		*39 - 121*	*05/01/24 13:50*	*05/02/24 23:17*	*1*
Tetrachloro-m-xylene	*75*		*39 - 121*	*05/01/24 13:50*	*05/02/24 23:17*	*1*

Client Sample ID: MW-02S-042924-FD
Date Collected: 04/29/24 13:15
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-4
Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		7.0	1.9	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluoropentanoic acid (PFPeA)	ND		3.5	0.87	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluorohexanoic acid (PFHxA)	ND		1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluorooctanoic acid (PFOA)	**1.0**	**J**	1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluorononanoic acid (PFNA)	ND		1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	0.45	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluorooctanesulfonic acid (PFOS)	**0.58**	**J**	1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		7.0	1.7	ng/L		05/02/24 08:21	05/02/24 22:50	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		7.0	1.7	ng/L		05/02/24 08:21	05/02/24 22:50	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		7.0	1.7	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.7	0.54	ng/L		05/02/24 08:21	05/02/24 22:50	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.7	0.45	ng/L		05/02/24 08:21	05/02/24 22:50	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		17	4.4	ng/L		05/02/24 08:21	05/02/24 22:50	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		17	4.4	ng/L		05/02/24 08:21	05/02/24 22:50	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		7.0	1.7	ng/L		05/02/24 08:21	05/02/24 22:50	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		7.0	1.7	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		3.5	0.87	ng/L		05/02/24 08:21	05/02/24 22:50	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		3.5	1.1	ng/L		05/02/24 08:21	05/02/24 22:50	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		7.0	1.7	ng/L		05/02/24 08:21	05/02/24 22:50	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		7.0	1.7	ng/L		05/02/24 08:21	05/02/24 22:50	1

Client Sample ID: MW-02S-042924-FD
Date Collected: 04/29/24 13:15
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-4
Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		3.5	0.87	ng/L		05/02/24 08:21	05/02/24 22:50	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		8.7	2.2	ng/L		05/02/24 08:21	05/02/24 22:50	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		44	11	ng/L		05/02/24 08:21	05/02/24 22:50	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		44	13	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.44	ng/L		05/02/24 08:21	05/02/24 22:50	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		3.5	0.87	ng/L		05/02/24 08:21	05/02/24 22:50	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*97.1*		*10 - 130*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
13C5 PFPeA	*88.8*		*35 - 150*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
13C5 PFHxA	*82.7*		*55 - 150*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
13C4 PFHpA	*85.3*		*55 - 150*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
13C8 PFOA	*87.3*		*60 - 140*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
13C9 PFNA	*89.3*		*55 - 140*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
13C6 PFDA	*103*		*50 - 140*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
13C7 PFUnA	*76.1*		*30 - 140*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
13C2 PFTeDA	*62.2*		*10 - 130*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
13C3 PFBS	*101*		*55 - 150*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
13C3 PFHxS	*91.9*		*55 - 150*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
13C8 PFOS	*84.0*		*45 - 140*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
13C8 FOSA	*94.4*		*30 - 130*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
d3-NMeFOSAA	*87.3*		*45 - 200*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
d5-NEtFOSAA	*81.6*		*10 - 200*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
M2-4:2 FTS	*137*		*60 - 200*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
M2-6:2 FTS	*103*		*60 - 200*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
M2-8:2 FTS	*119*		*50 - 200*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
13C3 HFPO-DA	*90.5*		*25 - 160*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
d7-N-MeFOSE-M	*78.6*		*10 - 150*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
d9-N-EtFOSE-M	*74.1*		*10 - 150*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
d5-NEtPFOSA	*68.4*		*10 - 130*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
d3-NMePFOSA	*71.9*		*15 - 130*	*05/02/24 08:21*	*05/02/24 22:50*	*1*
13C2-PFDoDA	*67.3*		*10 - 150*	*05/02/24 08:21*	*05/02/24 22:50*	*1*

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	47.3	ug/L		05/16/24 16:30	05/18/24 11:01	1
Antimony	ND		20.0	7.5	ug/L		05/16/24 16:30	05/18/24 11:01	1
Arsenic	ND		15.0	4.1	ug/L		05/16/24 16:30	05/18/24 11:01	1
Barium	**60.1**	**J**	200	3.0	ug/L		05/16/24 16:30	05/18/24 11:01	1
Beryllium	ND		5.0	0.60	ug/L		05/16/24 16:30	05/18/24 11:01	1
Cadmium	**0.87**	**J**	5.0	0.45	ug/L		05/16/24 16:30	05/18/24 11:01	1
Calcium	**73200**		5000	307	ug/L		05/16/24 16:30	05/18/24 11:01	1
Chromium	**0.90**	**J**	10.0	0.76	ug/L		05/16/24 16:30	05/18/24 11:01	1
Cobalt	ND		10.0	0.75	ug/L		05/16/24 16:30	05/18/24 11:01	1
Copper	ND		25.0	3.5	ug/L		05/16/24 16:30	05/18/24 11:01	1
Iron	**136**	**J**	200	82.7	ug/L		05/16/24 16:30	05/18/24 11:01	1
Lead	ND		10.0	2.8	ug/L		05/16/24 16:30	05/18/24 11:01	1

Client Sample ID: MW-02S-042924-FD

Date Collected: 04/29/24 13:15
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-4

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	**146000**		5000	259	ug/L		05/16/24 16:30	05/18/24 11:01	1
Manganese	**14.3**	**J**	15.0	2.6	ug/L		05/16/24 16:30	05/18/24 11:01	1
Nickel	**2.7**	**J**	40.0	2.2	ug/L		05/16/24 16:30	05/18/24 11:01	1
Potassium	**3530**	**J**	5000	557	ug/L		05/16/24 16:30	05/18/24 11:01	1
Selenium	ND		20.0	6.0	ug/L		05/16/24 16:30	05/18/24 11:01	1
Silver	ND		10.0	0.62	ug/L		05/16/24 16:30	05/18/24 11:01	1
Sodium	**44500**		5000	2110	ug/L		05/16/24 16:30	05/18/24 11:01	1
Thallium	ND		20.0	2.7	ug/L		05/16/24 16:30	05/18/24 11:01	1
Vanadium	ND		50.0	5.6	ug/L		05/16/24 16:30	05/18/24 11:01	1
Zinc	ND		50.0	22.5	ug/L		05/16/24 16:30	05/18/24 11:01	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	47.3	ug/L		05/16/24 16:30	05/18/24 11:06	1
Antimony	ND		20.0	7.5	ug/L		05/16/24 16:30	05/18/24 11:06	1
Arsenic	ND		15.0	4.1	ug/L		05/16/24 16:30	05/18/24 11:06	1
Barium	**61.1**	**J**	200	3.0	ug/L		05/16/24 16:30	05/18/24 11:06	1
Beryllium	ND		5.0	0.60	ug/L		05/16/24 16:30	05/18/24 11:06	1
Cadmium	**0.83**	**J**	5.0	0.45	ug/L		05/16/24 16:30	05/18/24 11:06	1
Calcium	**75200**		5000	307	ug/L		05/16/24 16:30	05/18/24 11:06	1
Chromium	**1.1**	**J**	10.0	0.76	ug/L		05/16/24 16:30	05/18/24 11:06	1
Cobalt	ND		10.0	0.75	ug/L		05/16/24 16:30	05/18/24 11:06	1
Copper	ND		25.0	3.5	ug/L		05/16/24 16:30	05/18/24 11:06	1
Iron	ND		200	82.7	ug/L		05/16/24 16:30	05/18/24 11:06	1
Lead	ND		10.0	2.8	ug/L		05/16/24 16:30	05/18/24 11:06	1
Magnesium	**149000**		5000	259	ug/L		05/16/24 16:30	05/18/24 11:06	1
Manganese	**7.6**	**J**	15.0	2.6	ug/L		05/16/24 16:30	05/18/24 11:06	1
Nickel	**2.9**	**J**	40.0	2.2	ug/L		05/16/24 16:30	05/18/24 11:06	1
Potassium	**3730**	**J**	5000	557	ug/L		05/16/24 16:30	05/18/24 11:06	1
Selenium	ND		20.0	6.0	ug/L		05/16/24 16:30	05/18/24 11:06	1
Silver	ND		10.0	0.62	ug/L		05/16/24 16:30	05/18/24 11:06	1
Sodium	**45900**		5000	2110	ug/L		05/16/24 16:30	05/18/24 11:06	1
Thallium	ND		20.0	2.7	ug/L		05/16/24 16:30	05/18/24 11:06	1
Vanadium	ND		50.0	5.6	ug/L		05/16/24 16:30	05/18/24 11:06	1
Zinc	ND		50.0	22.5	ug/L		05/16/24 16:30	05/18/24 11:06	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00040	0.000084	mg/L		05/02/24 11:04	05/02/24 17:10	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/02/24 11:04	05/02/24 17:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			05/08/24 19:03	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND	^1+	0.010	0.0041	mg/L			05/03/24 00:05	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219333-1

Client Sample ID: MW05-01-042924
Date Collected: 04/29/24 14:30
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-5
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	4.1	ug/L			05/01/24 15:10	5
1,1,2,2-Tetrachloroethane	ND		5.0	1.1	ug/L			05/01/24 15:10	5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.6	ug/L			05/01/24 15:10	5
1,1,2-Trichloroethane	ND		5.0	1.2	ug/L			05/01/24 15:10	5
1,1-Dichloroethane	ND		5.0	1.9	ug/L			05/01/24 15:10	5
1,1-Dichloroethene	ND		5.0	1.5	ug/L			05/01/24 15:10	5
1,2,4-Trichlorobenzene	ND		5.0	2.1	ug/L			05/01/24 15:10	5
1,2-Dibromo-3-Chloropropane	ND		5.0	2.0	ug/L			05/01/24 15:10	5
1,2-Dibromoethane	ND		5.0	3.7	ug/L			05/01/24 15:10	5
1,2-Dichlorobenzene	ND		5.0	4.0	ug/L			05/01/24 15:10	5
1,2-Dichloroethane	ND		5.0	1.1	ug/L			05/01/24 15:10	5
1,2-Dichloropropane	ND		5.0	3.6	ug/L			05/01/24 15:10	5
1,3-Dichlorobenzene	ND		5.0	3.9	ug/L			05/01/24 15:10	5
1,4-Dichlorobenzene	ND		5.0	4.2	ug/L			05/01/24 15:10	5
2-Butanone (MEK)	ND		50	6.6	ug/L			05/01/24 15:10	5
2-Hexanone	ND		25	6.2	ug/L			05/01/24 15:10	5
4-Methyl-2-pentanone (MIBK)	ND		25	11	ug/L			05/01/24 15:10	5
Acetone	ND		50	15	ug/L			05/01/24 15:10	5
Benzene	ND		5.0	2.1	ug/L			05/01/24 15:10	5
Bromodichloromethane	ND		5.0	2.0	ug/L			05/01/24 15:10	5
Bromoform	ND		5.0	1.3	ug/L			05/01/24 15:10	5
Bromomethane	ND		5.0	3.5	ug/L			05/01/24 15:10	5
Carbon disulfide	ND		5.0	0.95	ug/L			05/01/24 15:10	5
Carbon tetrachloride	ND		5.0	1.4	ug/L			05/01/24 15:10	5
Chlorobenzene	ND		5.0	3.8	ug/L			05/01/24 15:10	5
Chloroethane	ND		5.0	1.6	ug/L			05/01/24 15:10	5
Chloroform	ND		5.0	1.7	ug/L			05/01/24 15:10	5
Chloromethane	ND		5.0	1.8	ug/L			05/01/24 15:10	5
cis-1,2-Dichloroethene	ND		5.0	4.1	ug/L			05/01/24 15:10	5
cis-1,3-Dichloropropene	ND		5.0	1.8	ug/L			05/01/24 15:10	5
Cyclohexane	ND		5.0	0.90	ug/L			05/01/24 15:10	5
Dibromochloromethane	ND		5.0	1.6	ug/L			05/01/24 15:10	5
Dichlorodifluoromethane	ND		5.0	3.4	ug/L			05/01/24 15:10	5
Ethylbenzene	ND		5.0	3.7	ug/L			05/01/24 15:10	5
Isopropylbenzene	ND		5.0	4.0	ug/L			05/01/24 15:10	5
Methyl acetate	ND		13	6.5	ug/L			05/01/24 15:10	5
Methyl tert-butyl ether	ND		5.0	0.80	ug/L			05/01/24 15:10	5
Methylcyclohexane	ND		5.0	0.80	ug/L			05/01/24 15:10	5
Methylene Chloride	ND		5.0	2.2	ug/L			05/01/24 15:10	5
Styrene	ND		5.0	3.7	ug/L			05/01/24 15:10	5
Tetrachloroethene	ND		5.0	1.8	ug/L			05/01/24 15:10	5
Toluene	ND		5.0	2.6	ug/L			05/01/24 15:10	5
trans-1,2-Dichloroethene	ND		5.0	4.5	ug/L			05/01/24 15:10	5
trans-1,3-Dichloropropene	ND		5.0	1.9	ug/L			05/01/24 15:10	5
Trichloroethene	ND		5.0	2.3	ug/L			05/01/24 15:10	5
Trichlorofluoromethane	ND		5.0	4.4	ug/L			05/01/24 15:10	5
Vinyl chloride	ND		5.0	4.5	ug/L			05/01/24 15:10	5
Xylenes, Total	ND		10	3.3	ug/L			05/01/24 15:10	5

Client Sample ID: MW05-01-042924

Date Collected: 04/29/24 14:30
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-5

Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A		05/01/24 15:10	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		77 - 120		05/01/24 15:10	5
4-Bromofluorobenzene (Surr)	99		73 - 120		05/01/24 15:10	5
Dibromofluoromethane (Surr)	103		75 - 123		05/01/24 15:10	5
Toluene-d8 (Surr)	99		80 - 120		05/01/24 15:10	5

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		04/30/24 13:54	05/03/24 00:22	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	34		15 - 110	04/30/24 13:54	05/03/24 00:22	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		05/01/24 09:25	05/02/24 18:04	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		05/01/24 09:25	05/02/24 18:04	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		05/01/24 09:25	05/02/24 18:04	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		05/01/24 09:25	05/02/24 18:04	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		05/01/24 09:25	05/02/24 18:04	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		05/01/24 09:25	05/02/24 18:04	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		05/01/24 09:25	05/02/24 18:04	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		05/01/24 09:25	05/02/24 18:04	1
2-Chlorophenol	ND		5.0	0.53	ug/L		05/01/24 09:25	05/02/24 18:04	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		05/01/24 09:25	05/02/24 18:04	1
2-Methylphenol	ND		5.0	0.40	ug/L		05/01/24 09:25	05/02/24 18:04	1
2-Nitroaniline	ND		10	0.42	ug/L		05/01/24 09:25	05/02/24 18:04	1
2-Nitrophenol	ND		5.0	0.48	ug/L		05/01/24 09:25	05/02/24 18:04	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		05/01/24 09:25	05/02/24 18:04	1
3-Nitroaniline	ND		10	0.48	ug/L		05/01/24 09:25	05/02/24 18:04	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		05/01/24 09:25	05/02/24 18:04	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		05/01/24 09:25	05/02/24 18:04	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		05/01/24 09:25	05/02/24 18:04	1
4-Chloroaniline	ND		5.0	0.59	ug/L		05/01/24 09:25	05/02/24 18:04	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		05/01/24 09:25	05/02/24 18:04	1
4-Methylphenol	ND		10	0.36	ug/L		05/01/24 09:25	05/02/24 18:04	1
4-Nitroaniline	ND		10	0.25	ug/L		05/01/24 09:25	05/02/24 18:04	1
4-Nitrophenol	ND		10	1.5	ug/L		05/01/24 09:25	05/02/24 18:04	1
Acenaphthene	ND		5.0	0.41	ug/L		05/01/24 09:25	05/02/24 18:04	1
Acenaphthylene	ND		5.0	0.38	ug/L		05/01/24 09:25	05/02/24 18:04	1
Acetophenone	ND		5.0	0.54	ug/L		05/01/24 09:25	05/02/24 18:04	1
Anthracene	ND		5.0	0.28	ug/L		05/01/24 09:25	05/02/24 18:04	1
Atrazine	ND		5.0	0.46	ug/L		05/01/24 09:25	05/02/24 18:04	1
Benzaldehyde	ND		5.0	0.27	ug/L		05/01/24 09:25	05/02/24 18:04	1
Benzo(a)anthracene	ND		5.0	0.36	ug/L		05/01/24 09:25	05/02/24 18:04	1
Benzo(a)pyrene	ND		5.0	0.47	ug/L		05/01/24 09:25	05/02/24 18:04	1
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L		05/01/24 09:25	05/02/24 18:04	1
Benzo(g,h,i)perylene	ND		5.0	0.35	ug/L		05/01/24 09:25	05/02/24 18:04	1
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L		05/01/24 09:25	05/02/24 18:04	1

Client Sample ID: MW05-01-042924
Date Collected: 04/29/24 14:30
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-5
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.0	0.65	ug/L		05/01/24 09:25	05/02/24 18:04	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		05/01/24 09:25	05/02/24 18:04	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		05/01/24 09:25	05/02/24 18:04	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		05/01/24 09:25	05/02/24 18:04	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		05/01/24 09:25	05/02/24 18:04	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		05/01/24 09:25	05/02/24 18:04	1
Caprolactam	ND		5.0	2.2	ug/L		05/01/24 09:25	05/02/24 18:04	1
Carbazole	ND		5.0	0.30	ug/L		05/01/24 09:25	05/02/24 18:04	1
Chrysene	ND		5.0	0.33	ug/L		05/01/24 09:25	05/02/24 18:04	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		05/01/24 09:25	05/02/24 18:04	1
Dibenzofuran	ND		10	0.51	ug/L		05/01/24 09:25	05/02/24 18:04	1
Diethyl phthalate	ND		5.0	0.22	ug/L		05/01/24 09:25	05/02/24 18:04	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		05/01/24 09:25	05/02/24 18:04	1
Di-n-butyl phthalate	**0.31**	**J**	5.0	0.31	ug/L		05/01/24 09:25	05/02/24 18:04	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		05/01/24 09:25	05/02/24 18:04	1
Fluoranthene	ND		5.0	0.40	ug/L		05/01/24 09:25	05/02/24 18:04	1
Fluorene	ND		5.0	0.36	ug/L		05/01/24 09:25	05/02/24 18:04	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		05/01/24 09:25	05/02/24 18:04	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		05/01/24 09:25	05/02/24 18:04	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		05/01/24 09:25	05/02/24 18:04	1
Hexachloroethane	ND		5.0	0.59	ug/L		05/01/24 09:25	05/02/24 18:04	1
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L		05/01/24 09:25	05/02/24 18:04	1
Isophorone	ND		5.0	0.43	ug/L		05/01/24 09:25	05/02/24 18:04	1
Naphthalene	ND		5.0	0.76	ug/L		05/01/24 09:25	05/02/24 18:04	1
Nitrobenzene	ND		5.0	0.29	ug/L		05/01/24 09:25	05/02/24 18:04	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		05/01/24 09:25	05/02/24 18:04	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		05/01/24 09:25	05/02/24 18:04	1
Pentachlorophenol	ND		10	2.2	ug/L		05/01/24 09:25	05/02/24 18:04	1
Phenanthrene	ND		5.0	0.44	ug/L		05/01/24 09:25	05/02/24 18:04	1
Phenol	ND		5.0	0.39	ug/L		05/01/24 09:25	05/02/24 18:04	1
Pyrene	ND		5.0	0.34	ug/L		05/01/24 09:25	05/02/24 18:04	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Furan, tetrahydro-	*350*	*T J N*	*ug/L*		*2.75*	*109-99-9*	*05/01/24 09:25*	*05/02/24 18:04*	*1*
Unknown	*6.0*	*T J*	*ug/L*		*2.89*	*N/A*	*05/01/24 09:25*	*05/02/24 18:04*	*1*
Unknown	*1.9*	*T J*	*ug/L*		*3.08*	*N/A*	*05/01/24 09:25*	*05/02/24 18:04*	*1*
Unknown	*23*	*T J*	*ug/L*		*5.12*	*N/A*	*05/01/24 09:25*	*05/02/24 18:04*	*1*
Unknown	*3.1*	*T J*	*ug/L*		*5.52*	*N/A*	*05/01/24 09:25*	*05/02/24 18:04*	*1*
Unknown	*2.6*	*T J*	*ug/L*		*5.64*	*N/A*	*05/01/24 09:25*	*05/02/24 18:04*	*1*
Unknown	*2.8*	*T J*	*ug/L*		*5.91*	*N/A*	*05/01/24 09:25*	*05/02/24 18:04*	*1*
Unknown	*1.8*	*T J*	*ug/L*		*6.04*	*N/A*	*05/01/24 09:25*	*05/02/24 18:04*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*77*		*41 - 120*	*05/01/24 09:25*	*05/02/24 18:04*	*1*
2-Fluorobiphenyl	*71*		*48 - 120*	*05/01/24 09:25*	*05/02/24 18:04*	*1*
2-Fluorophenol	*52*		*35 - 120*	*05/01/24 09:25*	*05/02/24 18:04*	*1*
Nitrobenzene-d5	*59*		*46 - 120*	*05/01/24 09:25*	*05/02/24 18:04*	*1*
Phenol-d5	*40*		*22 - 120*	*05/01/24 09:25*	*05/02/24 18:04*	*1*
p-Terphenyl-d14	*60*		*60 - 148*	*05/01/24 09:25*	*05/02/24 18:04*	*1*

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219333-1

Client Sample ID: MW05-01-042924

Date Collected: 04/29/24 14:30
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-5

Matrix: Water

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.21	0.022	ug/L		05/02/24 08:53	05/06/24 17:33	1
4,4'-DDE	ND		0.21	0.018	ug/L		05/02/24 08:53	05/06/24 17:33	1
4,4'-DDT	ND		0.21	0.020	ug/L		05/02/24 08:53	05/06/24 17:33	1
Aldrin	ND		0.21	0.027	ug/L		05/02/24 08:53	05/06/24 17:33	1
alpha-BHC	ND		0.21	0.022	ug/L		05/02/24 08:53	05/06/24 17:33	1
cis-Chlordane	ND		0.21	0.029	ug/L		05/02/24 08:53	05/06/24 17:33	1
beta-BHC	ND		0.21	0.039	ug/L		05/02/24 08:53	05/06/24 17:33	1
delta-BHC	ND		0.21	0.018	ug/L		05/02/24 08:53	05/06/24 17:33	1
Dieldrin	ND		0.21	0.027	ug/L		05/02/24 08:53	05/06/24 17:33	1
Endosulfan I	ND		0.21	0.015	ug/L		05/02/24 08:53	05/06/24 17:33	1
Endosulfan II	ND		0.21	0.026	ug/L		05/02/24 08:53	05/06/24 17:33	1
Endosulfan sulfate	ND		0.21	0.015	ug/L		05/02/24 08:53	05/06/24 17:33	1
Endrin	ND		0.21	0.027	ug/L		05/02/24 08:53	05/06/24 17:33	1
Endrin aldehyde	ND		0.21	0.019	ug/L		05/02/24 08:53	05/07/24 19:31	1
Endrin ketone	ND		0.21	0.017	ug/L		05/02/24 08:53	05/06/24 17:33	1
gamma-BHC (Lindane)	ND		0.21	0.025	ug/L		05/02/24 08:53	05/06/24 17:33	1
trans-Chlordane	ND		0.21	0.021	ug/L		05/02/24 08:53	05/06/24 17:33	1
Heptachlor	ND		0.21	0.034	ug/L		05/02/24 08:53	05/06/24 17:33	1
Heptachlor epoxide	ND		0.21	0.027	ug/L		05/02/24 08:53	05/06/24 17:33	1
Methoxychlor	ND		0.42	0.020	ug/L		05/02/24 08:53	05/06/24 17:33	1
Toxaphene	ND		8.3	0.24	ug/L		05/02/24 08:53	05/06/24 17:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*71*		*10 - 145*	*05/02/24 08:53*	*05/06/24 17:33*	*1*
DCB Decachlorobiphenyl	*62*		*10 - 145*	*05/02/24 08:53*	*05/06/24 17:33*	*1*
DCB Decachlorobiphenyl	*76*		*10 - 145*	*05/02/24 08:53*	*05/07/24 19:31*	*1*
DCB Decachlorobiphenyl	*68*		*10 - 145*	*05/02/24 08:53*	*05/07/24 19:31*	*1*
Tetrachloro-m-xylene	*50*		*10 - 123*	*05/02/24 08:53*	*05/06/24 17:33*	*1*
Tetrachloro-m-xylene	*47*		*10 - 123*	*05/02/24 08:53*	*05/06/24 17:33*	*1*
Tetrachloro-m-xylene	*57*		*10 - 123*	*05/02/24 08:53*	*05/07/24 19:31*	*1*
Tetrachloro-m-xylene	*53*		*10 - 123*	*05/02/24 08:53*	*05/07/24 19:31*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 23:34	1
PCB-1221	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 23:34	1
PCB-1232	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 23:34	1
PCB-1242	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 23:34	1
PCB-1248	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 23:34	1
PCB-1254	ND		0.50	0.25	ug/L		05/01/24 13:50	05/02/24 23:34	1
PCB-1260	ND		0.50	0.25	ug/L		05/01/24 13:50	05/02/24 23:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*45*		*19 - 120*	*05/01/24 13:50*	*05/02/24 23:34*	*1*
DCB Decachlorobiphenyl	*44*		*19 - 120*	*05/01/24 13:50*	*05/02/24 23:34*	*1*
Tetrachloro-m-xylene	*69*		*39 - 121*	*05/01/24 13:50*	*05/02/24 23:34*	*1*
Tetrachloro-m-xylene	*67*		*39 - 121*	*05/01/24 13:50*	*05/02/24 23:34*	*1*

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219333-1

Client Sample ID: MW05-01-042924
Date Collected: 04/29/24 14:30
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-5
Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**9.2**		6.4	1.7	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluoropentanoic acid (PFPeA)	**2.5**	**J I**	3.2	0.80	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluoroheptanoic acid (PFHpA)	**1.2**	**J**	1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluorooctanoic acid (PFOA)	**3.7**		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluorononanoic acid (PFNA)	**3.2**		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluorobutanesulfonic acid (PFBS)	**2.4**		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluorohexanesulfonic acid (PFHxS)	**0.59**	**J**	1.6	0.41	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluorooctanesulfonic acid (PFOS)	**3.4**		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		6.4	1.6	ng/L		05/02/24 08:21	05/02/24 23:06	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	**2.9**	**J**	6.4	1.6	ng/L		05/02/24 08:21	05/02/24 23:06	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		6.4	1.6	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	0.50	ng/L		05/02/24 08:21	05/02/24 23:06	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	0.42	ng/L		05/02/24 08:21	05/02/24 23:06	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		16	4.0	ng/L		05/02/24 08:21	05/02/24 23:06	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		16	4.0	ng/L		05/02/24 08:21	05/02/24 23:06	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		6.4	1.6	ng/L		05/02/24 08:21	05/02/24 23:06	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		6.4	1.6	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		3.2	0.80	ng/L		05/02/24 08:21	05/02/24 23:06	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		3.2	0.98	ng/L		05/02/24 08:21	05/02/24 23:06	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		6.4	1.6	ng/L		05/02/24 08:21	05/02/24 23:06	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		6.4	1.6	ng/L		05/02/24 08:21	05/02/24 23:06	1

Client Sample ID: MW05-01-042924
Date Collected: 04/29/24 14:30
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-5
Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		3.2	0.80	ng/L		05/02/24 08:21	05/02/24 23:06	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		8.0	2.0	ng/L		05/02/24 08:21	05/02/24 23:06	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		40	10	ng/L		05/02/24 08:21	05/02/24 23:06	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		40	12	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.40	ng/L		05/02/24 08:21	05/02/24 23:06	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		3.2	0.80	ng/L		05/02/24 08:21	05/02/24 23:06	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*99.8*		*10 - 130*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
13C5 PFPeA	*67.3*		*35 - 150*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
13C5 PFHxA	*77.6*		*55 - 150*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
13C4 PFHpA	*93.9*		*55 - 150*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
13C8 PFOA	*80.7*		*60 - 140*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
13C9 PFNA	*89.2*		*55 - 140*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
13C6 PFDA	*99.7*		*50 - 140*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
13C7 PFUnA	*86.6*		*30 - 140*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
13C2 PFTeDA	*58.7*		*10 - 130*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
13C3 PFBS	*88.1*		*55 - 150*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
13C3 PFHxS	*91.6*		*55 - 150*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
13C8 PFOS	*83.8*		*45 - 140*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
13C8 FOSA	*105*		*30 - 130*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
d3-NMeFOSAA	*112*		*45 - 200*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
d5-NEtFOSAA	*106*		*10 - 200*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
M2-4:2 FTS	*248*	*5+	*60 - 200*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
M2-6:2 FTS	*205*	*5+	*60 - 200*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
M2-8:2 FTS	*229*	*5+	*50 - 200*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
13C3 HFPO-DA	*69.5*		*25 - 160*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
d7-N-MeFOSE-M	*71.4*		*10 - 150*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
d9-N-EtFOSE-M	*66.0*		*10 - 150*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
d5-NEtPFOSA	*58.1*		*10 - 130*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
d3-NMePFOSA	*64.9*		*15 - 130*	*05/02/24 08:21*	*05/02/24 23:06*	*1*
13C2-PFDoDA	*72.1*		*10 - 150*	*05/02/24 08:21*	*05/02/24 23:06*	*1*

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**613**		200	47.3	ug/L		05/16/24 16:30	05/18/24 11:10	1
Antimony	ND		20.0	7.5	ug/L		05/16/24 16:30	05/18/24 11:10	1
Arsenic	ND		15.0	4.1	ug/L		05/16/24 16:30	05/18/24 11:10	1
Barium	**77.9**	**J**	200	3.0	ug/L		05/16/24 16:30	05/18/24 11:10	1
Beryllium	ND		5.0	0.60	ug/L		05/16/24 16:30	05/18/24 11:10	1
Cadmium	ND		5.0	0.45	ug/L		05/16/24 16:30	05/18/24 11:10	1
Calcium	**105000**		5000	307	ug/L		05/16/24 16:30	05/18/24 11:10	1
Chromium	**1.7**	**J**	10.0	0.76	ug/L		05/16/24 16:30	05/18/24 11:10	1
Cobalt	ND		10.0	0.75	ug/L		05/16/24 16:30	05/18/24 11:10	1
Copper	**7.4**	**J**	25.0	3.5	ug/L		05/16/24 16:30	05/18/24 11:10	1
Iron	**711**		200	82.7	ug/L		05/16/24 16:30	05/18/24 11:10	1
Lead	**7.6**	**J**	10.0	2.8	ug/L		05/16/24 16:30	05/18/24 11:10	1

Client Sample ID: MW05-01-042924

Date Collected: 04/29/24 14:30
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-5

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	**29700**		5000	259	ug/L		05/16/24 16:30	05/18/24 11:10	1
Manganese	**34.7**		15.0	2.6	ug/L		05/16/24 16:30	05/18/24 11:10	1
Nickel	**3.6**	**J**	40.0	2.2	ug/L		05/16/24 16:30	05/18/24 11:10	1
Potassium	**2940**	**J**	5000	557	ug/L		05/16/24 16:30	05/18/24 11:10	1
Selenium	ND		20.0	6.0	ug/L		05/16/24 16:30	05/18/24 11:10	1
Silver	ND		10.0	0.62	ug/L		05/16/24 16:30	05/18/24 11:10	1
Sodium	**10400**		5000	2110	ug/L		05/16/24 16:30	05/18/24 11:10	1
Thallium	ND		20.0	2.7	ug/L		05/16/24 16:30	05/18/24 11:10	1
Vanadium	**20.6**	**J B**	50.0	5.6	ug/L		05/16/24 16:30	05/18/24 11:10	1
Zinc	ND		50.0	22.5	ug/L		05/16/24 16:30	05/18/24 11:10	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	47.3	ug/L		05/16/24 16:30	05/18/24 11:14	1
Antimony	ND		20.0	7.5	ug/L		05/16/24 16:30	05/18/24 11:14	1
Arsenic	**6.1**	**J**	15.0	4.1	ug/L		05/16/24 16:30	05/18/24 11:14	1
Barium	**71.2**	**J**	200	3.0	ug/L		05/16/24 16:30	05/18/24 11:14	1
Beryllium	ND		5.0	0.60	ug/L		05/16/24 16:30	05/18/24 11:14	1
Cadmium	ND		5.0	0.45	ug/L		05/16/24 16:30	05/18/24 11:14	1
Calcium	**104000**		5000	307	ug/L		05/16/24 16:30	05/18/24 11:14	1
Chromium	**1.0**	**J**	10.0	0.76	ug/L		05/16/24 16:30	05/18/24 11:14	1
Cobalt	ND		10.0	0.75	ug/L		05/16/24 16:30	05/18/24 11:14	1
Copper	**5.6**	**J**	25.0	3.5	ug/L		05/16/24 16:30	05/18/24 11:14	1
Iron	ND		200	82.7	ug/L		05/16/24 16:30	05/18/24 11:14	1
Lead	ND		10.0	2.8	ug/L		05/16/24 16:30	05/18/24 11:14	1
Magnesium	**31700**		5000	259	ug/L		05/16/24 16:30	05/18/24 11:14	1
Manganese	**26.0**		15.0	2.6	ug/L		05/16/24 16:30	05/18/24 11:14	1
Nickel	**3.3**	**J**	40.0	2.2	ug/L		05/16/24 16:30	05/18/24 11:14	1
Potassium	**2670**	**J**	5000	557	ug/L		05/16/24 16:30	05/18/24 11:14	1
Selenium	ND		20.0	6.0	ug/L		05/16/24 16:30	05/18/24 11:14	1
Silver	ND		10.0	0.62	ug/L		05/16/24 16:30	05/18/24 11:14	1
Sodium	**10900**		5000	2110	ug/L		05/16/24 16:30	05/18/24 11:14	1
Thallium	ND		20.0	2.7	ug/L		05/16/24 16:30	05/18/24 11:14	1
Vanadium	**18.1**	**J B**	50.0	5.6	ug/L		05/16/24 16:30	05/18/24 11:14	1
Zinc	ND		50.0	22.5	ug/L		05/16/24 16:30	05/18/24 11:14	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00040	0.000084	mg/L		05/02/24 11:04	05/02/24 17:12	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/02/24 11:04	05/02/24 17:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND	^1+	0.010	0.0041	mg/L			05/02/24 23:54	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND	^1+	0.010	0.0041	mg/L			05/03/24 00:07	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219333-1

Client Sample ID: MW05-03-042924
Date Collected: 04/29/24 16:00
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-6
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/01/24 15:32	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/01/24 15:32	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			05/01/24 15:32	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/01/24 15:32	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/01/24 15:32	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/01/24 15:32	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			05/01/24 15:32	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			05/01/24 15:32	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			05/01/24 15:32	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			05/01/24 15:32	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/01/24 15:32	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/01/24 15:32	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			05/01/24 15:32	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			05/01/24 15:32	1
2-Butanone (MEK)	ND		10	1.3	ug/L			05/01/24 15:32	1
2-Hexanone	ND		5.0	1.2	ug/L			05/01/24 15:32	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/01/24 15:32	1
Acetone	**4.8**	**J**	10	3.0	ug/L			05/01/24 15:32	1
Benzene	ND		1.0	0.41	ug/L			05/01/24 15:32	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/01/24 15:32	1
Bromoform	ND		1.0	0.26	ug/L			05/01/24 15:32	1
Bromomethane	ND		1.0	0.69	ug/L			05/01/24 15:32	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/01/24 15:32	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/01/24 15:32	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/01/24 15:32	1
Chloroethane	ND		1.0	0.32	ug/L			05/01/24 15:32	1
Chloroform	ND		1.0	0.34	ug/L			05/01/24 15:32	1
Chloromethane	ND		1.0	0.35	ug/L			05/01/24 15:32	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			05/01/24 15:32	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/01/24 15:32	1
Cyclohexane	ND		1.0	0.18	ug/L			05/01/24 15:32	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/01/24 15:32	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/01/24 15:32	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/01/24 15:32	1
Isopropylbenzene	ND		1.0	0.79	ug/L			05/01/24 15:32	1
Methyl acetate	ND		2.5	1.3	ug/L			05/01/24 15:32	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/01/24 15:32	1
Methylcyclohexane	ND		1.0	0.16	ug/L			05/01/24 15:32	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/01/24 15:32	1
Styrene	ND		1.0	0.73	ug/L			05/01/24 15:32	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/01/24 15:32	1
Toluene	ND		1.0	0.51	ug/L			05/01/24 15:32	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			05/01/24 15:32	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/01/24 15:32	1
Trichloroethene	ND		1.0	0.46	ug/L			05/01/24 15:32	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			05/01/24 15:32	1
Vinyl chloride	ND		1.0	0.90	ug/L			05/01/24 15:32	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/01/24 15:32	1

Client Sample ID: MW05-03-042924
Date Collected: 04/29/24 16:00
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-6
Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A		05/01/24 15:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		05/01/24 15:32	1
4-Bromofluorobenzene (Surr)	101		73 - 120		05/01/24 15:32	1
Dibromofluoromethane (Surr)	103		75 - 123		05/01/24 15:32	1
Toluene-d8 (Surr)	101		80 - 120		05/01/24 15:32	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.2	0.50	ug/L		05/01/24 09:25	05/02/24 18:32	1
2,4,6-Trichlorophenol	ND		5.2	0.64	ug/L		05/01/24 09:25	05/02/24 18:32	1
2,4-Dichlorophenol	ND		5.2	0.53	ug/L		05/01/24 09:25	05/02/24 18:32	1
2,4-Dimethylphenol	ND		5.2	0.52	ug/L		05/01/24 09:25	05/02/24 18:32	1
2,4-Dinitrophenol	ND		10	2.3	ug/L		05/01/24 09:25	05/02/24 18:32	1
2,4-Dinitrotoluene	ND		5.2	0.47	ug/L		05/01/24 09:25	05/02/24 18:32	1
2,6-Dinitrotoluene	ND		5.2	0.42	ug/L		05/01/24 09:25	05/02/24 18:32	1
2-Chloronaphthalene	ND		5.2	0.48	ug/L		05/01/24 09:25	05/02/24 18:32	1
2-Chlorophenol	ND		5.2	0.55	ug/L		05/01/24 09:25	05/02/24 18:32	1
2-Methylnaphthalene	ND		5.2	0.63	ug/L		05/01/24 09:25	05/02/24 18:32	1
2-Methylphenol	ND		5.2	0.42	ug/L		05/01/24 09:25	05/02/24 18:32	1
2-Nitroaniline	ND		10	0.44	ug/L		05/01/24 09:25	05/02/24 18:32	1
2-Nitrophenol	ND		5.2	0.50	ug/L		05/01/24 09:25	05/02/24 18:32	1
3,3'-Dichlorobenzidine	ND		5.2	0.42	ug/L		05/01/24 09:25	05/02/24 18:32	1
3-Nitroaniline	ND		10	0.50	ug/L		05/01/24 09:25	05/02/24 18:32	1
4,6-Dinitro-2-methylphenol	ND		10	2.3	ug/L		05/01/24 09:25	05/02/24 18:32	1
4-Bromophenyl phenyl ether	ND		5.2	0.47	ug/L		05/01/24 09:25	05/02/24 18:32	1
4-Chloro-3-methylphenol	ND		5.2	0.47	ug/L		05/01/24 09:25	05/02/24 18:32	1
4-Chloroaniline	ND		5.2	0.61	ug/L		05/01/24 09:25	05/02/24 18:32	1
4-Chlorophenyl phenyl ether	ND		5.2	0.36	ug/L		05/01/24 09:25	05/02/24 18:32	1
4-Methylphenol	ND		10	0.38	ug/L		05/01/24 09:25	05/02/24 18:32	1
4-Nitroaniline	ND		10	0.26	ug/L		05/01/24 09:25	05/02/24 18:32	1
4-Nitrophenol	ND		10	1.6	ug/L		05/01/24 09:25	05/02/24 18:32	1
Acenaphthene	ND		5.2	0.43	ug/L		05/01/24 09:25	05/02/24 18:32	1
Acenaphthylene	ND		5.2	0.40	ug/L		05/01/24 09:25	05/02/24 18:32	1
Acetophenone	ND		5.2	0.56	ug/L		05/01/24 09:25	05/02/24 18:32	1
Anthracene	ND		5.2	0.29	ug/L		05/01/24 09:25	05/02/24 18:32	1
Atrazine	ND		5.2	0.48	ug/L		05/01/24 09:25	05/02/24 18:32	1
Benzaldehyde	ND		5.2	0.28	ug/L		05/01/24 09:25	05/02/24 18:32	1
Benzo(a)anthracene	ND		5.2	0.38	ug/L		05/01/24 09:25	05/02/24 18:32	1
Benzo(a)pyrene	ND		5.2	0.49	ug/L		05/01/24 09:25	05/02/24 18:32	1
Benzo(b)fluoranthene	ND		5.2	0.35	ug/L		05/01/24 09:25	05/02/24 18:32	1
Benzo(g,h,i)perylene	ND		5.2	0.36	ug/L		05/01/24 09:25	05/02/24 18:32	1
Benzo(k)fluoranthene	ND		5.2	0.76	ug/L		05/01/24 09:25	05/02/24 18:32	1
Biphenyl	ND		5.2	0.68	ug/L		05/01/24 09:25	05/02/24 18:32	1
bis (2-chloroisopropyl) ether	ND		5.2	0.54	ug/L		05/01/24 09:25	05/02/24 18:32	1
Bis(2-chloroethoxy)methane	ND		5.2	0.36	ug/L		05/01/24 09:25	05/02/24 18:32	1
Bis(2-chloroethyl)ether	ND		5.2	0.42	ug/L		05/01/24 09:25	05/02/24 18:32	1
Bis(2-ethylhexyl) phthalate	ND		5.2	2.3	ug/L		05/01/24 09:25	05/02/24 18:32	1
Butyl benzyl phthalate	ND		5.2	1.0	ug/L		05/01/24 09:25	05/02/24 18:32	1

Client Sample ID: MW05-03-042924

Date Collected: 04/29/24 16:00
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-6

Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Caprolactam	ND		5.2	2.3	ug/L		05/01/24 09:25	05/02/24 18:32	1
Carbazole	ND		5.2	0.31	ug/L		05/01/24 09:25	05/02/24 18:32	1
Chrysene	ND		5.2	0.34	ug/L		05/01/24 09:25	05/02/24 18:32	1
Dibenz(a,h)anthracene	ND		5.2	0.44	ug/L		05/01/24 09:25	05/02/24 18:32	1
Dibenzofuran	ND		10	0.53	ug/L		05/01/24 09:25	05/02/24 18:32	1
Diethyl phthalate	ND		5.2	0.23	ug/L		05/01/24 09:25	05/02/24 18:32	1
Dimethyl phthalate	ND		5.2	0.38	ug/L		05/01/24 09:25	05/02/24 18:32	1
Di-n-butyl phthalate	ND		5.2	0.32	ug/L		05/01/24 09:25	05/02/24 18:32	1
Di-n-octyl phthalate	ND		5.2	0.49	ug/L		05/01/24 09:25	05/02/24 18:32	1
Fluoranthene	ND		5.2	0.42	ug/L		05/01/24 09:25	05/02/24 18:32	1
Fluorene	ND		5.2	0.38	ug/L		05/01/24 09:25	05/02/24 18:32	1
Hexachlorobenzene	ND		5.2	0.53	ug/L		05/01/24 09:25	05/02/24 18:32	1
Hexachlorobutadiene	ND		5.2	0.71	ug/L		05/01/24 09:25	05/02/24 18:32	1
Hexachlorocyclopentadiene	ND		5.2	0.61	ug/L		05/01/24 09:25	05/02/24 18:32	1
Hexachloroethane	ND		5.2	0.61	ug/L		05/01/24 09:25	05/02/24 18:32	1
Indeno(1,2,3-cd)pyrene	ND		5.2	0.49	ug/L		05/01/24 09:25	05/02/24 18:32	1
Isophorone	ND		5.2	0.45	ug/L		05/01/24 09:25	05/02/24 18:32	1
Naphthalene	ND		5.2	0.79	ug/L		05/01/24 09:25	05/02/24 18:32	1
Nitrobenzene	ND		5.2	0.30	ug/L		05/01/24 09:25	05/02/24 18:32	1
N-Nitrosodi-n-propylamine	ND		5.2	0.56	ug/L		05/01/24 09:25	05/02/24 18:32	1
N-Nitrosodiphenylamine	ND		5.2	0.53	ug/L		05/01/24 09:25	05/02/24 18:32	1
Pentachlorophenol	ND		10	2.3	ug/L		05/01/24 09:25	05/02/24 18:32	1
Phenanthrene	ND		5.2	0.46	ug/L		05/01/24 09:25	05/02/24 18:32	1
Phenol	ND		5.2	0.41	ug/L		05/01/24 09:25	05/02/24 18:32	1
Pyrene	ND		5.2	0.35	ug/L		05/01/24 09:25	05/02/24 18:32	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Furan, tetrahydro-	*390*	*T J N*	*ug/L*		*2.76*	*109-99-9*	*05/01/24 09:25*	*05/02/24 18:32*	*1*
Unknown	*6.9*	*T J*	*ug/L*		*2.89*	*N/A*	*05/01/24 09:25*	*05/02/24 18:32*	*1*
Unknown	*2.2*	*T J*	*ug/L*		*3.08*	*N/A*	*05/01/24 09:25*	*05/02/24 18:32*	*1*
Unknown	*27*	*T J*	*ug/L*		*5.12*	*N/A*	*05/01/24 09:25*	*05/02/24 18:32*	*1*
Unknown	*3.6*	*T J*	*ug/L*		*5.52*	*N/A*	*05/01/24 09:25*	*05/02/24 18:32*	*1*
Unknown	*3.0*	*T J*	*ug/L*		*5.64*	*N/A*	*05/01/24 09:25*	*05/02/24 18:32*	*1*
Unknown	*3.4*	*T J*	*ug/L*		*5.91*	*N/A*	*05/01/24 09:25*	*05/02/24 18:32*	*1*
Unknown	*2.1*	*T J*	*ug/L*		*6.05*	*N/A*	*05/01/24 09:25*	*05/02/24 18:32*	*1*
Unknown	*4.5*	*T J*	*ug/L*		*8.28*	*N/A*	*05/01/24 09:25*	*05/02/24 18:32*	*1*
Unknown	*4.5*	*T J*	*ug/L*		*11.93*	*N/A*	*05/01/24 09:25*	*05/02/24 18:32*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*78*		*41 - 120*	*05/01/24 09:25*	*05/02/24 18:32*	*1*
2-Fluorobiphenyl	*74*		*48 - 120*	*05/01/24 09:25*	*05/02/24 18:32*	*1*
2-Fluorophenol	*56*		*35 - 120*	*05/01/24 09:25*	*05/02/24 18:32*	*1*
Nitrobenzene-d5	*66*		*46 - 120*	*05/01/24 09:25*	*05/02/24 18:32*	*1*
Phenol-d5	*43*		*22 - 120*	*05/01/24 09:25*	*05/02/24 18:32*	*1*
p-Terphenyl-d14	*69*		*60 - 148*	*05/01/24 09:25*	*05/02/24 18:32*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.20	0.021	ug/L		05/02/24 08:53	05/07/24 19:47	1
4,4'-DDE	ND		0.20	0.017	ug/L		05/02/24 08:53	05/07/24 19:47	1

Client Sample ID: MW05-03-042924

Date Collected: 04/29/24 16:00
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-6

Matrix: Water

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDT	ND		0.20	0.019	ug/L		05/02/24 08:53	05/07/24 19:47	1
Aldrin	ND		0.20	0.026	ug/L		05/02/24 08:53	05/07/24 19:47	1
alpha-BHC	ND		0.20	0.021	ug/L		05/02/24 08:53	05/07/24 19:47	1
cis-Chlordane	ND		0.20	0.028	ug/L		05/02/24 08:53	05/07/24 19:47	1
beta-BHC	ND		0.20	0.037	ug/L		05/02/24 08:53	05/07/24 19:47	1
delta-BHC	ND		0.20	0.017	ug/L		05/02/24 08:53	05/07/24 19:47	1
Dieldrin	ND		0.20	0.026	ug/L		05/02/24 08:53	05/07/24 19:47	1
Endosulfan I	ND		0.20	0.015	ug/L		05/02/24 08:53	05/07/24 19:47	1
Endosulfan II	ND		0.20	0.025	ug/L		05/02/24 08:53	05/07/24 19:47	1
Endosulfan sulfate	ND		0.20	0.015	ug/L		05/02/24 08:53	05/07/24 19:47	1
Endrin	ND		0.20	0.026	ug/L		05/02/24 08:53	05/07/24 19:47	1
Endrin aldehyde	ND		0.20	0.018	ug/L		05/02/24 08:53	05/07/24 19:47	1
Endrin ketone	ND		0.20	0.016	ug/L		05/02/24 08:53	05/07/24 19:47	1
gamma-BHC (Lindane)	ND		0.20	0.024	ug/L		05/02/24 08:53	05/07/24 19:47	1
trans-Chlordane	ND		0.20	0.020	ug/L		05/02/24 08:53	05/07/24 19:47	1
Heptachlor	ND		0.20	0.033	ug/L		05/02/24 08:53	05/07/24 19:47	1
Heptachlor epoxide	ND		0.20	0.026	ug/L		05/02/24 08:53	05/07/24 19:47	1
Methoxychlor	ND		0.40	0.019	ug/L		05/02/24 08:53	05/07/24 19:47	1
Toxaphene	ND		8.0	0.23	ug/L		05/02/24 08:53	05/07/24 19:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*55*		*10 - 145*	*05/02/24 08:53*	*05/07/24 19:47*	*1*
DCB Decachlorobiphenyl	*54*		*10 - 145*	*05/02/24 08:53*	*05/07/24 19:47*	*1*
Tetrachloro-m-xylene	*49*		*10 - 123*	*05/02/24 08:53*	*05/07/24 19:47*	*1*
Tetrachloro-m-xylene	*46*		*10 - 123*	*05/02/24 08:53*	*05/07/24 19:47*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.52	0.18	ug/L		05/01/24 13:50	05/02/24 23:52	1
PCB-1221	ND		0.52	0.18	ug/L		05/01/24 13:50	05/02/24 23:52	1
PCB-1232	ND		0.52	0.18	ug/L		05/01/24 13:50	05/02/24 23:52	1
PCB-1242	ND		0.52	0.18	ug/L		05/01/24 13:50	05/02/24 23:52	1
PCB-1248	ND		0.52	0.18	ug/L		05/01/24 13:50	05/02/24 23:52	1
PCB-1254	ND		0.52	0.26	ug/L		05/01/24 13:50	05/02/24 23:52	1
PCB-1260	ND		0.52	0.26	ug/L		05/01/24 13:50	05/02/24 23:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*45*		*19 - 120*	*05/01/24 13:50*	*05/02/24 23:52*	*1*
DCB Decachlorobiphenyl	*43*		*19 - 120*	*05/01/24 13:50*	*05/02/24 23:52*	*1*
Tetrachloro-m-xylene	*84*		*39 - 121*	*05/01/24 13:50*	*05/02/24 23:52*	*1*
Tetrachloro-m-xylene	*79*		*39 - 121*	*05/01/24 13:50*	*05/02/24 23:52*	*1*

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**13600**		200	47.3	ug/L		05/16/24 16:30	05/18/24 11:19	1
Antimony	ND		20.0	7.5	ug/L		05/16/24 16:30	05/18/24 11:19	1
Arsenic	**5.3**	**J**	15.0	4.1	ug/L		05/16/24 16:30	05/18/24 11:19	1
Barium	**91.4**	**J**	200	3.0	ug/L		05/16/24 16:30	05/18/24 11:19	1
Beryllium	ND		5.0	0.60	ug/L		05/16/24 16:30	05/18/24 11:19	1
Cadmium	**0.86**	**J**	5.0	0.45	ug/L		05/16/24 16:30	05/18/24 11:19	1

Client Sample ID: MW05-03-042924
Date Collected: 04/29/24 16:00
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-6
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	283000		5000	307	ug/L		05/16/24 16:30	05/18/24 11:19	1
Chromium	18.1		10.0	0.76	ug/L		05/16/24 16:30	05/18/24 11:19	1
Cobalt	8.0	J	10.0	0.75	ug/L		05/16/24 16:30	05/18/24 11:19	1
Copper	10.7	J	25.0	3.5	ug/L		05/16/24 16:30	05/18/24 11:19	1
Iron	15300		200	82.7	ug/L		05/16/24 16:30	05/18/24 11:19	1
Lead	6.9	J	10.0	2.8	ug/L		05/16/24 16:30	05/18/24 11:19	1
Magnesium	109000		5000	259	ug/L		05/16/24 16:30	05/18/24 11:19	1
Manganese	333		15.0	2.6	ug/L		05/16/24 16:30	05/18/24 11:19	1
Nickel	20.1	J	40.0	2.2	ug/L		05/16/24 16:30	05/18/24 11:19	1
Potassium	8090		5000	557	ug/L		05/16/24 16:30	05/18/24 11:19	1
Selenium	ND		20.0	6.0	ug/L		05/16/24 16:30	05/18/24 11:19	1
Silver	ND		10.0	0.62	ug/L		05/16/24 16:30	05/18/24 11:19	1
Sodium	34000		5000	2110	ug/L		05/16/24 16:30	05/18/24 11:19	1
Thallium	ND		20.0	2.7	ug/L		05/16/24 16:30	05/18/24 11:19	1
Vanadium	40.3	J B	50.0	5.6	ug/L		05/16/24 16:30	05/18/24 11:19	1
Zinc	43.4	J	50.0	22.5	ug/L		05/16/24 16:30	05/18/24 11:19	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	47.3	ug/L		05/16/24 16:30	05/18/24 11:23	1
Antimony	ND		20.0	7.5	ug/L		05/16/24 16:30	05/18/24 11:23	1
Arsenic	ND		15.0	4.1	ug/L		05/16/24 16:30	05/18/24 11:23	1
Barium	19.2	J	200	3.0	ug/L		05/16/24 16:30	05/18/24 11:23	1
Beryllium	ND		5.0	0.60	ug/L		05/16/24 16:30	05/18/24 11:23	1
Cadmium	0.80	J	5.0	0.45	ug/L		05/16/24 16:30	05/18/24 11:23	1
Calcium	277000		5000	307	ug/L		05/16/24 16:30	05/18/24 11:23	1
Chromium	1.0	J	10.0	0.76	ug/L		05/16/24 16:30	05/18/24 11:23	1
Cobalt	1.0	J	10.0	0.75	ug/L		05/16/24 16:30	05/18/24 11:23	1
Copper	3.8	J	25.0	3.5	ug/L		05/16/24 16:30	05/18/24 11:23	1
Iron	ND		200	82.7	ug/L		05/16/24 16:30	05/18/24 11:23	1
Lead	ND		10.0	2.8	ug/L		05/16/24 16:30	05/18/24 11:23	1
Magnesium	111000		5000	259	ug/L		05/16/24 16:30	05/18/24 11:23	1
Manganese	55.6		15.0	2.6	ug/L		05/16/24 16:30	05/18/24 11:23	1
Nickel	5.1	J	40.0	2.2	ug/L		05/16/24 16:30	05/18/24 11:23	1
Potassium	4120	J	5000	557	ug/L		05/16/24 16:30	05/18/24 11:23	1
Selenium	7.0	J	20.0	6.0	ug/L		05/16/24 16:30	05/18/24 11:23	1
Silver	ND		10.0	0.62	ug/L		05/16/24 16:30	05/18/24 11:23	1
Sodium	36700		5000	2110	ug/L		05/16/24 16:30	05/18/24 11:23	1
Thallium	ND		20.0	2.7	ug/L		05/16/24 16:30	05/18/24 11:23	1
Vanadium	15.6	J B	50.0	5.6	ug/L		05/16/24 16:30	05/18/24 11:23	1
Zinc	ND		50.0	22.5	ug/L		05/16/24 16:30	05/18/24 11:23	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00030	0.000063	mg/L		05/02/24 11:04	05/02/24 17:13	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/02/24 11:04	05/02/24 17:47	1

Client Sample ID: MW05-03-042924

Lab Sample ID: 480-219333-6

Date Collected: 04/29/24 16:00

Matrix: Water

Date Received: 04/29/24 17:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND	^1+	0.010	0.0041	mg/L			05/02/24 23:57	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	**0.0093**	**J B ^2 ^1+**	0.010	0.0041	mg/L			05/03/24 00:29	1

Client Sample ID: TB-042924

Lab Sample ID: 480-219333-7

Date Collected: 04/29/24 00:00

Matrix: Water

Date Received: 04/29/24 17:15

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/01/24 15:54	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/01/24 15:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			05/01/24 15:54	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/01/24 15:54	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/01/24 15:54	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/01/24 15:54	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			05/01/24 15:54	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			05/01/24 15:54	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			05/01/24 15:54	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			05/01/24 15:54	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/01/24 15:54	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/01/24 15:54	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			05/01/24 15:54	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			05/01/24 15:54	1
2-Butanone (MEK)	ND		10	1.3	ug/L			05/01/24 15:54	1
2-Hexanone	ND		5.0	1.2	ug/L			05/01/24 15:54	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/01/24 15:54	1
Acetone	ND		10	3.0	ug/L			05/01/24 15:54	1
Benzene	ND		1.0	0.41	ug/L			05/01/24 15:54	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/01/24 15:54	1
Bromoform	ND		1.0	0.26	ug/L			05/01/24 15:54	1
Bromomethane	ND		1.0	0.69	ug/L			05/01/24 15:54	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/01/24 15:54	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/01/24 15:54	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/01/24 15:54	1
Chloroethane	ND		1.0	0.32	ug/L			05/01/24 15:54	1
Chloroform	ND		1.0	0.34	ug/L			05/01/24 15:54	1
Chloromethane	ND		1.0	0.35	ug/L			05/01/24 15:54	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			05/01/24 15:54	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/01/24 15:54	1
Cyclohexane	ND		1.0	0.18	ug/L			05/01/24 15:54	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/01/24 15:54	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/01/24 15:54	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/01/24 15:54	1
Isopropylbenzene	ND		1.0	0.79	ug/L			05/01/24 15:54	1
Methyl acetate	ND		2.5	1.3	ug/L			05/01/24 15:54	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/01/24 15:54	1
Methylcyclohexane	ND		1.0	0.16	ug/L			05/01/24 15:54	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219333-1

Client Sample ID: TB-042924
Date Collected: 04/29/24 00:00
Date Received: 04/29/24 17:15

Lab Sample ID: 480-219333-7
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		1.0	0.44	ug/L			05/01/24 15:54	1
Styrene	ND		1.0	0.73	ug/L			05/01/24 15:54	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/01/24 15:54	1
Toluene	ND		1.0	0.51	ug/L			05/01/24 15:54	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			05/01/24 15:54	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/01/24 15:54	1
Trichloroethene	ND		1.0	0.46	ug/L			05/01/24 15:54	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			05/01/24 15:54	1
Vinyl chloride	ND		1.0	0.90	ug/L			05/01/24 15:54	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/01/24 15:54	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*		*05/01/24 15:54*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*05/01/24 15:54*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*05/01/24 15:54*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*05/01/24 15:54*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*05/01/24 15:54*	*1*

Surrogate Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219333-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(77-120)	(73-120)	(75-123)	(80-120)
480-219333-1	MW-03-042924	103	100	102	100
480-219333-2	MW05-04-042924	102	99	103	100
480-219333-2 MS	MW05-04-042924-MS	102	99	103	103
480-219333-2 MSD	MW05-04-042924-MSD	104	100	103	103
480-219333-3	MW-02S-042924	103	99	103	100
480-219333-4	MW-02S-042924-FD	104	100	104	100
480-219333-5	MW05-01-042924	103	99	103	99
480-219333-6	MW05-03-042924	104	101	103	101
480-219333-7	TB-042924	104	99	103	99
LCS 480-710160/6	Lab Control Sample	103	100	99	103
MB 480-710160/8	Method Blank	102	100	101	100

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPHd14
Lab Sample ID	Client Sample ID	(41-120)	(48-120)	(35-120)	(46-120)	(22-120)	(60-148)
480-219333-1	MW-03-042924	81	71	54	64	41	67
480-219333-2	MW05-04-042924	101	92	71	79	56	72
480-219333-2 MS	MW05-04-042924-MS	110	90	67	82	56	64
480-219333-2 MSD	MW05-04-042924-MSD	110	99	76	92	63	69
480-219333-3	MW-02S-042924	74	74	57	66	42	70
480-219333-4	MW-02S-042924-FD	68	65	51	58	39	62
480-219333-5	MW05-01-042924	77	71	52	59	40	60
480-219333-6	MW05-03-042924	78	74	56	66	43	69
LCS 480-710141/2-A	Lab Control Sample	93	91	70	85	57	96
MB 480-710141/1-A	Method Blank	82	89	67	75	52	102

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHd14 = p-Terphenyl-d14

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1	DCBP2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(10-145)	(10-145)	(10-123)	(10-123)
480-219333-1	MW-03-042924	78	75	64	60
480-219333-2	MW05-04-042924	67	58	57	54

Surrogate Summary

Client: Ashland LLC
Job ID: 480-219333-1
Project/Site: Tank 75 Analysis

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1	DCBP2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(10-145)	(10-145)	(10-123)	(10-123)
480-219333-2 MS	MW05-04-042924-MS	78	72	63	58
480-219333-2 MSD	MW05-04-042924-MSD	77	64	49	47
480-219333-3	MW-02S-042924	79	76	61	58
480-219333-4	MW-02S-042924-FD	59	61	56	53
480-219333-4	MW-02S-042924-FD	66	62	61	59
480-219333-5	MW05-01-042924	71	62	50	47
480-219333-5	MW05-01-042924	76	68	57	53
480-219333-6	MW05-03-042924	55	54	49	46
LCS 240-611588/2-A	Lab Control Sample	90	80	72	68
LCS 240-611588/2-A - RA	Lab Control Sample	84	72	67	64
MB 240-611588/1-A	Method Blank	74	68	53	50
MB 240-611588/1-A - RA	Method Blank	67	64	49	48

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1	DCBP2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(19-120)	(19-120)	(39-121)	(39-121)
480-219333-1	MW-03-042924	77	75	68	64
480-219333-2	MW05-04-042924	46	46	62	58
480-219333-2 MS	MW05-04-042924-MS	50	49	59	58
480-219333-2 MSD	MW05-04-042924-MSD	48	48	64	63
480-219333-3	MW-02S-042924	70	69	76	72
480-219333-4	MW-02S-042924-FD	79	76	76	75
480-219333-5	MW05-01-042924	45	44	69	67
480-219333-6	MW05-03-042924	45	43	84	79
LCS 480-710200/2-A	Lab Control Sample	40	41	56	63
MB 480-710200/1-A	Method Blank	40	43	47	52

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Isotope Dilution Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219333-1

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)
		DXE
Lab Sample ID	Client Sample ID	(15-110)
480-219333-2	MW05-04-042924	34
480-219333-2 MS	MW05-04-042924-MS	36
480-219333-2 MSD	MW05-04-042924-MSD	34
480-219333-3	MW-02S-042924	34
480-219333-4	MW-02S-042924-FD	31
480-219333-5	MW05-01-042924	34
LCS 480-710046/2-A	Lab Control Sample	35
MB 480-710046/1-A	Method Blank	35

Surrogate Legend

DXE = 1,4-Dioxane-d8

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(10-130)	(35-150)	(55-150)	(55-150)	(60-140)	(55-140)	(50-140)	(30-140)
480-219333-2	MW05-04-042924	100	60.6	75.2	89.5	85.7	80.5	99.9	75.9
480-219333-2 - RA	MW05-04-042924	103	82.8	84.8	90.0	89.1	97.8	107	84.3
480-219333-2 MS	MW05-04-042924-MS		63.3	79.2	90.7	91.0	93.6	112	91.0
480-219333-2 MS - RA	MW05-04-042924-MS	99.1							
480-219333-2 MSD	MW05-04-042924-MSD		63.5	75.9	93.6	88.8	95.1	103	81.3
480-219333-2 MSD - RA	MW05-04-042924-MSD	100							
480-219333-3	MW-02S-042924	101	88.6	84.5	89.0	86.6	94.7	102	80.9
480-219333-4	MW-02S-042924-FD	97.1	88.8	82.7	85.3	87.3	89.3	103	76.1
480-219333-5	MW05-01-042924	99.8	67.3	77.6	93.9	80.7	89.2	99.7	86.6
MB 240-611570/1-A	Method Blank	98.4	98.6	98.8	99.0	94.1	101	116	93.5
MB 240-611819/1-A	Method Blank	93.7	94.8	89.0	94.0	85.4	100	109	90.1

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFTDA	C3PFBS	C3PFHS	C8PFOS	PFOSA	d3NMFOS	d5NEFOS	M242FTS
Lab Sample ID	Client Sample ID	(10-130)	(55-150)	(55-150)	(45-140)	(30-130)	(45-200)	(10-200)	(60-200)
480-219333-2	MW05-04-042924	46.0	92.7	89.9	76.1	88.7	96.2	79.3	247 *5+
480-219333-2 - RA	MW05-04-042924	62.9	105	95.9	88.2	106	99.9	89.4	217 *5+
480-219333-2 MS	MW05-04-042924-MS	66.7	97.0	93.8	88.4	98.4	109	99.4	270 *5+
480-219333-2 MS - RA	MW05-04-042924-MS								
480-219333-2 MSD	MW05-04-042924-MSD	61.4	90.5	90.9	86.1	103	119	102	263 *5+
480-219333-2 MSD - RA	MW05-04-042924-MSD								
480-219333-3	MW-02S-042924	55.9	96.5	89.1	81.4	97.0	92.5	84.8	134
480-219333-4	MW-02S-042924-FD	62.2	101	91.9	84.0	94.4	87.3	81.6	137
480-219333-5	MW05-01-042924	58.7	88.1	91.6	83.8	105	112	106	248 *5+
MB 240-611570/1-A	Method Blank	79.1	99.6	104	90.6	94.3	111	96.4	95.5
MB 240-611819/1-A	Method Blank	79.3	98.2	94.1	97.1	102	111	96.9	94.9

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M262FTS	M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	PFDoDA
Lab Sample ID	Client Sample ID	(60-200)	(50-200)	(25-160)	(10-150)	(10-150)	(10-130)	(15-130)	(10-150)
480-219333-2	MW05-04-042924	183	161	73.8	66.1	59.8	49.8	55.1	61.6
480-219333-2 - RA	MW05-04-042924	124	134	84.3	81.3	74.5	66.4	73.5	69.4
480-219333-2 MS	MW05-04-042924-MS	201 *5+	187	73.7	75.3	70.2	62.5	66.3	78.5
480-219333-2 MS - RA	MW05-04-042924-MS								

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M262FTS (60-200)	M282FTS (50-200)	HFPODA (25-160)	NMFM (10-150)	NEFM (10-150)	d5NPFSA (10-130)	d3NMFSA (15-130)	PFDoDA (10-150)
480-219333-2 MSD	MW05-04-042924-MSD	205 *5+	179	72.4	75.2	69.1	62.2	66.9	74.5
480-219333-2 MSD - RA	MW05-04-042924-MSD								
480-219333-3	MW-02S-042924	97.1	111	87.3	76.6	72.1	62.9	68.2	65.8
480-219333-4	MW-02S-042924-FD	103	119	90.5	78.6	74.1	68.4	71.9	67.3
480-219333-5	MW05-01-042924	205 *5+	229 *5+	69.5	71.4	66.0	58.1	64.9	72.1
MB 240-611570/1-A	Method Blank	96.3	156	106	91.4	90.4	67.2	73.4	85.5
MB 240-611819/1-A	Method Blank	91.6	114	94.2	95.3	92.3	80.1	81.9	81.8

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoDA = 13C2-PFDoDA

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (10-130)	PFPeA (40-150)	13C5PHA (40-150)	C4PFHA (40-150)	C8PFOA (30-140)	C9PFNA (30-140)	C6PFDA (20-140)	13C7PUA (20-140)
LCS 240-611570/3-A	Lab Control Sample	96.5	100	96.2	97.0	97.3	101	112	91.8
LCS 240-611819/3-A	Lab Control Sample	94.9	96.0	93.3	93.2	92.6	92.8	108	89.7
LLCS 240-611570/2-A	Lab Control Sample	96.5	96.9	96.0	102	94.7	99.3	119	97.4
LLCS 240-611819/2-A	Lab Control Sample	93.4	98.2	92.7	94.7	90.1	99.0	107	89.5

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFTDA (10-130)	C3PFBS (25-150)	C3PFHS (25-150)	C8PFOS (20-140)	PFOSA (10-130)	d3NMFOS (10-200)	d5NEFOS (10-200)	M242FTS (25-200)
LCS 240-611570/3-A	Lab Control Sample	82.8	93.4	97.5	90.9	95.3	110	94.2	89.8
LCS 240-611819/3-A	Lab Control Sample	75.5	98.2	99.2	85.4	97.3	101	95.4	86.6
LLCS 240-611570/2-A	Lab Control Sample	88.6	98.1	107	91.3	98.7	111	99.2	96.5
LLCS 240-611819/2-A	Lab Control Sample	79.8	100	99.4	89.3	104	113	101	99.8

Isotope Dilution Summary

Client: Ashland LLC
Job ID: 480-219333-1
Project/Site: Tank 75 Analysis

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M262FTS (25-200)	M282FTS (25-200)	HFPODA (25-160)	NMFM (10-150)	NEFM (10-150)	d5NPFSA (10-130)	d3NMFSA (10-130)	PFDoDA (10-150)
LCS 240-611570/3-A	Lab Control Sample	90.0	142	100	89.2	84.9	66.3	71.1	87.7
LCS 240-611819/3-A	Lab Control Sample	91.0	146	95.6	91.5	89.4	75.9	75.3	80.5
LLCS 240-611570/2-A	Lab Control Sample	95.6	143	104	93.7	89.1	66.6	72.5	89.1
LLCS 240-611819/2-A	Lab Control Sample	92.1	121	102	95.5	93.3	78.6	78.1	82.5

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoDA = 13C2-PFDoDA

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219333-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-710160/8
Matrix: Water
Analysis Batch: 710160

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/01/24 13:19	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/01/24 13:19	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			05/01/24 13:19	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/01/24 13:19	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/01/24 13:19	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/01/24 13:19	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			05/01/24 13:19	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			05/01/24 13:19	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			05/01/24 13:19	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			05/01/24 13:19	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/01/24 13:19	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/01/24 13:19	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			05/01/24 13:19	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			05/01/24 13:19	1
2-Butanone (MEK)	ND		10	1.3	ug/L			05/01/24 13:19	1
2-Hexanone	ND		5.0	1.2	ug/L			05/01/24 13:19	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/01/24 13:19	1
Acetone	ND		10	3.0	ug/L			05/01/24 13:19	1
Benzene	ND		1.0	0.41	ug/L			05/01/24 13:19	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/01/24 13:19	1
Bromoform	ND		1.0	0.26	ug/L			05/01/24 13:19	1
Bromomethane	ND		1.0	0.69	ug/L			05/01/24 13:19	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/01/24 13:19	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/01/24 13:19	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/01/24 13:19	1
Chloroethane	ND		1.0	0.32	ug/L			05/01/24 13:19	1
Chloroform	ND		1.0	0.34	ug/L			05/01/24 13:19	1
Chloromethane	ND		1.0	0.35	ug/L			05/01/24 13:19	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			05/01/24 13:19	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/01/24 13:19	1
Cyclohexane	ND		1.0	0.18	ug/L			05/01/24 13:19	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/01/24 13:19	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/01/24 13:19	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/01/24 13:19	1
Isopropylbenzene	ND		1.0	0.79	ug/L			05/01/24 13:19	1
Methyl acetate	ND		2.5	1.3	ug/L			05/01/24 13:19	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/01/24 13:19	1
Methylcyclohexane	ND		1.0	0.16	ug/L			05/01/24 13:19	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/01/24 13:19	1
Styrene	ND		1.0	0.73	ug/L			05/01/24 13:19	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/01/24 13:19	1
Toluene	ND		1.0	0.51	ug/L			05/01/24 13:19	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			05/01/24 13:19	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/01/24 13:19	1
Trichloroethene	ND		1.0	0.46	ug/L			05/01/24 13:19	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			05/01/24 13:19	1
Vinyl chloride	ND		1.0	0.90	ug/L			05/01/24 13:19	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/01/24 13:19	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-710160/8
Matrix: Water
Analysis Batch: 710160

Client Sample ID: Method Blank
Prep Type: Total/NA

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A		05/01/24 13:19	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		77 - 120		05/01/24 13:19	1
4-Bromofluorobenzene (Surr)	100		73 - 120		05/01/24 13:19	1
Dibromofluoromethane (Surr)	101		75 - 123		05/01/24 13:19	1
Toluene-d8 (Surr)	100		80 - 120		05/01/24 13:19	1

Lab Sample ID: LCS 480-710160/6
Matrix: Water
Analysis Batch: 710160

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	25.0	25.3		ug/L		101	73 - 126
1,1,2,2-Tetrachloroethane	25.0	25.9		ug/L		104	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	29.8		ug/L		119	61 - 148
1,1,2-Trichloroethane	25.0	26.5		ug/L		106	76 - 122
1,1-Dichloroethane	25.0	26.7		ug/L		107	77 - 120
1,1-Dichloroethene	25.0	29.0		ug/L		116	66 - 127
1,2,4-Trichlorobenzene	25.0	23.7		ug/L		95	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	22.6		ug/L		90	56 - 134
1,2-Dibromoethane	25.0	25.8		ug/L		103	77 - 120
1,2-Dichlorobenzene	25.0	25.4		ug/L		102	80 - 124
1,2-Dichloroethane	25.0	24.9		ug/L		100	75 - 120
1,2-Dichloropropane	25.0	26.1		ug/L		104	76 - 120
1,3-Dichlorobenzene	25.0	26.9		ug/L		107	77 - 120
1,4-Dichlorobenzene	25.0	26.4		ug/L		105	80 - 120
2-Butanone (MEK)	125	138		ug/L		110	57 - 140
2-Hexanone	125	135		ug/L		108	65 - 127
4-Methyl-2-pentanone (MIBK)	125	132		ug/L		106	71 - 125
Acetone	125	146		ug/L		117	56 - 142
Benzene	25.0	26.4		ug/L		106	71 - 124
Bromodichloromethane	25.0	24.6		ug/L		98	80 - 122
Bromoform	25.0	23.0		ug/L		92	61 - 132
Bromomethane	25.0	26.9		ug/L		107	55 - 144
Carbon disulfide	25.0	26.2		ug/L		105	59 - 134
Carbon tetrachloride	25.0	23.5		ug/L		94	72 - 134
Chlorobenzene	25.0	26.2		ug/L		105	80 - 120
Chloroethane	25.0	22.6		ug/L		91	69 - 136
Chloroform	25.0	24.1		ug/L		96	73 - 127
Chloromethane	25.0	26.6		ug/L		106	68 - 124
cis-1,2-Dichloroethene	25.0	26.1		ug/L		104	74 - 124
cis-1,3-Dichloropropene	25.0	25.0		ug/L		100	74 - 124
Cyclohexane	25.0	27.2		ug/L		109	59 - 135
Dibromochloromethane	25.0	24.4		ug/L		97	75 - 125
Dichlorodifluoromethane	25.0	23.9		ug/L		96	59 - 135
Ethylbenzene	25.0	28.2		ug/L		113	77 - 123

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-710160/6
Matrix: Water
Analysis Batch: 710160

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Isopropylbenzene	25.0	26.7		ug/L		107	77 - 122
Methyl acetate	50.0	51.1		ug/L		102	74 - 133
Methyl tert-butyl ether	25.0	23.2		ug/L		93	77 - 120
Methylcyclohexane	25.0	27.0		ug/L		108	68 - 134
Methylene Chloride	25.0	26.2		ug/L		105	75 - 124
Styrene	25.0	27.0		ug/L		108	80 - 120
Tetrachloroethene	25.0	27.2		ug/L		109	74 - 122
Toluene	25.0	27.6		ug/L		110	80 - 122
trans-1,2-Dichloroethene	25.0	27.5		ug/L		110	73 - 127
Trichloroethene	25.0	26.1		ug/L		105	74 - 123
Trichlorofluoromethane	25.0	32.1		ug/L		128	62 - 150
Vinyl chloride	25.0	29.0		ug/L		116	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*
Dibromofluoromethane (Surr)	*99*		*75 - 123*
Toluene-d8 (Surr)	*103*		*80 - 120*

Lab Sample ID: 480-219333-2 MS
Matrix: Water
Analysis Batch: 710160

Client Sample ID: MW05-04-042924-MS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	ND		100	104		ug/L		104	73 - 126
1,1,2,2-Tetrachloroethane	ND		100	99.1		ug/L		99	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		100	124		ug/L		124	61 - 148
1,1,2-Trichloroethane	ND		100	106		ug/L		106	76 - 122
1,1-Dichloroethane	ND		100	110		ug/L		110	77 - 120
1,1-Dichloroethene	ND		100	118		ug/L		118	66 - 127
1,2,4-Trichlorobenzene	ND		100	95.5		ug/L		95	79 - 122
1,2-Dibromo-3-Chloropropane	ND		100	84.2		ug/L		84	56 - 134
1,2-Dibromoethane	ND		100	102		ug/L		102	77 - 120
1,2-Dichlorobenzene	ND		100	105		ug/L		105	80 - 124
1,2-Dichloroethane	ND		100	102		ug/L		102	75 - 120
1,2-Dichloropropane	ND		100	104		ug/L		104	76 - 120
1,3-Dichlorobenzene	ND		100	108		ug/L		108	77 - 120
1,4-Dichlorobenzene	ND		100	105		ug/L		105	78 - 124
2-Butanone (MEK)	ND		500	521		ug/L		104	57 - 140
2-Hexanone	ND		500	512		ug/L		102	65 - 127
4-Methyl-2-pentanone (MIBK)	ND		500	517		ug/L		103	71 - 125
Acetone	ND		500	510		ug/L		102	56 - 142
Benzene	ND		100	109		ug/L		109	71 - 124
Bromodichloromethane	ND		100	99.3		ug/L		99	80 - 122
Bromoform	ND		100	86.9		ug/L		87	61 - 132
Bromomethane	ND		100	128		ug/L		128	55 - 144
Carbon disulfide	ND		100	99.1		ug/L		99	59 - 134
Carbon tetrachloride	ND		100	96.9		ug/L		97	72 - 134

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-219333-2 MS
Matrix: Water
Analysis Batch: 710160

Client Sample ID: MW05-04-042924-MS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chlorobenzene	ND		100	107		ug/L		107	80 - 120
Chloroethane	ND		100	105		ug/L		105	69 - 136
Chloroform	ND		100	98.5		ug/L		98	73 - 127
Chloromethane	ND		100	113		ug/L		113	68 - 124
cis-1,2-Dichloroethene	ND		100	106		ug/L		106	74 - 124
cis-1,3-Dichloropropene	ND		100	95.6		ug/L		96	74 - 124
Cyclohexane	ND		100	109		ug/L		109	59 - 135
Dibromochloromethane	ND		100	95.8		ug/L		96	75 - 125
Dichlorodifluoromethane	ND		100	97.4		ug/L		97	59 - 135
Ethylbenzene	ND		100	113		ug/L		113	77 - 123
Isopropylbenzene	ND		100	103		ug/L		103	77 - 122
Methyl acetate	ND		200	194		ug/L		97	74 - 133
Methyl tert-butyl ether	ND		100	96.2		ug/L		96	77 - 120
Methylcyclohexane	ND		100	107		ug/L		107	68 - 134
Methylene Chloride	ND		100	109		ug/L		109	75 - 124
Styrene	ND		100	109		ug/L		109	80 - 120
Tetrachloroethene	ND		100	110		ug/L		110	74 - 122
Toluene	ND		100	111		ug/L		111	80 - 122
trans-1,2-Dichloroethene	ND		100	114		ug/L		114	73 - 127
Trichloroethene	ND		100	105		ug/L		105	74 - 123
Trichlorofluoromethane	ND		100	147		ug/L		147	62 - 150
Vinyl chloride	ND		100	128		ug/L		128	65 - 133

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*
Dibromofluoromethane (Surr)	*103*		*75 - 123*
Toluene-d8 (Surr)	*103*		*80 - 120*

Lab Sample ID: 480-219333-2 MSD
Matrix: Water
Analysis Batch: 710160

Client Sample ID: MW05-04-042924-MSD
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		100	102		ug/L		102	73 - 126	2	15
1,1,2,2-Tetrachloroethane	ND		100	103		ug/L		103	76 - 120	3	15
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		100	116		ug/L		116	61 - 148	6	20
1,1,2-Trichloroethane	ND		100	106		ug/L		106	76 - 122	0	15
1,1-Dichloroethane	ND		100	106		ug/L		106	77 - 120	4	20
1,1-Dichloroethene	ND		100	113		ug/L		113	66 - 127	5	16
1,2,4-Trichlorobenzene	ND		100	93.2		ug/L		93	79 - 122	2	20
1,2-Dibromo-3-Chloropropane	ND		100	89.3		ug/L		89	56 - 134	6	15
1,2-Dibromoethane	ND		100	102		ug/L		102	77 - 120	0	15
1,2-Dichlorobenzene	ND		100	103		ug/L		103	80 - 124	2	20
1,2-Dichloroethane	ND		100	100		ug/L		100	75 - 120	1	20
1,2-Dichloropropane	ND		100	102		ug/L		102	76 - 120	2	20
1,3-Dichlorobenzene	ND		100	106		ug/L		106	77 - 120	2	20
1,4-Dichlorobenzene	ND		100	104		ug/L		104	78 - 124	1	20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-219333-2 MSD
Matrix: Water
Analysis Batch: 710160

Client Sample ID: MW05-04-042924-MSD
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Butanone (MEK)	ND		500	523		ug/L		105	57 - 140	0	20
2-Hexanone	ND		500	530		ug/L		106	65 - 127	3	15
4-Methyl-2-pentanone (MIBK)	ND		500	526		ug/L		105	71 - 125	2	35
Acetone	ND		500	546		ug/L		109	56 - 142	7	15
Benzene	ND		100	106		ug/L		106	71 - 124	3	13
Bromodichloromethane	ND		100	97.3		ug/L		97	80 - 122	2	15
Bromoform	ND		100	90.7		ug/L		91	61 - 132	4	15
Bromomethane	ND		100	119		ug/L		119	55 - 144	8	15
Carbon disulfide	ND		100	97.4		ug/L		97	59 - 134	2	15
Carbon tetrachloride	ND		100	97.1		ug/L		97	72 - 134	0	15
Chlorobenzene	ND		100	105		ug/L		105	80 - 120	3	25
Chloroethane	ND		100	104		ug/L		104	69 - 136	1	15
Chloroform	ND		100	95.7		ug/L		96	73 - 127	3	20
Chloromethane	ND		100	106		ug/L		106	68 - 124	6	15
cis-1,2-Dichloroethene	ND		100	104		ug/L		104	74 - 124	2	15
cis-1,3-Dichloropropene	ND		100	94.4		ug/L		94	74 - 124	1	15
Cyclohexane	ND		100	105		ug/L		105	59 - 135	3	20
Dibromochloromethane	ND		100	97.8		ug/L		98	75 - 125	2	15
Dichlorodifluoromethane	ND		100	93.7		ug/L		94	59 - 135	4	20
Ethylbenzene	ND		100	110		ug/L		110	77 - 123	3	15
Isopropylbenzene	ND		100	102		ug/L		102	77 - 122	1	20
Methyl acetate	ND		200	191		ug/L		96	74 - 133	1	20
Methyl tert-butyl ether	ND		100	95.6		ug/L		96	77 - 120	1	37
Methylcyclohexane	ND		100	103		ug/L		103	68 - 134	3	20
Methylene Chloride	ND		100	106		ug/L		106	75 - 124	3	15
Styrene	ND		100	108		ug/L		108	80 - 120	1	20
Tetrachloroethene	ND		100	106		ug/L		106	74 - 122	4	20
Toluene	ND		100	109		ug/L		109	80 - 122	2	15
trans-1,2-Dichloroethene	ND		100	111		ug/L		111	73 - 127	3	20
Trichloroethene	ND		100	103		ug/L		103	74 - 123	2	16
Trichlorofluoromethane	ND		100	136		ug/L		136	62 - 150	8	20
Vinyl chloride	ND		100	119		ug/L		119	65 - 133	8	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*
Dibromofluoromethane (Surr)	*103*		*75 - 123*
Toluene-d8 (Surr)	*103*		*80 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-710141/1-A
Matrix: Water
Analysis Batch: 710333

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 710141

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		05/01/24 09:25	05/02/24 14:22	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		05/01/24 09:25	05/02/24 14:22	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		05/01/24 09:25	05/02/24 14:22	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-710141/1-A
Matrix: Water
Analysis Batch: 710333

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 710141

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		05/01/24 09:25	05/02/24 14:22	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		05/01/24 09:25	05/02/24 14:22	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		05/01/24 09:25	05/02/24 14:22	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		05/01/24 09:25	05/02/24 14:22	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		05/01/24 09:25	05/02/24 14:22	1
2-Chlorophenol	ND		5.0	0.53	ug/L		05/01/24 09:25	05/02/24 14:22	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		05/01/24 09:25	05/02/24 14:22	1
2-Methylphenol	ND		5.0	0.40	ug/L		05/01/24 09:25	05/02/24 14:22	1
2-Nitroaniline	ND		10	0.42	ug/L		05/01/24 09:25	05/02/24 14:22	1
2-Nitrophenol	ND		5.0	0.48	ug/L		05/01/24 09:25	05/02/24 14:22	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		05/01/24 09:25	05/02/24 14:22	1
3-Nitroaniline	ND		10	0.48	ug/L		05/01/24 09:25	05/02/24 14:22	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		05/01/24 09:25	05/02/24 14:22	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		05/01/24 09:25	05/02/24 14:22	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		05/01/24 09:25	05/02/24 14:22	1
4-Chloroaniline	ND		5.0	0.59	ug/L		05/01/24 09:25	05/02/24 14:22	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		05/01/24 09:25	05/02/24 14:22	1
4-Methylphenol	ND		10	0.36	ug/L		05/01/24 09:25	05/02/24 14:22	1
4-Nitroaniline	ND		10	0.25	ug/L		05/01/24 09:25	05/02/24 14:22	1
4-Nitrophenol	ND		10	1.5	ug/L		05/01/24 09:25	05/02/24 14:22	1
Acenaphthene	ND		5.0	0.41	ug/L		05/01/24 09:25	05/02/24 14:22	1
Acenaphthylene	ND		5.0	0.38	ug/L		05/01/24 09:25	05/02/24 14:22	1
Acetophenone	ND		5.0	0.54	ug/L		05/01/24 09:25	05/02/24 14:22	1
Anthracene	ND		5.0	0.28	ug/L		05/01/24 09:25	05/02/24 14:22	1
Atrazine	ND		5.0	0.46	ug/L		05/01/24 09:25	05/02/24 14:22	1
Benzaldehyde	ND		5.0	0.27	ug/L		05/01/24 09:25	05/02/24 14:22	1
Benzo(a)anthracene	ND		5.0	0.36	ug/L		05/01/24 09:25	05/02/24 14:22	1
Benzo(a)pyrene	ND		5.0	0.47	ug/L		05/01/24 09:25	05/02/24 14:22	1
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L		05/01/24 09:25	05/02/24 14:22	1
Benzo(g,h,i)perylene	ND		5.0	0.35	ug/L		05/01/24 09:25	05/02/24 14:22	1
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L		05/01/24 09:25	05/02/24 14:22	1
Biphenyl	ND		5.0	0.65	ug/L		05/01/24 09:25	05/02/24 14:22	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		05/01/24 09:25	05/02/24 14:22	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		05/01/24 09:25	05/02/24 14:22	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		05/01/24 09:25	05/02/24 14:22	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		05/01/24 09:25	05/02/24 14:22	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		05/01/24 09:25	05/02/24 14:22	1
Caprolactam	ND		5.0	2.2	ug/L		05/01/24 09:25	05/02/24 14:22	1
Carbazole	ND		5.0	0.30	ug/L		05/01/24 09:25	05/02/24 14:22	1
Chrysene	ND		5.0	0.33	ug/L		05/01/24 09:25	05/02/24 14:22	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		05/01/24 09:25	05/02/24 14:22	1
Dibenzofuran	ND		10	0.51	ug/L		05/01/24 09:25	05/02/24 14:22	1
Diethyl phthalate	ND		5.0	0.22	ug/L		05/01/24 09:25	05/02/24 14:22	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		05/01/24 09:25	05/02/24 14:22	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		05/01/24 09:25	05/02/24 14:22	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		05/01/24 09:25	05/02/24 14:22	1
Fluoranthene	ND		5.0	0.40	ug/L		05/01/24 09:25	05/02/24 14:22	1
Fluorene	ND		5.0	0.36	ug/L		05/01/24 09:25	05/02/24 14:22	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		05/01/24 09:25	05/02/24 14:22	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-710141/1-A
Matrix: Water
Analysis Batch: 710333

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 710141

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND		5.0	0.68	ug/L		05/01/24 09:25	05/02/24 14:22	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		05/01/24 09:25	05/02/24 14:22	1
Hexachloroethane	ND		5.0	0.59	ug/L		05/01/24 09:25	05/02/24 14:22	1
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L		05/01/24 09:25	05/02/24 14:22	1
Isophorone	ND		5.0	0.43	ug/L		05/01/24 09:25	05/02/24 14:22	1
Naphthalene	ND		5.0	0.76	ug/L		05/01/24 09:25	05/02/24 14:22	1
Nitrobenzene	ND		5.0	0.29	ug/L		05/01/24 09:25	05/02/24 14:22	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		05/01/24 09:25	05/02/24 14:22	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		05/01/24 09:25	05/02/24 14:22	1
Pentachlorophenol	ND		10	2.2	ug/L		05/01/24 09:25	05/02/24 14:22	1
Phenanthrene	ND		5.0	0.44	ug/L		05/01/24 09:25	05/02/24 14:22	1
Phenol	ND		5.0	0.39	ug/L		05/01/24 09:25	05/02/24 14:22	1
Pyrene	ND		5.0	0.34	ug/L		05/01/24 09:25	05/02/24 14:22	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Ethyl Acetate	*2.67*	*T J N*	*ug/L*		*2.61*	*141-78-6*	*05/01/24 09:25*	*05/02/24 14:22*	*1*
Furan, tetrahydro-	*373*	*T J N*	*ug/L*		*2.77*	*109-99-9*	*05/01/24 09:25*	*05/02/24 14:22*	*1*
Unknown	*7.94*	*T J*	*ug/L*		*2.90*	*N/A*	*05/01/24 09:25*	*05/02/24 14:22*	*1*
Unknown	*2.35*	*T J*	*ug/L*		*3.09*	*N/A*	*05/01/24 09:25*	*05/02/24 14:22*	*1*
Pyridine	*2.20*	*J*	*ug/L*		*4.14*	*110-86-1*	*05/01/24 09:25*	*05/02/24 14:22*	*1*
Unknown	*32.5*	*T J*	*ug/L*		*5.12*	*N/A*	*05/01/24 09:25*	*05/02/24 14:22*	*1*
Unknown	*4.01*	*T J*	*ug/L*		*5.53*	*N/A*	*05/01/24 09:25*	*05/02/24 14:22*	*1*
Unknown	*3.34*	*T J*	*ug/L*		*5.64*	*N/A*	*05/01/24 09:25*	*05/02/24 14:22*	*1*
Unknown	*3.52*	*T J*	*ug/L*		*5.91*	*N/A*	*05/01/24 09:25*	*05/02/24 14:22*	*1*
Unknown	*2.39*	*T J*	*ug/L*		*6.05*	*N/A*	*05/01/24 09:25*	*05/02/24 14:22*	*1*
Unknown	*4.32*	*T J*	*ug/L*		*11.35*	*N/A*	*05/01/24 09:25*	*05/02/24 14:22*	*1*
Unknown	*4.31*	*T J*	*ug/L*		*11.93*	*N/A*	*05/01/24 09:25*	*05/02/24 14:22*	*1*
Unknown	*3.96*	*T J*	*ug/L*		*12.35*	*N/A*	*05/01/24 09:25*	*05/02/24 14:22*	*1*
Unknown	*5.39*	*T J*	*ug/L*		*14.41*	*N/A*	*05/01/24 09:25*	*05/02/24 14:22*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*82*		*41 - 120*	*05/01/24 09:25*	*05/02/24 14:22*	*1*
2-Fluorobiphenyl	*89*		*48 - 120*	*05/01/24 09:25*	*05/02/24 14:22*	*1*
2-Fluorophenol	*67*		*35 - 120*	*05/01/24 09:25*	*05/02/24 14:22*	*1*
Nitrobenzene-d5	*75*		*46 - 120*	*05/01/24 09:25*	*05/02/24 14:22*	*1*
Phenol-d5	*52*		*22 - 120*	*05/01/24 09:25*	*05/02/24 14:22*	*1*
p-Terphenyl-d14	*102*		*60 - 148*	*05/01/24 09:25*	*05/02/24 14:22*	*1*

Lab Sample ID: LCS 480-710141/2-A
Matrix: Water
Analysis Batch: 710333

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 710141

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4,5-Trichlorophenol	32.0	32.1		ug/L		100	65 - 126
2,4,6-Trichlorophenol	32.0	29.7		ug/L		93	64 - 120
2,4-Dichlorophenol	32.0	28.7		ug/L		90	63 - 120
2,4-Dimethylphenol	32.0	29.3		ug/L		91	47 - 120
2,4-Dinitrophenol	64.0	54.5		ug/L		85	31 - 137

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-710141/2-A
Matrix: Water
Analysis Batch: 710333

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 710141

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4-Dinitrotoluene	32.0	32.4		ug/L		101	69 - 120
2,6-Dinitrotoluene	32.0	31.6		ug/L		99	68 - 120
2-Chloronaphthalene	32.0	29.1		ug/L		91	58 - 120
2-Chlorophenol	32.0	28.5		ug/L		89	48 - 120
2-Methylnaphthalene	32.0	28.4		ug/L		89	59 - 120
2-Methylphenol	32.0	28.5		ug/L		89	39 - 120
2-Nitroaniline	32.0	30.6		ug/L		96	54 - 127
2-Nitrophenol	32.0	28.9		ug/L		90	52 - 125
3,3'-Dichlorobenzidine	64.0	57.4		ug/L		90	49 - 135
3-Nitroaniline	32.0	26.1		ug/L		82	51 - 120
4,6-Dinitro-2-methylphenol	64.0	62.5		ug/L		98	46 - 136
4-Bromophenyl phenyl ether	32.0	31.5		ug/L		98	65 - 120
4-Chloro-3-methylphenol	32.0	29.9		ug/L		93	61 - 123
4-Chloroaniline	32.0	24.8		ug/L		77	30 - 120
4-Chlorophenyl phenyl ether	32.0	30.9		ug/L		97	62 - 120
4-Methylphenol	32.0	28.1		ug/L		88	29 - 131
4-Nitroaniline	32.0	31.5		ug/L		98	65 - 120
4-Nitrophenol	64.0	50.6		ug/L		79	45 - 120
Acenaphthene	32.0	30.7		ug/L		96	60 - 120
Acenaphthylene	32.0	30.8		ug/L		96	63 - 120
Acetophenone	32.0	30.1		ug/L		94	45 - 120
Anthracene	32.0	33.0		ug/L		103	67 - 120
Atrazine	64.0	73.4		ug/L		115	71 - 130
Benzaldehyde	64.0	56.8		ug/L		89	10 - 140
Benzo(a)anthracene	32.0	32.0		ug/L		100	70 - 121
Benzo(a)pyrene	32.0	31.6		ug/L		99	60 - 123
Benzo(b)fluoranthene	32.0	31.7		ug/L		99	66 - 126
Benzo(g,h,i)perylene	32.0	45.3		ug/L		141	66 - 150
Benzo(k)fluoranthene	32.0	31.5		ug/L		98	65 - 124
Biphenyl	32.0	29.8		ug/L		93	59 - 120
bis (2-chloroisopropyl) ether	32.0	29.7		ug/L		93	21 - 136
Bis(2-chloroethoxy)methane	32.0	29.4		ug/L		92	50 - 128
Bis(2-chloroethyl)ether	32.0	31.8		ug/L		99	44 - 120
Bis(2-ethylhexyl) phthalate	32.0	32.4		ug/L		101	63 - 139
Butyl benzyl phthalate	32.0	33.0		ug/L		103	70 - 129
Caprolactam	64.0	22.7		ug/L		35	22 - 120
Carbazole	32.0	33.7		ug/L		105	66 - 123
Chrysene	32.0	31.6		ug/L		99	69 - 120
Dibenz(a,h)anthracene	32.0	37.3		ug/L		117	65 - 135
Dibenzofuran	32.0	30.4		ug/L		95	66 - 120
Diethyl phthalate	32.0	33.5		ug/L		105	59 - 127
Dimethyl phthalate	32.0	32.1		ug/L		100	68 - 120
Di-n-butyl phthalate	32.0	33.6		ug/L		105	69 - 131
Di-n-octyl phthalate	32.0	32.4		ug/L		101	63 - 140
Fluoranthene	32.0	33.6		ug/L		105	69 - 126
Fluorene	32.0	32.1		ug/L		100	66 - 120
Hexachlorobenzene	32.0	30.7		ug/L		96	61 - 120
Hexachlorobutadiene	32.0	24.2		ug/L		76	35 - 120
Hexachlorocyclopentadiene	32.0	18.1		ug/L		57	31 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-710141/2-A
Matrix: Water
Analysis Batch: 710333

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 710141

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Hexachloroethane			32.0	25.4		ug/L		79	33 - 120		
Indeno(1,2,3-cd)pyrene			32.0	43.0		ug/L		134	69 - 146		
Isophorone			32.0	30.7		ug/L		96	55 - 120		
Naphthalene			32.0	28.0		ug/L		88	57 - 120		
Nitrobenzene			32.0	28.6		ug/L		89	53 - 123		
N-Nitrosodi-n-propylamine			32.0	29.8		ug/L		93	32 - 140		
Pentachlorophenol			64.0	46.4		ug/L		72	10 - 136		
Phenanthrene			32.0	32.4		ug/L		101	68 - 120		
Phenol			32.0	19.6		ug/L		61	17 - 120		
Pyrene			32.0	32.3		ug/L		101	70 - 125		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*93*		*41 - 120*
2-Fluorobiphenyl	*91*		*48 - 120*
2-Fluorophenol	*70*		*35 - 120*
Nitrobenzene-d5	*85*		*46 - 120*
Phenol-d5	*57*		*22 - 120*
p-Terphenyl-d14	*96*		*60 - 148*

Lab Sample ID: 480-219333-2 MS
Matrix: Water
Analysis Batch: 710333

Client Sample ID: MW05-04-042924-MS
Prep Type: Total/NA
Prep Batch: 710141

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
2,4,5-Trichlorophenol	ND		32.0	32.8		ug/L		102	65 - 126		
2,4,6-Trichlorophenol	ND		32.0	33.4		ug/L		104	64 - 120		
2,4-Dichlorophenol	ND		32.0	29.4		ug/L		92	48 - 132		
2,4-Dimethylphenol	ND		32.0	29.3		ug/L		91	39 - 130		
2,4-Dinitrophenol	ND		64.0	63.8		ug/L		100	21 - 150		
2,4-Dinitrotoluene	ND		32.0	33.4		ug/L		104	54 - 138		
2,6-Dinitrotoluene	ND		32.0	32.1		ug/L		100	17 - 150		
2-Chloronaphthalene	ND		32.0	28.5		ug/L		89	52 - 124		
2-Chlorophenol	ND		32.0	27.7		ug/L		87	48 - 120		
2-Methylnaphthalene	ND		32.0	28.1		ug/L		88	34 - 140		
2-Methylphenol	ND		32.0	28.6		ug/L		89	46 - 120		
2-Nitroaniline	ND		32.0	32.1		ug/L		100	44 - 136		
2-Nitrophenol	ND		32.0	28.9		ug/L		90	38 - 141		
3,3'-Dichlorobenzidine	ND	F1	64.0	2.02	J F1	ug/L		3	10 - 150		
3-Nitroaniline	ND		32.0	16.7		ug/L		52	32 - 150		
4,6-Dinitro-2-methylphenol	ND		64.0	65.7		ug/L		103	38 - 150		
4-Bromophenyl phenyl ether	ND		32.0	31.8		ug/L		99	63 - 126		
4-Chloro-3-methylphenol	ND		32.0	31.3		ug/L		98	64 - 127		
4-Chloroaniline	ND		32.0	14.5		ug/L		45	16 - 124		
4-Chlorophenyl phenyl ether	ND		32.0	31.0		ug/L		97	61 - 120		
4-Methylphenol	ND		32.0	28.4		ug/L		89	36 - 120		
4-Nitroaniline	ND		32.0	28.8		ug/L		90	32 - 150		
4-Nitrophenol	ND		64.0	55.0		ug/L		86	23 - 132		
Acenaphthene	ND		32.0	30.6		ug/L		95	48 - 120		

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-219333-2 MS
Matrix: Water
Analysis Batch: 710333

Client Sample ID: MW05-04-042924-MS
Prep Type: Total/NA
Prep Batch: 710141

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthylene	ND		32.0	30.8		ug/L		96	63 - 120
Acetophenone	ND		32.0	29.2		ug/L		91	53 - 120
Anthracene	ND		32.0	33.2		ug/L		104	65 - 122
Atrazine	ND		64.0	59.5		ug/L		93	50 - 150
Benzaldehyde	ND		64.0	48.8		ug/L		76	10 - 150
Benzo(a)anthracene	ND		32.0	25.9		ug/L		81	43 - 124
Benzo(a)pyrene	ND		32.0	23.2		ug/L		73	23 - 125
Benzo(b)fluoranthene	ND		32.0	23.3		ug/L		73	27 - 127
Benzo(g,h,i)perylene	ND		32.0	27.6		ug/L		86	16 - 147
Benzo(k)fluoranthene	ND		32.0	23.0		ug/L		72	20 - 124
Biphenyl	ND		32.0	29.0		ug/L		91	57 - 120
bis (2-chloroisopropyl) ether	ND		32.0	28.0		ug/L		88	28 - 121
Bis(2-chloroethoxy)methane	ND		32.0	29.1		ug/L		91	44 - 128
Bis(2-chloroethyl)ether	ND	F1	32.0	35.9		ug/L		112	45 - 120
Bis(2-ethylhexyl) phthalate	ND		32.0	22.7		ug/L		71	16 - 150
Butyl benzyl phthalate	ND		32.0	30.2		ug/L		94	51 - 140
Caprolactam	ND		64.0	23.8		ug/L		37	10 - 120
Carbazole	ND		32.0	36.0		ug/L		113	16 - 148
Chrysene	ND		32.0	25.5		ug/L		80	44 - 122
Dibenz(a,h)anthracene	ND		32.0	24.0		ug/L		75	16 - 139
Dibenzofuran	ND		32.0	30.4		ug/L		95	60 - 120
Diethyl phthalate	ND		32.0	33.3		ug/L		104	53 - 133
Dimethyl phthalate	ND		32.0	33.5		ug/L		105	59 - 123
Di-n-butyl phthalate	ND		32.0	32.7		ug/L		102	65 - 129
Di-n-octyl phthalate	ND		32.0	22.9		ug/L		72	16 - 150
Fluoranthene	ND		32.0	32.8		ug/L		103	63 - 129
Fluorene	ND		32.0	32.6		ug/L		102	62 - 120
Hexachlorobenzene	ND		32.0	28.2		ug/L		88	57 - 121
Hexachlorobutadiene	ND		32.0	23.1		ug/L		72	37 - 120
Hexachlorocyclopentadiene	ND		32.0	21.8		ug/L		68	21 - 120
Hexachloroethane	ND		32.0	23.9		ug/L		75	16 - 130
Indeno(1,2,3-cd)pyrene	ND		32.0	27.8		ug/L		87	16 - 140
Isophorone	ND		32.0	30.7		ug/L		96	48 - 133
Naphthalene	ND		32.0	26.7		ug/L		83	45 - 120
Nitrobenzene	ND		32.0	28.4		ug/L		89	45 - 123
N-Nitrosodi-n-propylamine	ND		32.0	28.9		ug/L		90	49 - 120
Pentachlorophenol	ND		64.0	66.3		ug/L		104	10 - 149
Phenanthrene	ND		32.0	35.0		ug/L		109	65 - 122
Phenol	ND		32.0	18.6		ug/L		58	16 - 120
Pyrene	ND		32.0	31.4		ug/L		98	58 - 128

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol	*110*		*41 - 120*
2-Fluorobiphenyl	*90*		*48 - 120*
2-Fluorophenol	*67*		*35 - 120*
Nitrobenzene-d5	*82*		*46 - 120*
Phenol-d5	*56*		*22 - 120*
p-Terphenyl-d14	*64*		*60 - 148*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-219333-2 MSD
Matrix: Water
Analysis Batch: 710333

Client Sample ID: MW05-04-042924-MSD
Prep Type: Total/NA
Prep Batch: 710141

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4,5-Trichlorophenol	ND		32.0	35.9		ug/L		112	65 - 126	9	18
2,4,6-Trichlorophenol	ND		32.0	35.7		ug/L		111	64 - 120	7	19
2,4-Dichlorophenol	ND		32.0	32.3		ug/L		101	48 - 132	9	19
2,4-Dimethylphenol	ND		32.0	31.8		ug/L		99	39 - 130	8	42
2,4-Dinitrophenol	ND		64.0	66.6		ug/L		104	21 - 150	4	22
2,4-Dinitrotoluene	ND		32.0	35.7		ug/L		112	54 - 138	7	20
2,6-Dinitrotoluene	ND		32.0	34.4		ug/L		107	17 - 150	7	15
2-Chloronaphthalene	ND		32.0	32.4		ug/L		101	52 - 124	13	21
2-Chlorophenol	ND		32.0	30.5		ug/L		95	48 - 120	10	25
2-Methylnaphthalene	ND		32.0	31.3		ug/L		98	34 - 140	11	21
2-Methylphenol	ND		32.0	31.0		ug/L		97	46 - 120	8	27
2-Nitroaniline	ND		32.0	34.2		ug/L		107	44 - 136	6	15
2-Nitrophenol	ND		32.0	31.7		ug/L		99	38 - 141	9	18
3,3'-Dichlorobenzidine	ND	F1	64.0	1.85	J F1	ug/L		3	10 - 150	9	25
3-Nitroaniline	ND		32.0	18.9		ug/L		59	32 - 150	13	19
4,6-Dinitro-2-methylphenol	ND		64.0	68.3		ug/L		107	38 - 150	4	15
4-Bromophenyl phenyl ether	ND		32.0	32.8		ug/L		103	63 - 126	3	15
4-Chloro-3-methylphenol	ND		32.0	33.4		ug/L		104	64 - 127	7	27
4-Chloroaniline	ND		32.0	17.1		ug/L		53	16 - 124	16	22
4-Chlorophenyl phenyl ether	ND		32.0	33.3		ug/L		104	61 - 120	7	16
4-Methylphenol	ND		32.0	30.6		ug/L		96	36 - 120	7	24
4-Nitroaniline	ND		32.0	29.9		ug/L		94	32 - 150	4	24
4-Nitrophenol	ND		64.0	58.6		ug/L		92	23 - 132	6	48
Acenaphthene	ND		32.0	34.1		ug/L		107	48 - 120	11	24
Acenaphthylene	ND		32.0	34.2		ug/L		107	63 - 120	10	18
Acetophenone	ND		32.0	32.0		ug/L		100	53 - 120	9	20
Anthracene	ND		32.0	33.7		ug/L		105	65 - 122	1	15
Atrazine	ND		64.0	63.8		ug/L		100	50 - 150	7	20
Benzaldehyde	ND		64.0	55.7		ug/L		87	10 - 150	13	20
Benzo(a)anthracene	ND		32.0	25.9		ug/L		81	43 - 124	0	15
Benzo(a)pyrene	ND		32.0	22.4		ug/L		70	23 - 125	4	15
Benzo(b)fluoranthene	ND		32.0	22.7		ug/L		71	27 - 127	3	15
Benzo(g,h,i)perylene	ND		32.0	26.5		ug/L		83	16 - 147	4	15
Benzo(k)fluoranthene	ND		32.0	21.8		ug/L		68	20 - 124	5	22
Biphenyl	ND		32.0	32.7		ug/L		102	57 - 120	12	20
bis (2-chloroisopropyl) ether	ND		32.0	31.6		ug/L		99	28 - 121	12	24
Bis(2-chloroethoxy)methane	ND		32.0	31.8		ug/L		99	44 - 128	9	17
Bis(2-chloroethyl)ether	ND	F1	32.0	38.7	F1	ug/L		121	45 - 120	7	21
Bis(2-ethylhexyl) phthalate	ND		32.0	22.6		ug/L		71	16 - 150	1	15
Butyl benzyl phthalate	ND		32.0	31.4		ug/L		98	51 - 140	4	16
Caprolactam	ND		64.0	25.2		ug/L		39	10 - 120	6	20
Carbazole	ND		32.0	37.3		ug/L		116	16 - 148	3	20
Chrysene	ND		32.0	25.2		ug/L		79	44 - 122	1	15
Dibenz(a,h)anthracene	ND		32.0	23.3		ug/L		73	16 - 139	3	15
Dibenzofuran	ND		32.0	33.7		ug/L		105	60 - 120	10	15
Diethyl phthalate	ND		32.0	36.4		ug/L		114	53 - 133	9	15
Dimethyl phthalate	ND		32.0	36.2		ug/L		113	59 - 123	8	15
Di-n-butyl phthalate	ND		32.0	33.0		ug/L		103	65 - 129	1	15

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-219333-2 MSD
Matrix: Water
Analysis Batch: 710333

Client Sample ID: MW05-04-042924-MSD
Prep Type: Total/NA
Prep Batch: 710141

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Di-n-octyl phthalate	ND		32.0	22.3		ug/L		70	16 - 150	3	16
Fluoranthene	ND		32.0	33.0		ug/L		103	63 - 129	1	15
Fluorene	ND		32.0	35.3		ug/L		110	62 - 120	8	15
Hexachlorobenzene	ND		32.0	27.8		ug/L		87	57 - 121	1	15
Hexachlorobutadiene	ND		32.0	26.7		ug/L		84	37 - 120	15	44
Hexachlorocyclopentadiene	ND		32.0	26.8		ug/L		84	21 - 120	21	49
Hexachloroethane	ND		32.0	27.6		ug/L		86	16 - 130	14	46
Indeno(1,2,3-cd)pyrene	ND		32.0	26.7		ug/L		84	16 - 140	4	15
Isophorone	ND		32.0	33.7		ug/L		105	48 - 133	9	17
Naphthalene	ND		32.0	30.2		ug/L		94	45 - 120	12	29
Nitrobenzene	ND		32.0	31.6		ug/L		99	45 - 123	11	24
N-Nitrosodi-n-propylamine	ND		32.0	31.8		ug/L		99	49 - 120	10	31
Pentachlorophenol	ND		64.0	67.5		ug/L		106	10 - 149	2	37
Phenanthrene	ND		32.0	34.9		ug/L		109	65 - 122	0	15
Phenol	ND		32.0	21.4		ug/L		67	16 - 120	14	34
Pyrene	ND		32.0	32.9		ug/L		103	58 - 128	5	19

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*110*		*41 - 120*
2-Fluorobiphenyl	*99*		*48 - 120*
2-Fluorophenol	*76*		*35 - 120*
Nitrobenzene-d5	*92*		*46 - 120*
Phenol-d5	*63*		*22 - 120*
p-Terphenyl-d14	*69*		*60 - 148*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 480-710046/1-A
Matrix: Water
Analysis Batch: 710334

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 710046

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		04/30/24 13:54	05/02/24 19:40	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*35*		*15 - 110*	*04/30/24 13:54*	*05/02/24 19:40*	*1*

Lab Sample ID: LCS 480-710046/2-A
Matrix: Water
Analysis Batch: 710334

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 710046

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,4-Dioxane			2.00	2.22		ug/L		111	40 - 140		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*35*		*15 - 110*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution) (Continued)

Lab Sample ID: 480-219333-2 MS
Matrix: Water
Analysis Batch: 710334

Client Sample ID: MW05-04-042924-MS
Prep Type: Total/NA
Prep Batch: 710046

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	ND		2.00	2.21		ug/L		111	40 - 140

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
1,4-Dioxane-d8	*36*		*15 - 110*

Lab Sample ID: 480-219333-2 MSD
Matrix: Water
Analysis Batch: 710334

Client Sample ID: MW05-04-042924-MSD
Prep Type: Total/NA
Prep Batch: 710046

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane	ND		2.00	2.17		ug/L		108	40 - 140	2	20

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,4-Dioxane-d8	*34*		*15 - 110*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 240-611588/1-A
Matrix: Water
Analysis Batch: 611963

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 611588

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin aldehyde	ND		0.050	0.0046	ug/L		05/02/24 08:53	05/06/24 14:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*74*		*10 - 145*	*05/02/24 08:53*	*05/06/24 14:25*	*1*
DCB Decachlorobiphenyl	*68*		*10 - 145*	*05/02/24 08:53*	*05/06/24 14:25*	*1*
Tetrachloro-m-xylene	*53*		*10 - 123*	*05/02/24 08:53*	*05/06/24 14:25*	*1*
Tetrachloro-m-xylene	*50*		*10 - 123*	*05/02/24 08:53*	*05/06/24 14:25*	*1*

Lab Sample ID: LCS 240-611588/2-A
Matrix: Water
Analysis Batch: 611963

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 611588

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Endrin aldehyde	0.250	0.216		ug/L		87	20 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*90*		*10 - 145*
DCB Decachlorobiphenyl	*80*		*10 - 145*
Tetrachloro-m-xylene	*72*		*10 - 123*
Tetrachloro-m-xylene	*68*		*10 - 123*

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 480-219333-2 MS
Matrix: Water
Analysis Batch: 612148

Client Sample ID: MW05-04-042924-MS
Prep Type: Total/NA
Prep Batch: 611588

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	ND		1.00	0.853		ug/L		85	40 - 120
4,4'-DDE	ND		1.00	0.772		ug/L		77	10 - 132
4,4'-DDT	ND		1.00	0.832		ug/L		83	16 - 130
Aldrin	ND		1.00	0.765		ug/L		76	25 - 120
alpha-BHC	ND		1.00	0.827		ug/L		83	40 - 120
cis-Chlordane	ND		1.00	0.744		ug/L		74	31 - 120
beta-BHC	ND		1.00	0.792		ug/L		79	31 - 120
delta-BHC	ND		1.00	0.884		ug/L		88	22 - 123
Dieldrin	ND		1.00	0.828		ug/L		83	56 - 120
Endosulfan I	ND		1.00	0.741		ug/L		74	46 - 120
Endosulfan II	ND		1.00	0.767		ug/L		77	10 - 120
Endosulfan sulfate	ND		1.00	0.887		ug/L		89	17 - 122
Endrin	ND		1.00	0.841		ug/L		84	58 - 120
Endrin aldehyde	ND		1.00	0.768		ug/L		77	10 - 120
Endrin ketone	ND		1.00	0.833		ug/L		83	32 - 120
gamma-BHC (Lindane)	ND		1.00	0.840		ug/L		84	32 - 120
trans-Chlordane	ND		1.00	0.768		ug/L		77	30 - 120
Heptachlor	ND		1.00	0.774		ug/L		77	42 - 120
Heptachlor epoxide	ND		1.00	0.752		ug/L		75	54 - 120
Methoxychlor	ND		1.00	0.836		ug/L		84	11 - 159

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*78*		*10 - 145*
DCB Decachlorobiphenyl	*72*		*10 - 145*
Tetrachloro-m-xylene	*63*		*10 - 123*
Tetrachloro-m-xylene	*58*		*10 - 123*

Lab Sample ID: 480-219333-2 MSD
Matrix: Water
Analysis Batch: 612148

Client Sample ID: MW05-04-042924-MSD
Prep Type: Total/NA
Prep Batch: 611588

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	ND		1.04	0.773		ug/L		74	40 - 120	10	35
4,4'-DDE	ND		1.04	0.709		ug/L		68	10 - 132	9	35
4,4'-DDT	ND		1.04	0.771		ug/L		74	16 - 130	8	35
Aldrin	ND		1.04	0.661		ug/L		63	25 - 120	15	35
alpha-BHC	ND		1.04	0.719		ug/L		69	40 - 120	14	21
cis-Chlordane	ND		1.04	0.678		ug/L		65	31 - 120	9	35
beta-BHC	ND		1.04	0.701		ug/L		67	31 - 120	12	35
delta-BHC	ND		1.04	0.812		ug/L		78	22 - 123	8	35
Dieldrin	ND		1.04	0.772		ug/L		74	56 - 120	7	26
Endosulfan I	ND		1.04	0.681		ug/L		65	46 - 120	8	27
Endosulfan II	ND		1.04	0.715		ug/L		69	10 - 120	7	27
Endosulfan sulfate	ND		1.04	0.813		ug/L		78	17 - 122	9	35
Endrin	ND		1.04	0.778		ug/L		75	58 - 120	8	26
Endrin aldehyde	ND		1.04	0.695		ug/L		67	10 - 120	10	35
Endrin ketone	ND		1.04	0.767		ug/L		74	32 - 120	8	21
gamma-BHC (Lindane)	ND		1.04	0.750		ug/L		72	32 - 120	11	26

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 480-219333-2 MSD
Matrix: Water
Analysis Batch: 612148

Client Sample ID: MW05-04-042924-MSD
Prep Type: Total/NA
Prep Batch: 611588

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
trans-Chlordane	ND		1.04	0.701		ug/L		67	30 - 120	9	35
Heptachlor	ND		1.04	0.665		ug/L		64	42 - 120	15	34
Heptachlor epoxide	ND		1.04	0.702		ug/L		67	54 - 120	7	24
Methoxychlor	ND		1.04	0.775		ug/L		74	11 - 159	8	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*77*		*10 - 145*
DCB Decachlorobiphenyl	*64*		*10 - 145*
Tetrachloro-m-xylene	*49*		*10 - 123*
Tetrachloro-m-xylene	*47*		*10 - 123*

Method: 8081B - Organochlorine Pesticides (GC) - RA

Lab Sample ID: MB 240-611588/1-A
Matrix: Water
Analysis Batch: 611963

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 611588

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD - RA	ND		0.050	0.0053	ug/L		05/02/24 08:53	05/06/24 16:31	1
4,4'-DDE - RA	ND		0.050	0.0043	ug/L		05/02/24 08:53	05/06/24 16:31	1
4,4'-DDT - RA	ND		0.050	0.0048	ug/L		05/02/24 08:53	05/06/24 16:31	1
Aldrin - RA	ND		0.050	0.0065	ug/L		05/02/24 08:53	05/06/24 16:31	1
alpha-BHC - RA	ND		0.050	0.0053	ug/L		05/02/24 08:53	05/06/24 16:31	1
cis-Chlordane - RA	ND		0.050	0.0070	ug/L		05/02/24 08:53	05/06/24 16:31	1
beta-BHC - RA	ND		0.050	0.0093	ug/L		05/02/24 08:53	05/06/24 16:31	1
delta-BHC - RA	ND		0.050	0.0043	ug/L		05/02/24 08:53	05/06/24 16:31	1
Dieldrin - RA	ND		0.050	0.0065	ug/L		05/02/24 08:53	05/06/24 16:31	1
Endosulfan I - RA	ND		0.050	0.0037	ug/L		05/02/24 08:53	05/06/24 16:31	1
Endosulfan II - RA	ND		0.050	0.0062	ug/L		05/02/24 08:53	05/06/24 16:31	1
Endosulfan sulfate - RA	ND		0.050	0.0037	ug/L		05/02/24 08:53	05/06/24 16:31	1
Endrin - RA	ND		0.050	0.0065	ug/L		05/02/24 08:53	05/06/24 16:31	1
Endrin ketone - RA	ND		0.050	0.0040	ug/L		05/02/24 08:53	05/06/24 16:31	1
gamma-BHC (Lindane) - RA	ND		0.050	0.0060	ug/L		05/02/24 08:53	05/06/24 16:31	1
trans-Chlordane - RA	ND		0.050	0.0050	ug/L		05/02/24 08:53	05/06/24 16:31	1
Heptachlor - RA	ND		0.050	0.0082	ug/L		05/02/24 08:53	05/06/24 16:31	1
Heptachlor epoxide - RA	ND		0.050	0.0064	ug/L		05/02/24 08:53	05/06/24 16:31	1
Methoxychlor - RA	ND		0.10	0.0047	ug/L		05/02/24 08:53	05/06/24 16:31	1
Toxaphene - RA	ND		2.0	0.058	ug/L		05/02/24 08:53	05/06/24 16:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl - RA	*67*		*10 - 145*	*05/02/24 08:53*	*05/06/24 16:31*	*1*
DCB Decachlorobiphenyl - RA	*64*		*10 - 145*	*05/02/24 08:53*	*05/06/24 16:31*	*1*
Tetrachloro-m-xylene - RA	*49*		*10 - 123*	*05/02/24 08:53*	*05/06/24 16:31*	*1*
Tetrachloro-m-xylene - RA	*48*		*10 - 123*	*05/02/24 08:53*	*05/06/24 16:31*	*1*

Method: 8081B - Organochlorine Pesticides (GC) - RA (Continued)

Lab Sample ID: LCS 240-611588/2-A
Matrix: Water
Analysis Batch: 611963

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 611588

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD - RA	0.250	0.220		ug/L		88	37 - 132
4,4'-DDE - RA	0.250	0.204		ug/L		82	20 - 123
4,4'-DDT - RA	0.250	0.217		ug/L		87	23 - 128
Aldrin - RA	0.250	0.195		ug/L		78	26 - 120
alpha-BHC - RA	0.250	0.197		ug/L		79	29 - 120
cis-Chlordane - RA	0.250	0.175		ug/L		70	36 - 120
beta-BHC - RA	0.250	0.189		ug/L		76	35 - 120
delta-BHC - RA	0.250	0.197		ug/L		79	22 - 120
Dieldrin - RA	0.250	0.212		ug/L		85	35 - 120
Endosulfan I - RA	0.250	0.188		ug/L		75	21 - 120
Endosulfan II - RA	0.250	0.191		ug/L		76	28 - 120
Endosulfan sulfate - RA	0.250	0.190		ug/L		76	31 - 120
Endrin - RA	0.250	0.213		ug/L		85	36 - 120
Endrin ketone - RA	0.250	0.205		ug/L		82	29 - 120
gamma-BHC (Lindane) - RA	0.250	0.201		ug/L		80	23 - 120
trans-Chlordane - RA	0.250	0.195		ug/L		78	35 - 120
Heptachlor - RA	0.250	0.192		ug/L		77	29 - 120
Heptachlor epoxide - RA	0.250	0.182		ug/L		73	36 - 120
Methoxychlor - RA	0.250	0.214		ug/L		86	23 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl - RA	*84*		*10 - 145*
DCB Decachlorobiphenyl - RA	*72*		*10 - 145*
Tetrachloro-m-xylene - RA	*67*		*10 - 123*
Tetrachloro-m-xylene - RA	*64*		*10 - 123*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 480-710200/1-A
Matrix: Water
Analysis Batch: 710413

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 710200

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 21:14	1
PCB-1221	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 21:14	1
PCB-1232	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 21:14	1
PCB-1242	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 21:14	1
PCB-1248	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 21:14	1
PCB-1254	ND		0.50	0.25	ug/L		05/01/24 13:50	05/02/24 21:14	1
PCB-1260	ND		0.50	0.25	ug/L		05/01/24 13:50	05/02/24 21:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*40*		*19 - 120*	*05/01/24 13:50*	*05/02/24 21:14*	*1*
DCB Decachlorobiphenyl	*43*		*19 - 120*	*05/01/24 13:50*	*05/02/24 21:14*	*1*
Tetrachloro-m-xylene	*47*		*39 - 121*	*05/01/24 13:50*	*05/02/24 21:14*	*1*
Tetrachloro-m-xylene	*52*		*39 - 121*	*05/01/24 13:50*	*05/02/24 21:14*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 480-710200/2-A
Matrix: Water
Analysis Batch: 710413

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 710200

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
PCB-1016			4.00	2.90		ug/L		73	62 - 130		
PCB-1260			4.00	2.93		ug/L		73	56 - 123		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*40*		*19 - 120*
DCB Decachlorobiphenyl	*41*		*19 - 120*
Tetrachloro-m-xylene	*56*		*39 - 121*
Tetrachloro-m-xylene	*63*		*39 - 121*

Lab Sample ID: 480-219333-2 MS
Matrix: Water
Analysis Batch: 710413

Client Sample ID: MW05-04-042924-MS
Prep Type: Total/NA
Prep Batch: 710200

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
PCB-1016	ND		4.00	3.07		ug/L		77	28 - 150		
PCB-1260	ND		4.00	2.68		ug/L		67	25 - 131		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*50*		*19 - 120*
DCB Decachlorobiphenyl	*49*		*19 - 120*
Tetrachloro-m-xylene	*59*		*39 - 121*
Tetrachloro-m-xylene	*58*		*39 - 121*

Lab Sample ID: 480-219333-2 MSD
Matrix: Water
Analysis Batch: 710413

Client Sample ID: MW05-04-042924-MSD
Prep Type: Total/NA
Prep Batch: 710200

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016	ND		4.17	3.37		ug/L		81	28 - 150	10	50
PCB-1260	ND		4.17	2.85		ug/L		68	25 - 131	6	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*48*		*19 - 120*
DCB Decachlorobiphenyl	*48*		*19 - 120*
Tetrachloro-m-xylene	*64*		*39 - 121*
Tetrachloro-m-xylene	*63*		*39 - 121*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Lab Sample ID: MB 240-611570/1-A
Matrix: Water
Analysis Batch: 611678

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 611570

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		8.0	2.1	ng/L		05/02/24 08:21	05/02/24 16:48	1
Perfluoropentanoic acid (PFPeA)	ND		4.0	1.0	ng/L		05/02/24 08:21	05/02/24 16:48	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.50	ng/L		05/02/24 08:21	05/02/24 16:48	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.50	ng/L		05/02/24 08:21	05/02/24 16:48	1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 240-611570/1-A
Matrix: Water
Analysis Batch: 611678

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 611570

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	ND		2.0	0.50	ng/L		05/02/24 08:21	05/02/24 16:48	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.50	ng/L		05/02/24 08:21	05/02/24 16:48	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.50	ng/L		05/02/24 08:21	05/02/24 16:48	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.50	ng/L		05/02/24 08:21	05/02/24 16:48	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.50	ng/L		05/02/24 08:21	05/02/24 16:48	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0	0.50	ng/L		05/02/24 08:21	05/02/24 16:48	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	0.50	ng/L		05/02/24 08:21	05/02/24 16:48	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.50	ng/L		05/02/24 08:21	05/02/24 16:48	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	0.50	ng/L		05/02/24 08:21	05/02/24 16:48	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.52	ng/L		05/02/24 08:21	05/02/24 16:48	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0	0.50	ng/L		05/02/24 08:21	05/02/24 16:48	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.50	ng/L		05/02/24 08:21	05/02/24 16:48	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0	0.50	ng/L		05/02/24 08:21	05/02/24 16:48	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	0.50	ng/L		05/02/24 08:21	05/02/24 16:48	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		8.0	2.0	ng/L		05/02/24 08:21	05/02/24 16:48	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		8.0	2.0	ng/L		05/02/24 08:21	05/02/24 16:48	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		8.0	2.0	ng/L		05/02/24 08:21	05/02/24 16:48	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	0.50	ng/L		05/02/24 08:21	05/02/24 16:48	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	0.50	ng/L		05/02/24 08:21	05/02/24 16:48	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0	0.50	ng/L		05/02/24 08:21	05/02/24 16:48	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	0.62	ng/L		05/02/24 08:21	05/02/24 16:48	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	0.52	ng/L		05/02/24 08:21	05/02/24 16:48	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		20	5.0	ng/L		05/02/24 08:21	05/02/24 16:48	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		20	5.0	ng/L		05/02/24 08:21	05/02/24 16:48	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		8.0	2.0	ng/L		05/02/24 08:21	05/02/24 16:48	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		8.0	2.0	ng/L		05/02/24 08:21	05/02/24 16:48	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		4.0	1.0	ng/L		05/02/24 08:21	05/02/24 16:48	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		4.0	1.2	ng/L		05/02/24 08:21	05/02/24 16:48	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		8.0	2.0	ng/L		05/02/24 08:21	05/02/24 16:48	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		8.0	2.0	ng/L		05/02/24 08:21	05/02/24 16:48	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		4.0	1.0	ng/L		05/02/24 08:21	05/02/24 16:48	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		10	2.5	ng/L		05/02/24 08:21	05/02/24 16:48	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		50	13	ng/L		05/02/24 08:21	05/02/24 16:48	1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 240-611570/1-A
Matrix: Water
Analysis Batch: 611678

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 611570

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		50	15	ng/L		05/02/24 08:21	05/02/24 16:48	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.50	ng/L		05/02/24 08:21	05/02/24 16:48	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		4.0	1.0	ng/L		05/02/24 08:21	05/02/24 16:48	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*98.4*		*10 - 130*	*05/02/24 08:21*	*05/02/24 16:48*	*1*
13C5 PFPeA	*98.6*		*35 - 150*	*05/02/24 08:21*	*05/02/24 16:48*	*1*
13C5 PFHxA	*98.8*		*55 - 150*	*05/02/24 08:21*	*05/02/24 16:48*	*1*
13C4 PFHpA	*99.0*		*55 - 150*	*05/02/24 08:21*	*05/02/24 16:48*	*1*
13C8 PFOA	*94.1*		*60 - 140*	*05/02/24 08:21*	*05/02/24 16:48*	*1*
13C9 PFNA	*101*		*55 - 140*	*05/02/24 08:21*	*05/02/24 16:48*	*1*
13C6 PFDA	*116*		*50 - 140*	*05/02/24 08:21*	*05/02/24 16:48*	*1*
13C7 PFUnA	*93.5*		*30 - 140*	*05/02/24 08:21*	*05/02/24 16:48*	*1*
13C2 PFTeDA	*79.1*		*10 - 130*	*05/02/24 08:21*	*05/02/24 16:48*	*1*
13C3 PFBS	*99.6*		*55 - 150*	*05/02/24 08:21*	*05/02/24 16:48*	*1*
13C3 PFHxS	*104*		*55 - 150*	*05/02/24 08:21*	*05/02/24 16:48*	*1*
13C8 PFOS	*90.6*		*45 - 140*	*05/02/24 08:21*	*05/02/24 16:48*	*1*
13C8 FOSA	*94.3*		*30 - 130*	*05/02/24 08:21*	*05/02/24 16:48*	*1*
d3-NMeFOSAA	*111*		*45 - 200*	*05/02/24 08:21*	*05/02/24 16:48*	*1*
d5-NEtFOSAA	*96.4*		*10 - 200*	*05/02/24 08:21*	*05/02/24 16:48*	*1*
M2-4:2 FTS	*95.5*		*60 - 200*	*05/02/24 08:21*	*05/02/24 16:48*	*1*
M2-6:2 FTS	*96.3*		*60 - 200*	*05/02/24 08:21*	*05/02/24 16:48*	*1*
M2-8:2 FTS	*156*		*50 - 200*	*05/02/24 08:21*	*05/02/24 16:48*	*1*
13C3 HFPO-DA	*106*		*25 - 160*	*05/02/24 08:21*	*05/02/24 16:48*	*1*
d7-N-MeFOSE-M	*91.4*		*10 - 150*	*05/02/24 08:21*	*05/02/24 16:48*	*1*
d9-N-EtFOSE-M	*90.4*		*10 - 150*	*05/02/24 08:21*	*05/02/24 16:48*	*1*
d5-NEtPFOSA	*67.2*		*10 - 130*	*05/02/24 08:21*	*05/02/24 16:48*	*1*
d3-NMePFOSA	*73.4*		*15 - 130*	*05/02/24 08:21*	*05/02/24 16:48*	*1*
13C2-PFDoDA	*85.5*		*10 - 150*	*05/02/24 08:21*	*05/02/24 16:48*	*1*

Lab Sample ID: LCS 240-611570/3-A
Matrix: Water
Analysis Batch: 611678

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 611570

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	100	104		ng/L		104	58 - 148
Perfluoropentanoic acid (PFPeA)	50.0	47.6		ng/L		95	54 - 152
Perfluorohexanoic acid (PFHxA)	25.0	24.7		ng/L		99	55 - 152
Perfluoroheptanoic acid (PFHpA)	25.0	24.0		ng/L		96	54 - 154
Perfluorooctanoic acid (PFOA)	25.0	27.4		ng/L		110	52 - 161
Perfluorononanoic acid (PFNA)	25.0	25.6		ng/L		102	59 - 149
Perfluorodecanoic acid (PFDA)	25.0	21.5		ng/L		86	52 - 147
Perfluoroundecanoic acid (PFUnA)	25.0	24.5		ng/L		98	48 - 159
Perfluorododecanoic acid (PFDoA)	25.0	25.1		ng/L		100	64 - 142
Perfluorotridecanoic acid (PFTrDA)	25.0	26.1		ng/L		104	49 - 148

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 240-611570/3-A
Matrix: Water
Analysis Batch: 611678

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 611570

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorotetradecanoic acid (PFTeDA)	25.0	26.6		ng/L		106	47 - 161
Perfluorobutanesulfonic acid (PFBS)	22.1	20.9		ng/L		94	62 - 144
Perfluoropentanesulfonic acid (PFPeS)	23.5	21.0		ng/L		90	59 - 151
Perfluorohexanesulfonic acid (PFHxS)	22.8	22.1		ng/L		97	57 - 146
Perfluoroheptanesulfonic acid (PFHpS)	23.8	25.6		ng/L		107	55 - 152
Perfluorooctanesulfonic acid (PFOS)	23.2	23.5		ng/L		101	58 - 149
Perfluorononanesulfonic acid (PFNS)	24.0	26.6		ng/L		111	52 - 148
Perfluorododecanesulfonic acid (PFDoS)	24.2	24.2		ng/L		100	36 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	93.4	92.1		ng/L		99	67 - 146
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	94.8	89.9		ng/L		95	61 - 151
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	95.8	88.4		ng/L		92	63 - 152
Perfluorooctanesulfonamide (PFOSA)	25.0	24.1		ng/L		97	61 - 148
N-methylperfluorooctane sulfonamide (NMeFOSA)	25.0	25.8		ng/L		103	63 - 145
N-ethylperfluorooctane sulfonamide (NEtFOSA)	25.0	25.4		ng/L		102	65 - 139
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	25.0	22.9		ng/L		92	58 - 144
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	25.0	25.3		ng/L		101	59 - 146
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	250	239		ng/L		95	71 - 136
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	250	255		ng/L		102	69 - 137
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	100	100		ng/L		100	63 - 144
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	94.2	97.5		ng/L		103	68 - 146
Perfluoro-4-methoxybutanoic acid (PFMBA)	50.0	48.6		ng/L		97	55 - 148
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	50.0	50.7		ng/L		101	48 - 161
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	93.2	99.9		ng/L		107	56 - 156
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	94.2	99.8		ng/L		106	46 - 156
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	44.5	44.8		ng/L		101	56 - 151
3-Perfluoropropylpropanoic acid (3:3 FTCA)	125	122		ng/L		97	62 - 129
3-Perfluoropentylpropanoic acid (5:3 FTCA)	625	643		ng/L		103	63 - 134
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	625	691		ng/L		110	50 - 138

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 240-611570/3-A
Matrix: Water
Analysis Batch: 611678

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 611570

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorodecanesulfonic acid (PFDS)	24.1	26.6		ng/L		110	51 - 147
Perfluoro-3-methoxypropanoic acid (PFMPA)	50.0	49.6		ng/L		99	51 - 145

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*96.5*		*10 - 130*
13C5 PFPeA	*100*		*40 - 150*
13C5 PFHxA	*96.2*		*40 - 150*
13C4 PFHpA	*97.0*		*40 - 150*
13C8 PFOA	*97.3*		*30 - 140*
13C9 PFNA	*101*		*30 - 140*
13C6 PFDA	*112*		*20 - 140*
13C7 PFUnA	*91.8*		*20 - 140*
13C2 PFTeDA	*82.8*		*10 - 130*
13C3 PFBS	*93.4*		*25 - 150*
13C3 PFHxS	*97.5*		*25 - 150*
13C8 PFOS	*90.9*		*20 - 140*
13C8 FOSA	*95.3*		*10 - 130*
d3-NMeFOSAA	*110*		*10 - 200*
d5-NEtFOSAA	*94.2*		*10 - 200*
M2-4:2 FTS	*89.8*		*25 - 200*
M2-6:2 FTS	*90.0*		*25 - 200*
M2-8:2 FTS	*142*		*25 - 200*
13C3 HFPO-DA	*100*		*25 - 160*
d7-N-MeFOSE-M	*89.2*		*10 - 150*
d9-N-EtFOSE-M	*84.9*		*10 - 150*
d5-NEtPFOSA	*66.3*		*10 - 130*
d3-NMePFOSA	*71.1*		*10 - 130*
13C2-PFDoDA	*87.7*		*10 - 150*

Lab Sample ID: LLCS 240-611570/2-A
Matrix: Water
Analysis Batch: 611678

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 611570

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	8.00	9.15		ng/L		114	44 - 157
Perfluoropentanoic acid (PFPeA)	4.00	5.06		ng/L		127	57 - 148
Perfluorohexanoic acid (PFHxA)	2.00	2.15		ng/L		107	62 - 149
Perfluoroheptanoic acid (PFHpA)	2.00	2.23		ng/L		111	56 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.54		ng/L		127	57 - 161
Perfluorononanoic acid (PFNA)	2.00	2.57		ng/L		129	53 - 157
Perfluorodecanoic acid (PFDA)	2.00	1.86	J	ng/L		93	43 - 158
Perfluoroundecanoic acid (PFUnA)	2.00	2.11		ng/L		105	50 - 155
Perfluorododecanoic acid (PFDoA)	2.00	2.35		ng/L		118	60 - 141
Perfluorotridecanoic acid (PFTrDA)	2.00	2.38		ng/L		119	52 - 140

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 240-611570/2-A
Matrix: Water
Analysis Batch: 611678

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 611570

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorotetradecanoic acid (PFTeDA)	2.00	2.35		ng/L		117	52 - 156
Perfluorobutanesulfonic acid (PFBS)	1.77	2.00		ng/L		113	63 - 145
Perfluoropentanesulfonic acid (PFPeS)	1.88	1.86	J	ng/L		99	58 - 144
Perfluorohexanesulfonic acid (PFHxS)	1.82	1.83	J	ng/L		101	44 - 158
Perfluoroheptanesulfonic acid (PFHpS)	1.90	2.18		ng/L		115	51 - 150
Perfluorooctanesulfonic acid (PFOS)	1.86	2.30		ng/L		124	43 - 162
Perfluorononanesulfonic acid (PFNS)	1.92	2.44		ng/L		127	46 - 151
Perfluorododecanesulfonic acid (PFDoS)	1.94	2.39		ng/L		123	30 - 138
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.47	7.85	J	ng/L		105	52 - 158
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.58	8.46		ng/L		112	48 - 158
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.66	8.21		ng/L		107	46 - 165
Perfluorooctanesulfonamide (PFOSA)	2.00	2.19		ng/L		109	47 - 163
N-methylperfluorooctane sulfonamide (NMeFOSA)	2.00	2.43		ng/L		121	54 - 155
N-ethylperfluorooctane sulfonamide (NEtFOSA)	2.00	2.20		ng/L		110	49 - 156
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	1.95	J	ng/L		98	32 - 160
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	1.96	J	ng/L		98	51 - 154
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	22.2		ng/L		111	56 - 151
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	22.6		ng/L		113	60 - 147
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	8.00	9.43		ng/L		118	58 - 154
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	7.54	8.57		ng/L		114	61 - 148
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.00	4.47		ng/L		112	49 - 154
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.00	4.67		ng/L		117	47 - 160
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	7.46	8.52		ng/L		114	44 - 167
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	7.54	8.93		ng/L		119	36 - 158
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.56	4.03		ng/L		113	56 - 144
3-Perfluoropropylpropanoic acid (3:3 FTCA)	10.0	11.2		ng/L		112	32 - 161
3-Perfluoropentylpropanoic acid (5:3 FTCA)	50.0	56.7		ng/L		113	39 - 156
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	50.0	58.0		ng/L		116	36 - 149

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 240-611570/2-A
Matrix: Water
Analysis Batch: 611678

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 611570

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluorodecanesulfonic acid (PFDS)			1.93	2.38		ng/L		124	50 - 144		
Perfluoro-3-methoxypropanoic acid (PFMPA)			4.00	4.72		ng/L		118	48 - 150		

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*96.5*		*10 - 130*
13C5 PFPeA	*96.9*		*40 - 150*
13C5 PFHxA	*96.0*		*40 - 150*
13C4 PFHpA	*102*		*40 - 150*
13C8 PFOA	*94.7*		*30 - 140*
13C9 PFNA	*99.3*		*30 - 140*
13C6 PFDA	*119*		*20 - 140*
13C7 PFUnA	*97.4*		*20 - 140*
13C2 PFTeDA	*88.6*		*10 - 130*
13C3 PFBS	*98.1*		*25 - 150*
13C3 PFHxS	*107*		*25 - 150*
13C8 PFOS	*91.3*		*20 - 140*
13C8 FOSA	*98.7*		*10 - 130*
d3-NMeFOSAA	*111*		*10 - 200*
d5-NEtFOSAA	*99.2*		*10 - 200*
M2-4:2 FTS	*96.5*		*25 - 200*
M2-6:2 FTS	*95.6*		*25 - 200*
M2-8:2 FTS	*143*		*25 - 200*
13C3 HFPO-DA	*104*		*25 - 160*
d7-N-MeFOSE-M	*93.7*		*10 - 150*
d9-N-EtFOSE-M	*89.1*		*10 - 150*
d5-NEtPFOSA	*66.6*		*10 - 130*
d3-NMePFOSA	*72.5*		*10 - 130*
13C2-PFDoDA	*89.1*		*10 - 150*

Lab Sample ID: 480-219333-2 MS
Matrix: Water
Analysis Batch: 611678

Client Sample ID: MW05-04-042924-MS
Prep Type: Total/NA
Prep Batch: 611570

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluoropentanoic acid (PFPeA)	ND		39.7	38.0		ng/L		96	54 - 152		
Perfluorohexanoic acid (PFHxA)	1.9		19.8	23.0		ng/L		107	55 - 152		
Perfluoroheptanoic acid (PFHpA)	0.99	J	19.8	22.3		ng/L		108	54 - 154		
Perfluorooctanoic acid (PFOA)	4.0		19.8	27.7		ng/L		120	52 - 161		
Perfluorononanoic acid (PFNA)	ND		19.8	22.7		ng/L		115	59 - 149		
Perfluorodecanoic acid (PFDA)	ND		19.8	16.4		ng/L		83	52 - 147		
Perfluoroundecanoic acid (PFUnA)	ND		19.8	19.9		ng/L		100	48 - 159		
Perfluorododecanoic acid (PFDoA)	ND		19.8	21.5		ng/L		109	64 - 142		
Perfluorotridecanoic acid (PFTrDA)	ND		19.8	21.8		ng/L		110	49 - 148		
Perfluorotetradecanoic acid (PFTeDA)	ND		19.8	22.3		ng/L		113	47 - 161		

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: 480-219333-2 MS
Matrix: Water
Analysis Batch: 611678

Client Sample ID: MW05-04-042924-MS
Prep Type: Total/NA
Prep Batch: 611570

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanesulfonic acid (PFBS)	1.2	J	17.5	15.8		ng/L		83	62 - 144
Perfluoropentanesulfonic acid (PFPeS)	ND		18.6	17.6		ng/L		95	59 - 151
Perfluorohexanesulfonic acid (PFHxS)	ND		18.0	17.3		ng/L		96	57 - 146
Perfluoroheptanesulfonic acid (PFHpS)	ND		18.9	20.7		ng/L		110	55 - 152
Perfluorooctanesulfonic acid (PFOS)	0.73	J	18.4	20.4		ng/L		107	58 - 149
Perfluorononanesulfonic acid (PFNS)	ND		19.0	21.0		ng/L		110	52 - 148
Perfluorododecanesulfonic acid (PFDoS)	ND		19.2	17.0		ng/L		88	36 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		74.1	75.3		ng/L		102	67 - 146
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		75.2	69.6		ng/L		93	61 - 151
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		76.0	73.7		ng/L		97	63 - 152
Perfluorooctanesulfonamide (PFOSA)	ND		19.8	20.6		ng/L		104	61 - 148
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		19.8	20.9		ng/L		106	63 - 145
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		19.8	20.5		ng/L		103	65 - 139
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		19.8	20.9		ng/L		105	58 - 144
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		19.8	20.0		ng/L		101	59 - 146
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		198	197		ng/L		99	71 - 136
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		198	203		ng/L		103	69 - 137
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		79.3	80.7		ng/L		102	63 - 144
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		74.7	96.5		ng/L		129	68 - 146
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		39.7	45.5		ng/L		115	55 - 148
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		39.7	46.5		ng/L		117	48 - 161
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		73.9	101		ng/L		136	56 - 156
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		74.7	96.1		ng/L		129	46 - 156
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		35.3	39.2		ng/L		111	56 - 151
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	F1	99.1	129	F1	ng/L		130	62 - 129
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	F1	496	709	F1	ng/L		143	63 - 134
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	F1	496	695	F1	ng/L		140	50 - 138
Perfluorodecanesulfonic acid (PFDS)	ND		19.1	20.2		ng/L		106	51 - 147

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: 480-219333-2 MS
Matrix: Water
Analysis Batch: 611678

Client Sample ID: MW05-04-042924-MS
Prep Type: Total/NA
Prep Batch: 611570

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		39.7	33.8		ng/L		85	51 - 145

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
13C5 PFPeA	*63.3*		*35 - 150*
13C5 PFHxA	*79.2*		*55 - 150*
13C4 PFHpA	*90.7*		*55 - 150*
13C8 PFOA	*91.0*		*60 - 140*
13C9 PFNA	*93.6*		*55 - 140*
13C6 PFDA	*112*		*50 - 140*
13C7 PFUnA	*91.0*		*30 - 140*
13C2 PFTeDA	*66.7*		*10 - 130*
13C3 PFBS	*97.0*		*55 - 150*
13C3 PFHxS	*93.8*		*55 - 150*
13C8 PFOS	*88.4*		*45 - 140*
13C8 FOSA	*98.4*		*30 - 130*
d3-NMeFOSAA	*109*		*45 - 200*
d5-NEtFOSAA	*99.4*		*10 - 200*
M2-4:2 FTS	*270*	*5+	*60 - 200*
M2-6:2 FTS	*201*	*5+	*60 - 200*
M2-8:2 FTS	*187*		*50 - 200*
13C3 HFPO-DA	*73.7*		*25 - 160*
d7-N-MeFOSE-M	*75.3*		*10 - 150*
d9-N-EtFOSE-M	*70.2*		*10 - 150*
d5-NEtPFOSA	*62.5*		*10 - 130*
d3-NMePFOSA	*66.3*		*15 - 130*
13C2-PFDoDA	*78.5*		*10 - 150*

Lab Sample ID: 480-219333-2 MSD
Matrix: Water
Analysis Batch: 611678

Client Sample ID: MW05-04-042924-MSD
Prep Type: Total/NA
Prep Batch: 611570

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluoropentanoic acid (PFPeA)	ND		40.6	38.9		ng/L		96	54 - 152	2	30
Perfluorohexanoic acid (PFHxA)	1.9		20.3	24.9		ng/L		114	55 - 152	8	30
Perfluoroheptanoic acid (PFHpA)	0.99	J	20.3	20.8		ng/L		98	54 - 154	7	30
Perfluorooctanoic acid (PFOA)	4.0		20.3	29.4		ng/L		126	52 - 161	6	30
Perfluorononanoic acid (PFNA)	ND		20.3	23.0		ng/L		113	59 - 149	1	30
Perfluorodecanoic acid (PFDA)	ND		20.3	16.9		ng/L		83	52 - 147	3	30
Perfluoroundecanoic acid (PFUnA)	ND		20.3	20.6		ng/L		101	48 - 159	3	30
Perfluorododecanoic acid (PFDoA)	ND		20.3	22.1		ng/L		109	64 - 142	2	30
Perfluorotridecanoic acid (PFTrDA)	ND		20.3	22.1		ng/L		109	49 - 148	2	30
Perfluorotetradecanoic acid (PFTeDA)	ND		20.3	22.9		ng/L		113	47 - 161	3	30
Perfluorobutanesulfonic acid (PFBS)	1.2	J	17.9	19.4		ng/L		102	62 - 144	21	30
Perfluoropentanesulfonic acid (PFPeS)	ND		19.0	18.1		ng/L		95	59 - 151	3	30

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: 480-219333-2 MSD
Matrix: Water
Analysis Batch: 611678

Client Sample ID: MW05-04-042924-MSD
Prep Type: Total/NA
Prep Batch: 611570

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorohexanesulfonic acid (PFHxS)	ND		18.5	18.3		ng/L		99	57 - 146	5	30
Perfluoroheptanesulfonic acid (PFHpS)	ND		19.3	21.2		ng/L		110	55 - 152	2	30
Perfluorooctanesulfonic acid (PFOS)	0.73	J	18.8	22.0		ng/L		113	58 - 149	7	30
Perfluorononanesulfonic acid (PFNS)	ND		19.5	21.4		ng/L		110	52 - 148	2	30
Perfluorododecanesulfonic acid (PFDoS)	ND		19.7	17.4		ng/L		88	36 - 145	2	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		75.9	79.8		ng/L		105	67 - 146	6	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		77.0	75.9		ng/L		99	61 - 151	9	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		77.8	80.7		ng/L		104	63 - 152	9	30
Perfluorooctanesulfonamide (PFOSA)	ND		20.3	20.3		ng/L		100	61 - 148	2	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		20.3	22.0		ng/L		108	63 - 145	5	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		20.3	21.0		ng/L		103	65 - 139	2	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		20.3	20.0		ng/L		99	58 - 144	4	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		20.3	22.1		ng/L		109	59 - 146	10	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		203	204		ng/L		101	71 - 136	4	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		203	209		ng/L		103	69 - 137	3	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		81.2	86.2		ng/L		106	63 - 144	7	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		76.5	101		ng/L		132	68 - 146	5	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		40.6	45.0		ng/L		111	55 - 148	1	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		40.6	48.4		ng/L		119	48 - 161	4	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		75.7	105		ng/L		138	56 - 156	4	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		76.5	97.2		ng/L		127	46 - 156	1	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		36.1	42.4		ng/L		117	56 - 151	8	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	F1	102	139	F1	ng/L		137	62 - 129	8	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	F1	508	756	F1	ng/L		149	63 - 134	6	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	F1	508	724	F1	ng/L		143	50 - 138	4	30
Perfluorodecanesulfonic acid (PFDS)	ND		19.6	19.9		ng/L		102	51 - 147	1	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		40.6	35.5		ng/L		87	51 - 145	5	30

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C5 PFPeA	63.5		35 - 150
13C5 PFHxA	75.9		55 - 150
13C4 PFHpA	93.6		55 - 150
13C8 PFOA	88.8		60 - 140
13C9 PFNA	95.1		55 - 140
13C6 PFDA	103		50 - 140
13C7 PFUnA	81.3		30 - 140
13C2 PFTeDA	61.4		10 - 130
13C3 PFBS	90.5		55 - 150
13C3 PFHxS	90.9		55 - 150
13C8 PFOS	86.1		45 - 140
13C8 FOSA	103		30 - 130
d3-NMeFOSAA	119		45 - 200
d5-NEtFOSAA	102		10 - 200
M2-4:2 FTS	263	*5+	60 - 200
M2-6:2 FTS	205	*5+	60 - 200
M2-8:2 FTS	179		50 - 200
13C3 HFPO-DA	72.4		25 - 160
d7-N-MeFOSE-M	75.2		10 - 150
d9-N-EtFOSE-M	69.1		10 - 150
d5-NEtPFOSA	62.2		10 - 130
d3-NMePFOSA	66.9		15 - 130
13C2-PFDoDA	74.5		10 - 150

Lab Sample ID: MB 240-611819/1-A
Matrix: Water
Analysis Batch: 611854

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 611819

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		8.0	2.1	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluoropentanoic acid (PFPeA)	ND		4.0	1.0	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.52	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		8.0	2.0	ng/L		05/03/24 12:04	05/03/24 17:49	1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 240-611819/1-A
Matrix: Water
Analysis Batch: 611854

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 611819

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		8.0	2.0	ng/L		05/03/24 12:04	05/03/24 17:49	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		8.0	2.0	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	0.62	ng/L		05/03/24 12:04	05/03/24 17:49	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	0.52	ng/L		05/03/24 12:04	05/03/24 17:49	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		20	5.0	ng/L		05/03/24 12:04	05/03/24 17:49	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		20	5.0	ng/L		05/03/24 12:04	05/03/24 17:49	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		8.0	2.0	ng/L		05/03/24 12:04	05/03/24 17:49	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		8.0	2.0	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		4.0	1.0	ng/L		05/03/24 12:04	05/03/24 17:49	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		4.0	1.2	ng/L		05/03/24 12:04	05/03/24 17:49	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		8.0	2.0	ng/L		05/03/24 12:04	05/03/24 17:49	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		8.0	2.0	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		4.0	1.0	ng/L		05/03/24 12:04	05/03/24 17:49	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		10	2.5	ng/L		05/03/24 12:04	05/03/24 17:49	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		50	13	ng/L		05/03/24 12:04	05/03/24 17:49	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		50	15	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		4.0	1.0	ng/L		05/03/24 12:04	05/03/24 17:49	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*93.7*		*10 - 130*	*05/03/24 12:04*	*05/03/24 17:49*	*1*
13C5 PFPeA	*94.8*		*35 - 150*	*05/03/24 12:04*	*05/03/24 17:49*	*1*
13C5 PFHxA	*89.0*		*55 - 150*	*05/03/24 12:04*	*05/03/24 17:49*	*1*
13C4 PFHpA	*94.0*		*55 - 150*	*05/03/24 12:04*	*05/03/24 17:49*	*1*
13C8 PFOA	*85.4*		*60 - 140*	*05/03/24 12:04*	*05/03/24 17:49*	*1*
13C9 PFNA	*100*		*55 - 140*	*05/03/24 12:04*	*05/03/24 17:49*	*1*
13C6 PFDA	*109*		*50 - 140*	*05/03/24 12:04*	*05/03/24 17:49*	*1*
13C7 PFUnA	*90.1*		*30 - 140*	*05/03/24 12:04*	*05/03/24 17:49*	*1*
13C2 PFTeDA	*79.3*		*10 - 130*	*05/03/24 12:04*	*05/03/24 17:49*	*1*
13C3 PFBS	*98.2*		*55 - 150*	*05/03/24 12:04*	*05/03/24 17:49*	*1*
13C3 PFHxS	*94.1*		*55 - 150*	*05/03/24 12:04*	*05/03/24 17:49*	*1*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 240-611819/1-A
Matrix: Water
Analysis Batch: 611854

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 611819

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOS	97.1		45 - 140	05/03/24 12:04	05/03/24 17:49	1
13C8 FOSA	102		30 - 130	05/03/24 12:04	05/03/24 17:49	1
d3-NMeFOSAA	111		45 - 200	05/03/24 12:04	05/03/24 17:49	1
d5-NEtFOSAA	96.9		10 - 200	05/03/24 12:04	05/03/24 17:49	1
M2-4:2 FTS	94.9		60 - 200	05/03/24 12:04	05/03/24 17:49	1
M2-6:2 FTS	91.6		60 - 200	05/03/24 12:04	05/03/24 17:49	1
M2-8:2 FTS	114		50 - 200	05/03/24 12:04	05/03/24 17:49	1
13C3 HFPO-DA	94.2		25 - 160	05/03/24 12:04	05/03/24 17:49	1
d7-N-MeFOSE-M	95.3		10 - 150	05/03/24 12:04	05/03/24 17:49	1
d9-N-EtFOSE-M	92.3		10 - 150	05/03/24 12:04	05/03/24 17:49	1
d5-NEtPFOSA	80.1		10 - 130	05/03/24 12:04	05/03/24 17:49	1
d3-NMePFOSA	81.9		15 - 130	05/03/24 12:04	05/03/24 17:49	1
13C2-PFDoDA	81.8		10 - 150	05/03/24 12:04	05/03/24 17:49	1

Lab Sample ID: LCS 240-611819/3-A
Matrix: Water
Analysis Batch: 611854

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 611819

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	100	105		ng/L		105	58 - 148
Perfluoropentanoic acid (PFPeA)	50.0	49.5		ng/L		99	54 - 152
Perfluorohexanoic acid (PFHxA)	25.0	25.4		ng/L		102	55 - 152
Perfluoroheptanoic acid (PFHpA)	25.0	24.8		ng/L		99	54 - 154
Perfluorooctanoic acid (PFOA)	25.0	26.5		ng/L		106	52 - 161
Perfluorononanoic acid (PFNA)	25.0	27.6		ng/L		110	59 - 149
Perfluorodecanoic acid (PFDA)	25.0	21.0		ng/L		84	52 - 147
Perfluoroundecanoic acid (PFUnA)	25.0	24.6		ng/L		98	48 - 159
Perfluorododecanoic acid (PFDoA)	25.0	27.2		ng/L		109	64 - 142
Perfluorotridecanoic acid (PFTrDA)	25.0	27.2		ng/L		109	49 - 148
Perfluorotetradecanoic acid (PFTeDA)	25.0	27.0		ng/L		108	47 - 161
Perfluorobutanesulfonic acid (PFBS)	22.1	21.6		ng/L		98	62 - 144
Perfluoropentanesulfonic acid (PFPeS)	23.5	22.0		ng/L		94	59 - 151
Perfluorohexanesulfonic acid (PFHxS)	22.8	21.4		ng/L		94	57 - 146
Perfluoroheptanesulfonic acid (PFHpS)	23.8	26.2		ng/L		110	55 - 152
Perfluorooctanesulfonic acid (PFOS)	23.2	25.0		ng/L		108	58 - 149
Perfluorononanesulfonic acid (PFNS)	24.0	28.0		ng/L		117	52 - 148
Perfluorododecanesulfonic acid (PFDoS)	24.2	25.1		ng/L		104	36 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	93.4	97.1		ng/L		104	67 - 146
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	94.8	81.4		ng/L		86	61 - 151

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 240-611819/3-A
Matrix: Water
Analysis Batch: 611854

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 611819

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	95.8	94.5		ng/L		99	63 - 152
Perfluorooctanesulfonamide (PFOSA)	25.0	25.0		ng/L		100	61 - 148
N-methylperfluorooctane sulfonamide (NMeFOSA)	25.0	28.2		ng/L		113	63 - 145
N-ethylperfluorooctane sulfonamide (NEtFOSA)	25.0	25.4		ng/L		102	65 - 139
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	25.0	25.0		ng/L		100	58 - 144
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	25.0	26.6		ng/L		106	59 - 146
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	250	251		ng/L		100	71 - 136
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	250	251		ng/L		100	69 - 137
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	100	107		ng/L		107	63 - 144
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	94.2	98.0		ng/L		104	68 - 146
Perfluoro-4-methoxybutanoic acid (PFMBA)	50.0	49.1		ng/L		98	55 - 148
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	50.0	51.5		ng/L		103	48 - 161
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	93.2	94.7		ng/L		102	56 - 156
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	94.2	102		ng/L		108	46 - 156
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	44.5	46.0		ng/L		103	56 - 151
3-Perfluoropropylpropanoic acid (3:3 FTCA)	125	124		ng/L		99	62 - 129
3-Perfluoropentylpropanoic acid (5:3 FTCA)	625	639		ng/L		102	63 - 134
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	625	653		ng/L		104	50 - 138
Perfluorodecanesulfonic acid (PFDS)	24.1	28.7		ng/L		119	51 - 147
Perfluoro-3-methoxypropanoic acid (PFMPA)	50.0	50.3		ng/L		101	51 - 145

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*94.9*		*10 - 130*
13C5 PFPeA	*96.0*		*40 - 150*
13C5 PFHxA	*93.3*		*40 - 150*
13C4 PFHpA	*93.2*		*40 - 150*
13C8 PFOA	*92.6*		*30 - 140*
13C9 PFNA	*92.8*		*30 - 140*
13C6 PFDA	*108*		*20 - 140*
13C7 PFUnA	*89.7*		*20 - 140*
13C2 PFTeDA	*75.5*		*10 - 130*
13C3 PFBS	*98.2*		*25 - 150*
13C3 PFHxS	*99.2*		*25 - 150*
13C8 PFOS	*85.4*		*20 - 140*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 240-611819/3-A
Matrix: Water
Analysis Batch: 611854

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 611819

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C8 FOSA	97.3		10 - 130
d3-NMeFOSAA	101		10 - 200
d5-NEtFOSAA	95.4		10 - 200
M2-4:2 FTS	86.6		25 - 200
M2-6:2 FTS	91.0		25 - 200
M2-8:2 FTS	146		25 - 200
13C3 HFPO-DA	95.6		25 - 160
d7-N-MeFOSE-M	91.5		10 - 150
d9-N-EtFOSE-M	89.4		10 - 150
d5-NEtPFOSA	75.9		10 - 130
d3-NMePFOSA	75.3		10 - 130
13C2-PFDoDA	80.5		10 - 150

Lab Sample ID: LLCS 240-611819/2-A
Matrix: Water
Analysis Batch: 611854

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 611819

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	8.00	8.83		ng/L		110	44 - 157
Perfluoropentanoic acid (PFPeA)	4.00	4.20		ng/L		105	57 - 148
Perfluorohexanoic acid (PFHxA)	2.00	2.43		ng/L		122	62 - 149
Perfluoroheptanoic acid (PFHpA)	2.00	2.09		ng/L		105	56 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.41		ng/L		121	57 - 161
Perfluorononanoic acid (PFNA)	2.00	2.25		ng/L		112	53 - 157
Perfluorodecanoic acid (PFDA)	2.00	1.88	J	ng/L		94	43 - 158
Perfluoroundecanoic acid (PFUnA)	2.00	2.15		ng/L		108	50 - 155
Perfluorododecanoic acid (PFDoA)	2.00	2.26		ng/L		113	60 - 141
Perfluorotridecanoic acid (PFTrDA)	2.00	2.39		ng/L		119	52 - 140
Perfluorotetradecanoic acid (PFTeDA)	2.00	2.36		ng/L		118	52 - 156
Perfluorobutanesulfonic acid (PFBS)	1.77	1.74	J	ng/L		99	63 - 145
Perfluoropentanesulfonic acid (PFPeS)	1.88	1.94	J	ng/L		103	58 - 144
Perfluorohexanesulfonic acid (PFHxS)	1.82	1.78	J	ng/L		98	44 - 158
Perfluoroheptanesulfonic acid (PFHpS)	1.90	2.33		ng/L		122	51 - 150
Perfluorooctanesulfonic acid (PFOS)	1.86	2.27		ng/L		122	43 - 162
Perfluorononanesulfonic acid (PFNS)	1.92	2.35		ng/L		122	46 - 151
Perfluorododecanesulfonic acid (PFDoS)	1.94	2.14		ng/L		110	30 - 138
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.47	7.23	J	ng/L		97	52 - 158
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.58	8.29		ng/L		109	48 - 158

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 240-611819/2-A
Matrix: Water
Analysis Batch: 611854

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 611819

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.66	8.08		ng/L		105	46 - 165
Perfluorooctanesulfonamide (PFOSA)	2.00	2.13		ng/L		107	47 - 163
N-methylperfluorooctane sulfonamide (NMeFOSA)	2.00	2.37		ng/L		119	54 - 155
N-ethylperfluorooctane sulfonamide (NEtFOSA)	2.00	2.16		ng/L		108	49 - 156
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	1.95	J	ng/L		98	32 - 160
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	2.19		ng/L		109	51 - 154
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	21.3		ng/L		107	56 - 151
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	21.1		ng/L		105	60 - 147
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	8.00	8.68		ng/L		109	58 - 154
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	7.54	7.79	J	ng/L		103	61 - 148
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.00	4.19		ng/L		105	49 - 154
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.00	4.51		ng/L		113	47 - 160
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	7.46	7.88	J	ng/L		106	44 - 167
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	7.54	7.99	J	ng/L		106	36 - 158
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.56	3.86	J	ng/L		108	56 - 144
3-Perfluoropropylpropanoic acid (3:3 FTCA)	10.0	10.6		ng/L		106	32 - 161
3-Perfluoropentylpropanoic acid (5:3 FTCA)	50.0	55.2		ng/L		110	39 - 156
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	50.0	52.8		ng/L		106	36 - 149
Perfluorodecanesulfonic acid (PFDS)	1.93	2.37		ng/L		123	50 - 144
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	4.28		ng/L		107	48 - 150

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*93.4*		*10 - 130*
13C5 PFPeA	*98.2*		*40 - 150*
13C5 PFHxA	*92.7*		*40 - 150*
13C4 PFHpA	*94.7*		*40 - 150*
13C8 PFOA	*90.1*		*30 - 140*
13C9 PFNA	*99.0*		*30 - 140*
13C6 PFDA	*107*		*20 - 140*
13C7 PFUnA	*89.5*		*20 - 140*
13C2 PFTeDA	*79.8*		*10 - 130*
13C3 PFBS	*100*		*25 - 150*
13C3 PFHxS	*99.4*		*25 - 150*
13C8 PFOS	*89.3*		*20 - 140*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 240-611819/2-A
Matrix: Water
Analysis Batch: 611854

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 611819

Isotope Dilution	LLCS %Recovery	LLCS Qualifier	Limits
13C8 FOSA	104		10 - 130
d3-NMeFOSAA	113		10 - 200
d5-NEtFOSAA	101		10 - 200
M2-4:2 FTS	99.8		25 - 200
M2-6:2 FTS	92.1		25 - 200
M2-8:2 FTS	121		25 - 200
13C3 HFPO-DA	102		25 - 160
d7-N-MeFOSE-M	95.5		10 - 150
d9-N-EtFOSE-M	93.3		10 - 150
d5-NEtPFOSA	78.6		10 - 130
d3-NMePFOSA	78.1		10 - 130
13C2-PFDoDA	82.5		10 - 150

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS - RA

Lab Sample ID: 480-219333-2 MS
Matrix: Water
Analysis Batch: 611854

Client Sample ID: MW05-04-042924-MS
Prep Type: Total/NA
Prep Batch: 611819

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA) - RA	ND		208	223		ng/L		104	58 - 148

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C4 PFBA - RA	99.1		10 - 130

Lab Sample ID: 480-219333-2 MSD
Matrix: Water
Analysis Batch: 611854

Client Sample ID: MW05-04-042924-MSD
Prep Type: Total/NA
Prep Batch: 611819

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA) - RA	ND		208	208		ng/L		97	58 - 148	7	30

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C4 PFBA - RA	100		10 - 130

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-613290/1-A
Matrix: Water
Analysis Batch: 613551

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 613290

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	47.3	ug/L		05/16/24 16:30	05/18/24 08:53	1
Antimony	ND		20.0	7.5	ug/L		05/16/24 16:30	05/18/24 08:53	1
Arsenic	ND		15.0	4.1	ug/L		05/16/24 16:30	05/18/24 08:53	1
Barium	ND		200	3.0	ug/L		05/16/24 16:30	05/18/24 08:53	1
Beryllium	ND		5.0	0.60	ug/L		05/16/24 16:30	05/18/24 08:53	1
Cadmium	ND		5.0	0.45	ug/L		05/16/24 16:30	05/18/24 08:53	1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: MB 240-613290/1-A
Matrix: Water
Analysis Batch: 613551

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 613290

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		5000	307	ug/L		05/16/24 16:30	05/18/24 08:53	1
Chromium	ND		10.0	0.76	ug/L		05/16/24 16:30	05/18/24 08:53	1
Cobalt	ND		10.0	0.75	ug/L		05/16/24 16:30	05/18/24 08:53	1
Copper	ND		25.0	3.5	ug/L		05/16/24 16:30	05/18/24 08:53	1
Iron	ND		200	82.7	ug/L		05/16/24 16:30	05/18/24 08:53	1
Lead	ND		10.0	2.8	ug/L		05/16/24 16:30	05/18/24 08:53	1
Magnesium	ND		5000	259	ug/L		05/16/24 16:30	05/18/24 08:53	1
Manganese	ND		15.0	2.6	ug/L		05/16/24 16:30	05/18/24 08:53	1
Nickel	ND		40.0	2.2	ug/L		05/16/24 16:30	05/18/24 08:53	1
Potassium	ND		5000	557	ug/L		05/16/24 16:30	05/18/24 08:53	1
Selenium	ND		20.0	6.0	ug/L		05/16/24 16:30	05/18/24 08:53	1
Silver	ND		10.0	0.62	ug/L		05/16/24 16:30	05/18/24 08:53	1
Sodium	ND		5000	2110	ug/L		05/16/24 16:30	05/18/24 08:53	1
Thallium	ND		20.0	2.7	ug/L		05/16/24 16:30	05/18/24 08:53	1
Vanadium	8.14	J	50.0	5.6	ug/L		05/16/24 16:30	05/18/24 08:53	1
Zinc	ND		50.0	22.5	ug/L		05/16/24 16:30	05/18/24 08:53	1

Lab Sample ID: LCS 240-613290/2-A
Matrix: Water
Analysis Batch: 613551

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 613290

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	10000	9614		ug/L		96	80 - 120
Antimony	1000	978.4		ug/L		98	80 - 120
Arsenic	2000	1987		ug/L		99	80 - 120
Barium	2000	1864		ug/L		93	80 - 120
Beryllium	1000	975.0		ug/L		98	80 - 120
Cadmium	1000	974.6		ug/L		97	80 - 120
Calcium	50000	48080		ug/L		96	80 - 120
Chromium	1000	941.1		ug/L		94	80 - 120
Cobalt	1000	975.0		ug/L		98	80 - 120
Copper	1000	943.1		ug/L		94	80 - 120
Iron	10000	9710		ug/L		97	80 - 120
Lead	1000	911.6		ug/L		91	80 - 120
Magnesium	50000	48280		ug/L		97	80 - 120
Manganese	1000	921.1		ug/L		92	80 - 120
Nickel	1000	984.1		ug/L		98	80 - 120
Potassium	50000	47800		ug/L		96	80 - 120
Selenium	2000	2018		ug/L		101	80 - 120
Silver	100	93.87		ug/L		94	80 - 120
Sodium	50000	48030		ug/L		96	80 - 120
Thallium	2000	2007		ug/L		100	80 - 120
Vanadium	1000	976.1		ug/L		98	80 - 120
Zinc	1000	994.4		ug/L		99	80 - 120

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 480-219333-2 MS
Matrix: Water
Analysis Batch: 613551

Client Sample ID: MW05-04-042924-MS
Prep Type: Total Recoverable
Prep Batch: 613290

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	205		10000	8733		ug/L		85	75 - 125
Antimony	ND		1000	1020		ug/L		102	75 - 125
Arsenic	4.7	J	2000	2063		ug/L		103	75 - 125
Barium	136	J	2000	2072		ug/L		97	75 - 125
Beryllium	ND		1000	999.1		ug/L		100	75 - 125
Cadmium	0.70	J	1000	1009		ug/L		101	75 - 125
Calcium	93000		50000	134600		ug/L		83	75 - 125
Chromium	1.2	J	1000	950.2		ug/L		95	75 - 125
Cobalt	3.8	J	1000	1003		ug/L		100	75 - 125
Copper	ND		1000	966.1		ug/L		97	75 - 125
Iron	383		10000	8926		ug/L		85	75 - 125
Lead	ND		1000	916.8		ug/L		92	75 - 125
Magnesium	84200		50000	125100		ug/L		82	75 - 125
Manganese	194		1000	1136		ug/L		94	75 - 125
Nickel	8.5	J	1000	1012		ug/L		100	75 - 125
Potassium	2920	J	50000	45720		ug/L		86	75 - 125
Selenium	ND		2000	2074		ug/L		104	75 - 125
Silver	ND		100	97.17		ug/L		97	75 - 125
Sodium	32200		50000	74130		ug/L		84	75 - 125
Thallium	ND		2000	2064		ug/L		103	75 - 125
Vanadium	12.8	J B	1000	997.5		ug/L		98	75 - 125
Zinc	ND		1000	1022		ug/L		102	75 - 125

Lab Sample ID: 480-219333-2 MSD
Matrix: Water
Analysis Batch: 613551

Client Sample ID: MW05-04-042924-MSD
Prep Type: Total Recoverable
Prep Batch: 613290

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	205		10000	10130		ug/L		99	75 - 125	15	20
Antimony	ND		1000	1028		ug/L		103	75 - 125	1	20
Arsenic	4.7	J	2000	2061		ug/L		103	75 - 125	0	20
Barium	136	J	2000	2066		ug/L		97	75 - 125	0	20
Beryllium	ND		1000	994.6		ug/L		99	75 - 125	0	20
Cadmium	0.70	J	1000	1008		ug/L		101	75 - 125	0	20
Calcium	93000		50000	141200		ug/L		96	75 - 125	5	20
Chromium	1.2	J	1000	958.3		ug/L		96	75 - 125	1	20
Cobalt	3.8	J	1000	1007		ug/L		100	75 - 125	0	20
Copper	ND		1000	973.8		ug/L		97	75 - 125	1	20
Iron	383		10000	10240		ug/L		99	75 - 125	14	20
Lead	ND		1000	916.5		ug/L		92	75 - 125	0	20
Magnesium	84200		50000	131700		ug/L		95	75 - 125	5	20
Manganese	194		1000	1139		ug/L		94	75 - 125	0	20
Nickel	8.5	J	1000	1018		ug/L		101	75 - 125	1	20
Potassium	2920	J	50000	52560		ug/L		99	75 - 125	14	20
Selenium	ND		2000	2062		ug/L		103	75 - 125	1	20
Silver	ND		100	98.69		ug/L		99	75 - 125	2	20
Sodium	32200		50000	81650		ug/L		99	75 - 125	10	20
Thallium	ND		2000	1986		ug/L		99	75 - 125	4	20
Vanadium	12.8	J B	1000	996.3		ug/L		98	75 - 125	0	20

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 480-219333-2 MSD
Matrix: Water
Analysis Batch: 613551

Client Sample ID: MW05-04-042924-MSD
Prep Type: Total Recoverable
Prep Batch: 613290

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Zinc	ND		1000	1030		ug/L		103	75 - 125	1	20

Lab Sample ID: 480-219333-2 MS
Matrix: Water
Analysis Batch: 613551

Client Sample ID: MW05-04-042924-MS
Prep Type: Dissolved
Prep Batch: 613290

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	ND		10000	10450		ug/L		105	75 - 125
Antimony	ND		1000	1088		ug/L		109	75 - 125
Arsenic	4.8	J	2000	2219		ug/L		111	75 - 125
Barium	140	J	2000	2206		ug/L		103	75 - 125
Beryllium	ND		1000	1060		ug/L		106	75 - 125
Cadmium	0.70	J	1000	1080		ug/L		108	75 - 125
Calcium	96700		50000	148600		ug/L		104	75 - 125
Chromium	13.4		1000	1030		ug/L		102	75 - 125
Cobalt	4.1	J	1000	1088		ug/L		108	75 - 125
Copper	ND		1000	1045		ug/L		104	75 - 125
Iron	ND		10000	10550		ug/L		105	75 - 125
Lead	ND		1000	982.7		ug/L		98	75 - 125
Magnesium	94500		50000	145900		ug/L		103	75 - 125
Manganese	209		1000	1225		ug/L		102	75 - 125
Nickel	13.3	J	1000	1100		ug/L		109	75 - 125
Potassium	3550	J	50000	56650		ug/L		106	75 - 125
Selenium	ND		2000	2224		ug/L		111	75 - 125
Silver	ND		100	105.4		ug/L		105	75 - 125
Sodium	36200		50000	88820		ug/L		105	75 - 125
Thallium	ND		2000	2224		ug/L		111	75 - 125
Vanadium	12.4	J B	1000	1077		ug/L		106	75 - 125
Zinc	ND		1000	1104		ug/L		110	75 - 125

Lab Sample ID: 480-219333-2 MSD
Matrix: Water
Analysis Batch: 613551

Client Sample ID: MW05-04-042924-MSD
Prep Type: Dissolved
Prep Batch: 613290

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	ND		10000	10650		ug/L		107	75 - 125	2	20
Antimony	ND		1000	1083		ug/L		108	75 - 125	0	20
Arsenic	4.8	J	2000	2223		ug/L		111	75 - 125	0	20
Barium	140	J	2000	2202		ug/L		103	75 - 125	0	20
Beryllium	ND		1000	1057		ug/L		106	75 - 125	0	20
Cadmium	0.70	J	1000	1077		ug/L		108	75 - 125	0	20
Calcium	96700		50000	149100		ug/L		105	75 - 125	0	20
Chromium	13.4		1000	1040		ug/L		103	75 - 125	1	20
Cobalt	4.1	J	1000	1089		ug/L		108	75 - 125	0	20
Copper	ND		1000	1052		ug/L		105	75 - 125	1	20
Iron	ND		10000	10570		ug/L		106	75 - 125	0	20
Lead	ND		1000	984.1		ug/L		98	75 - 125	0	20
Magnesium	94500		50000	144600		ug/L		100	75 - 125	1	20
Manganese	209		1000	1219		ug/L		101	75 - 125	0	20

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 480-219333-2 MSD — **Client Sample ID: MW05-04-042924-MSD**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 613551 — **Prep Batch: 613290**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nickel	13.3	J	1000	1101		ug/L		109	75 - 125	0	20
Potassium	3550	J	50000	57320		ug/L		108	75 - 125	1	20
Selenium	ND		2000	2214		ug/L		111	75 - 125	0	20
Silver	ND		100	106.6		ug/L		107	75 - 125	1	20
Sodium	36200		50000	89900		ug/L		107	75 - 125	1	20
Thallium	ND		2000	2238		ug/L		112	75 - 125	1	20
Vanadium	12.4	J B	1000	1082		ug/L		107	75 - 125	0	20
Zinc	ND		1000	1105		ug/L		111	75 - 125	0	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-710297/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 710472 — **Prep Batch: 710297**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/02/24 11:04	05/02/24 16:38	1

Lab Sample ID: LCS 480-710297/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 710472 — **Prep Batch: 710297**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00669	0.00701		mg/L		105	80 - 120

Lab Sample ID: 480-219333-2 MS — **Client Sample ID: MW05-04-042924-MS**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 710472 — **Prep Batch: 710297**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		0.0134	0.0137		mg/L		103	80 - 120

Lab Sample ID: 480-219333-2 MSD — **Client Sample ID: MW05-04-042924-MSD**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 710472 — **Prep Batch: 710297**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.0134	0.0137		mg/L		102	80 - 120	0	20

Lab Sample ID: MB 480-710298/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 710472 — **Prep Batch: 710298**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/02/24 11:04	05/02/24 17:21	1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 480-710298/2-A
Matrix: Water
Analysis Batch: 710472

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 710298

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			0.00669	0.00667		mg/L		100	80 - 120		

Lab Sample ID: 480-219333-2 MS
Matrix: Water
Analysis Batch: 710472

Client Sample ID: MW05-04-042924-MS
Prep Type: Dissolved
Prep Batch: 710298

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury	ND		0.00669	0.00668		mg/L		100	80 - 120		

Lab Sample ID: 480-219333-2 MSD
Matrix: Water
Analysis Batch: 710472

Client Sample ID: MW05-04-042924-MSD
Prep Type: Dissolved
Prep Batch: 710298

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.00669	0.00680		mg/L		102	80 - 120	2	20

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 480-710579/21
Matrix: Water
Analysis Batch: 710579

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND	^1+ ^+	0.010	0.0041	mg/L			05/02/24 22:34	1

Lab Sample ID: MB 480-710579/47
Matrix: Water
Analysis Batch: 710579

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0297	^1+	0.010	0.0041	mg/L			05/02/24 23:45	1

Lab Sample ID: MB 480-710579/75
Matrix: Water
Analysis Batch: 710579

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0298	^1+	0.010	0.0041	mg/L			05/03/24 00:59	1

Lab Sample ID: HLCS 480-710579/22
Matrix: Water
Analysis Batch: 710579

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total			0.400	0.441	^1+ ^+	mg/L		110	90 - 110		

Method: 9012B - Cyanide, Total and/or Amenable (Continued)

Lab Sample ID: LCS 480-710579/23
Matrix: Water
Analysis Batch: 710579

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.250	0.328	*+ ^1+ ^+	mg/L		131	90 - 110

Lab Sample ID: LCS 480-710579/48
Matrix: Water
Analysis Batch: 710579

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.250	0.273	^1+	mg/L		109	90 - 110

Lab Sample ID: LCS 480-710579/76
Matrix: Water
Analysis Batch: 710579

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.250	0.269	^1+	mg/L		107	90 - 110

Lab Sample ID: MB 480-711260/46
Matrix: Water
Analysis Batch: 711260

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.00930	J	0.010	0.0041	mg/L			05/08/24 19:52	1

Lab Sample ID: MB 480-711260/74
Matrix: Water
Analysis Batch: 711260

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.00990	J	0.010	0.0041	mg/L			05/08/24 21:08	1

Lab Sample ID: HLCS 480-711260/22
Matrix: Water
Analysis Batch: 711260

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.400	0.404		mg/L		101	90 - 110

Lab Sample ID: LCS 480-711260/23
Matrix: Water
Analysis Batch: 711260

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.250	0.234		mg/L		94	90 - 110

Lab Sample ID: LCS 480-711260/47
Matrix: Water
Analysis Batch: 711260

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.250	0.258		mg/L		103	90 - 110

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: LCS 480-711260/75
Matrix: Water
Analysis Batch: 711260

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total			0.250	0.250		mg/L		100	90 - 110		

Lab Sample ID: 480-219333-2 MS
Matrix: Water
Analysis Batch: 711260

Client Sample ID: MW05-04-042924-MS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total	ND		0.100	0.0930		mg/L		93	90 - 110		

Lab Sample ID: 480-219333-2 MSD
Matrix: Water
Analysis Batch: 711260

Client Sample ID: MW05-04-042924-MSD
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyanide, Total	ND		0.100	0.0969		mg/L		97	90 - 110	4	15

Lab Sample ID: 480-219333-2 MS
Matrix: Water
Analysis Batch: 711260

Client Sample ID: MW05-04-042924-MS
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total	0.0094	J B F1	0.100	0.0926	F1	mg/L		83	90 - 110		

Lab Sample ID: 480-219333-2 MSD
Matrix: Water
Analysis Batch: 711260

Client Sample ID: MW05-04-042924-MSD
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyanide, Total	0.0094	J B F1	0.100	0.0976	F1	mg/L		88	90 - 110	5	15

QC Association Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219333-1

GC/MS VOA

Analysis Batch: 710160

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219333-1	MW-03-042924	Total/NA	Water	8260C	
480-219333-2	MW05-04-042924	Total/NA	Water	8260C	
480-219333-3	MW-02S-042924	Total/NA	Water	8260C	
480-219333-4	MW-02S-042924-FD	Total/NA	Water	8260C	
480-219333-5	MW05-01-042924	Total/NA	Water	8260C	
480-219333-6	MW05-03-042924	Total/NA	Water	8260C	
480-219333-7	TB-042924	Total/NA	Water	8260C	
MB 480-710160/8	Method Blank	Total/NA	Water	8260C	
LCS 480-710160/6	Lab Control Sample	Total/NA	Water	8260C	
480-219333-2 MS	MW05-04-042924-MS	Total/NA	Water	8260C	
480-219333-2 MSD	MW05-04-042924-MSD	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 710046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219333-2	MW05-04-042924	Total/NA	Water	3510C	
480-219333-3	MW-02S-042924	Total/NA	Water	3510C	
480-219333-4	MW-02S-042924-FD	Total/NA	Water	3510C	
480-219333-5	MW05-01-042924	Total/NA	Water	3510C	
MB 480-710046/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-710046/2-A	Lab Control Sample	Total/NA	Water	3510C	
480-219333-2 MS	MW05-04-042924-MS	Total/NA	Water	3510C	
480-219333-2 MSD	MW05-04-042924-MSD	Total/NA	Water	3510C	

Prep Batch: 710141

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219333-1	MW-03-042924	Total/NA	Water	3510C	
480-219333-2	MW05-04-042924	Total/NA	Water	3510C	
480-219333-3	MW-02S-042924	Total/NA	Water	3510C	
480-219333-4	MW-02S-042924-FD	Total/NA	Water	3510C	
480-219333-5	MW05-01-042924	Total/NA	Water	3510C	
480-219333-6	MW05-03-042924	Total/NA	Water	3510C	
MB 480-710141/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-710141/2-A	Lab Control Sample	Total/NA	Water	3510C	
480-219333-2 MS	MW05-04-042924-MS	Total/NA	Water	3510C	
480-219333-2 MSD	MW05-04-042924-MSD	Total/NA	Water	3510C	

Analysis Batch: 710333

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219333-1	MW-03-042924	Total/NA	Water	8270D	710141
480-219333-2	MW05-04-042924	Total/NA	Water	8270D	710141
480-219333-3	MW-02S-042924	Total/NA	Water	8270D	710141
480-219333-4	MW-02S-042924-FD	Total/NA	Water	8270D	710141
480-219333-5	MW05-01-042924	Total/NA	Water	8270D	710141
480-219333-6	MW05-03-042924	Total/NA	Water	8270D	710141
MB 480-710141/1-A	Method Blank	Total/NA	Water	8270D	710141
LCS 480-710141/2-A	Lab Control Sample	Total/NA	Water	8270D	710141
480-219333-2 MS	MW05-04-042924-MS	Total/NA	Water	8270D	710141
480-219333-2 MSD	MW05-04-042924-MSD	Total/NA	Water	8270D	710141

QC Association Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219333-1

GC/MS Semi VOA

Analysis Batch: 710334

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219333-2	MW05-04-042924	Total/NA	Water	8270D SIM ID	710046
480-219333-3	MW-02S-042924	Total/NA	Water	8270D SIM ID	710046
480-219333-4	MW-02S-042924-FD	Total/NA	Water	8270D SIM ID	710046
480-219333-5	MW05-01-042924	Total/NA	Water	8270D SIM ID	710046
MB 480-710046/1-A	Method Blank	Total/NA	Water	8270D SIM ID	710046
LCS 480-710046/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	710046
480-219333-2 MS	MW05-04-042924-MS	Total/NA	Water	8270D SIM ID	710046
480-219333-2 MSD	MW05-04-042924-MSD	Total/NA	Water	8270D SIM ID	710046

GC Semi VOA

Prep Batch: 611588

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219333-1	MW-03-042924	Total/NA	Water	3510C	
480-219333-2	MW05-04-042924	Total/NA	Water	3510C	
480-219333-3	MW-02S-042924	Total/NA	Water	3510C	
480-219333-4	MW-02S-042924-FD	Total/NA	Water	3510C	
480-219333-5	MW05-01-042924	Total/NA	Water	3510C	
480-219333-6	MW05-03-042924	Total/NA	Water	3510C	
MB 240-611588/1-A	Method Blank	Total/NA	Water	3510C	
MB 240-611588/1-A - RA	Method Blank	Total/NA	Water	3510C	
LCS 240-611588/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 240-611588/2-A - RA	Lab Control Sample	Total/NA	Water	3510C	
480-219333-2 MS	MW05-04-042924-MS	Total/NA	Water	3510C	
480-219333-2 MSD	MW05-04-042924-MSD	Total/NA	Water	3510C	

Analysis Batch: 611963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219333-4	MW-02S-042924-FD	Total/NA	Water	8081B	611588
480-219333-5	MW05-01-042924	Total/NA	Water	8081B	611588
MB 240-611588/1-A	Method Blank	Total/NA	Water	8081B	611588
MB 240-611588/1-A - RA	Method Blank	Total/NA	Water	8081B	611588
LCS 240-611588/2-A	Lab Control Sample	Total/NA	Water	8081B	611588
LCS 240-611588/2-A - RA	Lab Control Sample	Total/NA	Water	8081B	611588

Analysis Batch: 612148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219333-1	MW-03-042924	Total/NA	Water	8081B	611588
480-219333-2	MW05-04-042924	Total/NA	Water	8081B	611588
480-219333-3	MW-02S-042924	Total/NA	Water	8081B	611588
480-219333-4	MW-02S-042924-FD	Total/NA	Water	8081B	611588
480-219333-5	MW05-01-042924	Total/NA	Water	8081B	611588
480-219333-6	MW05-03-042924	Total/NA	Water	8081B	611588
480-219333-2 MS	MW05-04-042924-MS	Total/NA	Water	8081B	611588
480-219333-2 MSD	MW05-04-042924-MSD	Total/NA	Water	8081B	611588

Prep Batch: 710200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219333-1	MW-03-042924	Total/NA	Water	3510C	
480-219333-2	MW05-04-042924	Total/NA	Water	3510C	
480-219333-3	MW-02S-042924	Total/NA	Water	3510C	

GC Semi VOA (Continued)

Prep Batch: 710200 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219333-4	MW-02S-042924-FD	Total/NA	Water	3510C	
480-219333-5	MW05-01-042924	Total/NA	Water	3510C	
480-219333-6	MW05-03-042924	Total/NA	Water	3510C	
MB 480-710200/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-710200/2-A	Lab Control Sample	Total/NA	Water	3510C	
480-219333-2 MS	MW05-04-042924-MS	Total/NA	Water	3510C	
480-219333-2 MSD	MW05-04-042924-MSD	Total/NA	Water	3510C	

Analysis Batch: 710413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219333-1	MW-03-042924	Total/NA	Water	8082A	710200
480-219333-2	MW05-04-042924	Total/NA	Water	8082A	710200
480-219333-3	MW-02S-042924	Total/NA	Water	8082A	710200
480-219333-4	MW-02S-042924-FD	Total/NA	Water	8082A	710200
480-219333-5	MW05-01-042924	Total/NA	Water	8082A	710200
480-219333-6	MW05-03-042924	Total/NA	Water	8082A	710200
MB 480-710200/1-A	Method Blank	Total/NA	Water	8082A	710200
LCS 480-710200/2-A	Lab Control Sample	Total/NA	Water	8082A	710200
480-219333-2 MS	MW05-04-042924-MS	Total/NA	Water	8082A	710200
480-219333-2 MSD	MW05-04-042924-MSD	Total/NA	Water	8082A	710200

LCMS

Prep Batch: 611570

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219333-2	MW05-04-042924	Total/NA	Water	1633	
480-219333-3	MW-02S-042924	Total/NA	Water	1633	
480-219333-4	MW-02S-042924-FD	Total/NA	Water	1633	
480-219333-5	MW05-01-042924	Total/NA	Water	1633	
MB 240-611570/1-A	Method Blank	Total/NA	Water	1633	
LCS 240-611570/3-A	Lab Control Sample	Total/NA	Water	1633	
LLCS 240-611570/2-A	Lab Control Sample	Total/NA	Water	1633	
480-219333-2 MS	MW05-04-042924-MS	Total/NA	Water	1633	
480-219333-2 MSD	MW05-04-042924-MSD	Total/NA	Water	1633	

Analysis Batch: 611678

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219333-2	MW05-04-042924	Total/NA	Water	1633	611570
480-219333-3	MW-02S-042924	Total/NA	Water	1633	611570
480-219333-4	MW-02S-042924-FD	Total/NA	Water	1633	611570
480-219333-5	MW05-01-042924	Total/NA	Water	1633	611570
MB 240-611570/1-A	Method Blank	Total/NA	Water	1633	611570
LCS 240-611570/3-A	Lab Control Sample	Total/NA	Water	1633	611570
LLCS 240-611570/2-A	Lab Control Sample	Total/NA	Water	1633	611570
480-219333-2 MS	MW05-04-042924-MS	Total/NA	Water	1633	611570
480-219333-2 MSD	MW05-04-042924-MSD	Total/NA	Water	1633	611570

Prep Batch: 611819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219333-2 - RA	MW05-04-042924	Total/NA	Water	1633	
MB 240-611819/1-A	Method Blank	Total/NA	Water	1633	

LCMS (Continued)

Prep Batch: 611819 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-611819/3-A	Lab Control Sample	Total/NA	Water	1633	
LLCS 240-611819/2-A	Lab Control Sample	Total/NA	Water	1633	
480-219333-2 MS - RA	MW05-04-042924-MS	Total/NA	Water	1633	
480-219333-2 MSD - RA	MW05-04-042924-MSD	Total/NA	Water	1633	

Analysis Batch: 611854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219333-2 - RA	MW05-04-042924	Total/NA	Water	1633	611819
MB 240-611819/1-A	Method Blank	Total/NA	Water	1633	611819
LCS 240-611819/3-A	Lab Control Sample	Total/NA	Water	1633	611819
LLCS 240-611819/2-A	Lab Control Sample	Total/NA	Water	1633	611819
480-219333-2 MS - RA	MW05-04-042924-MS	Total/NA	Water	1633	611819
480-219333-2 MSD - RA	MW05-04-042924-MSD	Total/NA	Water	1633	611819

Metals

Prep Batch: 613290

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219333-1	MW-03-042924	Dissolved	Water	3005A	
480-219333-1	MW-03-042924	Total Recoverable	Water	3005A	
480-219333-2	MW05-04-042924	Dissolved	Water	3005A	
480-219333-2	MW05-04-042924	Total Recoverable	Water	3005A	
480-219333-3	MW-02S-042924	Dissolved	Water	3005A	
480-219333-3	MW-02S-042924	Total Recoverable	Water	3005A	
480-219333-4	MW-02S-042924-FD	Dissolved	Water	3005A	
480-219333-4	MW-02S-042924-FD	Total Recoverable	Water	3005A	
480-219333-5	MW05-01-042924	Dissolved	Water	3005A	
480-219333-5	MW05-01-042924	Total Recoverable	Water	3005A	
480-219333-6	MW05-03-042924	Dissolved	Water	3005A	
480-219333-6	MW05-03-042924	Total Recoverable	Water	3005A	
MB 240-613290/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-613290/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
480-219333-2 MS	MW05-04-042924-MS	Dissolved	Water	3005A	
480-219333-2 MS	MW05-04-042924-MS	Total Recoverable	Water	3005A	
480-219333-2 MSD	MW05-04-042924-MSD	Dissolved	Water	3005A	
480-219333-2 MSD	MW05-04-042924-MSD	Total Recoverable	Water	3005A	

Analysis Batch: 613551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219333-1	MW-03-042924	Dissolved	Water	6010D	613290
480-219333-1	MW-03-042924	Total Recoverable	Water	6010D	613290
480-219333-2	MW05-04-042924	Dissolved	Water	6010D	613290
480-219333-2	MW05-04-042924	Total Recoverable	Water	6010D	613290
480-219333-3	MW-02S-042924	Dissolved	Water	6010D	613290
480-219333-3	MW-02S-042924	Total Recoverable	Water	6010D	613290
480-219333-4	MW-02S-042924-FD	Dissolved	Water	6010D	613290
480-219333-4	MW-02S-042924-FD	Total Recoverable	Water	6010D	613290
480-219333-5	MW05-01-042924	Dissolved	Water	6010D	613290
480-219333-5	MW05-01-042924	Total Recoverable	Water	6010D	613290
480-219333-6	MW05-03-042924	Dissolved	Water	6010D	613290
480-219333-6	MW05-03-042924	Total Recoverable	Water	6010D	613290

Metals (Continued)

Analysis Batch: 613551 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-613290/1-A	Method Blank	Total Recoverable	Water	6010D	613290
LCS 240-613290/2-A	Lab Control Sample	Total Recoverable	Water	6010D	613290
480-219333-2 MS	MW05-04-042924-MS	Dissolved	Water	6010D	613290
480-219333-2 MS	MW05-04-042924-MS	Total Recoverable	Water	6010D	613290
480-219333-2 MSD	MW05-04-042924-MSD	Dissolved	Water	6010D	613290
480-219333-2 MSD	MW05-04-042924-MSD	Total Recoverable	Water	6010D	613290

Prep Batch: 710297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219333-1	MW-03-042924	Total/NA	Water	7470A	
480-219333-2	MW05-04-042924	Total/NA	Water	7470A	
480-219333-3	MW-02S-042924	Total/NA	Water	7470A	
480-219333-4	MW-02S-042924-FD	Total/NA	Water	7470A	
480-219333-5	MW05-01-042924	Total/NA	Water	7470A	
480-219333-6	MW05-03-042924	Total/NA	Water	7470A	
MB 480-710297/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-710297/2-A	Lab Control Sample	Total/NA	Water	7470A	
480-219333-2 MS	MW05-04-042924-MS	Total/NA	Water	7470A	
480-219333-2 MSD	MW05-04-042924-MSD	Total/NA	Water	7470A	

Prep Batch: 710298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219333-1	MW-03-042924	Dissolved	Water	7470A	
480-219333-2	MW05-04-042924	Dissolved	Water	7470A	
480-219333-3	MW-02S-042924	Dissolved	Water	7470A	
480-219333-4	MW-02S-042924-FD	Dissolved	Water	7470A	
480-219333-5	MW05-01-042924	Dissolved	Water	7470A	
480-219333-6	MW05-03-042924	Dissolved	Water	7470A	
MB 480-710298/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-710298/2-A	Lab Control Sample	Total/NA	Water	7470A	
480-219333-2 MS	MW05-04-042924-MS	Dissolved	Water	7470A	
480-219333-2 MSD	MW05-04-042924-MSD	Dissolved	Water	7470A	

Analysis Batch: 710472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219333-1	MW-03-042924	Dissolved	Water	7470A	710298
480-219333-1	MW-03-042924	Total/NA	Water	7470A	710297
480-219333-2	MW05-04-042924	Dissolved	Water	7470A	710298
480-219333-2	MW05-04-042924	Total/NA	Water	7470A	710297
480-219333-3	MW-02S-042924	Dissolved	Water	7470A	710298
480-219333-3	MW-02S-042924	Total/NA	Water	7470A	710297
480-219333-4	MW-02S-042924-FD	Dissolved	Water	7470A	710298
480-219333-4	MW-02S-042924-FD	Total/NA	Water	7470A	710297
480-219333-5	MW05-01-042924	Dissolved	Water	7470A	710298
480-219333-5	MW05-01-042924	Total/NA	Water	7470A	710297
480-219333-6	MW05-03-042924	Dissolved	Water	7470A	710298
480-219333-6	MW05-03-042924	Total/NA	Water	7470A	710297
MB 480-710297/1-A	Method Blank	Total/NA	Water	7470A	710297
MB 480-710298/1-A	Method Blank	Total/NA	Water	7470A	710298
LCS 480-710297/2-A	Lab Control Sample	Total/NA	Water	7470A	710297
LCS 480-710298/2-A	Lab Control Sample	Total/NA	Water	7470A	710298

Metals (Continued)

Analysis Batch: 710472 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219333-2 MS	MW05-04-042924-MS	Dissolved	Water	7470A	710298
480-219333-2 MS	MW05-04-042924-MS	Total/NA	Water	7470A	710297
480-219333-2 MSD	MW05-04-042924-MSD	Dissolved	Water	7470A	710298
480-219333-2 MSD	MW05-04-042924-MSD	Total/NA	Water	7470A	710297

General Chemistry

Analysis Batch: 710579

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219333-1	MW-03-042924	Dissolved	Water	9012B	
480-219333-1	MW-03-042924	Total/NA	Water	9012B	
480-219333-3	MW-02S-042924	Dissolved	Water	9012B	
480-219333-3	MW-02S-042924	Total/NA	Water	9012B	
480-219333-4	MW-02S-042924-FD	Dissolved	Water	9012B	
480-219333-5	MW05-01-042924	Dissolved	Water	9012B	
480-219333-5	MW05-01-042924	Total/NA	Water	9012B	
480-219333-6	MW05-03-042924	Dissolved	Water	9012B	
480-219333-6	MW05-03-042924	Total/NA	Water	9012B	
MB 480-710579/21	Method Blank	Total/NA	Water	9012B	
MB 480-710579/47	Method Blank	Total/NA	Water	9012B	
MB 480-710579/75	Method Blank	Total/NA	Water	9012B	
HLCS 480-710579/22	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-710579/23	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-710579/48	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-710579/76	Lab Control Sample	Total/NA	Water	9012B	

Analysis Batch: 711260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219333-2	MW05-04-042924	Dissolved	Water	9012B	
480-219333-2	MW05-04-042924	Total/NA	Water	9012B	
480-219333-4	MW-02S-042924-FD	Total/NA	Water	9012B	
MB 480-711260/46	Method Blank	Total/NA	Water	9012B	
MB 480-711260/74	Method Blank	Total/NA	Water	9012B	
HLCS 480-711260/22	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-711260/23	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-711260/47	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-711260/75	Lab Control Sample	Total/NA	Water	9012B	
480-219333-2 MS	MW05-04-042924-MS	Dissolved	Water	9012B	
480-219333-2 MS	MW05-04-042924-MS	Total/NA	Water	9012B	
480-219333-2 MSD	MW05-04-042924-MSD	Dissolved	Water	9012B	
480-219333-2 MSD	MW05-04-042924-MSD	Total/NA	Water	9012B	

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219333-1

Client Sample ID: MW-03-042924

Lab Sample ID: 480-219333-1

Date Collected: 04/29/24 09:20

Matrix: Water

Date Received: 04/29/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		2	710160	AXK	EET BUF	05/01/24 13:41
Total/NA	Prep	3510C			710141	JMP	EET BUF	05/01/24 09:25
Total/NA	Analysis	8270D		1	710333	JMM	EET BUF	05/02/24 16:41
Total/NA	Prep	3510C			611588	GBS	EET CLE	05/02/24 08:53
Total/NA	Analysis	8081B		1	612148	RR	EET CLE	05/07/24 17:57
Total/NA	Prep	3510C			710200	LSC	EET BUF	05/01/24 13:50
Total/NA	Analysis	8082A		1	710413	DSC	EET BUF	05/02/24 22:42
Dissolved	Prep	3005A			613290	BN	EET CLE	05/16/24 16:30
Dissolved	Analysis	6010D		1	613551	KLC	EET CLE	05/18/24 10:48
Total Recoverable	Prep	3005A			613290	BN	EET CLE	05/16/24 16:30
Total Recoverable	Analysis	6010D		1	613551	KLC	EET CLE	05/18/24 10:35
Dissolved	Prep	7470A			710298	ESB	EET BUF	05/02/24 11:04
Dissolved	Analysis	7470A		1	710472	ESB	EET BUF	05/02/24 17:36
Total/NA	Prep	7470A			710297	ESB	EET BUF	05/02/24 11:04
Total/NA	Analysis	7470A		1	710472	ESB	EET BUF	05/02/24 17:00
Dissolved	Analysis	9012B		1	710579	GW	EET BUF	05/03/24 00:00
Total/NA	Analysis	9012B		1	710579	GW	EET BUF	05/02/24 23:27

Client Sample ID: MW05-04-042924

Lab Sample ID: 480-219333-2

Date Collected: 04/29/24 10:45

Matrix: Water

Date Received: 04/29/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		4	710160	AXK	EET BUF	05/01/24 14:03
Total/NA	Prep	3510C			710141	JMP	EET BUF	05/01/24 09:25
Total/NA	Analysis	8270D		1	710333	JMM	EET BUF	05/02/24 16:13
Total/NA	Prep	3510C			710046	LSC	EET BUF	04/30/24 13:54
Total/NA	Analysis	8270D SIM ID		1	710334	JMM	EET BUF	05/02/24 21:08
Total/NA	Prep	3510C			611588	GBS	EET CLE	05/02/24 08:53
Total/NA	Analysis	8081B		1	612148	RR	EET CLE	05/07/24 18:13
Total/NA	Prep	3510C			710200	LSC	EET BUF	05/01/24 13:50
Total/NA	Analysis	8082A		1	710413	DSC	EET BUF	05/02/24 22:24
Total/NA	Prep	1633			611570	CLB	EET CLE	05/02/24 08:21
Total/NA	Analysis	1633		1	611678	MRL	EET CLE	05/02/24 21:20
Total/NA	Prep	1633	RA		611819	WJW	EET CLE	05/03/24 12:06
Total/NA	Analysis	1633	RA	1	611854	DSH	EET CLE	05/03/24 21:20
Dissolved	Prep	3005A			613290	BN	EET CLE	05/16/24 16:30
Dissolved	Analysis	6010D		1	613551	KLC	EET CLE	05/18/24 09:44
Total Recoverable	Prep	3005A			613290	BN	EET CLE	05/16/24 16:30
Total Recoverable	Analysis	6010D		1	613551	KLC	EET CLE	05/18/24 09:02
Dissolved	Prep	7470A			710298	ESB	EET BUF	05/02/24 11:04
Dissolved	Analysis	7470A		1	710472	ESB	EET BUF	05/02/24 17:38
Total/NA	Prep	7470A			710297	ESB	EET BUF	05/02/24 11:04
Total/NA	Analysis	7470A		1	710472	ESB	EET BUF	05/02/24 17:04

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219333-1

Client Sample ID: MW05-04-042924

Lab Sample ID: 480-219333-2

Date Collected: 04/29/24 10:45

Matrix: Water

Date Received: 04/29/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Analysis	9012B		1	711260	GW	EET BUF	05/08/24 20:30
Total/NA	Analysis	9012B		1	711260	GW	EET BUF	05/08/24 19:16

Client Sample ID: MW-02S-042924

Lab Sample ID: 480-219333-3

Date Collected: 04/29/24 13:06

Matrix: Water

Date Received: 04/29/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	710160	AXK	EET BUF	05/01/24 14:25
Total/NA	Prep	3510C			710141	JMP	EET BUF	05/01/24 09:25
Total/NA	Analysis	8270D		1	710333	JMM	EET BUF	05/02/24 17:08
Total/NA	Prep	3510C			710046	LSC	EET BUF	04/30/24 13:54
Total/NA	Analysis	8270D SIM ID		1	710334	JMM	EET BUF	05/02/24 23:40
Total/NA	Prep	3510C			611588	GBS	EET CLE	05/02/24 08:53
Total/NA	Analysis	8081B		1	612148	RR	EET CLE	05/07/24 19:00
Total/NA	Prep	3510C			710200	LSC	EET BUF	05/01/24 13:50
Total/NA	Analysis	8082A		1	710413	DSC	EET BUF	05/02/24 22:59
Total/NA	Prep	1633			611570	CLB	EET CLE	05/02/24 08:21
Total/NA	Analysis	1633		1	611678	MRL	EET CLE	05/02/24 22:05
Dissolved	Prep	3005A			613290	BN	EET CLE	05/16/24 16:30
Dissolved	Analysis	6010D		1	613551	KLC	EET CLE	05/18/24 10:57
Total Recoverable	Prep	3005A			613290	BN	EET CLE	05/16/24 16:30
Total Recoverable	Analysis	6010D		1	613551	KLC	EET CLE	05/18/24 10:53
Dissolved	Prep	7470A			710298	ESB	EET BUF	05/02/24 11:04
Dissolved	Analysis	7470A		1	710472	ESB	EET BUF	05/02/24 17:43
Total/NA	Prep	7470A			710297	ESB	EET BUF	05/02/24 11:04
Total/NA	Analysis	7470A		1	710472	ESB	EET BUF	05/02/24 17:09
Dissolved	Analysis	9012B		1	710579	GW	EET BUF	05/03/24 00:02
Total/NA	Analysis	9012B		1	710579	GW	EET BUF	05/02/24 23:30

Client Sample ID: MW-02S-042924-FD

Lab Sample ID: 480-219333-4

Date Collected: 04/29/24 13:15

Matrix: Water

Date Received: 04/29/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	710160	AXK	EET BUF	05/01/24 14:48
Total/NA	Prep	3510C			710141	JMP	EET BUF	05/01/24 09:25
Total/NA	Analysis	8270D		1	710333	JMM	EET BUF	05/02/24 17:36
Total/NA	Prep	3510C			710046	LSC	EET BUF	04/30/24 13:54
Total/NA	Analysis	8270D SIM ID		1	710334	JMM	EET BUF	05/03/24 00:01
Total/NA	Prep	3510C			611588	GBS	EET CLE	05/02/24 08:53
Total/NA	Analysis	8081B		1	611963	RR	EET CLE	05/06/24 17:18
Total/NA	Prep	3510C			611588	GBS	EET CLE	05/02/24 08:53
Total/NA	Analysis	8081B		1	612148	RR	EET CLE	05/07/24 19:16

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219333-1

Client Sample ID: MW-02S-042924-FD

Lab Sample ID: 480-219333-4

Date Collected: 04/29/24 13:15

Matrix: Water

Date Received: 04/29/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			710200	LSC	EET BUF	05/01/24 13:50
Total/NA	Analysis	8082A		1	710413	DSC	EET BUF	05/02/24 23:17
Total/NA	Prep	1633			611570	CLB	EET CLE	05/02/24 08:21
Total/NA	Analysis	1633		1	611678	MRL	EET CLE	05/02/24 22:50
Dissolved	Prep	3005A			613290	BN	EET CLE	05/16/24 16:30
Dissolved	Analysis	6010D		1	613551	KLC	EET CLE	05/18/24 11:06
Total Recoverable	Prep	3005A			613290	BN	EET CLE	05/16/24 16:30
Total Recoverable	Analysis	6010D		1	613551	KLC	EET CLE	05/18/24 11:01
Dissolved	Prep	7470A			710298	ESB	EET BUF	05/02/24 11:04
Dissolved	Analysis	7470A		1	710472	ESB	EET BUF	05/02/24 17:44
Total/NA	Prep	7470A			710297	ESB	EET BUF	05/02/24 11:04
Total/NA	Analysis	7470A		1	710472	ESB	EET BUF	05/02/24 17:10
Dissolved	Analysis	9012B		1	710579	GW	EET BUF	05/03/24 00:05
Total/NA	Analysis	9012B		1	711260	GW	EET BUF	05/08/24 19:03

Client Sample ID: MW05-01-042924

Lab Sample ID: 480-219333-5

Date Collected: 04/29/24 14:30

Matrix: Water

Date Received: 04/29/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		5	710160	AXK	EET BUF	05/01/24 15:10
Total/NA	Prep	3510C			710141	JMP	EET BUF	05/01/24 09:25
Total/NA	Analysis	8270D		1	710333	JMM	EET BUF	05/02/24 18:04
Total/NA	Prep	3510C			710046	LSC	EET BUF	04/30/24 13:54
Total/NA	Analysis	8270D SIM ID		1	710334	JMM	EET BUF	05/03/24 00:22
Total/NA	Prep	3510C			611588	GBS	EET CLE	05/02/24 08:53
Total/NA	Analysis	8081B		1	611963	RR	EET CLE	05/06/24 17:33
Total/NA	Prep	3510C			611588	GBS	EET CLE	05/02/24 08:53
Total/NA	Analysis	8081B		1	612148	RR	EET CLE	05/07/24 19:31
Total/NA	Prep	3510C			710200	LSC	EET BUF	05/01/24 13:50
Total/NA	Analysis	8082A		1	710413	DSC	EET BUF	05/02/24 23:34
Total/NA	Prep	1633			611570	CLB	EET CLE	05/02/24 08:21
Total/NA	Analysis	1633		1	611678	MRL	EET CLE	05/02/24 23:06
Dissolved	Prep	3005A			613290	BN	EET CLE	05/16/24 16:30
Dissolved	Analysis	6010D		1	613551	KLC	EET CLE	05/18/24 11:14
Total Recoverable	Prep	3005A			613290	BN	EET CLE	05/16/24 16:30
Total Recoverable	Analysis	6010D		1	613551	KLC	EET CLE	05/18/24 11:10
Dissolved	Prep	7470A			710298	ESB	EET BUF	05/02/24 11:04
Dissolved	Analysis	7470A		1	710472	ESB	EET BUF	05/02/24 17:46
Total/NA	Prep	7470A			710297	ESB	EET BUF	05/02/24 11:04
Total/NA	Analysis	7470A		1	710472	ESB	EET BUF	05/02/24 17:12
Dissolved	Analysis	9012B		1	710579	GW	EET BUF	05/03/24 00:07
Total/NA	Analysis	9012B		1	710579	GW	EET BUF	05/02/24 23:54

Lab Chronicle

Client: Ashland LLC
Job ID: 480-219333-1
Project/Site: Tank 75 Analysis

Client Sample ID: MW05-03-042924
Lab Sample ID: 480-219333-6
Date Collected: 04/29/24 16:00
Matrix: Water
Date Received: 04/29/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	710160	AXK	EET BUF	05/01/24 15:32
Total/NA	Prep	3510C			710141	JMP	EET BUF	05/01/24 09:25
Total/NA	Analysis	8270D		1	710333	JMM	EET BUF	05/02/24 18:32
Total/NA	Prep	3510C			611588	GBS	EET CLE	05/02/24 08:53
Total/NA	Analysis	8081B		1	612148	RR	EET CLE	05/07/24 19:47
Total/NA	Prep	3510C			710200	LSC	EET BUF	05/01/24 13:50
Total/NA	Analysis	8082A		1	710413	DSC	EET BUF	05/02/24 23:52
Dissolved	Prep	3005A			613290	BN	EET CLE	05/16/24 16:30
Dissolved	Analysis	6010D		1	613551	KLC	EET CLE	05/18/24 11:23
Total Recoverable	Prep	3005A			613290	BN	EET CLE	05/16/24 16:30
Total Recoverable	Analysis	6010D		1	613551	KLC	EET CLE	05/18/24 11:19
Dissolved	Prep	7470A			710298	ESB	EET BUF	05/02/24 11:04
Dissolved	Analysis	7470A		1	710472	ESB	EET BUF	05/02/24 17:47
Total/NA	Prep	7470A			710297	ESB	EET BUF	05/02/24 11:04
Total/NA	Analysis	7470A		1	710472	ESB	EET BUF	05/02/24 17:13
Dissolved	Analysis	9012B		1	710579	GW	EET BUF	05/03/24 00:29
Total/NA	Analysis	9012B		1	710579	GW	EET BUF	05/02/24 23:57

Client Sample ID: TB-042924
Lab Sample ID: 480-219333-7
Date Collected: 04/29/24 00:00
Matrix: Water
Date Received: 04/29/24 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	710160	AXK	EET BUF	05/01/24 15:54

Laboratory References:
EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Ashland LLC
Job ID: 480-219333-1
Project/Site: Tank 75 Analysis

Laboratory: Eurofins Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-25

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	06-30-24
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Method Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219333-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET BUF
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	EET BUF
8081B	Organochlorine Pesticides (GC)	SW846	EET CLE
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET BUF
1633	Per- and Polyfluoroalkyl Substances by LC/MS/MS	EPA	EET CLE
6010D	Metals (ICP)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET BUF
9012B	Cyanide, Total and/or Amenable	SW846	EET BUF
1633	Solid-Phase Extraction (SPE)	EPA	EET CLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET CLE
5030C	Purge and Trap	SW846	EET BUF
7470A	Preparation, Mercury	SW846	EET BUF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219333-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-219333-1	MW-03-042924	Water	04/29/24 09:20	04/29/24 17:15
480-219333-2	MW05-04-042924	Water	04/29/24 10:45	04/29/24 17:15
480-219333-3	MW-02S-042924	Water	04/29/24 13:06	04/29/24 17:15
480-219333-4	MW-02S-042924-FD	Water	04/29/24 13:15	04/29/24 17:15
480-219333-5	MW05-01-042924	Water	04/29/24 14:30	04/29/24 17:15
480-219333-6	MW05-03-042924	Water	04/29/24 16:00	04/29/24 17:15
480-219333-7	TB-042924	Water	04/29/24 00:00	04/29/24 17:15

>> Select a Laboratory or Service Center <<
#N/A
#N/A
#N/A
##

Chain of Custody Record

27595

eurofins | Environment Testing America

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Colin Wasteneys	Site Contact: Ethan Smith	Date: 4-29-24	Eurofins Environment Testing America
AECOM	Email: colin.wasteneys@aecom.com	Lab Contact: John Beninati	Carrier:	COC No: 1 of 1 COCs
50 Lakefront Blvd. Suite 111	Tel/Fax: (716) 225-4396			TALS Project #:
Buffalo, NY 14202	Analysis Turnaround Time			Sampler:
(716) 856-5636 Phone	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(xxx) xxx-xxxx FAX	TAT if different from Below STANDARD			Walk-in Client:
Project Name: Ashland Tank 75 Site	☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day			Lab Sampling:
Site: Tank 75 Site, Tonawanda, NY				Job / SDG No.:
P O # 60730037				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	8260C - TCL VOC + TICs	8260A - TCL PCBs	8081B - TCL Pests	8270D - TCL SVOC + TICs	6010C, 7470A TAL Metals	6010C, 7470A Dis. TAL Mtls + Hg	9012B_NP, Total Cyanide	9012B_NP, Cyanide Dissolved (Aft	1633 - 1633 Standard List	8270D_SIM 1,4-Dioxane	Sample Specific Notes:
MW-03-042924	4-29-24	0920	G	Water	13			X	X	X	X	X	X	X				
~~MW-05~~ MW05-04-042924	4-29-24	1045	G	Water	18			X	X	X	X	X	X	X	X	X	X	
MW05-04-042124-MS	4-29-24	1050	G	Water	18			X	X	X	X	X	X	X	X	X	X	
MW05-04-042924-MSD	4-29-24	1055	G	Water	18			X	X	X	X	X	X	X	X	X	X	
MW-02S-042924	4-29-24	1306	G	Water	18			X	X	X	X	X	X	X	X	X	X	
MW-02S-042924-FD	4-29-24	1315	G	Water	18			X	X	X	X	X	X	X	X	X	X	
MW05-01-042924	4-29-24	1430	G	Water	18			X	X	X	X	X	X	X	X	X	X	
MW05-03-042924	4-29-24	1600	G	Water	15			X	X	X	X	X	X	X	X			
TB-042924	-	-	-	Water	2			X										
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other								2	1	1	1	4	4	5	5	1	1	

480-219333 Chain of Custody

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

CAT B + EQUIS

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____		
Relinquished by:	Company: AECOM	Date/Time: 4-29-24 1715	Received by:	Company: ETA Buffalo	Date/Time: 4/29/24 1715
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: 2.8 2.5 3.0 2.7 2.9 ICE	Company:	Date/Time:

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5/21/2024

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298
Phone: 716-691-2600 Fax: 716-691 7991

Chain of Custody Record

eurofins

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Beninati John	Carrier Tracking No(s):	COC No: 480-86756 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note): NELAP New York		Job #: 480-219333-1
Address: 180 S. Van Buren Avenue,	Due Date Requested: 5/13/2024			Preservation Codes:
City: Barberton	TAT Requested (days):			
State, Zip: OH 44203				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site:	SSOW#:			Other:

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=wasteoil BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010D/3005A TAL Metals ICP	6010D/1311T_M TAL Metals ICP Dissolved FF	8081B/3510C TCL Pesticides	1633/1633_SPE 1633 Standard List	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
MW-03-042924 (480-219333-1)	4/29/24	09:20 Eastern		Water			X	X	X		2	
MW05-04-042924 (480-219333-2)	4/29/24	10:45 Eastern		Water			X	X	X	X	5	
MW05-04-042924 (480-219333-2MS)	4/29/24	10:50 Eastern	MS	Water			X	X	X	X	5	
MW05-04-042924 (480-219333-2MSD)	4/29/24	10:55 Eastern	MSD	Water			X	X	X	X	5	
MW-02S-042924 (480-219333-3)	4/29/24	13:06 Eastern		Water			X	X	X	X	5	
MW-02S-042924-FD (480-219333-4)	4/29/24	13:15 Eastern		Water			X	X	X	X	5	
MW05-01-042924 (480-219333-5)	4/29/24	14:30 Eastern		Water			X	X	X	X	5	
MW05-03-042924 (480-219333-6)	4/29/24	16:00 Eastern		Water			X	X	X		2	

Note: Since laboratory accreditations are subject to change Eurofins Environment Testing Northeast LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :** _____
Barberton Facility

Client Eurofins Site Name _____ Cooler unpacked by:

Cooler Received on 5/17/24 Opened on 5/17/24

FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other _____

Receipt After-hours Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # IEC Foam Box Client Cooler Box Other _____

Packing material used Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 17 (CF +.2 °C) Observed Cooler Temp 1.2 °C Corrected Cooler Temp. 1.4 °C

2	Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No	
	Were the seals on the outside of the cooler(s) signed & dated?	Yes	No	NA
	-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No	
	-Were tamper/custody seals intact and uncompromised?	Yes	No	NA
3	Shippers' packing slip attached to the cooler(s)?	Yes	No	
4	Did custody papers accompany the sample(s)?	Yes	No	
5	Were the custody papers relinquished & signed in the appropriate place?	Yes	No	
6	Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No	
7	Did all bottles arrive in good condition (Unbroken)?	Yes	No	
8	Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No	
9	For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp(Y/N)?			
10	Were correct bottle(s) used for the test(s) indicated?	Yes	No	
11	Sufficient quantity received to perform indicated analyses?	Yes	No	
12	Are these work share samples and all listed on the COC?	Yes	No	
	If yes, Questions 13-17 have been checked at the originating laboratory			
13	Were all preserved sample(s) at the correct pH upon receipt?	Yes	No	NA
14.	Were VOAs on the COC?	Yes	No	
15	Were air bubbles >6 mm in any VOA vials? Larger than this.	Yes	No	NA
16	Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes	No	
17	Was a LL Hg or Me Hg trip blank present? _____	Yes	No	

pH Strip Lot# HC439975

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18 CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page | Samples processed by

_____

_____

_____

_____

19 SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container

Sample(s) _____ were received with bubble >6 mm in diameter (Notify PM)

20 SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory

Time preserved _____ Preservative(s) added/Lot number(s) _____

VOA Sample Preservation Date/Time VOAs Frozen _____

Login Sample Receipt Checklist

Client: Ashland LLC

Job Number: 480-219333-1

Login Number: 219333
List Number: 1
Creator: Yeager, Brian A

List Source: Eurofins Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	AECOM
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Shannon Lloyd
Ashland LLC
PO BOX 2219
Columbus, Ohio 43216

Generated 5/14/2024 5:49:21 PM

JOB DESCRIPTION

Tank 75 Analysis

JOB NUMBER

480-219368-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

Authorization

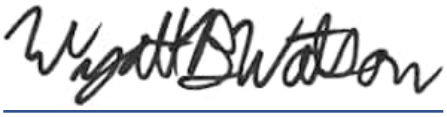

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Table of Contents

Definitions/Glossary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219368-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.

GC/MS Semi VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

LCMS

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
480-219368-1

Receipt
The samples were received on 4/30/2024 3:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 2.5º C, 2.8º C and 3.0º C.

GC/MS VOA
Method 8260C: The continuing calibration verification (CCV) associated with batch 480-710397 recovered outside acceptance criteria, low biased, for Chloromethane. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported. The associated samples are impacted: MW-02D-043024 (480-219368-5) and RB-043024 (480-219368-6).

Method 8260C: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for analytical batch 480-710397 recovered outside control limits for the following analyte(s): Dichlorodifluoromethane. Dichlorodifluoromethane has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. The associated samples are impacted: MW-02D-043024 (480-219368-5) and RB-043024 (480-219368-6).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-710397 recovered above the upper control limit for Carbon tetrachloride . The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: MW-02D-043024 (480-219368-5) and RB-043024 (480-219368-6).

Method 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 480-710309 recovered outside control limits for the following analytes: 1,2-Dichloroethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. The associated samples are impacted: TB-043024 (480-219368-3) and MW-04D-043024 (480-219368-4).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-710309 recovered outside acceptance criteria, low biased, for 4-Methyl-2-pentanone. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported. The associated samples are impacted: TB-043024 (480-219368-3) and MW-04D-043024 (480-219368-4).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-710309 recovered above the upper control limit for Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: TB-043024 (480-219368-3) and MW-04D-043024 (480-219368-4).

Method 8260C: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 480-710309 recovered outside control limits for the following analytes: Bromomethane and Chloroethane. The associated samples are impacted: TB-043024 (480-219368-3) and MW-04D-043024 (480-219368-4).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-710791 recovered above the upper control limit for 1,1,2-Trichloro-1,2,2-trifluoroethane, 1,1-Dichloroethene, Carbon disulfide, Methylene Chloride, Trichlorofluoromethane and Vinyl chloride. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: MW05-02-043024 (480-219368-1) and MW-04S-043024 (480-219368-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method 8270D: The continuing calibration verification (CCV) associated with batch 480-710494 recovered outside acceptance criteria, low biased, for 2,4-Dinitrophenol. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-710494 recovered above the upper control limit for Benzo(g,h,i)perylene, Hexachlorocyclopentadiene and Indeno(1,2,3-cd)pyrene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: MW05-02-043024 (480-219368-1), MW-04S-043024 (480-219368-2), MW-04D-043024 (480-219368-4), MW-02D-043024 (480-219368-5) and RB-043024 (480-219368-6).

Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable

number of surrogate compounds outside limits: MW-04D-043024 (480-219368-4) and MW-02D-043024 (480-219368-5). These results have been reported and qualified.

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 480-710433 and analytical batch 480-710494 recovered outside control limits for multiple analytes.

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-711112 recovered outside acceptance criteria, low biased, for 2,4-Dinitrophenol and Hexachlorocyclopentadiene. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: MW-02D-043024 (480-219368-5). These results have been reported and qualified.

Method 8270D: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 480-710923 and analytical batch 480-711112 recovered outside control limits for the following analytes: Bis(2-chloroethoxy)methane and Carbazole. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
Method 6010D: The continuing calibration verification (CCV) associated with batch 240-612073 recovered above the upper control limit for selenium. The samples associated with this CCV were on-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: MW05-02-043024 (480-219368-1), MW-04S-043024 (480-219368-2), MW-04D-043024 (480-219368-4), MW-02D-043024 (480-219368-5) and RB-043024 (480-219368-6).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

LCMS
Method 1633: Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for 13C6 PFDA in the CCV Low associated with the following samples: MW-02D-043024 (480-219368-5) and RB-043024 (480-219368-6). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries. The concentration for the associated native compound is within acceptance limits and data is reported with no corrective action.

Method 1633: Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for 13C6 PFDA in the CCV Low associated with the following sample: (480-219368-O-6-A DU). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries. The concentration for the associated native compound is within acceptance limits and data is reported with no corrective action.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Field Service / Mobile Lab
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Methods 9012B: The initial calibration verification (ICV) result for batch 480-710579 was above the upper control limit. The affected analytes are: Cyanide, Total. Sample results were non-detects, and have been reported as qualified data. MW05-02-043024 (480-219368-1), MW-04S-043024 (480-219368-2), MW-04D-043024 (480-219368-4), MW-02D-043024 (480-219368-5), RB-043024 (480-219368-6), (ICV 480-710579/15), (480-219368-L-6 DU), (480-219368-K-6 MS) and (480-219368-L-6 MS)

Methods 9012B: The continuing calibration verification (CCV) associated with batch 480-710579 recovered above the upper control limit for Cyanide, Total. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 480-710579/19).

Methods 9012B: The continuing calibration blank (CCB) and method blank (MB) for analytical batch 480-710579 contained Cyanide, Total above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not

performed.

Methods 9012B: The method blank for preparation batch 480-710579 contained Cyanide, Total above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

Methods 9012B: The continuing calibration blank (CCB) for analytical batch 480-710579 contained Cyanide, Total above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-710206.

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-710433.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219368-1

Client Sample ID: MW05-02-043024 — Lab Sample ID: 480-219368-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.3		1.0	0.81	ug/L	1		8260C	Total/NA
Vinyl chloride	0.90	J	1.0	0.90	ug/L	1		8260C	Total/NA
Aluminum	2220		200	47.3	ug/L	1		6010D	Total Recoverable
Barium	60.3	J	200	3.0	ug/L	1		6010D	Total Recoverable
Cadmium	0.95	J	5.0	0.45	ug/L	1		6010D	Total Recoverable
Calcium	81700		5000	307	ug/L	1		6010D	Total Recoverable
Chromium	3.9	J	10.0	0.76	ug/L	1		6010D	Total Recoverable
Cobalt	1.9	J	10.0	0.75	ug/L	1		6010D	Total Recoverable
Iron	2580		200	82.7	ug/L	1		6010D	Total Recoverable
Lead	3.3	J	10.0	2.8	ug/L	1		6010D	Total Recoverable
Magnesium	142000		5000	259	ug/L	1		6010D	Total Recoverable
Manganese	68.0		15.0	2.6	ug/L	1		6010D	Total Recoverable
Nickel	4.4	J	40.0	2.2	ug/L	1		6010D	Total Recoverable
Potassium	4410	J	5000	557	ug/L	1		6010D	Total Recoverable
Sodium	50800		5000	2110	ug/L	1		6010D	Total Recoverable
Vanadium	9.7	J	50.0	5.6	ug/L	1		6010D	Total Recoverable
Barium	49.0	J	200	3.0	ug/L	1		6010D	Dissolved
Cadmium	0.88	J	5.0	0.45	ug/L	1		6010D	Dissolved
Calcium	78900		5000	307	ug/L	1		6010D	Dissolved
Chromium	1.3	J	10.0	0.76	ug/L	1		6010D	Dissolved
Magnesium	141000		5000	259	ug/L	1		6010D	Dissolved
Manganese	12.4	J	15.0	2.6	ug/L	1		6010D	Dissolved
Potassium	3610	J	5000	557	ug/L	1		6010D	Dissolved
Silver	0.85	J	10.0	0.62	ug/L	1		6010D	Dissolved
Sodium	50700		5000	2110	ug/L	1		6010D	Dissolved
Vanadium	12.8	J	50.0	5.6	ug/L	1		6010D	Dissolved
Cyanide, Total	0.013	B	0.010	0.0041	mg/L	1		9012B	Dissolved

Client Sample ID: MW-04S-043024 — Lab Sample ID: 480-219368-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.61	J	1.0	0.38	ug/L	1		8260C	Total/NA
Barium	47.6	J	200	3.0	ug/L	1		6010D	Total Recoverable
Cadmium	3.3	J	5.0	0.45	ug/L	1		6010D	Total Recoverable
Calcium	73100		5000	307	ug/L	1		6010D	Total Recoverable
Chromium	0.83	J	10.0	0.76	ug/L	1		6010D	Total Recoverable
Cobalt	5.9	J	10.0	0.75	ug/L	1		6010D	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Client Sample ID: MW-04S-043024 (Continued) — Lab Sample ID: 480-219368-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	117	J	200	82.7	ug/L	1		6010D	Total Recoverable
Magnesium	155000		5000	259	ug/L	1		6010D	Total Recoverable
Manganese	26.2		15.0	2.6	ug/L	1		6010D	Total Recoverable
Nickel	19.8	J	40.0	2.2	ug/L	1		6010D	Total Recoverable
Potassium	4090	J	5000	557	ug/L	1		6010D	Total Recoverable
Sodium	50300		5000	2110	ug/L	1		6010D	Total Recoverable
Arsenic	4.4	J	15.0	4.1	ug/L	1		6010D	Dissolved
Barium	47.9	J	200	3.0	ug/L	1		6010D	Dissolved
Cadmium	3.0	J	5.0	0.45	ug/L	1		6010D	Dissolved
Calcium	73000		5000	307	ug/L	1		6010D	Dissolved
Chromium	0.83	J	10.0	0.76	ug/L	1		6010D	Dissolved
Cobalt	5.5	J	10.0	0.75	ug/L	1		6010D	Dissolved
Magnesium	157000		5000	259	ug/L	1		6010D	Dissolved
Manganese	22.3		15.0	2.6	ug/L	1		6010D	Dissolved
Nickel	19.9	J	40.0	2.2	ug/L	1		6010D	Dissolved
Potassium	4160	J	5000	557	ug/L	1		6010D	Dissolved
Silver	0.86	J	10.0	0.62	ug/L	1		6010D	Dissolved
Sodium	51500		5000	2110	ug/L	1		6010D	Dissolved
Vanadium	9.4	J	50.0	5.6	ug/L	1		6010D	Dissolved

Client Sample ID: TB-043024 — Lab Sample ID: 480-219368-3

No Detections.

Client Sample ID: MW-04D-043024 — Lab Sample ID: 480-219368-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Caprolactam	3.4	J	5.0	2.2	ug/L	1		8270D	Total/NA
Aluminum	90.2	J	200	47.3	ug/L	1		6010D	Total Recoverable
Arsenic	6.0	J	15.0	4.1	ug/L	1		6010D	Total Recoverable
Barium	37.8	J	200	3.0	ug/L	1		6010D	Total Recoverable
Cadmium	0.85	J	5.0	0.45	ug/L	1		6010D	Total Recoverable
Calcium	25600		5000	307	ug/L	1		6010D	Total Recoverable
Chromium	0.97	J	10.0	0.76	ug/L	1		6010D	Total Recoverable
Iron	193	J	200	82.7	ug/L	1		6010D	Total Recoverable
Magnesium	59400		5000	259	ug/L	1		6010D	Total Recoverable
Manganese	6.2	J	15.0	2.6	ug/L	1		6010D	Total Recoverable
Potassium	5340		5000	557	ug/L	1		6010D	Total Recoverable
Sodium	78600		5000	2110	ug/L	1		6010D	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-04D-043024 (Continued) — Lab Sample ID: 480-219368-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	200		200	47.3	ug/L	1		6010D	Dissolved
Arsenic	6.8	J	15.0	4.1	ug/L	1		6010D	Dissolved
Barium	87.7	J	200	3.0	ug/L	1		6010D	Dissolved
Cadmium	2.0	J	5.0	0.45	ug/L	1		6010D	Dissolved
Calcium	51300		5000	307	ug/L	1		6010D	Dissolved
Chromium	1.2	J	10.0	0.76	ug/L	1		6010D	Dissolved
Iron	531		200	82.7	ug/L	1		6010D	Dissolved
Magnesium	59900		5000	259	ug/L	1		6010D	Dissolved
Manganese	13.9	J	15.0	2.6	ug/L	1		6010D	Dissolved
Nickel	3.2	J	40.0	2.2	ug/L	1		6010D	Dissolved
Potassium	5220		5000	557	ug/L	1		6010D	Dissolved
Silver	0.64	J	10.0	0.62	ug/L	1		6010D	Dissolved
Sodium	76000		5000	2110	ug/L	1		6010D	Dissolved

Client Sample ID: MW-02D-043024 — Lab Sample ID: 480-219368-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	7.9	J	10	3.0	ug/L	1		8260C	Total/NA
Carbon disulfide	0.63	J	1.0	0.19	ug/L	1		8260C	Total/NA
Caprolactam	3.5	J	5.4	2.4	ug/L	1		8270D	Total/NA
Perfluorobutanoic acid (PFBA)	2.2	J	6.9	1.8	ng/L	1		1633	Total/NA
Perfluorohexanoic acid (PFHxA)	0.74	J	1.7	0.43	ng/L	1		1633	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.56	J	1.7	0.43	ng/L	1		1633	Total/NA
Perfluorooctanoic acid (PFOA)	1.8		1.7	0.43	ng/L	1		1633	Total/NA
Perfluorononanoic acid (PFNA)	0.65	J	1.7	0.43	ng/L	1		1633	Total/NA
Perfluorodecanoic acid (PFDA)	0.45	J	1.7	0.43	ng/L	1		1633	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.2		1.7	0.43	ng/L	1		1633	Total/NA
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	12		6.9	1.7	ng/L	1		1633	Total/NA
Aluminum	7110		200	47.3	ug/L	1		6010D	Total Recoverable
Arsenic	7.1	J	15.0	4.1	ug/L	1		6010D	Total Recoverable
Barium	154	J	200	3.0	ug/L	1		6010D	Total Recoverable
Cadmium	4.0	J	5.0	0.45	ug/L	1		6010D	Total Recoverable
Calcium	72300		5000	307	ug/L	1		6010D	Total Recoverable
Chromium	11.6		10.0	0.76	ug/L	1		6010D	Total Recoverable
Cobalt	3.1	J	10.0	0.75	ug/L	1		6010D	Total Recoverable
Copper	11.1	J	25.0	3.5	ug/L	1		6010D	Total Recoverable
Iron	8510		200	82.7	ug/L	1		6010D	Total Recoverable
Lead	5.6	J	10.0	2.8	ug/L	1		6010D	Total Recoverable
Magnesium	21000		5000	259	ug/L	1		6010D	Total Recoverable
Manganese	198		15.0	2.6	ug/L	1		6010D	Total Recoverable
Nickel	20.2	J	40.0	2.2	ug/L	1		6010D	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-02D-043024 (Continued)

Lab Sample ID: 480-219368-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	6760		5000	557	ug/L	1		6010D	Total Recoverable
Sodium	63600		5000	2110	ug/L	1		6010D	Total Recoverable
Vanadium	30.9	J	50.0	5.6	ug/L	1		6010D	Total Recoverable
Zinc	46.3	J	50.0	22.5	ug/L	1		6010D	Total Recoverable
Aluminum	3430		200	47.3	ug/L	1		6010D	Dissolved
Arsenic	5.4	J	15.0	4.1	ug/L	1		6010D	Dissolved
Barium	94.9	J	200	3.0	ug/L	1		6010D	Dissolved
Cadmium	2.7	J	5.0	0.45	ug/L	1		6010D	Dissolved
Calcium	50300		5000	307	ug/L	1		6010D	Dissolved
Chromium	5.8	J	10.0	0.76	ug/L	1		6010D	Dissolved
Cobalt	1.2	J	10.0	0.75	ug/L	1		6010D	Dissolved
Copper	5.7	J	25.0	3.5	ug/L	1		6010D	Dissolved
Iron	4010		200	82.7	ug/L	1		6010D	Dissolved
Lead	5.0	J	10.0	2.8	ug/L	1		6010D	Dissolved
Magnesium	17800		5000	259	ug/L	1		6010D	Dissolved
Manganese	104		15.0	2.6	ug/L	1		6010D	Dissolved
Nickel	11.2	J	40.0	2.2	ug/L	1		6010D	Dissolved
Potassium	6240		5000	557	ug/L	1		6010D	Dissolved
Sodium	62600		5000	2110	ug/L	1		6010D	Dissolved
Vanadium	23.4	J	50.0	5.6	ug/L	1		6010D	Dissolved
Zinc	23.1	J	50.0	22.5	ug/L	1		6010D	Dissolved

Client Sample ID: RB-043024

Lab Sample ID: 480-219368-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Silver	1.1	J	10.0	0.62	ug/L	1		6010D	Total Recoverable
Sodium	13400		5000	2110	ug/L	1		6010D	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219368-1

Client Sample ID: MW05-02-043024
Date Collected: 04/30/24 09:05
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-1
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/06/24 14:27	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/06/24 14:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			05/06/24 14:27	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/06/24 14:27	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/06/24 14:27	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/06/24 14:27	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			05/06/24 14:27	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			05/06/24 14:27	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			05/06/24 14:27	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			05/06/24 14:27	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/06/24 14:27	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/06/24 14:27	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			05/06/24 14:27	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			05/06/24 14:27	1
2-Butanone (MEK)	ND		10	1.3	ug/L			05/06/24 14:27	1
2-Hexanone	ND		5.0	1.2	ug/L			05/06/24 14:27	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/06/24 14:27	1
Acetone	ND		10	3.0	ug/L			05/06/24 14:27	1
Benzene	ND		1.0	0.41	ug/L			05/06/24 14:27	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/06/24 14:27	1
Bromoform	ND		1.0	0.26	ug/L			05/06/24 14:27	1
Bromomethane	ND		1.0	0.69	ug/L			05/06/24 14:27	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/06/24 14:27	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/06/24 14:27	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/06/24 14:27	1
Chloroethane	ND		1.0	0.32	ug/L			05/06/24 14:27	1
Chloroform	ND		1.0	0.34	ug/L			05/06/24 14:27	1
Chloromethane	ND		1.0	0.35	ug/L			05/06/24 14:27	1
cis-1,2-Dichloroethene	**1.3**		1.0	0.81	ug/L			05/06/24 14:27	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/06/24 14:27	1
Cyclohexane	ND		1.0	0.18	ug/L			05/06/24 14:27	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/06/24 14:27	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/06/24 14:27	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/06/24 14:27	1
Isopropylbenzene	ND		1.0	0.79	ug/L			05/06/24 14:27	1
Methyl acetate	ND		2.5	1.3	ug/L			05/06/24 14:27	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/06/24 14:27	1
Methylcyclohexane	ND		1.0	0.16	ug/L			05/06/24 14:27	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/06/24 14:27	1
Styrene	ND		1.0	0.73	ug/L			05/06/24 14:27	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/06/24 14:27	1
Toluene	ND		1.0	0.51	ug/L			05/06/24 14:27	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			05/06/24 14:27	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/06/24 14:27	1
Trichloroethene	ND		1.0	0.46	ug/L			05/06/24 14:27	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			05/06/24 14:27	1
Vinyl chloride	**0.90**	**J**	1.0	0.90	ug/L			05/06/24 14:27	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/06/24 14:27	1

Client Sample ID: MW05-02-043024
Date Collected: 04/30/24 09:05
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-1
Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A		05/06/24 14:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		05/06/24 14:27	1
4-Bromofluorobenzene (Surr)	98		73 - 120		05/06/24 14:27	1
Dibromofluoromethane (Surr)	102		75 - 123		05/06/24 14:27	1
Toluene-d8 (Surr)	99		80 - 120		05/06/24 14:27	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		05/07/24 09:20	05/09/24 06:54	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		05/07/24 09:20	05/09/24 06:54	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		05/07/24 09:20	05/09/24 06:54	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		05/07/24 09:20	05/09/24 06:54	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		05/07/24 09:20	05/09/24 06:54	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		05/07/24 09:20	05/09/24 06:54	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		05/07/24 09:20	05/09/24 06:54	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		05/07/24 09:20	05/09/24 06:54	1
2-Chlorophenol	ND		5.0	0.53	ug/L		05/07/24 09:20	05/09/24 06:54	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		05/07/24 09:20	05/09/24 06:54	1
2-Methylphenol	ND		5.0	0.40	ug/L		05/07/24 09:20	05/09/24 06:54	1
2-Nitroaniline	ND		10	0.42	ug/L		05/07/24 09:20	05/09/24 06:54	1
2-Nitrophenol	ND		5.0	0.48	ug/L		05/07/24 09:20	05/09/24 06:54	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		05/07/24 09:20	05/09/24 06:54	1
3-Nitroaniline	ND		10	0.48	ug/L		05/07/24 09:20	05/09/24 06:54	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		05/07/24 09:20	05/09/24 06:54	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		05/07/24 09:20	05/09/24 06:54	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		05/07/24 09:20	05/09/24 06:54	1
4-Chloroaniline	ND		5.0	0.59	ug/L		05/07/24 09:20	05/09/24 06:54	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		05/07/24 09:20	05/09/24 06:54	1
4-Methylphenol	ND		10	0.36	ug/L		05/07/24 09:20	05/09/24 06:54	1
4-Nitroaniline	ND		10	0.25	ug/L		05/07/24 09:20	05/09/24 06:54	1
4-Nitrophenol	ND		10	1.5	ug/L		05/07/24 09:20	05/09/24 06:54	1
Acenaphthene	ND		5.0	0.41	ug/L		05/07/24 09:20	05/09/24 06:54	1
Acenaphthylene	ND		5.0	0.38	ug/L		05/07/24 09:20	05/09/24 06:54	1
Acetophenone	ND		5.0	0.54	ug/L		05/07/24 09:20	05/09/24 06:54	1
Anthracene	ND		5.0	0.28	ug/L		05/07/24 09:20	05/09/24 06:54	1
Atrazine	ND		5.0	0.46	ug/L		05/07/24 09:20	05/09/24 06:54	1
Benzaldehyde	ND		5.0	0.27	ug/L		05/07/24 09:20	05/09/24 06:54	1
Benzo(a)anthracene	ND		5.0	0.36	ug/L		05/07/24 09:20	05/09/24 06:54	1
Benzo(a)pyrene	ND		5.0	0.47	ug/L		05/07/24 09:20	05/09/24 06:54	1
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L		05/07/24 09:20	05/09/24 06:54	1
Benzo(g,h,i)perylene	ND		5.0	0.35	ug/L		05/07/24 09:20	05/09/24 06:54	1
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L		05/07/24 09:20	05/09/24 06:54	1
Biphenyl	ND		5.0	0.65	ug/L		05/07/24 09:20	05/09/24 06:54	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		05/07/24 09:20	05/09/24 06:54	1
Bis(2-chloroethoxy)methane	ND	*+	5.0	0.35	ug/L		05/07/24 09:20	05/09/24 06:54	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		05/07/24 09:20	05/09/24 06:54	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		05/07/24 09:20	05/09/24 06:54	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		05/07/24 09:20	05/09/24 06:54	1

Client Sample ID: MW05-02-043024
Date Collected: 04/30/24 09:05
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-1
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Caprolactam	ND		5.0	2.2	ug/L		05/07/24 09:20	05/09/24 06:54	1
Carbazole	ND	*+	5.0	0.30	ug/L		05/07/24 09:20	05/09/24 06:54	1
Chrysene	ND		5.0	0.33	ug/L		05/07/24 09:20	05/09/24 06:54	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		05/07/24 09:20	05/09/24 06:54	1
Dibenzofuran	ND		10	0.51	ug/L		05/07/24 09:20	05/09/24 06:54	1
Diethyl phthalate	ND		5.0	0.22	ug/L		05/07/24 09:20	05/09/24 06:54	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		05/07/24 09:20	05/09/24 06:54	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		05/07/24 09:20	05/09/24 06:54	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		05/07/24 09:20	05/09/24 06:54	1
Fluoranthene	ND		5.0	0.40	ug/L		05/07/24 09:20	05/09/24 06:54	1
Fluorene	ND		5.0	0.36	ug/L		05/07/24 09:20	05/09/24 06:54	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		05/07/24 09:20	05/09/24 06:54	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		05/07/24 09:20	05/09/24 06:54	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		05/07/24 09:20	05/09/24 06:54	1
Hexachloroethane	ND		5.0	0.59	ug/L		05/07/24 09:20	05/09/24 06:54	1
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L		05/07/24 09:20	05/09/24 06:54	1
Isophorone	ND		5.0	0.43	ug/L		05/07/24 09:20	05/09/24 06:54	1
Naphthalene	ND		5.0	0.76	ug/L		05/07/24 09:20	05/09/24 06:54	1
Nitrobenzene	ND		5.0	0.29	ug/L		05/07/24 09:20	05/09/24 06:54	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		05/07/24 09:20	05/09/24 06:54	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		05/07/24 09:20	05/09/24 06:54	1
Pentachlorophenol	ND		10	2.2	ug/L		05/07/24 09:20	05/09/24 06:54	1
Phenanthrene	ND		5.0	0.44	ug/L		05/07/24 09:20	05/09/24 06:54	1
Phenol	ND		5.0	0.39	ug/L		05/07/24 09:20	05/09/24 06:54	1
Pyrene	ND		5.0	0.34	ug/L		05/07/24 09:20	05/09/24 06:54	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*3.8*	*T J*	*ug/L*		*2.85*	*N/A*	*05/07/24 09:20*	*05/09/24 06:54*	*1*
Unknown	*1.9*	*T J*	*ug/L*		*3.18*	*N/A*	*05/07/24 09:20*	*05/09/24 06:54*	*1*
Unknown	*19*	*T J*	*ug/L*		*5.18*	*N/A*	*05/07/24 09:20*	*05/09/24 06:54*	*1*
Unknown	*2.3*	*T J*	*ug/L*		*7.74*	*N/A*	*05/07/24 09:20*	*05/09/24 06:54*	*1*
Diethyltoluamide	*18*	*T J N*	*ug/L*		*9.46*	*134-62-3*	*05/07/24 09:20*	*05/09/24 06:54*	*1*
Unknown	*2.4*	*T J*	*ug/L*		*12.01*	*N/A*	*05/07/24 09:20*	*05/09/24 06:54*	*1*
Unknown	*1.9*	*T J*	*ug/L*		*12.43*	*N/A*	*05/07/24 09:20*	*05/09/24 06:54*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*105*		*41 - 120*	*05/07/24 09:20*	*05/09/24 06:54*	*1*
2-Fluorobiphenyl	*89*		*48 - 120*	*05/07/24 09:20*	*05/09/24 06:54*	*1*
2-Fluorophenol	*64*		*35 - 120*	*05/07/24 09:20*	*05/09/24 06:54*	*1*
Nitrobenzene-d5	*83*		*46 - 120*	*05/07/24 09:20*	*05/09/24 06:54*	*1*
Phenol-d5	*49*		*22 - 120*	*05/07/24 09:20*	*05/09/24 06:54*	*1*
p-Terphenyl-d14	*78*		*60 - 148*	*05/07/24 09:20*	*05/09/24 06:54*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.20	0.021	ug/L		05/07/24 08:43	05/08/24 18:52	1
4,4'-DDE	ND		0.20	0.017	ug/L		05/07/24 08:43	05/08/24 18:52	1
4,4'-DDT	ND		0.20	0.019	ug/L		05/07/24 08:43	05/08/24 18:52	1
Aldrin	ND		0.20	0.026	ug/L		05/07/24 08:43	05/08/24 18:52	1
alpha-BHC	ND		0.20	0.021	ug/L		05/07/24 08:43	05/08/24 18:52	1

Client Sample ID: MW05-02-043024

Date Collected: 04/30/24 09:05
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-1
Matrix: Water

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-Chlordane	ND		0.20	0.028	ug/L		05/07/24 08:43	05/08/24 18:52	1
beta-BHC	ND		0.20	0.037	ug/L		05/07/24 08:43	05/08/24 18:52	1
delta-BHC	ND		0.20	0.017	ug/L		05/07/24 08:43	05/08/24 18:52	1
Dieldrin	ND		0.20	0.026	ug/L		05/07/24 08:43	05/08/24 18:52	1
Endosulfan I	ND		0.20	0.015	ug/L		05/07/24 08:43	05/08/24 18:52	1
Endosulfan II	ND		0.20	0.025	ug/L		05/07/24 08:43	05/08/24 18:52	1
Endosulfan sulfate	ND		0.20	0.015	ug/L		05/07/24 08:43	05/08/24 18:52	1
Endrin	ND		0.20	0.026	ug/L		05/07/24 08:43	05/08/24 18:52	1
Endrin aldehyde	ND		0.20	0.018	ug/L		05/07/24 08:43	05/08/24 18:52	1
Endrin ketone	ND		0.20	0.016	ug/L		05/07/24 08:43	05/08/24 18:52	1
gamma-BHC (Lindane)	ND		0.20	0.024	ug/L		05/07/24 08:43	05/08/24 18:52	1
trans-Chlordane	ND		0.20	0.020	ug/L		05/07/24 08:43	05/08/24 18:52	1
Heptachlor	ND		0.20	0.033	ug/L		05/07/24 08:43	05/08/24 18:52	1
Heptachlor epoxide	ND		0.20	0.026	ug/L		05/07/24 08:43	05/08/24 18:52	1
Methoxychlor	ND		0.40	0.019	ug/L		05/07/24 08:43	05/08/24 18:52	1
Toxaphene	ND		8.0	0.23	ug/L		05/07/24 08:43	05/08/24 18:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*66*		*10 - 145*	*05/07/24 08:43*	*05/08/24 18:52*	*1*
DCB Decachlorobiphenyl	*68*		*10 - 145*	*05/07/24 08:43*	*05/08/24 18:52*	*1*
Tetrachloro-m-xylene	*62*		*10 - 123*	*05/07/24 08:43*	*05/08/24 18:52*	*1*
Tetrachloro-m-xylene	*60*		*10 - 123*	*05/07/24 08:43*	*05/08/24 18:52*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.52	0.18	ug/L		05/01/24 13:50	05/03/24 01:02	1
PCB-1221	ND		0.52	0.18	ug/L		05/01/24 13:50	05/03/24 01:02	1
PCB-1232	ND		0.52	0.18	ug/L		05/01/24 13:50	05/03/24 01:02	1
PCB-1242	ND		0.52	0.18	ug/L		05/01/24 13:50	05/03/24 01:02	1
PCB-1248	ND		0.52	0.18	ug/L		05/01/24 13:50	05/03/24 01:02	1
PCB-1254	ND		0.52	0.26	ug/L		05/01/24 13:50	05/03/24 01:02	1
PCB-1260	ND		0.52	0.26	ug/L		05/01/24 13:50	05/03/24 01:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*66*		*19 - 120*	*05/01/24 13:50*	*05/03/24 01:02*	*1*
DCB Decachlorobiphenyl	*61*		*19 - 120*	*05/01/24 13:50*	*05/03/24 01:02*	*1*
Tetrachloro-m-xylene	*89*		*39 - 121*	*05/01/24 13:50*	*05/03/24 01:02*	*1*
Tetrachloro-m-xylene	*83*		*39 - 121*	*05/01/24 13:50*	*05/03/24 01:02*	*1*

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**2220**		200	47.3	ug/L		05/04/24 10:00	05/06/24 19:35	1
Antimony	ND		20.0	7.5	ug/L		05/04/24 10:00	05/06/24 19:35	1
Arsenic	ND		15.0	4.1	ug/L		05/04/24 10:00	05/06/24 19:35	1
Barium	**60.3**	**J**	200	3.0	ug/L		05/04/24 10:00	05/06/24 19:35	1
Beryllium	ND		5.0	0.60	ug/L		05/04/24 10:00	05/06/24 19:35	1
Cadmium	**0.95**	**J**	5.0	0.45	ug/L		05/04/24 10:00	05/06/24 19:35	1
Calcium	**81700**		5000	307	ug/L		05/04/24 10:00	05/06/24 19:35	1
Chromium	**3.9**	**J**	10.0	0.76	ug/L		05/04/24 10:00	05/06/24 19:35	1
Cobalt	**1.9**	**J**	10.0	0.75	ug/L		05/04/24 10:00	05/06/24 19:35	1

Client Sample ID: MW05-02-043024
Date Collected: 04/30/24 09:05
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-1
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		25.0	3.5	ug/L		05/04/24 10:00	05/06/24 19:35	1
Iron	**2580**		200	82.7	ug/L		05/04/24 10:00	05/06/24 19:35	1
Lead	**3.3**	**J**	10.0	2.8	ug/L		05/04/24 10:00	05/06/24 19:35	1
Magnesium	**142000**		5000	259	ug/L		05/04/24 10:00	05/06/24 19:35	1
Manganese	**68.0**		15.0	2.6	ug/L		05/04/24 10:00	05/06/24 19:35	1
Nickel	**4.4**	**J**	40.0	2.2	ug/L		05/04/24 10:00	05/06/24 19:35	1
Potassium	**4410**	**J**	5000	557	ug/L		05/04/24 10:00	05/06/24 19:35	1
Selenium	ND	^+	20.0	6.0	ug/L		05/04/24 10:00	05/06/24 19:35	1
Silver	ND		10.0	0.62	ug/L		05/04/24 10:00	05/06/24 19:35	1
Sodium	**50800**		5000	2110	ug/L		05/04/24 10:00	05/06/24 19:35	1
Thallium	ND		20.0	2.7	ug/L		05/04/24 10:00	05/06/24 19:35	1
Vanadium	**9.7**	**J**	50.0	5.6	ug/L		05/04/24 10:00	05/06/24 19:35	1
Zinc	ND		50.0	22.5	ug/L		05/04/24 10:00	05/06/24 19:35	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	47.3	ug/L		05/04/24 10:00	05/06/24 19:39	1
Antimony	ND		20.0	7.5	ug/L		05/04/24 10:00	05/06/24 19:39	1
Arsenic	ND		15.0	4.1	ug/L		05/04/24 10:00	05/06/24 19:39	1
Barium	**49.0**	**J**	200	3.0	ug/L		05/04/24 10:00	05/06/24 19:39	1
Beryllium	ND		5.0	0.60	ug/L		05/04/24 10:00	05/06/24 19:39	1
Cadmium	**0.88**	**J**	5.0	0.45	ug/L		05/04/24 10:00	05/06/24 19:39	1
Calcium	**78900**		5000	307	ug/L		05/04/24 10:00	05/06/24 19:39	1
Chromium	**1.3**	**J**	10.0	0.76	ug/L		05/04/24 10:00	05/06/24 19:39	1
Cobalt	ND		10.0	0.75	ug/L		05/04/24 10:00	05/06/24 19:39	1
Copper	ND		25.0	3.5	ug/L		05/04/24 10:00	05/06/24 19:39	1
Iron	ND		200	82.7	ug/L		05/04/24 10:00	05/06/24 19:39	1
Lead	ND		10.0	2.8	ug/L		05/04/24 10:00	05/06/24 19:39	1
Magnesium	**141000**		5000	259	ug/L		05/04/24 10:00	05/06/24 19:39	1
Manganese	**12.4**	**J**	15.0	2.6	ug/L		05/04/24 10:00	05/06/24 19:39	1
Nickel	ND		40.0	2.2	ug/L		05/04/24 10:00	05/06/24 19:39	1
Potassium	**3610**	**J**	5000	557	ug/L		05/04/24 10:00	05/06/24 19:39	1
Selenium	ND	^+	20.0	6.0	ug/L		05/04/24 10:00	05/06/24 19:39	1
Silver	**0.85**	**J**	10.0	0.62	ug/L		05/04/24 10:00	05/06/24 19:39	1
Sodium	**50700**		5000	2110	ug/L		05/04/24 10:00	05/06/24 19:39	1
Thallium	ND		20.0	2.7	ug/L		05/04/24 10:00	05/06/24 19:39	1
Vanadium	**12.8**	**J**	50.0	5.6	ug/L		05/04/24 10:00	05/06/24 19:39	1
Zinc	ND		50.0	22.5	ug/L		05/04/24 10:00	05/06/24 19:39	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/08/24 10:01	05/08/24 14:49	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/09/24 10:31	05/09/24 17:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND	^1+	0.010	0.0041	mg/L			05/03/24 00:37	1

Client Sample ID: MW05-02-043024

Lab Sample ID: 480-219368-1

Date Collected: 04/30/24 09:05

Matrix: Water

Date Received: 04/30/24 15:00

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	0.013	B	0.010	0.0041	mg/L			05/08/24 19:34	1

Client Sample ID: MW-04S-043024

Lab Sample ID: 480-219368-2

Date Collected: 04/30/24 10:35

Matrix: Water

Date Received: 04/30/24 15:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/06/24 14:49	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/06/24 14:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			05/06/24 14:49	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/06/24 14:49	1
1,1-Dichloroethane	0.61	J	1.0	0.38	ug/L			05/06/24 14:49	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/06/24 14:49	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			05/06/24 14:49	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			05/06/24 14:49	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			05/06/24 14:49	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			05/06/24 14:49	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/06/24 14:49	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/06/24 14:49	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			05/06/24 14:49	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			05/06/24 14:49	1
2-Butanone (MEK)	ND		10	1.3	ug/L			05/06/24 14:49	1
2-Hexanone	ND		5.0	1.2	ug/L			05/06/24 14:49	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/06/24 14:49	1
Acetone	ND		10	3.0	ug/L			05/06/24 14:49	1
Benzene	ND		1.0	0.41	ug/L			05/06/24 14:49	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/06/24 14:49	1
Bromoform	ND		1.0	0.26	ug/L			05/06/24 14:49	1
Bromomethane	ND		1.0	0.69	ug/L			05/06/24 14:49	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/06/24 14:49	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/06/24 14:49	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/06/24 14:49	1
Chloroethane	ND		1.0	0.32	ug/L			05/06/24 14:49	1
Chloroform	ND		1.0	0.34	ug/L			05/06/24 14:49	1
Chloromethane	ND		1.0	0.35	ug/L			05/06/24 14:49	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			05/06/24 14:49	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/06/24 14:49	1
Cyclohexane	ND		1.0	0.18	ug/L			05/06/24 14:49	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/06/24 14:49	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/06/24 14:49	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/06/24 14:49	1
Isopropylbenzene	ND		1.0	0.79	ug/L			05/06/24 14:49	1
Methyl acetate	ND		2.5	1.3	ug/L			05/06/24 14:49	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/06/24 14:49	1
Methylcyclohexane	ND		1.0	0.16	ug/L			05/06/24 14:49	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/06/24 14:49	1
Styrene	ND		1.0	0.73	ug/L			05/06/24 14:49	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/06/24 14:49	1
Toluene	ND		1.0	0.51	ug/L			05/06/24 14:49	1

Client Sample ID: MW-04S-043024
Date Collected: 04/30/24 10:35
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-2
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			05/06/24 14:49	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/06/24 14:49	1
Trichloroethene	ND		1.0	0.46	ug/L			05/06/24 14:49	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			05/06/24 14:49	1
Vinyl chloride	ND		1.0	0.90	ug/L			05/06/24 14:49	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/06/24 14:49	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*		*05/06/24 14:49*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*77 - 120*		*05/06/24 14:49*	*1*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*05/06/24 14:49*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*05/06/24 14:49*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*05/06/24 14:49*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		6.0	0.57	ug/L		05/07/24 09:20	05/09/24 07:22	1
2,4,6-Trichlorophenol	ND		6.0	0.73	ug/L		05/07/24 09:20	05/09/24 07:22	1
2,4-Dichlorophenol	ND		6.0	0.61	ug/L		05/07/24 09:20	05/09/24 07:22	1
2,4-Dimethylphenol	ND		6.0	0.60	ug/L		05/07/24 09:20	05/09/24 07:22	1
2,4-Dinitrophenol	ND		12	2.6	ug/L		05/07/24 09:20	05/09/24 07:22	1
2,4-Dinitrotoluene	ND		6.0	0.53	ug/L		05/07/24 09:20	05/09/24 07:22	1
2,6-Dinitrotoluene	ND		6.0	0.48	ug/L		05/07/24 09:20	05/09/24 07:22	1
2-Chloronaphthalene	ND		6.0	0.55	ug/L		05/07/24 09:20	05/09/24 07:22	1
2-Chlorophenol	ND		6.0	0.63	ug/L		05/07/24 09:20	05/09/24 07:22	1
2-Methylnaphthalene	ND		6.0	0.71	ug/L		05/07/24 09:20	05/09/24 07:22	1
2-Methylphenol	ND		6.0	0.48	ug/L		05/07/24 09:20	05/09/24 07:22	1
2-Nitroaniline	ND		12	0.50	ug/L		05/07/24 09:20	05/09/24 07:22	1
2-Nitrophenol	ND		6.0	0.57	ug/L		05/07/24 09:20	05/09/24 07:22	1
3,3'-Dichlorobenzidine	ND		6.0	0.48	ug/L		05/07/24 09:20	05/09/24 07:22	1
3-Nitroaniline	ND		12	0.57	ug/L		05/07/24 09:20	05/09/24 07:22	1
4,6-Dinitro-2-methylphenol	ND		12	2.6	ug/L		05/07/24 09:20	05/09/24 07:22	1
4-Bromophenyl phenyl ether	ND		6.0	0.54	ug/L		05/07/24 09:20	05/09/24 07:22	1
4-Chloro-3-methylphenol	ND		6.0	0.54	ug/L		05/07/24 09:20	05/09/24 07:22	1
4-Chloroaniline	ND		6.0	0.70	ug/L		05/07/24 09:20	05/09/24 07:22	1
4-Chlorophenyl phenyl ether	ND		6.0	0.42	ug/L		05/07/24 09:20	05/09/24 07:22	1
4-Methylphenol	ND		12	0.43	ug/L		05/07/24 09:20	05/09/24 07:22	1
4-Nitroaniline	ND		12	0.30	ug/L		05/07/24 09:20	05/09/24 07:22	1
4-Nitrophenol	ND		12	1.8	ug/L		05/07/24 09:20	05/09/24 07:22	1
Acenaphthene	ND		6.0	0.49	ug/L		05/07/24 09:20	05/09/24 07:22	1
Acenaphthylene	ND		6.0	0.45	ug/L		05/07/24 09:20	05/09/24 07:22	1
Acetophenone	ND		6.0	0.64	ug/L		05/07/24 09:20	05/09/24 07:22	1
Anthracene	ND		6.0	0.33	ug/L		05/07/24 09:20	05/09/24 07:22	1
Atrazine	ND		6.0	0.55	ug/L		05/07/24 09:20	05/09/24 07:22	1
Benzaldehyde	ND		6.0	0.32	ug/L		05/07/24 09:20	05/09/24 07:22	1
Benzo(a)anthracene	ND		6.0	0.43	ug/L		05/07/24 09:20	05/09/24 07:22	1
Benzo(a)pyrene	ND		6.0	0.56	ug/L		05/07/24 09:20	05/09/24 07:22	1
Benzo(b)fluoranthene	ND		6.0	0.40	ug/L		05/07/24 09:20	05/09/24 07:22	1

Client Sample ID: MW-04S-043024
Date Collected: 04/30/24 10:35
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-2
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo(g,h,i)perylene	ND		6.0	0.42	ug/L		05/07/24 09:20	05/09/24 07:22	1
Benzo(k)fluoranthene	ND		6.0	0.87	ug/L		05/07/24 09:20	05/09/24 07:22	1
Biphenyl	ND		6.0	0.78	ug/L		05/07/24 09:20	05/09/24 07:22	1
bis (2-chloroisopropyl) ether	ND		6.0	0.62	ug/L		05/07/24 09:20	05/09/24 07:22	1
Bis(2-chloroethoxy)methane	ND	*+	6.0	0.42	ug/L		05/07/24 09:20	05/09/24 07:22	1
Bis(2-chloroethyl)ether	ND		6.0	0.48	ug/L		05/07/24 09:20	05/09/24 07:22	1
Bis(2-ethylhexyl) phthalate	ND		6.0	2.6	ug/L		05/07/24 09:20	05/09/24 07:22	1
Butyl benzyl phthalate	ND		6.0	1.2	ug/L		05/07/24 09:20	05/09/24 07:22	1
Caprolactam	ND		6.0	2.6	ug/L		05/07/24 09:20	05/09/24 07:22	1
Carbazole	ND	*+	6.0	0.36	ug/L		05/07/24 09:20	05/09/24 07:22	1
Chrysene	ND		6.0	0.39	ug/L		05/07/24 09:20	05/09/24 07:22	1
Dibenz(a,h)anthracene	ND		6.0	0.50	ug/L		05/07/24 09:20	05/09/24 07:22	1
Dibenzofuran	ND		12	0.61	ug/L		05/07/24 09:20	05/09/24 07:22	1
Diethyl phthalate	ND		6.0	0.26	ug/L		05/07/24 09:20	05/09/24 07:22	1
Dimethyl phthalate	ND		6.0	0.43	ug/L		05/07/24 09:20	05/09/24 07:22	1
Di-n-butyl phthalate	ND		6.0	0.37	ug/L		05/07/24 09:20	05/09/24 07:22	1
Di-n-octyl phthalate	ND		6.0	0.56	ug/L		05/07/24 09:20	05/09/24 07:22	1
Fluoranthene	ND		6.0	0.48	ug/L		05/07/24 09:20	05/09/24 07:22	1
Fluorene	ND		6.0	0.43	ug/L		05/07/24 09:20	05/09/24 07:22	1
Hexachlorobenzene	ND		6.0	0.61	ug/L		05/07/24 09:20	05/09/24 07:22	1
Hexachlorobutadiene	ND		6.0	0.81	ug/L		05/07/24 09:20	05/09/24 07:22	1
Hexachlorocyclopentadiene	ND		6.0	0.70	ug/L		05/07/24 09:20	05/09/24 07:22	1
Hexachloroethane	ND		6.0	0.70	ug/L		05/07/24 09:20	05/09/24 07:22	1
Indeno(1,2,3-cd)pyrene	ND		6.0	0.56	ug/L		05/07/24 09:20	05/09/24 07:22	1
Isophorone	ND		6.0	0.51	ug/L		05/07/24 09:20	05/09/24 07:22	1
Naphthalene	ND		6.0	0.90	ug/L		05/07/24 09:20	05/09/24 07:22	1
Nitrobenzene	ND		6.0	0.35	ug/L		05/07/24 09:20	05/09/24 07:22	1
N-Nitrosodi-n-propylamine	ND		6.0	0.64	ug/L		05/07/24 09:20	05/09/24 07:22	1
N-Nitrosodiphenylamine	ND		6.0	0.61	ug/L		05/07/24 09:20	05/09/24 07:22	1
Pentachlorophenol	ND		12	2.6	ug/L		05/07/24 09:20	05/09/24 07:22	1
Phenanthrene	ND		6.0	0.52	ug/L		05/07/24 09:20	05/09/24 07:22	1
Phenol	ND		6.0	0.46	ug/L		05/07/24 09:20	05/09/24 07:22	1
Pyrene	ND		6.0	0.40	ug/L		05/07/24 09:20	05/09/24 07:22	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*5.4*	*T J*	*ug/L*		*2.84*	*N/A*	*05/07/24 09:20*	*05/09/24 07:22*	*1*
Unknown	*2.5*	*T J*	*ug/L*		*3.18*	*N/A*	*05/07/24 09:20*	*05/09/24 07:22*	*1*
Chloroiodomethane	*6.4*	*T J N*	*ug/L*		*4.03*	*593-71-5*	*05/07/24 09:20*	*05/09/24 07:22*	*1*
Unknown	*20*	*T J*	*ug/L*		*5.18*	*N/A*	*05/07/24 09:20*	*05/09/24 07:22*	*1*
Thiophene, tetrahydro-, 1,1-dioxide	*23*	*T J N*	*ug/L*		*7.75*	*126-33-0*	*05/07/24 09:20*	*05/09/24 07:22*	*1*
Unknown	*2.6*	*T J*	*ug/L*		*9.46*	*N/A*	*05/07/24 09:20*	*05/09/24 07:22*	*1*
Unknown	*3.1*	*T J*	*ug/L*		*10.79*	*N/A*	*05/07/24 09:20*	*05/09/24 07:22*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*116*		*41 - 120*	*05/07/24 09:20*	*05/09/24 07:22*	*1*
2-Fluorobiphenyl	*93*		*48 - 120*	*05/07/24 09:20*	*05/09/24 07:22*	*1*
2-Fluorophenol	*71*		*35 - 120*	*05/07/24 09:20*	*05/09/24 07:22*	*1*
Nitrobenzene-d5	*85*		*46 - 120*	*05/07/24 09:20*	*05/09/24 07:22*	*1*
Phenol-d5	*58*		*22 - 120*	*05/07/24 09:20*	*05/09/24 07:22*	*1*
p-Terphenyl-d14	*83*		*60 - 148*	*05/07/24 09:20*	*05/09/24 07:22*	*1*

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219368-1

Client Sample ID: MW-04S-043024

Date Collected: 04/30/24 10:35
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-2

Matrix: Water

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.21	0.022	ug/L		05/07/24 08:43	05/08/24 19:07	1
4,4'-DDE	ND		0.21	0.018	ug/L		05/07/24 08:43	05/08/24 19:07	1
4,4'-DDT	ND		0.21	0.020	ug/L		05/07/24 08:43	05/08/24 19:07	1
Aldrin	ND		0.21	0.027	ug/L		05/07/24 08:43	05/08/24 19:07	1
alpha-BHC	ND		0.21	0.022	ug/L		05/07/24 08:43	05/08/24 19:07	1
cis-Chlordane	ND		0.21	0.029	ug/L		05/07/24 08:43	05/08/24 19:07	1
beta-BHC	ND		0.21	0.039	ug/L		05/07/24 08:43	05/08/24 19:07	1
delta-BHC	ND		0.21	0.018	ug/L		05/07/24 08:43	05/08/24 19:07	1
Dieldrin	ND		0.21	0.027	ug/L		05/07/24 08:43	05/08/24 19:07	1
Endosulfan I	ND		0.21	0.015	ug/L		05/07/24 08:43	05/08/24 19:07	1
Endosulfan II	ND		0.21	0.026	ug/L		05/07/24 08:43	05/08/24 19:07	1
Endosulfan sulfate	ND		0.21	0.015	ug/L		05/07/24 08:43	05/08/24 19:07	1
Endrin	ND		0.21	0.027	ug/L		05/07/24 08:43	05/08/24 19:07	1
Endrin aldehyde	ND		0.21	0.019	ug/L		05/07/24 08:43	05/08/24 19:07	1
Endrin ketone	ND		0.21	0.017	ug/L		05/07/24 08:43	05/08/24 19:07	1
gamma-BHC (Lindane)	ND		0.21	0.025	ug/L		05/07/24 08:43	05/08/24 19:07	1
trans-Chlordane	ND		0.21	0.021	ug/L		05/07/24 08:43	05/08/24 19:07	1
Heptachlor	ND		0.21	0.034	ug/L		05/07/24 08:43	05/08/24 19:07	1
Heptachlor epoxide	ND		0.21	0.027	ug/L		05/07/24 08:43	05/08/24 19:07	1
Methoxychlor	ND		0.42	0.020	ug/L		05/07/24 08:43	05/08/24 19:07	1
Toxaphene	ND		8.3	0.24	ug/L		05/07/24 08:43	05/08/24 19:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*73*		*10 - 145*	*05/07/24 08:43*	*05/08/24 19:07*	*1*
DCB Decachlorobiphenyl	*73*		*10 - 145*	*05/07/24 08:43*	*05/08/24 19:07*	*1*
Tetrachloro-m-xylene	*65*		*10 - 123*	*05/07/24 08:43*	*05/08/24 19:07*	*1*
Tetrachloro-m-xylene	*63*		*10 - 123*	*05/07/24 08:43*	*05/08/24 19:07*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.52	0.18	ug/L		05/01/24 13:50	05/03/24 01:19	1
PCB-1221	ND		0.52	0.18	ug/L		05/01/24 13:50	05/03/24 01:19	1
PCB-1232	ND		0.52	0.18	ug/L		05/01/24 13:50	05/03/24 01:19	1
PCB-1242	ND		0.52	0.18	ug/L		05/01/24 13:50	05/03/24 01:19	1
PCB-1248	ND		0.52	0.18	ug/L		05/01/24 13:50	05/03/24 01:19	1
PCB-1254	ND		0.52	0.26	ug/L		05/01/24 13:50	05/03/24 01:19	1
PCB-1260	ND		0.52	0.26	ug/L		05/01/24 13:50	05/03/24 01:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*84*		*19 - 120*	*05/01/24 13:50*	*05/03/24 01:19*	*1*
DCB Decachlorobiphenyl	*82*		*19 - 120*	*05/01/24 13:50*	*05/03/24 01:19*	*1*
Tetrachloro-m-xylene	*97*		*39 - 121*	*05/01/24 13:50*	*05/03/24 01:19*	*1*
Tetrachloro-m-xylene	*92*		*39 - 121*	*05/01/24 13:50*	*05/03/24 01:19*	*1*

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	47.3	ug/L		05/04/24 10:00	05/06/24 19:43	1
Antimony	ND		20.0	7.5	ug/L		05/04/24 10:00	05/06/24 19:43	1
Arsenic	ND		15.0	4.1	ug/L		05/04/24 10:00	05/06/24 19:43	1
Barium	**47.6**	**J**	200	3.0	ug/L		05/04/24 10:00	05/06/24 19:43	1

Client Sample ID: MW-04S-043024

Date Collected: 04/30/24 10:35
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-2

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		5.0	0.60	ug/L		05/04/24 10:00	05/06/24 19:43	1
Cadmium	**3.3**	**J**	5.0	0.45	ug/L		05/04/24 10:00	05/06/24 19:43	1
Calcium	**73100**		5000	307	ug/L		05/04/24 10:00	05/06/24 19:43	1
Chromium	**0.83**	**J**	10.0	0.76	ug/L		05/04/24 10:00	05/06/24 19:43	1
Cobalt	**5.9**	**J**	10.0	0.75	ug/L		05/04/24 10:00	05/06/24 19:43	1
Copper	ND		25.0	3.5	ug/L		05/04/24 10:00	05/06/24 19:43	1
Iron	**117**	**J**	200	82.7	ug/L		05/04/24 10:00	05/06/24 19:43	1
Lead	ND		10.0	2.8	ug/L		05/04/24 10:00	05/06/24 19:43	1
Magnesium	**155000**		5000	259	ug/L		05/04/24 10:00	05/06/24 19:43	1
Manganese	**26.2**		15.0	2.6	ug/L		05/04/24 10:00	05/06/24 19:43	1
Nickel	**19.8**	**J**	40.0	2.2	ug/L		05/04/24 10:00	05/06/24 19:43	1
Potassium	**4090**	**J**	5000	557	ug/L		05/04/24 10:00	05/06/24 19:43	1
Selenium	ND	^+	20.0	6.0	ug/L		05/04/24 10:00	05/06/24 19:43	1
Silver	ND		10.0	0.62	ug/L		05/04/24 10:00	05/06/24 19:43	1
Sodium	**50300**		5000	2110	ug/L		05/04/24 10:00	05/06/24 19:43	1
Thallium	ND		20.0	2.7	ug/L		05/04/24 10:00	05/06/24 19:43	1
Vanadium	ND		50.0	5.6	ug/L		05/04/24 10:00	05/06/24 19:43	1
Zinc	ND		50.0	22.5	ug/L		05/04/24 10:00	05/06/24 19:43	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	47.3	ug/L		05/04/24 10:00	05/06/24 19:48	1
Antimony	ND		20.0	7.5	ug/L		05/04/24 10:00	05/06/24 19:48	1
Arsenic	**4.4**	**J**	15.0	4.1	ug/L		05/04/24 10:00	05/06/24 19:48	1
Barium	**47.9**	**J**	200	3.0	ug/L		05/04/24 10:00	05/06/24 19:48	1
Beryllium	ND		5.0	0.60	ug/L		05/04/24 10:00	05/06/24 19:48	1
Cadmium	**3.0**	**J**	5.0	0.45	ug/L		05/04/24 10:00	05/06/24 19:48	1
Calcium	**73000**		5000	307	ug/L		05/04/24 10:00	05/06/24 19:48	1
Chromium	**0.83**	**J**	10.0	0.76	ug/L		05/04/24 10:00	05/06/24 19:48	1
Cobalt	**5.5**	**J**	10.0	0.75	ug/L		05/04/24 10:00	05/06/24 19:48	1
Copper	ND		25.0	3.5	ug/L		05/04/24 10:00	05/06/24 19:48	1
Iron	ND		200	82.7	ug/L		05/04/24 10:00	05/06/24 19:48	1
Lead	ND		10.0	2.8	ug/L		05/04/24 10:00	05/06/24 19:48	1
Magnesium	**157000**		5000	259	ug/L		05/04/24 10:00	05/06/24 19:48	1
Manganese	**22.3**		15.0	2.6	ug/L		05/04/24 10:00	05/06/24 19:48	1
Nickel	**19.9**	**J**	40.0	2.2	ug/L		05/04/24 10:00	05/06/24 19:48	1
Potassium	**4160**	**J**	5000	557	ug/L		05/04/24 10:00	05/06/24 19:48	1
Selenium	ND	^+	20.0	6.0	ug/L		05/04/24 10:00	05/06/24 19:48	1
Silver	**0.86**	**J**	10.0	0.62	ug/L		05/04/24 10:00	05/06/24 19:48	1
Sodium	**51500**		5000	2110	ug/L		05/04/24 10:00	05/06/24 19:48	1
Thallium	ND		20.0	2.7	ug/L		05/04/24 10:00	05/06/24 19:48	1
Vanadium	**9.4**	**J**	50.0	5.6	ug/L		05/04/24 10:00	05/06/24 19:48	1
Zinc	ND		50.0	22.5	ug/L		05/04/24 10:00	05/06/24 19:48	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/08/24 10:01	05/08/24 14:51	1

Client Sample ID: MW-04S-043024

Lab Sample ID: 480-219368-2

Date Collected: 04/30/24 10:35

Matrix: Water

Date Received: 04/30/24 15:00

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/09/24 10:31	05/09/24 17:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND	^1+	0.010	0.0041	mg/L			05/03/24 00:40	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND	^1+	0.010	0.0041	mg/L			05/03/24 01:12	1

Client Sample ID: TB-043024

Lab Sample ID: 480-219368-3

Date Collected: 04/30/24 00:00

Matrix: Water

Date Received: 04/30/24 15:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/02/24 21:34	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/02/24 21:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			05/02/24 21:34	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/02/24 21:34	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/02/24 21:34	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/02/24 21:34	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			05/02/24 21:34	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			05/02/24 21:34	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			05/02/24 21:34	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			05/02/24 21:34	1
1,2-Dichloroethane	ND	*+	1.0	0.21	ug/L			05/02/24 21:34	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/02/24 21:34	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			05/02/24 21:34	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			05/02/24 21:34	1
2-Butanone (MEK)	ND		10	1.3	ug/L			05/02/24 21:34	1
2-Hexanone	ND		5.0	1.2	ug/L			05/02/24 21:34	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/02/24 21:34	1
Acetone	ND		10	3.0	ug/L			05/02/24 21:34	1
Benzene	ND		1.0	0.41	ug/L			05/02/24 21:34	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/02/24 21:34	1
Bromoform	ND		1.0	0.26	ug/L			05/02/24 21:34	1
Bromomethane	ND	*1	1.0	0.69	ug/L			05/02/24 21:34	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/02/24 21:34	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/02/24 21:34	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/02/24 21:34	1
Chloroethane	ND	*1	1.0	0.32	ug/L			05/02/24 21:34	1
Chloroform	ND		1.0	0.34	ug/L			05/02/24 21:34	1
Chloromethane	ND		1.0	0.35	ug/L			05/02/24 21:34	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			05/02/24 21:34	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/02/24 21:34	1
Cyclohexane	ND		1.0	0.18	ug/L			05/02/24 21:34	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/02/24 21:34	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/02/24 21:34	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/02/24 21:34	1

Client Sample ID: TB-043024

Lab Sample ID: 480-219368-3

Date Collected: 04/30/24 00:00

Matrix: Water

Date Received: 04/30/24 15:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.0	0.79	ug/L			05/02/24 21:34	1
Methyl acetate	ND		2.5	1.3	ug/L			05/02/24 21:34	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/02/24 21:34	1
Methylcyclohexane	ND		1.0	0.16	ug/L			05/02/24 21:34	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/02/24 21:34	1
Styrene	ND		1.0	0.73	ug/L			05/02/24 21:34	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/02/24 21:34	1
Toluene	ND		1.0	0.51	ug/L			05/02/24 21:34	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			05/02/24 21:34	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/02/24 21:34	1
Trichloroethene	ND		1.0	0.46	ug/L			05/02/24 21:34	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			05/02/24 21:34	1
Vinyl chloride	ND		1.0	0.90	ug/L			05/02/24 21:34	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/02/24 21:34	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*		*05/02/24 21:34*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*77 - 120*		*05/02/24 21:34*	*1*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*05/02/24 21:34*	*1*
Dibromofluoromethane (Surr)	*118*		*75 - 123*		*05/02/24 21:34*	*1*
Toluene-d8 (Surr)	*92*		*80 - 120*		*05/02/24 21:34*	*1*

Client Sample ID: MW-04D-043024

Lab Sample ID: 480-219368-4

Date Collected: 04/30/24 11:35

Matrix: Water

Date Received: 04/30/24 15:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/02/24 21:56	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/02/24 21:56	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			05/02/24 21:56	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/02/24 21:56	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/02/24 21:56	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/02/24 21:56	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			05/02/24 21:56	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			05/02/24 21:56	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			05/02/24 21:56	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			05/02/24 21:56	1
1,2-Dichloroethane	ND	*+	1.0	0.21	ug/L			05/02/24 21:56	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/02/24 21:56	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			05/02/24 21:56	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			05/02/24 21:56	1
2-Butanone (MEK)	ND		10	1.3	ug/L			05/02/24 21:56	1
2-Hexanone	ND		5.0	1.2	ug/L			05/02/24 21:56	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/02/24 21:56	1
Acetone	ND		10	3.0	ug/L			05/02/24 21:56	1
Benzene	ND		1.0	0.41	ug/L			05/02/24 21:56	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/02/24 21:56	1

Client Sample ID: MW-04D-043024

Date Collected: 04/30/24 11:35
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-4

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	ND		1.0	0.26	ug/L			05/02/24 21:56	1
Bromomethane	ND	*1	1.0	0.69	ug/L			05/02/24 21:56	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/02/24 21:56	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/02/24 21:56	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/02/24 21:56	1
Chloroethane	ND	*1	1.0	0.32	ug/L			05/02/24 21:56	1
Chloroform	ND		1.0	0.34	ug/L			05/02/24 21:56	1
Chloromethane	ND		1.0	0.35	ug/L			05/02/24 21:56	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			05/02/24 21:56	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/02/24 21:56	1
Cyclohexane	ND		1.0	0.18	ug/L			05/02/24 21:56	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/02/24 21:56	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/02/24 21:56	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/02/24 21:56	1
Isopropylbenzene	ND		1.0	0.79	ug/L			05/02/24 21:56	1
Methyl acetate	ND		2.5	1.3	ug/L			05/02/24 21:56	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/02/24 21:56	1
Methylcyclohexane	ND		1.0	0.16	ug/L			05/02/24 21:56	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/02/24 21:56	1
Styrene	ND		1.0	0.73	ug/L			05/02/24 21:56	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/02/24 21:56	1
Toluene	ND		1.0	0.51	ug/L			05/02/24 21:56	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			05/02/24 21:56	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/02/24 21:56	1
Trichloroethene	ND		1.0	0.46	ug/L			05/02/24 21:56	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			05/02/24 21:56	1
Vinyl chloride	ND		1.0	0.90	ug/L			05/02/24 21:56	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/02/24 21:56	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*		*05/02/24 21:56*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*77 - 120*		*05/02/24 21:56*	*1*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*		*05/02/24 21:56*	*1*
Dibromofluoromethane (Surr)	*110*		*75 - 123*		*05/02/24 21:56*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*05/02/24 21:56*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		05/07/24 09:20	05/09/24 07:51	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		05/07/24 09:20	05/09/24 07:51	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		05/07/24 09:20	05/09/24 07:51	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		05/07/24 09:20	05/09/24 07:51	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		05/07/24 09:20	05/09/24 07:51	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		05/07/24 09:20	05/09/24 07:51	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		05/07/24 09:20	05/09/24 07:51	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		05/07/24 09:20	05/09/24 07:51	1
2-Chlorophenol	ND		5.0	0.53	ug/L		05/07/24 09:20	05/09/24 07:51	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		05/07/24 09:20	05/09/24 07:51	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219368-1

Client Sample ID: MW-04D-043024
Date Collected: 04/30/24 11:35
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-4
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	ND		5.0	0.40	ug/L		05/07/24 09:20	05/09/24 07:51	1
2-Nitroaniline	ND		10	0.42	ug/L		05/07/24 09:20	05/09/24 07:51	1
2-Nitrophenol	ND		5.0	0.48	ug/L		05/07/24 09:20	05/09/24 07:51	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		05/07/24 09:20	05/09/24 07:51	1
3-Nitroaniline	ND		10	0.48	ug/L		05/07/24 09:20	05/09/24 07:51	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		05/07/24 09:20	05/09/24 07:51	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		05/07/24 09:20	05/09/24 07:51	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		05/07/24 09:20	05/09/24 07:51	1
4-Chloroaniline	ND		5.0	0.59	ug/L		05/07/24 09:20	05/09/24 07:51	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		05/07/24 09:20	05/09/24 07:51	1
4-Methylphenol	ND		10	0.36	ug/L		05/07/24 09:20	05/09/24 07:51	1
4-Nitroaniline	ND		10	0.25	ug/L		05/07/24 09:20	05/09/24 07:51	1
4-Nitrophenol	ND		10	1.5	ug/L		05/07/24 09:20	05/09/24 07:51	1
Acenaphthene	ND		5.0	0.41	ug/L		05/07/24 09:20	05/09/24 07:51	1
Acenaphthylene	ND		5.0	0.38	ug/L		05/07/24 09:20	05/09/24 07:51	1
Acetophenone	ND		5.0	0.54	ug/L		05/07/24 09:20	05/09/24 07:51	1
Anthracene	ND		5.0	0.28	ug/L		05/07/24 09:20	05/09/24 07:51	1
Atrazine	ND		5.0	0.46	ug/L		05/07/24 09:20	05/09/24 07:51	1
Benzaldehyde	ND		5.0	0.27	ug/L		05/07/24 09:20	05/09/24 07:51	1
Benzo(a)anthracene	ND		5.0	0.36	ug/L		05/07/24 09:20	05/09/24 07:51	1
Benzo(a)pyrene	ND		5.0	0.47	ug/L		05/07/24 09:20	05/09/24 07:51	1
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L		05/07/24 09:20	05/09/24 07:51	1
Benzo(g,h,i)perylene	ND		5.0	0.35	ug/L		05/07/24 09:20	05/09/24 07:51	1
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L		05/07/24 09:20	05/09/24 07:51	1
Biphenyl	ND		5.0	0.65	ug/L		05/07/24 09:20	05/09/24 07:51	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		05/07/24 09:20	05/09/24 07:51	1
Bis(2-chloroethoxy)methane	ND	*+	5.0	0.35	ug/L		05/07/24 09:20	05/09/24 07:51	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		05/07/24 09:20	05/09/24 07:51	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		05/07/24 09:20	05/09/24 07:51	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		05/07/24 09:20	05/09/24 07:51	1
Caprolactam	**3.4**	**J**	5.0	2.2	ug/L		05/07/24 09:20	05/09/24 07:51	1
Carbazole	ND	*+	5.0	0.30	ug/L		05/07/24 09:20	05/09/24 07:51	1
Chrysene	ND		5.0	0.33	ug/L		05/07/24 09:20	05/09/24 07:51	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		05/07/24 09:20	05/09/24 07:51	1
Dibenzofuran	ND		10	0.51	ug/L		05/07/24 09:20	05/09/24 07:51	1
Diethyl phthalate	ND		5.0	0.22	ug/L		05/07/24 09:20	05/09/24 07:51	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		05/07/24 09:20	05/09/24 07:51	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		05/07/24 09:20	05/09/24 07:51	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		05/07/24 09:20	05/09/24 07:51	1
Fluoranthene	ND		5.0	0.40	ug/L		05/07/24 09:20	05/09/24 07:51	1
Fluorene	ND		5.0	0.36	ug/L		05/07/24 09:20	05/09/24 07:51	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		05/07/24 09:20	05/09/24 07:51	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		05/07/24 09:20	05/09/24 07:51	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		05/07/24 09:20	05/09/24 07:51	1
Hexachloroethane	ND		5.0	0.59	ug/L		05/07/24 09:20	05/09/24 07:51	1
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L		05/07/24 09:20	05/09/24 07:51	1
Isophorone	ND		5.0	0.43	ug/L		05/07/24 09:20	05/09/24 07:51	1
Naphthalene	ND		5.0	0.76	ug/L		05/07/24 09:20	05/09/24 07:51	1
Nitrobenzene	ND		5.0	0.29	ug/L		05/07/24 09:20	05/09/24 07:51	1

Client Sample ID: MW-04D-043024
Date Collected: 04/30/24 11:35
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-4
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		05/07/24 09:20	05/09/24 07:51	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		05/07/24 09:20	05/09/24 07:51	1
Pentachlorophenol	ND		10	2.2	ug/L		05/07/24 09:20	05/09/24 07:51	1
Phenanthrene	ND		5.0	0.44	ug/L		05/07/24 09:20	05/09/24 07:51	1
Phenol	ND		5.0	0.39	ug/L		05/07/24 09:20	05/09/24 07:51	1
Pyrene	ND		5.0	0.34	ug/L		05/07/24 09:20	05/09/24 07:51	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Furan, tetrahydro-	*8.0*	*T J N*	*ug/L*		*2.85*	*109-99-9*	*05/07/24 09:20*	*05/09/24 07:51*	*1*
Unknown	*1.9*	*T J*	*ug/L*		*3.17*	*N/A*	*05/07/24 09:20*	*05/09/24 07:51*	*1*
Unknown	*16*	*T J*	*ug/L*		*5.18*	*N/A*	*05/07/24 09:20*	*05/09/24 07:51*	*1*
Unknown	*2.2*	*T J*	*ug/L*		*6.51*	*N/A*	*05/07/24 09:20*	*05/09/24 07:51*	*1*
Diethyltoluamide	*63*	*T J N*	*ug/L*		*9.46*	*134-62-3*	*05/07/24 09:20*	*05/09/24 07:51*	*1*
Unknown	*1.8*	*T J*	*ug/L*		*11.05*	*N/A*	*05/07/24 09:20*	*05/09/24 07:51*	*1*
Unknown	*2.0*	*T J*	*ug/L*		*11.40*	*N/A*	*05/07/24 09:20*	*05/09/24 07:51*	*1*
Unknown	*7.5*	*T J*	*ug/L*		*11.43*	*N/A*	*05/07/24 09:20*	*05/09/24 07:51*	*1*
Unknown	*2.7*	*T J*	*ug/L*		*12.01*	*N/A*	*05/07/24 09:20*	*05/09/24 07:51*	*1*
Unknown	*3.6*	*T J*	*ug/L*		*12.42*	*N/A*	*05/07/24 09:20*	*05/09/24 07:51*	*1*
Unknown	*1.6*	*T J*	*ug/L*		*13.78*	*N/A*	*05/07/24 09:20*	*05/09/24 07:51*	*1*
Unknown	*5.0*	*T J*	*ug/L*		*14.51*	*N/A*	*05/07/24 09:20*	*05/09/24 07:51*	*1*
Unknown	*2.3*	*T J*	*ug/L*		*15.97*	*N/A*	*05/07/24 09:20*	*05/09/24 07:51*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*111*		*41 - 120*	*05/07/24 09:20*	*05/09/24 07:51*	*1*
2-Fluorobiphenyl	*90*		*48 - 120*	*05/07/24 09:20*	*05/09/24 07:51*	*1*
2-Fluorophenol	*60*		*35 - 120*	*05/07/24 09:20*	*05/09/24 07:51*	*1*
Nitrobenzene-d5	*85*		*46 - 120*	*05/07/24 09:20*	*05/09/24 07:51*	*1*
Phenol-d5	*49*		*22 - 120*	*05/07/24 09:20*	*05/09/24 07:51*	*1*
p-Terphenyl-d14	*66*		*60 - 148*	*05/07/24 09:20*	*05/09/24 07:51*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.22	0.023	ug/L		05/07/24 08:43	05/08/24 19:23	1
4,4'-DDE	ND		0.22	0.019	ug/L		05/07/24 08:43	05/08/24 19:23	1
4,4'-DDT	ND		0.22	0.021	ug/L		05/07/24 08:43	05/08/24 19:23	1
Aldrin	ND		0.22	0.028	ug/L		05/07/24 08:43	05/08/24 19:23	1
alpha-BHC	ND		0.22	0.023	ug/L		05/07/24 08:43	05/08/24 19:23	1
cis-Chlordane	ND		0.22	0.030	ug/L		05/07/24 08:43	05/08/24 19:23	1
beta-BHC	ND		0.22	0.040	ug/L		05/07/24 08:43	05/08/24 19:23	1
delta-BHC	ND		0.22	0.019	ug/L		05/07/24 08:43	05/08/24 19:23	1
Dieldrin	ND		0.22	0.028	ug/L		05/07/24 08:43	05/08/24 19:23	1
Endosulfan I	ND		0.22	0.016	ug/L		05/07/24 08:43	05/08/24 19:23	1
Endosulfan II	ND		0.22	0.027	ug/L		05/07/24 08:43	05/08/24 19:23	1
Endosulfan sulfate	ND		0.22	0.016	ug/L		05/07/24 08:43	05/08/24 19:23	1
Endrin	ND		0.22	0.028	ug/L		05/07/24 08:43	05/08/24 19:23	1
Endrin aldehyde	ND		0.22	0.020	ug/L		05/07/24 08:43	05/08/24 19:23	1
Endrin ketone	ND		0.22	0.017	ug/L		05/07/24 08:43	05/08/24 19:23	1
gamma-BHC (Lindane)	ND		0.22	0.026	ug/L		05/07/24 08:43	05/08/24 19:23	1
trans-Chlordane	ND		0.22	0.022	ug/L		05/07/24 08:43	05/08/24 19:23	1
Heptachlor	ND		0.22	0.036	ug/L		05/07/24 08:43	05/08/24 19:23	1

Client Sample ID: MW-04D-043024

Date Collected: 04/30/24 11:35
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-4

Matrix: Water

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor epoxide	ND		0.22	0.028	ug/L		05/07/24 08:43	05/08/24 19:23	1
Methoxychlor	ND		0.43	0.020	ug/L		05/07/24 08:43	05/08/24 19:23	1
Toxaphene	ND		8.7	0.25	ug/L		05/07/24 08:43	05/08/24 19:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*75*		*10 - 145*	*05/07/24 08:43*	*05/08/24 19:23*	*1*
DCB Decachlorobiphenyl	*74*		*10 - 145*	*05/07/24 08:43*	*05/08/24 19:23*	*1*
Tetrachloro-m-xylene	*63*		*10 - 123*	*05/07/24 08:43*	*05/08/24 19:23*	*1*
Tetrachloro-m-xylene	*65*		*10 - 123*	*05/07/24 08:43*	*05/08/24 19:23*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.54	0.19	ug/L		05/01/24 13:50	05/03/24 01:37	1
PCB-1221	ND		0.54	0.19	ug/L		05/01/24 13:50	05/03/24 01:37	1
PCB-1232	ND		0.54	0.19	ug/L		05/01/24 13:50	05/03/24 01:37	1
PCB-1242	ND		0.54	0.19	ug/L		05/01/24 13:50	05/03/24 01:37	1
PCB-1248	ND		0.54	0.19	ug/L		05/01/24 13:50	05/03/24 01:37	1
PCB-1254	ND		0.54	0.27	ug/L		05/01/24 13:50	05/03/24 01:37	1
PCB-1260	ND		0.54	0.27	ug/L		05/01/24 13:50	05/03/24 01:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*55*		*19 - 120*	*05/01/24 13:50*	*05/03/24 01:37*	*1*
DCB Decachlorobiphenyl	*50*		*19 - 120*	*05/01/24 13:50*	*05/03/24 01:37*	*1*
Tetrachloro-m-xylene	*88*		*39 - 121*	*05/01/24 13:50*	*05/03/24 01:37*	*1*
Tetrachloro-m-xylene	*84*		*39 - 121*	*05/01/24 13:50*	*05/03/24 01:37*	*1*

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**90.2**	**J**	200	47.3	ug/L		05/04/24 10:00	05/06/24 20:00	1
Antimony	ND		20.0	7.5	ug/L		05/04/24 10:00	05/06/24 20:00	1
Arsenic	**6.0**	**J**	15.0	4.1	ug/L		05/04/24 10:00	05/06/24 20:00	1
Barium	**37.8**	**J**	200	3.0	ug/L		05/04/24 10:00	05/06/24 20:00	1
Beryllium	ND		5.0	0.60	ug/L		05/04/24 10:00	05/06/24 20:00	1
Cadmium	**0.85**	**J**	5.0	0.45	ug/L		05/04/24 10:00	05/06/24 20:00	1
Calcium	**25600**		5000	307	ug/L		05/04/24 10:00	05/06/24 20:00	1
Chromium	**0.97**	**J**	10.0	0.76	ug/L		05/04/24 10:00	05/06/24 20:00	1
Cobalt	ND		10.0	0.75	ug/L		05/04/24 10:00	05/06/24 20:00	1
Copper	ND		25.0	3.5	ug/L		05/04/24 10:00	05/06/24 20:00	1
Iron	**193**	**J**	200	82.7	ug/L		05/04/24 10:00	05/06/24 20:00	1
Lead	ND		10.0	2.8	ug/L		05/04/24 10:00	05/06/24 20:00	1
Magnesium	**59400**		5000	259	ug/L		05/04/24 10:00	05/06/24 20:00	1
Manganese	**6.2**	**J**	15.0	2.6	ug/L		05/04/24 10:00	05/06/24 20:00	1
Nickel	ND		40.0	2.2	ug/L		05/04/24 10:00	05/06/24 20:00	1
Potassium	**5340**		5000	557	ug/L		05/04/24 10:00	05/06/24 20:00	1
Selenium	ND	^+	20.0	6.0	ug/L		05/04/24 10:00	05/06/24 20:00	1
Silver	ND		10.0	0.62	ug/L		05/04/24 10:00	05/06/24 20:00	1
Sodium	**78600**		5000	2110	ug/L		05/04/24 10:00	05/06/24 20:00	1
Thallium	ND		20.0	2.7	ug/L		05/04/24 10:00	05/06/24 20:00	1
Vanadium	ND		50.0	5.6	ug/L		05/04/24 10:00	05/06/24 20:00	1
Zinc	ND		50.0	22.5	ug/L		05/04/24 10:00	05/06/24 20:00	1

Client Sample ID: MW-04D-043024

Lab Sample ID: 480-219368-4

Date Collected: 04/30/24 11:35

Matrix: Water

Date Received: 04/30/24 15:00

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**200**		200	47.3	ug/L		05/04/24 10:00	05/06/24 20:04	1
Antimony	ND		20.0	7.5	ug/L		05/04/24 10:00	05/06/24 20:04	1
Arsenic	**6.8**	**J**	15.0	4.1	ug/L		05/04/24 10:00	05/06/24 20:04	1
Barium	**87.7**	**J**	200	3.0	ug/L		05/04/24 10:00	05/06/24 20:04	1
Beryllium	ND		5.0	0.60	ug/L		05/04/24 10:00	05/06/24 20:04	1
Cadmium	**2.0**	**J**	5.0	0.45	ug/L		05/04/24 10:00	05/06/24 20:04	1
Calcium	**51300**		5000	307	ug/L		05/04/24 10:00	05/06/24 20:04	1
Chromium	**1.2**	**J**	10.0	0.76	ug/L		05/04/24 10:00	05/06/24 20:04	1
Cobalt	ND		10.0	0.75	ug/L		05/04/24 10:00	05/06/24 20:04	1
Copper	ND		25.0	3.5	ug/L		05/04/24 10:00	05/06/24 20:04	1
Iron	**531**		200	82.7	ug/L		05/04/24 10:00	05/06/24 20:04	1
Lead	ND		10.0	2.8	ug/L		05/04/24 10:00	05/06/24 20:04	1
Magnesium	**59900**		5000	259	ug/L		05/04/24 10:00	05/06/24 20:04	1
Manganese	**13.9**	**J**	15.0	2.6	ug/L		05/04/24 10:00	05/06/24 20:04	1
Nickel	**3.2**	**J**	40.0	2.2	ug/L		05/04/24 10:00	05/06/24 20:04	1
Potassium	**5220**		5000	557	ug/L		05/04/24 10:00	05/06/24 20:04	1
Selenium	ND	^+	20.0	6.0	ug/L		05/04/24 10:00	05/06/24 20:04	1
Silver	**0.64**	**J**	10.0	0.62	ug/L		05/04/24 10:00	05/06/24 20:04	1
Sodium	**76000**		5000	2110	ug/L		05/04/24 10:00	05/06/24 20:04	1
Thallium	ND		20.0	2.7	ug/L		05/04/24 10:00	05/06/24 20:04	1
Vanadium	ND		50.0	5.6	ug/L		05/04/24 10:00	05/06/24 20:04	1
Zinc	ND		50.0	22.5	ug/L		05/04/24 10:00	05/06/24 20:04	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/08/24 10:01	05/08/24 14:52	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/09/24 10:31	05/09/24 17:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND	^1+	0.010	0.0041	mg/L			05/03/24 00:42	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND	^1+	0.010	0.0041	mg/L			05/03/24 01:14	1

Client Sample ID: MW-02D-043024

Lab Sample ID: 480-219368-5

Date Collected: 04/30/24 13:00

Matrix: Water

Date Received: 04/30/24 15:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/03/24 04:16	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/03/24 04:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			05/03/24 04:16	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/03/24 04:16	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/03/24 04:16	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/03/24 04:16	1

Client Sample ID: MW-02D-043024
Date Collected: 04/30/24 13:00
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-5
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			05/03/24 04:16	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			05/03/24 04:16	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			05/03/24 04:16	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			05/03/24 04:16	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/03/24 04:16	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/03/24 04:16	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			05/03/24 04:16	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			05/03/24 04:16	1
2-Butanone (MEK)	ND		10	1.3	ug/L			05/03/24 04:16	1
2-Hexanone	ND		5.0	1.2	ug/L			05/03/24 04:16	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/03/24 04:16	1
Acetone	**7.9**	**J**	10	3.0	ug/L			05/03/24 04:16	1
Benzene	ND		1.0	0.41	ug/L			05/03/24 04:16	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/03/24 04:16	1
Bromoform	ND		1.0	0.26	ug/L			05/03/24 04:16	1
Bromomethane	ND		1.0	0.69	ug/L			05/03/24 04:16	1
Carbon disulfide	**0.63**	**J**	1.0	0.19	ug/L			05/03/24 04:16	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/03/24 04:16	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/03/24 04:16	1
Chloroethane	ND		1.0	0.32	ug/L			05/03/24 04:16	1
Chloroform	ND		1.0	0.34	ug/L			05/03/24 04:16	1
Chloromethane	ND		1.0	0.35	ug/L			05/03/24 04:16	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			05/03/24 04:16	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/03/24 04:16	1
Cyclohexane	ND		1.0	0.18	ug/L			05/03/24 04:16	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/03/24 04:16	1
Dichlorodifluoromethane	ND	*-	1.0	0.68	ug/L			05/03/24 04:16	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/03/24 04:16	1
Isopropylbenzene	ND		1.0	0.79	ug/L			05/03/24 04:16	1
Methyl acetate	ND		2.5	1.3	ug/L			05/03/24 04:16	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/03/24 04:16	1
Methylcyclohexane	ND		1.0	0.16	ug/L			05/03/24 04:16	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/03/24 04:16	1
Styrene	ND		1.0	0.73	ug/L			05/03/24 04:16	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/03/24 04:16	1
Toluene	ND		1.0	0.51	ug/L			05/03/24 04:16	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			05/03/24 04:16	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/03/24 04:16	1
Trichloroethene	ND		1.0	0.46	ug/L			05/03/24 04:16	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			05/03/24 04:16	1
Vinyl chloride	ND		1.0	0.90	ug/L			05/03/24 04:16	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/03/24 04:16	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*		*05/03/24 04:16*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*117*		*77 - 120*		*05/03/24 04:16*	*1*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*05/03/24 04:16*	*1*
Dibromofluoromethane (Surr)	*106*		*75 - 123*		*05/03/24 04:16*	*1*

Client Sample ID: MW-02D-043024

Date Collected: 04/30/24 13:00
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-5

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*109*		*80 - 120*		*05/03/24 04:16*	*1*

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		05/01/24 14:00	05/03/24 12:54	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*38*		*15 - 110*	*05/01/24 14:00*	*05/03/24 12:54*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.4	0.52	ug/L		05/07/24 09:20	05/09/24 08:19	1
2,4,6-Trichlorophenol	ND		5.4	0.66	ug/L		05/07/24 09:20	05/09/24 08:19	1
2,4-Dichlorophenol	ND		5.4	0.55	ug/L		05/07/24 09:20	05/09/24 08:19	1
2,4-Dimethylphenol	ND		5.4	0.54	ug/L		05/07/24 09:20	05/09/24 08:19	1
2,4-Dinitrophenol	ND		11	2.4	ug/L		05/07/24 09:20	05/09/24 08:19	1
2,4-Dinitrotoluene	ND		5.4	0.49	ug/L		05/07/24 09:20	05/09/24 08:19	1
2,6-Dinitrotoluene	ND		5.4	0.43	ug/L		05/07/24 09:20	05/09/24 08:19	1
2-Chloronaphthalene	ND		5.4	0.50	ug/L		05/07/24 09:20	05/09/24 08:19	1
2-Chlorophenol	ND		5.4	0.58	ug/L		05/07/24 09:20	05/09/24 08:19	1
2-Methylnaphthalene	ND		5.4	0.65	ug/L		05/07/24 09:20	05/09/24 08:19	1
2-Methylphenol	ND		5.4	0.43	ug/L		05/07/24 09:20	05/09/24 08:19	1
2-Nitroaniline	ND		11	0.46	ug/L		05/07/24 09:20	05/09/24 08:19	1
2-Nitrophenol	ND		5.4	0.52	ug/L		05/07/24 09:20	05/09/24 08:19	1
3,3'-Dichlorobenzidine	ND		5.4	0.43	ug/L		05/07/24 09:20	05/09/24 08:19	1
3-Nitroaniline	ND		11	0.52	ug/L		05/07/24 09:20	05/09/24 08:19	1
4,6-Dinitro-2-methylphenol	ND		11	2.4	ug/L		05/07/24 09:20	05/09/24 08:19	1
4-Bromophenyl phenyl ether	ND		5.4	0.49	ug/L		05/07/24 09:20	05/09/24 08:19	1
4-Chloro-3-methylphenol	ND		5.4	0.49	ug/L		05/07/24 09:20	05/09/24 08:19	1
4-Chloroaniline	ND		5.4	0.64	ug/L		05/07/24 09:20	05/09/24 08:19	1
4-Chlorophenyl phenyl ether	ND		5.4	0.38	ug/L		05/07/24 09:20	05/09/24 08:19	1
4-Methylphenol	ND		11	0.39	ug/L		05/07/24 09:20	05/09/24 08:19	1
4-Nitroaniline	ND		11	0.27	ug/L		05/07/24 09:20	05/09/24 08:19	1
4-Nitrophenol	ND		11	1.7	ug/L		05/07/24 09:20	05/09/24 08:19	1
Acenaphthene	ND		5.4	0.45	ug/L		05/07/24 09:20	05/09/24 08:19	1
Acenaphthylene	ND		5.4	0.41	ug/L		05/07/24 09:20	05/09/24 08:19	1
Acetophenone	ND		5.4	0.59	ug/L		05/07/24 09:20	05/09/24 08:19	1
Anthracene	ND		5.4	0.30	ug/L		05/07/24 09:20	05/09/24 08:19	1
Atrazine	ND		5.4	0.50	ug/L		05/07/24 09:20	05/09/24 08:19	1
Benzaldehyde	ND		5.4	0.29	ug/L		05/07/24 09:20	05/09/24 08:19	1
Benzo(a)anthracene	ND		5.4	0.39	ug/L		05/07/24 09:20	05/09/24 08:19	1
Benzo(a)pyrene	ND		5.4	0.51	ug/L		05/07/24 09:20	05/09/24 08:19	1
Benzo(b)fluoranthene	ND		5.4	0.37	ug/L		05/07/24 09:20	05/09/24 08:19	1
Benzo(g,h,i)perylene	ND		5.4	0.38	ug/L		05/07/24 09:20	05/09/24 08:19	1
Benzo(k)fluoranthene	ND		5.4	0.79	ug/L		05/07/24 09:20	05/09/24 08:19	1
Biphenyl	ND		5.4	0.71	ug/L		05/07/24 09:20	05/09/24 08:19	1
bis (2-chloroisopropyl) ether	ND		5.4	0.57	ug/L		05/07/24 09:20	05/09/24 08:19	1
Bis(2-chloroethoxy)methane	ND	*+	5.4	0.38	ug/L		05/07/24 09:20	05/09/24 08:19	1
Bis(2-chloroethyl)ether	ND		5.4	0.43	ug/L		05/07/24 09:20	05/09/24 08:19	1
Bis(2-ethylhexyl) phthalate	ND		5.4	2.4	ug/L		05/07/24 09:20	05/09/24 08:19	1

Client Sample ID: MW-02D-043024
Date Collected: 04/30/24 13:00
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-5
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Butyl benzyl phthalate	ND		5.4	1.1	ug/L		05/07/24 09:20	05/09/24 08:19	1
Caprolactam	**3.5**	**J**	5.4	2.4	ug/L		05/07/24 09:20	05/09/24 08:19	1
Carbazole	ND	*+	5.4	0.33	ug/L		05/07/24 09:20	05/09/24 08:19	1
Chrysene	ND		5.4	0.36	ug/L		05/07/24 09:20	05/09/24 08:19	1
Dibenz(a,h)anthracene	ND		5.4	0.46	ug/L		05/07/24 09:20	05/09/24 08:19	1
Dibenzofuran	ND		11	0.55	ug/L		05/07/24 09:20	05/09/24 08:19	1
Diethyl phthalate	ND		5.4	0.24	ug/L		05/07/24 09:20	05/09/24 08:19	1
Dimethyl phthalate	ND		5.4	0.39	ug/L		05/07/24 09:20	05/09/24 08:19	1
Di-n-butyl phthalate	ND		5.4	0.34	ug/L		05/07/24 09:20	05/09/24 08:19	1
Di-n-octyl phthalate	ND		5.4	0.51	ug/L		05/07/24 09:20	05/09/24 08:19	1
Fluoranthene	ND		5.4	0.43	ug/L		05/07/24 09:20	05/09/24 08:19	1
Fluorene	ND		5.4	0.39	ug/L		05/07/24 09:20	05/09/24 08:19	1
Hexachlorobenzene	ND		5.4	0.55	ug/L		05/07/24 09:20	05/09/24 08:19	1
Hexachlorobutadiene	ND		5.4	0.74	ug/L		05/07/24 09:20	05/09/24 08:19	1
Hexachlorocyclopentadiene	ND		5.4	0.64	ug/L		05/07/24 09:20	05/09/24 08:19	1
Hexachloroethane	ND		5.4	0.64	ug/L		05/07/24 09:20	05/09/24 08:19	1
Indeno(1,2,3-cd)pyrene	ND		5.4	0.51	ug/L		05/07/24 09:20	05/09/24 08:19	1
Isophorone	ND		5.4	0.47	ug/L		05/07/24 09:20	05/09/24 08:19	1
Naphthalene	ND		5.4	0.83	ug/L		05/07/24 09:20	05/09/24 08:19	1
Nitrobenzene	ND		5.4	0.32	ug/L		05/07/24 09:20	05/09/24 08:19	1
N-Nitrosodi-n-propylamine	ND		5.4	0.59	ug/L		05/07/24 09:20	05/09/24 08:19	1
N-Nitrosodiphenylamine	ND		5.4	0.55	ug/L		05/07/24 09:20	05/09/24 08:19	1
Pentachlorophenol	ND		11	2.4	ug/L		05/07/24 09:20	05/09/24 08:19	1
Phenanthrene	ND		5.4	0.48	ug/L		05/07/24 09:20	05/09/24 08:19	1
Phenol	ND		5.4	0.42	ug/L		05/07/24 09:20	05/09/24 08:19	1
Pyrene	ND		5.4	0.37	ug/L		05/07/24 09:20	05/09/24 08:19	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Furan, tetrahydro-	*11*	*T J N*	*ug/L*		*2.84*	*109-99-9*	*05/07/24 09:20*	*05/09/24 08:19*	*1*
Unknown	*15*	*T J*	*ug/L*		*5.18*	*N/A*	*05/07/24 09:20*	*05/09/24 08:19*	*1*
Unknown	*2.1*	*T J*	*ug/L*		*6.41*	*N/A*	*05/07/24 09:20*	*05/09/24 08:19*	*1*
Unknown	*1.8*	*T J*	*ug/L*		*6.43*	*N/A*	*05/07/24 09:20*	*05/09/24 08:19*	*1*
Unknown	*4.1*	*T J*	*ug/L*		*6.51*	*N/A*	*05/07/24 09:20*	*05/09/24 08:19*	*1*
Unknown	*2.0*	*T J*	*ug/L*		*10.61*	*N/A*	*05/07/24 09:20*	*05/09/24 08:19*	*1*
Unknown	*2.1*	*T J*	*ug/L*		*13.79*	*N/A*	*05/07/24 09:20*	*05/09/24 08:19*	*1*
Unknown	*2.4*	*T J*	*ug/L*		*14.44*	*N/A*	*05/07/24 09:20*	*05/09/24 08:19*	*1*
Unknown	*27*	*T J*	*ug/L*		*16.31*	*N/A*	*05/07/24 09:20*	*05/09/24 08:19*	*1*
17-(1,5-Dimethylhexyl)-10,13-dimethyl-2,3,4,7,8,9,10,11,12,1	*30*	*T J N*	*ug/L*		*16.53*	*1000210-38-4*	*05/07/24 09:20*	*05/09/24 08:19*	*1*
Cholestan-3-one, (5.beta.)-	*29*	*T J N*	*ug/L*		*16.57*	*601-53-6*	*05/07/24 09:20*	*05/09/24 08:19*	*1*
Cholest-4-en-3-one	*3.1*	*T J N*	*ug/L*		*17.46*	*601-57-0*	*05/07/24 09:20*	*05/09/24 08:19*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*94*		*41 - 120*	*05/07/24 09:20*	*05/09/24 08:19*	*1*
2-Fluorobiphenyl	*79*		*48 - 120*	*05/07/24 09:20*	*05/09/24 08:19*	*1*
2-Fluorophenol	*55*		*35 - 120*	*05/07/24 09:20*	*05/09/24 08:19*	*1*
Nitrobenzene-d5	*67*		*46 - 120*	*05/07/24 09:20*	*05/09/24 08:19*	*1*
Phenol-d5	*45*		*22 - 120*	*05/07/24 09:20*	*05/09/24 08:19*	*1*
p-Terphenyl-d14	*57*	*S1-*	*60 - 148*	*05/07/24 09:20*	*05/09/24 08:19*	*1*

Client Sample ID: MW-02D-043024
Date Collected: 04/30/24 13:00
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-5
Matrix: Water

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.23	0.024	ug/L		05/07/24 08:43	05/08/24 19:38	1
4,4'-DDE	ND		0.23	0.020	ug/L		05/07/24 08:43	05/08/24 19:38	1
4,4'-DDT	ND		0.23	0.022	ug/L		05/07/24 08:43	05/08/24 19:38	1
Aldrin	ND		0.23	0.030	ug/L		05/07/24 08:43	05/08/24 19:38	1
alpha-BHC	ND		0.23	0.024	ug/L		05/07/24 08:43	05/08/24 19:38	1
cis-Chlordane	ND		0.23	0.032	ug/L		05/07/24 08:43	05/08/24 19:38	1
beta-BHC	ND		0.23	0.042	ug/L		05/07/24 08:43	05/08/24 19:38	1
delta-BHC	ND		0.23	0.020	ug/L		05/07/24 08:43	05/08/24 19:38	1
Dieldrin	ND		0.23	0.030	ug/L		05/07/24 08:43	05/08/24 19:38	1
Endosulfan I	ND		0.23	0.017	ug/L		05/07/24 08:43	05/08/24 19:38	1
Endosulfan II	ND		0.23	0.028	ug/L		05/07/24 08:43	05/08/24 19:38	1
Endosulfan sulfate	ND		0.23	0.017	ug/L		05/07/24 08:43	05/08/24 19:38	1
Endrin	ND		0.23	0.030	ug/L		05/07/24 08:43	05/08/24 19:38	1
Endrin aldehyde	ND		0.23	0.021	ug/L		05/07/24 08:43	05/08/24 19:38	1
Endrin ketone	ND		0.23	0.018	ug/L		05/07/24 08:43	05/08/24 19:38	1
gamma-BHC (Lindane)	ND		0.23	0.027	ug/L		05/07/24 08:43	05/08/24 19:38	1
trans-Chlordane	ND		0.23	0.023	ug/L		05/07/24 08:43	05/08/24 19:38	1
Heptachlor	ND		0.23	0.037	ug/L		05/07/24 08:43	05/08/24 19:38	1
Heptachlor epoxide	ND		0.23	0.029	ug/L		05/07/24 08:43	05/08/24 19:38	1
Methoxychlor	ND		0.45	0.021	ug/L		05/07/24 08:43	05/08/24 19:38	1
Toxaphene	ND		9.1	0.26	ug/L		05/07/24 08:43	05/08/24 19:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*77*		*10 - 145*	*05/07/24 08:43*	*05/08/24 19:38*	*1*
DCB Decachlorobiphenyl	*81*		*10 - 145*	*05/07/24 08:43*	*05/08/24 19:38*	*1*
Tetrachloro-m-xylene	*72*		*10 - 123*	*05/07/24 08:43*	*05/08/24 19:38*	*1*
Tetrachloro-m-xylene	*61*		*10 - 123*	*05/07/24 08:43*	*05/08/24 19:38*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		05/01/24 13:50	05/03/24 01:55	1
PCB-1221	ND		0.50	0.18	ug/L		05/01/24 13:50	05/03/24 01:55	1
PCB-1232	ND		0.50	0.18	ug/L		05/01/24 13:50	05/03/24 01:55	1
PCB-1242	ND		0.50	0.18	ug/L		05/01/24 13:50	05/03/24 01:55	1
PCB-1248	ND		0.50	0.18	ug/L		05/01/24 13:50	05/03/24 01:55	1
PCB-1254	ND		0.50	0.25	ug/L		05/01/24 13:50	05/03/24 01:55	1
PCB-1260	ND		0.50	0.25	ug/L		05/01/24 13:50	05/03/24 01:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*48*		*19 - 120*	*05/01/24 13:50*	*05/03/24 01:55*	*1*
DCB Decachlorobiphenyl	*46*		*19 - 120*	*05/01/24 13:50*	*05/03/24 01:55*	*1*
Tetrachloro-m-xylene	*59*		*39 - 121*	*05/01/24 13:50*	*05/03/24 01:55*	*1*
Tetrachloro-m-xylene	*55*		*39 - 121*	*05/01/24 13:50*	*05/03/24 01:55*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**2.2**	**J**	6.9	1.8	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluoropentanoic acid (PFPeA)	ND		3.4	0.86	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluorohexanoic acid (PFHxA)	**0.74**	**J**	1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluoroheptanoic acid (PFHpA)	**0.56**	**J**	1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1

Client Sample ID: MW-02D-043024
Date Collected: 04/30/24 13:00
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-5
Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	**1.8**		1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluorononanoic acid (PFNA)	**0.65**	**J**	1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluorodecanoic acid (PFDA)	**0.45**	**J**	1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	0.45	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluorooctanesulfonic acid (PFOS)	**2.2**		1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		6.9	1.7	ng/L		05/03/24 13:02	05/03/24 22:36	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	**12**		6.9	1.7	ng/L		05/03/24 13:02	05/03/24 22:36	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		6.9	1.7	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.7	0.53	ng/L		05/03/24 13:02	05/03/24 22:36	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.7	0.45	ng/L		05/03/24 13:02	05/03/24 22:36	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		17	4.3	ng/L		05/03/24 13:02	05/03/24 22:36	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		17	4.3	ng/L		05/03/24 13:02	05/03/24 22:36	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		6.9	1.7	ng/L		05/03/24 13:02	05/03/24 22:36	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		6.9	1.7	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		3.4	0.86	ng/L		05/03/24 13:02	05/03/24 22:36	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		3.4	1.1	ng/L		05/03/24 13:02	05/03/24 22:36	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		6.9	1.7	ng/L		05/03/24 13:02	05/03/24 22:36	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		6.9	1.7	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		3.4	0.86	ng/L		05/03/24 13:02	05/03/24 22:36	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		8.6	2.2	ng/L		05/03/24 13:02	05/03/24 22:36	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		43	11	ng/L		05/03/24 13:02	05/03/24 22:36	1

Client Sample ID: MW-02D-043024
Date Collected: 04/30/24 13:00
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-5
Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		43	13	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:36	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		3.4	0.86	ng/L		05/03/24 13:02	05/03/24 22:36	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*93.8*		*10 - 130*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
13C5 PFPeA	*87.6*		*35 - 150*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
13C5 PFHxA	*88.7*		*55 - 150*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
13C4 PFHpA	*87.1*		*55 - 150*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
13C8 PFOA	*94.4*		*60 - 140*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
13C9 PFNA	*94.4*		*55 - 140*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
13C6 PFDA	*104*		*50 - 140*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
13C7 PFUnA	*81.9*		*30 - 140*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
13C2 PFTeDA	*74.4*		*10 - 130*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
13C3 PFBS	*100*		*55 - 150*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
13C3 PFHxS	*91.8*		*55 - 150*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
13C8 PFOS	*83.5*		*45 - 140*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
13C8 FOSA	*95.9*		*30 - 130*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
d3-NMeFOSAA	*94.0*		*45 - 200*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
d5-NEtFOSAA	*84.9*		*10 - 200*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
M2-4:2 FTS	*140*		*60 - 200*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
M2-6:2 FTS	*104*		*60 - 200*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
M2-8:2 FTS	*113*		*50 - 200*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
13C3 HFPO-DA	*86.8*		*25 - 160*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
d7-N-MeFOSE-M	*73.3*		*10 - 150*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
d9-N-EtFOSE-M	*69.8*		*10 - 150*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
d5-NEtPFOSA	*64.1*		*10 - 130*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
d3-NMePFOSA	*65.5*		*15 - 130*	*05/03/24 13:02*	*05/03/24 22:36*	*1*
13C2-PFDoDA	*74.2*		*10 - 150*	*05/03/24 13:02*	*05/03/24 22:36*	*1*

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**7110**		200	47.3	ug/L		05/04/24 10:00	05/06/24 20:09	1
Antimony	ND		20.0	7.5	ug/L		05/04/24 10:00	05/06/24 20:09	1
Arsenic	**7.1**	**J**	15.0	4.1	ug/L		05/04/24 10:00	05/06/24 20:09	1
Barium	**154**	**J**	200	3.0	ug/L		05/04/24 10:00	05/06/24 20:09	1
Beryllium	ND		5.0	0.60	ug/L		05/04/24 10:00	05/06/24 20:09	1
Cadmium	**4.0**	**J**	5.0	0.45	ug/L		05/04/24 10:00	05/06/24 20:09	1
Calcium	**72300**		5000	307	ug/L		05/04/24 10:00	05/06/24 20:09	1
Chromium	**11.6**		10.0	0.76	ug/L		05/04/24 10:00	05/06/24 20:09	1
Cobalt	**3.1**	**J**	10.0	0.75	ug/L		05/04/24 10:00	05/06/24 20:09	1
Copper	**11.1**	**J**	25.0	3.5	ug/L		05/04/24 10:00	05/06/24 20:09	1
Iron	**8510**		200	82.7	ug/L		05/04/24 10:00	05/06/24 20:09	1
Lead	**5.6**	**J**	10.0	2.8	ug/L		05/04/24 10:00	05/06/24 20:09	1
Magnesium	**21000**		5000	259	ug/L		05/04/24 10:00	05/06/24 20:09	1
Manganese	**198**		15.0	2.6	ug/L		05/04/24 10:00	05/06/24 20:09	1
Nickel	**20.2**	**J**	40.0	2.2	ug/L		05/04/24 10:00	05/06/24 20:09	1
Potassium	**6760**		5000	557	ug/L		05/04/24 10:00	05/06/24 20:09	1
Selenium	ND	^+	20.0	6.0	ug/L		05/04/24 10:00	05/06/24 20:09	1

Client Sample ID: MW-02D-043024
Date Collected: 04/30/24 13:00
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-5
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		10.0	0.62	ug/L		05/04/24 10:00	05/06/24 20:09	1
Sodium	**63600**		5000	2110	ug/L		05/04/24 10:00	05/06/24 20:09	1
Thallium	ND		20.0	2.7	ug/L		05/04/24 10:00	05/06/24 20:09	1
Vanadium	**30.9**	**J**	50.0	5.6	ug/L		05/04/24 10:00	05/06/24 20:09	1
Zinc	**46.3**	**J**	50.0	22.5	ug/L		05/04/24 10:00	05/06/24 20:09	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**3430**		200	47.3	ug/L		05/04/24 10:00	05/06/24 20:13	1
Antimony	ND		20.0	7.5	ug/L		05/04/24 10:00	05/06/24 20:13	1
Arsenic	**5.4**	**J**	15.0	4.1	ug/L		05/04/24 10:00	05/06/24 20:13	1
Barium	**94.9**	**J**	200	3.0	ug/L		05/04/24 10:00	05/06/24 20:13	1
Beryllium	ND		5.0	0.60	ug/L		05/04/24 10:00	05/06/24 20:13	1
Cadmium	**2.7**	**J**	5.0	0.45	ug/L		05/04/24 10:00	05/06/24 20:13	1
Calcium	**50300**		5000	307	ug/L		05/04/24 10:00	05/06/24 20:13	1
Chromium	**5.8**	**J**	10.0	0.76	ug/L		05/04/24 10:00	05/06/24 20:13	1
Cobalt	**1.2**	**J**	10.0	0.75	ug/L		05/04/24 10:00	05/06/24 20:13	1
Copper	**5.7**	**J**	25.0	3.5	ug/L		05/04/24 10:00	05/06/24 20:13	1
Iron	**4010**		200	82.7	ug/L		05/04/24 10:00	05/06/24 20:13	1
Lead	**5.0**	**J**	10.0	2.8	ug/L		05/04/24 10:00	05/06/24 20:13	1
Magnesium	**17800**		5000	259	ug/L		05/04/24 10:00	05/06/24 20:13	1
Manganese	**104**		15.0	2.6	ug/L		05/04/24 10:00	05/06/24 20:13	1
Nickel	**11.2**	**J**	40.0	2.2	ug/L		05/04/24 10:00	05/06/24 20:13	1
Potassium	**6240**		5000	557	ug/L		05/04/24 10:00	05/06/24 20:13	1
Selenium	ND	^+	20.0	6.0	ug/L		05/04/24 10:00	05/06/24 20:13	1
Silver	ND		10.0	0.62	ug/L		05/04/24 10:00	05/06/24 20:13	1
Sodium	**62600**		5000	2110	ug/L		05/04/24 10:00	05/06/24 20:13	1
Thallium	ND		20.0	2.7	ug/L		05/04/24 10:00	05/06/24 20:13	1
Vanadium	**23.4**	**J**	50.0	5.6	ug/L		05/04/24 10:00	05/06/24 20:13	1
Zinc	**23.1**	**J**	50.0	22.5	ug/L		05/04/24 10:00	05/06/24 20:13	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/08/24 10:01	05/08/24 14:53	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/09/24 10:31	05/09/24 17:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND	^1+	0.010	0.0041	mg/L			05/03/24 00:45	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND	^1+	0.010	0.0041	mg/L			05/03/24 01:17	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219368-1

Client Sample ID: RB-043024
Date Collected: 04/30/24 13:30
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-6
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/03/24 04:40	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/03/24 04:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			05/03/24 04:40	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/03/24 04:40	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/03/24 04:40	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/03/24 04:40	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			05/03/24 04:40	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			05/03/24 04:40	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			05/03/24 04:40	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			05/03/24 04:40	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/03/24 04:40	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/03/24 04:40	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			05/03/24 04:40	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			05/03/24 04:40	1
2-Butanone (MEK)	ND		10	1.3	ug/L			05/03/24 04:40	1
2-Hexanone	ND		5.0	1.2	ug/L			05/03/24 04:40	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/03/24 04:40	1
Acetone	ND		10	3.0	ug/L			05/03/24 04:40	1
Benzene	ND		1.0	0.41	ug/L			05/03/24 04:40	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/03/24 04:40	1
Bromoform	ND		1.0	0.26	ug/L			05/03/24 04:40	1
Bromomethane	ND		1.0	0.69	ug/L			05/03/24 04:40	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/03/24 04:40	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/03/24 04:40	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/03/24 04:40	1
Chloroethane	ND		1.0	0.32	ug/L			05/03/24 04:40	1
Chloroform	ND		1.0	0.34	ug/L			05/03/24 04:40	1
Chloromethane	ND		1.0	0.35	ug/L			05/03/24 04:40	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			05/03/24 04:40	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/03/24 04:40	1
Cyclohexane	ND		1.0	0.18	ug/L			05/03/24 04:40	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/03/24 04:40	1
Dichlorodifluoromethane	ND	*-	1.0	0.68	ug/L			05/03/24 04:40	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/03/24 04:40	1
Isopropylbenzene	ND		1.0	0.79	ug/L			05/03/24 04:40	1
Methyl acetate	ND		2.5	1.3	ug/L			05/03/24 04:40	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/03/24 04:40	1
Methylcyclohexane	ND		1.0	0.16	ug/L			05/03/24 04:40	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/03/24 04:40	1
Styrene	ND		1.0	0.73	ug/L			05/03/24 04:40	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/03/24 04:40	1
Toluene	ND		1.0	0.51	ug/L			05/03/24 04:40	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			05/03/24 04:40	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/03/24 04:40	1
Trichloroethene	ND		1.0	0.46	ug/L			05/03/24 04:40	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			05/03/24 04:40	1
Vinyl chloride	ND		1.0	0.90	ug/L			05/03/24 04:40	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/03/24 04:40	1

Client Sample ID: RB-043024

Date Collected: 04/30/24 13:30
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-6

Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A		05/03/24 04:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		77 - 120		05/03/24 04:40	1
4-Bromofluorobenzene (Surr)	103		73 - 120		05/03/24 04:40	1
Dibromofluoromethane (Surr)	104		75 - 123		05/03/24 04:40	1
Toluene-d8 (Surr)	107		80 - 120		05/03/24 04:40	1

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		05/01/24 14:00	05/03/24 13:16	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	37		15 - 110	05/01/24 14:00	05/03/24 13:16	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		6.0	0.57	ug/L		05/07/24 09:20	05/09/24 08:47	1
2,4,6-Trichlorophenol	ND		6.0	0.73	ug/L		05/07/24 09:20	05/09/24 08:47	1
2,4-Dichlorophenol	ND		6.0	0.61	ug/L		05/07/24 09:20	05/09/24 08:47	1
2,4-Dimethylphenol	ND		6.0	0.60	ug/L		05/07/24 09:20	05/09/24 08:47	1
2,4-Dinitrophenol	ND		12	2.6	ug/L		05/07/24 09:20	05/09/24 08:47	1
2,4-Dinitrotoluene	ND		6.0	0.53	ug/L		05/07/24 09:20	05/09/24 08:47	1
2,6-Dinitrotoluene	ND		6.0	0.48	ug/L		05/07/24 09:20	05/09/24 08:47	1
2-Chloronaphthalene	ND		6.0	0.55	ug/L		05/07/24 09:20	05/09/24 08:47	1
2-Chlorophenol	ND		6.0	0.63	ug/L		05/07/24 09:20	05/09/24 08:47	1
2-Methylnaphthalene	ND		6.0	0.71	ug/L		05/07/24 09:20	05/09/24 08:47	1
2-Methylphenol	ND		6.0	0.48	ug/L		05/07/24 09:20	05/09/24 08:47	1
2-Nitroaniline	ND		12	0.50	ug/L		05/07/24 09:20	05/09/24 08:47	1
2-Nitrophenol	ND		6.0	0.57	ug/L		05/07/24 09:20	05/09/24 08:47	1
3,3'-Dichlorobenzidine	ND		6.0	0.48	ug/L		05/07/24 09:20	05/09/24 08:47	1
3-Nitroaniline	ND		12	0.57	ug/L		05/07/24 09:20	05/09/24 08:47	1
4,6-Dinitro-2-methylphenol	ND		12	2.6	ug/L		05/07/24 09:20	05/09/24 08:47	1
4-Bromophenyl phenyl ether	ND		6.0	0.54	ug/L		05/07/24 09:20	05/09/24 08:47	1
4-Chloro-3-methylphenol	ND		6.0	0.54	ug/L		05/07/24 09:20	05/09/24 08:47	1
4-Chloroaniline	ND		6.0	0.70	ug/L		05/07/24 09:20	05/09/24 08:47	1
4-Chlorophenyl phenyl ether	ND		6.0	0.42	ug/L		05/07/24 09:20	05/09/24 08:47	1
4-Methylphenol	ND		12	0.43	ug/L		05/07/24 09:20	05/09/24 08:47	1
4-Nitroaniline	ND		12	0.30	ug/L		05/07/24 09:20	05/09/24 08:47	1
4-Nitrophenol	ND		12	1.8	ug/L		05/07/24 09:20	05/09/24 08:47	1
Acenaphthene	ND		6.0	0.49	ug/L		05/07/24 09:20	05/09/24 08:47	1
Acenaphthylene	ND		6.0	0.45	ug/L		05/07/24 09:20	05/09/24 08:47	1
Acetophenone	ND		6.0	0.64	ug/L		05/07/24 09:20	05/09/24 08:47	1
Anthracene	ND		6.0	0.33	ug/L		05/07/24 09:20	05/09/24 08:47	1
Atrazine	ND		6.0	0.55	ug/L		05/07/24 09:20	05/09/24 08:47	1
Benzaldehyde	ND		6.0	0.32	ug/L		05/07/24 09:20	05/09/24 08:47	1
Benzo(a)anthracene	ND		6.0	0.43	ug/L		05/07/24 09:20	05/09/24 08:47	1
Benzo(a)pyrene	ND		6.0	0.56	ug/L		05/07/24 09:20	05/09/24 08:47	1
Benzo(b)fluoranthene	ND		6.0	0.40	ug/L		05/07/24 09:20	05/09/24 08:47	1
Benzo(g,h,i)perylene	ND		6.0	0.42	ug/L		05/07/24 09:20	05/09/24 08:47	1
Benzo(k)fluoranthene	ND		6.0	0.87	ug/L		05/07/24 09:20	05/09/24 08:47	1

Client Sample ID: RB-043024
Date Collected: 04/30/24 13:30
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-6
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		6.0	0.78	ug/L		05/07/24 09:20	05/09/24 08:47	1
bis (2-chloroisopropyl) ether	ND		6.0	0.62	ug/L		05/07/24 09:20	05/09/24 08:47	1
Bis(2-chloroethoxy)methane	ND	*+	6.0	0.42	ug/L		05/07/24 09:20	05/09/24 08:47	1
Bis(2-chloroethyl)ether	ND		6.0	0.48	ug/L		05/07/24 09:20	05/09/24 08:47	1
Bis(2-ethylhexyl) phthalate	ND		6.0	2.6	ug/L		05/07/24 09:20	05/09/24 08:47	1
Butyl benzyl phthalate	ND		6.0	1.2	ug/L		05/07/24 09:20	05/09/24 08:47	1
Caprolactam	ND		6.0	2.6	ug/L		05/07/24 09:20	05/09/24 08:47	1
Carbazole	ND	*+	6.0	0.36	ug/L		05/07/24 09:20	05/09/24 08:47	1
Chrysene	ND		6.0	0.39	ug/L		05/07/24 09:20	05/09/24 08:47	1
Dibenz(a,h)anthracene	ND		6.0	0.50	ug/L		05/07/24 09:20	05/09/24 08:47	1
Dibenzofuran	ND		12	0.61	ug/L		05/07/24 09:20	05/09/24 08:47	1
Diethyl phthalate	ND		6.0	0.26	ug/L		05/07/24 09:20	05/09/24 08:47	1
Dimethyl phthalate	ND		6.0	0.43	ug/L		05/07/24 09:20	05/09/24 08:47	1
Di-n-butyl phthalate	ND		6.0	0.37	ug/L		05/07/24 09:20	05/09/24 08:47	1
Di-n-octyl phthalate	ND		6.0	0.56	ug/L		05/07/24 09:20	05/09/24 08:47	1
Fluoranthene	ND		6.0	0.48	ug/L		05/07/24 09:20	05/09/24 08:47	1
Fluorene	ND		6.0	0.43	ug/L		05/07/24 09:20	05/09/24 08:47	1
Hexachlorobenzene	ND		6.0	0.61	ug/L		05/07/24 09:20	05/09/24 08:47	1
Hexachlorobutadiene	ND		6.0	0.81	ug/L		05/07/24 09:20	05/09/24 08:47	1
Hexachlorocyclopentadiene	ND		6.0	0.70	ug/L		05/07/24 09:20	05/09/24 08:47	1
Hexachloroethane	ND		6.0	0.70	ug/L		05/07/24 09:20	05/09/24 08:47	1
Indeno(1,2,3-cd)pyrene	ND		6.0	0.56	ug/L		05/07/24 09:20	05/09/24 08:47	1
Isophorone	ND		6.0	0.51	ug/L		05/07/24 09:20	05/09/24 08:47	1
Naphthalene	ND		6.0	0.90	ug/L		05/07/24 09:20	05/09/24 08:47	1
Nitrobenzene	ND		6.0	0.35	ug/L		05/07/24 09:20	05/09/24 08:47	1
N-Nitrosodi-n-propylamine	ND		6.0	0.64	ug/L		05/07/24 09:20	05/09/24 08:47	1
N-Nitrosodiphenylamine	ND		6.0	0.61	ug/L		05/07/24 09:20	05/09/24 08:47	1
Pentachlorophenol	ND		12	2.6	ug/L		05/07/24 09:20	05/09/24 08:47	1
Phenanthrene	ND		6.0	0.52	ug/L		05/07/24 09:20	05/09/24 08:47	1
Phenol	ND		6.0	0.46	ug/L		05/07/24 09:20	05/09/24 08:47	1
Pyrene	ND		6.0	0.40	ug/L		05/07/24 09:20	05/09/24 08:47	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*2.4*	*T J*	*ug/L*		*2.78*	*N/A*	*05/07/24 09:20*	*05/09/24 08:47*	*1*
Furan, tetrahydro-	*6.8*	*T J N*	*ug/L*		*2.84*	*109-99-9*	*05/07/24 09:20*	*05/09/24 08:47*	*1*
Unknown	*2.2*	*T J*	*ug/L*		*3.18*	*N/A*	*05/07/24 09:20*	*05/09/24 08:47*	*1*
Unknown	*20*	*T J*	*ug/L*		*5.18*	*N/A*	*05/07/24 09:20*	*05/09/24 08:47*	*1*
Unknown	*2.1*	*T J*	*ug/L*		*10.48*	*N/A*	*05/07/24 09:20*	*05/09/24 08:47*	*1*
Unknown	*6.0*	*T J*	*ug/L*		*11.04*	*N/A*	*05/07/24 09:20*	*05/09/24 08:47*	*1*
Unknown	*33*	*T J*	*ug/L*		*11.42*	*N/A*	*05/07/24 09:20*	*05/09/24 08:47*	*1*
Unknown	*3.2*	*T J*	*ug/L*		*11.75*	*N/A*	*05/07/24 09:20*	*05/09/24 08:47*	*1*
Unknown	*2.3*	*T J*	*ug/L*		*11.98*	*N/A*	*05/07/24 09:20*	*05/09/24 08:47*	*1*
Unknown	*15*	*T J*	*ug/L*		*12.01*	*N/A*	*05/07/24 09:20*	*05/09/24 08:47*	*1*
Unknown	*15*	*T J*	*ug/L*		*12.41*	*N/A*	*05/07/24 09:20*	*05/09/24 08:47*	*1*
Unknown	*6.2*	*T J*	*ug/L*		*12.84*	*N/A*	*05/07/24 09:20*	*05/09/24 08:47*	*1*
Unknown	*19*	*T J*	*ug/L*		*13.16*	*N/A*	*05/07/24 09:20*	*05/09/24 08:47*	*1*
Unknown	*7.4*	*T J*	*ug/L*		*13.59*	*N/A*	*05/07/24 09:20*	*05/09/24 08:47*	*1*
Unknown	*3.0*	*T J*	*ug/L*		*13.79*	*N/A*	*05/07/24 09:20*	*05/09/24 08:47*	*1*
Unknown	*4.8*	*T J*	*ug/L*		*14.15*	*N/A*	*05/07/24 09:20*	*05/09/24 08:47*	*1*
Unknown	*8.7*	*T J*	*ug/L*		*14.47*	*N/A*	*05/07/24 09:20*	*05/09/24 08:47*	*1*

Client Sample ID: RB-043024
Date Collected: 04/30/24 13:30
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-6
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	21	T J	ug/L		14.51	N/A	05/07/24 09:20	05/09/24 08:47	1
Unknown	3.4	T J	ug/L		15.60	N/A	05/07/24 09:20	05/09/24 08:47	1
Unknown	27	T J	ug/L		15.99	N/A	05/07/24 09:20	05/09/24 08:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	106		41 - 120	05/07/24 09:20	05/09/24 08:47	1
2-Fluorobiphenyl	79		48 - 120	05/07/24 09:20	05/09/24 08:47	1
2-Fluorophenol	64		35 - 120	05/07/24 09:20	05/09/24 08:47	1
Nitrobenzene-d5	75		46 - 120	05/07/24 09:20	05/09/24 08:47	1
Phenol-d5	53		22 - 120	05/07/24 09:20	05/09/24 08:47	1
p-Terphenyl-d14	97		60 - 148	05/07/24 09:20	05/09/24 08:47	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.21	0.022	ug/L		05/07/24 08:43	05/08/24 19:54	1
4,4'-DDE	ND		0.21	0.018	ug/L		05/07/24 08:43	05/08/24 19:54	1
4,4'-DDT	ND		0.21	0.020	ug/L		05/07/24 08:43	05/08/24 19:54	1
Aldrin	ND		0.21	0.027	ug/L		05/07/24 08:43	05/08/24 19:54	1
alpha-BHC	ND		0.21	0.022	ug/L		05/07/24 08:43	05/08/24 19:54	1
cis-Chlordane	ND		0.21	0.029	ug/L		05/07/24 08:43	05/08/24 19:54	1
beta-BHC	ND		0.21	0.039	ug/L		05/07/24 08:43	05/08/24 19:54	1
delta-BHC	ND		0.21	0.018	ug/L		05/07/24 08:43	05/08/24 19:54	1
Dieldrin	ND		0.21	0.027	ug/L		05/07/24 08:43	05/08/24 19:54	1
Endosulfan I	ND		0.21	0.015	ug/L		05/07/24 08:43	05/08/24 19:54	1
Endosulfan II	ND		0.21	0.026	ug/L		05/07/24 08:43	05/08/24 19:54	1
Endosulfan sulfate	ND		0.21	0.015	ug/L		05/07/24 08:43	05/08/24 19:54	1
Endrin	ND		0.21	0.027	ug/L		05/07/24 08:43	05/08/24 19:54	1
Endrin aldehyde	ND		0.21	0.019	ug/L		05/07/24 08:43	05/08/24 19:54	1
Endrin ketone	ND		0.21	0.017	ug/L		05/07/24 08:43	05/08/24 19:54	1
gamma-BHC (Lindane)	ND		0.21	0.025	ug/L		05/07/24 08:43	05/08/24 19:54	1
trans-Chlordane	ND		0.21	0.021	ug/L		05/07/24 08:43	05/08/24 19:54	1
Heptachlor	ND		0.21	0.034	ug/L		05/07/24 08:43	05/08/24 19:54	1
Heptachlor epoxide	ND		0.21	0.027	ug/L		05/07/24 08:43	05/08/24 19:54	1
Methoxychlor	ND		0.42	0.020	ug/L		05/07/24 08:43	05/08/24 19:54	1
Toxaphene	ND		8.3	0.24	ug/L		05/07/24 08:43	05/08/24 19:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	68		10 - 145	05/07/24 08:43	05/08/24 19:54	1
DCB Decachlorobiphenyl	65		10 - 145	05/07/24 08:43	05/08/24 19:54	1
Tetrachloro-m-xylene	64		10 - 123	05/07/24 08:43	05/08/24 19:54	1
Tetrachloro-m-xylene	60		10 - 123	05/07/24 08:43	05/08/24 19:54	1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		05/01/24 13:50	05/03/24 02:12	1
PCB-1221	ND		0.50	0.18	ug/L		05/01/24 13:50	05/03/24 02:12	1
PCB-1232	ND		0.50	0.18	ug/L		05/01/24 13:50	05/03/24 02:12	1
PCB-1242	ND		0.50	0.18	ug/L		05/01/24 13:50	05/03/24 02:12	1
PCB-1248	ND		0.50	0.18	ug/L		05/01/24 13:50	05/03/24 02:12	1
PCB-1254	ND		0.50	0.25	ug/L		05/01/24 13:50	05/03/24 02:12	1

Client Sample ID: RB-043024
Date Collected: 04/30/24 13:30
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-6
Matrix: Water

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1260	ND		0.50	0.25	ug/L		05/01/24 13:50	05/03/24 02:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*73*		*19 - 120*	*05/01/24 13:50*	*05/03/24 02:12*	*1*
DCB Decachlorobiphenyl	*69*		*19 - 120*	*05/01/24 13:50*	*05/03/24 02:12*	*1*
Tetrachloro-m-xylene	*71*		*39 - 121*	*05/01/24 13:50*	*05/03/24 02:12*	*1*
Tetrachloro-m-xylene	*67*		*39 - 121*	*05/01/24 13:50*	*05/03/24 02:12*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		6.7	1.8	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluoropentanoic acid (PFPeA)	ND		3.3	0.83	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluorohexanoic acid (PFHxA)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluorooctanoic acid (PFOA)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluorononanoic acid (PFNA)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		6.7	1.7	ng/L		05/03/24 13:02	05/03/24 22:51	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		6.7	1.7	ng/L		05/03/24 13:02	05/03/24 22:51	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		6.7	1.7	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.7	0.52	ng/L		05/03/24 13:02	05/03/24 22:51	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.7	0.43	ng/L		05/03/24 13:02	05/03/24 22:51	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		17	4.2	ng/L		05/03/24 13:02	05/03/24 22:51	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		17	4.2	ng/L		05/03/24 13:02	05/03/24 22:51	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		6.7	1.7	ng/L		05/03/24 13:02	05/03/24 22:51	1

Client Sample ID: RB-043024
Date Collected: 04/30/24 13:30
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-6
Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		6.7	1.7	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		3.3	0.83	ng/L		05/03/24 13:02	05/03/24 22:51	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		3.3	1.0	ng/L		05/03/24 13:02	05/03/24 22:51	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		6.7	1.7	ng/L		05/03/24 13:02	05/03/24 22:51	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		6.7	1.7	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		3.3	0.83	ng/L		05/03/24 13:02	05/03/24 22:51	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		8.3	2.1	ng/L		05/03/24 13:02	05/03/24 22:51	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		42	10	ng/L		05/03/24 13:02	05/03/24 22:51	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		42	12	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.42	ng/L		05/03/24 13:02	05/03/24 22:51	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		3.3	0.83	ng/L		05/03/24 13:02	05/03/24 22:51	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*92.8*		*10 - 130*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
13C5 PFPeA	*90.2*		*35 - 150*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
13C5 PFHxA	*88.0*		*55 - 150*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
13C4 PFHpA	*97.9*		*55 - 150*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
13C8 PFOA	*89.0*		*60 - 140*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
13C9 PFNA	*93.1*		*55 - 140*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
13C6 PFDA	*111*		*50 - 140*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
13C7 PFUnA	*93.1*		*30 - 140*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
13C2 PFTeDA	*69.5*		*10 - 130*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
13C3 PFBS	*98.0*		*55 - 150*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
13C3 PFHxS	*92.1*		*55 - 150*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
13C8 PFOS	*89.8*		*45 - 140*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
13C8 FOSA	*88.4*		*30 - 130*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
d3-NMeFOSAA	*124*		*45 - 200*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
d5-NEtFOSAA	*87.5*		*10 - 200*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
M2-4:2 FTS	*92.7*		*60 - 200*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
M2-6:2 FTS	*97.5*		*60 - 200*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
M2-8:2 FTS	*127*		*50 - 200*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
13C3 HFPO-DA	*97.4*		*25 - 160*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
d7-N-MeFOSE-M	*85.2*		*10 - 150*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
d9-N-EtFOSE-M	*82.9*		*10 - 150*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
d5-NEtPFOSA	*74.0*		*10 - 130*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
d3-NMePFOSA	*74.9*		*15 - 130*	*05/03/24 13:02*	*05/03/24 22:51*	*1*
13C2-PFDoDA	*81.0*		*10 - 150*	*05/03/24 13:02*	*05/03/24 22:51*	*1*

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	47.3	ug/L		05/04/24 10:00	05/06/24 20:17	1
Antimony	ND		20.0	7.5	ug/L		05/04/24 10:00	05/06/24 20:17	1
Arsenic	ND		15.0	4.1	ug/L		05/04/24 10:00	05/06/24 20:17	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219368-1

Client Sample ID: RB-043024
Date Collected: 04/30/24 13:30
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-6
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		200	3.0	ug/L		05/04/24 10:00	05/06/24 20:17	1
Beryllium	ND		5.0	0.60	ug/L		05/04/24 10:00	05/06/24 20:17	1
Cadmium	ND		5.0	0.45	ug/L		05/04/24 10:00	05/06/24 20:17	1
Calcium	ND		5000	307	ug/L		05/04/24 10:00	05/06/24 20:17	1
Chromium	ND		10.0	0.76	ug/L		05/04/24 10:00	05/06/24 20:17	1
Cobalt	ND		10.0	0.75	ug/L		05/04/24 10:00	05/06/24 20:17	1
Copper	ND		25.0	3.5	ug/L		05/04/24 10:00	05/06/24 20:17	1
Iron	ND		200	82.7	ug/L		05/04/24 10:00	05/06/24 20:17	1
Lead	ND		10.0	2.8	ug/L		05/04/24 10:00	05/06/24 20:17	1
Magnesium	ND		5000	259	ug/L		05/04/24 10:00	05/06/24 20:17	1
Manganese	ND		15.0	2.6	ug/L		05/04/24 10:00	05/06/24 20:17	1
Nickel	ND		40.0	2.2	ug/L		05/04/24 10:00	05/06/24 20:17	1
Potassium	ND		5000	557	ug/L		05/04/24 10:00	05/06/24 20:17	1
Selenium	ND	^+	20.0	6.0	ug/L		05/04/24 10:00	05/06/24 20:17	1
Silver	**1.1**	**J**	10.0	0.62	ug/L		05/04/24 10:00	05/06/24 20:17	1
Sodium	**13400**		5000	2110	ug/L		05/04/24 10:00	05/06/24 20:17	1
Thallium	ND		20.0	2.7	ug/L		05/04/24 10:00	05/06/24 20:17	1
Vanadium	ND		50.0	5.6	ug/L		05/04/24 10:00	05/06/24 20:17	1
Zinc	ND		50.0	22.5	ug/L		05/04/24 10:00	05/06/24 20:17	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	47.3	ug/L		05/04/24 10:00	05/06/24 20:21	1
Antimony	ND		20.0	7.5	ug/L		05/04/24 10:00	05/06/24 20:21	1
Arsenic	ND		15.0	4.1	ug/L		05/04/24 10:00	05/06/24 20:21	1
Barium	ND		200	3.0	ug/L		05/04/24 10:00	05/06/24 20:21	1
Beryllium	ND		5.0	0.60	ug/L		05/04/24 10:00	05/06/24 20:21	1
Cadmium	ND		5.0	0.45	ug/L		05/04/24 10:00	05/06/24 20:21	1
Calcium	ND		5000	307	ug/L		05/04/24 10:00	05/06/24 20:21	1
Chromium	ND		10.0	0.76	ug/L		05/04/24 10:00	05/06/24 20:21	1
Cobalt	ND		10.0	0.75	ug/L		05/04/24 10:00	05/06/24 20:21	1
Copper	ND		25.0	3.5	ug/L		05/04/24 10:00	05/06/24 20:21	1
Iron	ND		200	82.7	ug/L		05/04/24 10:00	05/06/24 20:21	1
Lead	ND		10.0	2.8	ug/L		05/04/24 10:00	05/06/24 20:21	1
Magnesium	ND		5000	259	ug/L		05/04/24 10:00	05/06/24 20:21	1
Manganese	ND		15.0	2.6	ug/L		05/04/24 10:00	05/06/24 20:21	1
Nickel	ND		40.0	2.2	ug/L		05/04/24 10:00	05/06/24 20:21	1
Potassium	ND		5000	557	ug/L		05/04/24 10:00	05/06/24 20:21	1
Selenium	ND	^+	20.0	6.0	ug/L		05/04/24 10:00	05/06/24 20:21	1
Silver	ND		10.0	0.62	ug/L		05/04/24 10:00	05/06/24 20:21	1
Sodium	ND		5000	2110	ug/L		05/04/24 10:00	05/06/24 20:21	1
Thallium	ND		20.0	2.7	ug/L		05/04/24 10:00	05/06/24 20:21	1
Vanadium	ND		50.0	5.6	ug/L		05/04/24 10:00	05/06/24 20:21	1
Zinc	ND		50.0	22.5	ug/L		05/04/24 10:00	05/06/24 20:21	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/08/24 10:01	05/08/24 14:58	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219368-1

Client Sample ID: RB-043024

Date Collected: 04/30/24 13:30
Date Received: 04/30/24 15:00

Lab Sample ID: 480-219368-6

Matrix: Water

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/09/24 10:31	05/09/24 17:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND	^1+ F1	0.010	0.0041	mg/L			05/03/24 01:04	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND	^1+ F1	0.010	0.0041	mg/L			05/03/24 01:37	1

Surrogate Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219368-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(77-120)	(73-120)	(75-123)	(80-120)
480-219368-1	MW05-02-043024	104	98	102	99
480-219368-2	MW-04S-043024	105	97	103	100
480-219368-3	TB-043024	114	103	118	92
480-219368-4	MW-04D-043024	114	104	110	96
480-219368-5	MW-02D-043024	117	103	106	109
480-219368-6	RB-043024	113	103	104	107
LCS 480-710309/6	Lab Control Sample	114	104	112	96
LCS 480-710397/6	Lab Control Sample	117	107	108	107
LCS 480-710791/6	Lab Control Sample	104	97	101	101
LCSD 480-710309/31	Lab Control Sample Dup	111	104	102	96
MB 480-710309/32	Method Blank	116	104	111	94
MB 480-710397/8	Method Blank	113	96	106	102
MB 480-710791/8	Method Blank	103	98	101	100

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPHd14
Lab Sample ID	Client Sample ID	(41-120)	(48-120)	(35-120)	(46-120)	(22-120)	(60-148)
480-219368-1	MW05-02-043024	105	89	64	83	49	78
480-219368-2	MW-04S-043024	116	93	71	85	58	83
480-219368-4	MW-04D-043024	111	90	60	85	49	66
480-219368-5	MW-02D-043024	94	79	55	67	45	57 S1-
480-219368-6	RB-043024	106	79	64	75	53	97

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHd14 = p-Terphenyl-d14

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1	DCBP2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(10-145)	(10-145)	(10-123)	(10-123)
480-219368-1	MW05-02-043024	66	68	62	60
480-219368-2	MW-04S-043024	73	73	65	63
480-219368-4	MW-04D-043024	75	74	63	65
480-219368-5	MW-02D-043024	77	81	72	61
480-219368-6	RB-043024	68	65	64	60

Surrogate Summary

Client: Ashland LLC
Job ID: 480-219368-1
Project/Site: Tank 75 Analysis

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1	DCBP2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(10-145)	(10-145)	(10-123)	(10-123)
LCS 240-612128/2-A	Lab Control Sample	70	73	63	60
MB 240-612128/1-A	Method Blank	87	80	73	72

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1	DCBP2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(19-120)	(19-120)	(39-121)	(39-121)
480-219368-1	MW05-02-043024	66	61	89	83
480-219368-2	MW-04S-043024	84	82	97	92
480-219368-4	MW-04D-043024	55	50	88	84
480-219368-5	MW-02D-043024	48	46	59	55
480-219368-6	RB-043024	73	69	71	67
LCS 480-710200/2-A	Lab Control Sample	40	41	56	63
MB 480-710200/1-A	Method Blank	40	43	47	52

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Isotope Dilution Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219368-1

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	DXE (15-110)							
480-219368-5	MW-02D-043024	38							
480-219368-6	RB-043024	37							
LCS 480-710206/2-A	Lab Control Sample	36							
LCSD 480-710206/3-A	Lab Control Sample Dup	35							
MB 480-710206/1-A	Method Blank	36							

Surrogate Legend

DXE = 1,4-Dioxane-d8

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (10-130)	PFPeA (35-150)	13C5PHA (55-150)	C4PFHA (55-150)	C8PFOA (60-140)	C9PFNA (55-140)	C6PFDA (50-140)	13C7PUA (30-140)
480-219368-5	MW-02D-043024	93.8	87.6	88.7	87.1	94.4	94.4	104	81.9
480-219368-6	RB-043024	92.8	90.2	88.0	97.9	89.0	93.1	111	93.1
480-219368-6 DU	RB-043024	93.1	96.8	92.1	95.4	90.6	90.8	110	91.2
MB 240-611819/1-A	Method Blank	93.7	94.8	89.0	94.0	85.4	100	109	90.1

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFTDA (10-130)	C3PFBS (55-150)	C3PFHS (55-150)	C8PFOS (45-140)	PFOSA (30-130)	d3NMFOS (45-200)	d5NEFOS (10-200)	M242FTS (60-200)
480-219368-5	MW-02D-043024	74.4	100	91.8	83.5	95.9	94.0	84.9	140
480-219368-6	RB-043024	69.5	98.0	92.1	89.8	88.4	124	87.5	92.7
480-219368-6 DU	RB-043024	71.2	102	94.8	85.8	86.7	108	93.1	95.5
MB 240-611819/1-A	Method Blank	79.3	98.2	94.1	97.1	102	111	96.9	94.9

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M262FTS (60-200)	M282FTS (50-200)	HFPODA (25-160)	NMFM (10-150)	NEFM (10-150)	d5NPFSA (10-130)	d3NMFSA (15-130)	PFDoDA (10-150)
480-219368-5	MW-02D-043024	104	113	86.8	73.3	69.8	64.1	65.5	74.2
480-219368-6	RB-043024	97.5	127	97.4	85.2	82.9	74.0	74.9	81.0
480-219368-6 DU	RB-043024	84.1	158	95.1	86.8	82.1	76.7	75.9	82.2
MB 240-611819/1-A	Method Blank	91.6	114	94.2	95.3	92.3	80.1	81.9	81.8

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA

Isotope Dilution Summary

Client: Ashland LLC
Job ID: 480-219368-1
Project/Site: Tank 75 Analysis

M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoDA = 13C2-PFDoDA

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(10-130)	(40-150)	(40-150)	(40-150)	(30-140)	(30-140)	(20-140)	(20-140)
LCS 240-611819/3-A	Lab Control Sample	94.9	96.0	93.3	93.2	92.6	92.8	108	89.7
LLCS 240-611819/2-A	Lab Control Sample	93.4	98.2	92.7	94.7	90.1	99.0	107	89.5

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFTDA	C3PFBS	C3PFHS	C8PFOS	PFOSA	d3NMFOS	d5NEFOS	M242FTS
Lab Sample ID	Client Sample ID	(10-130)	(25-150)	(25-150)	(20-140)	(10-130)	(10-200)	(10-200)	(25-200)
LCS 240-611819/3-A	Lab Control Sample	75.5	98.2	99.2	85.4	97.3	101	95.4	86.6
LLCS 240-611819/2-A	Lab Control Sample	79.8	100	99.4	89.3	104	113	101	99.8

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M262FTS	M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	PFDoDA
Lab Sample ID	Client Sample ID	(25-200)	(25-200)	(25-160)	(10-150)	(10-150)	(10-130)	(10-130)	(10-150)
LCS 240-611819/3-A	Lab Control Sample	91.0	146	95.6	91.5	89.4	75.9	75.3	80.5
LLCS 240-611819/2-A	Lab Control Sample	92.1	121	102	95.5	93.3	78.6	78.1	82.5

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoDA = 13C2-PFDoDA

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-710309/32
Matrix: Water
Analysis Batch: 710309

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/02/24 13:57	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/02/24 13:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			05/02/24 13:57	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/02/24 13:57	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/02/24 13:57	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/02/24 13:57	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			05/02/24 13:57	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			05/02/24 13:57	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			05/02/24 13:57	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			05/02/24 13:57	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/02/24 13:57	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/02/24 13:57	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			05/02/24 13:57	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			05/02/24 13:57	1
2-Butanone (MEK)	ND		10	1.3	ug/L			05/02/24 13:57	1
2-Hexanone	ND		5.0	1.2	ug/L			05/02/24 13:57	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/02/24 13:57	1
Acetone	ND		10	3.0	ug/L			05/02/24 13:57	1
Benzene	ND		1.0	0.41	ug/L			05/02/24 13:57	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/02/24 13:57	1
Bromoform	ND		1.0	0.26	ug/L			05/02/24 13:57	1
Bromomethane	ND		1.0	0.69	ug/L			05/02/24 13:57	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/02/24 13:57	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/02/24 13:57	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/02/24 13:57	1
Chloroethane	ND		1.0	0.32	ug/L			05/02/24 13:57	1
Chloroform	ND		1.0	0.34	ug/L			05/02/24 13:57	1
Chloromethane	ND		1.0	0.35	ug/L			05/02/24 13:57	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			05/02/24 13:57	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/02/24 13:57	1
Cyclohexane	ND		1.0	0.18	ug/L			05/02/24 13:57	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/02/24 13:57	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/02/24 13:57	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/02/24 13:57	1
Isopropylbenzene	ND		1.0	0.79	ug/L			05/02/24 13:57	1
Methyl acetate	ND		2.5	1.3	ug/L			05/02/24 13:57	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/02/24 13:57	1
Methylcyclohexane	ND		1.0	0.16	ug/L			05/02/24 13:57	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/02/24 13:57	1
Styrene	ND		1.0	0.73	ug/L			05/02/24 13:57	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/02/24 13:57	1
Toluene	ND		1.0	0.51	ug/L			05/02/24 13:57	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			05/02/24 13:57	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/02/24 13:57	1
Trichloroethene	ND		1.0	0.46	ug/L			05/02/24 13:57	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			05/02/24 13:57	1
Vinyl chloride	ND		1.0	0.90	ug/L			05/02/24 13:57	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/02/24 13:57	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-710309/32
Matrix: Water
Analysis Batch: 710309

Client Sample ID: Method Blank
Prep Type: Total/NA

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A		05/02/24 13:57	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	116		77 - 120		05/02/24 13:57	1
4-Bromofluorobenzene (Surr)	104		73 - 120		05/02/24 13:57	1
Dibromofluoromethane (Surr)	111		75 - 123		05/02/24 13:57	1
Toluene-d8 (Surr)	94		80 - 120		05/02/24 13:57	1

Lab Sample ID: LCS 480-710309/6
Matrix: Water
Analysis Batch: 710309

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	25.0	30.8		ug/L		123	73 - 126
1,1,2,2-Tetrachloroethane	25.0	22.0		ug/L		88	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	32.6		ug/L		130	61 - 148
1,1,2-Trichloroethane	25.0	24.1		ug/L		96	76 - 122
1,1-Dichloroethane	25.0	26.8		ug/L		107	77 - 120
1,1-Dichloroethene	25.0	28.8		ug/L		115	66 - 127
1,2,4-Trichlorobenzene	25.0	26.5		ug/L		106	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	21.6		ug/L		86	56 - 134
1,2-Dibromoethane	25.0	27.4		ug/L		110	77 - 120
1,2-Dichlorobenzene	25.0	27.0		ug/L		108	80 - 124
1,2-Dichloroethane	25.0	30.2	*+	ug/L		121	75 - 120
1,2-Dichloropropane	25.0	26.6		ug/L		106	76 - 120
1,3-Dichlorobenzene	25.0	26.7		ug/L		107	77 - 120
1,4-Dichlorobenzene	25.0	26.3		ug/L		105	80 - 120
2-Butanone (MEK)	125	123		ug/L		98	57 - 140
2-Hexanone	125	104		ug/L		83	65 - 127
4-Methyl-2-pentanone (MIBK)	125	98.8		ug/L		79	71 - 125
Acetone	125	140		ug/L		112	56 - 142
Benzene	25.0	27.0		ug/L		108	71 - 124
Bromodichloromethane	25.0	30.5		ug/L		122	80 - 122
Bromoform	25.0	29.0		ug/L		116	61 - 132
Bromomethane	25.0	29.6		ug/L		119	55 - 144
Carbon disulfide	25.0	28.9		ug/L		116	59 - 134
Carbon tetrachloride	25.0	31.9		ug/L		128	72 - 134
Chlorobenzene	25.0	26.8		ug/L		107	80 - 120
Chloroethane	25.0	27.0		ug/L		108	69 - 136
Chloroform	25.0	27.3		ug/L		109	73 - 127
Chloromethane	25.0	29.4		ug/L		118	68 - 124
cis-1,2-Dichloroethene	25.0	27.9		ug/L		112	74 - 124
cis-1,3-Dichloropropene	25.0	26.4		ug/L		106	74 - 124
Cyclohexane	25.0	27.6		ug/L		111	59 - 135
Dibromochloromethane	25.0	28.9		ug/L		116	75 - 125
Dichlorodifluoromethane	25.0	30.1		ug/L		120	59 - 135
Ethylbenzene	25.0	25.7		ug/L		103	77 - 123

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-710309/6
Matrix: Water
Analysis Batch: 710309

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Isopropylbenzene	25.0	27.5		ug/L		110	77 - 122
Methyl acetate	50.0	50.4		ug/L		101	74 - 133
Methyl tert-butyl ether	25.0	25.4		ug/L		102	77 - 120
Methylcyclohexane	25.0	25.8		ug/L		103	68 - 134
Methylene Chloride	25.0	26.4		ug/L		105	75 - 124
Styrene	25.0	25.5		ug/L		102	80 - 120
Tetrachloroethene	25.0	29.1		ug/L		117	74 - 122
Toluene	25.0	25.5		ug/L		102	80 - 122
trans-1,2-Dichloroethene	25.0	28.2		ug/L		113	73 - 127
Trichloroethene	25.0	30.6		ug/L		122	74 - 123
Trichlorofluoromethane	25.0	36.6		ug/L		146	62 - 150
Vinyl chloride	25.0	28.6		ug/L		114	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*114*		*77 - 120*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*
Dibromofluoromethane (Surr)	*112*		*75 - 123*
Toluene-d8 (Surr)	*96*		*80 - 120*

Lab Sample ID: LCSD 480-710309/31
Matrix: Water
Analysis Batch: 710309

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane	25.0	27.4		ug/L		110	73 - 126	12	15
1,1,2,2-Tetrachloroethane	25.0	19.9		ug/L		79	76 - 120	10	15
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	30.8		ug/L		123	61 - 148	6	20
1,1,2-Trichloroethane	25.0	23.8		ug/L		95	76 - 122	1	15
1,1-Dichloroethane	25.0	24.5		ug/L		98	77 - 120	9	20
1,1-Dichloroethene	25.0	25.1		ug/L		100	66 - 127	14	16
1,2,4-Trichlorobenzene	25.0	25.8		ug/L		103	79 - 122	3	20
1,2-Dibromo-3-Chloropropane	25.0	19.1		ug/L		77	56 - 134	12	15
1,2-Dibromoethane	25.0	26.9		ug/L		108	77 - 120	2	15
1,2-Dichlorobenzene	25.0	25.0		ug/L		100	80 - 124	8	20
1,2-Dichloroethane	25.0	28.4		ug/L		114	75 - 120	6	20
1,2-Dichloropropane	25.0	26.3		ug/L		105	76 - 120	1	20
1,3-Dichlorobenzene	25.0	25.1		ug/L		100	77 - 120	6	20
1,4-Dichlorobenzene	25.0	25.1		ug/L		100	80 - 120	5	20
2-Butanone (MEK)	125	140		ug/L		112	57 - 140	13	20
2-Hexanone	125	110		ug/L		88	65 - 127	6	15
4-Methyl-2-pentanone (MIBK)	125	102		ug/L		81	71 - 125	3	35
Acetone	125	146		ug/L		117	56 - 142	4	15
Benzene	25.0	26.3		ug/L		105	71 - 124	3	13
Bromodichloromethane	25.0	29.0		ug/L		116	80 - 122	5	15
Bromoform	25.0	25.1		ug/L		100	61 - 132	15	15
Bromomethane	25.0	17.2	*1	ug/L		69	55 - 144	53	15
Carbon disulfide	25.0	26.1		ug/L		104	59 - 134	10	15
Carbon tetrachloride	25.0	27.6		ug/L		110	72 - 134	15	15

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 480-710309/31
Matrix: Water
Analysis Batch: 710309

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chlorobenzene			25.0	27.2		ug/L		109	80 - 120	1	25
Chloroethane			25.0	18.5	*1	ug/L		74	69 - 136	37	15
Chloroform			25.0	25.0		ug/L		100	73 - 127	9	20
Chloromethane			25.0	26.3		ug/L		105	68 - 124	11	15
cis-1,2-Dichloroethene			25.0	25.3		ug/L		101	74 - 124	10	15
cis-1,3-Dichloropropene			25.0	27.6		ug/L		110	74 - 124	4	15
Cyclohexane			25.0	25.8		ug/L		103	59 - 135	7	20
Dibromochloromethane			25.0	27.3		ug/L		109	75 - 125	6	15
Dichlorodifluoromethane			25.0	28.2		ug/L		113	59 - 135	6	20
Ethylbenzene			25.0	24.8		ug/L		99	77 - 123	4	15
Isopropylbenzene			25.0	25.1		ug/L		101	77 - 122	9	20
Methyl acetate			50.0	47.5		ug/L		95	74 - 133	6	20
Methyl tert-butyl ether			25.0	23.4		ug/L		94	77 - 120	8	37
Methylcyclohexane			25.0	24.1		ug/L		97	68 - 134	7	20
Methylene Chloride			25.0	24.6		ug/L		98	75 - 124	7	15
Styrene			25.0	25.2		ug/L		101	80 - 120	1	20
Tetrachloroethene			25.0	30.5		ug/L		122	74 - 122	5	20
Toluene			25.0	25.5		ug/L		102	80 - 122	0	15
trans-1,2-Dichloroethene			25.0	25.5		ug/L		102	73 - 127	10	20
Trichloroethene			25.0	30.1		ug/L		120	74 - 123	2	16
Trichlorofluoromethane			25.0	33.4		ug/L		134	62 - 150	9	20
Vinyl chloride			25.0	28.6		ug/L		115	65 - 133	0	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*111*		*77 - 120*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*
Dibromofluoromethane (Surr)	*102*		*75 - 123*
Toluene-d8 (Surr)	*96*		*80 - 120*

Lab Sample ID: MB 480-710397/8
Matrix: Water
Analysis Batch: 710397

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/03/24 03:51	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/03/24 03:51	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			05/03/24 03:51	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/03/24 03:51	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/03/24 03:51	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/03/24 03:51	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			05/03/24 03:51	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			05/03/24 03:51	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			05/03/24 03:51	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			05/03/24 03:51	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/03/24 03:51	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/03/24 03:51	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			05/03/24 03:51	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			05/03/24 03:51	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-710397/8
Matrix: Water
Analysis Batch: 710397

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	ND		10	1.3	ug/L			05/03/24 03:51	1
2-Hexanone	ND		5.0	1.2	ug/L			05/03/24 03:51	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/03/24 03:51	1
Acetone	ND		10	3.0	ug/L			05/03/24 03:51	1
Benzene	ND		1.0	0.41	ug/L			05/03/24 03:51	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/03/24 03:51	1
Bromoform	ND		1.0	0.26	ug/L			05/03/24 03:51	1
Bromomethane	ND		1.0	0.69	ug/L			05/03/24 03:51	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/03/24 03:51	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/03/24 03:51	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/03/24 03:51	1
Chloroethane	ND		1.0	0.32	ug/L			05/03/24 03:51	1
Chloroform	ND		1.0	0.34	ug/L			05/03/24 03:51	1
Chloromethane	ND		1.0	0.35	ug/L			05/03/24 03:51	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			05/03/24 03:51	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/03/24 03:51	1
Cyclohexane	ND		1.0	0.18	ug/L			05/03/24 03:51	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/03/24 03:51	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/03/24 03:51	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/03/24 03:51	1
Isopropylbenzene	ND		1.0	0.79	ug/L			05/03/24 03:51	1
Methyl acetate	ND		2.5	1.3	ug/L			05/03/24 03:51	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/03/24 03:51	1
Methylcyclohexane	ND		1.0	0.16	ug/L			05/03/24 03:51	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/03/24 03:51	1
Styrene	ND		1.0	0.73	ug/L			05/03/24 03:51	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/03/24 03:51	1
Toluene	ND		1.0	0.51	ug/L			05/03/24 03:51	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			05/03/24 03:51	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/03/24 03:51	1
Trichloroethene	ND		1.0	0.46	ug/L			05/03/24 03:51	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			05/03/24 03:51	1
Vinyl chloride	ND		1.0	0.90	ug/L			05/03/24 03:51	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/03/24 03:51	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*		*05/03/24 03:51*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*77 - 120*		*05/03/24 03:51*	*1*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*		*05/03/24 03:51*	*1*
Dibromofluoromethane (Surr)	*106*		*75 - 123*		*05/03/24 03:51*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/03/24 03:51*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-710397/6
Matrix: Water
Analysis Batch: 710397

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	25.0	28.1		ug/L		112	73 - 126
1,1,2,2-Tetrachloroethane	25.0	24.3		ug/L		97	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	23.4		ug/L		94	61 - 148
1,1,2-Trichloroethane	25.0	25.3		ug/L		101	76 - 122
1,1-Dichloroethane	25.0	27.2		ug/L		109	77 - 120
1,1-Dichloroethene	25.0	24.7		ug/L		99	66 - 127
1,2,4-Trichlorobenzene	25.0	24.2		ug/L		97	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	25.9		ug/L		103	56 - 134
1,2-Dibromoethane	25.0	26.2		ug/L		105	77 - 120
1,2-Dichlorobenzene	25.0	24.2		ug/L		97	80 - 124
1,2-Dichloroethane	25.0	28.5		ug/L		114	75 - 120
1,2-Dichloropropane	25.0	27.9		ug/L		112	76 - 120
1,3-Dichlorobenzene	25.0	24.8		ug/L		99	77 - 120
1,4-Dichlorobenzene	25.0	24.8		ug/L		99	80 - 120
2-Butanone (MEK)	125	139		ug/L		111	57 - 140
2-Hexanone	125	143		ug/L		114	65 - 127
4-Methyl-2-pentanone (MIBK)	125	129		ug/L		103	71 - 125
Acetone	125	132		ug/L		106	56 - 142
Benzene	25.0	27.3		ug/L		109	71 - 124
Bromodichloromethane	25.0	29.6		ug/L		118	80 - 122
Bromoform	25.0	28.1		ug/L		112	61 - 132
Bromomethane	25.0	22.8		ug/L		91	55 - 144
Carbon disulfide	25.0	23.4		ug/L		93	59 - 134
Carbon tetrachloride	25.0	29.1		ug/L		116	72 - 134
Chlorobenzene	25.0	26.0		ug/L		104	80 - 120
Chloroethane	25.0	21.0		ug/L		84	69 - 136
Chloroform	25.0	26.0		ug/L		104	73 - 127
Chloromethane	25.0	17.5		ug/L		70	68 - 124
cis-1,2-Dichloroethene	25.0	27.5		ug/L		110	74 - 124
cis-1,3-Dichloropropene	25.0	28.7		ug/L		115	74 - 124
Cyclohexane	25.0	23.9		ug/L		96	59 - 135
Dibromochloromethane	25.0	28.6		ug/L		114	75 - 125
Dichlorodifluoromethane	25.0	14.5	*-	ug/L		58	59 - 135
Ethylbenzene	25.0	25.8		ug/L		103	77 - 123
Isopropylbenzene	25.0	25.3		ug/L		101	77 - 122
Methyl acetate	50.0	51.0		ug/L		102	74 - 133
Methyl tert-butyl ether	25.0	25.5		ug/L		102	77 - 120
Methylcyclohexane	25.0	24.4		ug/L		98	68 - 134
Methylene Chloride	25.0	25.1		ug/L		101	75 - 124
Styrene	25.0	26.8		ug/L		107	80 - 120
Tetrachloroethene	25.0	25.5		ug/L		102	74 - 122
Toluene	25.0	24.8		ug/L		99	80 - 122
trans-1,2-Dichloroethene	25.0	26.3		ug/L		105	73 - 127
Trichloroethene	25.0	28.2		ug/L		113	74 - 123
Trichlorofluoromethane	25.0	22.5		ug/L		90	62 - 150
Vinyl chloride	25.0	19.9		ug/L		80	65 - 133

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-710397/6
Matrix: Water
Analysis Batch: 710397

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*117*		*77 - 120*
4-Bromofluorobenzene (Surr)	*107*		*73 - 120*
Dibromofluoromethane (Surr)	*108*		*75 - 123*
Toluene-d8 (Surr)	*107*		*80 - 120*

Lab Sample ID: MB 480-710791/8
Matrix: Water
Analysis Batch: 710791

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/06/24 13:10	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/06/24 13:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			05/06/24 13:10	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/06/24 13:10	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/06/24 13:10	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/06/24 13:10	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			05/06/24 13:10	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			05/06/24 13:10	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			05/06/24 13:10	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			05/06/24 13:10	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/06/24 13:10	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/06/24 13:10	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			05/06/24 13:10	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			05/06/24 13:10	1
2-Butanone (MEK)	ND		10	1.3	ug/L			05/06/24 13:10	1
2-Hexanone	ND		5.0	1.2	ug/L			05/06/24 13:10	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/06/24 13:10	1
Acetone	ND		10	3.0	ug/L			05/06/24 13:10	1
Benzene	ND		1.0	0.41	ug/L			05/06/24 13:10	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/06/24 13:10	1
Bromoform	ND		1.0	0.26	ug/L			05/06/24 13:10	1
Bromomethane	ND		1.0	0.69	ug/L			05/06/24 13:10	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/06/24 13:10	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/06/24 13:10	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/06/24 13:10	1
Chloroethane	ND		1.0	0.32	ug/L			05/06/24 13:10	1
Chloroform	ND		1.0	0.34	ug/L			05/06/24 13:10	1
Chloromethane	ND		1.0	0.35	ug/L			05/06/24 13:10	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			05/06/24 13:10	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/06/24 13:10	1
Cyclohexane	ND		1.0	0.18	ug/L			05/06/24 13:10	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/06/24 13:10	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/06/24 13:10	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/06/24 13:10	1
Isopropylbenzene	ND		1.0	0.79	ug/L			05/06/24 13:10	1
Methyl acetate	ND		2.5	1.3	ug/L			05/06/24 13:10	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/06/24 13:10	1
Methylcyclohexane	ND		1.0	0.16	ug/L			05/06/24 13:10	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-710791/8
Matrix: Water
Analysis Batch: 710791

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		1.0	0.44	ug/L			05/06/24 13:10	1
Styrene	ND		1.0	0.73	ug/L			05/06/24 13:10	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/06/24 13:10	1
Toluene	ND		1.0	0.51	ug/L			05/06/24 13:10	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			05/06/24 13:10	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/06/24 13:10	1
Trichloroethene	ND		1.0	0.46	ug/L			05/06/24 13:10	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			05/06/24 13:10	1
Vinyl chloride	ND		1.0	0.90	ug/L			05/06/24 13:10	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/06/24 13:10	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*		*05/06/24 13:10*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*		*05/06/24 13:10*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*05/06/24 13:10*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*05/06/24 13:10*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*05/06/24 13:10*	*1*

Lab Sample ID: LCS 480-710791/6
Matrix: Water
Analysis Batch: 710791

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	25.0	26.9		ug/L		108	73 - 126
1,1,2,2-Tetrachloroethane	25.0	26.6		ug/L		106	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	30.6		ug/L		123	61 - 148
1,1,2-Trichloroethane	25.0	27.0		ug/L		108	76 - 122
1,1-Dichloroethane	25.0	28.0		ug/L		112	77 - 120
1,1-Dichloroethene	25.0	28.9		ug/L		115	66 - 127
1,2,4-Trichlorobenzene	25.0	26.8		ug/L		107	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	23.8		ug/L		95	56 - 134
1,2-Dibromoethane	25.0	26.1		ug/L		104	77 - 120
1,2-Dichlorobenzene	25.0	27.2		ug/L		109	80 - 124
1,2-Dichloroethane	25.0	25.8		ug/L		103	75 - 120
1,2-Dichloropropane	25.0	26.9		ug/L		108	76 - 120
1,3-Dichlorobenzene	25.0	28.1		ug/L		112	77 - 120
1,4-Dichlorobenzene	25.0	27.0		ug/L		108	80 - 120
2-Butanone (MEK)	125	140		ug/L		112	57 - 140
2-Hexanone	125	148		ug/L		118	65 - 127
4-Methyl-2-pentanone (MIBK)	125	141		ug/L		112	71 - 125
Acetone	125	150		ug/L		120	56 - 142
Benzene	25.0	27.3		ug/L		109	71 - 124
Bromodichloromethane	25.0	25.5		ug/L		102	80 - 122
Bromoform	25.0	23.8		ug/L		95	61 - 132
Bromomethane	25.0	27.0		ug/L		108	55 - 144

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-710791/6
Matrix: Water
Analysis Batch: 710791

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Carbon disulfide	25.0	26.6		ug/L		107	59 - 134
Carbon tetrachloride	25.0	25.6		ug/L		102	72 - 134
Chlorobenzene	25.0	27.1		ug/L		108	80 - 120
Chloroethane	25.0	21.7		ug/L		87	69 - 136
Chloroform	25.0	24.9		ug/L		99	73 - 127
Chloromethane	25.0	27.1		ug/L		109	68 - 124
cis-1,2-Dichloroethene	25.0	27.0		ug/L		108	74 - 124
cis-1,3-Dichloropropene	25.0	25.0		ug/L		100	74 - 124
Cyclohexane	25.0	28.3		ug/L		113	59 - 135
Dibromochloromethane	25.0	25.3		ug/L		101	75 - 125
Dichlorodifluoromethane	25.0	25.2		ug/L		101	59 - 135
Ethylbenzene	25.0	28.5		ug/L		114	77 - 123
Isopropylbenzene	25.0	27.5		ug/L		110	77 - 122
Methyl acetate	50.0	51.4		ug/L		103	74 - 133
Methyl tert-butyl ether	25.0	23.7		ug/L		95	77 - 120
Methylcyclohexane	25.0	28.0		ug/L		112	68 - 134
Methylene Chloride	25.0	27.1		ug/L		109	75 - 124
Styrene	25.0	27.2		ug/L		109	80 - 120
Tetrachloroethene	25.0	27.5		ug/L		110	74 - 122
Toluene	25.0	28.0		ug/L		112	80 - 122
trans-1,2-Dichloroethene	25.0	28.6		ug/L		114	73 - 127
Trichloroethene	25.0	27.0		ug/L		108	74 - 123
Trichlorofluoromethane	25.0	30.7		ug/L		123	62 - 150
Vinyl chloride	25.0	30.8		ug/L		123	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*
Dibromofluoromethane (Surr)	*101*		*75 - 123*
Toluene-d8 (Surr)	*101*		*80 - 120*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 480-710206/1-A
Matrix: Water
Analysis Batch: 710487

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 710206

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		05/01/24 14:00	05/03/24 11:47	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*36*		*15 - 110*	*05/01/24 14:00*	*05/03/24 11:47*	*1*

Lab Sample ID: LCS 480-710206/2-A
Matrix: Water
Analysis Batch: 710487

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 710206

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	2.00	2.20		ug/L		110	40 - 140

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution) (Continued)

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
1,4-Dioxane-d8	36		15 - 110

Lab Sample ID: LCSD 480-710206/3-A
Matrix: Water
Analysis Batch: 710487

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 710206

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane			2.00	2.24		ug/L		112	40 - 140	2	20

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
1,4-Dioxane-d8	35		15 - 110

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 240-612128/1-A
Matrix: Water
Analysis Batch: 612262

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 612128

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.050	0.0053	ug/L		05/07/24 08:43	05/08/24 13:53	1
4,4'-DDE	ND		0.050	0.0043	ug/L		05/07/24 08:43	05/08/24 13:53	1
4,4'-DDT	ND		0.050	0.0048	ug/L		05/07/24 08:43	05/08/24 13:53	1
Aldrin	ND		0.050	0.0065	ug/L		05/07/24 08:43	05/08/24 13:53	1
alpha-BHC	ND		0.050	0.0053	ug/L		05/07/24 08:43	05/08/24 13:53	1
cis-Chlordane	ND		0.050	0.0070	ug/L		05/07/24 08:43	05/08/24 13:53	1
beta-BHC	ND		0.050	0.0093	ug/L		05/07/24 08:43	05/08/24 13:53	1
delta-BHC	ND		0.050	0.0043	ug/L		05/07/24 08:43	05/08/24 13:53	1
Dieldrin	ND		0.050	0.0065	ug/L		05/07/24 08:43	05/08/24 13:53	1
Endosulfan I	ND		0.050	0.0037	ug/L		05/07/24 08:43	05/08/24 13:53	1
Endosulfan II	ND		0.050	0.0062	ug/L		05/07/24 08:43	05/08/24 13:53	1
Endosulfan sulfate	ND		0.050	0.0037	ug/L		05/07/24 08:43	05/08/24 13:53	1
Endrin	ND		0.050	0.0065	ug/L		05/07/24 08:43	05/08/24 13:53	1
Endrin aldehyde	ND		0.050	0.0046	ug/L		05/07/24 08:43	05/08/24 13:53	1
Endrin ketone	ND		0.050	0.0040	ug/L		05/07/24 08:43	05/08/24 13:53	1
gamma-BHC (Lindane)	ND		0.050	0.0060	ug/L		05/07/24 08:43	05/08/24 13:53	1
trans-Chlordane	ND		0.050	0.0050	ug/L		05/07/24 08:43	05/08/24 13:53	1
Heptachlor	ND		0.050	0.0082	ug/L		05/07/24 08:43	05/08/24 13:53	1
Heptachlor epoxide	ND		0.050	0.0064	ug/L		05/07/24 08:43	05/08/24 13:53	1
Methoxychlor	ND		0.10	0.0047	ug/L		05/07/24 08:43	05/08/24 13:53	1
Toxaphene	ND		2.0	0.058	ug/L		05/07/24 08:43	05/08/24 13:53	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	87		10 - 145	05/07/24 08:43	05/08/24 13:53	1
DCB Decachlorobiphenyl	80		10 - 145	05/07/24 08:43	05/08/24 13:53	1
Tetrachloro-m-xylene	73		10 - 123	05/07/24 08:43	05/08/24 13:53	1
Tetrachloro-m-xylene	72		10 - 123	05/07/24 08:43	05/08/24 13:53	1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 240-612128/2-A
Matrix: Water
Analysis Batch: 612262

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 612128

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	0.250	0.204		ug/L		82	37 - 132
4,4'-DDE	0.250	0.188		ug/L		75	20 - 123
4,4'-DDT	0.250	0.203		ug/L		81	23 - 128
Aldrin	0.250	0.179		ug/L		71	26 - 120
alpha-BHC	0.250	0.181		ug/L		72	29 - 120
cis-Chlordane	0.250	0.162		ug/L		65	36 - 120
beta-BHC	0.250	0.180		ug/L		72	35 - 120
delta-BHC	0.250	0.204		ug/L		82	22 - 120
Dieldrin	0.250	0.198		ug/L		79	35 - 120
Endosulfan I	0.250	0.176		ug/L		70	21 - 120
Endosulfan II	0.250	0.181		ug/L		72	28 - 120
Endosulfan sulfate	0.250	0.191		ug/L		76	31 - 120
Endrin	0.250	0.199		ug/L		79	36 - 120
Endrin aldehyde	0.250	0.178		ug/L		71	20 - 120
Endrin ketone	0.250	0.197		ug/L		79	29 - 120
gamma-BHC (Lindane)	0.250	0.188		ug/L		75	23 - 120
trans-Chlordane	0.250	0.180		ug/L		72	35 - 120
Heptachlor	0.250	0.178		ug/L		71	29 - 120
Heptachlor epoxide	0.250	0.168		ug/L		67	36 - 120
Methoxychlor	0.250	0.200		ug/L		80	23 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*70*		*10 - 145*
DCB Decachlorobiphenyl	*73*		*10 - 145*
Tetrachloro-m-xylene	*63*		*10 - 123*
Tetrachloro-m-xylene	*60*		*10 - 123*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 480-710200/1-A
Matrix: Water
Analysis Batch: 710413

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 710200

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 21:14	1
PCB-1221	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 21:14	1
PCB-1232	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 21:14	1
PCB-1242	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 21:14	1
PCB-1248	ND		0.50	0.18	ug/L		05/01/24 13:50	05/02/24 21:14	1
PCB-1254	ND		0.50	0.25	ug/L		05/01/24 13:50	05/02/24 21:14	1
PCB-1260	ND		0.50	0.25	ug/L		05/01/24 13:50	05/02/24 21:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*40*		*19 - 120*	*05/01/24 13:50*	*05/02/24 21:14*	*1*
DCB Decachlorobiphenyl	*43*		*19 - 120*	*05/01/24 13:50*	*05/02/24 21:14*	*1*
Tetrachloro-m-xylene	*47*		*39 - 121*	*05/01/24 13:50*	*05/02/24 21:14*	*1*
Tetrachloro-m-xylene	*52*		*39 - 121*	*05/01/24 13:50*	*05/02/24 21:14*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 480-710200/2-A
Matrix: Water
Analysis Batch: 710413

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 710200

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
PCB-1016			4.00	2.90		ug/L		73	62 - 130		
PCB-1260			4.00	2.93		ug/L		73	56 - 123		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*40*		*19 - 120*
DCB Decachlorobiphenyl	*41*		*19 - 120*
Tetrachloro-m-xylene	*56*		*39 - 121*
Tetrachloro-m-xylene	*63*		*39 - 121*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Lab Sample ID: MB 240-611819/1-A
Matrix: Water
Analysis Batch: 611854

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 611819

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		8.0	2.1	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluoropentanoic acid (PFPeA)	ND		4.0	1.0	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.52	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		8.0	2.0	ng/L		05/03/24 12:04	05/03/24 17:49	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		8.0	2.0	ng/L		05/03/24 12:04	05/03/24 17:49	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		8.0	2.0	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	0.62	ng/L		05/03/24 12:04	05/03/24 17:49	1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 240-611819/1-A
Matrix: Water
Analysis Batch: 611854

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 611819

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	0.52	ng/L		05/03/24 12:04	05/03/24 17:49	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		20	5.0	ng/L		05/03/24 12:04	05/03/24 17:49	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		20	5.0	ng/L		05/03/24 12:04	05/03/24 17:49	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		8.0	2.0	ng/L		05/03/24 12:04	05/03/24 17:49	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		8.0	2.0	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		4.0	1.0	ng/L		05/03/24 12:04	05/03/24 17:49	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		4.0	1.2	ng/L		05/03/24 12:04	05/03/24 17:49	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		8.0	2.0	ng/L		05/03/24 12:04	05/03/24 17:49	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		8.0	2.0	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		4.0	1.0	ng/L		05/03/24 12:04	05/03/24 17:49	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		10	2.5	ng/L		05/03/24 12:04	05/03/24 17:49	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		50	13	ng/L		05/03/24 12:04	05/03/24 17:49	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		50	15	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.50	ng/L		05/03/24 12:04	05/03/24 17:49	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		4.0	1.0	ng/L		05/03/24 12:04	05/03/24 17:49	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*93.7*		*10 - 130*	*05/03/24 12:04*	*05/03/24 17:49*	*1*
13C5 PFPeA	*94.8*		*35 - 150*	*05/03/24 12:04*	*05/03/24 17:49*	*1*
13C5 PFHxA	*89.0*		*55 - 150*	*05/03/24 12:04*	*05/03/24 17:49*	*1*
13C4 PFHpA	*94.0*		*55 - 150*	*05/03/24 12:04*	*05/03/24 17:49*	*1*
13C8 PFOA	*85.4*		*60 - 140*	*05/03/24 12:04*	*05/03/24 17:49*	*1*
13C9 PFNA	*100*		*55 - 140*	*05/03/24 12:04*	*05/03/24 17:49*	*1*
13C6 PFDA	*109*		*50 - 140*	*05/03/24 12:04*	*05/03/24 17:49*	*1*
13C7 PFUnA	*90.1*		*30 - 140*	*05/03/24 12:04*	*05/03/24 17:49*	*1*
13C2 PFTeDA	*79.3*		*10 - 130*	*05/03/24 12:04*	*05/03/24 17:49*	*1*
13C3 PFBS	*98.2*		*55 - 150*	*05/03/24 12:04*	*05/03/24 17:49*	*1*
13C3 PFHxS	*94.1*		*55 - 150*	*05/03/24 12:04*	*05/03/24 17:49*	*1*
13C8 PFOS	*97.1*		*45 - 140*	*05/03/24 12:04*	*05/03/24 17:49*	*1*
13C8 FOSA	*102*		*30 - 130*	*05/03/24 12:04*	*05/03/24 17:49*	*1*
d3-NMeFOSAA	*111*		*45 - 200*	*05/03/24 12:04*	*05/03/24 17:49*	*1*
d5-NEtFOSAA	*96.9*		*10 - 200*	*05/03/24 12:04*	*05/03/24 17:49*	*1*
M2-4:2 FTS	*94.9*		*60 - 200*	*05/03/24 12:04*	*05/03/24 17:49*	*1*
M2-6:2 FTS	*91.6*		*60 - 200*	*05/03/24 12:04*	*05/03/24 17:49*	*1*
M2-8:2 FTS	*114*		*50 - 200*	*05/03/24 12:04*	*05/03/24 17:49*	*1*
13C3 HFPO-DA	*94.2*		*25 - 160*	*05/03/24 12:04*	*05/03/24 17:49*	*1*
d7-N-MeFOSE-M	*95.3*		*10 - 150*	*05/03/24 12:04*	*05/03/24 17:49*	*1*
d9-N-EtFOSE-M	*92.3*		*10 - 150*	*05/03/24 12:04*	*05/03/24 17:49*	*1*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 240-611819/1-A
Matrix: Water
Analysis Batch: 611854

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 611819

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtPFOSA	80.1		10 - 130	05/03/24 12:04	05/03/24 17:49	1
d3-NMePFOSA	81.9		15 - 130	05/03/24 12:04	05/03/24 17:49	1
13C2-PFDoDA	81.8		10 - 150	05/03/24 12:04	05/03/24 17:49	1

Lab Sample ID: LCS 240-611819/3-A
Matrix: Water
Analysis Batch: 611854

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 611819

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	100	105		ng/L		105	58 - 148
Perfluoropentanoic acid (PFPeA)	50.0	49.5		ng/L		99	54 - 152
Perfluorohexanoic acid (PFHxA)	25.0	25.4		ng/L		102	55 - 152
Perfluoroheptanoic acid (PFHpA)	25.0	24.8		ng/L		99	54 - 154
Perfluorooctanoic acid (PFOA)	25.0	26.5		ng/L		106	52 - 161
Perfluorononanoic acid (PFNA)	25.0	27.6		ng/L		110	59 - 149
Perfluorodecanoic acid (PFDA)	25.0	21.0		ng/L		84	52 - 147
Perfluoroundecanoic acid (PFUnA)	25.0	24.6		ng/L		98	48 - 159
Perfluorododecanoic acid (PFDoA)	25.0	27.2		ng/L		109	64 - 142
Perfluorotridecanoic acid (PFTrDA)	25.0	27.2		ng/L		109	49 - 148
Perfluorotetradecanoic acid (PFTeDA)	25.0	27.0		ng/L		108	47 - 161
Perfluorobutanesulfonic acid (PFBS)	22.1	21.6		ng/L		98	62 - 144
Perfluoropentanesulfonic acid (PFPeS)	23.5	22.0		ng/L		94	59 - 151
Perfluorohexanesulfonic acid (PFHxS)	22.8	21.4		ng/L		94	57 - 146
Perfluoroheptanesulfonic acid (PFHpS)	23.8	26.2		ng/L		110	55 - 152
Perfluorooctanesulfonic acid (PFOS)	23.2	25.0		ng/L		108	58 - 149
Perfluorononanesulfonic acid (PFNS)	24.0	28.0		ng/L		117	52 - 148
Perfluorododecanesulfonic acid (PFDoS)	24.2	25.1		ng/L		104	36 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	93.4	97.1		ng/L		104	67 - 146
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	94.8	81.4		ng/L		86	61 - 151
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	95.8	94.5		ng/L		99	63 - 152
Perfluorooctanesulfonamide (PFOSA)	25.0	25.0		ng/L		100	61 - 148
N-methylperfluorooctane sulfonamide (NMeFOSA)	25.0	28.2		ng/L		113	63 - 145
N-ethylperfluorooctane sulfonamide (NEtFOSA)	25.0	25.4		ng/L		102	65 - 139
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	25.0	25.0		ng/L		100	58 - 144
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	25.0	26.6		ng/L		106	59 - 146

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 240-611819/3-A
Matrix: Water
Analysis Batch: 611854

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 611819

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	250	251		ng/L		100	71 - 136
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	250	251		ng/L		100	69 - 137
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	100	107		ng/L		107	63 - 144
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	94.2	98.0		ng/L		104	68 - 146
Perfluoro-4-methoxybutanoic acid (PFMBA)	50.0	49.1		ng/L		98	55 - 148
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	50.0	51.5		ng/L		103	48 - 161
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	93.2	94.7		ng/L		102	56 - 156
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	94.2	102		ng/L		108	46 - 156
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	44.5	46.0		ng/L		103	56 - 151
3-Perfluoropropylpropanoic acid (3:3 FTCA)	125	124		ng/L		99	62 - 129
3-Perfluoropentylpropanoic acid (5:3 FTCA)	625	639		ng/L		102	63 - 134
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	625	653		ng/L		104	50 - 138
Perfluorodecanesulfonic acid (PFDS)	24.1	28.7		ng/L		119	51 - 147
Perfluoro-3-methoxypropanoic acid (PFMPA)	50.0	50.3		ng/L		101	51 - 145

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*94.9*		*10 - 130*
13C5 PFPeA	*96.0*		*40 - 150*
13C5 PFHxA	*93.3*		*40 - 150*
13C4 PFHpA	*93.2*		*40 - 150*
13C8 PFOA	*92.6*		*30 - 140*
13C9 PFNA	*92.8*		*30 - 140*
13C6 PFDA	*108*		*20 - 140*
13C7 PFUnA	*89.7*		*20 - 140*
13C2 PFTeDA	*75.5*		*10 - 130*
13C3 PFBS	*98.2*		*25 - 150*
13C3 PFHxS	*99.2*		*25 - 150*
13C8 PFOS	*85.4*		*20 - 140*
13C8 FOSA	*97.3*		*10 - 130*
d3-NMeFOSAA	*101*		*10 - 200*
d5-NEtFOSAA	*95.4*		*10 - 200*
M2-4:2 FTS	*86.6*		*25 - 200*
M2-6:2 FTS	*91.0*		*25 - 200*
M2-8:2 FTS	*146*		*25 - 200*
13C3 HFPO-DA	*95.6*		*25 - 160*
d7-N-MeFOSE-M	*91.5*		*10 - 150*
d9-N-EtFOSE-M	*89.4*		*10 - 150*
d5-NEtPFOSA	*75.9*		*10 - 130*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 240-611819/3-A
Matrix: Water
Analysis Batch: 611854

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 611819

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
d3-NMePFOSA	*75.3*		*10 - 130*
13C2-PFDoDA	*80.5*		*10 - 150*

Lab Sample ID: LLCS 240-611819/2-A
Matrix: Water
Analysis Batch: 611854

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 611819

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	8.00	8.83		ng/L		110	44 - 157
Perfluoropentanoic acid (PFPeA)	4.00	4.20		ng/L		105	57 - 148
Perfluorohexanoic acid (PFHxA)	2.00	2.43		ng/L		122	62 - 149
Perfluoroheptanoic acid (PFHpA)	2.00	2.09		ng/L		105	56 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.41		ng/L		121	57 - 161
Perfluorononanoic acid (PFNA)	2.00	2.25		ng/L		112	53 - 157
Perfluorodecanoic acid (PFDA)	2.00	1.88	J	ng/L		94	43 - 158
Perfluoroundecanoic acid (PFUnA)	2.00	2.15		ng/L		108	50 - 155
Perfluorododecanoic acid (PFDoA)	2.00	2.26		ng/L		113	60 - 141
Perfluorotridecanoic acid (PFTrDA)	2.00	2.39		ng/L		119	52 - 140
Perfluorotetradecanoic acid (PFTeDA)	2.00	2.36		ng/L		118	52 - 156
Perfluorobutanesulfonic acid (PFBS)	1.77	1.74	J	ng/L		99	63 - 145
Perfluoropentanesulfonic acid (PFPeS)	1.88	1.94	J	ng/L		103	58 - 144
Perfluorohexanesulfonic acid (PFHxS)	1.82	1.78	J	ng/L		98	44 - 158
Perfluoroheptanesulfonic acid (PFHpS)	1.90	2.33		ng/L		122	51 - 150
Perfluorooctanesulfonic acid (PFOS)	1.86	2.27		ng/L		122	43 - 162
Perfluorononanesulfonic acid (PFNS)	1.92	2.35		ng/L		122	46 - 151
Perfluorododecanesulfonic acid (PFDoS)	1.94	2.14		ng/L		110	30 - 138
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.47	7.23	J	ng/L		97	52 - 158
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.58	8.29		ng/L		109	48 - 158
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.66	8.08		ng/L		105	46 - 165
Perfluorooctanesulfonamide (PFOSA)	2.00	2.13		ng/L		107	47 - 163
N-methylperfluorooctane sulfonamide (NMeFOSA)	2.00	2.37		ng/L		119	54 - 155
N-ethylperfluorooctane sulfonamide (NEtFOSA)	2.00	2.16		ng/L		108	49 - 156
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	1.95	J	ng/L		98	32 - 160
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	2.19		ng/L		109	51 - 154

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 240-611819/2-A
Matrix: Water
Analysis Batch: 611854

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 611819

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	21.3		ng/L		107	56 - 151
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	21.1		ng/L		105	60 - 147
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	8.00	8.68		ng/L		109	58 - 154
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	7.54	7.79	J	ng/L		103	61 - 148
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.00	4.19		ng/L		105	49 - 154
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.00	4.51		ng/L		113	47 - 160
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	7.46	7.88	J	ng/L		106	44 - 167
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	7.54	7.99	J	ng/L		106	36 - 158
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.56	3.86	J	ng/L		108	56 - 144
3-Perfluoropropylpropanoic acid (3:3 FTCA)	10.0	10.6		ng/L		106	32 - 161
3-Perfluoropentylpropanoic acid (5:3 FTCA)	50.0	55.2		ng/L		110	39 - 156
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	50.0	52.8		ng/L		106	36 - 149
Perfluorodecanesulfonic acid (PFDS)	1.93	2.37		ng/L		123	50 - 144
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	4.28		ng/L		107	48 - 150

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*93.4*		*10 - 130*
13C5 PFPeA	*98.2*		*40 - 150*
13C5 PFHxA	*92.7*		*40 - 150*
13C4 PFHpA	*94.7*		*40 - 150*
13C8 PFOA	*90.1*		*30 - 140*
13C9 PFNA	*99.0*		*30 - 140*
13C6 PFDA	*107*		*20 - 140*
13C7 PFUnA	*89.5*		*20 - 140*
13C2 PFTeDA	*79.8*		*10 - 130*
13C3 PFBS	*100*		*25 - 150*
13C3 PFHxS	*99.4*		*25 - 150*
13C8 PFOS	*89.3*		*20 - 140*
13C8 FOSA	*104*		*10 - 130*
d3-NMeFOSAA	*113*		*10 - 200*
d5-NEtFOSAA	*101*		*10 - 200*
M2-4:2 FTS	*99.8*		*25 - 200*
M2-6:2 FTS	*92.1*		*25 - 200*
M2-8:2 FTS	*121*		*25 - 200*
13C3 HFPO-DA	*102*		*25 - 160*
d7-N-MeFOSE-M	*95.5*		*10 - 150*
d9-N-EtFOSE-M	*93.3*		*10 - 150*
d5-NEtPFOSA	*78.6*		*10 - 130*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 240-611819/2-A
Matrix: Water
Analysis Batch: 611854

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 611819

Isotope Dilution	LLCS %Recovery	LLCS Qualifier	Limits
d3-NMePFOSA	78.1		10 - 130
13C2-PFDoDA	82.5		10 - 150

Lab Sample ID: 480-219368-6 DU
Matrix: Water
Analysis Batch: 611854

Client Sample ID: RB-043024
Prep Type: Total/NA
Prep Batch: 611819

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	ND			ND		ng/L				NC	30
Perfluoropentanoic acid (PFPeA)	ND			ND		ng/L				NC	30
Perfluorohexanoic acid (PFHxA)	ND			ND		ng/L				NC	30
Perfluoroheptanoic acid (PFHpA)	ND			ND		ng/L				NC	30
Perfluorooctanoic acid (PFOA)	ND			ND		ng/L				NC	30
Perfluorononanoic acid (PFNA)	ND			ND		ng/L				NC	30
Perfluorodecanoic acid (PFDA)	ND			ND		ng/L				NC	30
Perfluoroundecanoic acid (PFUnA)	ND			ND		ng/L				NC	30
Perfluorododecanoic acid (PFDoA)	ND			ND		ng/L				NC	30
Perfluorotridecanoic acid (PFTrDA)	ND			ND		ng/L				NC	30
Perfluorotetradecanoic acid (PFTeDA)	ND			ND		ng/L				NC	30
Perfluorobutanesulfonic acid (PFBS)	ND			ND		ng/L				NC	30
Perfluoropentanesulfonic acid (PFPeS)	ND			ND		ng/L				NC	30
Perfluorohexanesulfonic acid (PFHxS)	ND			ND		ng/L				NC	30
Perfluoroheptanesulfonic acid (PFHpS)	ND			ND		ng/L				NC	30
Perfluorooctanesulfonic acid (PFOS)	ND			ND		ng/L				NC	30
Perfluorononanesulfonic acid (PFNS)	ND			ND		ng/L				NC	30
Perfluorododecanesulfonic acid (PFDoS)	ND			ND		ng/L				NC	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND			ND		ng/L				NC	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND			ND		ng/L				NC	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND			ND		ng/L				NC	30
Perfluorooctanesulfonamide (PFOSA)	ND			ND		ng/L				NC	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND			ND		ng/L				NC	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND			ND		ng/L				NC	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND			ND		ng/L				NC	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND			ND		ng/L				NC	30

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: 480-219368-6 DU
Matrix: Water
Analysis Batch: 611854

Client Sample ID: RB-043024
Prep Type: Total/NA
Prep Batch: 611819

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND			ND		ng/L				NC	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND			ND		ng/L				NC	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND			ND		ng/L				NC	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND			ND		ng/L				NC	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND			ND		ng/L				NC	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND			ND		ng/L				NC	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND			ND		ng/L				NC	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND			ND		ng/L				NC	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND			ND		ng/L				NC	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND			ND		ng/L				NC	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND			ND		ng/L				NC	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND			ND		ng/L				NC	30
Perfluorodecanesulfonic acid (PFDS)	ND			ND		ng/L				NC	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND			ND		ng/L				NC	30

Isotope Dilution	*DU %Recovery*	*DU Qualifier*	*Limits*
13C4 PFBA	*93.1*		*10 - 130*
13C5 PFPeA	*96.8*		*35 - 150*
13C5 PFHxA	*92.1*		*55 - 150*
13C4 PFHpA	*95.4*		*55 - 150*
13C8 PFOA	*90.6*		*60 - 140*
13C9 PFNA	*90.8*		*55 - 140*
13C6 PFDA	*110*		*50 - 140*
13C7 PFUnA	*91.2*		*30 - 140*
13C2 PFTeDA	*71.2*		*10 - 130*
13C3 PFBS	*102*		*55 - 150*
13C3 PFHxS	*94.8*		*55 - 150*
13C8 PFOS	*85.8*		*45 - 140*
13C8 FOSA	*86.7*		*30 - 130*
d3-NMeFOSAA	*108*		*45 - 200*
d5-NEtFOSAA	*93.1*		*10 - 200*
M2-4:2 FTS	*95.5*		*60 - 200*
M2-6:2 FTS	*84.1*		*60 - 200*
M2-8:2 FTS	*158*		*50 - 200*
13C3 HFPO-DA	*95.1*		*25 - 160*
d7-N-MeFOSE-M	*86.8*		*10 - 150*
d9-N-EtFOSE-M	*82.1*		*10 - 150*
d5-NEtPFOSA	*76.7*		*10 - 130*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: 480-219368-6 DU
Matrix: Water
Analysis Batch: 611854

Client Sample ID: RB-043024
Prep Type: Total/NA
Prep Batch: 611819

Isotope Dilution	DU %Recovery	DU Qualifier	Limits
d3-NMePFOSA	75.9		15 - 130
13C2-PFDoDA	82.2		10 - 150

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-611815/1-A
Matrix: Water
Analysis Batch: 612073

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 611815

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	47.3	ug/L		05/04/24 10:00	05/06/24 18:31	1
Antimony	ND		20.0	7.5	ug/L		05/04/24 10:00	05/06/24 18:31	1
Arsenic	ND		15.0	4.1	ug/L		05/04/24 10:00	05/06/24 18:31	1
Barium	ND		200	3.0	ug/L		05/04/24 10:00	05/06/24 18:31	1
Beryllium	ND		5.0	0.60	ug/L		05/04/24 10:00	05/06/24 18:31	1
Cadmium	ND		5.0	0.45	ug/L		05/04/24 10:00	05/06/24 18:31	1
Calcium	ND		5000	307	ug/L		05/04/24 10:00	05/06/24 18:31	1
Chromium	ND		10.0	0.76	ug/L		05/04/24 10:00	05/06/24 18:31	1
Cobalt	ND		10.0	0.75	ug/L		05/04/24 10:00	05/06/24 18:31	1
Copper	ND		25.0	3.5	ug/L		05/04/24 10:00	05/06/24 18:31	1
Iron	ND		200	82.7	ug/L		05/04/24 10:00	05/06/24 18:31	1
Lead	ND		10.0	2.8	ug/L		05/04/24 10:00	05/06/24 18:31	1
Magnesium	ND		5000	259	ug/L		05/04/24 10:00	05/06/24 18:31	1
Manganese	ND		15.0	2.6	ug/L		05/04/24 10:00	05/06/24 18:31	1
Nickel	ND		40.0	2.2	ug/L		05/04/24 10:00	05/06/24 18:31	1
Potassium	ND		5000	557	ug/L		05/04/24 10:00	05/06/24 18:31	1
Selenium	ND		20.0	6.0	ug/L		05/04/24 10:00	05/06/24 18:31	1
Silver	ND		10.0	0.62	ug/L		05/04/24 10:00	05/06/24 18:31	1
Sodium	ND		5000	2110	ug/L		05/04/24 10:00	05/06/24 18:31	1
Thallium	ND		20.0	2.7	ug/L		05/04/24 10:00	05/06/24 18:31	1
Vanadium	ND		50.0	5.6	ug/L		05/04/24 10:00	05/06/24 18:31	1
Zinc	ND		50.0	22.5	ug/L		05/04/24 10:00	05/06/24 18:31	1

Lab Sample ID: LCS 240-611815/2-A
Matrix: Water
Analysis Batch: 612073

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 611815

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	10000	9575		ug/L		96	80 - 120
Antimony	1000	1011		ug/L		101	80 - 120
Arsenic	2000	2037		ug/L		102	80 - 120
Barium	2000	1865		ug/L		93	80 - 120
Beryllium	1000	982.0		ug/L		98	80 - 120
Cadmium	1000	992.1		ug/L		99	80 - 120
Calcium	50000	48200		ug/L		96	80 - 120
Chromium	1000	917.1		ug/L		92	80 - 120
Cobalt	1000	980.5		ug/L		98	80 - 120
Copper	1000	919.4		ug/L		92	80 - 120
Iron	10000	9739		ug/L		97	80 - 120

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCS 240-611815/2-A
Matrix: Water
Analysis Batch: 612073

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 611815

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	1000	960.6		ug/L		96	80 - 120
Magnesium	50000	49030		ug/L		98	80 - 120
Manganese	1000	929.1		ug/L		93	80 - 120
Nickel	1000	994.7		ug/L		99	80 - 120
Potassium	50000	49880		ug/L		100	80 - 120
Selenium	2000	2158		ug/L		108	80 - 120
Silver	100	91.18		ug/L		91	80 - 120
Sodium	50000	49690		ug/L		99	80 - 120
Thallium	2000	1984		ug/L		99	80 - 120
Vanadium	1000	954.4		ug/L		95	80 - 120
Zinc	1000	1009		ug/L		101	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-711124/1-A
Matrix: Water
Analysis Batch: 711203

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 711124

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/08/24 10:01	05/08/24 14:42	1

Lab Sample ID: LCS 480-711124/2-A
Matrix: Water
Analysis Batch: 711203

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 711124

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00669	0.00678		mg/L		101	80 - 120

Lab Sample ID: MB 480-711281/1-A
Matrix: Water
Analysis Batch: 711469

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 711281

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		05/09/24 10:31	05/09/24 16:46	1

Lab Sample ID: LCS 480-711281/2-A
Matrix: Water
Analysis Batch: 711469

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 711281

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00669	0.00683		mg/L		102	80 - 120

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 480-710579/47
Matrix: Water
Analysis Batch: 710579

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0297	^1+	0.010	0.0041	mg/L			05/02/24 23:45	1

Method: 9012B - Cyanide, Total and/or Amenable (Continued)

Lab Sample ID: MB 480-710579/75
Matrix: Water
Analysis Batch: 710579

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0298	^1+	0.010	0.0041	mg/L			05/03/24 00:59	1

Lab Sample ID: HLCS 480-710579/22
Matrix: Water
Analysis Batch: 710579

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.400	0.441	^1+ ^+	mg/L		110	90 - 110

Lab Sample ID: LCS 480-710579/48
Matrix: Water
Analysis Batch: 710579

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.250	0.273	^1+	mg/L		109	90 - 110

Lab Sample ID: LCS 480-710579/76
Matrix: Water
Analysis Batch: 710579

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.250	0.269	^1+	mg/L		107	90 - 110

Lab Sample ID: 480-219368-6 MS
Matrix: Water
Analysis Batch: 710579

Client Sample ID: RB-043024
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	ND	^1+ F1	0.100	0.0531	F1 ^1+	mg/L		53	90 - 110

Lab Sample ID: MB 480-711260/46
Matrix: Water
Analysis Batch: 711260

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.00930	J	0.010	0.0041	mg/L			05/08/24 19:52	1

Lab Sample ID: MB 480-711260/74
Matrix: Water
Analysis Batch: 711260

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.00990	J	0.010	0.0041	mg/L			05/08/24 21:08	1

Lab Sample ID: HLCS 480-711260/22
Matrix: Water
Analysis Batch: 711260

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.400	0.404		mg/L		101	90 - 110

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: LCS 480-711260/23
Matrix: Water
Analysis Batch: 711260

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.250	0.234		mg/L		94	90 - 110

Lab Sample ID: LCS 480-711260/47
Matrix: Water
Analysis Batch: 711260

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.250	0.258		mg/L		103	90 - 110

Lab Sample ID: LCS 480-711260/75
Matrix: Water
Analysis Batch: 711260

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.250	0.250		mg/L		100	90 - 110

Lab Sample ID: 480-219368-6 MS
Matrix: Water
Analysis Batch: 710579

Client Sample ID: RB-043024
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	ND	^1+ F1	0.100	0.0621	F1 ^1+	mg/L		62	90 - 110

Lab Sample ID: 480-219368-6 DU
Matrix: Water
Analysis Batch: 710579

Client Sample ID: RB-043024
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cyanide, Total	ND	^1+ F1	ND	^1+	mg/L		NC	15

GC/MS VOA

Analysis Batch: 710309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219368-3	TB-043024	Total/NA	Water	8260C	
480-219368-4	MW-04D-043024	Total/NA	Water	8260C	
MB 480-710309/32	Method Blank	Total/NA	Water	8260C	
LCS 480-710309/6	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-710309/31	Lab Control Sample Dup	Total/NA	Water	8260C	

Analysis Batch: 710397

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219368-5	MW-02D-043024	Total/NA	Water	8260C	
480-219368-6	RB-043024	Total/NA	Water	8260C	
MB 480-710397/8	Method Blank	Total/NA	Water	8260C	
LCS 480-710397/6	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 710791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219368-1	MW05-02-043024	Total/NA	Water	8260C	
480-219368-2	MW-04S-043024	Total/NA	Water	8260C	
MB 480-710791/8	Method Blank	Total/NA	Water	8260C	
LCS 480-710791/6	Lab Control Sample	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 710206

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219368-5	MW-02D-043024	Total/NA	Water	3510C	
480-219368-6	RB-043024	Total/NA	Water	3510C	
MB 480-710206/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-710206/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-710206/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 710487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219368-5	MW-02D-043024	Total/NA	Water	8270D SIM ID	710206
480-219368-6	RB-043024	Total/NA	Water	8270D SIM ID	710206
MB 480-710206/1-A	Method Blank	Total/NA	Water	8270D SIM ID	710206
LCS 480-710206/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	710206
LCSD 480-710206/3-A	Lab Control Sample Dup	Total/NA	Water	8270D SIM ID	710206

Prep Batch: 710923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219368-1	MW05-02-043024	Total/NA	Water	3510C	
480-219368-2	MW-04S-043024	Total/NA	Water	3510C	
480-219368-4	MW-04D-043024	Total/NA	Water	3510C	
480-219368-5	MW-02D-043024	Total/NA	Water	3510C	
480-219368-6	RB-043024	Total/NA	Water	3510C	

Analysis Batch: 711112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219368-1	MW05-02-043024	Total/NA	Water	8270D	710923
480-219368-2	MW-04S-043024	Total/NA	Water	8270D	710923
480-219368-4	MW-04D-043024	Total/NA	Water	8270D	710923

GC/MS Semi VOA (Continued)

Analysis Batch: 711112 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219368-5	MW-02D-043024	Total/NA	Water	8270D	710923
480-219368-6	RB-043024	Total/NA	Water	8270D	710923

GC Semi VOA

Prep Batch: 612128

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219368-1	MW05-02-043024	Total/NA	Water	3510C	
480-219368-2	MW-04S-043024	Total/NA	Water	3510C	
480-219368-4	MW-04D-043024	Total/NA	Water	3510C	
480-219368-5	MW-02D-043024	Total/NA	Water	3510C	
480-219368-6	RB-043024	Total/NA	Water	3510C	
MB 240-612128/1-A	Method Blank	Total/NA	Water	3510C	
LCS 240-612128/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 612262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219368-1	MW05-02-043024	Total/NA	Water	8081B	612128
480-219368-2	MW-04S-043024	Total/NA	Water	8081B	612128
480-219368-4	MW-04D-043024	Total/NA	Water	8081B	612128
480-219368-5	MW-02D-043024	Total/NA	Water	8081B	612128
480-219368-6	RB-043024	Total/NA	Water	8081B	612128
MB 240-612128/1-A	Method Blank	Total/NA	Water	8081B	612128
LCS 240-612128/2-A	Lab Control Sample	Total/NA	Water	8081B	612128

Prep Batch: 710200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219368-1	MW05-02-043024	Total/NA	Water	3510C	
480-219368-2	MW-04S-043024	Total/NA	Water	3510C	
480-219368-4	MW-04D-043024	Total/NA	Water	3510C	
480-219368-5	MW-02D-043024	Total/NA	Water	3510C	
480-219368-6	RB-043024	Total/NA	Water	3510C	
MB 480-710200/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-710200/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 710413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219368-1	MW05-02-043024	Total/NA	Water	8082A	710200
480-219368-2	MW-04S-043024	Total/NA	Water	8082A	710200
480-219368-4	MW-04D-043024	Total/NA	Water	8082A	710200
480-219368-5	MW-02D-043024	Total/NA	Water	8082A	710200
480-219368-6	RB-043024	Total/NA	Water	8082A	710200
MB 480-710200/1-A	Method Blank	Total/NA	Water	8082A	710200
LCS 480-710200/2-A	Lab Control Sample	Total/NA	Water	8082A	710200

LCMS

Prep Batch: 611819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219368-5	MW-02D-043024	Total/NA	Water	1633	
480-219368-6	RB-043024	Total/NA	Water	1633	
MB 240-611819/1-A	Method Blank	Total/NA	Water	1633	

LCMS (Continued)

Prep Batch: 611819 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-611819/3-A	Lab Control Sample	Total/NA	Water	1633	
LLCS 240-611819/2-A	Lab Control Sample	Total/NA	Water	1633	
480-219368-6 DU	RB-043024	Total/NA	Water	1633	

Analysis Batch: 611854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219368-5	MW-02D-043024	Total/NA	Water	1633	611819
480-219368-6	RB-043024	Total/NA	Water	1633	611819
MB 240-611819/1-A	Method Blank	Total/NA	Water	1633	611819
LCS 240-611819/3-A	Lab Control Sample	Total/NA	Water	1633	611819
LLCS 240-611819/2-A	Lab Control Sample	Total/NA	Water	1633	611819
480-219368-6 DU	RB-043024	Total/NA	Water	1633	611819

Metals

Prep Batch: 611815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219368-1	MW05-02-043024	Dissolved	Water	3005A	
480-219368-1	MW05-02-043024	Total Recoverable	Water	3005A	
480-219368-2	MW-04S-043024	Dissolved	Water	3005A	
480-219368-2	MW-04S-043024	Total Recoverable	Water	3005A	
480-219368-4	MW-04D-043024	Dissolved	Water	3005A	
480-219368-4	MW-04D-043024	Total Recoverable	Water	3005A	
480-219368-5	MW-02D-043024	Dissolved	Water	3005A	
480-219368-5	MW-02D-043024	Total Recoverable	Water	3005A	
480-219368-6	RB-043024	Dissolved	Water	3005A	
480-219368-6	RB-043024	Total Recoverable	Water	3005A	
MB 240-611815/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-611815/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 612073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219368-1	MW05-02-043024	Dissolved	Water	6010D	611815
480-219368-1	MW05-02-043024	Total Recoverable	Water	6010D	611815
480-219368-2	MW-04S-043024	Dissolved	Water	6010D	611815
480-219368-2	MW-04S-043024	Total Recoverable	Water	6010D	611815
480-219368-4	MW-04D-043024	Dissolved	Water	6010D	611815
480-219368-4	MW-04D-043024	Total Recoverable	Water	6010D	611815
480-219368-5	MW-02D-043024	Dissolved	Water	6010D	611815
480-219368-5	MW-02D-043024	Total Recoverable	Water	6010D	611815
480-219368-6	RB-043024	Dissolved	Water	6010D	611815
480-219368-6	RB-043024	Total Recoverable	Water	6010D	611815
MB 240-611815/1-A	Method Blank	Total Recoverable	Water	6010D	611815
LCS 240-611815/2-A	Lab Control Sample	Total Recoverable	Water	6010D	611815

Prep Batch: 711124

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219368-1	MW05-02-043024	Total/NA	Water	7470A	
480-219368-2	MW-04S-043024	Total/NA	Water	7470A	
480-219368-4	MW-04D-043024	Total/NA	Water	7470A	
480-219368-5	MW-02D-043024	Total/NA	Water	7470A	

Metals (Continued)

Prep Batch: 711124 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219368-6	RB-043024	Total/NA	Water	7470A	
MB 480-711124/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-711124/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 711203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219368-1	MW05-02-043024	Total/NA	Water	7470A	711124
480-219368-2	MW-04S-043024	Total/NA	Water	7470A	711124
480-219368-4	MW-04D-043024	Total/NA	Water	7470A	711124
480-219368-5	MW-02D-043024	Total/NA	Water	7470A	711124
480-219368-6	RB-043024	Total/NA	Water	7470A	711124
MB 480-711124/1-A	Method Blank	Total/NA	Water	7470A	711124
LCS 480-711124/2-A	Lab Control Sample	Total/NA	Water	7470A	711124

Prep Batch: 711281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219368-1	MW05-02-043024	Dissolved	Water	7470A	
480-219368-2	MW-04S-043024	Dissolved	Water	7470A	
480-219368-4	MW-04D-043024	Dissolved	Water	7470A	
480-219368-5	MW-02D-043024	Dissolved	Water	7470A	
480-219368-6	RB-043024	Dissolved	Water	7470A	
MB 480-711281/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-711281/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 711469

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219368-1	MW05-02-043024	Dissolved	Water	7470A	711281
480-219368-2	MW-04S-043024	Dissolved	Water	7470A	711281
480-219368-4	MW-04D-043024	Dissolved	Water	7470A	711281
480-219368-5	MW-02D-043024	Dissolved	Water	7470A	711281
480-219368-6	RB-043024	Dissolved	Water	7470A	711281
MB 480-711281/1-A	Method Blank	Total/NA	Water	7470A	711281
LCS 480-711281/2-A	Lab Control Sample	Total/NA	Water	7470A	711281

General Chemistry

Analysis Batch: 710579

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219368-1	MW05-02-043024	Total/NA	Water	9012B	
480-219368-2	MW-04S-043024	Dissolved	Water	9012B	
480-219368-2	MW-04S-043024	Total/NA	Water	9012B	
480-219368-4	MW-04D-043024	Dissolved	Water	9012B	
480-219368-4	MW-04D-043024	Total/NA	Water	9012B	
480-219368-5	MW-02D-043024	Dissolved	Water	9012B	
480-219368-5	MW-02D-043024	Total/NA	Water	9012B	
480-219368-6	RB-043024	Dissolved	Water	9012B	
480-219368-6	RB-043024	Total/NA	Water	9012B	
MB 480-710579/47	Method Blank	Total/NA	Water	9012B	
MB 480-710579/75	Method Blank	Total/NA	Water	9012B	
HLCS 480-710579/22	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-710579/48	Lab Control Sample	Total/NA	Water	9012B	

General Chemistry (Continued)

Analysis Batch: 710579 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-710579/76	Lab Control Sample	Total/NA	Water	9012B	
480-219368-6 MS	RB-043024	Dissolved	Water	9012B	
480-219368-6 MS	RB-043024	Total/NA	Water	9012B	
480-219368-6 DU	RB-043024	Dissolved	Water	9012B	

Analysis Batch: 711260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-219368-1	MW05-02-043024	Dissolved	Water	9012B	
MB 480-711260/46	Method Blank	Total/NA	Water	9012B	
MB 480-711260/74	Method Blank	Total/NA	Water	9012B	
HLCS 480-711260/22	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-711260/23	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-711260/47	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-711260/75	Lab Control Sample	Total/NA	Water	9012B	

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219368-1

Client Sample ID: MW05-02-043024

Lab Sample ID: 480-219368-1

Date Collected: 04/30/24 09:05

Matrix: Water

Date Received: 04/30/24 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	710791	AXK	EET BUF	05/06/24 14:27
Total/NA	Prep	3510C			710923	JMP	EET BUF	05/07/24 09:20
Total/NA	Analysis	8270D		1	711112	EMD	EET BUF	05/09/24 06:54
Total/NA	Prep	3510C			612128	LK2	EET CLE	05/07/24 08:43
Total/NA	Analysis	8081B		1	612262	RR	EET CLE	05/08/24 18:52
Total/NA	Prep	3510C			710200	LSC	EET BUF	05/01/24 13:50
Total/NA	Analysis	8082A		1	710413	DSC	EET BUF	05/03/24 01:02
Dissolved	Prep	3005A			611815	S4FJ	EET CLE	05/04/24 10:00
Dissolved	Analysis	6010D		1	612073	RKT	EET CLE	05/06/24 19:39
Total Recoverable	Prep	3005A			611815	S4FJ	EET CLE	05/04/24 10:00
Total Recoverable	Analysis	6010D		1	612073	RKT	EET CLE	05/06/24 19:35
Dissolved	Prep	7470A			711281	ESB	EET BUF	05/09/24 10:31
Dissolved	Analysis	7470A		1	711469	BMB	EET BUF	05/09/24 17:13
Total/NA	Prep	7470A			711124	ESB	EET BUF	05/08/24 10:01
Total/NA	Analysis	7470A		1	711203	ESB	EET BUF	05/08/24 14:49
Dissolved	Analysis	9012B		1	711260	GW	EET BUF	05/08/24 19:34
Total/NA	Analysis	9012B		1	710579	GW	EET BUF	05/03/24 00:37

Client Sample ID: MW-04S-043024

Lab Sample ID: 480-219368-2

Date Collected: 04/30/24 10:35

Matrix: Water

Date Received: 04/30/24 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	710791	AXK	EET BUF	05/06/24 14:49
Total/NA	Prep	3510C			710923	JMP	EET BUF	05/07/24 09:20
Total/NA	Analysis	8270D		1	711112	EMD	EET BUF	05/09/24 07:22
Total/NA	Prep	3510C			612128	LK2	EET CLE	05/07/24 08:43
Total/NA	Analysis	8081B		1	612262	RR	EET CLE	05/08/24 19:07
Total/NA	Prep	3510C			710200	LSC	EET BUF	05/01/24 13:50
Total/NA	Analysis	8082A		1	710413	DSC	EET BUF	05/03/24 01:19
Dissolved	Prep	3005A			611815	S4FJ	EET CLE	05/04/24 10:00
Dissolved	Analysis	6010D		1	612073	RKT	EET CLE	05/06/24 19:48
Total Recoverable	Prep	3005A			611815	S4FJ	EET CLE	05/04/24 10:00
Total Recoverable	Analysis	6010D		1	612073	RKT	EET CLE	05/06/24 19:43
Dissolved	Prep	7470A			711281	ESB	EET BUF	05/09/24 10:31
Dissolved	Analysis	7470A		1	711469	BMB	EET BUF	05/09/24 17:14
Total/NA	Prep	7470A			711124	ESB	EET BUF	05/08/24 10:01
Total/NA	Analysis	7470A		1	711203	ESB	EET BUF	05/08/24 14:51
Dissolved	Analysis	9012B		1	710579	GW	EET BUF	05/03/24 01:12
Total/NA	Analysis	9012B		1	710579	GW	EET BUF	05/03/24 00:40

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219368-1

Client Sample ID: TB-043024

Lab Sample ID: 480-219368-3

Date Collected: 04/30/24 00:00

Matrix: Water

Date Received: 04/30/24 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	710309	CC	EET BUF	05/02/24 21:34

Client Sample ID: MW-04D-043024

Lab Sample ID: 480-219368-4

Date Collected: 04/30/24 11:35

Matrix: Water

Date Received: 04/30/24 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	710309	CC	EET BUF	05/02/24 21:56
Total/NA	Prep	3510C			710923	JMP	EET BUF	05/07/24 09:20
Total/NA	Analysis	8270D		1	711112	EMD	EET BUF	05/09/24 07:51
Total/NA	Prep	3510C			612128	LK2	EET CLE	05/07/24 08:43
Total/NA	Analysis	8081B		1	612262	RR	EET CLE	05/08/24 19:23
Total/NA	Prep	3510C			710200	LSC	EET BUF	05/01/24 13:50
Total/NA	Analysis	8082A		1	710413	DSC	EET BUF	05/03/24 01:37
Dissolved	Prep	3005A			611815	S4FJ	EET CLE	05/04/24 10:00
Dissolved	Analysis	6010D		1	612073	RKT	EET CLE	05/06/24 20:04
Total Recoverable	Prep	3005A			611815	S4FJ	EET CLE	05/04/24 10:00
Total Recoverable	Analysis	6010D		1	612073	RKT	EET CLE	05/06/24 20:00
Dissolved	Prep	7470A			711281	ESB	EET BUF	05/09/24 10:31
Dissolved	Analysis	7470A		1	711469	BMB	EET BUF	05/09/24 17:16
Total/NA	Prep	7470A			711124	ESB	EET BUF	05/08/24 10:01
Total/NA	Analysis	7470A		1	711203	ESB	EET BUF	05/08/24 14:52
Dissolved	Analysis	9012B		1	710579	GW	EET BUF	05/03/24 01:14
Total/NA	Analysis	9012B		1	710579	GW	EET BUF	05/03/24 00:42

Client Sample ID: MW-02D-043024

Lab Sample ID: 480-219368-5

Date Collected: 04/30/24 13:00

Matrix: Water

Date Received: 04/30/24 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	710397	ERS	EET BUF	05/03/24 04:16
Total/NA	Prep	3510C			710923	JMP	EET BUF	05/07/24 09:20
Total/NA	Analysis	8270D		1	711112	EMD	EET BUF	05/09/24 08:19
Total/NA	Prep	3510C			710206	LSC	EET BUF	05/01/24 14:00
Total/NA	Analysis	8270D SIM ID		1	710487	JMM	EET BUF	05/03/24 12:54
Total/NA	Prep	3510C			612128	LK2	EET CLE	05/07/24 08:43
Total/NA	Analysis	8081B		1	612262	RR	EET CLE	05/08/24 19:38
Total/NA	Prep	3510C			710200	LSC	EET BUF	05/01/24 13:50
Total/NA	Analysis	8082A		1	710413	DSC	EET BUF	05/03/24 01:55
Total/NA	Prep	1633			611819	WJW	EET CLE	05/03/24 13:02
Total/NA	Analysis	1633		1	611854	DSH	EET CLE	05/03/24 22:36
Dissolved	Prep	3005A			611815	S4FJ	EET CLE	05/04/24 10:00
Dissolved	Analysis	6010D		1	612073	RKT	EET CLE	05/06/24 20:13

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219368-1

Client Sample ID: MW-02D-043024

Lab Sample ID: 480-219368-5

Date Collected: 04/30/24 13:00

Matrix: Water

Date Received: 04/30/24 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			611815	S4FJ	EET CLE	05/04/24 10:00
Total Recoverable	Analysis	6010D		1	612073	RKT	EET CLE	05/06/24 20:09
Dissolved	Prep	7470A			711281	ESB	EET BUF	05/09/24 10:31
Dissolved	Analysis	7470A		1	711469	BMB	EET BUF	05/09/24 17:17
Total/NA	Prep	7470A			711124	ESB	EET BUF	05/08/24 10:01
Total/NA	Analysis	7470A		1	711203	ESB	EET BUF	05/08/24 14:53
Dissolved	Analysis	9012B		1	710579	GW	EET BUF	05/03/24 01:17
Total/NA	Analysis	9012B		1	710579	GW	EET BUF	05/03/24 00:45

Client Sample ID: RB-043024

Lab Sample ID: 480-219368-6

Date Collected: 04/30/24 13:30

Matrix: Water

Date Received: 04/30/24 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	710397	ERS	EET BUF	05/03/24 04:40
Total/NA	Prep	3510C			710923	JMP	EET BUF	05/07/24 09:20
Total/NA	Analysis	8270D		1	711112	EMD	EET BUF	05/09/24 08:47
Total/NA	Prep	3510C			710206	LSC	EET BUF	05/01/24 14:00
Total/NA	Analysis	8270D SIM ID		1	710487	JMM	EET BUF	05/03/24 13:16
Total/NA	Prep	3510C			612128	LK2	EET CLE	05/07/24 08:43
Total/NA	Analysis	8081B		1	612262	RR	EET CLE	05/08/24 19:54
Total/NA	Prep	3510C			710200	LSC	EET BUF	05/01/24 13:50
Total/NA	Analysis	8082A		1	710413	DSC	EET BUF	05/03/24 02:12
Total/NA	Prep	1633			611819	WJW	EET CLE	05/03/24 13:02
Total/NA	Analysis	1633		1	611854	DSH	EET CLE	05/03/24 22:51
Dissolved	Prep	3005A			611815	S4FJ	EET CLE	05/04/24 10:00
Dissolved	Analysis	6010D		1	612073	RKT	EET CLE	05/06/24 20:21
Total Recoverable	Prep	3005A			611815	S4FJ	EET CLE	05/04/24 10:00
Total Recoverable	Analysis	6010D		1	612073	RKT	EET CLE	05/06/24 20:17
Dissolved	Prep	7470A			711281	ESB	EET BUF	05/09/24 10:31
Dissolved	Analysis	7470A		1	711469	BMB	EET BUF	05/09/24 17:18
Total/NA	Prep	7470A			711124	ESB	EET BUF	05/08/24 10:01
Total/NA	Analysis	7470A		1	711203	ESB	EET BUF	05/08/24 14:58
Dissolved	Analysis	9012B		1	710579	GW	EET BUF	05/03/24 01:37
Total/NA	Analysis	9012B		1	710579	GW	EET BUF	05/03/24 01:04

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Ashland LLC
Job ID: 480-219368-1
Project/Site: Tank 75 Analysis

Laboratory: Eurofins Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-25

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	06-30-24
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Method Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219368-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET BUF
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	EET BUF
8081B	Organochlorine Pesticides (GC)	SW846	EET CLE
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET BUF
1633	Per- and Polyfluoroalkyl Substances by LC/MS/MS	EPA	EET CLE
6010D	Metals (ICP)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET BUF
9012B	Cyanide, Total and/or Amenable	SW846	EET BUF
1633	Solid-Phase Extraction (SPE)	EPA	EET CLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET CLE
5030C	Purge and Trap	SW846	EET BUF
7470A	Preparation, Mercury	SW846	EET BUF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-219368-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-219368-1	MW05-02-043024	Water	04/30/24 09:05	04/30/24 15:00
480-219368-2	MW-04S-043024	Water	04/30/24 10:35	04/30/24 15:00
480-219368-3	TB-043024	Water	04/30/24 00:00	04/30/24 15:00
480-219368-4	MW-04D-043024	Water	04/30/24 11:35	04/30/24 15:00
480-219368-5	MW-02D-043024	Water	04/30/24 13:00	04/30/24 15:00
480-219368-6	RB-043024	Water	04/30/24 13:30	04/30/24 15:00

>> Select a Laboratory or Service Center <<
#N/A
#N/A
#N/A
##

Chain of Custody Record

eurofins | Environment Testing America

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	
Your Company Name here	AECOM
Address	50 Lakefront Blvd Suite 111
City/State/Zip	Buffalo NY 14202
(xxx) xxx-xxxx	Phone (716) 856-5636
(xxx) xxx-xxxx	FAX
Project Name:	Ashland Tank 75 Site
Site:	Tank 75 Site, Tonawanda, NY
P O #	60730037

Project Manager:	Colin Wasteneys
Email:	colin.wasteneys@aecom.com
Tel/Fax:	(716) 225-4396
Site Contact:	Ethan Smith
Lab Contact:	Sabra Bennati
Date:	4-30-24
Carrier:	

Analysis Turnaround Time
☐ CALENDAR DAYS ☐ WORKING DAYS
TAT if different from Below STANDARD
☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	8260C - TCL VOC + TICs	8021A - TCL PCBs	8081B - TCL Pests	8270D - TCL SVOC + TICs	6010C 7470A TAL Metals + Hg	6020C 7470A Dis TAL Metals + Hg	9012B NP Total Cyanide	9012B NP Cyanide Amenable (1ST)	1633 - 1633 Standard List	8270D - SIM 1,4-Dioxane
MW05-02-043024	4-30-24	0905	G	GW	13			X	X	X	X	X	X	X	X		
MW-04S-043024	4-30-24	1035	G	GW	13			X	X	X	X	X	X	X	X		
TB-043024	-	-	G	Water	2			X									
MW-04D-043024	4-30-24	1135	G	GW	13			X	X	X	X	X	X	X	X		
MW-02D-043024	4-30-24	1300	G	GW	18			X	X	X	X	X	X	X	X	X	X
RB-043024	4-30-24	1330	G	Water	18			X	X	X	X	X	X	X	X	X	X

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

	2	1	1	1	4	4	5	5	1	1		

Sample Specific Notes:
Lab filter for dissolved TAL metals + Hg and dissolved cyanide analysis
Lab filter for dissolved TAL metals + Hg and dissolved cyanide analysis
Lab filter for dissolved TAL metals + Hg and dissolved cyanide analysis

480-219368 Chain of Custody

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
CAT B + EQUIS

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

Relinquished by:	Company: AECOM	Date/Time: 4-30-24 1500	Received by:	Company:	Date/Time: 4/30/24 1500
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: 3.0 2.8	Company: 2.5 ICE	Date/Time:

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-86798.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note): NELAP - New York		Job #: 480-219368-1
Address: 180 S. Van Buren Avenue, ,	Due Date Requested: 5/13/2024			Preservation Codes: -
City: Barberton	TAT Requested (days):			
State, Zip: OH, 44203				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site:	SSOW#:			Other: PFAS 4

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8081B/3510C TCL Pesticides	6010D/3005A TAL Metals ICP	6010D/FIELD_FLTRD TAL Metals ICP - Dissolved FF	1633/1633_SPE 1633 Standard List	Total Number of containers	Special Instructions/Note: E165, M015, G092
			Preservation Code:									
MW05-02-043024 (480-219368-1)	4/30/24	09:05 Eastern		Water			X	X	X		4	
MW-04S-043024 (480-219368-2)	4/30/24	10:35 Eastern		Water			X	X	X		4	
MW-04D-043024 (480-219368-4)	4/30/24	11:35 Eastern		Water			X	X	X		4	
MW-02D-043024 (480-219368-5)	4/30/24	13:00 Eastern		Water			X	X	X	X	7	
RB-043024 (480-219368-6)	4/30/24	13:30 Eastern		Water			X	X	X	X	7	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company
1		5/1/24 1645	ETHBUFFALO		5-2-24 0935	EETNC
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins – Cleveland Sample Receipt Form/Narrative Login # _____
Barberton Facility

Client Eurofins - Buffalo Site Name _____ Cooler unpacked by: GRE

Cooler Received on 5-2-24 Opened on 5-2-24

FedEx. 1st Grd (Exp) UPS FAS Waypoint Client Drop Off Eurofins Courier Other _____

Receipt After-hours Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____

Packing material used (Bubble Wrap) Foam Plastic Bag None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt [X] See Multiple Cooler Form

IR GUN # 19 (CF +1.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes) No	**Tests that are not checked for pH by Receiving**
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes) No NA	
Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes (No)	**VOAs**
Were tamper/custody seals intact and uncompromised?	(Yes) No NA	**Oil and Grease**
3 Shippers' packing slip attached to the cooler(s)?	(Yes) No	**TOC**
4. Did custody papers accompany the sample(s)?	(Yes) No	
5 Were the custody papers relinquished & signed in the appropriate place?	(Yes) No	
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes (No)	
7 Did all bottles arrive in good condition (Unbroken)?	(Yes) No	
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes) No	
9 For each sample, does the COC specify preservatives (Y(N), # of containers (Y/N), and sample type of grab/comp(Y/(N))?		
10 Were correct bottle(s) used for the test(s) indicated?	(Yes) No	
11 Sufficient quantity received to perform indicated analyses?	(Yes) No	
12. Are these work share samples and all listed on the COC?	(Yes) No	
If yes, Questions 13 17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes No NA	pH Strip Lot# HC439975
14 Were VOAs on the COC?	Yes No	
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this	Yes No NA	
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes No	
17 Was a LL Hg or Me Hg trip blank present? _____	Yes No	

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by

_____

_____

_____

_____

19 SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container

Sample(s) _____ were received with bubble >6 mm in diameter (Notify PM)

20 SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory

Time preserved _____ Preservative(s) added/Lot number(s) _____

VOA Sample Preservation Date/Time VOAs Frozen _____

Login # . ____________

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
[✓ EC] Client Box Other	IR GUN #: 19	1.6	3.1	[✓ Wet Ice] Blue Ice Dry Ice Water None
[✓ EC] Client Box Other	IR GUN #: 19	4.0	5.5	[✓ Wet Ice] Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #· ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #· ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
				☐ See Temperature Excursion Form

WI-NC-099 Cooler Receipt Form Page 2 – Multiple Coolers

SAMPLE CONTROL
EUROFINS ENVIRONMENT TESTING
10 HAZELWOOD DRIVE

BUFFALO, NY 142282223
UNITED STATES US

ACTWGT 49.50 LB
CAD 0759273/CAFE3755
DIMS 26x15x14 IN

BILL SENDER

Part # 159469-434 MTW EXP 01/25

TO **SAMPLE RECEIPT**
EUROFINS CLEVELAND
180 S VAN BUREN AVE

BARBERTON OH 442033543
(330) 497-9396
REF. ETA BARBERTON

FedEx Express

2 of 2
MPS# 0263 7117 9319 2500
Mstr# 7117 9319 2496

0201

THU - 02 MAY 10:30A
PRIORITY OVERNIGHT

NX CAKA

44203
OH-US **CLE**

Login Sample Receipt Checklist

Client: Ashland LLC

Job Number: 480-219368-1

Login Number: 219368
List Number: 1
Creator: Yeager, Brian A

List Source: Eurofins Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	AECOM
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Shannon Lloyd
Ashland LLC
PO BOX 2219
Columbus, Ohio 43216

Generated 6/24/2024 5:26:09 PM

JOB DESCRIPTION

Tank 75 Analysis

JOB NUMBER

480-220419-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

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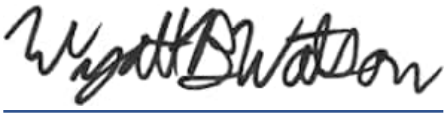

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Table of Contents

Definitions/Glossary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220419-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.

LCMS

Qualifier	Qualifier Description
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
480-220419-1

Receipt
The samples were received on 6/3/2024 7:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 2.9º C, 3.1º C and 3.5º C.

GC/MS VOA
Method 8260C: The laboratory control sample (LCS) for analytical batch 480-714447 recovered outside control limits for the following analyte: 1,2-Dichloroethane. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported. The associated samples are impacted: SW-01-2 (480-220419-1), SW-01-2-FD (480-220419-2), SW-01-3 (480-220419-3), SW-01-1 (480-220419-4) and TB-060324 (480-220419-5).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-714447 recovered above the upper control limit for 1,2-Dichloroethane and trans-1,3-Dichloropropene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: SW-01-2 (480-220419-1), SW-01-2-FD (480-220419-2), SW-01-3 (480-220419-3), SW-01-1 (480-220419-4) and TB-060324 (480-220419-5).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-714447 recovered outside acceptance criteria, low biased, for Chloromethane. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported. The associated samples are impacted: SW-01-2 (480-220419-1), SW-01-2-FD (480-220419-2), SW-01-3 (480-220419-3), SW-01-1 (480-220419-4) and TB-060324 (480-220419-5).

Method 8260C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 480-714447 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits. The associated samples are impacted: SW-01-2 (480-220419-1[MS]) and SW-01-2 (480-220419-1[MSD]).

Method 8260C: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for analytical batch 480-714447 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits. The associated sample is impacted: SW-01-2 (480-220419-1[MSD]).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method 8270D: The following samples were diluted due to color, appearance, and viscosity: SW-01-2 (480-220419-1), SW-01-2 (480-220419-1[MS]), SW-01-2 (480-220419-1[MSD]), SW-01-2-FD (480-220419-2), SW-01-3 (480-220419-3) and SW-01-1 (480-220419-4). Elevated reporting limits (RL) are provided.

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-714464 recovered outside acceptance criteria, low biased, for 2,4-Dinitrophenol and Hexachlorocyclopentadiene. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-714808 recovered above the upper control limit for bis (2-chloroisopropyl) ether and Bis(2-chloroethyl)ether. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: SW-01-2 (480-220419-1), SW-01-2-FD (480-220419-2), SW-01-3 (480-220419-3) and SW-01-1 (480-220419-4).

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-714808 recovered outside acceptance criteria, low biased, for 2,4-Dinitrophenol and Pentachlorophenol. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D: The minimum response factor (RF) criteria for the continuing calibration verification (CCV) analyzed in batch 480-714808 was outside criteria for the following analyte(s): Pentachlorophenol. As indicated in the reference method, sample analysis may proceed; however, any detection or non-detection for the affected analyte(s) is considered estimated.

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-715009 recovered outside acceptance criteria, low biased, for 3-Nitroaniline. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Job ID: 480-220419-1 (Continued) Eurofins Buffalo

Method 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 480-714822 and analytical batch 480-715009 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method 8081B: For method 8081, the recovery of the one surrogate in samples SW-01-2 (480-220419-1), SW-01-2 (480-220419-1[MSD]), SW-01-2-FD (480-220419-2) and SW-01-3 (480-220419-3) exceeds quality control limits. The recovery of the secondary surrogate is within quality control criteria; no corrective action is required.

Method 8081B: The method blank for preparation batch 480-714469 and analytical batch 480-714613 contained alpha-BHC and gamma-BHC (Lindane) above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8081B: The %RPD between the primary and confirmation column exceeded 40% for Methoxychlor for the following sample: SW-01-2 (480-220419-1). The lower value(s) has been reported and qualified in accordance with the laboratory's SOP.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

LCMS
Method 1633: The continuing calibration verification (CCV) associated with batch 240-615825 recovered above the upper control limit for Nonafluoro-3,6-dioxaheptanoic acid (NFDHA). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 1633: Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following sample: SW-01-2-FD (480-220419-2) for M2-4:2 FTS and M2-6:2 FTS . Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries, samples are non detect for associated target analytes.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method 3510C: The following sample required a Florisil clean-up, via EPA Method 3620C, to reduce matrix interferences: SW-01-3 (480-220419-3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220419-1

Client Sample ID: SW-01-2 — Lab Sample ID: 480-220419-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDT	0.033	J	0.050	0.011	ug/L	1		8081B	Total/NA
alpha-BHC	0.017	J B	0.050	0.0077	ug/L	1		8081B	Total/NA
delta-BHC	0.014	J	0.050	0.010	ug/L	1		8081B	Total/NA
Endrin ketone	0.019	J	0.050	0.012	ug/L	1		8081B	Total/NA
Methoxychlor	0.050		0.050	0.014	ug/L	1		8081B	Total/NA
Perfluorobutanoic acid (PFBA)	6.0	J	6.7	1.8	ng/L	1		1633	Total/NA
Perfluorohexanoic acid (PFHxA)	1.9		1.7	0.42	ng/L	1		1633	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.3	J F2	1.7	0.42	ng/L	1		1633	Total/NA
Perfluorooctanoic acid (PFOA)	8.3		1.7	0.42	ng/L	1		1633	Total/NA
Perfluorononanoic acid (PFNA)	18	I	1.7	0.42	ng/L	1		1633	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.1		1.7	0.42	ng/L	1		1633	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.75	J I	1.7	0.43	ng/L	1		1633	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.4		1.7	0.42	ng/L	1		1633	Total/NA
Barium	0.027		0.0020	0.00070	mg/L	1		6010C	Total/NA
Calcium	52.9		0.50	0.10	mg/L	1		6010C	Total/NA
Iron	0.13		0.050	0.019	mg/L	1		6010C	Total/NA
Magnesium	10.3		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	0.029		0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.0021	J	0.010	0.0013	mg/L	1		6010C	Total/NA
Potassium	2.4		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	7.8		1.0	0.32	mg/L	1		6010C	Total/NA
Barium	0.026		0.0020	0.00070	mg/L	1		6010C	Dissolved
Calcium	50.7		0.50	0.10	mg/L	1		6010C	Dissolved
Cobalt	0.00083	J	0.0040	0.00063	mg/L	1		6010C	Dissolved
Iron	0.052		0.050	0.019	mg/L	1		6010C	Dissolved
Magnesium	10.3		0.20	0.043	mg/L	1		6010C	Dissolved
Potassium	2.3		0.50	0.10	mg/L	1		6010C	Dissolved
Sodium	7.5		1.0	0.32	mg/L	1		6010C	Dissolved

Client Sample ID: SW-01-2-FD — Lab Sample ID: 480-220419-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDD	0.018	J	0.050	0.0092	ug/L	1		8081B	Total/NA
4,4'-DDT	0.032	J	0.050	0.011	ug/L	1		8081B	Total/NA
Methoxychlor	0.031	J	0.050	0.014	ug/L	1		8081B	Total/NA
Perfluorobutanoic acid (PFBA)	5.8	J	5.9	1.6	ng/L	1		1633	Total/NA
Perfluorohexanoic acid (PFHxA)	1.7		1.5	0.37	ng/L	1		1633	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.3	J	1.5	0.37	ng/L	1		1633	Total/NA
Perfluorooctanoic acid (PFOA)	8.0		1.5	0.37	ng/L	1		1633	Total/NA
Perfluorononanoic acid (PFNA)	19	I	1.5	0.37	ng/L	1		1633	Total/NA
Perfluorodecanoic acid (PFDA)	0.48	J	1.5	0.37	ng/L	1		1633	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.2		1.5	0.37	ng/L	1		1633	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.63	J	1.5	0.38	ng/L	1		1633	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.9		1.5	0.37	ng/L	1		1633	Total/NA
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	1.8	J	5.9	1.5	ng/L	1		1633	Total/NA
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	5.3	J	5.9	1.5	ng/L	1		1633	Total/NA
Barium	0.024		0.0020	0.00070	mg/L	1		6010C	Total/NA
Calcium	46.3		0.50	0.10	mg/L	1		6010C	Total/NA
Iron	0.083		0.050	0.019	mg/L	1		6010C	Total/NA
Magnesium	9.0		0.20	0.043	mg/L	1		6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SW-01-2-FD (Continued)

Lab Sample ID: 480-220419-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	0.018		0.0030	0.00040	mg/L	1		6010C	Total/NA
Potassium	2.1		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	7.1		1.0	0.32	mg/L	1		6010C	Total/NA
Barium	0.046		0.0020	0.00070	mg/L	1		6010C	Dissolved
Calcium	56.0		0.50	0.10	mg/L	1		6010C	Dissolved
Iron	0.064		0.050	0.019	mg/L	1		6010C	Dissolved
Lead	0.0065	J	0.010	0.0030	mg/L	1		6010C	Dissolved
Magnesium	11.1		0.20	0.043	mg/L	1		6010C	Dissolved
Manganese	0.68		0.0030	0.00040	mg/L	1		6010C	Dissolved
Potassium	2.6		0.50	0.10	mg/L	1		6010C	Dissolved
Sodium	8.4		1.0	0.32	mg/L	1		6010C	Dissolved

Client Sample ID: SW-01-3

Lab Sample ID: 480-220419-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.2	J	10	3.0	ug/L	1		8260C	Total/NA
Benzene	0.69	J	1.0	0.41	ug/L	1		8260C	Total/NA
Chlorobenzene	1.6		1.0	0.75	ug/L	1		8260C	Total/NA
Cyclohexane	1.6		1.0	0.18	ug/L	1		8260C	Total/NA
Methylcyclohexane	1.4		1.0	0.16	ug/L	1		8260C	Total/NA
2-Methylnaphthalene	1.3	J	5.0	0.60	ug/L	1		8270D	Total/NA
4-Methylphenol	0.78	J	10	0.36	ug/L	1		8270D	Total/NA
Acenaphthene	0.54	J	5.0	0.41	ug/L	1		8270D	Total/NA
Fluorene	0.48	J	5.0	0.36	ug/L	1		8270D	Total/NA
Phenanthrene	0.59	J	5.0	0.44	ug/L	1		8270D	Total/NA
Phenol	0.55	J	5.0	0.39	ug/L	1		8270D	Total/NA
4,4'-DDD	0.011	J	0.050	0.0092	ug/L	1		8081B	Total/NA
4,4'-DDT	0.046	J	0.050	0.011	ug/L	1		8081B	Total/NA
gamma-BHC (Lindane)	0.010	J B	0.050	0.0080	ug/L	1		8081B	Total/NA
Methoxychlor	0.078		0.050	0.014	ug/L	1		8081B	Total/NA
Barium	0.061		0.0020	0.00070	mg/L	1		6010C	Total/NA
Calcium	52.1		0.50	0.10	mg/L	1		6010C	Total/NA
Chromium	0.0021	J	0.0040	0.0010	mg/L	1		6010C	Total/NA
Iron	0.26		0.050	0.019	mg/L	1		6010C	Total/NA
Magnesium	9.8		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	1.7		0.0030	0.00040	mg/L	1		6010C	Total/NA
Potassium	2.5		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	7.9		1.0	0.32	mg/L	1		6010C	Total/NA
Zinc	0.0028	J	0.010	0.0015	mg/L	1		6010C	Total/NA
Barium	0.027		0.0020	0.00070	mg/L	1		6010C	Dissolved
Calcium	52.6		0.50	0.10	mg/L	1		6010C	Dissolved
Cobalt	0.00065	J	0.0040	0.00063	mg/L	1		6010C	Dissolved
Copper	0.0018	J	0.010	0.0016	mg/L	1		6010C	Dissolved
Iron	0.066		0.050	0.019	mg/L	1		6010C	Dissolved
Lead	0.0046	J	0.010	0.0030	mg/L	1		6010C	Dissolved
Magnesium	10.6		0.20	0.043	mg/L	1		6010C	Dissolved
Manganese	0.0018	J	0.0030	0.00040	mg/L	1		6010C	Dissolved
Potassium	2.4		0.50	0.10	mg/L	1		6010C	Dissolved
Sodium	7.9		1.0	0.32	mg/L	1		6010C	Dissolved

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220419-1

Client Sample ID: SW-01-1 — Lab Sample ID: 480-220419-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDD	0.021	J	0.050	0.0092	ug/L	1		8081B	Total/NA
Endrin aldehyde	0.028	J	0.050	0.016	ug/L	1		8081B	Total/NA
Methoxychlor	0.038	J	0.050	0.014	ug/L	1		8081B	Total/NA
Barium	0.026		0.0020	0.00070	mg/L	1		6010C	Total/NA
Calcium	51.1		0.50	0.10	mg/L	1		6010C	Total/NA
Iron	0.093		0.050	0.019	mg/L	1		6010C	Total/NA
Magnesium	10		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	0.018		0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.0013	J	0.010	0.0013	mg/L	1		6010C	Total/NA
Potassium	2.3		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	7.5		1.0	0.32	mg/L	1		6010C	Total/NA
Barium	0.020		0.0020	0.00070	mg/L	1		6010C	Dissolved
Calcium	4.6		0.50	0.10	mg/L	1		6010C	Dissolved
Cobalt	0.0014	J	0.0040	0.00063	mg/L	1		6010C	Dissolved
Copper	0.091		0.010	0.0016	mg/L	1		6010C	Dissolved
Lead	0.0065	J	0.010	0.0030	mg/L	1		6010C	Dissolved
Magnesium	4.3		0.20	0.043	mg/L	1		6010C	Dissolved
Manganese	0.029		0.0030	0.00040	mg/L	1		6010C	Dissolved
Nickel	0.0038	J	0.010	0.0013	mg/L	1		6010C	Dissolved
Potassium	0.90		0.50	0.10	mg/L	1		6010C	Dissolved
Sodium	1.4		1.0	0.32	mg/L	1		6010C	Dissolved
Zinc	0.19		0.010	0.0015	mg/L	1		6010C	Dissolved

Client Sample ID: TB-060324 — Lab Sample ID: 480-220419-5

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220419-1

Client Sample ID: SW-01-2
Date Collected: 06/03/24 11:55
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-1
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	F1	1.0	0.82	ug/L			06/05/24 13:54	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/05/24 13:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			06/05/24 13:54	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/05/24 13:54	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/05/24 13:54	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/05/24 13:54	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			06/05/24 13:54	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/05/24 13:54	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/05/24 13:54	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/05/24 13:54	1
1,2-Dichloroethane	ND	*+ F1	1.0	0.21	ug/L			06/05/24 13:54	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/05/24 13:54	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			06/05/24 13:54	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/05/24 13:54	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/05/24 13:54	1
2-Hexanone	ND		5.0	1.2	ug/L			06/05/24 13:54	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			06/05/24 13:54	1
Acetone	ND		10	3.0	ug/L			06/05/24 13:54	1
Benzene	ND		1.0	0.41	ug/L			06/05/24 13:54	1
Bromodichloromethane	ND	F1	1.0	0.39	ug/L			06/05/24 13:54	1
Bromoform	ND		1.0	0.26	ug/L			06/05/24 13:54	1
Bromomethane	ND		1.0	0.69	ug/L			06/05/24 13:54	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/05/24 13:54	1
Carbon tetrachloride	ND	F1	1.0	0.27	ug/L			06/05/24 13:54	1
Chlorobenzene	ND	F1	1.0	0.75	ug/L			06/05/24 13:54	1
Chloroethane	ND	F1 F2	1.0	0.32	ug/L			06/05/24 13:54	1
Chloroform	ND		1.0	0.34	ug/L			06/05/24 13:54	1
Chloromethane	ND	F1 F2	1.0	0.35	ug/L			06/05/24 13:54	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/05/24 13:54	1
cis-1,3-Dichloropropene	ND	F1	1.0	0.36	ug/L			06/05/24 13:54	1
Cyclohexane	ND		1.0	0.18	ug/L			06/05/24 13:54	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/05/24 13:54	1
Dichlorodifluoromethane	ND	F1 F2	1.0	0.68	ug/L			06/05/24 13:54	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/05/24 13:54	1
Isopropylbenzene	ND	F1	1.0	0.79	ug/L			06/05/24 13:54	1
Methyl acetate	ND		2.5	1.3	ug/L			06/05/24 13:54	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			06/05/24 13:54	1
Methylcyclohexane	ND		1.0	0.16	ug/L			06/05/24 13:54	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/05/24 13:54	1
Styrene	ND		1.0	0.73	ug/L			06/05/24 13:54	1
Tetrachloroethene	ND	F1	1.0	0.36	ug/L			06/05/24 13:54	1
Toluene	ND		1.0	0.51	ug/L			06/05/24 13:54	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/05/24 13:54	1
trans-1,3-Dichloropropene	ND	F1	1.0	0.37	ug/L			06/05/24 13:54	1
Trichloroethene	ND	F1	1.0	0.46	ug/L			06/05/24 13:54	1
Trichlorofluoromethane	ND	F1 F2	1.0	0.88	ug/L			06/05/24 13:54	1
Vinyl chloride	ND	F1 F2	1.0	0.90	ug/L			06/05/24 13:54	1
Xylenes, Total	ND		2.0	0.66	ug/L			06/05/24 13:54	1

Client Sample ID: SW-01-2
Date Collected: 06/03/24 11:55
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-1
Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A		06/05/24 13:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		77 - 120		06/05/24 13:54	1
4-Bromofluorobenzene (Surr)	111		73 - 120		06/05/24 13:54	1
Dibromofluoromethane (Surr)	91		75 - 123		06/05/24 13:54	1
Toluene-d8 (Surr)	95		80 - 120		06/05/24 13:54	1

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		06/05/24 09:28	06/06/24 16:34	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	28		15 - 110	06/05/24 09:28	06/06/24 16:34	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.2	0.50	ug/L		06/07/24 09:42	06/10/24 19:42	1
2,4,6-Trichlorophenol	ND		5.2	0.64	ug/L		06/07/24 09:42	06/10/24 19:42	1
2,4-Dichlorophenol	ND		5.2	0.53	ug/L		06/07/24 09:42	06/10/24 19:42	1
2,4-Dimethylphenol	ND		5.2	0.52	ug/L		06/07/24 09:42	06/10/24 19:42	1
2,4-Dinitrophenol	ND		10	2.3	ug/L		06/07/24 09:42	06/10/24 19:42	1
2,4-Dinitrotoluene	ND		5.2	0.47	ug/L		06/07/24 09:42	06/10/24 19:42	1
2,6-Dinitrotoluene	ND		5.2	0.42	ug/L		06/07/24 09:42	06/10/24 19:42	1
2-Chloronaphthalene	ND		5.2	0.48	ug/L		06/07/24 09:42	06/10/24 19:42	1
2-Chlorophenol	ND		5.2	0.55	ug/L		06/07/24 09:42	06/10/24 19:42	1
2-Methylnaphthalene	ND		5.2	0.63	ug/L		06/07/24 09:42	06/10/24 19:42	1
2-Methylphenol	ND		5.2	0.42	ug/L		06/07/24 09:42	06/10/24 19:42	1
2-Nitroaniline	ND		10	0.44	ug/L		06/07/24 09:42	06/10/24 19:42	1
2-Nitrophenol	ND		5.2	0.50	ug/L		06/07/24 09:42	06/10/24 19:42	1
3,3'-Dichlorobenzidine	ND	F1 F2	5.2	0.42	ug/L		06/07/24 09:42	06/10/24 19:42	1
3-Nitroaniline	ND		10	0.50	ug/L		06/07/24 09:42	06/10/24 19:42	1
4,6-Dinitro-2-methylphenol	ND		10	2.3	ug/L		06/07/24 09:42	06/10/24 19:42	1
4-Bromophenyl phenyl ether	ND		5.2	0.47	ug/L		06/07/24 09:42	06/10/24 19:42	1
4-Chloro-3-methylphenol	ND		5.2	0.47	ug/L		06/07/24 09:42	06/10/24 19:42	1
4-Chloroaniline	ND	F2	5.2	0.61	ug/L		06/07/24 09:42	06/10/24 19:42	1
4-Chlorophenyl phenyl ether	ND		5.2	0.36	ug/L		06/07/24 09:42	06/10/24 19:42	1
4-Methylphenol	ND		10	0.38	ug/L		06/07/24 09:42	06/10/24 19:42	1
4-Nitroaniline	ND		10	0.26	ug/L		06/07/24 09:42	06/10/24 19:42	1
4-Nitrophenol	ND		10	1.6	ug/L		06/07/24 09:42	06/10/24 19:42	1
Acenaphthene	ND		5.2	0.43	ug/L		06/07/24 09:42	06/10/24 19:42	1
Acenaphthylene	ND		5.2	0.40	ug/L		06/07/24 09:42	06/10/24 19:42	1
Acetophenone	ND		5.2	0.56	ug/L		06/07/24 09:42	06/10/24 19:42	1
Anthracene	ND		5.2	0.29	ug/L		06/07/24 09:42	06/10/24 19:42	1
Atrazine	ND		5.2	0.48	ug/L		06/07/24 09:42	06/10/24 19:42	1
Benzaldehyde	ND		5.2	0.28	ug/L		06/07/24 09:42	06/10/24 19:42	1
Benzo(a)anthracene	ND	F2	5.2	0.38	ug/L		06/07/24 09:42	06/10/24 19:42	1
Benzo(a)pyrene	ND	F2	5.2	0.49	ug/L		06/07/24 09:42	06/10/24 19:42	1
Benzo(b)fluoranthene	ND	F2	5.2	0.35	ug/L		06/07/24 09:42	06/10/24 19:42	1
Benzo(g,h,i)perylene	ND	F2	5.2	0.36	ug/L		06/07/24 09:42	06/10/24 19:42	1
Benzo(k)fluoranthene	ND	F2	5.2	0.76	ug/L		06/07/24 09:42	06/10/24 19:42	1

Client Sample ID: SW-01-2
Date Collected: 06/03/24 11:55
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-1
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.2	0.68	ug/L		06/07/24 09:42	06/10/24 19:42	1
bis (2-chloroisopropyl) ether	ND		5.2	0.54	ug/L		06/07/24 09:42	06/10/24 19:42	1
Bis(2-chloroethoxy)methane	ND		5.2	0.36	ug/L		06/07/24 09:42	06/10/24 19:42	1
Bis(2-chloroethyl)ether	ND		5.2	0.42	ug/L		06/07/24 09:42	06/10/24 19:42	1
Bis(2-ethylhexyl) phthalate	ND	F2	5.2	2.3	ug/L		06/07/24 09:42	06/10/24 19:42	1
Butyl benzyl phthalate	ND		5.2	1.0	ug/L		06/07/24 09:42	06/10/24 19:42	1
Caprolactam	ND		5.2	2.3	ug/L		06/07/24 09:42	06/10/24 19:42	1
Carbazole	ND		5.2	0.31	ug/L		06/07/24 09:42	06/10/24 19:42	1
Chrysene	ND	F2	5.2	0.34	ug/L		06/07/24 09:42	06/10/24 19:42	1
Dibenz(a,h)anthracene	ND	F2	5.2	0.44	ug/L		06/07/24 09:42	06/10/24 19:42	1
Dibenzofuran	ND		10	0.53	ug/L		06/07/24 09:42	06/10/24 19:42	1
Diethyl phthalate	ND		5.2	0.23	ug/L		06/07/24 09:42	06/10/24 19:42	1
Dimethyl phthalate	ND		5.2	0.38	ug/L		06/07/24 09:42	06/10/24 19:42	1
Di-n-butyl phthalate	ND	F2	5.2	0.32	ug/L		06/07/24 09:42	06/10/24 19:42	1
Di-n-octyl phthalate	ND	F2	5.2	0.49	ug/L		06/07/24 09:42	06/10/24 19:42	1
Fluoranthene	ND	F2	5.2	0.42	ug/L		06/07/24 09:42	06/10/24 19:42	1
Fluorene	ND		5.2	0.38	ug/L		06/07/24 09:42	06/10/24 19:42	1
Hexachlorobenzene	ND	F2	5.2	0.53	ug/L		06/07/24 09:42	06/10/24 19:42	1
Hexachlorobutadiene	ND		5.2	0.71	ug/L		06/07/24 09:42	06/10/24 19:42	1
Hexachlorocyclopentadiene	ND		5.2	0.61	ug/L		06/07/24 09:42	06/10/24 19:42	1
Hexachloroethane	ND		5.2	0.61	ug/L		06/07/24 09:42	06/10/24 19:42	1
Indeno(1,2,3-cd)pyrene	ND	F2	5.2	0.49	ug/L		06/07/24 09:42	06/10/24 19:42	1
Isophorone	ND		5.2	0.45	ug/L		06/07/24 09:42	06/10/24 19:42	1
Naphthalene	ND		5.2	0.79	ug/L		06/07/24 09:42	06/10/24 19:42	1
Nitrobenzene	ND		5.2	0.30	ug/L		06/07/24 09:42	06/10/24 19:42	1
N-Nitrosodi-n-propylamine	ND		5.2	0.56	ug/L		06/07/24 09:42	06/10/24 19:42	1
N-Nitrosodiphenylamine	ND		5.2	0.53	ug/L		06/07/24 09:42	06/10/24 19:42	1
Pentachlorophenol	ND		10	2.3	ug/L		06/07/24 09:42	06/10/24 19:42	1
Phenanthrene	ND	F2	5.2	0.46	ug/L		06/07/24 09:42	06/10/24 19:42	1
Phenol	ND		5.2	0.41	ug/L		06/07/24 09:42	06/10/24 19:42	1
Pyrene	ND		5.2	0.35	ug/L		06/07/24 09:42	06/10/24 19:42	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*2.0*	*T J*	*ug/L*		*3.21*	*N/A*	*06/07/24 09:42*	*06/10/24 19:42*	*1*
Unknown	*25*	*T J*	*ug/L*		*4.75*	*N/A*	*06/07/24 09:42*	*06/10/24 19:42*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*81*		*25 - 144*	*06/07/24 09:42*	*06/10/24 19:42*	*1*
2-Fluorobiphenyl	*69*		*53 - 126*	*06/07/24 09:42*	*06/10/24 19:42*	*1*
2-Fluorophenol	*51*		*24 - 120*	*06/07/24 09:42*	*06/10/24 19:42*	*1*
Nitrobenzene-d5	*64*		*29 - 129*	*06/07/24 09:42*	*06/10/24 19:42*	*1*
Phenol-d5	*38*		*10 - 120*	*06/07/24 09:42*	*06/10/24 19:42*	*1*
p-Terphenyl-d14	*60*		*33 - 132*	*06/07/24 09:42*	*06/10/24 19:42*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.050	0.0092	ug/L		06/05/24 09:14	06/06/24 11:53	1
4,4'-DDE	ND		0.050	0.012	ug/L		06/05/24 09:14	06/06/24 11:53	1
4,4'-DDT	**0.033**	**J**	0.050	0.011	ug/L		06/05/24 09:14	06/06/24 11:53	1
Aldrin	ND		0.050	0.0081	ug/L		06/05/24 09:14	06/06/24 11:53	1

Client Sample ID: SW-01-2
Date Collected: 06/03/24 11:55
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-1
Matrix: Water

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
alpha-BHC	**0.017**	**J B**	0.050	0.0077	ug/L		06/05/24 09:14	06/06/24 11:53	1
cis-Chlordane	ND		0.050	0.015	ug/L		06/05/24 09:14	06/06/24 11:53	1
beta-BHC	ND		0.050	0.025	ug/L		06/05/24 09:14	06/06/24 11:53	1
delta-BHC	**0.014**	**J**	0.050	0.010	ug/L		06/05/24 09:14	06/06/24 11:53	1
Dieldrin	ND		0.050	0.0098	ug/L		06/05/24 09:14	06/06/24 11:53	1
Endosulfan I	ND		0.050	0.011	ug/L		06/05/24 09:14	06/06/24 11:53	1
Endosulfan II	ND		0.050	0.012	ug/L		06/05/24 09:14	06/06/24 11:53	1
Endosulfan sulfate	ND		0.050	0.016	ug/L		06/05/24 09:14	06/06/24 11:53	1
Endrin	ND		0.050	0.014	ug/L		06/05/24 09:14	06/06/24 11:53	1
Endrin aldehyde	ND		0.050	0.016	ug/L		06/05/24 09:14	06/06/24 11:53	1
Endrin ketone	**0.019**	**J**	0.050	0.012	ug/L		06/05/24 09:14	06/06/24 11:53	1
gamma-BHC (Lindane)	ND		0.050	0.0080	ug/L		06/05/24 09:14	06/06/24 11:53	1
trans-Chlordane	ND		0.050	0.011	ug/L		06/05/24 09:14	06/06/24 11:53	1
Heptachlor	ND		0.050	0.0085	ug/L		06/05/24 09:14	06/06/24 11:53	1
Heptachlor epoxide	ND		0.050	0.0074	ug/L		06/05/24 09:14	06/06/24 11:53	1
Methoxychlor	**0.050**		0.050	0.014	ug/L		06/05/24 09:14	06/06/24 11:53	1
Toxaphene	ND		0.50	0.12	ug/L		06/05/24 09:14	06/06/24 11:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*49*		*20 - 120*	*06/05/24 09:14*	*06/06/24 11:53*	*1*
DCB Decachlorobiphenyl	*48*		*20 - 120*	*06/05/24 09:14*	*06/06/24 11:53*	*1*
Tetrachloro-m-xylene	*42*	*S1-*	*44 - 120*	*06/05/24 09:14*	*06/06/24 11:53*	*1*
Tetrachloro-m-xylene	*41*	*S1-*	*44 - 120*	*06/05/24 09:14*	*06/06/24 11:53*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 18:59	1
PCB-1221	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 18:59	1
PCB-1232	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 18:59	1
PCB-1242	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 18:59	1
PCB-1248	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 18:59	1
PCB-1254	ND		0.50	0.25	ug/L		06/06/24 06:53	06/06/24 18:59	1
PCB-1260	ND		0.50	0.25	ug/L		06/06/24 06:53	06/06/24 18:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*34*		*19 - 120*	*06/06/24 06:53*	*06/06/24 18:59*	*1*
DCB Decachlorobiphenyl	*40*		*19 - 120*	*06/06/24 06:53*	*06/06/24 18:59*	*1*
Tetrachloro-m-xylene	*71*		*39 - 121*	*06/06/24 06:53*	*06/06/24 18:59*	*1*
Tetrachloro-m-xylene	*66*		*39 - 121*	*06/06/24 06:53*	*06/06/24 18:59*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**6.0**	**J**	6.7	1.8	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluoropentanoic acid (PFPeA)	ND		3.3	0.83	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluorohexanoic acid (PFHxA)	**1.9**		1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluoroheptanoic acid (PFHpA)	**1.3**	**J F2**	1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluorooctanoic acid (PFOA)	**8.3**		1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluorononanoic acid (PFNA)	**18**	**I**	1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluorodecanoic acid (PFDA)	ND	F1	1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220419-1

Client Sample ID: SW-01-2
Date Collected: 06/03/24 11:55
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-1
Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluorobutanesulfonic acid (PFBS)	**2.1**		1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluorohexanesulfonic acid (PFHxS)	**0.75**	**J I**	1.7	0.43	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluorooctanesulfonic acid (PFOS)	**2.4**		1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		6.7	1.7	ng/L		06/06/24 08:39	06/07/24 16:19	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		6.7	1.7	ng/L		06/06/24 08:39	06/07/24 16:19	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		6.7	1.7	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.7	0.52	ng/L		06/06/24 08:39	06/07/24 16:19	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.7	0.43	ng/L		06/06/24 08:39	06/07/24 16:19	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		17	4.2	ng/L		06/06/24 08:39	06/07/24 16:19	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		17	4.2	ng/L		06/06/24 08:39	06/07/24 16:19	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		6.7	1.7	ng/L		06/06/24 08:39	06/07/24 16:19	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		6.7	1.7	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		3.3	0.83	ng/L		06/06/24 08:39	06/07/24 16:19	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		3.3	1.0	ng/L		06/06/24 08:39	06/07/24 16:19	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		6.7	1.7	ng/L		06/06/24 08:39	06/07/24 16:19	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		6.7	1.7	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		3.3	0.83	ng/L		06/06/24 08:39	06/07/24 16:19	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		8.3	2.1	ng/L		06/06/24 08:39	06/07/24 16:19	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		42	10	ng/L		06/06/24 08:39	06/07/24 16:19	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		42	12	ng/L		06/06/24 08:39	06/07/24 16:19	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.42	ng/L		06/06/24 08:39	06/07/24 16:19	1

Client Sample ID: SW-01-2

Date Collected: 06/03/24 11:55
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-1

Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		3.3	0.83	ng/L		06/06/24 08:39	06/07/24 16:19	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*82.5*		*10 - 130*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
13C5 PFPeA	*77.8*		*35 - 150*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
13C5 PFHxA	*83.2*		*55 - 150*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
13C4 PFHpA	*75.5*		*55 - 150*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
13C8 PFOA	*84.2*		*60 - 140*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
13C9 PFNA	*113*		*55 - 140*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
13C6 PFDA	*78.6*		*50 - 140*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
13C7 PFUnA	*107*		*30 - 140*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
13C2 PFTeDA	*65.8*		*10 - 130*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
13C3 PFBS	*96.0*		*55 - 150*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
13C3 PFHxS	*84.6*		*55 - 150*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
13C8 PFOS	*80.6*		*45 - 140*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
13C8 FOSA	*64.3*		*30 - 130*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
d3-NMeFOSAA	*63.5*		*45 - 200*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
d5-NEtFOSAA	*64.2*		*10 - 200*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
M2-4:2 FTS	*177*		*60 - 200*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
M2-6:2 FTS	*176*		*60 - 200*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
M2-8:2 FTS	*78.7*		*50 - 200*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
13C3 HFPO-DA	*94.1*		*25 - 160*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
d7-N-MeFOSE-M	*44.1*		*10 - 150*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
d9-N-EtFOSE-M	*42.9*		*10 - 150*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
d5-NEtPFOSA	*46.5*		*10 - 130*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
d3-NMePFOSA	*53.3*		*15 - 130*	*06/06/24 08:39*	*06/07/24 16:19*	*1*
13C2-PFDoDA	*91.1*		*10 - 150*	*06/06/24 08:39*	*06/07/24 16:19*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		06/06/24 09:16	06/06/24 17:31	1
Antimony	ND		0.020	0.0068	mg/L		06/06/24 09:16	06/06/24 17:31	1
Arsenic	ND		0.015	0.0056	mg/L		06/06/24 09:16	06/06/24 17:31	1
Barium	**0.027**		0.0020	0.00070	mg/L		06/06/24 09:16	06/06/24 17:31	1
Beryllium	ND		0.0020	0.00030	mg/L		06/06/24 09:16	06/06/24 17:31	1
Cadmium	ND		0.0020	0.00050	mg/L		06/06/24 09:16	06/06/24 17:31	1
Calcium	**52.9**		0.50	0.10	mg/L		06/06/24 09:16	06/06/24 17:31	1
Chromium	ND		0.0040	0.0010	mg/L		06/06/24 09:16	06/06/24 17:31	1
Cobalt	ND		0.0040	0.00063	mg/L		06/06/24 09:16	06/06/24 17:31	1
Copper	ND		0.010	0.0016	mg/L		06/06/24 09:16	06/06/24 17:31	1
Iron	**0.13**		0.050	0.019	mg/L		06/06/24 09:16	06/06/24 17:31	1
Lead	ND		0.010	0.0030	mg/L		06/06/24 09:16	06/06/24 17:31	1
Magnesium	**10.3**		0.20	0.043	mg/L		06/06/24 09:16	06/06/24 17:31	1
Manganese	**0.029**		0.0030	0.00040	mg/L		06/06/24 09:16	06/06/24 17:31	1
Nickel	**0.0021**	**J**	0.010	0.0013	mg/L		06/06/24 09:16	06/06/24 17:31	1
Potassium	**2.4**		0.50	0.10	mg/L		06/06/24 09:16	06/06/24 17:31	1
Selenium	ND		0.025	0.0087	mg/L		06/06/24 09:16	06/06/24 17:31	1
Silver	ND		0.0060	0.0017	mg/L		06/06/24 09:16	06/06/24 17:31	1
Sodium	**7.8**		1.0	0.32	mg/L		06/06/24 09:16	06/06/24 17:31	1
Thallium	ND		0.020	0.010	mg/L		06/06/24 09:16	06/06/24 17:31	1

Client Sample ID: SW-01-2

Lab Sample ID: 480-220419-1

Date Collected: 06/03/24 11:55

Matrix: Water

Date Received: 06/03/24 19:00

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	ND		0.0050	0.0015	mg/L		06/06/24 09:16	06/06/24 17:31	1
Zinc	ND		0.010	0.0015	mg/L		06/06/24 09:16	06/06/24 17:31	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		06/06/24 09:12	06/06/24 19:47	1
Antimony	ND		0.020	0.0068	mg/L		06/06/24 09:12	06/06/24 19:47	1
Arsenic	ND		0.015	0.0056	mg/L		06/06/24 09:12	06/06/24 19:47	1
Barium	**0.026**		0.0020	0.00070	mg/L		06/06/24 09:12	06/06/24 19:47	1
Beryllium	ND		0.0020	0.00030	mg/L		06/06/24 09:12	06/06/24 19:47	1
Cadmium	ND		0.0020	0.00050	mg/L		06/06/24 09:12	06/06/24 19:47	1
Calcium	**50.7**		0.50	0.10	mg/L		06/06/24 09:12	06/06/24 19:47	1
Chromium	ND		0.0040	0.0010	mg/L		06/06/24 09:12	06/06/24 19:47	1
Cobalt	**0.00083**	**J**	0.0040	0.00063	mg/L		06/06/24 09:12	06/06/24 19:47	1
Copper	ND		0.010	0.0016	mg/L		06/06/24 09:12	06/06/24 19:47	1
Iron	**0.052**		0.050	0.019	mg/L		06/06/24 09:12	06/06/24 19:47	1
Lead	ND		0.010	0.0030	mg/L		06/06/24 09:12	06/06/24 19:47	1
Magnesium	**10.3**		0.20	0.043	mg/L		06/06/24 09:12	06/06/24 19:47	1
Manganese	ND		0.0030	0.00040	mg/L		06/06/24 09:12	06/06/24 19:47	1
Nickel	ND		0.010	0.0013	mg/L		06/06/24 09:12	06/06/24 19:47	1
Potassium	**2.3**		0.50	0.10	mg/L		06/06/24 09:12	06/06/24 19:47	1
Selenium	ND		0.025	0.0087	mg/L		06/06/24 09:12	06/06/24 19:47	1
Silver	ND		0.0060	0.0017	mg/L		06/06/24 09:12	06/06/24 19:47	1
Sodium	**7.5**		1.0	0.32	mg/L		06/06/24 09:12	06/06/24 19:47	1
Thallium	ND		0.020	0.010	mg/L		06/06/24 09:12	06/06/24 19:47	1
Vanadium	ND		0.0050	0.0015	mg/L		06/06/24 09:12	06/06/24 19:47	1
Zinc	ND		0.010	0.0015	mg/L		06/06/24 09:12	06/06/24 19:47	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		06/05/24 10:50	06/05/24 14:09	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		06/05/24 10:50	06/05/24 14:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			06/09/24 17:22	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			06/14/24 21:23	1

Client Sample ID: SW-01-2-FD

Lab Sample ID: 480-220419-2

Date Collected: 06/03/24 11:55

Matrix: Water

Date Received: 06/03/24 19:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/05/24 14:17	1

Client Sample ID: SW-01-2-FD
Date Collected: 06/03/24 11:55
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-2
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/05/24 14:17	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			06/05/24 14:17	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/05/24 14:17	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/05/24 14:17	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/05/24 14:17	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			06/05/24 14:17	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/05/24 14:17	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/05/24 14:17	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/05/24 14:17	1
1,2-Dichloroethane	ND	*+	1.0	0.21	ug/L			06/05/24 14:17	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/05/24 14:17	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			06/05/24 14:17	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/05/24 14:17	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/05/24 14:17	1
2-Hexanone	ND		5.0	1.2	ug/L			06/05/24 14:17	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			06/05/24 14:17	1
Acetone	ND		10	3.0	ug/L			06/05/24 14:17	1
Benzene	ND		1.0	0.41	ug/L			06/05/24 14:17	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/05/24 14:17	1
Bromoform	ND		1.0	0.26	ug/L			06/05/24 14:17	1
Bromomethane	ND		1.0	0.69	ug/L			06/05/24 14:17	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/05/24 14:17	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/05/24 14:17	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/05/24 14:17	1
Chloroethane	ND		1.0	0.32	ug/L			06/05/24 14:17	1
Chloroform	ND		1.0	0.34	ug/L			06/05/24 14:17	1
Chloromethane	ND		1.0	0.35	ug/L			06/05/24 14:17	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/05/24 14:17	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/05/24 14:17	1
Cyclohexane	ND		1.0	0.18	ug/L			06/05/24 14:17	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/05/24 14:17	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			06/05/24 14:17	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/05/24 14:17	1
Isopropylbenzene	ND		1.0	0.79	ug/L			06/05/24 14:17	1
Methyl acetate	ND		2.5	1.3	ug/L			06/05/24 14:17	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			06/05/24 14:17	1
Methylcyclohexane	ND		1.0	0.16	ug/L			06/05/24 14:17	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/05/24 14:17	1
Styrene	ND		1.0	0.73	ug/L			06/05/24 14:17	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/05/24 14:17	1
Toluene	ND		1.0	0.51	ug/L			06/05/24 14:17	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/05/24 14:17	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/05/24 14:17	1
Trichloroethene	ND		1.0	0.46	ug/L			06/05/24 14:17	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/05/24 14:17	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/05/24 14:17	1
Xylenes, Total	ND		2.0	0.66	ug/L			06/05/24 14:17	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*		*06/05/24 14:17*	*1*

Client Sample ID: SW-01-2-FD

Date Collected: 06/03/24 11:55
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-2

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*77 - 120*		*06/05/24 14:17*	*1*
4-Bromofluorobenzene (Surr)	*107*		*73 - 120*		*06/05/24 14:17*	*1*
Dibromofluoromethane (Surr)	*92*		*75 - 123*		*06/05/24 14:17*	*1*
Toluene-d8 (Surr)	*91*		*80 - 120*		*06/05/24 14:17*	*1*

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		06/05/24 09:28	06/06/24 18:21	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*31*		*15 - 110*	*06/05/24 09:28*	*06/06/24 18:21*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		06/07/24 09:42	06/10/24 21:32	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		06/07/24 09:42	06/10/24 21:32	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		06/07/24 09:42	06/10/24 21:32	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		06/07/24 09:42	06/10/24 21:32	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		06/07/24 09:42	06/10/24 21:32	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		06/07/24 09:42	06/10/24 21:32	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		06/07/24 09:42	06/10/24 21:32	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		06/07/24 09:42	06/10/24 21:32	1
2-Chlorophenol	ND		5.0	0.53	ug/L		06/07/24 09:42	06/10/24 21:32	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		06/07/24 09:42	06/10/24 21:32	1
2-Methylphenol	ND		5.0	0.40	ug/L		06/07/24 09:42	06/10/24 21:32	1
2-Nitroaniline	ND		10	0.42	ug/L		06/07/24 09:42	06/10/24 21:32	1
2-Nitrophenol	ND		5.0	0.48	ug/L		06/07/24 09:42	06/10/24 21:32	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		06/07/24 09:42	06/10/24 21:32	1
3-Nitroaniline	ND		10	0.48	ug/L		06/07/24 09:42	06/10/24 21:32	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		06/07/24 09:42	06/10/24 21:32	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		06/07/24 09:42	06/10/24 21:32	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		06/07/24 09:42	06/10/24 21:32	1
4-Chloroaniline	ND		5.0	0.59	ug/L		06/07/24 09:42	06/10/24 21:32	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		06/07/24 09:42	06/10/24 21:32	1
4-Methylphenol	ND		10	0.36	ug/L		06/07/24 09:42	06/10/24 21:32	1
4-Nitroaniline	ND		10	0.25	ug/L		06/07/24 09:42	06/10/24 21:32	1
4-Nitrophenol	ND		10	1.5	ug/L		06/07/24 09:42	06/10/24 21:32	1
Acenaphthene	ND		5.0	0.41	ug/L		06/07/24 09:42	06/10/24 21:32	1
Acenaphthylene	ND		5.0	0.38	ug/L		06/07/24 09:42	06/10/24 21:32	1
Acetophenone	ND		5.0	0.54	ug/L		06/07/24 09:42	06/10/24 21:32	1
Anthracene	ND		5.0	0.28	ug/L		06/07/24 09:42	06/10/24 21:32	1
Atrazine	ND		5.0	0.46	ug/L		06/07/24 09:42	06/10/24 21:32	1
Benzaldehyde	ND		5.0	0.27	ug/L		06/07/24 09:42	06/10/24 21:32	1
Benzo(a)anthracene	ND		5.0	0.36	ug/L		06/07/24 09:42	06/10/24 21:32	1
Benzo(a)pyrene	ND		5.0	0.47	ug/L		06/07/24 09:42	06/10/24 21:32	1
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L		06/07/24 09:42	06/10/24 21:32	1
Benzo(g,h,i)perylene	ND		5.0	0.35	ug/L		06/07/24 09:42	06/10/24 21:32	1
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L		06/07/24 09:42	06/10/24 21:32	1
Biphenyl	ND		5.0	0.65	ug/L		06/07/24 09:42	06/10/24 21:32	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		06/07/24 09:42	06/10/24 21:32	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		06/07/24 09:42	06/10/24 21:32	1

Client Sample ID: SW-01-2-FD
Date Collected: 06/03/24 11:55
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-2
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		06/07/24 09:42	06/10/24 21:32	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		06/07/24 09:42	06/10/24 21:32	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		06/07/24 09:42	06/10/24 21:32	1
Caprolactam	ND		5.0	2.2	ug/L		06/07/24 09:42	06/10/24 21:32	1
Carbazole	ND		5.0	0.30	ug/L		06/07/24 09:42	06/10/24 21:32	1
Chrysene	ND		5.0	0.33	ug/L		06/07/24 09:42	06/10/24 21:32	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		06/07/24 09:42	06/10/24 21:32	1
Dibenzofuran	ND		10	0.51	ug/L		06/07/24 09:42	06/10/24 21:32	1
Diethyl phthalate	ND		5.0	0.22	ug/L		06/07/24 09:42	06/10/24 21:32	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		06/07/24 09:42	06/10/24 21:32	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		06/07/24 09:42	06/10/24 21:32	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		06/07/24 09:42	06/10/24 21:32	1
Fluoranthene	ND		5.0	0.40	ug/L		06/07/24 09:42	06/10/24 21:32	1
Fluorene	ND		5.0	0.36	ug/L		06/07/24 09:42	06/10/24 21:32	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		06/07/24 09:42	06/10/24 21:32	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		06/07/24 09:42	06/10/24 21:32	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		06/07/24 09:42	06/10/24 21:32	1
Hexachloroethane	ND		5.0	0.59	ug/L		06/07/24 09:42	06/10/24 21:32	1
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L		06/07/24 09:42	06/10/24 21:32	1
Isophorone	ND		5.0	0.43	ug/L		06/07/24 09:42	06/10/24 21:32	1
Naphthalene	ND		5.0	0.76	ug/L		06/07/24 09:42	06/10/24 21:32	1
Nitrobenzene	ND		5.0	0.29	ug/L		06/07/24 09:42	06/10/24 21:32	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		06/07/24 09:42	06/10/24 21:32	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		06/07/24 09:42	06/10/24 21:32	1
Pentachlorophenol	ND		10	2.2	ug/L		06/07/24 09:42	06/10/24 21:32	1
Phenanthrene	ND		5.0	0.44	ug/L		06/07/24 09:42	06/10/24 21:32	1
Phenol	ND		5.0	0.39	ug/L		06/07/24 09:42	06/10/24 21:32	1
Pyrene	ND		5.0	0.34	ug/L		06/07/24 09:42	06/10/24 21:32	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*2.0*	*T J*	*ug/L*		*3.21*	*N/A*	*06/07/24 09:42*	*06/10/24 21:32*	*1*
Unknown	*23*	*T J*	*ug/L*		*4.75*	*N/A*	*06/07/24 09:42*	*06/10/24 21:32*	*1*
Bromacil	*1.7*	*T J N*	*ug/L*		*12.05*	*314-40-9*	*06/07/24 09:42*	*06/10/24 21:32*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*81*		*25 - 144*	*06/07/24 09:42*	*06/10/24 21:32*	*1*
2-Fluorobiphenyl	*71*		*53 - 126*	*06/07/24 09:42*	*06/10/24 21:32*	*1*
2-Fluorophenol	*50*		*24 - 120*	*06/07/24 09:42*	*06/10/24 21:32*	*1*
Nitrobenzene-d5	*66*		*29 - 129*	*06/07/24 09:42*	*06/10/24 21:32*	*1*
Phenol-d5	*37*		*10 - 120*	*06/07/24 09:42*	*06/10/24 21:32*	*1*
p-Terphenyl-d14	*54*		*33 - 132*	*06/07/24 09:42*	*06/10/24 21:32*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	**0.018**	**J**	0.050	0.0092	ug/L		06/05/24 09:14	06/06/24 13:31	1
4,4'-DDE	ND		0.050	0.012	ug/L		06/05/24 09:14	06/06/24 13:31	1
4,4'-DDT	**0.032**	**J**	0.050	0.011	ug/L		06/05/24 09:14	06/06/24 13:31	1
Aldrin	ND		0.050	0.0081	ug/L		06/05/24 09:14	06/06/24 13:31	1
alpha-BHC	ND		0.050	0.0077	ug/L		06/05/24 09:14	06/06/24 13:31	1
cis-Chlordane	ND		0.050	0.015	ug/L		06/05/24 09:14	06/06/24 13:31	1

Client Sample ID: SW-01-2-FD

Date Collected: 06/03/24 11:55
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-2

Matrix: Water

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
beta-BHC	ND		0.050	0.025	ug/L		06/05/24 09:14	06/06/24 13:31	1
delta-BHC	ND		0.050	0.010	ug/L		06/05/24 09:14	06/06/24 13:31	1
Dieldrin	ND		0.050	0.0098	ug/L		06/05/24 09:14	06/06/24 13:31	1
Endosulfan I	ND		0.050	0.011	ug/L		06/05/24 09:14	06/06/24 13:31	1
Endosulfan II	ND		0.050	0.012	ug/L		06/05/24 09:14	06/06/24 13:31	1
Endosulfan sulfate	ND		0.050	0.016	ug/L		06/05/24 09:14	06/06/24 13:31	1
Endrin	ND		0.050	0.014	ug/L		06/05/24 09:14	06/06/24 13:31	1
Endrin aldehyde	ND		0.050	0.016	ug/L		06/05/24 09:14	06/06/24 13:31	1
Endrin ketone	ND		0.050	0.012	ug/L		06/05/24 09:14	06/06/24 13:31	1
gamma-BHC (Lindane)	ND		0.050	0.0080	ug/L		06/05/24 09:14	06/06/24 13:31	1
trans-Chlordane	ND		0.050	0.011	ug/L		06/05/24 09:14	06/06/24 13:31	1
Heptachlor	ND		0.050	0.0085	ug/L		06/05/24 09:14	06/06/24 13:31	1
Heptachlor epoxide	ND		0.050	0.0074	ug/L		06/05/24 09:14	06/06/24 13:31	1
Methoxychlor	**0.031**	**J**	0.050	0.014	ug/L		06/05/24 09:14	06/06/24 13:31	1
Toxaphene	ND		0.50	0.12	ug/L		06/05/24 09:14	06/06/24 13:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*71*		*20 - 120*	*06/05/24 09:14*	*06/06/24 13:31*	*1*
DCB Decachlorobiphenyl	*40*		*20 - 120*	*06/05/24 09:14*	*06/06/24 13:31*	*1*
Tetrachloro-m-xylene	*41*	*S1-*	*44 - 120*	*06/05/24 09:14*	*06/06/24 13:31*	*1*
Tetrachloro-m-xylene	*36*	*S1-*	*44 - 120*	*06/05/24 09:14*	*06/06/24 13:31*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 19:15	1
PCB-1221	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 19:15	1
PCB-1232	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 19:15	1
PCB-1242	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 19:15	1
PCB-1248	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 19:15	1
PCB-1254	ND		0.50	0.25	ug/L		06/06/24 06:53	06/06/24 19:15	1
PCB-1260	ND		0.50	0.25	ug/L		06/06/24 06:53	06/06/24 19:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*36*		*19 - 120*	*06/06/24 06:53*	*06/06/24 19:15*	*1*
DCB Decachlorobiphenyl	*42*		*19 - 120*	*06/06/24 06:53*	*06/06/24 19:15*	*1*
Tetrachloro-m-xylene	*78*		*39 - 121*	*06/06/24 06:53*	*06/06/24 19:15*	*1*
Tetrachloro-m-xylene	*72*		*39 - 121*	*06/06/24 06:53*	*06/06/24 19:15*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**5.8**	**J**	5.9	1.6	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluoropentanoic acid (PFPeA)	ND		2.9	0.74	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluorohexanoic acid (PFHxA)	**1.7**		1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluoroheptanoic acid (PFHpA)	**1.3**	**J**	1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluorooctanoic acid (PFOA)	**8.0**		1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluorononanoic acid (PFNA)	**19**	**I**	1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluorodecanoic acid (PFDA)	**0.48**	**J**	1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluoroundecanoic acid (PFUnA)	ND		1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluorododecanoic acid (PFDoA)	ND		1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220419-1

Client Sample ID: SW-01-2-FD
Date Collected: 06/03/24 11:55
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-2
Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorotetradecanoic acid (PFTeDA)	ND		1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluorobutanesulfonic acid (PFBS)	**2.2**		1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluorohexanesulfonic acid (PFHxS)	**0.63**	**J**	1.5	0.38	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluorooctanesulfonic acid (PFOS)	**2.9**		1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluorononanesulfonic acid (PFNS)	ND		1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		5.9	1.5	ng/L		06/06/24 08:39	06/07/24 16:47	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	**1.8**	**J**	5.9	1.5	ng/L		06/06/24 08:39	06/07/24 16:47	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	**5.3**	**J**	5.9	1.5	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.5	0.46	ng/L		06/06/24 08:39	06/07/24 16:47	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.5	0.38	ng/L		06/06/24 08:39	06/07/24 16:47	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		15	3.7	ng/L		06/06/24 08:39	06/07/24 16:47	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		15	3.7	ng/L		06/06/24 08:39	06/07/24 16:47	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		5.9	1.5	ng/L		06/06/24 08:39	06/07/24 16:47	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		5.9	1.5	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.9	0.74	ng/L		06/06/24 08:39	06/07/24 16:47	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.9	0.90	ng/L		06/06/24 08:39	06/07/24 16:47	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		5.9	1.5	ng/L		06/06/24 08:39	06/07/24 16:47	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		5.9	1.5	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		2.9	0.74	ng/L		06/06/24 08:39	06/07/24 16:47	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		7.4	1.8	ng/L		06/06/24 08:39	06/07/24 16:47	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		37	9.2	ng/L		06/06/24 08:39	06/07/24 16:47	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		37	11	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.5	0.37	ng/L		06/06/24 08:39	06/07/24 16:47	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.9	0.74	ng/L		06/06/24 08:39	06/07/24 16:47	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220419-1

Client Sample ID: SW-01-2-FD

Date Collected: 06/03/24 11:55
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-2

Matrix: Water

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	85.9		10 - 130	06/06/24 08:39	06/07/24 16:47	1
13C5 PFPeA	73.3		35 - 150	06/06/24 08:39	06/07/24 16:47	1
13C5 PFHxA	88.8		55 - 150	06/06/24 08:39	06/07/24 16:47	1
13C4 PFHpA	82.1		55 - 150	06/06/24 08:39	06/07/24 16:47	1
13C8 PFOA	77.4		60 - 140	06/06/24 08:39	06/07/24 16:47	1
13C9 PFNA	105		55 - 140	06/06/24 08:39	06/07/24 16:47	1
13C6 PFDA	76.2		50 - 140	06/06/24 08:39	06/07/24 16:47	1
13C7 PFUnA	106		30 - 140	06/06/24 08:39	06/07/24 16:47	1
13C2 PFTeDA	53.3		10 - 130	06/06/24 08:39	06/07/24 16:47	1
13C3 PFBS	107		55 - 150	06/06/24 08:39	06/07/24 16:47	1
13C3 PFHxS	92.0		55 - 150	06/06/24 08:39	06/07/24 16:47	1
13C8 PFOS	78.2		45 - 140	06/06/24 08:39	06/07/24 16:47	1
13C8 FOSA	63.7		30 - 130	06/06/24 08:39	06/07/24 16:47	1
d3-NMeFOSAA	58.9		45 - 200	06/06/24 08:39	06/07/24 16:47	1
d5-NEtFOSAA	51.4		10 - 200	06/06/24 08:39	06/07/24 16:47	1
M2-4:2 FTS	214	*5+	60 - 200	06/06/24 08:39	06/07/24 16:47	1
M2-6:2 FTS	211	I *5+	60 - 200	06/06/24 08:39	06/07/24 16:47	1
M2-8:2 FTS	75.7		50 - 200	06/06/24 08:39	06/07/24 16:47	1
13C3 HFPO-DA	95.4		25 - 160	06/06/24 08:39	06/07/24 16:47	1
d7-N-MeFOSE-M	40.6		10 - 150	06/06/24 08:39	06/07/24 16:47	1
d9-N-EtFOSE-M	39.8		10 - 150	06/06/24 08:39	06/07/24 16:47	1
d5-NEtPFOSA	45.3		10 - 130	06/06/24 08:39	06/07/24 16:47	1
d3-NMePFOSA	49.5		15 - 130	06/06/24 08:39	06/07/24 16:47	1
13C2-PFDoDA	84.0		10 - 150	06/06/24 08:39	06/07/24 16:47	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		06/06/24 09:16	06/06/24 17:37	1
Antimony	ND		0.020	0.0068	mg/L		06/06/24 09:16	06/06/24 17:37	1
Arsenic	ND		0.015	0.0056	mg/L		06/06/24 09:16	06/06/24 17:37	1
Barium	**0.024**		0.0020	0.00070	mg/L		06/06/24 09:16	06/06/24 17:37	1
Beryllium	ND		0.0020	0.00030	mg/L		06/06/24 09:16	06/06/24 17:37	1
Cadmium	ND		0.0020	0.00050	mg/L		06/06/24 09:16	06/06/24 17:37	1
Calcium	**46.3**		0.50	0.10	mg/L		06/06/24 09:16	06/06/24 17:37	1
Chromium	ND		0.0040	0.0010	mg/L		06/06/24 09:16	06/06/24 17:37	1
Cobalt	ND		0.0040	0.00063	mg/L		06/06/24 09:16	06/06/24 17:37	1
Copper	ND		0.010	0.0016	mg/L		06/06/24 09:16	06/06/24 17:37	1
Iron	**0.083**		0.050	0.019	mg/L		06/06/24 09:16	06/06/24 17:37	1
Lead	ND		0.010	0.0030	mg/L		06/06/24 09:16	06/06/24 17:37	1
Magnesium	**9.0**		0.20	0.043	mg/L		06/06/24 09:16	06/06/24 17:37	1
Manganese	**0.018**		0.0030	0.00040	mg/L		06/06/24 09:16	06/06/24 17:37	1
Nickel	ND		0.010	0.0013	mg/L		06/06/24 09:16	06/06/24 17:37	1
Potassium	**2.1**		0.50	0.10	mg/L		06/06/24 09:16	06/06/24 17:37	1
Selenium	ND		0.025	0.0087	mg/L		06/06/24 09:16	06/06/24 17:37	1
Silver	ND		0.0060	0.0017	mg/L		06/06/24 09:16	06/06/24 17:37	1
Sodium	**7.1**		1.0	0.32	mg/L		06/06/24 09:16	06/06/24 17:37	1
Thallium	ND		0.020	0.010	mg/L		06/06/24 09:16	06/06/24 17:37	1
Vanadium	ND		0.0050	0.0015	mg/L		06/06/24 09:16	06/06/24 17:37	1
Zinc	ND		0.010	0.0015	mg/L		06/06/24 09:16	06/06/24 17:37	1

Client Sample ID: SW-01-2-FD

Date Collected: 06/03/24 11:55
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-2
Matrix: Water

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		06/06/24 09:12	06/06/24 20:04	1
Antimony	ND		0.020	0.0068	mg/L		06/06/24 09:12	06/06/24 20:04	1
Arsenic	ND		0.015	0.0056	mg/L		06/06/24 09:12	06/06/24 20:04	1
Barium	**0.046**		0.0020	0.00070	mg/L		06/06/24 09:12	06/06/24 20:04	1
Beryllium	ND		0.0020	0.00030	mg/L		06/06/24 09:12	06/06/24 20:04	1
Cadmium	ND		0.0020	0.00050	mg/L		06/06/24 09:12	06/06/24 20:04	1
Calcium	**56.0**		0.50	0.10	mg/L		06/06/24 09:12	06/06/24 20:04	1
Chromium	ND		0.0040	0.0010	mg/L		06/06/24 09:12	06/06/24 20:04	1
Cobalt	ND		0.0040	0.00063	mg/L		06/06/24 09:12	06/06/24 20:04	1
Copper	ND		0.010	0.0016	mg/L		06/06/24 09:12	06/06/24 20:04	1
Iron	**0.064**		0.050	0.019	mg/L		06/06/24 09:12	06/06/24 20:04	1
Lead	**0.0065**	**J**	0.010	0.0030	mg/L		06/06/24 09:12	06/06/24 20:04	1
Magnesium	**11.1**		0.20	0.043	mg/L		06/06/24 09:12	06/06/24 20:04	1
Manganese	**0.68**		0.0030	0.00040	mg/L		06/06/24 09:12	06/06/24 20:04	1
Nickel	ND		0.010	0.0013	mg/L		06/06/24 09:12	06/06/24 20:04	1
Potassium	**2.6**		0.50	0.10	mg/L		06/06/24 09:12	06/06/24 20:04	1
Selenium	ND		0.025	0.0087	mg/L		06/06/24 09:12	06/06/24 20:04	1
Silver	ND		0.0060	0.0017	mg/L		06/06/24 09:12	06/06/24 20:04	1
Sodium	**8.4**		1.0	0.32	mg/L		06/06/24 09:12	06/06/24 20:04	1
Thallium	ND		0.020	0.010	mg/L		06/06/24 09:12	06/06/24 20:04	1
Vanadium	ND		0.0050	0.0015	mg/L		06/06/24 09:12	06/06/24 20:04	1
Zinc	ND		0.010	0.0015	mg/L		06/06/24 09:12	06/06/24 20:04	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		06/05/24 10:50	06/05/24 14:14	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		06/05/24 10:50	06/05/24 14:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			06/09/24 17:33	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			06/14/24 20:56	1

Client Sample ID: SW-01-3

Date Collected: 06/03/24 13:20
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-3
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/05/24 14:41	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/05/24 14:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			06/05/24 14:41	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/05/24 14:41	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/05/24 14:41	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/05/24 14:41	1

Client Sample ID: SW-01-3
Date Collected: 06/03/24 13:20
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-3
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			06/05/24 14:41	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/05/24 14:41	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/05/24 14:41	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/05/24 14:41	1
1,2-Dichloroethane	ND	*+	1.0	0.21	ug/L			06/05/24 14:41	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/05/24 14:41	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			06/05/24 14:41	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/05/24 14:41	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/05/24 14:41	1
2-Hexanone	ND		5.0	1.2	ug/L			06/05/24 14:41	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			06/05/24 14:41	1
Acetone	**3.2**	**J**	10	3.0	ug/L			06/05/24 14:41	1
Benzene	**0.69**	**J**	1.0	0.41	ug/L			06/05/24 14:41	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/05/24 14:41	1
Bromoform	ND		1.0	0.26	ug/L			06/05/24 14:41	1
Bromomethane	ND		1.0	0.69	ug/L			06/05/24 14:41	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/05/24 14:41	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/05/24 14:41	1
Chlorobenzene	**1.6**		1.0	0.75	ug/L			06/05/24 14:41	1
Chloroethane	ND		1.0	0.32	ug/L			06/05/24 14:41	1
Chloroform	ND		1.0	0.34	ug/L			06/05/24 14:41	1
Chloromethane	ND		1.0	0.35	ug/L			06/05/24 14:41	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/05/24 14:41	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/05/24 14:41	1
Cyclohexane	**1.6**		1.0	0.18	ug/L			06/05/24 14:41	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/05/24 14:41	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			06/05/24 14:41	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/05/24 14:41	1
Isopropylbenzene	ND		1.0	0.79	ug/L			06/05/24 14:41	1
Methyl acetate	ND		2.5	1.3	ug/L			06/05/24 14:41	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			06/05/24 14:41	1
Methylcyclohexane	**1.4**		1.0	0.16	ug/L			06/05/24 14:41	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/05/24 14:41	1
Styrene	ND		1.0	0.73	ug/L			06/05/24 14:41	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/05/24 14:41	1
Toluene	ND		1.0	0.51	ug/L			06/05/24 14:41	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/05/24 14:41	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/05/24 14:41	1
Trichloroethene	ND		1.0	0.46	ug/L			06/05/24 14:41	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/05/24 14:41	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/05/24 14:41	1
Xylenes, Total	ND		2.0	0.66	ug/L			06/05/24 14:41	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Indane	*4.8*	*T J N*	*ug/L*		*10.69*	*496-11-7*		*06/05/24 14:41*	*1*
Unknown	*3.8*	*T J*	*ug/L*		*11.90*	*N/A*		*06/05/24 14:41*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*77 - 120*		*06/05/24 14:41*	*1*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*06/05/24 14:41*	*1*

Client Sample ID: SW-01-3

Date Collected: 06/03/24 13:20
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-3

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*84*		*75 - 123*		*06/05/24 14:41*	*1*
Toluene-d8 (Surr)	*90*		*80 - 120*		*06/05/24 14:41*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		06/07/24 09:42	06/10/24 22:00	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		06/07/24 09:42	06/10/24 22:00	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		06/07/24 09:42	06/10/24 22:00	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		06/07/24 09:42	06/10/24 22:00	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		06/07/24 09:42	06/10/24 22:00	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		06/07/24 09:42	06/10/24 22:00	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		06/07/24 09:42	06/10/24 22:00	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		06/07/24 09:42	06/10/24 22:00	1
2-Chlorophenol	ND		5.0	0.53	ug/L		06/07/24 09:42	06/10/24 22:00	1
2-Methylnaphthalene	**1.3**	**J**	5.0	0.60	ug/L		06/07/24 09:42	06/10/24 22:00	1
2-Methylphenol	ND		5.0	0.40	ug/L		06/07/24 09:42	06/10/24 22:00	1
2-Nitroaniline	ND		10	0.42	ug/L		06/07/24 09:42	06/10/24 22:00	1
2-Nitrophenol	ND		5.0	0.48	ug/L		06/07/24 09:42	06/10/24 22:00	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		06/07/24 09:42	06/10/24 22:00	1
3-Nitroaniline	ND		10	0.48	ug/L		06/07/24 09:42	06/10/24 22:00	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		06/07/24 09:42	06/10/24 22:00	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		06/07/24 09:42	06/10/24 22:00	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		06/07/24 09:42	06/10/24 22:00	1
4-Chloroaniline	ND		5.0	0.59	ug/L		06/07/24 09:42	06/10/24 22:00	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		06/07/24 09:42	06/10/24 22:00	1
4-Methylphenol	**0.78**	**J**	10	0.36	ug/L		06/07/24 09:42	06/10/24 22:00	1
4-Nitroaniline	ND		10	0.25	ug/L		06/07/24 09:42	06/10/24 22:00	1
4-Nitrophenol	ND		10	1.5	ug/L		06/07/24 09:42	06/10/24 22:00	1
Acenaphthene	**0.54**	**J**	5.0	0.41	ug/L		06/07/24 09:42	06/10/24 22:00	1
Acenaphthylene	ND		5.0	0.38	ug/L		06/07/24 09:42	06/10/24 22:00	1
Acetophenone	ND		5.0	0.54	ug/L		06/07/24 09:42	06/10/24 22:00	1
Anthracene	ND		5.0	0.28	ug/L		06/07/24 09:42	06/10/24 22:00	1
Atrazine	ND		5.0	0.46	ug/L		06/07/24 09:42	06/10/24 22:00	1
Benzaldehyde	ND		5.0	0.27	ug/L		06/07/24 09:42	06/10/24 22:00	1
Benzo(a)anthracene	ND		5.0	0.36	ug/L		06/07/24 09:42	06/10/24 22:00	1
Benzo(a)pyrene	ND		5.0	0.47	ug/L		06/07/24 09:42	06/10/24 22:00	1
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L		06/07/24 09:42	06/10/24 22:00	1
Benzo(g,h,i)perylene	ND		5.0	0.35	ug/L		06/07/24 09:42	06/10/24 22:00	1
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L		06/07/24 09:42	06/10/24 22:00	1
Biphenyl	ND		5.0	0.65	ug/L		06/07/24 09:42	06/10/24 22:00	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		06/07/24 09:42	06/10/24 22:00	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		06/07/24 09:42	06/10/24 22:00	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		06/07/24 09:42	06/10/24 22:00	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		06/07/24 09:42	06/10/24 22:00	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		06/07/24 09:42	06/10/24 22:00	1
Caprolactam	ND		5.0	2.2	ug/L		06/07/24 09:42	06/10/24 22:00	1
Carbazole	ND		5.0	0.30	ug/L		06/07/24 09:42	06/10/24 22:00	1
Chrysene	ND		5.0	0.33	ug/L		06/07/24 09:42	06/10/24 22:00	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		06/07/24 09:42	06/10/24 22:00	1

Client Sample ID: SW-01-3
Date Collected: 06/03/24 13:20
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-3
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	ND		10	0.51	ug/L		06/07/24 09:42	06/10/24 22:00	1
Diethyl phthalate	ND		5.0	0.22	ug/L		06/07/24 09:42	06/10/24 22:00	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		06/07/24 09:42	06/10/24 22:00	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		06/07/24 09:42	06/10/24 22:00	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		06/07/24 09:42	06/10/24 22:00	1
Fluoranthene	ND		5.0	0.40	ug/L		06/07/24 09:42	06/10/24 22:00	1
Fluorene	**0.48**	**J**	5.0	0.36	ug/L		06/07/24 09:42	06/10/24 22:00	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		06/07/24 09:42	06/10/24 22:00	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		06/07/24 09:42	06/10/24 22:00	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		06/07/24 09:42	06/10/24 22:00	1
Hexachloroethane	ND		5.0	0.59	ug/L		06/07/24 09:42	06/10/24 22:00	1
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L		06/07/24 09:42	06/10/24 22:00	1
Isophorone	ND		5.0	0.43	ug/L		06/07/24 09:42	06/10/24 22:00	1
Naphthalene	ND		5.0	0.76	ug/L		06/07/24 09:42	06/10/24 22:00	1
Nitrobenzene	ND		5.0	0.29	ug/L		06/07/24 09:42	06/10/24 22:00	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		06/07/24 09:42	06/10/24 22:00	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		06/07/24 09:42	06/10/24 22:00	1
Pentachlorophenol	ND		10	2.2	ug/L		06/07/24 09:42	06/10/24 22:00	1
Phenanthrene	**0.59**	**J**	5.0	0.44	ug/L		06/07/24 09:42	06/10/24 22:00	1
Phenol	**0.55**	**J**	5.0	0.39	ug/L		06/07/24 09:42	06/10/24 22:00	1
Pyrene	ND		5.0	0.34	ug/L		06/07/24 09:42	06/10/24 22:00	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*1.7*	*T J*	*ug/L*		*3.19*	*N/A*	*06/07/24 09:42*	*06/10/24 22:00*	*1*
Unknown	*1.7*	*T J*	*ug/L*		*4.35*	*N/A*	*06/07/24 09:42*	*06/10/24 22:00*	*1*
Unknown	*20*	*T J*	*ug/L*		*4.75*	*N/A*	*06/07/24 09:42*	*06/10/24 22:00*	*1*
Indane	*3.2*	*T J N*	*ug/L*		*6.84*	*496-11-7*	*06/07/24 09:42*	*06/10/24 22:00*	*1*
3-Phenylbut-1-ene	*3.6*	*T J N*	*ug/L*		*8.00*	*934-10-1*	*06/07/24 09:42*	*06/10/24 22:00*	*1*
1,4-Methanonaphthalene, 1,4-dihydro-	*2.5*	*T J N*	*ug/L*		*9.27*	*4453-90-1*	*06/07/24 09:42*	*06/10/24 22:00*	*1*
Naphthalene, 2,6-dimethyl-	*3.2*	*T J N*	*ug/L*		*9.81*	*581-42-0*	*06/07/24 09:42*	*06/10/24 22:00*	*1*
Naphthalene, 1,5-dimethyl-	*2.8*	*T J N*	*ug/L*		*9.89*	*571-61-9*	*06/07/24 09:42*	*06/10/24 22:00*	*1*
Naphthalene, 2,7-dimethyl-	*2.8*	*T J N*	*ug/L*		*9.92*	*582-16-1*	*06/07/24 09:42*	*06/10/24 22:00*	*1*
Unknown	*2.1*	*T J*	*ug/L*		*10.80*	*N/A*	*06/07/24 09:42*	*06/10/24 22:00*	*1*
Bromacil	*2.9*	*T J N*	*ug/L*		*12.05*	*314-40-9*	*06/07/24 09:42*	*06/10/24 22:00*	*1*
Unknown	*28*	*T J*	*ug/L*		*13.28*	*N/A*	*06/07/24 09:42*	*06/10/24 22:00*	*1*
Unknown	*2.3*	*T J*	*ug/L*		*14.17*	*N/A*	*06/07/24 09:42*	*06/10/24 22:00*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*54*		*25 - 144*	*06/07/24 09:42*	*06/10/24 22:00*	*1*
2-Fluorobiphenyl	*62*		*53 - 126*	*06/07/24 09:42*	*06/10/24 22:00*	*1*
2-Fluorophenol	*38*		*24 - 120*	*06/07/24 09:42*	*06/10/24 22:00*	*1*
Nitrobenzene-d5	*56*		*29 - 129*	*06/07/24 09:42*	*06/10/24 22:00*	*1*
Phenol-d5	*30*		*10 - 120*	*06/07/24 09:42*	*06/10/24 22:00*	*1*
p-Terphenyl-d14	*37*		*33 - 132*	*06/07/24 09:42*	*06/10/24 22:00*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	**0.011**	**J**	0.050	0.0092	ug/L		06/05/24 09:14	06/06/24 13:50	1
4,4'-DDE	ND		0.050	0.012	ug/L		06/05/24 09:14	06/06/24 13:50	1

Client Sample ID: SW-01-3
Date Collected: 06/03/24 13:20
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-3
Matrix: Water

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDT	**0.046**	**J**	0.050	0.011	ug/L		06/05/24 09:14	06/06/24 13:50	1
Aldrin	ND		0.050	0.0081	ug/L		06/05/24 09:14	06/06/24 13:50	1
alpha-BHC	ND		0.050	0.0077	ug/L		06/05/24 09:14	06/06/24 13:50	1
cis-Chlordane	ND		0.050	0.015	ug/L		06/05/24 09:14	06/06/24 13:50	1
beta-BHC	ND		0.050	0.025	ug/L		06/05/24 09:14	06/06/24 13:50	1
delta-BHC	ND		0.050	0.010	ug/L		06/05/24 09:14	06/06/24 13:50	1
Dieldrin	ND		0.050	0.0098	ug/L		06/05/24 09:14	06/06/24 13:50	1
Endosulfan I	ND		0.050	0.011	ug/L		06/05/24 09:14	06/06/24 13:50	1
Endosulfan II	ND		0.050	0.012	ug/L		06/05/24 09:14	06/06/24 13:50	1
Endosulfan sulfate	ND		0.050	0.016	ug/L		06/05/24 09:14	06/06/24 13:50	1
Endrin	ND		0.050	0.014	ug/L		06/05/24 09:14	06/06/24 13:50	1
Endrin aldehyde	ND		0.050	0.016	ug/L		06/05/24 09:14	06/06/24 13:50	1
Endrin ketone	ND		0.050	0.012	ug/L		06/05/24 09:14	06/06/24 13:50	1
gamma-BHC (Lindane)	**0.010**	**J B**	0.050	0.0080	ug/L		06/05/24 09:14	06/06/24 13:50	1
trans-Chlordane	ND		0.050	0.011	ug/L		06/05/24 09:14	06/06/24 13:50	1
Heptachlor	ND		0.050	0.0085	ug/L		06/05/24 09:14	06/06/24 13:50	1
Heptachlor epoxide	ND		0.050	0.0074	ug/L		06/05/24 09:14	06/06/24 13:50	1
Methoxychlor	**0.078**		0.050	0.014	ug/L		06/05/24 09:14	06/06/24 13:50	1
Toxaphene	ND		0.50	0.12	ug/L		06/05/24 09:14	06/06/24 13:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*37*		*20 - 120*	*06/05/24 09:14*	*06/06/24 13:50*	*1*
DCB Decachlorobiphenyl	*32*		*20 - 120*	*06/05/24 09:14*	*06/06/24 13:50*	*1*
Tetrachloro-m-xylene	*39*	*S1-*	*44 - 120*	*06/05/24 09:14*	*06/06/24 13:50*	*1*
Tetrachloro-m-xylene	*37*	*S1-*	*44 - 120*	*06/05/24 09:14*	*06/06/24 13:50*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 19:32	1
PCB-1221	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 19:32	1
PCB-1232	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 19:32	1
PCB-1242	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 19:32	1
PCB-1248	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 19:32	1
PCB-1254	ND		0.50	0.25	ug/L		06/06/24 06:53	06/06/24 19:32	1
PCB-1260	ND		0.50	0.25	ug/L		06/06/24 06:53	06/06/24 19:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*23*		*19 - 120*	*06/06/24 06:53*	*06/06/24 19:32*	*1*
DCB Decachlorobiphenyl	*30*		*19 - 120*	*06/06/24 06:53*	*06/06/24 19:32*	*1*
Tetrachloro-m-xylene	*51*		*39 - 121*	*06/06/24 06:53*	*06/06/24 19:32*	*1*
Tetrachloro-m-xylene	*51*		*39 - 121*	*06/06/24 06:53*	*06/06/24 19:32*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		06/06/24 09:16	06/06/24 17:39	1
Antimony	ND		0.020	0.0068	mg/L		06/06/24 09:16	06/06/24 17:39	1
Arsenic	ND		0.015	0.0056	mg/L		06/06/24 09:16	06/06/24 17:39	1
Barium	**0.061**		0.0020	0.00070	mg/L		06/06/24 09:16	06/06/24 17:39	1
Beryllium	ND		0.0020	0.00030	mg/L		06/06/24 09:16	06/06/24 17:39	1
Cadmium	ND		0.0020	0.00050	mg/L		06/06/24 09:16	06/06/24 17:39	1

Client Sample ID: SW-01-3
Date Collected: 06/03/24 13:20
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-3
Matrix: Water

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**52.1**		0.50	0.10	mg/L		06/06/24 09:16	06/06/24 17:39	1
Chromium	**0.0021**	**J**	0.0040	0.0010	mg/L		06/06/24 09:16	06/06/24 17:39	1
Cobalt	ND		0.0040	0.00063	mg/L		06/06/24 09:16	06/06/24 17:39	1
Copper	ND		0.010	0.0016	mg/L		06/06/24 09:16	06/06/24 17:39	1
Iron	**0.26**		0.050	0.019	mg/L		06/06/24 09:16	06/06/24 17:39	1
Lead	ND		0.010	0.0030	mg/L		06/06/24 09:16	06/06/24 17:39	1
Magnesium	**9.8**		0.20	0.043	mg/L		06/06/24 09:16	06/06/24 17:39	1
Manganese	**1.7**		0.0030	0.00040	mg/L		06/06/24 09:16	06/06/24 17:39	1
Nickel	ND		0.010	0.0013	mg/L		06/06/24 09:16	06/06/24 17:39	1
Potassium	**2.5**		0.50	0.10	mg/L		06/06/24 09:16	06/06/24 17:39	1
Selenium	ND		0.025	0.0087	mg/L		06/06/24 09:16	06/06/24 17:39	1
Silver	ND		0.0060	0.0017	mg/L		06/06/24 09:16	06/06/24 17:39	1
Sodium	**7.9**		1.0	0.32	mg/L		06/06/24 09:16	06/06/24 17:39	1
Thallium	ND		0.020	0.010	mg/L		06/06/24 09:16	06/06/24 17:39	1
Vanadium	ND		0.0050	0.0015	mg/L		06/06/24 09:16	06/06/24 17:39	1
Zinc	**0.0028**	**J**	0.010	0.0015	mg/L		06/06/24 09:16	06/06/24 17:39	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		06/06/24 09:12	06/06/24 20:06	1
Antimony	ND		0.020	0.0068	mg/L		06/06/24 09:12	06/06/24 20:06	1
Arsenic	ND		0.015	0.0056	mg/L		06/06/24 09:12	06/06/24 20:06	1
Barium	**0.027**		0.0020	0.00070	mg/L		06/06/24 09:12	06/06/24 20:06	1
Beryllium	ND		0.0020	0.00030	mg/L		06/06/24 09:12	06/06/24 20:06	1
Cadmium	ND		0.0020	0.00050	mg/L		06/06/24 09:12	06/06/24 20:06	1
Calcium	**52.6**		0.50	0.10	mg/L		06/06/24 09:12	06/06/24 20:06	1
Chromium	ND		0.0040	0.0010	mg/L		06/06/24 09:12	06/06/24 20:06	1
Cobalt	**0.00065**	**J**	0.0040	0.00063	mg/L		06/06/24 09:12	06/06/24 20:06	1
Copper	**0.0018**	**J**	0.010	0.0016	mg/L		06/06/24 09:12	06/06/24 20:06	1
Iron	**0.066**		0.050	0.019	mg/L		06/06/24 09:12	06/06/24 20:06	1
Lead	**0.0046**	**J**	0.010	0.0030	mg/L		06/06/24 09:12	06/06/24 20:06	1
Magnesium	**10.6**		0.20	0.043	mg/L		06/06/24 09:12	06/06/24 20:06	1
Manganese	**0.0018**	**J**	0.0030	0.00040	mg/L		06/06/24 09:12	06/06/24 20:06	1
Nickel	ND		0.010	0.0013	mg/L		06/06/24 09:12	06/06/24 20:06	1
Potassium	**2.4**		0.50	0.10	mg/L		06/06/24 09:12	06/06/24 20:06	1
Selenium	ND		0.025	0.0087	mg/L		06/06/24 09:12	06/06/24 20:06	1
Silver	ND		0.0060	0.0017	mg/L		06/06/24 09:12	06/06/24 20:06	1
Sodium	**7.9**		1.0	0.32	mg/L		06/06/24 09:12	06/06/24 20:06	1
Thallium	ND		0.020	0.010	mg/L		06/06/24 09:12	06/06/24 20:06	1
Vanadium	ND		0.0050	0.0015	mg/L		06/06/24 09:12	06/06/24 20:06	1
Zinc	ND		0.010	0.0015	mg/L		06/06/24 09:12	06/06/24 20:06	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		06/05/24 10:50	06/05/24 14:15	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		06/05/24 10:50	06/05/24 14:43	1

Client Sample ID: SW-01-3

Date Collected: 06/03/24 13:20
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-3
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			06/09/24 17:36	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			06/14/24 21:03	1

Client Sample ID: SW-01-1

Date Collected: 06/03/24 13:45
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-4
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/05/24 15:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/05/24 15:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			06/05/24 15:03	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/05/24 15:03	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/05/24 15:03	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/05/24 15:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			06/05/24 15:03	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/05/24 15:03	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/05/24 15:03	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/05/24 15:03	1
1,2-Dichloroethane	ND	*+	1.0	0.21	ug/L			06/05/24 15:03	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/05/24 15:03	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			06/05/24 15:03	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/05/24 15:03	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/05/24 15:03	1
2-Hexanone	ND		5.0	1.2	ug/L			06/05/24 15:03	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			06/05/24 15:03	1
Acetone	ND		10	3.0	ug/L			06/05/24 15:03	1
Benzene	ND		1.0	0.41	ug/L			06/05/24 15:03	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/05/24 15:03	1
Bromoform	ND		1.0	0.26	ug/L			06/05/24 15:03	1
Bromomethane	ND		1.0	0.69	ug/L			06/05/24 15:03	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/05/24 15:03	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/05/24 15:03	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/05/24 15:03	1
Chloroethane	ND		1.0	0.32	ug/L			06/05/24 15:03	1
Chloroform	ND		1.0	0.34	ug/L			06/05/24 15:03	1
Chloromethane	ND		1.0	0.35	ug/L			06/05/24 15:03	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/05/24 15:03	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/05/24 15:03	1
Cyclohexane	ND		1.0	0.18	ug/L			06/05/24 15:03	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/05/24 15:03	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			06/05/24 15:03	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/05/24 15:03	1
Isopropylbenzene	ND		1.0	0.79	ug/L			06/05/24 15:03	1
Methyl acetate	ND		2.5	1.3	ug/L			06/05/24 15:03	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			06/05/24 15:03	1
Methylcyclohexane	ND		1.0	0.16	ug/L			06/05/24 15:03	1

Client Sample ID: SW-01-1
Date Collected: 06/03/24 13:45
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-4
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		1.0	0.44	ug/L			06/05/24 15:03	1
Styrene	ND		1.0	0.73	ug/L			06/05/24 15:03	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/05/24 15:03	1
Toluene	ND		1.0	0.51	ug/L			06/05/24 15:03	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/05/24 15:03	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/05/24 15:03	1
Trichloroethene	ND		1.0	0.46	ug/L			06/05/24 15:03	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/05/24 15:03	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/05/24 15:03	1
Xylenes, Total	ND		2.0	0.66	ug/L			06/05/24 15:03	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*		*06/05/24 15:03*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*77 - 120*		*06/05/24 15:03*	*1*
4-Bromofluorobenzene (Surr)	*108*		*73 - 120*		*06/05/24 15:03*	*1*
Dibromofluoromethane (Surr)	*95*		*75 - 123*		*06/05/24 15:03*	*1*
Toluene-d8 (Surr)	*88*		*80 - 120*		*06/05/24 15:03*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		06/07/24 09:42	06/10/24 22:28	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		06/07/24 09:42	06/10/24 22:28	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		06/07/24 09:42	06/10/24 22:28	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		06/07/24 09:42	06/10/24 22:28	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		06/07/24 09:42	06/10/24 22:28	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		06/07/24 09:42	06/10/24 22:28	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		06/07/24 09:42	06/10/24 22:28	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		06/07/24 09:42	06/10/24 22:28	1
2-Chlorophenol	ND		5.0	0.53	ug/L		06/07/24 09:42	06/10/24 22:28	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		06/07/24 09:42	06/10/24 22:28	1
2-Methylphenol	ND		5.0	0.40	ug/L		06/07/24 09:42	06/10/24 22:28	1
2-Nitroaniline	ND		10	0.42	ug/L		06/07/24 09:42	06/10/24 22:28	1
2-Nitrophenol	ND		5.0	0.48	ug/L		06/07/24 09:42	06/10/24 22:28	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		06/07/24 09:42	06/10/24 22:28	1
3-Nitroaniline	ND		10	0.48	ug/L		06/07/24 09:42	06/10/24 22:28	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		06/07/24 09:42	06/10/24 22:28	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		06/07/24 09:42	06/10/24 22:28	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		06/07/24 09:42	06/10/24 22:28	1
4-Chloroaniline	ND		5.0	0.59	ug/L		06/07/24 09:42	06/10/24 22:28	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		06/07/24 09:42	06/10/24 22:28	1
4-Methylphenol	ND		10	0.36	ug/L		06/07/24 09:42	06/10/24 22:28	1
4-Nitroaniline	ND		10	0.25	ug/L		06/07/24 09:42	06/10/24 22:28	1
4-Nitrophenol	ND		10	1.5	ug/L		06/07/24 09:42	06/10/24 22:28	1
Acenaphthene	ND		5.0	0.41	ug/L		06/07/24 09:42	06/10/24 22:28	1
Acenaphthylene	ND		5.0	0.38	ug/L		06/07/24 09:42	06/10/24 22:28	1
Acetophenone	ND		5.0	0.54	ug/L		06/07/24 09:42	06/10/24 22:28	1
Anthracene	ND		5.0	0.28	ug/L		06/07/24 09:42	06/10/24 22:28	1
Atrazine	ND		5.0	0.46	ug/L		06/07/24 09:42	06/10/24 22:28	1

Client Sample ID: SW-01-1
Date Collected: 06/03/24 13:45
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-4
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzaldehyde	ND		5.0	0.27	ug/L		06/07/24 09:42	06/10/24 22:28	1
Benzo(a)anthracene	ND		5.0	0.36	ug/L		06/07/24 09:42	06/10/24 22:28	1
Benzo(a)pyrene	ND		5.0	0.47	ug/L		06/07/24 09:42	06/10/24 22:28	1
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L		06/07/24 09:42	06/10/24 22:28	1
Benzo(g,h,i)perylene	ND		5.0	0.35	ug/L		06/07/24 09:42	06/10/24 22:28	1
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L		06/07/24 09:42	06/10/24 22:28	1
Biphenyl	ND		5.0	0.65	ug/L		06/07/24 09:42	06/10/24 22:28	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		06/07/24 09:42	06/10/24 22:28	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		06/07/24 09:42	06/10/24 22:28	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		06/07/24 09:42	06/10/24 22:28	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		06/07/24 09:42	06/10/24 22:28	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		06/07/24 09:42	06/10/24 22:28	1
Caprolactam	ND		5.0	2.2	ug/L		06/07/24 09:42	06/10/24 22:28	1
Carbazole	ND		5.0	0.30	ug/L		06/07/24 09:42	06/10/24 22:28	1
Chrysene	ND		5.0	0.33	ug/L		06/07/24 09:42	06/10/24 22:28	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		06/07/24 09:42	06/10/24 22:28	1
Dibenzofuran	ND		10	0.51	ug/L		06/07/24 09:42	06/10/24 22:28	1
Diethyl phthalate	ND		5.0	0.22	ug/L		06/07/24 09:42	06/10/24 22:28	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		06/07/24 09:42	06/10/24 22:28	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		06/07/24 09:42	06/10/24 22:28	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		06/07/24 09:42	06/10/24 22:28	1
Fluoranthene	ND		5.0	0.40	ug/L		06/07/24 09:42	06/10/24 22:28	1
Fluorene	ND		5.0	0.36	ug/L		06/07/24 09:42	06/10/24 22:28	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		06/07/24 09:42	06/10/24 22:28	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		06/07/24 09:42	06/10/24 22:28	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		06/07/24 09:42	06/10/24 22:28	1
Hexachloroethane	ND		5.0	0.59	ug/L		06/07/24 09:42	06/10/24 22:28	1
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L		06/07/24 09:42	06/10/24 22:28	1
Isophorone	ND		5.0	0.43	ug/L		06/07/24 09:42	06/10/24 22:28	1
Naphthalene	ND		5.0	0.76	ug/L		06/07/24 09:42	06/10/24 22:28	1
Nitrobenzene	ND		5.0	0.29	ug/L		06/07/24 09:42	06/10/24 22:28	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		06/07/24 09:42	06/10/24 22:28	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		06/07/24 09:42	06/10/24 22:28	1
Pentachlorophenol	ND		10	2.2	ug/L		06/07/24 09:42	06/10/24 22:28	1
Phenanthrene	ND		5.0	0.44	ug/L		06/07/24 09:42	06/10/24 22:28	1
Phenol	ND		5.0	0.39	ug/L		06/07/24 09:42	06/10/24 22:28	1
Pyrene	ND		5.0	0.34	ug/L		06/07/24 09:42	06/10/24 22:28	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*2.0*	*T J*	*ug/L*		*3.21*	*N/A*	*06/07/24 09:42*	*06/10/24 22:28*	*1*
Unknown	*22*	*T J*	*ug/L*		*4.75*	*N/A*	*06/07/24 09:42*	*06/10/24 22:28*	*1*
Bromacil	*2.0*	*T J N*	*ug/L*		*12.05*	*314-40-9*	*06/07/24 09:42*	*06/10/24 22:28*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*92*		*25 - 144*	*06/07/24 09:42*	*06/10/24 22:28*	*1*
2-Fluorobiphenyl	*72*		*53 - 126*	*06/07/24 09:42*	*06/10/24 22:28*	*1*
2-Fluorophenol	*54*		*24 - 120*	*06/07/24 09:42*	*06/10/24 22:28*	*1*
Nitrobenzene-d5	*70*		*29 - 129*	*06/07/24 09:42*	*06/10/24 22:28*	*1*
Phenol-d5	*40*		*10 - 120*	*06/07/24 09:42*	*06/10/24 22:28*	*1*
p-Terphenyl-d14	*65*		*33 - 132*	*06/07/24 09:42*	*06/10/24 22:28*	*1*

Client Sample ID: SW-01-1
Date Collected: 06/03/24 13:45
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-4
Matrix: Water

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	**0.021**	**J**	0.050	0.0092	ug/L		06/05/24 09:14	06/06/24 14:10	1
4,4'-DDE	ND		0.050	0.012	ug/L		06/05/24 09:14	06/06/24 14:10	1
4,4'-DDT	ND		0.050	0.011	ug/L		06/05/24 09:14	06/06/24 14:10	1
Aldrin	ND		0.050	0.0081	ug/L		06/05/24 09:14	06/06/24 14:10	1
alpha-BHC	ND		0.050	0.0077	ug/L		06/05/24 09:14	06/06/24 14:10	1
cis-Chlordane	ND		0.050	0.015	ug/L		06/05/24 09:14	06/06/24 14:10	1
beta-BHC	ND		0.050	0.025	ug/L		06/05/24 09:14	06/06/24 14:10	1
delta-BHC	ND		0.050	0.010	ug/L		06/05/24 09:14	06/06/24 14:10	1
Dieldrin	ND		0.050	0.0098	ug/L		06/05/24 09:14	06/06/24 14:10	1
Endosulfan I	ND		0.050	0.011	ug/L		06/05/24 09:14	06/06/24 14:10	1
Endosulfan II	ND		0.050	0.012	ug/L		06/05/24 09:14	06/06/24 14:10	1
Endosulfan sulfate	ND		0.050	0.016	ug/L		06/05/24 09:14	06/06/24 14:10	1
Endrin	ND		0.050	0.014	ug/L		06/05/24 09:14	06/06/24 14:10	1
Endrin aldehyde	**0.028**	**J**	0.050	0.016	ug/L		06/05/24 09:14	06/06/24 14:10	1
Endrin ketone	ND		0.050	0.012	ug/L		06/05/24 09:14	06/06/24 14:10	1
gamma-BHC (Lindane)	ND		0.050	0.0080	ug/L		06/05/24 09:14	06/06/24 14:10	1
trans-Chlordane	ND		0.050	0.011	ug/L		06/05/24 09:14	06/06/24 14:10	1
Heptachlor	ND		0.050	0.0085	ug/L		06/05/24 09:14	06/06/24 14:10	1
Heptachlor epoxide	ND		0.050	0.0074	ug/L		06/05/24 09:14	06/06/24 14:10	1
Methoxychlor	**0.038**	**J**	0.050	0.014	ug/L		06/05/24 09:14	06/06/24 14:10	1
Toxaphene	ND		0.50	0.12	ug/L		06/05/24 09:14	06/06/24 14:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*72*		*20 - 120*	*06/05/24 09:14*	*06/06/24 14:10*	*1*
DCB Decachlorobiphenyl	*49*		*20 - 120*	*06/05/24 09:14*	*06/06/24 14:10*	*1*
Tetrachloro-m-xylene	*49*		*44 - 120*	*06/05/24 09:14*	*06/06/24 14:10*	*1*
Tetrachloro-m-xylene	*51*		*44 - 120*	*06/05/24 09:14*	*06/06/24 14:10*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 19:49	1
PCB-1221	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 19:49	1
PCB-1232	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 19:49	1
PCB-1242	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 19:49	1
PCB-1248	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 19:49	1
PCB-1254	ND		0.50	0.25	ug/L		06/06/24 06:53	06/06/24 19:49	1
PCB-1260	ND		0.50	0.25	ug/L		06/06/24 06:53	06/06/24 19:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*32*		*19 - 120*	*06/06/24 06:53*	*06/06/24 19:49*	*1*
DCB Decachlorobiphenyl	*38*		*19 - 120*	*06/06/24 06:53*	*06/06/24 19:49*	*1*
Tetrachloro-m-xylene	*82*		*39 - 121*	*06/06/24 06:53*	*06/06/24 19:49*	*1*
Tetrachloro-m-xylene	*73*		*39 - 121*	*06/06/24 06:53*	*06/06/24 19:49*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		06/06/24 09:16	06/06/24 17:46	1
Antimony	ND		0.020	0.0068	mg/L		06/06/24 09:16	06/06/24 17:46	1
Arsenic	ND		0.015	0.0056	mg/L		06/06/24 09:16	06/06/24 17:46	1
Barium	**0.026**		0.0020	0.00070	mg/L		06/06/24 09:16	06/06/24 17:46	1

Client Sample ID: SW-01-1
Date Collected: 06/03/24 13:45
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-4
Matrix: Water

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0020	0.00030	mg/L		06/06/24 09:16	06/06/24 17:46	1
Cadmium	ND		0.0020	0.00050	mg/L		06/06/24 09:16	06/06/24 17:46	1
Calcium	**51.1**		0.50	0.10	mg/L		06/06/24 09:16	06/06/24 17:46	1
Chromium	ND		0.0040	0.0010	mg/L		06/06/24 09:16	06/06/24 17:46	1
Cobalt	ND		0.0040	0.00063	mg/L		06/06/24 09:16	06/06/24 17:46	1
Copper	ND		0.010	0.0016	mg/L		06/06/24 09:16	06/06/24 17:46	1
Iron	**0.093**		0.050	0.019	mg/L		06/06/24 09:16	06/06/24 17:46	1
Lead	ND		0.010	0.0030	mg/L		06/06/24 09:16	06/06/24 17:46	1
Magnesium	**10**		0.20	0.043	mg/L		06/06/24 09:16	06/06/24 17:46	1
Manganese	**0.018**		0.0030	0.00040	mg/L		06/06/24 09:16	06/06/24 17:46	1
Nickel	**0.0013**	**J**	0.010	0.0013	mg/L		06/06/24 09:16	06/06/24 17:46	1
Potassium	**2.3**		0.50	0.10	mg/L		06/06/24 09:16	06/06/24 17:46	1
Selenium	ND		0.025	0.0087	mg/L		06/06/24 09:16	06/06/24 17:46	1
Silver	ND		0.0060	0.0017	mg/L		06/06/24 09:16	06/06/24 17:46	1
Sodium	**7.5**		1.0	0.32	mg/L		06/06/24 09:16	06/06/24 17:46	1
Thallium	ND		0.020	0.010	mg/L		06/06/24 09:16	06/06/24 17:46	1
Vanadium	ND		0.0050	0.0015	mg/L		06/06/24 09:16	06/06/24 17:46	1
Zinc	ND		0.010	0.0015	mg/L		06/06/24 09:16	06/06/24 17:46	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		06/06/24 09:12	06/06/24 20:08	1
Antimony	ND		0.020	0.0068	mg/L		06/06/24 09:12	06/06/24 20:08	1
Arsenic	ND		0.015	0.0056	mg/L		06/06/24 09:12	06/06/24 20:08	1
Barium	**0.020**		0.0020	0.00070	mg/L		06/06/24 09:12	06/06/24 20:08	1
Beryllium	ND		0.0020	0.00030	mg/L		06/06/24 09:12	06/06/24 20:08	1
Cadmium	ND		0.0020	0.00050	mg/L		06/06/24 09:12	06/06/24 20:08	1
Calcium	**4.6**		0.50	0.10	mg/L		06/06/24 09:12	06/06/24 20:08	1
Chromium	ND		0.0040	0.0010	mg/L		06/06/24 09:12	06/06/24 20:08	1
Cobalt	**0.0014**	**J**	0.0040	0.00063	mg/L		06/06/24 09:12	06/06/24 20:08	1
Copper	**0.091**		0.010	0.0016	mg/L		06/06/24 09:12	06/06/24 20:08	1
Iron	ND		0.050	0.019	mg/L		06/06/24 09:12	06/06/24 20:08	1
Lead	**0.0065**	**J**	0.010	0.0030	mg/L		06/06/24 09:12	06/06/24 20:08	1
Magnesium	**4.3**		0.20	0.043	mg/L		06/06/24 09:12	06/06/24 20:08	1
Manganese	**0.029**		0.0030	0.00040	mg/L		06/06/24 09:12	06/06/24 20:08	1
Nickel	**0.0038**	**J**	0.010	0.0013	mg/L		06/06/24 09:12	06/06/24 20:08	1
Potassium	**0.90**		0.50	0.10	mg/L		06/06/24 09:12	06/06/24 20:08	1
Selenium	ND		0.025	0.0087	mg/L		06/06/24 09:12	06/06/24 20:08	1
Silver	ND		0.0060	0.0017	mg/L		06/06/24 09:12	06/06/24 20:08	1
Sodium	**1.4**		1.0	0.32	mg/L		06/06/24 09:12	06/06/24 20:08	1
Thallium	ND		0.020	0.010	mg/L		06/06/24 09:12	06/06/24 20:08	1
Vanadium	ND		0.0050	0.0015	mg/L		06/06/24 09:12	06/06/24 20:08	1
Zinc	**0.19**		0.010	0.0015	mg/L		06/06/24 09:12	06/06/24 20:08	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		06/05/24 10:50	06/05/24 14:17	1

Client Sample ID: SW-01-1

Lab Sample ID: 480-220419-4

Date Collected: 06/03/24 13:45

Matrix: Water

Date Received: 06/03/24 19:00

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		06/05/24 10:50	06/05/24 14:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			06/09/24 17:39	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			06/14/24 21:06	1

Client Sample ID: TB-060324

Lab Sample ID: 480-220419-5

Date Collected: 06/03/24 00:00

Matrix: Water

Date Received: 06/03/24 19:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/05/24 15:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/05/24 15:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			06/05/24 15:26	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/05/24 15:26	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/05/24 15:26	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/05/24 15:26	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			06/05/24 15:26	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/05/24 15:26	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/05/24 15:26	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/05/24 15:26	1
1,2-Dichloroethane	ND	*+	1.0	0.21	ug/L			06/05/24 15:26	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/05/24 15:26	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			06/05/24 15:26	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/05/24 15:26	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/05/24 15:26	1
2-Hexanone	ND		5.0	1.2	ug/L			06/05/24 15:26	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			06/05/24 15:26	1
Acetone	ND		10	3.0	ug/L			06/05/24 15:26	1
Benzene	ND		1.0	0.41	ug/L			06/05/24 15:26	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/05/24 15:26	1
Bromoform	ND		1.0	0.26	ug/L			06/05/24 15:26	1
Bromomethane	ND		1.0	0.69	ug/L			06/05/24 15:26	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/05/24 15:26	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/05/24 15:26	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/05/24 15:26	1
Chloroethane	ND		1.0	0.32	ug/L			06/05/24 15:26	1
Chloroform	ND		1.0	0.34	ug/L			06/05/24 15:26	1
Chloromethane	ND		1.0	0.35	ug/L			06/05/24 15:26	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/05/24 15:26	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/05/24 15:26	1
Cyclohexane	ND		1.0	0.18	ug/L			06/05/24 15:26	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/05/24 15:26	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			06/05/24 15:26	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/05/24 15:26	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220419-1

Client Sample ID: TB-060324

Date Collected: 06/03/24 00:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-5

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.0	0.79	ug/L			06/05/24 15:26	1
Methyl acetate	ND		2.5	1.3	ug/L			06/05/24 15:26	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			06/05/24 15:26	1
Methylcyclohexane	ND		1.0	0.16	ug/L			06/05/24 15:26	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/05/24 15:26	1
Styrene	ND		1.0	0.73	ug/L			06/05/24 15:26	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/05/24 15:26	1
Toluene	ND		1.0	0.51	ug/L			06/05/24 15:26	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/05/24 15:26	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/05/24 15:26	1
Trichloroethene	ND		1.0	0.46	ug/L			06/05/24 15:26	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/05/24 15:26	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/05/24 15:26	1
Xylenes, Total	ND		2.0	0.66	ug/L			06/05/24 15:26	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*		*06/05/24 15:26*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*77 - 120*		*06/05/24 15:26*	*1*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*		*06/05/24 15:26*	*1*
Dibromofluoromethane (Surr)	*95*		*75 - 123*		*06/05/24 15:26*	*1*
Toluene-d8 (Surr)	*88*		*80 - 120*		*06/05/24 15:26*	*1*

Surrogate Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220419-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(77-120)	(73-120)	(75-123)	(80-120)
480-220419-1	SW-01-2	95	111	91	95
480-220419-1 MS	SW-01-2	97	107	94	89
480-220419-1 MSD	SW-01-2	98	111	92	89
480-220419-2	SW-01-2-FD	94	107	92	91
480-220419-3	SW-01-3	90	103	84	90
480-220419-4	SW-01-1	94	108	95	88
480-220419-5	TB-060324	95	104	95	88
LCS 480-714447/6	Lab Control Sample	97	109	91	90
MB 480-714447/8	Method Blank	96	108	94	87

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPHd14
Lab Sample ID	Client Sample ID	(25-144)	(53-126)	(24-120)	(29-129)	(10-120)	(33-132)
480-220419-1	SW-01-2	81	69	51	64	38	60
480-220419-1 MS	SW-01-2	98	76	55	71	45	62
480-220419-1 MSD	SW-01-2	84	75	52	70	42	49
480-220419-2	SW-01-2-FD	81	71	50	66	37	54
480-220419-3	SW-01-3	54	62	38	56	30	37
480-220419-4	SW-01-1	92	72	54	70	40	65
LCS 480-714822/2-A	Lab Control Sample	86	73	56	69	45	79
MB 480-714822/1-A	Method Blank	77	79	57	74	44	88

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHd14 = p-Terphenyl-d14

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1	DCBP2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(20-120)	(20-120)	(44-120)	(44-120)
480-220419-1	SW-01-2	49	48	42 S1-	41 S1-
480-220419-1 MS	SW-01-2	48	41	52	50
480-220419-1 MSD	SW-01-2	66	50	38 S1-	52
480-220419-2	SW-01-2-FD	71	40	41 S1-	36 S1-
480-220419-3	SW-01-3	37	32	39 S1-	37 S1-
480-220419-4	SW-01-1	72	49	49	51

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1	DCBP2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(20-120)	(20-120)	(44-120)	(44-120)
LCS 480-714469/2-A	Lab Control Sample	46	45	54	44
MB 480-714469/1-A	Method Blank	47	48	49	42 S1-

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1	DCBP2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(19-120)	(19-120)	(39-121)	(39-121)
480-220419-1	SW-01-2	40	34	66	71
480-220419-1 MS	SW-01-2	35	29	78	76
480-220419-1 MSD	SW-01-2	35	30	70	72
480-220419-2	SW-01-2-FD	42	36	72	78
480-220419-3	SW-01-3	30	23	51	51
480-220419-4	SW-01-1	38	32	73	82
LCS 480-714616/2-A	Lab Control Sample	39	34	72	77
MB 480-714616/1-A	Method Blank	45	40	70	69

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Isotope Dilution Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220419-1

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	DXE (15-110)							
480-220419-1	SW-01-2	28							
480-220419-1 MS	SW-01-2	32							
480-220419-1 MSD	SW-01-2	30							
480-220419-2	SW-01-2-FD	31							
LCS 480-714477/2-A	Lab Control Sample	36							
MB 480-714477/1-A	Method Blank	30							

Surrogate Legend

DXE = 1,4-Dioxane-d8

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (10-130)	PFPeA (35-150)	13C5PHA (55-150)	C4PFHA (55-150)	C8PFOA (60-140)	C9PFNA (55-140)	C6PFDA (50-140)	13C7PUA (30-140)
480-220419-1	SW-01-2	82.5	77.8	83.2	75.5	84.2	113	78.6	107
480-220419-1 MS	SW-01-2	97.5	82.8	107	96.6	96.6	127	96.4	133
480-220419-1 MSD	SW-01-2	81.5	76.8	86.5	73.9	76.6	104	76.0	103
480-220419-2	SW-01-2-FD	85.9	73.3	88.8	82.1	77.4	105	76.2	106
MB 240-615692/1-A	Method Blank	95.2	113	115	95.4	91.3	103	85.6	108

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFTDA (10-130)	C3PFBS (55-150)	C3PFHS (55-150)	C8PFOS (45-140)	PFOSA (30-130)	d3NMFOS (45-200)	d5NEFOS (10-200)	M242FTS (60-200)
480-220419-1	SW-01-2	65.8	96.0	84.6	80.6	64.3	63.5	64.2	177
480-220419-1 MS	SW-01-2	81.4	106	99.6	96.9	84.2	78.9	76.6	236 *5+
480-220419-1 MSD	SW-01-2	61.1	92.0	85.3	80.7	65.0	65.3	59.5	189
480-220419-2	SW-01-2-FD	53.3	107	92.0	78.2	63.7	58.9	51.4	214 *5+
MB 240-615692/1-A	Method Blank	94.6	104	100	83.3	73.3	78.8	70.3	119

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M262FTS (60-200)	M282FTS (50-200)	HFPODA (25-160)	NMFM (10-150)	NEFM (10-150)	d5NPFSA (10-130)	d3NMFSA (15-130)	PFDoDA (10-150)
480-220419-1	SW-01-2	176	78.7	94.1	44.1	42.9	46.5	53.3	91.1
480-220419-1 MS	SW-01-2	233 *5+	90.5	108	58.5	59.7	58.4	65.7	113
480-220419-1 MSD	SW-01-2	187	68.3	94.0	47.7	44.5	48.9	52.8	85.0
480-220419-2	SW-01-2-FD	211 I *5+	75.7	95.4	40.6	39.8	45.3	49.5	84.0
MB 240-615692/1-A	Method Blank	117 I	96.4	114	71.2	78.5	51.5	49.1	98.8

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS

Isotope Dilution Summary

Client: Ashland LLC
Job ID: 480-220419-1
Project/Site: Tank 75 Analysis

C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoDA = 13C2-PFDoDA

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(10-130)	(40-150)	(40-150)	(40-150)	(30-140)	(30-140)	(20-140)	(20-140)
LCS 240-615692/3-A	Lab Control Sample	104	120	126	112	109	127	97.3	121
LLCS 240-615692/2-A	Lab Control Sample	101	122	126	108	102	115	91.3	115

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFTDA	C3PFBS	C3PFHS	C8PFOS	PFOSA	d3NMFOS	d5NEFOS	M242FTS
Lab Sample ID	Client Sample ID	(10-130)	(25-150)	(25-150)	(20-140)	(10-130)	(10-200)	(10-200)	(25-200)
LCS 240-615692/3-A	Lab Control Sample	114	105	106	99.3	95.3	98.4	96.0	111
LLCS 240-615692/2-A	Lab Control Sample	99.3	115	107	98.0	86.9	91.3	92.9	116

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M262FTS	M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	PFDoDA
Lab Sample ID	Client Sample ID	(25-200)	(25-200)	(25-160)	(10-150)	(10-150)	(10-130)	(10-130)	(10-150)
LCS 240-615692/3-A	Lab Control Sample	107	101	133	103	111	65.2	66.7	109
LLCS 240-615692/2-A	Lab Control Sample	121	113	134	95.9	101	71.6	68.5	107

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA

Isotope Dilution Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220419-1

d3NMFSA = d3-NMePFOSA
PFDoDA = 13C2-PFDoDA

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-714447/8
Matrix: Water
Analysis Batch: 714447

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/05/24 13:18	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/05/24 13:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			06/05/24 13:18	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/05/24 13:18	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/05/24 13:18	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/05/24 13:18	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			06/05/24 13:18	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/05/24 13:18	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/05/24 13:18	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/05/24 13:18	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/05/24 13:18	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/05/24 13:18	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			06/05/24 13:18	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/05/24 13:18	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/05/24 13:18	1
2-Hexanone	ND		5.0	1.2	ug/L			06/05/24 13:18	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			06/05/24 13:18	1
Acetone	ND		10	3.0	ug/L			06/05/24 13:18	1
Benzene	ND		1.0	0.41	ug/L			06/05/24 13:18	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/05/24 13:18	1
Bromoform	ND		1.0	0.26	ug/L			06/05/24 13:18	1
Bromomethane	ND		1.0	0.69	ug/L			06/05/24 13:18	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/05/24 13:18	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/05/24 13:18	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/05/24 13:18	1
Chloroethane	ND		1.0	0.32	ug/L			06/05/24 13:18	1
Chloroform	ND		1.0	0.34	ug/L			06/05/24 13:18	1
Chloromethane	ND		1.0	0.35	ug/L			06/05/24 13:18	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/05/24 13:18	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/05/24 13:18	1
Cyclohexane	ND		1.0	0.18	ug/L			06/05/24 13:18	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/05/24 13:18	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			06/05/24 13:18	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/05/24 13:18	1
Isopropylbenzene	ND		1.0	0.79	ug/L			06/05/24 13:18	1
Methyl acetate	ND		2.5	1.3	ug/L			06/05/24 13:18	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			06/05/24 13:18	1
Methylcyclohexane	ND		1.0	0.16	ug/L			06/05/24 13:18	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/05/24 13:18	1
Styrene	ND		1.0	0.73	ug/L			06/05/24 13:18	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/05/24 13:18	1
Toluene	ND		1.0	0.51	ug/L			06/05/24 13:18	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/05/24 13:18	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/05/24 13:18	1
Trichloroethene	ND		1.0	0.46	ug/L			06/05/24 13:18	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/05/24 13:18	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/05/24 13:18	1
Xylenes, Total	ND		2.0	0.66	ug/L			06/05/24 13:18	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-714447/8
Matrix: Water
Analysis Batch: 714447

Client Sample ID: Method Blank
Prep Type: Total/NA

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A		06/05/24 13:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		77 - 120		06/05/24 13:18	1
4-Bromofluorobenzene (Surr)	108		73 - 120		06/05/24 13:18	1
Dibromofluoromethane (Surr)	94		75 - 123		06/05/24 13:18	1
Toluene-d8 (Surr)	87		80 - 120		06/05/24 13:18	1

Lab Sample ID: LCS 480-714447/6
Matrix: Water
Analysis Batch: 714447

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	25.0	31.0		ug/L		124	73 - 126
1,1,2,2-Tetrachloroethane	25.0	24.0		ug/L		96	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	29.1		ug/L		116	61 - 148
1,1,2-Trichloroethane	25.0	24.7		ug/L		99	76 - 122
1,1-Dichloroethane	25.0	26.1		ug/L		105	77 - 120
1,1-Dichloroethene	25.0	26.9		ug/L		107	66 - 127
1,2,4-Trichlorobenzene	25.0	29.8		ug/L		119	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	27.4		ug/L		110	56 - 134
1,2-Dibromoethane	25.0	25.8		ug/L		103	77 - 120
1,2-Dichlorobenzene	25.0	27.6		ug/L		110	80 - 124
1,2-Dichloroethane	25.0	32.0	*+	ug/L		128	75 - 120
1,2-Dichloropropane	25.0	25.3		ug/L		101	76 - 120
1,3-Dichlorobenzene	25.0	26.3		ug/L		105	77 - 120
1,4-Dichlorobenzene	25.0	26.0		ug/L		104	80 - 120
2-Butanone (MEK)	125	135		ug/L		108	57 - 140
2-Hexanone	125	127		ug/L		102	65 - 127
4-Methyl-2-pentanone (MIBK)	125	119		ug/L		95	71 - 125
Acetone	125	159		ug/L		127	56 - 142
Benzene	25.0	25.7		ug/L		103	71 - 124
Bromodichloromethane	25.0	29.2		ug/L		117	80 - 122
Bromoform	25.0	21.6		ug/L		86	61 - 132
Bromomethane	25.0	21.7		ug/L		87	55 - 144
Carbon disulfide	25.0	25.6		ug/L		103	59 - 134
Carbon tetrachloride	25.0	29.4		ug/L		118	72 - 134
Chlorobenzene	25.0	27.6		ug/L		110	80 - 120
Chloroethane	25.0	21.2		ug/L		85	69 - 136
Chloroform	25.0	26.5		ug/L		106	73 - 127
Chloromethane	25.0	20.3		ug/L		81	68 - 124
cis-1,2-Dichloroethene	25.0	24.8		ug/L		99	74 - 124
cis-1,3-Dichloropropene	25.0	28.5		ug/L		114	74 - 124
Cyclohexane	25.0	25.1		ug/L		100	59 - 135
Dibromochloromethane	25.0	27.8		ug/L		111	75 - 125
Dichlorodifluoromethane	25.0	30.0		ug/L		120	59 - 135
Ethylbenzene	25.0	27.6		ug/L		110	77 - 123

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-714447/6
Matrix: Water
Analysis Batch: 714447

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Isopropylbenzene	25.0	29.2		ug/L		117	77 - 122
Methyl acetate	50.0	46.0		ug/L		92	74 - 133
Methyl tert-butyl ether	25.0	25.6		ug/L		103	77 - 120
Methylcyclohexane	25.0	26.0		ug/L		104	68 - 134
Methylene Chloride	25.0	24.3		ug/L		97	75 - 124
Styrene	25.0	23.7		ug/L		95	80 - 120
Tetrachloroethene	25.0	29.3		ug/L		117	74 - 122
Toluene	25.0	26.5		ug/L		106	80 - 122
trans-1,2-Dichloroethene	25.0	24.9		ug/L		100	73 - 127
Trichloroethene	25.0	29.9		ug/L		119	74 - 123
Trichlorofluoromethane	25.0	28.3		ug/L		113	62 - 150
Vinyl chloride	25.0	21.7		ug/L		87	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*77 - 120*
4-Bromofluorobenzene (Surr)	*109*		*73 - 120*
Dibromofluoromethane (Surr)	*91*		*75 - 123*
Toluene-d8 (Surr)	*90*		*80 - 120*

Lab Sample ID: 480-220419-1 MS
Matrix: Water
Analysis Batch: 714447

Client Sample ID: SW-01-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	ND	F1	25.0	35.2	F1	ug/L		141	73 - 126
1,1,2,2-Tetrachloroethane	ND		25.0	25.8		ug/L		103	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	32.8		ug/L		131	61 - 148
1,1,2-Trichloroethane	ND		25.0	26.5		ug/L		106	76 - 122
1,1-Dichloroethane	ND		25.0	30.1		ug/L		120	77 - 120
1,1-Dichloroethene	ND		25.0	31.7		ug/L		127	66 - 127
1,2,4-Trichlorobenzene	ND		25.0	29.4		ug/L		117	79 - 122
1,2-Dibromo-3-Chloropropane	ND		25.0	30.4		ug/L		122	56 - 134
1,2-Dibromoethane	ND		25.0	27.9		ug/L		112	77 - 120
1,2-Dichlorobenzene	ND		25.0	29.0		ug/L		116	80 - 124
1,2-Dichloroethane	ND	*+ F1	25.0	35.3	F1	ug/L		141	75 - 120
1,2-Dichloropropane	ND		25.0	28.8		ug/L		115	76 - 120
1,3-Dichlorobenzene	ND		25.0	29.5		ug/L		118	77 - 120
1,4-Dichlorobenzene	ND		25.0	28.6		ug/L		114	78 - 124
2-Butanone (MEK)	ND		125	149		ug/L		119	57 - 140
2-Hexanone	ND		125	137		ug/L		110	65 - 127
4-Methyl-2-pentanone (MIBK)	ND		125	128		ug/L		103	71 - 125
Acetone	ND		125	153		ug/L		122	56 - 142
Benzene	ND		25.0	28.8		ug/L		115	71 - 124
Bromodichloromethane	ND	F1	25.0	33.3	F1	ug/L		133	80 - 122
Bromoform	ND		25.0	22.2		ug/L		89	61 - 132
Bromomethane	ND		25.0	33.9		ug/L		135	55 - 144
Carbon disulfide	ND		25.0	28.1		ug/L		112	59 - 134
Carbon tetrachloride	ND	F1	25.0	33.4		ug/L		134	72 - 134

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-220419-1 MS
Matrix: Water
Analysis Batch: 714447

Client Sample ID: SW-01-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chlorobenzene	ND	F1	25.0	31.1	F1	ug/L		124	80 - 120
Chloroethane	ND	F1 F2	25.0	36.7	F1	ug/L		147	69 - 136
Chloroform	ND		25.0	30.6		ug/L		122	73 - 127
Chloromethane	ND	F1 F2	25.0	35.1	F1	ug/L		140	68 - 124
cis-1,2-Dichloroethene	ND		25.0	26.4		ug/L		105	74 - 124
cis-1,3-Dichloropropene	ND	F1	25.0	31.4	F1	ug/L		126	74 - 124
Cyclohexane	ND		25.0	28.0		ug/L		112	59 - 135
Dibromochloromethane	ND		25.0	29.2		ug/L		117	75 - 125
Dichlorodifluoromethane	ND	F1 F2	25.0	48.9	F1	ug/L		196	59 - 135
Ethylbenzene	ND		25.0	30.6		ug/L		122	77 - 123
Isopropylbenzene	ND	F1	25.0	31.9	F1	ug/L		127	77 - 122
Methyl acetate	ND		50.0	51.4		ug/L		103	74 - 133
Methyl tert-butyl ether	ND		25.0	27.1		ug/L		108	77 - 120
Methylcyclohexane	ND		25.0	28.8		ug/L		115	68 - 134
Methylene Chloride	ND		25.0	27.1		ug/L		108	75 - 124
Styrene	ND		25.0	27.3		ug/L		109	80 - 120
Tetrachloroethene	ND	F1	25.0	32.5	F1	ug/L		130	74 - 122
Toluene	ND		25.0	29.4		ug/L		118	80 - 122
trans-1,2-Dichloroethene	ND		25.0	29.1		ug/L		116	73 - 127
Trichloroethene	ND	F1	25.0	34.0	F1	ug/L		136	74 - 123
Trichlorofluoromethane	ND	F1 F2	25.0	50.3	F1	ug/L		201	62 - 150
Vinyl chloride	ND	F1 F2	25.0	38.4	F1	ug/L		154	65 - 133

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*77 - 120*
4-Bromofluorobenzene (Surr)	*107*		*73 - 120*
Dibromofluoromethane (Surr)	*94*		*75 - 123*
Toluene-d8 (Surr)	*89*		*80 - 120*

Lab Sample ID: 480-220419-1 MSD
Matrix: Water
Analysis Batch: 714447

Client Sample ID: SW-01-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND	F1	25.0	36.4	F1	ug/L		146	73 - 126	4	15
1,1,2,2-Tetrachloroethane	ND		25.0	24.3		ug/L		97	76 - 120	6	15
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	33.1		ug/L		132	61 - 148	1	20
1,1,2-Trichloroethane	ND		25.0	26.1		ug/L		104	76 - 122	1	15
1,1-Dichloroethane	ND		25.0	29.2		ug/L		117	77 - 120	3	20
1,1-Dichloroethene	ND		25.0	31.3		ug/L		125	66 - 127	1	16
1,2,4-Trichlorobenzene	ND		25.0	30.2		ug/L		121	79 - 122	3	20
1,2-Dibromo-3-Chloropropane	ND		25.0	29.3		ug/L		117	56 - 134	4	15
1,2-Dibromoethane	ND		25.0	28.1		ug/L		112	77 - 120	1	15
1,2-Dichlorobenzene	ND		25.0	28.3		ug/L		113	80 - 124	2	20
1,2-Dichloroethane	ND	*+ F1	25.0	34.5	F1	ug/L		138	75 - 120	2	20
1,2-Dichloropropane	ND		25.0	26.7		ug/L		107	76 - 120	7	20
1,3-Dichlorobenzene	ND		25.0	28.1		ug/L		113	77 - 120	5	20
1,4-Dichlorobenzene	ND		25.0	27.7		ug/L		111	78 - 124	3	20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-220419-1 MSD
Matrix: Water
Analysis Batch: 714447

Client Sample ID: SW-01-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Butanone (MEK)	ND		125	140		ug/L		112	57 - 140	6	20
2-Hexanone	ND		125	135		ug/L		108	65 - 127	1	15
4-Methyl-2-pentanone (MIBK)	ND		125	129		ug/L		103	71 - 125	0	35
Acetone	ND		125	150		ug/L		120	56 - 142	2	15
Benzene	ND		25.0	27.8		ug/L		111	71 - 124	4	13
Bromodichloromethane	ND	F1	25.0	31.3	F1	ug/L		125	80 - 122	6	15
Bromoform	ND		25.0	23.6		ug/L		95	61 - 132	6	15
Bromomethane	ND		25.0	29.5		ug/L		118	55 - 144	14	15
Carbon disulfide	ND		25.0	28.5		ug/L		114	59 - 134	1	15
Carbon tetrachloride	ND	F1	25.0	34.2	F1	ug/L		137	72 - 134	2	15
Chlorobenzene	ND	F1	25.0	29.9		ug/L		119	80 - 120	4	25
Chloroethane	ND	F1 F2	25.0	26.8	F2	ug/L		107	69 - 136	31	15
Chloroform	ND		25.0	30.0		ug/L		120	73 - 127	2	20
Chloromethane	ND	F1 F2	25.0	23.1	F2	ug/L		93	68 - 124	41	15
cis-1,2-Dichloroethene	ND		25.0	28.0		ug/L		112	74 - 124	6	15
cis-1,3-Dichloropropene	ND	F1	25.0	27.6		ug/L		110	74 - 124	13	15
Cyclohexane	ND		25.0	29.3		ug/L		117	59 - 135	4	20
Dibromochloromethane	ND		25.0	27.8		ug/L		111	75 - 125	5	15
Dichlorodifluoromethane	ND	F1 F2	25.0	34.7	F1 F2	ug/L		139	59 - 135	34	20
Ethylbenzene	ND		25.0	30.3		ug/L		121	77 - 123	1	15
Isopropylbenzene	ND	F1	25.0	30.3		ug/L		121	77 - 122	5	20
Methyl acetate	ND		50.0	49.2		ug/L		98	74 - 133	4	20
Methyl tert-butyl ether	ND		25.0	28.1		ug/L		112	77 - 120	4	37
Methylcyclohexane	ND		25.0	29.2		ug/L		117	68 - 134	1	20
Methylene Chloride	ND		25.0	26.9		ug/L		108	75 - 124	1	15
Styrene	ND		25.0	26.9		ug/L		108	80 - 120	2	20
Tetrachloroethene	ND	F1	25.0	31.3	F1	ug/L		125	74 - 122	4	20
Toluene	ND		25.0	29.4		ug/L		118	80 - 122	0	15
trans-1,2-Dichloroethene	ND		25.0	29.3		ug/L		117	73 - 127	1	20
Trichloroethene	ND	F1	25.0	32.3	F1	ug/L		129	74 - 123	5	16
Trichlorofluoromethane	ND	F1 F2	25.0	36.8	F2	ug/L		147	62 - 150	31	20
Vinyl chloride	ND	F1 F2	25.0	29.2	F2	ug/L		117	65 - 133	27	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*77 - 120*
4-Bromofluorobenzene (Surr)	*111*		*73 - 120*
Dibromofluoromethane (Surr)	*92*		*75 - 123*
Toluene-d8 (Surr)	*89*		*80 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-714822/1-A
Matrix: Water
Analysis Batch: 715009

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714822

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		06/07/24 09:42	06/10/24 15:04	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		06/07/24 09:42	06/10/24 15:04	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		06/07/24 09:42	06/10/24 15:04	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-714822/1-A
Matrix: Water
Analysis Batch: 715009

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714822

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		06/07/24 09:42	06/10/24 15:04	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		06/07/24 09:42	06/10/24 15:04	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		06/07/24 09:42	06/10/24 15:04	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		06/07/24 09:42	06/10/24 15:04	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		06/07/24 09:42	06/10/24 15:04	1
2-Chlorophenol	ND		5.0	0.53	ug/L		06/07/24 09:42	06/10/24 15:04	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		06/07/24 09:42	06/10/24 15:04	1
2-Methylphenol	ND		5.0	0.40	ug/L		06/07/24 09:42	06/10/24 15:04	1
2-Nitroaniline	ND		10	0.42	ug/L		06/07/24 09:42	06/10/24 15:04	1
2-Nitrophenol	ND		5.0	0.48	ug/L		06/07/24 09:42	06/10/24 15:04	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		06/07/24 09:42	06/10/24 15:04	1
3-Nitroaniline	ND		10	0.48	ug/L		06/07/24 09:42	06/10/24 15:04	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		06/07/24 09:42	06/10/24 15:04	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		06/07/24 09:42	06/10/24 15:04	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		06/07/24 09:42	06/10/24 15:04	1
4-Chloroaniline	ND		5.0	0.59	ug/L		06/07/24 09:42	06/10/24 15:04	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		06/07/24 09:42	06/10/24 15:04	1
4-Methylphenol	ND		10	0.36	ug/L		06/07/24 09:42	06/10/24 15:04	1
4-Nitroaniline	ND		10	0.25	ug/L		06/07/24 09:42	06/10/24 15:04	1
4-Nitrophenol	ND		10	1.5	ug/L		06/07/24 09:42	06/10/24 15:04	1
Acenaphthene	ND		5.0	0.41	ug/L		06/07/24 09:42	06/10/24 15:04	1
Acenaphthylene	ND		5.0	0.38	ug/L		06/07/24 09:42	06/10/24 15:04	1
Acetophenone	ND		5.0	0.54	ug/L		06/07/24 09:42	06/10/24 15:04	1
Anthracene	ND		5.0	0.28	ug/L		06/07/24 09:42	06/10/24 15:04	1
Atrazine	ND		5.0	0.46	ug/L		06/07/24 09:42	06/10/24 15:04	1
Benzaldehyde	ND		5.0	0.27	ug/L		06/07/24 09:42	06/10/24 15:04	1
Benzo(a)anthracene	ND		5.0	0.36	ug/L		06/07/24 09:42	06/10/24 15:04	1
Benzo(a)pyrene	ND		5.0	0.47	ug/L		06/07/24 09:42	06/10/24 15:04	1
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L		06/07/24 09:42	06/10/24 15:04	1
Benzo(g,h,i)perylene	ND		5.0	0.35	ug/L		06/07/24 09:42	06/10/24 15:04	1
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L		06/07/24 09:42	06/10/24 15:04	1
Biphenyl	ND		5.0	0.65	ug/L		06/07/24 09:42	06/10/24 15:04	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		06/07/24 09:42	06/10/24 15:04	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		06/07/24 09:42	06/10/24 15:04	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		06/07/24 09:42	06/10/24 15:04	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		06/07/24 09:42	06/10/24 15:04	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		06/07/24 09:42	06/10/24 15:04	1
Caprolactam	ND		5.0	2.2	ug/L		06/07/24 09:42	06/10/24 15:04	1
Carbazole	ND		5.0	0.30	ug/L		06/07/24 09:42	06/10/24 15:04	1
Chrysene	ND		5.0	0.33	ug/L		06/07/24 09:42	06/10/24 15:04	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		06/07/24 09:42	06/10/24 15:04	1
Dibenzofuran	ND		10	0.51	ug/L		06/07/24 09:42	06/10/24 15:04	1
Diethyl phthalate	ND		5.0	0.22	ug/L		06/07/24 09:42	06/10/24 15:04	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		06/07/24 09:42	06/10/24 15:04	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		06/07/24 09:42	06/10/24 15:04	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		06/07/24 09:42	06/10/24 15:04	1
Fluoranthene	ND		5.0	0.40	ug/L		06/07/24 09:42	06/10/24 15:04	1
Fluorene	ND		5.0	0.36	ug/L		06/07/24 09:42	06/10/24 15:04	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		06/07/24 09:42	06/10/24 15:04	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-714822/1-A
Matrix: Water
Analysis Batch: 715009

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714822

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND		5.0	0.68	ug/L		06/07/24 09:42	06/10/24 15:04	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		06/07/24 09:42	06/10/24 15:04	1
Hexachloroethane	ND		5.0	0.59	ug/L		06/07/24 09:42	06/10/24 15:04	1
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L		06/07/24 09:42	06/10/24 15:04	1
Isophorone	ND		5.0	0.43	ug/L		06/07/24 09:42	06/10/24 15:04	1
Naphthalene	ND		5.0	0.76	ug/L		06/07/24 09:42	06/10/24 15:04	1
Nitrobenzene	ND		5.0	0.29	ug/L		06/07/24 09:42	06/10/24 15:04	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		06/07/24 09:42	06/10/24 15:04	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		06/07/24 09:42	06/10/24 15:04	1
Pentachlorophenol	ND		10	2.2	ug/L		06/07/24 09:42	06/10/24 15:04	1
Phenanthrene	ND		5.0	0.44	ug/L		06/07/24 09:42	06/10/24 15:04	1
Phenol	ND		5.0	0.39	ug/L		06/07/24 09:42	06/10/24 15:04	1
Pyrene	ND		5.0	0.34	ug/L		06/07/24 09:42	06/10/24 15:04	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*2.18*	*T J*	*ug/L*		*3.21*	*N/A*	*06/07/24 09:42*	*06/10/24 15:04*	*1*
Unknown	*25.9*	*T J*	*ug/L*		*4.75*	*N/A*	*06/07/24 09:42*	*06/10/24 15:04*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*77*		*25 - 144*	*06/07/24 09:42*	*06/10/24 15:04*	*1*
2-Fluorobiphenyl	*79*		*53 - 126*	*06/07/24 09:42*	*06/10/24 15:04*	*1*
2-Fluorophenol	*57*		*24 - 120*	*06/07/24 09:42*	*06/10/24 15:04*	*1*
Nitrobenzene-d5	*74*		*29 - 129*	*06/07/24 09:42*	*06/10/24 15:04*	*1*
Phenol-d5	*44*		*10 - 120*	*06/07/24 09:42*	*06/10/24 15:04*	*1*
p-Terphenyl-d14	*88*		*33 - 132*	*06/07/24 09:42*	*06/10/24 15:04*	*1*

Lab Sample ID: LCS 480-714822/2-A
Matrix: Water
Analysis Batch: 715009

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714822

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4,5-Trichlorophenol	32.0	26.2		ug/L		82	65 - 126
2,4,6-Trichlorophenol	32.0	24.2		ug/L		76	64 - 120
2,4-Dichlorophenol	32.0	24.1		ug/L		75	63 - 120
2,4-Dimethylphenol	32.0	19.5		ug/L		61	47 - 120
2,4-Dinitrophenol	64.0	58.0		ug/L		91	31 - 137
2,4-Dinitrotoluene	32.0	27.3		ug/L		85	69 - 120
2,6-Dinitrotoluene	32.0	26.5		ug/L		83	68 - 120
2-Chloronaphthalene	32.0	23.6		ug/L		74	58 - 120
2-Chlorophenol	32.0	23.6		ug/L		74	48 - 120
2-Methylnaphthalene	32.0	23.8		ug/L		74	59 - 120
2-Methylphenol	32.0	22.2		ug/L		69	39 - 120
2-Nitroaniline	32.0	26.6		ug/L		83	54 - 127
2-Nitrophenol	32.0	24.7		ug/L		77	52 - 125
3,3'-Dichlorobenzidine	64.0	58.3		ug/L		91	49 - 135
3-Nitroaniline	32.0	20.4		ug/L		64	51 - 120
4,6-Dinitro-2-methylphenol	64.0	57.4		ug/L		90	46 - 136
4-Bromophenyl phenyl ether	32.0	26.8		ug/L		84	65 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-714822/2-A
Matrix: Water
Analysis Batch: 715009

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714822

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4-Chloro-3-methylphenol	32.0	25.8		ug/L		81	61 - 123
4-Chloroaniline	32.0	16.9		ug/L		53	30 - 120
4-Chlorophenyl phenyl ether	32.0	25.2		ug/L		79	62 - 120
4-Methylphenol	32.0	21.8		ug/L		68	29 - 131
4-Nitroaniline	32.0	24.7		ug/L		77	65 - 120
4-Nitrophenol	64.0	50.0		ug/L		78	45 - 120
Acenaphthene	32.0	24.3		ug/L		76	60 - 120
Acenaphthylene	32.0	24.4		ug/L		76	63 - 120
Acetophenone	32.0	25.1		ug/L		79	45 - 120
Anthracene	32.0	26.4		ug/L		83	67 - 120
Atrazine	64.0	58.3		ug/L		91	71 - 130
Benzaldehyde	64.0	47.9		ug/L		75	10 - 140
Benzo(a)anthracene	32.0	25.6		ug/L		80	70 - 121
Benzo(a)pyrene	32.0	26.5		ug/L		83	60 - 123
Benzo(b)fluoranthene	32.0	27.6		ug/L		86	66 - 126
Benzo(g,h,i)perylene	32.0	26.5		ug/L		83	66 - 150
Benzo(k)fluoranthene	32.0	26.3		ug/L		82	65 - 124
Biphenyl	32.0	23.9		ug/L		75	59 - 120
bis (2-chloroisopropyl) ether	32.0	23.9		ug/L		75	21 - 136
Bis(2-chloroethoxy)methane	32.0	23.8		ug/L		75	50 - 128
Bis(2-chloroethyl)ether	32.0	26.7		ug/L		83	44 - 120
Bis(2-ethylhexyl) phthalate	32.0	25.3		ug/L		79	63 - 139
Butyl benzyl phthalate	32.0	25.4		ug/L		79	70 - 129
Caprolactam	64.0	19.6		ug/L		31	22 - 120
Carbazole	32.0	31.6		ug/L		99	66 - 123
Chrysene	32.0	26.0		ug/L		81	69 - 120
Dibenz(a,h)anthracene	32.0	27.2		ug/L		85	65 - 135
Dibenzofuran	32.0	25.1		ug/L		79	66 - 120
Diethyl phthalate	32.0	27.6		ug/L		86	59 - 127
Dimethyl phthalate	32.0	27.1		ug/L		85	68 - 120
Di-n-butyl phthalate	32.0	29.1		ug/L		91	69 - 131
Di-n-octyl phthalate	32.0	25.3		ug/L		79	63 - 140
Fluoranthene	32.0	27.8		ug/L		87	69 - 126
Fluorene	32.0	25.7		ug/L		80	66 - 120
Hexachlorobenzene	32.0	27.1		ug/L		85	61 - 120
Hexachlorobutadiene	32.0	20.1		ug/L		63	35 - 120
Hexachlorocyclopentadiene	32.0	9.88		ug/L		31	31 - 120
Hexachloroethane	32.0	19.2		ug/L		60	33 - 120
Indeno(1,2,3-cd)pyrene	32.0	26.7		ug/L		84	69 - 146
Isophorone	32.0	25.3		ug/L		79	55 - 120
Naphthalene	32.0	23.4		ug/L		73	57 - 120
Nitrobenzene	32.0	24.1		ug/L		75	53 - 123
N-Nitrosodi-n-propylamine	32.0	24.8		ug/L		77	32 - 140
Pentachlorophenol	64.0	48.9		ug/L		76	10 - 136
Phenanthrene	32.0	25.4		ug/L		79	68 - 120
Phenol	32.0	15.6		ug/L		49	17 - 120
Pyrene	32.0	26.6		ug/L		83	70 - 125

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-714822/2-A
Matrix: Water
Analysis Batch: 715009

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714822

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*86*		*25 - 144*
2-Fluorobiphenyl	*73*		*53 - 126*
2-Fluorophenol	*56*		*24 - 120*
Nitrobenzene-d5	*69*		*29 - 129*
Phenol-d5	*45*		*10 - 120*
p-Terphenyl-d14	*79*		*33 - 132*

Lab Sample ID: 480-220419-1 MS
Matrix: Water
Analysis Batch: 715009

Client Sample ID: SW-01-2
Prep Type: Total/NA
Prep Batch: 714822

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2,4,5-Trichlorophenol	ND		32.0	28.8		ug/L		90	65 - 126
2,4,6-Trichlorophenol	ND		32.0	28.5		ug/L		89	64 - 120
2,4-Dichlorophenol	ND		32.0	25.5		ug/L		80	48 - 132
2,4-Dimethylphenol	ND		32.0	20.0		ug/L		62	39 - 130
2,4-Dinitrophenol	ND		64.0	66.1		ug/L		103	21 - 150
2,4-Dinitrotoluene	ND		32.0	31.4		ug/L		98	54 - 138
2,6-Dinitrotoluene	ND		32.0	28.8		ug/L		90	17 - 150
2-Chloronaphthalene	ND		32.0	24.8		ug/L		77	52 - 124
2-Chlorophenol	ND		32.0	23.9		ug/L		75	48 - 120
2-Methylnaphthalene	ND		32.0	23.9		ug/L		75	34 - 140
2-Methylphenol	ND		32.0	22.7		ug/L		71	46 - 120
2-Nitroaniline	ND		32.0	30.3		ug/L		95	44 - 136
2-Nitrophenol	ND		32.0	24.8		ug/L		77	38 - 141
3,3'-Dichlorobenzidine	ND	F1 F2	64.0	2.35	J F1	ug/L		4	10 - 150
3-Nitroaniline	ND		32.0	17.3		ug/L		54	32 - 150
4,6-Dinitro-2-methylphenol	ND		64.0	64.9		ug/L		101	38 - 150
4-Bromophenyl phenyl ether	ND		32.0	27.7		ug/L		87	63 - 126
4-Chloro-3-methylphenol	ND		32.0	28.6		ug/L		89	64 - 127
4-Chloroaniline	ND	F2	32.0	7.04		ug/L		22	16 - 124
4-Chlorophenyl phenyl ether	ND		32.0	27.4		ug/L		86	61 - 120
4-Methylphenol	ND		32.0	22.5		ug/L		70	36 - 120
4-Nitroaniline	ND		32.0	27.2		ug/L		85	32 - 150
4-Nitrophenol	ND		64.0	54.9		ug/L		86	23 - 132
Acenaphthene	ND		32.0	26.4		ug/L		83	48 - 120
Acenaphthylene	ND		32.0	26.4		ug/L		83	63 - 120
Acetophenone	ND		32.0	25.4		ug/L		79	53 - 120
Anthracene	ND		32.0	27.1		ug/L		85	65 - 122
Atrazine	ND		64.0	59.7		ug/L		93	50 - 150
Benzaldehyde	ND		64.0	43.3		ug/L		68	10 - 150
Benzo(a)anthracene	ND	F2	32.0	23.3		ug/L		73	43 - 124
Benzo(a)pyrene	ND	F2	32.0	22.1		ug/L		69	23 - 125
Benzo(b)fluoranthene	ND	F2	32.0	20.4		ug/L		64	27 - 127
Benzo(g,h,i)perylene	ND	F2	32.0	22.5		ug/L		70	16 - 147
Benzo(k)fluoranthene	ND	F2	32.0	23.8		ug/L		74	20 - 124
Biphenyl	ND		32.0	24.8		ug/L		77	57 - 120
bis (2-chloroisopropyl) ether	ND		32.0	24.1		ug/L		75	28 - 121

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-220419-1 MS
Matrix: Water
Analysis Batch: 715009

Client Sample ID: SW-01-2
Prep Type: Total/NA
Prep Batch: 714822

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Bis(2-chloroethoxy)methane	ND		32.0	24.2		ug/L		76	44 - 128
Bis(2-chloroethyl)ether	ND		32.0	29.8		ug/L		93	45 - 120
Bis(2-ethylhexyl) phthalate	ND	F2	32.0	20.4		ug/L		64	16 - 150
Butyl benzyl phthalate	ND		32.0	25.2		ug/L		79	51 - 140
Caprolactam	ND		64.0	21.1		ug/L		33	10 - 120
Carbazole	ND		32.0	33.4		ug/L		104	16 - 148
Chrysene	ND	F2	32.0	23.7		ug/L		74	44 - 122
Dibenz(a,h)anthracene	ND	F2	32.0	22.9		ug/L		72	16 - 139
Dibenzofuran	ND		32.0	27.8		ug/L		87	60 - 120
Diethyl phthalate	ND		32.0	29.3		ug/L		91	53 - 133
Dimethyl phthalate	ND		32.0	30.4		ug/L		95	59 - 123
Di-n-butyl phthalate	ND	F2	32.0	29.7		ug/L		93	65 - 129
Di-n-octyl phthalate	ND	F2	32.0	20.8		ug/L		65	16 - 150
Fluoranthene	ND	F2	32.0	28.3		ug/L		89	63 - 129
Fluorene	ND		32.0	28.3		ug/L		88	62 - 120
Hexachlorobenzene	ND	F2	32.0	27.2		ug/L		85	57 - 121
Hexachlorobutadiene	ND		32.0	20.7		ug/L		65	37 - 120
Hexachlorocyclopentadiene	ND		32.0	11.6		ug/L		36	21 - 120
Hexachloroethane	ND		32.0	19.8		ug/L		62	16 - 130
Indeno(1,2,3-cd)pyrene	ND	F2	32.0	22.4		ug/L		70	16 - 140
Isophorone	ND		32.0	25.8		ug/L		80	48 - 133
Naphthalene	ND		32.0	23.6		ug/L		74	45 - 120
Nitrobenzene	ND		32.0	24.4		ug/L		76	45 - 123
N-Nitrosodi-n-propylamine	ND		32.0	25.0		ug/L		78	49 - 120
Pentachlorophenol	ND		64.0	58.2		ug/L		91	10 - 149
Phenanthrene	ND	F2	32.0	25.9		ug/L		81	65 - 122
Phenol	ND		32.0	15.8		ug/L		49	16 - 120
Pyrene	ND		32.0	27.1		ug/L		85	58 - 128

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol	*98*		*25 - 144*
2-Fluorobiphenyl	*76*		*53 - 126*
2-Fluorophenol	*55*		*24 - 120*
Nitrobenzene-d5	*71*		*29 - 129*
Phenol-d5	*45*		*10 - 120*
p-Terphenyl-d14	*62*		*33 - 132*

Lab Sample ID: 480-220419-1 MSD
Matrix: Water
Analysis Batch: 715009

Client Sample ID: SW-01-2
Prep Type: Total/NA
Prep Batch: 714822

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4,5-Trichlorophenol	ND		32.0	25.9		ug/L		81	65 - 126	11	18
2,4,6-Trichlorophenol	ND		32.0	26.6		ug/L		83	64 - 120	7	19
2,4-Dichlorophenol	ND		32.0	24.8		ug/L		78	48 - 132	3	19
2,4-Dimethylphenol	ND		32.0	19.1		ug/L		60	39 - 130	4	42
2,4-Dinitrophenol	ND		64.0	57.5		ug/L		90	21 - 150	14	22
2,4-Dinitrotoluene	ND		32.0	28.4		ug/L		89	54 - 138	10	20

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-220419-1 MSD
Matrix: Water
Analysis Batch: 715009

Client Sample ID: SW-01-2
Prep Type: Total/NA
Prep Batch: 714822

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,6-Dinitrotoluene	ND		32.0	26.0		ug/L		81	17 - 150	10	15
2-Chloronaphthalene	ND		32.0	24.6		ug/L		77	52 - 124	1	21
2-Chlorophenol	ND		32.0	22.7		ug/L		71	48 - 120	5	25
2-Methylnaphthalene	ND		32.0	24.3		ug/L		76	34 - 140	1	21
2-Methylphenol	ND		32.0	20.8		ug/L		65	46 - 120	9	27
2-Nitroaniline	ND		32.0	28.2		ug/L		88	44 - 136	7	15
2-Nitrophenol	ND		32.0	25.0		ug/L		78	38 - 141	1	18
3,3'-Dichlorobenzidine	ND	F1 F2	64.0	3.17	J F1 F2	ug/L		5	10 - 150	30	25
3-Nitroaniline	ND		32.0	17.7		ug/L		55	32 - 150	2	19
4,6-Dinitro-2-methylphenol	ND		64.0	56.4		ug/L		88	38 - 150	14	15
4-Bromophenyl phenyl ether	ND		32.0	24.5		ug/L		77	63 - 126	12	15
4-Chloro-3-methylphenol	ND		32.0	26.4		ug/L		83	64 - 127	8	27
4-Chloroaniline	ND	F2	32.0	9.73	F2	ug/L		30	16 - 124	32	22
4-Chlorophenyl phenyl ether	ND		32.0	25.8		ug/L		81	61 - 120	6	16
4-Methylphenol	ND		32.0	21.0		ug/L		66	36 - 120	7	24
4-Nitroaniline	ND		32.0	25.4		ug/L		80	32 - 150	7	24
4-Nitrophenol	ND		64.0	48.5		ug/L		76	23 - 132	12	48
Acenaphthene	ND		32.0	25.1		ug/L		78	48 - 120	5	24
Acenaphthylene	ND		32.0	25.1		ug/L		79	63 - 120	5	18
Acetophenone	ND		32.0	24.4		ug/L		76	53 - 120	4	20
Anthracene	ND		32.0	23.4		ug/L		73	65 - 122	15	15
Atrazine	ND		64.0	53.5		ug/L		84	50 - 150	11	20
Benzaldehyde	ND		64.0	43.2		ug/L		68	10 - 150	0	20
Benzo(a)anthracene	ND	F2	32.0	18.7	F2	ug/L		58	43 - 124	22	15
Benzo(a)pyrene	ND	F2	32.0	16.7	F2	ug/L		52	23 - 125	28	15
Benzo(b)fluoranthene	ND	F2	32.0	15.9	F2	ug/L		50	27 - 127	25	15
Benzo(g,h,i)perylene	ND	F2	32.0	16.5	F2	ug/L		51	16 - 147	31	15
Benzo(k)fluoranthene	ND	F2	32.0	17.5	F2	ug/L		55	20 - 124	31	22
Biphenyl	ND		32.0	24.8		ug/L		77	57 - 120	0	20
bis (2-chloroisopropyl) ether	ND		32.0	23.3		ug/L		73	28 - 121	3	24
Bis(2-chloroethoxy)methane	ND		32.0	23.8		ug/L		74	44 - 128	2	17
Bis(2-chloroethyl)ether	ND		32.0	26.0		ug/L		81	45 - 120	13	21
Bis(2-ethylhexyl) phthalate	ND	F2	32.0	15.2	F2	ug/L		48	16 - 150	29	15
Butyl benzyl phthalate	ND		32.0	22.2		ug/L		69	51 - 140	12	16
Caprolactam	ND		64.0	19.7		ug/L		31	10 - 120	7	20
Carbazole	ND		32.0	29.9		ug/L		94	16 - 148	11	20
Chrysene	ND	F2	32.0	18.6	F2	ug/L		58	44 - 122	24	15
Dibenz(a,h)anthracene	ND	F2	32.0	16.7	F2	ug/L		52	16 - 139	32	15
Dibenzofuran	ND		32.0	26.2		ug/L		82	60 - 120	6	15
Diethyl phthalate	ND		32.0	26.7		ug/L		83	53 - 133	9	15
Dimethyl phthalate	ND		32.0	28.0		ug/L		87	59 - 123	9	15
Di-n-butyl phthalate	ND	F2	32.0	24.6	F2	ug/L		77	65 - 129	19	15
Di-n-octyl phthalate	ND	F2	32.0	15.5	F2	ug/L		48	16 - 150	29	16
Fluoranthene	ND	F2	32.0	23.7	F2	ug/L		74	63 - 129	18	15
Fluorene	ND		32.0	26.2		ug/L		82	62 - 120	8	15
Hexachlorobenzene	ND	F2	32.0	22.5	F2	ug/L		70	57 - 121	19	15
Hexachlorobutadiene	ND		32.0	22.4		ug/L		70	37 - 120	8	44
Hexachlorocyclopentadiene	ND		32.0	12.0		ug/L		37	21 - 120	3	49
Hexachloroethane	ND		32.0	20.4		ug/L		64	16 - 130	3	46

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-220419-1 MSD
Matrix: Water
Analysis Batch: 715009

Client Sample ID: SW-01-2
Prep Type: Total/NA
Prep Batch: 714822

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Indeno(1,2,3-cd)pyrene	ND	F2	32.0	16.6	F2	ug/L		52	16 - 140	29	15
Isophorone	ND		32.0	25.4		ug/L		79	48 - 133	1	17
Naphthalene	ND		32.0	23.7		ug/L		74	45 - 120	0	29
Nitrobenzene	ND		32.0	24.1		ug/L		75	45 - 123	1	24
N-Nitrosodi-n-propylamine	ND		32.0	24.8		ug/L		77	49 - 120	1	31
Pentachlorophenol	ND		64.0	49.2		ug/L		77	10 - 149	17	37
Phenanthrene	ND	F2	32.0	21.8	F2	ug/L		68	65 - 122	17	15
Phenol	ND		32.0	14.9		ug/L		47	16 - 120	6	34
Pyrene	ND		32.0	24.1		ug/L		75	58 - 128	12	19

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*84*		*25 - 144*
2-Fluorobiphenyl	*75*		*53 - 126*
2-Fluorophenol	*52*		*24 - 120*
Nitrobenzene-d5	*70*		*29 - 129*
Phenol-d5	*42*		*10 - 120*
p-Terphenyl-d14	*49*		*33 - 132*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 480-714477/1-A
Matrix: Water
Analysis Batch: 714657

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714477

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		06/05/24 09:28	06/06/24 14:03	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*30*		*15 - 110*	*06/05/24 09:28*	*06/06/24 14:03*	*1*

Lab Sample ID: LCS 480-714477/2-A
Matrix: Water
Analysis Batch: 714657

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714477

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,4-Dioxane			2.00	2.21		ug/L		110	40 - 140		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*36*		*15 - 110*

Lab Sample ID: 480-220419-1 MS
Matrix: Water
Analysis Batch: 714657

Client Sample ID: SW-01-2
Prep Type: Total/NA
Prep Batch: 714477

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
1,4-Dioxane	ND		2.00	2.38		ug/L		119	40 - 140		

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
1,4-Dioxane-d8	*32*		*15 - 110*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution) (Continued)

Lab Sample ID: 480-220419-1 MSD
Matrix: Water
Analysis Batch: 714657

Client Sample ID: SW-01-2
Prep Type: Total/NA
Prep Batch: 714477

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane	ND		2.00	2.34		ug/L		117	40 - 140	2	20

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,4-Dioxane-d8	*30*		*15 - 110*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 480-714469/1-A
Matrix: Water
Analysis Batch: 714613

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714469

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.050	0.0092	ug/L		06/05/24 09:14	06/06/24 10:55	1
4,4'-DDE	ND		0.050	0.012	ug/L		06/05/24 09:14	06/06/24 10:55	1
4,4'-DDT	ND		0.050	0.011	ug/L		06/05/24 09:14	06/06/24 10:55	1
Aldrin	ND		0.050	0.0081	ug/L		06/05/24 09:14	06/06/24 10:55	1
alpha-BHC	0.00886	J	0.050	0.0077	ug/L		06/05/24 09:14	06/06/24 10:55	1
cis-Chlordane	ND		0.050	0.015	ug/L		06/05/24 09:14	06/06/24 10:55	1
beta-BHC	ND		0.050	0.025	ug/L		06/05/24 09:14	06/06/24 10:55	1
delta-BHC	ND		0.050	0.010	ug/L		06/05/24 09:14	06/06/24 10:55	1
Dieldrin	ND		0.050	0.0098	ug/L		06/05/24 09:14	06/06/24 10:55	1
Endosulfan I	ND		0.050	0.011	ug/L		06/05/24 09:14	06/06/24 10:55	1
Endosulfan II	ND		0.050	0.012	ug/L		06/05/24 09:14	06/06/24 10:55	1
Endosulfan sulfate	ND		0.050	0.016	ug/L		06/05/24 09:14	06/06/24 10:55	1
Endrin	ND		0.050	0.014	ug/L		06/05/24 09:14	06/06/24 10:55	1
Endrin aldehyde	ND		0.050	0.016	ug/L		06/05/24 09:14	06/06/24 10:55	1
Endrin ketone	ND		0.050	0.012	ug/L		06/05/24 09:14	06/06/24 10:55	1
gamma-BHC (Lindane)	0.00896	J	0.050	0.0080	ug/L		06/05/24 09:14	06/06/24 10:55	1
trans-Chlordane	ND		0.050	0.011	ug/L		06/05/24 09:14	06/06/24 10:55	1
Heptachlor	ND		0.050	0.0085	ug/L		06/05/24 09:14	06/06/24 10:55	1
Heptachlor epoxide	ND		0.050	0.0074	ug/L		06/05/24 09:14	06/06/24 10:55	1
Methoxychlor	ND		0.050	0.014	ug/L		06/05/24 09:14	06/06/24 10:55	1
Toxaphene	ND		0.50	0.12	ug/L		06/05/24 09:14	06/06/24 10:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*47*		*20 - 120*	*06/05/24 09:14*	*06/06/24 10:55*	*1*
DCB Decachlorobiphenyl	*48*		*20 - 120*	*06/05/24 09:14*	*06/06/24 10:55*	*1*
Tetrachloro-m-xylene	*49*		*44 - 120*	*06/05/24 09:14*	*06/06/24 10:55*	*1*
Tetrachloro-m-xylene	*42*	*S1-*	*44 - 120*	*06/05/24 09:14*	*06/06/24 10:55*	*1*

Lab Sample ID: LCS 480-714469/2-A
Matrix: Water
Analysis Batch: 714613

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714469

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	0.400	0.379		ug/L		95	64 - 129
4,4'-DDE	0.400	0.309		ug/L		77	50 - 120

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 480-714469/2-A
Matrix: Water
Analysis Batch: 714613

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714469

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDT	0.400	0.391		ug/L		98	59 - 120
Aldrin	0.400	0.189		ug/L		47	40 - 125
alpha-BHC	0.400	0.218		ug/L		55	52 - 125
cis-Chlordane	0.400	0.326		ug/L		81	52 - 120
beta-BHC	0.400	0.316		ug/L		79	51 - 120
delta-BHC	0.400	0.324		ug/L		81	51 - 120
Dieldrin	0.400	0.390		ug/L		98	66 - 128
Endosulfan I	0.400	0.327		ug/L		82	57 - 120
Endosulfan II	0.400	0.393		ug/L		98	66 - 131
Endosulfan sulfate	0.400	0.347		ug/L		87	66 - 136
Endrin	0.400	0.389		ug/L		97	65 - 135
Endrin aldehyde	0.400	0.322		ug/L		81	61 - 134
Endrin ketone	0.400	0.412		ug/L		103	71 - 133
gamma-BHC (Lindane)	0.400	0.281		ug/L		70	56 - 120
trans-Chlordane	0.400	0.326		ug/L		81	54 - 120
Heptachlor	0.400	0.262		ug/L		66	58 - 120
Heptachlor epoxide	0.400	0.360		ug/L		90	65 - 125
Methoxychlor	0.400	0.462		ug/L		115	50 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*46*		*20 - 120*
DCB Decachlorobiphenyl	*45*		*20 - 120*
Tetrachloro-m-xylene	*54*		*44 - 120*
Tetrachloro-m-xylene	*44*		*44 - 120*

Lab Sample ID: 480-220419-1 MS
Matrix: Water
Analysis Batch: 714613

Client Sample ID: SW-01-2
Prep Type: Total/NA
Prep Batch: 714469

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	ND		0.400	0.267		ug/L		67	57 - 130
4,4'-DDE	ND		0.400	0.186		ug/L		46	39 - 120
4,4'-DDT	0.033	J	0.400	0.267		ug/L		59	37 - 130
Aldrin	ND		0.400	0.173		ug/L		43	39 - 125
alpha-BHC	0.017	J B	0.400	0.222		ug/L		51	48 - 120
cis-Chlordane	ND		0.400	0.237		ug/L		59	44 - 120
beta-BHC	ND		0.400	0.278		ug/L		70	49 - 120
delta-BHC	0.014	J	0.400	0.270		ug/L		64	50 - 120
Dieldrin	ND		0.400	0.305		ug/L		76	56 - 130
Endosulfan I	ND		0.400	0.291		ug/L		73	40 - 126
Endosulfan II	ND		0.400	0.320		ug/L		80	59 - 140
Endosulfan sulfate	ND		0.400	0.376		ug/L		94	60 - 134
Endrin	ND		0.400	0.318		ug/L		80	54 - 135
Endrin aldehyde	ND		0.400	0.343		ug/L		86	50 - 142
Endrin ketone	0.019	J	0.400	0.394		ug/L		94	57 - 138
gamma-BHC (Lindane)	ND		0.400	0.238		ug/L		59	50 - 120
trans-Chlordane	ND		0.400	0.224		ug/L		56	42 - 120
Heptachlor	ND		0.400	0.233		ug/L		58	56 - 120

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 480-220419-1 MS
Matrix: Water
Analysis Batch: 714613

Client Sample ID: SW-01-2
Prep Type: Total/NA
Prep Batch: 714469

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Heptachlor epoxide	ND		0.400	0.293		ug/L		73	58 - 125
Methoxychlor	0.11		0.400	0.493		ug/L		97	40 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*48*		*20 - 120*
DCB Decachlorobiphenyl	*41*		*20 - 120*
Tetrachloro-m-xylene	*52*		*44 - 120*
Tetrachloro-m-xylene	*50*		*44 - 120*

Lab Sample ID: 480-220419-1 MSD
Matrix: Water
Analysis Batch: 714613

Client Sample ID: SW-01-2
Prep Type: Total/NA
Prep Batch: 714469

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	ND		0.400	0.280		ug/L		70	57 - 130	5	23
4,4'-DDE	ND		0.400	0.191		ug/L		48	39 - 120	3	22
4,4'-DDT	0.033	J	0.400	0.242		ug/L		52	37 - 130	10	24
Aldrin	ND		0.400	0.182		ug/L		45	39 - 125	5	25
alpha-BHC	0.017	J B	0.400	0.235		ug/L		54	48 - 120	6	24
cis-Chlordane	ND		0.400	0.250		ug/L		62	44 - 120	5	23
beta-BHC	ND		0.400	0.287		ug/L		72	49 - 120	3	24
delta-BHC	0.014	J	0.400	0.285		ug/L		68	50 - 120	5	24
Dieldrin	ND		0.400	0.332		ug/L		83	56 - 130	8	24
Endosulfan I	ND		0.400	0.309		ug/L		77	40 - 126	6	30
Endosulfan II	ND		0.400	0.338		ug/L		84	59 - 140	5	40
Endosulfan sulfate	ND		0.400	0.352		ug/L		88	60 - 134	7	24
Endrin	ND		0.400	0.334		ug/L		83	54 - 135	5	24
Endrin aldehyde	ND		0.400	0.367		ug/L		92	50 - 142	7	28
Endrin ketone	0.019	J	0.400	0.405		ug/L		97	57 - 138	3	26
gamma-BHC (Lindane)	ND		0.400	0.252		ug/L		63	50 - 120	6	24
trans-Chlordane	ND		0.400	0.241		ug/L		60	42 - 120	7	24
Heptachlor	ND		0.400	0.255		ug/L		64	56 - 120	9	25
Heptachlor epoxide	ND		0.400	0.316		ug/L		79	58 - 125	8	23
Methoxychlor	0.11		0.400	0.505		ug/L		100	40 - 150	2	26

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*66*		*20 - 120*
DCB Decachlorobiphenyl	*50*		*20 - 120*
Tetrachloro-m-xylene	*38*	*S1-*	*44 - 120*
Tetrachloro-m-xylene	*52*		*44 - 120*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 480-714616/1-A
Matrix: Water
Analysis Batch: 714682

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714616

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 17:51	1
PCB-1221	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 17:51	1
PCB-1232	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 17:51	1
PCB-1242	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 17:51	1
PCB-1248	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 17:51	1
PCB-1254	ND		0.50	0.25	ug/L		06/06/24 06:53	06/06/24 17:51	1
PCB-1260	ND		0.50	0.25	ug/L		06/06/24 06:53	06/06/24 17:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*40*		*19 - 120*	*06/06/24 06:53*	*06/06/24 17:51*	*1*
DCB Decachlorobiphenyl	*45*		*19 - 120*	*06/06/24 06:53*	*06/06/24 17:51*	*1*
Tetrachloro-m-xylene	*69*		*39 - 121*	*06/06/24 06:53*	*06/06/24 17:51*	*1*
Tetrachloro-m-xylene	*70*		*39 - 121*	*06/06/24 06:53*	*06/06/24 17:51*	*1*

Lab Sample ID: LCS 480-714616/2-A
Matrix: Water
Analysis Batch: 714682

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714616

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
PCB-1016			4.00	2.88		ug/L		72	62 - 130		
PCB-1260			4.00	2.42		ug/L		61	56 - 123		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*34*		*19 - 120*
DCB Decachlorobiphenyl	*39*		*19 - 120*
Tetrachloro-m-xylene	*77*		*39 - 121*
Tetrachloro-m-xylene	*72*		*39 - 121*

Lab Sample ID: 480-220419-1 MS
Matrix: Water
Analysis Batch: 714682

Client Sample ID: SW-01-2
Prep Type: Total/NA
Prep Batch: 714616

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
PCB-1016	ND		4.00	2.76		ug/L		69	28 - 150		
PCB-1260	ND		4.00	1.47		ug/L		37	25 - 131		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*29*		*19 - 120*
DCB Decachlorobiphenyl	*35*		*19 - 120*
Tetrachloro-m-xylene	*76*		*39 - 121*
Tetrachloro-m-xylene	*78*		*39 - 121*

Lab Sample ID: 480-220419-1 MSD
Matrix: Water
Analysis Batch: 714682

Client Sample ID: SW-01-2
Prep Type: Total/NA
Prep Batch: 714616

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016	ND		4.00	2.75		ug/L		69	28 - 150	1	50

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 480-220419-1 MSD
Matrix: Water
Analysis Batch: 714682

Client Sample ID: SW-01-2
Prep Type: Total/NA
Prep Batch: 714616

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1260	ND		4.00	1.49		ug/L		37	25 - 131	2	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*30*		*19 - 120*
DCB Decachlorobiphenyl	*35*		*19 - 120*
Tetrachloro-m-xylene	*72*		*39 - 121*
Tetrachloro-m-xylene	*70*		*39 - 121*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Lab Sample ID: MB 240-615692/1-A
Matrix: Water
Analysis Batch: 615825

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 615692

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		8.0	2.1	ng/L		06/06/24 08:39	06/07/24 13:23	1
Perfluoropentanoic acid (PFPeA)	ND		4.0	1.0	ng/L		06/06/24 08:39	06/07/24 13:23	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.50	ng/L		06/06/24 08:39	06/07/24 13:23	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.50	ng/L		06/06/24 08:39	06/07/24 13:23	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.50	ng/L		06/06/24 08:39	06/07/24 13:23	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.50	ng/L		06/06/24 08:39	06/07/24 13:23	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.50	ng/L		06/06/24 08:39	06/07/24 13:23	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.50	ng/L		06/06/24 08:39	06/07/24 13:23	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.50	ng/L		06/06/24 08:39	06/07/24 13:23	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0	0.50	ng/L		06/06/24 08:39	06/07/24 13:23	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	0.50	ng/L		06/06/24 08:39	06/07/24 13:23	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.50	ng/L		06/06/24 08:39	06/07/24 13:23	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	0.50	ng/L		06/06/24 08:39	06/07/24 13:23	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.52	ng/L		06/06/24 08:39	06/07/24 13:23	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0	0.50	ng/L		06/06/24 08:39	06/07/24 13:23	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.50	ng/L		06/06/24 08:39	06/07/24 13:23	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0	0.50	ng/L		06/06/24 08:39	06/07/24 13:23	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	0.50	ng/L		06/06/24 08:39	06/07/24 13:23	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		8.0	2.0	ng/L		06/06/24 08:39	06/07/24 13:23	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		8.0	2.0	ng/L		06/06/24 08:39	06/07/24 13:23	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		8.0	2.0	ng/L		06/06/24 08:39	06/07/24 13:23	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	0.50	ng/L		06/06/24 08:39	06/07/24 13:23	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	0.50	ng/L		06/06/24 08:39	06/07/24 13:23	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0	0.50	ng/L		06/06/24 08:39	06/07/24 13:23	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	0.62	ng/L		06/06/24 08:39	06/07/24 13:23	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	0.52	ng/L		06/06/24 08:39	06/07/24 13:23	1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 240-615692/1-A
Matrix: Water
Analysis Batch: 615825

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 615692

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		20	5.0	ng/L		06/06/24 08:39	06/07/24 13:23	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		20	5.0	ng/L		06/06/24 08:39	06/07/24 13:23	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		8.0	2.0	ng/L		06/06/24 08:39	06/07/24 13:23	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		8.0	2.0	ng/L		06/06/24 08:39	06/07/24 13:23	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		4.0	1.0	ng/L		06/06/24 08:39	06/07/24 13:23	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		4.0	1.2	ng/L		06/06/24 08:39	06/07/24 13:23	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		8.0	2.0	ng/L		06/06/24 08:39	06/07/24 13:23	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		8.0	2.0	ng/L		06/06/24 08:39	06/07/24 13:23	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		4.0	1.0	ng/L		06/06/24 08:39	06/07/24 13:23	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		10	2.5	ng/L		06/06/24 08:39	06/07/24 13:23	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		50	13	ng/L		06/06/24 08:39	06/07/24 13:23	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		50	15	ng/L		06/06/24 08:39	06/07/24 13:23	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.50	ng/L		06/06/24 08:39	06/07/24 13:23	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		4.0	1.0	ng/L		06/06/24 08:39	06/07/24 13:23	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*95.2*		*10 - 130*	*06/06/24 08:39*	*06/07/24 13:23*	*1*
13C5 PFPeA	*113*		*35 - 150*	*06/06/24 08:39*	*06/07/24 13:23*	*1*
13C5 PFHxA	*115*		*55 - 150*	*06/06/24 08:39*	*06/07/24 13:23*	*1*
13C4 PFHpA	*95.4*		*55 - 150*	*06/06/24 08:39*	*06/07/24 13:23*	*1*
13C8 PFOA	*91.3*		*60 - 140*	*06/06/24 08:39*	*06/07/24 13:23*	*1*
13C9 PFNA	*103*		*55 - 140*	*06/06/24 08:39*	*06/07/24 13:23*	*1*
13C6 PFDA	*85.6*		*50 - 140*	*06/06/24 08:39*	*06/07/24 13:23*	*1*
13C7 PFUnA	*108*		*30 - 140*	*06/06/24 08:39*	*06/07/24 13:23*	*1*
13C2 PFTeDA	*94.6*		*10 - 130*	*06/06/24 08:39*	*06/07/24 13:23*	*1*
13C3 PFBS	*104*		*55 - 150*	*06/06/24 08:39*	*06/07/24 13:23*	*1*
13C3 PFHxS	*100*		*55 - 150*	*06/06/24 08:39*	*06/07/24 13:23*	*1*
13C8 PFOS	*83.3*		*45 - 140*	*06/06/24 08:39*	*06/07/24 13:23*	*1*
13C8 FOSA	*73.3*		*30 - 130*	*06/06/24 08:39*	*06/07/24 13:23*	*1*
d3-NMeFOSAA	*78.8*		*45 - 200*	*06/06/24 08:39*	*06/07/24 13:23*	*1*
d5-NEtFOSAA	*70.3*		*10 - 200*	*06/06/24 08:39*	*06/07/24 13:23*	*1*
M2-4:2 FTS	*119*		*60 - 200*	*06/06/24 08:39*	*06/07/24 13:23*	*1*
M2-6:2 FTS	*117*	*I*	*60 - 200*	*06/06/24 08:39*	*06/07/24 13:23*	*1*
M2-8:2 FTS	*96.4*		*50 - 200*	*06/06/24 08:39*	*06/07/24 13:23*	*1*
13C3 HFPO-DA	*114*		*25 - 160*	*06/06/24 08:39*	*06/07/24 13:23*	*1*
d7-N-MeFOSE-M	*71.2*		*10 - 150*	*06/06/24 08:39*	*06/07/24 13:23*	*1*
d9-N-EtFOSE-M	*78.5*		*10 - 150*	*06/06/24 08:39*	*06/07/24 13:23*	*1*
d5-NEtPFOSA	*51.5*		*10 - 130*	*06/06/24 08:39*	*06/07/24 13:23*	*1*
d3-NMePFOSA	*49.1*		*15 - 130*	*06/06/24 08:39*	*06/07/24 13:23*	*1*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 240-615692/1-A
Matrix: Water
Analysis Batch: 615825

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 615692

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2-PFDoDA	98.8		10 - 150	06/06/24 08:39	06/07/24 13:23	1

Lab Sample ID: LCS 240-615692/3-A
Matrix: Water
Analysis Batch: 615825

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 615692

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	100	112		ng/L		112	58 - 148
Perfluoropentanoic acid (PFPeA)	50.0	56.4		ng/L		113	54 - 152
Perfluorohexanoic acid (PFHxA)	25.0	24.6		ng/L		98	55 - 152
Perfluoroheptanoic acid (PFHpA)	25.0	26.9		ng/L		108	54 - 154
Perfluorooctanoic acid (PFOA)	25.0	28.8		ng/L		115	52 - 161
Perfluorononanoic acid (PFNA)	25.0	25.0		ng/L		100	59 - 149
Perfluorodecanoic acid (PFDA)	25.0	31.0		ng/L		124	52 - 147
Perfluoroundecanoic acid (PFUnA)	25.0	26.4		ng/L		106	48 - 159
Perfluorododecanoic acid (PFDoA)	25.0	27.2		ng/L		109	64 - 142
Perfluorotridecanoic acid (PFTrDA)	25.0	31.3		ng/L		125	49 - 148
Perfluorotetradecanoic acid (PFTeDA)	25.0	29.0		ng/L		116	47 - 161
Perfluorobutanesulfonic acid (PFBS)	22.1	24.0		ng/L		108	62 - 144
Perfluoropentanesulfonic acid (PFPeS)	23.5	25.8		ng/L		110	59 - 151
Perfluorohexanesulfonic acid (PFHxS)	22.8	25.3		ng/L		111	57 - 146
Perfluoroheptanesulfonic acid (PFHpS)	23.8	28.2		ng/L		119	55 - 152
Perfluorooctanesulfonic acid (PFOS)	23.2	28.2		ng/L		121	58 - 149
Perfluorononanesulfonic acid (PFNS)	24.0	26.8		ng/L		112	52 - 148
Perfluorododecanesulfonic acid (PFDoS)	24.2	26.6		ng/L		110	36 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	93.4	99.2		ng/L		106	67 - 146
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	94.8	104		ng/L		110	61 - 151
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	95.8	105		ng/L		110	63 - 152
Perfluorooctanesulfonamide (PFOSA)	25.0	26.3		ng/L		105	61 - 148
N-methylperfluorooctane sulfonamide (NMeFOSA)	25.0	30.8		ng/L		123	63 - 145
N-ethylperfluorooctane sulfonamide (NEtFOSA)	25.0	28.2		ng/L		113	65 - 139
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	25.0	26.6		ng/L		107	58 - 144
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	25.0	31.1		ng/L		124	59 - 146
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	250	289		ng/L		116	71 - 136

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 240-615692/3-A
Matrix: Water
Analysis Batch: 615825

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 615692

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	250	270		ng/L		108	69 - 137
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	100	114		ng/L		114	63 - 144
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	94.2	98.1		ng/L		104	68 - 146
Perfluoro-4-methoxybutanoic acid (PFMBA)	50.0	56.9		ng/L		114	55 - 148
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	50.0	59.7		ng/L		119	48 - 161
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	93.2	96.5		ng/L		103	56 - 156
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	94.2	98.9		ng/L		105	46 - 156
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	44.5	46.6		ng/L		105	56 - 151
3-Perfluoropropylpropanoic acid (3:3 FTCA)	125	136		ng/L		109	62 - 129
3-Perfluoropentylpropanoic acid (5:3 FTCA)	625	644		ng/L		103	63 - 134
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	625	592		ng/L		95	50 - 138
Perfluorodecanesulfonic acid (PFDS)	24.1	29.4		ng/L		122	51 - 147
Perfluoro-3-methoxypropanoic acid (PFMPA)	50.0	56.1		ng/L		112	51 - 145

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*104*		*10 - 130*
13C5 PFPeA	*120*		*40 - 150*
13C5 PFHxA	*126*		*40 - 150*
13C4 PFHpA	*112*		*40 - 150*
13C8 PFOA	*109*		*30 - 140*
13C9 PFNA	*127*		*30 - 140*
13C6 PFDA	*97.3*		*20 - 140*
13C7 PFUnA	*121*		*20 - 140*
13C2 PFTeDA	*114*		*10 - 130*
13C3 PFBS	*105*		*25 - 150*
13C3 PFHxS	*106*		*25 - 150*
13C8 PFOS	*99.3*		*20 - 140*
13C8 FOSA	*95.3*		*10 - 130*
d3-NMeFOSAA	*98.4*		*10 - 200*
d5-NEtFOSAA	*96.0*		*10 - 200*
M2-4:2 FTS	*111*		*25 - 200*
M2-6:2 FTS	*107*		*25 - 200*
M2-8:2 FTS	*101*		*25 - 200*
13C3 HFPO-DA	*133*		*25 - 160*
d7-N-MeFOSE-M	*103*		*10 - 150*
d9-N-EtFOSE-M	*111*		*10 - 150*
d5-NEtPFOSA	*65.2*		*10 - 130*
d3-NMePFOSA	*66.7*		*10 - 130*
13C2-PFDoDA	*109*		*10 - 150*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Lab Sample ID: LLCS 240-615692/2-A
Matrix: Water
Analysis Batch: 615825

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 615692

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	8.00	9.09		ng/L		114	44 - 157
Perfluoropentanoic acid (PFPeA)	4.00	4.73		ng/L		118	57 - 148
Perfluorohexanoic acid (PFHxA)	2.00	2.18		ng/L		109	62 - 149
Perfluoroheptanoic acid (PFHpA)	2.00	2.38		ng/L		119	56 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.76		ng/L		138	57 - 161
Perfluorononanoic acid (PFNA)	2.00	1.99	J	ng/L		99	53 - 157
Perfluorodecanoic acid (PFDA)	2.00	2.66		ng/L		133	43 - 158
Perfluoroundecanoic acid (PFUnA)	2.00	2.21		ng/L		110	50 - 155
Perfluorododecanoic acid (PFDoA)	2.00	2.05		ng/L		103	60 - 141
Perfluorotridecanoic acid (PFTrDA)	2.00	2.18		ng/L		109	52 - 140
Perfluorotetradecanoic acid (PFTeDA)	2.00	2.63		ng/L		132	52 - 156
Perfluorobutanesulfonic acid (PFBS)	1.77	1.93	J	ng/L		109	63 - 145
Perfluoropentanesulfonic acid (PFPeS)	1.88	2.15		ng/L		114	58 - 144
Perfluorohexanesulfonic acid (PFHxS)	1.82	2.04		ng/L		112	44 - 158
Perfluoroheptanesulfonic acid (PFHpS)	1.90	2.47		ng/L		130	51 - 150
Perfluorooctanesulfonic acid (PFOS)	1.86	2.43		ng/L		131	43 - 162
Perfluorononanesulfonic acid (PFNS)	1.92	1.99	J	ng/L		104	46 - 151
Perfluorododecanesulfonic acid (PFDoS)	1.94	2.30		ng/L		119	30 - 138
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.47	8.20		ng/L		110	52 - 158
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.58	8.57		ng/L		113	48 - 158
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.66	8.26		ng/L		108	46 - 165
Perfluorooctanesulfonamide (PFOSA)	2.00	2.34	I	ng/L		117	47 - 163
N-methylperfluorooctane sulfonamide (NMeFOSA)	2.00	2.71		ng/L		135	54 - 155
N-ethylperfluorooctane sulfonamide (NEtFOSA)	2.00	2.21		ng/L		111	49 - 156
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	2.70		ng/L		135	32 - 160
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	2.68		ng/L		134	51 - 154
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	21.4		ng/L		107	56 - 151
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	24.6		ng/L		123	60 - 147
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	8.00	9.04		ng/L		113	58 - 154
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	7.54	8.25		ng/L		110	61 - 148

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 240-615692/2-A
Matrix: Water
Analysis Batch: 615825

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 615692

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.00	4.62		ng/L		115	49 - 154
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.00	5.13		ng/L		128	47 - 160
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	7.46	8.13		ng/L		109	44 - 167
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	7.54	8.41		ng/L		112	36 - 158
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.56	4.28		ng/L		120	56 - 144
3-Perfluoropropylpropanoic acid (3:3 FTCA)	10.0	11.5		ng/L		115	32 - 161
3-Perfluoropentylpropanoic acid (5:3 FTCA)	50.0	58.6		ng/L		117	39 - 156
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	50.0	48.3	J	ng/L		97	36 - 149
Perfluorodecanesulfonic acid (PFDS)	1.93	2.18		ng/L		113	50 - 144
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	4.61		ng/L		115	48 - 150

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*101*		*10 - 130*
13C5 PFPeA	*122*		*40 - 150*
13C5 PFHxA	*126*		*40 - 150*
13C4 PFHpA	*108*		*40 - 150*
13C8 PFOA	*102*		*30 - 140*
13C9 PFNA	*115*		*30 - 140*
13C6 PFDA	*91.3*		*20 - 140*
13C7 PFUnA	*115*		*20 - 140*
13C2 PFTeDA	*99.3*		*10 - 130*
13C3 PFBS	*115*		*25 - 150*
13C3 PFHxS	*107*		*25 - 150*
13C8 PFOS	*98.0*		*20 - 140*
13C8 FOSA	*86.9*		*10 - 130*
d3-NMeFOSAA	*91.3*		*10 - 200*
d5-NEtFOSAA	*92.9*		*10 - 200*
M2-4:2 FTS	*116*		*25 - 200*
M2-6:2 FTS	*121*		*25 - 200*
M2-8:2 FTS	*113*		*25 - 200*
13C3 HFPO-DA	*134*		*25 - 160*
d7-N-MeFOSE-M	*95.9*		*10 - 150*
d9-N-EtFOSE-M	*101*		*10 - 150*
d5-NEtPFOSA	*71.6*		*10 - 130*
d3-NMePFOSA	*68.5*		*10 - 130*
13C2-PFDoDA	*107*		*10 - 150*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: 480-220419-1 MS
Matrix: Water
Analysis Batch: 615825

Client Sample ID: SW-01-2
Prep Type: Total/NA
Prep Batch: 615692

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	6.0	J	88.2	101		ng/L		107	58 - 148
Perfluoropentanoic acid (PFPeA)	ND		44.1	49.2		ng/L		112	54 - 152
Perfluorohexanoic acid (PFHxA)	1.9		22.0	26.9		ng/L		113	55 - 152
Perfluoroheptanoic acid (PFHpA)	1.3	J F2	22.0	24.0		ng/L		103	54 - 154
Perfluorooctanoic acid (PFOA)	8.3		22.0	29.0		ng/L		94	52 - 161
Perfluorononanoic acid (PFNA)	18	I	22.0	44.9	I	ng/L		124	59 - 149
Perfluorodecanoic acid (PFDA)	ND	F1	22.0	33.5	F1	ng/L		152	52 - 147
Perfluoroundecanoic acid (PFUnA)	ND		22.0	23.1		ng/L		105	48 - 159
Perfluorododecanoic acid (PFDoA)	ND		22.0	25.7		ng/L		117	64 - 142
Perfluorotridecanoic acid (PFTrDA)	ND		22.0	25.2		ng/L		107	49 - 148
Perfluorotetradecanoic acid (PFTeDA)	ND		22.0	27.1		ng/L		123	47 - 161
Perfluorobutanesulfonic acid (PFBS)	2.1		19.5	20.4		ng/L		94	62 - 144
Perfluoropentanesulfonic acid (PFPeS)	ND		20.7	24.3		ng/L		118	59 - 151
Perfluorohexanesulfonic acid (PFHxS)	0.75	J I	20.1	22.2		ng/L		107	57 - 146
Perfluoroheptanesulfonic acid (PFHpS)	ND		21.0	24.7		ng/L		118	55 - 152
Perfluorooctanesulfonic acid (PFOS)	2.4		20.5	25.0		ng/L		110	58 - 149
Perfluorononanesulfonic acid (PFNS)	ND		21.2	21.2		ng/L		100	52 - 148
Perfluorododecanesulfonic acid (PFDoS)	ND		21.3	12.6		ng/L		59	36 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		82.3	86.3		ng/L		105	67 - 146
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		83.6	83.1		ng/L		99	61 - 151
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		84.4	97.7		ng/L		116	63 - 152
Perfluorooctanesulfonamide (PFOSA)	ND		22.0	22.7		ng/L		103	61 - 148
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		22.0	23.3		ng/L		106	63 - 145
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		22.0	23.8		ng/L		108	65 - 139
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		22.0	25.8		ng/L		117	58 - 144
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		22.0	28.6		ng/L		130	59 - 146
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		220	273		ng/L		124	71 - 136
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		220	249		ng/L		113	69 - 137
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		88.2	103		ng/L		117	63 - 144
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		83.0	88.5		ng/L		107	68 - 146

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: 480-220419-1 MS
Matrix: Water
Analysis Batch: 615825

Client Sample ID: SW-01-2
Prep Type: Total/NA
Prep Batch: 615692

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		44.1	56.2		ng/L		128	55 - 148
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		44.1	58.1		ng/L		132	48 - 161
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		82.2	96.2		ng/L		117	56 - 156
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		83.0	89.2		ng/L		107	46 - 156
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		39.2	42.2		ng/L		108	56 - 151
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		110	116		ng/L		106	62 - 129
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		551	532		ng/L		97	63 - 134
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		551	484		ng/L		88	50 - 138
Perfluorodecanesulfonic acid (PFDS)	ND		21.2	20.6		ng/L		97	51 - 147
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		44.1	45.2		ng/L		103	51 - 145

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
13C4 PFBA	*97.5*		*10 - 130*
13C5 PFPeA	*82.8*		*35 - 150*
13C5 PFHxA	*107*		*55 - 150*
13C4 PFHpA	*96.6*		*55 - 150*
13C8 PFOA	*96.6*		*60 - 140*
13C9 PFNA	*127*		*55 - 140*
13C6 PFDA	*96.4*		*50 - 140*
13C7 PFUnA	*133*		*30 - 140*
13C2 PFTeDA	*81.4*		*10 - 130*
13C3 PFBS	*106*		*55 - 150*
13C3 PFHxS	*99.6*		*55 - 150*
13C8 PFOS	*96.9*		*45 - 140*
13C8 FOSA	*84.2*		*30 - 130*
d3-NMeFOSAA	*78.9*		*45 - 200*
d5-NEtFOSAA	*76.6*		*10 - 200*
M2-4:2 FTS	*236*	*5+	*60 - 200*
M2-6:2 FTS	*233*	*5+	*60 - 200*
M2-8:2 FTS	*90.5*		*50 - 200*
13C3 HFPO-DA	*108*		*25 - 160*
d7-N-MeFOSE-M	*58.5*		*10 - 150*
d9-N-EtFOSE-M	*59.7*		*10 - 150*
d5-NEtPFOSA	*58.4*		*10 - 130*
d3-NMePFOSA	*65.7*		*15 - 130*
13C2-PFDoDA	*113*		*10 - 150*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: 480-220419-1 MSD
Matrix: Water
Analysis Batch: 615825

Client Sample ID: SW-01-2
Prep Type: Total/NA
Prep Batch: 615692

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	6.0	J	94.1	112		ng/L		113	58 - 148	11	30
Perfluoropentanoic acid (PFPeA)	ND		47.1	54.8		ng/L		116	54 - 152	11	30
Perfluorohexanoic acid (PFHxA)	1.9		23.5	30.8		ng/L		123	55 - 152	14	30
Perfluoroheptanoic acid (PFHpA)	1.3	J F2	23.5	33.0	F2	ng/L		135	54 - 154	32	30
Perfluorooctanoic acid (PFOA)	8.3		23.5	32.9		ng/L		105	52 - 161	12	30
Perfluorononanoic acid (PFNA)	18	I	23.5	42.1	I	ng/L		104	59 - 149	7	30
Perfluorodecanoic acid (PFDA)	ND	F1	23.5	36.0	F1	ng/L		153	52 - 147	7	30
Perfluoroundecanoic acid (PFUnA)	ND		23.5	25.9		ng/L		110	48 - 159	11	30
Perfluorododecanoic acid (PFDoA)	ND		23.5	27.1		ng/L		115	64 - 142	5	30
Perfluorotridecanoic acid (PFTrDA)	ND		23.5	27.0		ng/L		108	49 - 148	7	30
Perfluorotetradecanoic acid (PFTeDA)	ND		23.5	29.7		ng/L		126	47 - 161	9	30
Perfluorobutanesulfonic acid (PFBS)	2.1		20.8	24.7		ng/L		109	62 - 144	19	30
Perfluoropentanesulfonic acid (PFPeS)	ND		22.1	27.6		ng/L		125	59 - 151	13	30
Perfluorohexanesulfonic acid (PFHxS)	0.75	J I	21.4	26.5		ng/L		120	57 - 146	17	30
Perfluoroheptanesulfonic acid (PFHpS)	ND		22.4	25.8		ng/L		115	55 - 152	5	30
Perfluorooctanesulfonic acid (PFOS)	2.4		21.8	27.5		ng/L		115	58 - 149	10	30
Perfluorononanesulfonic acid (PFNS)	ND		22.6	23.0		ng/L		102	52 - 148	8	30
Perfluorododecanesulfonic acid (PFDoS)	ND		22.8	14.8		ng/L		65	36 - 145	16	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		87.9	98.7		ng/L		112	67 - 146	13	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		89.2	83.6		ng/L		94	61 - 151	1	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		90.2	113		ng/L		126	63 - 152	15	30
Perfluorooctanesulfonamide (PFOSA)	ND		23.5	25.6		ng/L		109	61 - 148	12	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		23.5	26.6		ng/L		113	63 - 145	13	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		23.5	25.2		ng/L		107	65 - 139	6	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		23.5	27.5		ng/L		117	58 - 144	6	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		23.5	31.3		ng/L		133	59 - 146	9	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		235	280		ng/L		119	71 - 136	3	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		235	303		ng/L		129	69 - 137	20	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		94.1	107		ng/L		114	63 - 144	4	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		88.7	99.2		ng/L		112	68 - 146	11	30

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: 480-220419-1 MSD
Matrix: Water
Analysis Batch: 615825

Client Sample ID: SW-01-2
Prep Type: Total/NA
Prep Batch: 615692

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		47.1	60.0		ng/L		127	55 - 148	7	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		47.1	67.0		ng/L		142	48 - 161	14	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		87.7	104		ng/L		119	56 - 156	8	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		88.7	102		ng/L		115	46 - 156	14	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		41.9	52.4		ng/L		125	56 - 151	22	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		118	127		ng/L		108	62 - 129	9	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		588	637		ng/L		108	63 - 134	18	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		588	577		ng/L		98	50 - 138	17	30
Perfluorodecanesulfonic acid (PFDS)	ND		22.7	22.2		ng/L		98	51 - 147	8	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		47.1	51.1		ng/L		109	51 - 145	12	30

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
13C4 PFBA	*81.5*		*10 - 130*
13C5 PFPeA	*76.8*		*35 - 150*
13C5 PFHxA	*86.5*		*55 - 150*
13C4 PFHpA	*73.9*		*55 - 150*
13C8 PFOA	*76.6*		*60 - 140*
13C9 PFNA	*104*		*55 - 140*
13C6 PFDA	*76.0*		*50 - 140*
13C7 PFUnA	*103*		*30 - 140*
13C2 PFTeDA	*61.1*		*10 - 130*
13C3 PFBS	*92.0*		*55 - 150*
13C3 PFHxS	*85.3*		*55 - 150*
13C8 PFOS	*80.7*		*45 - 140*
13C8 FOSA	*65.0*		*30 - 130*
d3-NMeFOSAA	*65.3*		*45 - 200*
d5-NEtFOSAA	*59.5*		*10 - 200*
M2-4:2 FTS	*189*		*60 - 200*
M2-6:2 FTS	*187*		*60 - 200*
M2-8:2 FTS	*68.3*		*50 - 200*
13C3 HFPO-DA	*94.0*		*25 - 160*
d7-N-MeFOSE-M	*47.7*		*10 - 150*
d9-N-EtFOSE-M	*44.5*		*10 - 150*
d5-NEtPFOSA	*48.9*		*10 - 130*
d3-NMePFOSA	*52.8*		*15 - 130*
13C2-PFDoDA	*85.0*		*10 - 150*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-714560/1-A
Matrix: Water
Analysis Batch: 714801

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714560

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		06/06/24 09:16	06/06/24 17:05	1
Antimony	ND		0.020	0.0068	mg/L		06/06/24 09:16	06/06/24 17:05	1
Arsenic	ND		0.015	0.0056	mg/L		06/06/24 09:16	06/06/24 17:05	1
Barium	ND		0.0020	0.00070	mg/L		06/06/24 09:16	06/06/24 17:05	1
Beryllium	ND		0.0020	0.00030	mg/L		06/06/24 09:16	06/06/24 17:05	1
Cadmium	ND		0.0020	0.00050	mg/L		06/06/24 09:16	06/06/24 17:05	1
Calcium	ND		0.50	0.10	mg/L		06/06/24 09:16	06/06/24 17:05	1
Chromium	ND		0.0040	0.0010	mg/L		06/06/24 09:16	06/06/24 17:05	1
Cobalt	ND		0.0040	0.00063	mg/L		06/06/24 09:16	06/06/24 17:05	1
Copper	ND		0.010	0.0016	mg/L		06/06/24 09:16	06/06/24 17:05	1
Iron	ND		0.050	0.019	mg/L		06/06/24 09:16	06/06/24 17:05	1
Lead	ND		0.010	0.0030	mg/L		06/06/24 09:16	06/06/24 17:05	1
Magnesium	ND		0.20	0.043	mg/L		06/06/24 09:16	06/06/24 17:05	1
Manganese	ND		0.0030	0.00040	mg/L		06/06/24 09:16	06/06/24 17:05	1
Nickel	ND		0.010	0.0013	mg/L		06/06/24 09:16	06/06/24 17:05	1
Potassium	ND		0.50	0.10	mg/L		06/06/24 09:16	06/06/24 17:05	1
Selenium	ND		0.025	0.0087	mg/L		06/06/24 09:16	06/06/24 17:05	1
Silver	ND		0.0060	0.0017	mg/L		06/06/24 09:16	06/06/24 17:05	1
Sodium	ND		1.0	0.32	mg/L		06/06/24 09:16	06/06/24 17:05	1
Thallium	ND		0.020	0.010	mg/L		06/06/24 09:16	06/06/24 17:05	1
Vanadium	ND		0.0050	0.0015	mg/L		06/06/24 09:16	06/06/24 17:05	1
Zinc	ND		0.010	0.0015	mg/L		06/06/24 09:16	06/06/24 17:05	1

Lab Sample ID: LCS 480-714560/2-A
Matrix: Water
Analysis Batch: 714801

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714560

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	5.10	4.97		mg/L		97	80 - 120
Antimony	0.500	0.521		mg/L		104	80 - 120
Arsenic	1.00	1.03		mg/L		103	80 - 120
Barium	1.00	1.01		mg/L		101	80 - 120
Beryllium	0.500	0.517		mg/L		103	80 - 120
Cadmium	0.500	0.511		mg/L		102	80 - 120
Calcium	25.0	25.49		mg/L		102	80 - 120
Chromium	0.500	0.508		mg/L		102	80 - 120
Cobalt	0.500	0.511		mg/L		102	80 - 120
Copper	0.500	0.478		mg/L		96	80 - 120
Iron	5.10	5.52		mg/L		108	80 - 120
Lead	0.500	0.508		mg/L		102	80 - 120
Magnesium	25.0	24.30		mg/L		97	80 - 120
Manganese	0.500	0.500		mg/L		100	80 - 120
Nickel	0.500	0.526		mg/L		105	80 - 120
Potassium	25.0	24.81		mg/L		99	80 - 120
Selenium	1.00	1.00		mg/L		100	80 - 120
Silver	0.0500	0.0486		mg/L		97	80 - 120
Sodium	25.0	24.97		mg/L		100	80 - 120
Thallium	1.00	0.974		mg/L		97	80 - 120
Vanadium	0.500	0.510		mg/L		102	80 - 120

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 480-714560/2-A
Matrix: Water
Analysis Batch: 714801

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714560

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Zinc			0.500	0.522		mg/L		104	80 - 120		

Lab Sample ID: 480-220419-1 MS
Matrix: Water
Analysis Batch: 714801

Client Sample ID: SW-01-2
Prep Type: Total/NA
Prep Batch: 714560

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Aluminum	ND		5.10	5.10		mg/L		100	75 - 125		
Antimony	ND		0.500	0.525		mg/L		105	75 - 125		
Arsenic	ND		1.00	1.03		mg/L		103	75 - 125		
Barium	0.027		1.00	1.05		mg/L		102	75 - 125		
Beryllium	ND		0.500	0.526		mg/L		105	75 - 125		
Cadmium	ND		0.500	0.520		mg/L		104	75 - 125		
Calcium	52.9		25.0	77.85		mg/L		100	75 - 125		
Chromium	ND		0.500	0.514		mg/L		103	75 - 125		
Cobalt	ND		0.500	0.520		mg/L		104	75 - 125		
Copper	ND		0.500	0.508		mg/L		102	75 - 125		
Iron	0.13		5.10	5.72		mg/L		110	75 - 125		
Lead	ND		0.500	0.520		mg/L		104	75 - 125		
Magnesium	10.3		25.0	35.06		mg/L		99	75 - 125		
Manganese	0.029		0.500	0.531		mg/L		100	75 - 125		
Nickel	0.0021	J	0.500	0.537		mg/L		107	75 - 125		
Potassium	2.4		25.0	27.82		mg/L		102	75 - 125		
Selenium	ND		1.00	1.01		mg/L		101	75 - 125		
Silver	ND		0.0500	0.0491		mg/L		98	75 - 125		
Sodium	7.8		25.0	33.36		mg/L		102	75 - 125		
Thallium	ND		1.00	0.996		mg/L		100	75 - 125		
Vanadium	ND		0.500	0.517		mg/L		103	75 - 125		
Zinc	ND		0.500	0.525		mg/L		105	75 - 125		

Lab Sample ID: 480-220419-1 MSD
Matrix: Water
Analysis Batch: 714801

Client Sample ID: SW-01-2
Prep Type: Total/NA
Prep Batch: 714560

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	ND		5.10	5.17		mg/L		101	75 - 125	1	20
Antimony	ND		0.500	0.539		mg/L		108	75 - 125	3	20
Arsenic	ND		1.00	1.06		mg/L		106	75 - 125	2	20
Barium	0.027		1.00	1.08		mg/L		105	75 - 125	3	20
Beryllium	ND		0.500	0.538		mg/L		108	75 - 125	2	20
Cadmium	ND		0.500	0.530		mg/L		106	75 - 125	2	20
Calcium	52.9		25.0	79.68		mg/L		107	75 - 125	2	20
Chromium	ND		0.500	0.525		mg/L		105	75 - 125	2	20
Cobalt	ND		0.500	0.531		mg/L		106	75 - 125	2	20
Copper	ND		0.500	0.509		mg/L		102	75 - 125	0	20
Iron	0.13		5.10	5.80		mg/L		111	75 - 125	1	20
Lead	ND		0.500	0.529		mg/L		106	75 - 125	2	20
Magnesium	10.3		25.0	35.81		mg/L		102	75 - 125	2	20
Manganese	0.029		0.500	0.548		mg/L		104	75 - 125	3	20

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-220419-1 MSD
Matrix: Water
Analysis Batch: 714801

Client Sample ID: SW-01-2
Prep Type: Total/NA
Prep Batch: 714560

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nickel	0.0021	J	0.500	0.545		mg/L		109	75 - 125	1	20
Potassium	2.4		25.0	28.35		mg/L		104	75 - 125	2	20
Selenium	ND		1.00	1.03		mg/L		103	75 - 125	2	20
Silver	ND		0.0500	0.0506		mg/L		101	75 - 125	3	20
Sodium	7.8		25.0	34.03		mg/L		105	75 - 125	2	20
Thallium	ND		1.00	1.02		mg/L		102	75 - 125	2	20
Vanadium	ND		0.500	0.527		mg/L		105	75 - 125	2	20
Zinc	ND		0.500	0.531		mg/L		106	75 - 125	1	20

Lab Sample ID: MB 480-714564/1-A
Matrix: Water
Analysis Batch: 714798

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 714564

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		06/06/24 09:12	06/06/24 19:43	1
Antimony	ND		0.020	0.0068	mg/L		06/06/24 09:12	06/06/24 19:43	1
Arsenic	ND		0.015	0.0056	mg/L		06/06/24 09:12	06/06/24 19:43	1
Barium	ND		0.0020	0.00070	mg/L		06/06/24 09:12	06/06/24 19:43	1
Beryllium	ND		0.0020	0.00030	mg/L		06/06/24 09:12	06/06/24 19:43	1
Cadmium	ND		0.0020	0.00050	mg/L		06/06/24 09:12	06/06/24 19:43	1
Calcium	ND		0.50	0.10	mg/L		06/06/24 09:12	06/06/24 19:43	1
Chromium	ND		0.0040	0.0010	mg/L		06/06/24 09:12	06/06/24 19:43	1
Cobalt	ND		0.0040	0.00063	mg/L		06/06/24 09:12	06/06/24 19:43	1
Copper	ND		0.010	0.0016	mg/L		06/06/24 09:12	06/06/24 19:43	1
Iron	ND		0.050	0.019	mg/L		06/06/24 09:12	06/06/24 19:43	1
Lead	ND		0.010	0.0030	mg/L		06/06/24 09:12	06/06/24 19:43	1
Magnesium	ND		0.20	0.043	mg/L		06/06/24 09:12	06/06/24 19:43	1
Manganese	ND		0.0030	0.00040	mg/L		06/06/24 09:12	06/06/24 19:43	1
Nickel	ND		0.010	0.0013	mg/L		06/06/24 09:12	06/06/24 19:43	1
Potassium	ND		0.50	0.10	mg/L		06/06/24 09:12	06/06/24 19:43	1
Selenium	ND		0.025	0.0087	mg/L		06/06/24 09:12	06/06/24 19:43	1
Silver	ND		0.0060	0.0017	mg/L		06/06/24 09:12	06/06/24 19:43	1
Sodium	ND		1.0	0.32	mg/L		06/06/24 09:12	06/06/24 19:43	1
Thallium	ND		0.020	0.010	mg/L		06/06/24 09:12	06/06/24 19:43	1
Vanadium	ND		0.0050	0.0015	mg/L		06/06/24 09:12	06/06/24 19:43	1
Zinc	ND		0.010	0.0015	mg/L		06/06/24 09:12	06/06/24 19:43	1

Lab Sample ID: LCS 480-714564/2-A
Matrix: Water
Analysis Batch: 714798

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 714564

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	5.10	5.09		mg/L		100	80 - 120
Antimony	0.500	0.477		mg/L		95	80 - 120
Arsenic	1.00	1.03		mg/L		103	80 - 120
Barium	1.00	1.03		mg/L		103	80 - 120
Beryllium	0.500	0.529		mg/L		106	80 - 120
Cadmium	0.500	0.496		mg/L		99	80 - 120
Calcium	25.0	25.94		mg/L		104	80 - 120

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 480-714564/2-A
Matrix: Water
Analysis Batch: 714798

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 714564

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium	0.500	0.517		mg/L		103	80 - 120
Cobalt	0.500	0.508		mg/L		102	80 - 120
Copper	0.500	0.479		mg/L		96	80 - 120
Iron	5.10	5.37		mg/L		105	80 - 120
Lead	0.500	0.502		mg/L		100	80 - 120
Magnesium	25.0	25.32		mg/L		101	80 - 120
Manganese	0.500	0.500		mg/L		100	80 - 120
Nickel	0.500	0.527		mg/L		105	80 - 120
Potassium	25.0	25.24		mg/L		101	80 - 120
Selenium	1.00	0.940		mg/L		94	80 - 120
Silver	0.0500	0.0497		mg/L		99	80 - 120
Sodium	25.0	25.71		mg/L		103	80 - 120
Thallium	1.00	0.931		mg/L		93	80 - 120
Vanadium	0.500	0.512		mg/L		102	80 - 120
Zinc	0.500	0.521		mg/L		104	80 - 120

Lab Sample ID: 480-220419-1 MS
Matrix: Water
Analysis Batch: 714798

Client Sample ID: SW-01-2
Prep Type: Dissolved
Prep Batch: 714564

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	ND	F1	0.500	0.485		mg/L		97	75 - 125

Lab Sample ID: 480-220419-1 MS
Matrix: Water
Analysis Batch: 714898

Client Sample ID: SW-01-2
Prep Type: Dissolved
Prep Batch: 714564

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	ND	F1	5.10	5.19		mg/L		102	75 - 125
Arsenic	ND	F1	1.00	0.969		mg/L		97	75 - 125
Barium	0.0054	F2 F1	1.00	1.07		mg/L		107	75 - 125
Beryllium	ND	F1	0.500	0.537		mg/L		107	75 - 125
Cadmium	ND	F1	0.500	0.538		mg/L		108	75 - 125
Calcium	10.1	F2 F1	25.0	79.92	F1	mg/L		279	75 - 125
Chromium	ND	F1	0.500	0.518		mg/L		104	75 - 125
Cobalt	ND	F1	0.500	0.519		mg/L		104	75 - 125
Copper	ND	F1	0.500	0.505		mg/L		101	75 - 125
Iron	ND	F2 F1	5.10	5.42		mg/L		106	75 - 125
Lead	0.0031	J F1	0.500	0.516		mg/L		103	75 - 125
Magnesium	2.0	F2 F1	25.0	36.69	F1	mg/L		139	75 - 125
Manganese	ND	F1	0.500	0.506		mg/L		101	75 - 125
Nickel	ND	F1	0.500	0.524		mg/L		105	75 - 125
Potassium	0.46	J F2 F1	25.0	28.48		mg/L		112	75 - 125
Selenium	ND	F1	1.00	0.966		mg/L		97	75 - 125
Silver	ND	F1	0.0500	0.0524		mg/L		105	75 - 125
Sodium	1.5	F2 F1	25.0	34.23	F1	mg/L		131	75 - 125
Thallium	ND	F1	1.00	0.957		mg/L		96	75 - 125
Vanadium	ND	F1	0.500	0.516		mg/L		103	75 - 125
Zinc	ND	F1	0.500	0.521		mg/L		104	75 - 125

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-220419-1 MSD
Matrix: Water
Analysis Batch: 714798

Client Sample ID: SW-01-2
Prep Type: Dissolved
Prep Batch: 714564

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND	F1	0.500	ND	F1	mg/L		0	75 - 125	NC	20

Lab Sample ID: 480-220419-1 MSD
Matrix: Water
Analysis Batch: 714898

Client Sample ID: SW-01-2
Prep Type: Dissolved
Prep Batch: 714564

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	ND	F1	5.10	5.14		mg/L		101	75 - 125	1	20
Arsenic	ND	F1	1.00	0.964		mg/L		96	75 - 125	1	20
Barium	0.0054	F2 F1	1.00	1.06		mg/L		106	75 - 125	1	20
Beryllium	ND	F1	0.500	0.534		mg/L		107	75 - 125	0	20
Cadmium	ND	F1	0.500	0.534		mg/L		107	75 - 125	1	20
Calcium	10.1	F2 F1	25.0	79.35	F1	mg/L		277	75 - 125	1	20
Chromium	ND	F1	0.500	0.516		mg/L		103	75 - 125	0	20
Cobalt	ND	F1	0.500	0.517		mg/L		103	75 - 125	0	20
Copper	ND	F1	0.500	0.505		mg/L		101	75 - 125	0	20
Iron	ND	F2 F1	5.10	5.38		mg/L		106	75 - 125	1	20
Lead	0.0031	J F1	0.500	0.517		mg/L		103	75 - 125	0	20
Magnesium	2.0	F2 F1	25.0	36.45	F1	mg/L		138	75 - 125	1	20
Manganese	ND	F1	0.500	0.503		mg/L		101	75 - 125	0	20
Nickel	ND	F1	0.500	0.521		mg/L		104	75 - 125	1	20
Potassium	0.46	J F2 F1	25.0	28.28		mg/L		111	75 - 125	1	20
Selenium	ND	F1	1.00	0.957		mg/L		96	75 - 125	1	20
Silver	ND	F1	0.0500	0.0523		mg/L		105	75 - 125	0	20
Sodium	1.5	F2 F1	25.0	33.94	F1	mg/L		130	75 - 125	1	20
Thallium	ND	F1	1.00	0.954		mg/L		95	75 - 125	0	20
Vanadium	ND	F1	0.500	0.515		mg/L		103	75 - 125	0	20
Zinc	ND	F1	0.500	0.516		mg/L		103	75 - 125	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-714460/1-A
Matrix: Water
Analysis Batch: 714569

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714460

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		06/05/24 10:50	06/05/24 14:06	1

Lab Sample ID: LCS 480-714460/2-A
Matrix: Water
Analysis Batch: 714569

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714460

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			0.00669	0.00711		mg/L		106	80 - 120		

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 480-220419-1 MS
Matrix: Water
Analysis Batch: 714569

Client Sample ID: SW-01-2
Prep Type: Total/NA
Prep Batch: 714460

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		0.00669	0.00699		mg/L		104	80 - 120

Lab Sample ID: 480-220419-1 MSD
Matrix: Water
Analysis Batch: 714569

Client Sample ID: SW-01-2
Prep Type: Total/NA
Prep Batch: 714460

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.00669	0.00698		mg/L		104	80 - 120	0	20

Lab Sample ID: MB 480-714470/1-A
Matrix: Water
Analysis Batch: 714569

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714470

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		06/05/24 10:50	06/05/24 14:31	1

Lab Sample ID: LCS 480-714470/2-A
Matrix: Water
Analysis Batch: 714569

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714470

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00669	0.00683		mg/L		102	80 - 120

Lab Sample ID: 480-220419-1 MS
Matrix: Water
Analysis Batch: 714569

Client Sample ID: SW-01-2
Prep Type: Dissolved
Prep Batch: 714470

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		0.00669	0.00679		mg/L		101	80 - 120

Method: 7470A - Mercury (CVAA) - DL5

Lab Sample ID: 480-220419-1 MSD
Matrix: Water
Analysis Batch: 714569

Client Sample ID: SW-01-2
Prep Type: Dissolved
Prep Batch: 714470

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury - DL5	ND		0.00669	0.00679		mg/L		101	80 - 120	0	20

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 480-715074/21
Matrix: Water
Analysis Batch: 715074

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0041	mg/L			06/09/24 16:43	1

Method: 9012B - Cyanide, Total and/or Amenable (Continued)

Lab Sample ID: HLCS 480-715074/22
Matrix: Water
Analysis Batch: 715074

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total			0.400	0.419		mg/L		105	90 - 110		

Lab Sample ID: LCS 480-715074/23
Matrix: Water
Analysis Batch: 715074

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total			0.250	0.272		mg/L		109	90 - 110		

Lab Sample ID: 480-220419-1 MS
Matrix: Water
Analysis Batch: 715074

Client Sample ID: SW-01-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total	ND		0.100	0.0992		mg/L		99	90 - 110		

Lab Sample ID: 480-220419-1 MSD
Matrix: Water
Analysis Batch: 715074

Client Sample ID: SW-01-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyanide, Total	ND		0.100	0.0981		mg/L		98	90 - 110	1	15

Lab Sample ID: MB 480-715837/47
Matrix: Water
Analysis Batch: 715837

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0041	mg/L			06/14/24 22:09	1

Lab Sample ID: MB 480-715837/75
Matrix: Water
Analysis Batch: 715837

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0041	mg/L			06/14/24 23:42	1

Lab Sample ID: HLCS 480-715837/22
Matrix: Water
Analysis Batch: 715837

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total			0.400	0.403		mg/L		101	90 - 110		

Lab Sample ID: LCS 480-715837/23
Matrix: Water
Analysis Batch: 715837

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total			0.250	0.244		mg/L		98	90 - 110		

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: LCS 480-715837/76
Matrix: Water
Analysis Batch: 715837

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total			0.250	0.245		mg/L		98	90 - 110		

Lab Sample ID: 480-220419-1 MS
Matrix: Water
Analysis Batch: 715837

Client Sample ID: SW-01-2
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total	ND		0.100	0.0976		mg/L		98	90 - 110		

Lab Sample ID: 480-220419-1 MSD
Matrix: Water
Analysis Batch: 715837

Client Sample ID: SW-01-2
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyanide, Total	ND		0.100	0.0986		mg/L		99	90 - 110	1	15

Lab Sample ID: 480-220419-2 MS
Matrix: Water
Analysis Batch: 715837

Client Sample ID: SW-01-2-FD
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total	ND		0.100	0.0938		mg/L		94	90 - 110		

QC Association Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220419-1

GC/MS VOA

Analysis Batch: 714447

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220419-1	SW-01-2	Total/NA	Water	8260C	
480-220419-2	SW-01-2-FD	Total/NA	Water	8260C	
480-220419-3	SW-01-3	Total/NA	Water	8260C	
480-220419-4	SW-01-1	Total/NA	Water	8260C	
480-220419-5	TB-060324	Total/NA	Water	8260C	
MB 480-714447/8	Method Blank	Total/NA	Water	8260C	
LCS 480-714447/6	Lab Control Sample	Total/NA	Water	8260C	
480-220419-1 MS	SW-01-2	Total/NA	Water	8260C	
480-220419-1 MSD	SW-01-2	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 714477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220419-1	SW-01-2	Total/NA	Water	3510C	
480-220419-2	SW-01-2-FD	Total/NA	Water	3510C	
MB 480-714477/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-714477/2-A	Lab Control Sample	Total/NA	Water	3510C	
480-220419-1 MS	SW-01-2	Total/NA	Water	3510C	
480-220419-1 MSD	SW-01-2	Total/NA	Water	3510C	

Analysis Batch: 714657

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220419-1	SW-01-2	Total/NA	Water	8270D SIM ID	714477
480-220419-2	SW-01-2-FD	Total/NA	Water	8270D SIM ID	714477
MB 480-714477/1-A	Method Blank	Total/NA	Water	8270D SIM ID	714477
LCS 480-714477/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	714477
480-220419-1 MS	SW-01-2	Total/NA	Water	8270D SIM ID	714477
480-220419-1 MSD	SW-01-2	Total/NA	Water	8270D SIM ID	714477

Prep Batch: 714822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220419-1	SW-01-2	Total/NA	Water	3510C	
480-220419-2	SW-01-2-FD	Total/NA	Water	3510C	
480-220419-3	SW-01-3	Total/NA	Water	3510C	
480-220419-4	SW-01-1	Total/NA	Water	3510C	
MB 480-714822/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-714822/2-A	Lab Control Sample	Total/NA	Water	3510C	
480-220419-1 MS	SW-01-2	Total/NA	Water	3510C	
480-220419-1 MSD	SW-01-2	Total/NA	Water	3510C	

Analysis Batch: 715009

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220419-1	SW-01-2	Total/NA	Water	8270D	714822
480-220419-2	SW-01-2-FD	Total/NA	Water	8270D	714822
480-220419-3	SW-01-3	Total/NA	Water	8270D	714822
480-220419-4	SW-01-1	Total/NA	Water	8270D	714822
MB 480-714822/1-A	Method Blank	Total/NA	Water	8270D	714822
LCS 480-714822/2-A	Lab Control Sample	Total/NA	Water	8270D	714822
480-220419-1 MS	SW-01-2	Total/NA	Water	8270D	714822
480-220419-1 MSD	SW-01-2	Total/NA	Water	8270D	714822

GC Semi VOA

Prep Batch: 714469

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220419-1	SW-01-2	Total/NA	Water	3510C	
480-220419-2	SW-01-2-FD	Total/NA	Water	3510C	
480-220419-3	SW-01-3	Total/NA	Water	3510C	
480-220419-4	SW-01-1	Total/NA	Water	3510C	
MB 480-714469/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-714469/2-A	Lab Control Sample	Total/NA	Water	3510C	
480-220419-1 MS	SW-01-2	Total/NA	Water	3510C	
480-220419-1 MSD	SW-01-2	Total/NA	Water	3510C	

Analysis Batch: 714613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220419-1	SW-01-2	Total/NA	Water	8081B	714469
480-220419-2	SW-01-2-FD	Total/NA	Water	8081B	714469
480-220419-3	SW-01-3	Total/NA	Water	8081B	714469
480-220419-4	SW-01-1	Total/NA	Water	8081B	714469
MB 480-714469/1-A	Method Blank	Total/NA	Water	8081B	714469
LCS 480-714469/2-A	Lab Control Sample	Total/NA	Water	8081B	714469
480-220419-1 MS	SW-01-2	Total/NA	Water	8081B	714469
480-220419-1 MSD	SW-01-2	Total/NA	Water	8081B	714469

Prep Batch: 714616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220419-1	SW-01-2	Total/NA	Water	3510C	
480-220419-2	SW-01-2-FD	Total/NA	Water	3510C	
480-220419-3	SW-01-3	Total/NA	Water	3510C	
480-220419-4	SW-01-1	Total/NA	Water	3510C	
MB 480-714616/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-714616/2-A	Lab Control Sample	Total/NA	Water	3510C	
480-220419-1 MS	SW-01-2	Total/NA	Water	3510C	
480-220419-1 MSD	SW-01-2	Total/NA	Water	3510C	

Analysis Batch: 714682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220419-1	SW-01-2	Total/NA	Water	8082A	714616
480-220419-2	SW-01-2-FD	Total/NA	Water	8082A	714616
480-220419-3	SW-01-3	Total/NA	Water	8082A	714616
480-220419-4	SW-01-1	Total/NA	Water	8082A	714616
MB 480-714616/1-A	Method Blank	Total/NA	Water	8082A	714616
LCS 480-714616/2-A	Lab Control Sample	Total/NA	Water	8082A	714616
480-220419-1 MS	SW-01-2	Total/NA	Water	8082A	714616
480-220419-1 MSD	SW-01-2	Total/NA	Water	8082A	714616

LCMS

Prep Batch: 615692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220419-1	SW-01-2	Total/NA	Water	1633	
480-220419-2	SW-01-2-FD	Total/NA	Water	1633	
MB 240-615692/1-A	Method Blank	Total/NA	Water	1633	
LCS 240-615692/3-A	Lab Control Sample	Total/NA	Water	1633	
LLCS 240-615692/2-A	Lab Control Sample	Total/NA	Water	1633	

LCMS (Continued)

Prep Batch: 615692 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220419-1 MS	SW-01-2	Total/NA	Water	1633	
480-220419-1 MSD	SW-01-2	Total/NA	Water	1633	

Analysis Batch: 615825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220419-1	SW-01-2	Total/NA	Water	1633	615692
480-220419-2	SW-01-2-FD	Total/NA	Water	1633	615692
MB 240-615692/1-A	Method Blank	Total/NA	Water	1633	615692
LCS 240-615692/3-A	Lab Control Sample	Total/NA	Water	1633	615692
LLCS 240-615692/2-A	Lab Control Sample	Total/NA	Water	1633	615692
480-220419-1 MS	SW-01-2	Total/NA	Water	1633	615692
480-220419-1 MSD	SW-01-2	Total/NA	Water	1633	615692

Metals

Prep Batch: 714460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220419-1	SW-01-2	Total/NA	Water	7470A	
480-220419-2	SW-01-2-FD	Total/NA	Water	7470A	
480-220419-3	SW-01-3	Total/NA	Water	7470A	
480-220419-4	SW-01-1	Total/NA	Water	7470A	
MB 480-714460/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-714460/2-A	Lab Control Sample	Total/NA	Water	7470A	
480-220419-1 MS	SW-01-2	Total/NA	Water	7470A	
480-220419-1 MSD	SW-01-2	Total/NA	Water	7470A	

Prep Batch: 714470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220419-1	SW-01-2	Dissolved	Water	7470A	
480-220419-2	SW-01-2-FD	Dissolved	Water	7470A	
480-220419-3	SW-01-3	Dissolved	Water	7470A	
480-220419-4	SW-01-1	Dissolved	Water	7470A	
MB 480-714470/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-714470/2-A	Lab Control Sample	Total/NA	Water	7470A	
480-220419-1 MS	SW-01-2	Dissolved	Water	7470A	
480-220419-1 MSD - DL5	SW-01-2	Dissolved	Water	7470A	

Prep Batch: 714560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220419-1	SW-01-2	Total/NA	Water	3005A	
480-220419-2	SW-01-2-FD	Total/NA	Water	3005A	
480-220419-3	SW-01-3	Total/NA	Water	3005A	
480-220419-4	SW-01-1	Total/NA	Water	3005A	
MB 480-714560/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-714560/2-A	Lab Control Sample	Total/NA	Water	3005A	
480-220419-1 MS	SW-01-2	Total/NA	Water	3005A	
480-220419-1 MSD	SW-01-2	Total/NA	Water	3005A	

Prep Batch: 714564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220419-1	SW-01-2	Dissolved	Water	3005A	

Metals (Continued)

Prep Batch: 714564 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220419-2	SW-01-2-FD	Dissolved	Water	3005A	
480-220419-3	SW-01-3	Dissolved	Water	3005A	
480-220419-4	SW-01-1	Dissolved	Water	3005A	
MB 480-714564/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 480-714564/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
480-220419-1 MS	SW-01-2	Dissolved	Water	3005A	
480-220419-1 MSD	SW-01-2	Dissolved	Water	3005A	

Analysis Batch: 714569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220419-1	SW-01-2	Dissolved	Water	7470A	714470
480-220419-1	SW-01-2	Total/NA	Water	7470A	714460
480-220419-2	SW-01-2-FD	Dissolved	Water	7470A	714470
480-220419-2	SW-01-2-FD	Total/NA	Water	7470A	714460
480-220419-3	SW-01-3	Dissolved	Water	7470A	714470
480-220419-3	SW-01-3	Total/NA	Water	7470A	714460
480-220419-4	SW-01-1	Dissolved	Water	7470A	714470
480-220419-4	SW-01-1	Total/NA	Water	7470A	714460
MB 480-714460/1-A	Method Blank	Total/NA	Water	7470A	714460
MB 480-714470/1-A	Method Blank	Total/NA	Water	7470A	714470
LCS 480-714460/2-A	Lab Control Sample	Total/NA	Water	7470A	714460
LCS 480-714470/2-A	Lab Control Sample	Total/NA	Water	7470A	714470
480-220419-1 MS	SW-01-2	Dissolved	Water	7470A	714470
480-220419-1 MS	SW-01-2	Total/NA	Water	7470A	714460
480-220419-1 MSD - DL5	SW-01-2	Dissolved	Water	7470A	714470
480-220419-1 MSD	SW-01-2	Total/NA	Water	7470A	714460

Analysis Batch: 714798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220419-1	SW-01-2	Dissolved	Water	6010C	714564
480-220419-2	SW-01-2-FD	Dissolved	Water	6010C	714564
480-220419-3	SW-01-3	Dissolved	Water	6010C	714564
480-220419-4	SW-01-1	Dissolved	Water	6010C	714564
MB 480-714564/1-A	Method Blank	Total Recoverable	Water	6010C	714564
LCS 480-714564/2-A	Lab Control Sample	Total Recoverable	Water	6010C	714564
480-220419-1 MS	SW-01-2	Dissolved	Water	6010C	714564
480-220419-1 MSD	SW-01-2	Dissolved	Water	6010C	714564

Analysis Batch: 714801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220419-1	SW-01-2	Total/NA	Water	6010C	714560
480-220419-2	SW-01-2-FD	Total/NA	Water	6010C	714560
480-220419-3	SW-01-3	Total/NA	Water	6010C	714560
480-220419-4	SW-01-1	Total/NA	Water	6010C	714560
MB 480-714560/1-A	Method Blank	Total/NA	Water	6010C	714560
LCS 480-714560/2-A	Lab Control Sample	Total/NA	Water	6010C	714560
480-220419-1 MS	SW-01-2	Total/NA	Water	6010C	714560
480-220419-1 MSD	SW-01-2	Total/NA	Water	6010C	714560

QC Association Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220419-1

Metals

Analysis Batch: 714898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220419-1 MS	SW-01-2	Dissolved	Water	6010C	714564
480-220419-1 MSD	SW-01-2	Dissolved	Water	6010C	714564

General Chemistry

Analysis Batch: 715074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220419-1	SW-01-2	Total/NA	Water	9012B	
480-220419-2	SW-01-2-FD	Total/NA	Water	9012B	
480-220419-3	SW-01-3	Total/NA	Water	9012B	
480-220419-4	SW-01-1	Total/NA	Water	9012B	
MB 480-715074/21	Method Blank	Total/NA	Water	9012B	
HLCS 480-715074/22	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-715074/23	Lab Control Sample	Total/NA	Water	9012B	
480-220419-1 MS	SW-01-2	Total/NA	Water	9012B	
480-220419-1 MSD	SW-01-2	Total/NA	Water	9012B	

Analysis Batch: 715837

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220419-1	SW-01-2	Dissolved	Water	9012B	
480-220419-2	SW-01-2-FD	Dissolved	Water	9012B	
480-220419-3	SW-01-3	Dissolved	Water	9012B	
480-220419-4	SW-01-1	Dissolved	Water	9012B	
MB 480-715837/47	Method Blank	Total/NA	Water	9012B	
MB 480-715837/75	Method Blank	Total/NA	Water	9012B	
HLCS 480-715837/22	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-715837/23	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-715837/76	Lab Control Sample	Total/NA	Water	9012B	
480-220419-1 MS	SW-01-2	Dissolved	Water	9012B	
480-220419-1 MSD	SW-01-2	Dissolved	Water	9012B	
480-220419-2 MS	SW-01-2-FD	Dissolved	Water	9012B	

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220419-1

Client Sample ID: SW-01-2

Date Collected: 06/03/24 11:55
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	714447	CC	EET BUF	06/05/24 13:54
Total/NA	Prep	3510C			714822	JMP	EET BUF	06/07/24 09:42
Total/NA	Analysis	8270D		1	715009	EMD	EET BUF	06/10/24 19:42
Total/NA	Prep	3510C			714477	JMP	EET BUF	06/05/24 09:28
Total/NA	Analysis	8270D SIM ID		1	714657	JMM	EET BUF	06/06/24 16:34
Total/NA	Prep	3510C			714469	JMP	EET BUF	06/05/24 09:14
Total/NA	Analysis	8081B		1	714613	JLS	EET BUF	06/06/24 11:53
Total/NA	Prep	3510C			714616	SMP	EET BUF	06/06/24 06:53
Total/NA	Analysis	8082A		1	714682	H9RU	EET BUF	06/06/24 18:59
Total/NA	Prep	1633			615692	JVB4	EET CLE	06/06/24 08:39
Total/NA	Analysis	1633		1	615825	MRL	EET CLE	06/07/24 16:19
Dissolved	Prep	3005A			714564	EMO	EET BUF	06/06/24 09:12
Dissolved	Analysis	6010C		1	714798	NZG	EET BUF	06/06/24 19:47
Total/NA	Prep	3005A			714560	EMO	EET BUF	06/06/24 09:16
Total/NA	Analysis	6010C		1	714801	BMB	EET BUF	06/06/24 17:31
Dissolved	Prep	7470A			714470	ESB	EET BUF	06/05/24 10:50
Dissolved	Analysis	7470A		1	714569	ESB	EET BUF	06/05/24 14:34
Total/NA	Prep	7470A			714460	ESB	EET BUF	06/05/24 10:50
Total/NA	Analysis	7470A		1	714569	ESB	EET BUF	06/05/24 14:09
Dissolved	Analysis	9012B		1	715837	GW	EET BUF	06/14/24 21:23
Total/NA	Analysis	9012B		1	715074	GW	EET BUF	06/09/24 17:22

Client Sample ID: SW-01-2-FD

Date Collected: 06/03/24 11:55
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	714447	CC	EET BUF	06/05/24 14:17
Total/NA	Prep	3510C			714822	JMP	EET BUF	06/07/24 09:42
Total/NA	Analysis	8270D		1	715009	EMD	EET BUF	06/10/24 21:32
Total/NA	Prep	3510C			714477	JMP	EET BUF	06/05/24 09:28
Total/NA	Analysis	8270D SIM ID		1	714657	JMM	EET BUF	06/06/24 18:21
Total/NA	Prep	3510C			714469	JMP	EET BUF	06/05/24 09:14
Total/NA	Analysis	8081B		1	714613	JLS	EET BUF	06/06/24 13:31
Total/NA	Prep	3510C			714616	SMP	EET BUF	06/06/24 06:53
Total/NA	Analysis	8082A		1	714682	H9RU	EET BUF	06/06/24 19:15
Total/NA	Prep	1633			615692	JVB4	EET CLE	06/06/24 08:39
Total/NA	Analysis	1633		1	615825	MRL	EET CLE	06/07/24 16:47
Dissolved	Prep	3005A			714564	EMO	EET BUF	06/06/24 09:12
Dissolved	Analysis	6010C		1	714798	NZG	EET BUF	06/06/24 20:04
Total/NA	Prep	3005A			714560	EMO	EET BUF	06/06/24 09:16
Total/NA	Analysis	6010C		1	714801	BMB	EET BUF	06/06/24 17:37
Dissolved	Prep	7470A			714470	ESB	EET BUF	06/05/24 10:50
Dissolved	Analysis	7470A		1	714569	ESB	EET BUF	06/05/24 14:42

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220419-1

Client Sample ID: SW-01-2-FD

Date Collected: 06/03/24 11:55
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7470A			714460	ESB	EET BUF	06/05/24 10:50
Total/NA	Analysis	7470A		1	714569	ESB	EET BUF	06/05/24 14:14
Dissolved	Analysis	9012B		1	715837	GW	EET BUF	06/14/24 20:56
Total/NA	Analysis	9012B		1	715074	GW	EET BUF	06/09/24 17:33

Client Sample ID: SW-01-3

Date Collected: 06/03/24 13:20
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	714447	CC	EET BUF	06/05/24 14:41
Total/NA	Prep	3510C			714822	JMP	EET BUF	06/07/24 09:42
Total/NA	Analysis	8270D		1	715009	EMD	EET BUF	06/10/24 22:00
Total/NA	Prep	3510C			714469	JMP	EET BUF	06/05/24 09:14
Total/NA	Analysis	8081B		1	714613	JLS	EET BUF	06/06/24 13:50
Total/NA	Prep	3510C			714616	SMP	EET BUF	06/06/24 06:53
Total/NA	Analysis	8082A		1	714682	H9RU	EET BUF	06/06/24 19:32
Dissolved	Prep	3005A			714564	EMO	EET BUF	06/06/24 09:12
Dissolved	Analysis	6010C		1	714798	NZG	EET BUF	06/06/24 20:06
Total/NA	Prep	3005A			714560	EMO	EET BUF	06/06/24 09:16
Total/NA	Analysis	6010C		1	714801	BMB	EET BUF	06/06/24 17:39
Dissolved	Prep	7470A			714470	ESB	EET BUF	06/05/24 10:50
Dissolved	Analysis	7470A		1	714569	ESB	EET BUF	06/05/24 14:43
Total/NA	Prep	7470A			714460	ESB	EET BUF	06/05/24 10:50
Total/NA	Analysis	7470A		1	714569	ESB	EET BUF	06/05/24 14:15
Dissolved	Analysis	9012B		1	715837	GW	EET BUF	06/14/24 21:03
Total/NA	Analysis	9012B		1	715074	GW	EET BUF	06/09/24 17:36

Client Sample ID: SW-01-1

Date Collected: 06/03/24 13:45
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	714447	CC	EET BUF	06/05/24 15:03
Total/NA	Prep	3510C			714822	JMP	EET BUF	06/07/24 09:42
Total/NA	Analysis	8270D		1	715009	EMD	EET BUF	06/10/24 22:28
Total/NA	Prep	3510C			714469	JMP	EET BUF	06/05/24 09:14
Total/NA	Analysis	8081B		1	714613	JLS	EET BUF	06/06/24 14:10
Total/NA	Prep	3510C			714616	SMP	EET BUF	06/06/24 06:53
Total/NA	Analysis	8082A		1	714682	H9RU	EET BUF	06/06/24 19:49
Dissolved	Prep	3005A			714564	EMO	EET BUF	06/06/24 09:12
Dissolved	Analysis	6010C		1	714798	NZG	EET BUF	06/06/24 20:08
Total/NA	Prep	3005A			714560	EMO	EET BUF	06/06/24 09:16
Total/NA	Analysis	6010C		1	714801	BMB	EET BUF	06/06/24 17:46

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220419-1

Client Sample ID: SW-01-1

Date Collected: 06/03/24 13:45
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	7470A			714470	ESB	EET BUF	06/05/24 10:50
Dissolved	Analysis	7470A		1	714569	ESB	EET BUF	06/05/24 14:44
Total/NA	Prep	7470A			714460	ESB	EET BUF	06/05/24 10:50
Total/NA	Analysis	7470A		1	714569	ESB	EET BUF	06/05/24 14:17
Dissolved	Analysis	9012B		1	715837	GW	EET BUF	06/14/24 21:06
Total/NA	Analysis	9012B		1	715074	GW	EET BUF	06/09/24 17:39

Client Sample ID: TB-060324

Date Collected: 06/03/24 00:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220419-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	714447	CC	EET BUF	06/05/24 15:26

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220419-1

Laboratory: Eurofins Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-25

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	06-30-24
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Method Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220419-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET BUF
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	EET BUF
8081B	Organochlorine Pesticides (GC)	SW846	EET BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET BUF
1633	Per- and Polyfluoroalkyl Substances by LC/MS/MS	EPA	EET CLE
6010C	Metals (ICP)	SW846	EET BUF
7470A	Mercury (CVAA)	SW846	EET BUF
9012B	Cyanide, Total and/or Amenable	SW846	EET BUF
1633	Solid-Phase Extraction (SPE)	EPA	EET CLE
3005A	Preparation, Total Metals	SW846	EET BUF
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET BUF
5030C	Purge and Trap	SW846	EET BUF
7470A	Preparation, Mercury	SW846	EET BUF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220419-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-220419-1	SW-01-2	Water	06/03/24 11:55	06/03/24 19:00
480-220419-2	SW-01-2-FD	Water	06/03/24 11:55	06/03/24 19:00
480-220419-3	SW-01-3	Water	06/03/24 13:20	06/03/24 19:00
480-220419-4	SW-01-1	Water	06/03/24 13:45	06/03/24 19:00
480-220419-5	TB-060324	Water	06/03/24 00:00	06/03/24 19:00

Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: Ethan Smith	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-196724-40768.1
Client Contact: Ms. Ann Marie Kropovitch	Phone: 716-912-4456	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: AECOM	PWSID:			Job #:
Address: 50 Lakefront Boulevard Suite 111	Due Date Requested: STD			
City: Buffalo	TAT Requested (days): perpo			
State, Zip: NY, 14202	Compliance Project: Δ Yes Δ No			
Phone: 614-790-2274(Tel)	PO #: 1120269			
Email: ann.marie.kropovitch@aecom.com	WO #: Ann.Marie.Kropovitch@aecom.com			
Project Name: Tank 75 - Surface Water	Project #: 48027595			
Site: Tank 75	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL VOCs + TICs	6010D - TAL Metals ICP	6010D - TAL Metals ICP - Dissolved FF	9012B_NP - Cyanide, Total	8082A - TCL PCBs	8270D - TCL SVOCs + TICs	7470A - Mercury	7470A - Mercury - Dissolved FF	9012B_NP - Cyanide, Total - Dissolved FF	8081B - TCL Pesticides	1633 - 1633 Standard List	8270D - (MOD) TCL SVOA - OLM04.2	6010C, 7470A	1,4 Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	D	D	B	N	N	D	D	B	N	N	N				
SW-01-2	613124	1155	G	Water			X	X	X	X	X	X	X	X	X	X	X			X	20	
SW-01-2-MS		1155		Water			X	X	X	X	X	X	X	X	X	X	X			X	20	
SW-01-2-MSD		1155		Water			X	X	X	X	X	X	X	X	X	X	X			X	20	
SW-01-2-FD		1155		Water			X	X	X	X	X	X	X	X	X	X	X			X	20	
SW-01-3		1320		Water			X	X	X	X	X	X	X	X	X	X					15	
SW-01-1		1345		Water			X	X	X	X	X	X	X	X	X	X					15	
TB-060324	613124	-	G	Water			X														2	
				Water																		
				Water																		
				Water																		
				Water																		

480-220419 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: Add Ethan.smith@aecom.com and edyta.chorostkowska@aecom.com to all Lab correspondence

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	613124 1900	AECOM	SM	6/13/24 1900	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2.9 3.1 3.5 ICE

Ver: 04/02/2024

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-87844.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note): NELAP New York		Job #: 480-220419-1
Address: 180 S. Van Buren Avenue,	Due Date Requested: 6/17/2024			
City: Barberton	TAT Requested (days):			
State, Zip: OH, 44203				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

Other: PFAS 15

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633/1633_SPE 1633 Standard List	1633_DRAFT_TSS/ Percent Suspend Solids PFAS	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SW-01-2 (480-220419-1)	6/3/24	11 55 Eastern		Water			X	X	3	
SW-01-2 (480-220419-1MS)	6/3/24	11 55 Eastern	MS	Water			X	X	3	
SW-01-2 (480-220419-1MSD)	6/3/24	11 55 Eastern	MSD	Water			X	X	3	
SW-01-2-FD (480-220419-2)	6/3/24	11 55 Eastern		Water			X	X	3	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I II III IV Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		6/4/24 1600	TA			
2				TAMMY ROYER	6-5-24 940	EET NC
3						

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Eurofins - Cleveland Sample Receipt Form/Narrative — Login #:
Batberton Facility

Client ETA — Site Name

Cooler unpacked by: TAMMY ROYER

Cooler Received on 6-5-24 — Opened on 6-5-24

FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time — Storage Location

Eurofins Cooler # EC — Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 17 (CF 0+2 °C) Observed Cooler Temp. 4.1 °C Corrected Cooler Temp. 4.3 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5 Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6 Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7 Did all bottles arrive in good condition (Unbroken)?	Yes	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	Yes	No
11 Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC339814
14. Were VOAs on the COC?	Yes	No
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes	No NA
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	No
17 Was a LL Hg or Me Hg trip blank present?	Yes	No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM ____ Date ____ by ____ via Verbal Voice Mail Other

Concerning ____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

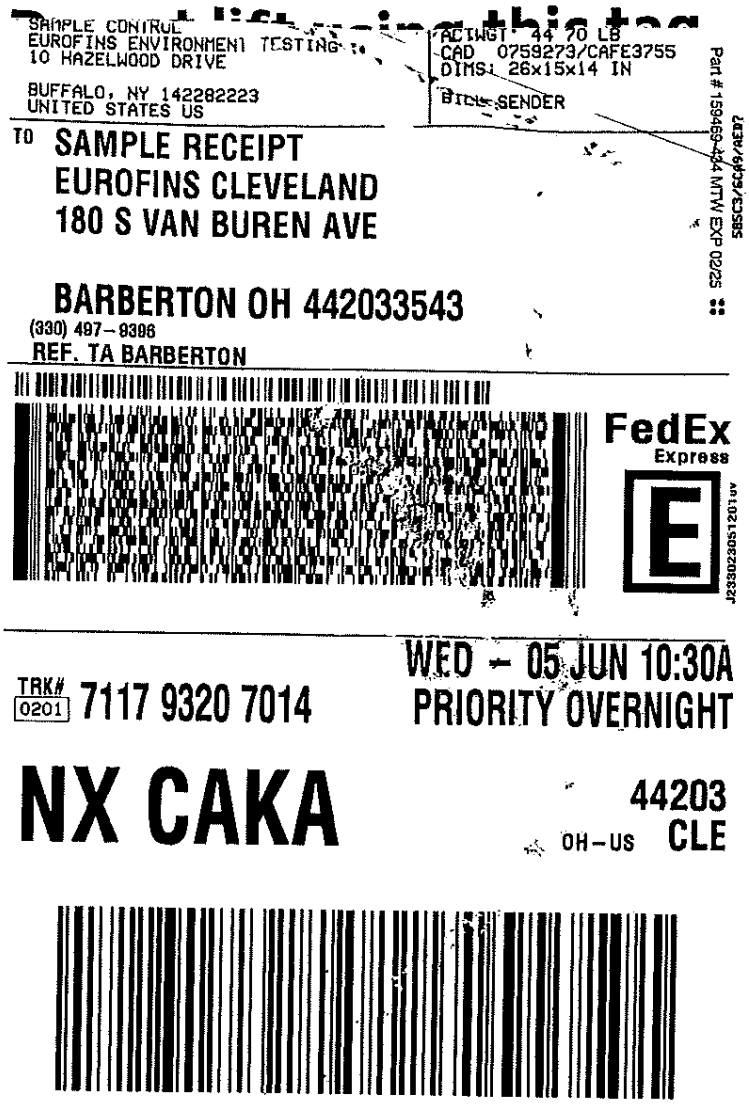
19 SAMPLE CONDITION

Sample(s) ____ were received after the recommended holding time had expired.
Sample(s) ____ were received in a broken container
Sample(s) ____ were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) ____ were further preserved in the laboratory
Time preserved. ____ Preservative(s) added/Lot number(s) ____

VOA Sample Preservation - Date/Time VOAs Frozen. ____



SAMPLE CONTROL
EUROFINS ENVIRONMENT TESTING
10 HAZELWOOD DRIVE

BUFFALO, NY 142282223
UNITED STATES US

ACTWGT: 44.70 LB
CAD: 0759273/CAFE3755
DIMS: 26x15x14 IN
BILL SENDER

Part # 159469-444 MTW EXP 02/25

TO SAMPLE RECEIPT
EUROFINS CLEVELAND
180 S VAN BUREN AVE

BARBERTON OH 442033543
(330) 497-9396
REF. TA BARBERTON

FedEx Express

TRK# 0201 7117 9320 7014

WED - 05 JUN 10:30A
PRIORITY OVERNIGHT

NX CAKA

44203
OH-US CLE

Login Sample Receipt Checklist

Client: Ashland LLC

Job Number: 480-220419-1

Login Number: 220419
List Number: 1
Creator: Stopa, Erik S

List Source: Eurofins Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	AECOM
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Shannon Lloyd
Ashland LLC
PO BOX 2219
Columbus, Ohio 43216

Generated 6/17/2024 12:49:10 PM

JOB DESCRIPTION

Tank 75 Analysis

JOB NUMBER

480-220420-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

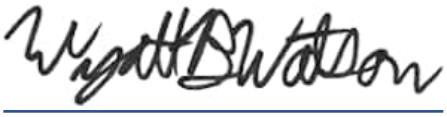
See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

Authorization



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6/17/2024 12:49:10 PM

Authorized for release by
Wyatt Watson, Project Management Assistant I
Wyatt.Watson@et.eurofinsus.com
Designee for
John Beninati, Project Manager I
John.Beninati@et.eurofinsus.com
(716)504-9874

Table of Contents

Definitions/Glossary

Client: Ashland LLC
Job ID: 480-220420-1
Project/Site: Tank 75 Analysis

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
480-220420-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 6/3/2024 7:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.7°C.

GC Semi VOA
Method 8015D_DAI_G: The method blank for preparation batch 480-714430 and analytical batch 480-714437 contained Ethylene glycol above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 1664B: Analysis for Hexane Extractable Material (HEM) was performed for the following samples: SW-01-3-WC (480-220420-2) and SW-01-1-WC (480-220420-3). Since the HEM result(s) was below the reporting limit (RL), the result(s) for Silica Gel Treated - Hexane Extractable Material (SGT-HEM) was reported as a non-detect. All HEM quality control criteria were met.

Method 9040C: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: SW-01-2-WC (480-220420-1), SW-01-3-WC (480-220420-2) and SW-01-1-WC (480-220420-3).

Method D240_87: When prepped for Heat of Combustion/BTU analysis, the following samples did not combust: SW-01-2-WC (480-220420-1), SW-01-3-WC (480-220420-2) and SW-01-1-WC (480-220420-3). The sample(s) was run in duplicate to confirm. The result(s) has been reported as "Did Not Fire" (DNF).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220420-1

Client Sample ID: SW-01-2-WC — Lab Sample ID: 480-220420-1

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Flashpoint	>175		50.0	50.0	Degrees F	1		1010A	Total/NA
pH	8.25	HF	0.100	0.100	SU	1		9040C	Total/NA
Temperature	19.9	HF	0.00100	0.00100	Degrees C	1		9040C	Total/NA
BTU	DNF		200	200	BTU/lb	1		D240-87	Total/NA

Client Sample ID: SW-01-3-WC — Lab Sample ID: 480-220420-2

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Flashpoint	>175		50.0	50.0	Degrees F	1		1010A	Total/NA
pH	7.95	HF	0.100	0.100	SU	1		9040C	Total/NA
Temperature	19.7	HF	0.00100	0.00100	Degrees C	1		9040C	Total/NA
BTU	DNF		200	200	BTU/lb	1		D240-87	Total/NA

Client Sample ID: SW-01-1-WC — Lab Sample ID: 480-220420-3

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Flashpoint	>175		50.0	50.0	Degrees F	1		1010A	Total/NA
pH	8.28	HF	0.100	0.100	SU	1		9040C	Total/NA
Temperature	19.9	HF	0.00100	0.00100	Degrees C	1		9040C	Total/NA
BTU	DNF		200	200	BTU/lb	1		D240-87	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SW-01-2-WC

Lab Sample ID: 480-220420-1

Date Collected: 06/03/24 12:00

Matrix: Water

Date Received: 06/03/24 19:00

Method: SW846 8015D - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		10	1.9	mg/L		06/05/24 07:43	06/05/24 10:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Butanediol	*85*		*66 - 130*	*06/05/24 07:43*	*06/05/24 10:45*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	ND		4.8	1.9	mg/L		06/05/24 10:32	06/05/24 12:29	1
Cyanide, Reactive (SW846 9012)	ND		10.0	10.0	mg/L		06/06/24 10:30	06/07/24 14:33	1
Sulfide, Reactive (SW846 9034)	ND		10.0	10.0	mg/L		06/06/24 10:30	06/08/24 08:25	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	**>175**		50.0	50.0	Degrees F			06/04/24 07:35	1
pH (SW846 9040C)	**8.25**	**HF**	0.100	0.100	SU			06/04/24 19:16	1
Temperature (SW846 9040C)	**19.9**	**HF**	0.00100	0.00100	Degrees C			06/04/24 19:16	1
BTU (ASTM D240-87)	**DNF**		200	200	BTU/lb		06/12/24 14:48	06/12/24 21:00	1

Client Sample ID: SW-01-3-WC

Lab Sample ID: 480-220420-2

Date Collected: 06/03/24 13:25

Matrix: Water

Date Received: 06/03/24 19:00

Method: SW846 8015D - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		10	1.9	mg/L		06/05/24 07:43	06/05/24 11:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Butanediol	*84*		*66 - 130*	*06/05/24 07:43*	*06/05/24 11:04*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	ND		4.8	1.9	mg/L		06/05/24 10:32	06/05/24 12:29	1
Cyanide, Reactive (SW846 9012)	ND		10.0	10.0	mg/L		06/06/24 10:30	06/07/24 14:34	1
Sulfide, Reactive (SW846 9034)	ND		10.0	10.0	mg/L		06/06/24 10:30	06/08/24 08:25	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	**>175**		50.0	50.0	Degrees F			06/04/24 13:40	1
pH (SW846 9040C)	**7.95**	**HF**	0.100	0.100	SU			06/04/24 19:16	1
Temperature (SW846 9040C)	**19.7**	**HF**	0.00100	0.00100	Degrees C			06/04/24 19:16	1
BTU (ASTM D240-87)	**DNF**		200	200	BTU/lb		06/12/24 14:48	06/12/24 21:00	1

Client Sample ID: SW-01-1-WC

Lab Sample ID: 480-220420-3

Date Collected: 06/03/24 13:50

Matrix: Water

Date Received: 06/03/24 19:00

Method: SW846 8015D - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		10	1.9	mg/L		06/05/24 07:43	06/05/24 11:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Butanediol	*84*		*66 - 130*	*06/05/24 07:43*	*06/05/24 11:22*	*1*

Client Sample Results

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220420-1

Client Sample ID: SW-01-1-WC

Date Collected: 06/03/24 13:50
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220420-3

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	ND		5.0	1.9	mg/L		06/05/24 10:32	06/05/24 12:29	1
Cyanide, Reactive (SW846 9012)	ND		10.0	10.0	mg/L		06/06/24 10:30	06/07/24 14:36	1
Sulfide, Reactive (SW846 9034)	ND		10.0	10.0	mg/L		06/06/24 10:30	06/08/24 08:25	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	**>175**		50.0	50.0	Degrees F			06/05/24 08:08	1
pH (SW846 9040C)	**8.28**	**HF**	0.100	0.100	SU			06/04/24 19:16	1
Temperature (SW846 9040C)	**19.9**	**HF**	0.00100	0.00100	Degrees C			06/04/24 19:16	1
BTU (ASTM D240-87)	**DNF**		200	200	BTU/lb		06/12/24 14:48	06/12/24 21:00	1

Surrogate Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220420-1

Method: 8015D - Glycols- Direct Injection (GC/FID)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
		14BD
Lab Sample ID	Client Sample ID	(66-130)
480-220420-1	SW-01-2-WC	85
480-220420-2	SW-01-3-WC	84
480-220420-3	SW-01-1-WC	84
LCS 480-714430/2-A	Lab Control Sample	86
LCSD 480-714430/3-A	Lab Control Sample Dup	89
MB 480-714430/1-A	Method Blank	83

Surrogate Legend

14BD = 1,4-Butanediol

Method: 8015D - Glycols- Direct Injection (GC/FID)

Lab Sample ID: MB 480-714430/1-A
Matrix: Water
Analysis Batch: 714437

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714430

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	4.66	J	10	1.9	mg/L		06/05/24 07:43	06/05/24 09:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Butanediol	*83*		*66 - 130*	*06/05/24 07:43*	*06/05/24 09:31*	*1*

Lab Sample ID: LCS 480-714430/2-A
Matrix: Water
Analysis Batch: 714437

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714430

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylene glycol	20.0	19.9		mg/L		100	46 - 129

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Butanediol	*86*		*66 - 130*

Lab Sample ID: LCSD 480-714430/3-A
Matrix: Water
Analysis Batch: 714437

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 714430

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethylene glycol	20.0	21.0		mg/L		105	46 - 129	5	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Butanediol	*89*		*66 - 130*

Method: 1010A - Ignitability, Pensky-Martens Closed-Cup Method

Lab Sample ID: LCS 480-714271/1
Matrix: Water
Analysis Batch: 714271

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Flashpoint	81.0	83.00		Degrees F		102	97.5 - 102.5

Lab Sample ID: LCS 480-714433/1
Matrix: Water
Analysis Batch: 714433

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Flashpoint	81.0	80.00		Degrees F		99	97.5 - 102.5

Lab Sample ID: 480-220420-3 DU
Matrix: Water
Analysis Batch: 714433

Client Sample ID: SW-01-1-WC
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Flashpoint	>175		>175.0		Degrees F		NC	10

Method: 1664B - HEM and SGT-HEM

Lab Sample ID: MB 480-714498/1-A
Matrix: Water
Analysis Batch: 714523

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714498

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	ND		5.0	1.9	mg/L		06/05/24 10:32	06/05/24 12:29	1

Lab Sample ID: LCS 480-714498/2-A
Matrix: Water
Analysis Batch: 714523

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714498

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
SGT-HEM	20.0	14.30		mg/L		72	64 - 132

Lab Sample ID: 480-220420-1 MS
Matrix: Water
Analysis Batch: 714523

Client Sample ID: SW-01-2-WC
Prep Type: Total/NA
Prep Batch: 714498

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
SGT-HEM	ND		19.2	14.18		mg/L		74	64 - 132

Method: 9012 - Cyanide, Reactive

Lab Sample ID: MB 480-714815/1-A
Matrix: Water
Analysis Batch: 714907

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714815

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive	ND		10.0	10.0	mg/L		06/06/24 10:30	06/07/24 14:24	1

Lab Sample ID: LCS 480-714815/2-A
Matrix: Water
Analysis Batch: 714907

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714815

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Reactive	1000	710.0		mg/L		71	10 - 100

Method: 9034 - Sulfide, Reactive

Lab Sample ID: MB 480-714817/1-A
Matrix: Water
Analysis Batch: 714945

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714817

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Reactive	ND		10.0	10.0	mg/L		06/06/24 10:30	06/08/24 08:25	1

Lab Sample ID: LCS 480-714817/2-A
Matrix: Water
Analysis Batch: 714945

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714817

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide, Reactive	620	500.9		mg/L		81	10 - 100

QC Sample Results

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220420-1

Method: D240-87 - Heat of Combustion

Lab Sample ID: LCS 680-842088/1-A
Matrix: Water
Analysis Batch: 842133

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 842088

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
BTU			5740	5342		BTU/lb		93	70 - 130		

Lab Sample ID: LCSD 680-842088/2-A
Matrix: Water
Analysis Batch: 842133

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 842088

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
BTU			5740	5703		BTU/lb		99	70 - 130	7	30

QC Association Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220420-1

GC Semi VOA

Prep Batch: 714430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220420-1	SW-01-2-WC	Total/NA	Water	8015 Prep	
480-220420-2	SW-01-3-WC	Total/NA	Water	8015 Prep	
480-220420-3	SW-01-1-WC	Total/NA	Water	8015 Prep	
MB 480-714430/1-A	Method Blank	Total/NA	Water	8015 Prep	
LCS 480-714430/2-A	Lab Control Sample	Total/NA	Water	8015 Prep	
LCSD 480-714430/3-A	Lab Control Sample Dup	Total/NA	Water	8015 Prep	

Analysis Batch: 714437

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220420-1	SW-01-2-WC	Total/NA	Water	8015D	714430
480-220420-2	SW-01-3-WC	Total/NA	Water	8015D	714430
480-220420-3	SW-01-1-WC	Total/NA	Water	8015D	714430
MB 480-714430/1-A	Method Blank	Total/NA	Water	8015D	714430
LCS 480-714430/2-A	Lab Control Sample	Total/NA	Water	8015D	714430
LCSD 480-714430/3-A	Lab Control Sample Dup	Total/NA	Water	8015D	714430

General Chemistry

Analysis Batch: 714271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220420-1	SW-01-2-WC	Total/NA	Water	1010A	
480-220420-2	SW-01-3-WC	Total/NA	Water	1010A	
LCS 480-714271/1	Lab Control Sample	Total/NA	Water	1010A	

Analysis Batch: 714403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220420-1	SW-01-2-WC	Total/NA	Water	9040C	
480-220420-2	SW-01-3-WC	Total/NA	Water	9040C	
480-220420-3	SW-01-1-WC	Total/NA	Water	9040C	
LCS 480-714403/1	Lab Control Sample	Total/NA	Water	9040C	

Analysis Batch: 714433

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220420-3	SW-01-1-WC	Total/NA	Water	1010A	
LCS 480-714433/1	Lab Control Sample	Total/NA	Water	1010A	
480-220420-3 DU	SW-01-1-WC	Total/NA	Water	1010A	

Prep Batch: 714498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220420-1	SW-01-2-WC	Total/NA	Water	1664B	
480-220420-2	SW-01-3-WC	Total/NA	Water	1664B	
480-220420-3	SW-01-1-WC	Total/NA	Water	1664B	
MB 480-714498/1-A	Method Blank	Total/NA	Water	1664B	
LCS 480-714498/2-A	Lab Control Sample	Total/NA	Water	1664B	
480-220420-1 MS	SW-01-2-WC	Total/NA	Water	1664B	

Analysis Batch: 714523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220420-1	SW-01-2-WC	Total/NA	Water	1664B	714498
480-220420-2	SW-01-3-WC	Total/NA	Water	1664B	714498
480-220420-3	SW-01-1-WC	Total/NA	Water	1664B	714498

General Chemistry (Continued)

Analysis Batch: 714523 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-714498/1-A	Method Blank	Total/NA	Water	1664B	714498
LCS 480-714498/2-A	Lab Control Sample	Total/NA	Water	1664B	714498
480-220420-1 MS	SW-01-2-WC	Total/NA	Water	1664B	714498

Prep Batch: 714815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220420-1	SW-01-2-WC	Total/NA	Water	7.3.3	
480-220420-2	SW-01-3-WC	Total/NA	Water	7.3.3	
480-220420-3	SW-01-1-WC	Total/NA	Water	7.3.3	
MB 480-714815/1-A	Method Blank	Total/NA	Water	7.3.3	
LCS 480-714815/2-A	Lab Control Sample	Total/NA	Water	7.3.3	

Prep Batch: 714817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220420-1	SW-01-2-WC	Total/NA	Water	7.3.4	
480-220420-2	SW-01-3-WC	Total/NA	Water	7.3.4	
480-220420-3	SW-01-1-WC	Total/NA	Water	7.3.4	
MB 480-714817/1-A	Method Blank	Total/NA	Water	7.3.4	
LCS 480-714817/2-A	Lab Control Sample	Total/NA	Water	7.3.4	

Analysis Batch: 714907

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220420-1	SW-01-2-WC	Total/NA	Water	9012	714815
480-220420-2	SW-01-3-WC	Total/NA	Water	9012	714815
480-220420-3	SW-01-1-WC	Total/NA	Water	9012	714815
MB 480-714815/1-A	Method Blank	Total/NA	Water	9012	714815
LCS 480-714815/2-A	Lab Control Sample	Total/NA	Water	9012	714815

Analysis Batch: 714945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220420-1	SW-01-2-WC	Total/NA	Water	9034	714817
480-220420-2	SW-01-3-WC	Total/NA	Water	9034	714817
480-220420-3	SW-01-1-WC	Total/NA	Water	9034	714817
MB 480-714817/1-A	Method Blank	Total/NA	Water	9034	714817
LCS 480-714817/2-A	Lab Control Sample	Total/NA	Water	9034	714817

Prep Batch: 842088

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220420-1	SW-01-2-WC	Total/NA	Water	D240-87	
480-220420-2	SW-01-3-WC	Total/NA	Water	D240-87	
480-220420-3	SW-01-1-WC	Total/NA	Water	D240-87	
LCS 680-842088/1-A	Lab Control Sample	Total/NA	Water	D240-87	
LCSD 680-842088/2-A	Lab Control Sample Dup	Total/NA	Water	D240-87	

Analysis Batch: 842133

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220420-1	SW-01-2-WC	Total/NA	Water	D240-87	842088
480-220420-2	SW-01-3-WC	Total/NA	Water	D240-87	842088
480-220420-3	SW-01-1-WC	Total/NA	Water	D240-87	842088
LCS 680-842088/1-A	Lab Control Sample	Total/NA	Water	D240-87	842088
LCSD 680-842088/2-A	Lab Control Sample Dup	Total/NA	Water	D240-87	842088

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220420-1

Client Sample ID: SW-01-2-WC

Lab Sample ID: 480-220420-1

Date Collected: 06/03/24 12:00

Matrix: Water

Date Received: 06/03/24 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	8015 Prep			714430	MAN	EET BUF	06/05/24 07:43
Total/NA	Analysis	8015D		1	714437	MAN	EET BUF	06/05/24 10:45
Total/NA	Analysis	1010A		1	714271	KM	EET BUF	06/04/24 07:35
Total/NA	Prep	1664B			714498	AB	EET BUF	06/05/24 10:32
Total/NA	Analysis	1664B		1	714523	AB	EET BUF	06/05/24 12:29
Total/NA	Prep	7.3.3			714815	AM	EET BUF	06/06/24 10:30
Total/NA	Analysis	9012		1	714907	AM	EET BUF	06/07/24 14:33
Total/NA	Prep	7.3.4			714817	AM	EET BUF	06/06/24 10:30
Total/NA	Analysis	9034		1	714945	AM	EET BUF	06/08/24 08:25
Total/NA	Analysis	9040C		1	714403	KB	EET BUF	06/04/24 19:16
Total/NA	Prep	D240-87			842088	SM	EET SAV	06/12/24 14:48
Total/NA	Analysis	D240-87		1	842133	SM	EET SAV	06/12/24 21:00

Client Sample ID: SW-01-3-WC

Lab Sample ID: 480-220420-2

Date Collected: 06/03/24 13:25

Matrix: Water

Date Received: 06/03/24 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	8015 Prep			714430	MAN	EET BUF	06/05/24 07:43
Total/NA	Analysis	8015D		1	714437	MAN	EET BUF	06/05/24 11:04
Total/NA	Analysis	1010A		1	714271	KM	EET BUF	06/04/24 13:40
Total/NA	Prep	1664B			714498	AB	EET BUF	06/05/24 10:32
Total/NA	Analysis	1664B		1	714523	AB	EET BUF	06/05/24 12:29
Total/NA	Prep	7.3.3			714815	AM	EET BUF	06/06/24 10:30
Total/NA	Analysis	9012		1	714907	AM	EET BUF	06/07/24 14:34
Total/NA	Prep	7.3.4			714817	AM	EET BUF	06/06/24 10:30
Total/NA	Analysis	9034		1	714945	AM	EET BUF	06/08/24 08:25
Total/NA	Analysis	9040C		1	714403	KB	EET BUF	06/04/24 19:16
Total/NA	Prep	D240-87			842088	SM	EET SAV	06/12/24 14:48
Total/NA	Analysis	D240-87		1	842133	SM	EET SAV	06/12/24 21:00

Client Sample ID: SW-01-1-WC

Lab Sample ID: 480-220420-3

Date Collected: 06/03/24 13:50

Matrix: Water

Date Received: 06/03/24 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	8015 Prep			714430	MAN	EET BUF	06/05/24 07:43
Total/NA	Analysis	8015D		1	714437	MAN	EET BUF	06/05/24 11:22
Total/NA	Analysis	1010A		1	714433	KM	EET BUF	06/05/24 08:08
Total/NA	Prep	1664B			714498	AB	EET BUF	06/05/24 10:32
Total/NA	Analysis	1664B		1	714523	AB	EET BUF	06/05/24 12:29
Total/NA	Prep	7.3.3			714815	AM	EET BUF	06/06/24 10:30
Total/NA	Analysis	9012		1	714907	AM	EET BUF	06/07/24 14:36

Lab Chronicle

Client: Ashland LLC
Job ID: 480-220420-1
Project/Site: Tank 75 Analysis

Client Sample ID: SW-01-1-WC
Lab Sample ID: 480-220420-3
Date Collected: 06/03/24 13:50
Matrix: Water
Date Received: 06/03/24 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7.3.4			714817	AM	EET BUF	06/06/24 10:30
Total/NA	Analysis	9034		1	714945	AM	EET BUF	06/08/24 08:25
Total/NA	Analysis	9040C		1	714403	KB	EET BUF	06/04/24 19:16
Total/NA	Prep	D240-87			842088	SM	EET SAV	06/12/24 14:48
Total/NA	Analysis	D240-87		1	842133	SM	EET SAV	06/12/24 21:00

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Ashland LLC
Job ID: 480-220420-1
Project/Site: Tank 75 Analysis

Laboratory: Eurofins Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	06-11-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1010A		Water	Flashpoint
9012	7.3.3	Water	Cyanide, Reactive
9034	7.3.4	Water	Sulfide, Reactive
9040C		Water	pH
9040C		Water	Temperature

Laboratory: Eurofins Savannah

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
	AFCEE	SAVLAB	
Alabama	State	41450	06-30-24
ANAB	Dept. of Defense ELAP	L2463	09-22-24
Arkansas (DW)	State	GA00006	06-30-24
California	State	2939	06-30-24
Florida	NELAP	E87052	06-30-24
Georgia	State	E87052	06-30-24
Georgia (DW)	State	803	06-30-24
Hawaii	State	<cert No.>	06-30-24
Illinois	NELAP	200022	11-30-24
Indiana	State	C-GA-02	06-30-24
Iowa	State	353	07-01-25
Kentucky (UST)	State	NA	06-30-24
Louisiana	NELAP	30690	06-30-24
Louisiana (All)	NELAP	30690	06-30-24
Louisiana (DW)	State	LA009	12-31-24
Maine	State	GA00006	09-25-24
Maryland	State	250	12-31-24
Massachusetts	State	M-GA006	06-30-24
Michigan	State	9925	06-30-24
Mississippi	State	<cert No.>	06-30-24
Nebraska	State	NE-OS-7-04	06-30-24
New Jersey	NELAP	GA769	06-30-24
New Mexico	State	GA00006	06-30-24
North Carolina (DW)	State	13701	07-31-24
North Carolina (WW/SW)	State	269	12-31-24
Pennsylvania	NELAP	68-00474	06-30-24
Puerto Rico	State	GA00006	01-01-25
South Carolina	State	98001	06-30-24
Tennessee	State	TN02961	06-30-24
Texas	NELAP	T1047004185	11-30-24
Texas	TCEQ Water Supply	T104704185	06-30-24
USDA	US Federal Programs	P330-18-00313	04-04-27
Virginia	NELAP	460161	06-14-24
Wyoming	State	8TMS-L	06-30-24

Method Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220420-1

Method	Method Description	Protocol	Laboratory
8015D	Glycols- Direct Injection (GC/FID)	SW846	EET BUF
1010A	Ignitability, Pensky-Martens Closed-Cup Method	SW846	EET BUF
1664B	HEM and SGT-HEM	1664B	EET BUF
9012	Cyanide, Reactive	SW846	EET BUF
9034	Sulfide, Reactive	SW846	EET BUF
9040C	pH	SW846	EET BUF
D240-87	Heat of Combustion	ASTM	EET SAV
1664B	HEM and SGT-HEM (Aqueous)	1664B	EET BUF
7.3.3	Cyanide, Reactive	SW846	EET BUF
7.3.4	Sulfide, Reactive	SW846	EET BUF
8015 Prep	8015 Direct Injection Prep (Aqueous)	SW846	EET BUF
D240-87	Preparation, Heat of Combustion	ASTM	EET SAV

Protocol References:

1664B = EPA-821-98-002

ASTM = ASTM International

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Sample Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220420-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-220420-1	SW-01-2-WC	Water	06/03/24 12:00	06/03/24 19:00
480-220420-2	SW-01-3-WC	Water	06/03/24 13:25	06/03/24 19:00
480-220420-3	SW-01-1-WC	Water	06/03/24 13:50	06/03/24 19:00

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: Ethan Smith	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-196947-40789.1
Client Contact: Ms. Ann Marie Kropovitch	Phone: 716-912-4456	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: AECOM	PWSID:			Job #:
Address: 50 Lakefront Boulevard Suite 111	Due Date Requested: STD			Preservation Codes: S-H2SO4 N-none
City: Buffalo	TAT Requested (days): Per PO			
State, Zip: NY, 14202	Compliance Project: Δ Yes Δ No			
Phone: 614-790-2274(Tel)	PO #: 1120269 Task 300			
Email: ann.marie.kropovitch@aecom.com	WO #: Ann.Marie.Kropovitch@aecom.com			Other:
Project Name: Tank 75 - SW Disposal Characteristics	Project #: 48027595			
Site:	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9012 - Reactive CN	9034 - Reactive Sulfide	8015D - DAE - Ethylene Glycol	1664B - TPH-HEM	9040C - pH - Corrosivity	1010A - Ignitability/Flash Point	D240_87 - BTU	Total Number of containers	Special Instructions/Note:
Preservation Code:							N	N	N	S	N	N	N		
SW-01-2-WC	6/3/24	1200	G	Water			X	X	X	X	X	X	X	9	
SW-01-3-WC	↓	1325	G	Water			X	X	X	X	X	X	X	9	
SW-01-1-WC		1350	G	Water			X	X	X	X	X	X	X	9	

480-220420 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:
Add Ethan.Smith@aecom.com and edyta.ChorostKowska@aecom.com to all correspondence

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	6/3/24 1900	AECOM	SM	6/3/24 1900	eurofins
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.7 ICE

Ver: 04/02/2024

Login Sample Receipt Checklist

Client: Ashland LLC

Job Number: 480-220420-1

Login Number: 220420
List Number: 1
Creator: Yeager, Brian A

List Source: Eurofins Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	AECOM
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: Ashland LLC

Job Number: 480-220420-1

Login Number: 220420
List Number: 2
Creator: Faught, Timothy

List Source: Eurofins Savannah
List Creation: 06/05/24 01:35 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Shannon Lloyd
Ashland LLC
PO BOX 2219
Columbus, Ohio 43216

Generated 7/9/2024 1:15:57 PM

JOB DESCRIPTION

Tank 75 Analysis

JOB NUMBER

480-220421-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

Authorization

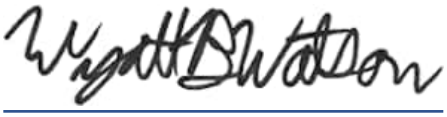

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Table of Contents

Definitions/Glossary

Client: Ashland LLC
Job ID: 480-220421-1
Project/Site: Tank 75 Analysis

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.

General Chemistry

Qualifier	Qualifier Description
F3	Duplicate RPD exceeds the control limit
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
480-220421-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 6/3/2024 7:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.2º C and 3.9º C.

GC Semi VOA
Method 8015D: The following sample was received outside of holding time: SED-04-WC (480-220421-4).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
Method 9045D: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: SED-01-WC (480-220421-1), SED-02-WC (480-220421-2), SED-03-WC (480-220421-3), SED-04-WC (480-220421-4) and SED-05-WC (480-220421-5).

Method D240-87: When prepped for Heat of Combustion/BTU analysis, the following samples did not combust: SED-03-WC (480-220421-3) and SED-05-WC (480-220421-5). The sample(s) was run in duplicate to confirm. The result(s) has been reported as "Did Not Fire" (DNF).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220421-1

Client Sample ID: SED-01-WC — Lab Sample ID: 480-220421-1

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Flashpoint	>175		50.0	50.0	Degrees F	1		1010A	Total/NA
SGT-HEM	4380		125	50.0	mg/Kg	1	☼	1664B	Total/NA
pH	7.6	HF	0.1	0.1	SU	1		9045D	Total/NA
Temperature	20.0	HF	0.001	0.001	Degrees C	1		9045D	Total/NA
Free Liquid	Passed				mL/100g	1		9095B	Total/NA
BTU	5050		200	200	BTU/lb	1		D240-87	Total/NA

Client Sample ID: SED-02-WC — Lab Sample ID: 480-220421-2

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Flashpoint	>175		50.0	50.0	Degrees F	1		1010A	Total/NA
SGT-HEM	12800		186	74.5	mg/Kg	1	☼	1664B	Total/NA
Sulfide, Reactive	175		9.7	9.7	mg/Kg	1		9034	Total/NA
pH	7.6	HF	0.1	0.1	SU	1		9045D	Total/NA
Temperature	20.0	HF	0.001	0.001	Degrees C	1		9045D	Total/NA
Free Liquid	Passed				mL/100g	1		9095B	Total/NA
BTU	3030		200	200	BTU/lb	1		D240-87	Total/NA

Client Sample ID: SED-03-WC — Lab Sample ID: 480-220421-3

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Flashpoint	>175		50.0	50.0	Degrees F	1		1010A	Total/NA
SGT-HEM	4930		139	55.7	mg/Kg	1	☼	1664B	Total/NA
Sulfide, Reactive	99.5		9.9	9.9	mg/Kg	1		9034	Total/NA
pH	7.7	HF	0.1	0.1	SU	1		9045D	Total/NA
Temperature	20.1	HF	0.001	0.001	Degrees C	1		9045D	Total/NA
Free Liquid	Passed				mL/100g	1		9095B	Total/NA
BTU	DNF		200	200	BTU/lb	1		D240-87	Total/NA

Client Sample ID: SED-04-WC — Lab Sample ID: 480-220421-4

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Flashpoint	>175		50.0	50.0	Degrees F	1		1010A	Total/NA
SGT-HEM	11700		191	76.3	mg/Kg	1	☼	1664B	Total/NA
Sulfide, Reactive	155		9.7	9.7	mg/Kg	1		9034	Total/NA
pH	7.9	HF	0.1	0.1	SU	1		9045D	Total/NA
Temperature	20.1	HF	0.001	0.001	Degrees C	1		9045D	Total/NA
Free Liquid	Passed				mL/100g	1		9095B	Total/NA
BTU	3110		200	200	BTU/lb	1		D240-87	Total/NA

Client Sample ID: SED-05-WC — Lab Sample ID: 480-220421-5

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Flashpoint	>175		50.0	50.0	Degrees F	1		1010A	Total/NA
SGT-HEM	13300		198	79.2	mg/Kg	1	☼	1664B	Total/NA
Sulfide, Reactive	377		9.9	9.9	mg/Kg	1		9034	Total/NA
pH	7.3	HF	0.1	0.1	SU	1		9045D	Total/NA
Temperature	20.1	HF	0.001	0.001	Degrees C	1		9045D	Total/NA
Free Liquid	Passed				mL/100g	1		9095B	Total/NA
BTU	DNF		200	200	BTU/lb	1		D240-87	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220421-1

Client Sample ID: SED-01-WC
Lab Sample ID: 480-220421-1
Date Collected: 06/03/24 15:00
Matrix: Solid
Date Received: 06/03/24 19:00

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Free Liquid (SW846 9095B)	Passed				mL/100g			06/04/24 13:13	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		9.4	9.4	mg/Kg		06/06/24 10:30	06/07/24 14:42	1
Sulfide, Reactive (SW846 9034)	ND		9.4	9.4	mg/Kg		06/06/24 10:30	06/08/24 08:25	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	>175		50.0	50.0	Degrees F			06/05/24 08:08	1
pH (SW846 9045D)	7.6	HF	0.1	0.1	SU			06/04/24 13:03	1
Temperature (SW846 9045D)	20.0	HF	0.001	0.001	Degrees C			06/04/24 13:03	1
BTU (ASTM D240-87)	5050		200	200	BTU/lb		06/13/24 09:39	06/13/24 11:41	1

Client Sample ID: SED-01-WC
Lab Sample ID: 480-220421-1
Date Collected: 06/03/24 15:00
Matrix: Solid
Date Received: 06/03/24 19:00
Percent Solids: 80.0

Method: SW846 8015D - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		62	50	mg/Kg	☼		06/10/24 18:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	4380		125	50.0	mg/Kg	☼	06/06/24 08:13	06/06/24 09:18	1

Client Sample ID: SED-02-WC
Lab Sample ID: 480-220421-2
Date Collected: 06/03/24 16:00
Matrix: Solid
Date Received: 06/03/24 19:00

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Free Liquid (SW846 9095B)	Passed				mL/100g			06/04/24 13:13	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		9.7	9.7	mg/Kg		06/06/24 10:30	06/07/24 14:43	1
Sulfide, Reactive (SW846 9034)	175		9.7	9.7	mg/Kg		06/06/24 10:30	06/08/24 08:25	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	>175		50.0	50.0	Degrees F			06/05/24 08:08	1
pH (SW846 9045D)	7.6	HF	0.1	0.1	SU			06/04/24 13:03	1
Temperature (SW846 9045D)	20.0	HF	0.001	0.001	Degrees C			06/04/24 13:03	1
BTU (ASTM D240-87)	3030		200	200	BTU/lb		06/13/24 09:39	06/13/24 11:41	1

Client Sample ID: SED-02-WC
Lab Sample ID: 480-220421-2
Date Collected: 06/03/24 16:00
Matrix: Solid
Date Received: 06/03/24 19:00
Percent Solids: 53.6

Method: SW846 8015D - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		93	74	mg/Kg	☼		06/10/24 19:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	12800		186	74.5	mg/Kg	☼	06/06/24 08:13	06/06/24 09:18	1

Client Sample ID: SED-03-WC

Lab Sample ID: 480-220421-3
Date Collected: 06/03/24 16:30
Matrix: Solid
Date Received: 06/03/24 19:00

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Free Liquid (SW846 9095B)	Passed				mL/100g			06/04/24 13:13	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		9.9	9.9	mg/Kg		06/06/24 10:30	06/07/24 14:44	1
Sulfide, Reactive (SW846 9034)	99.5		9.9	9.9	mg/Kg		06/06/24 10:30	06/08/24 08:25	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	>175		50.0	50.0	Degrees F			06/05/24 08:08	1
pH (SW846 9045D)	7.7	HF	0.1	0.1	SU			06/04/24 13:03	1
Temperature (SW846 9045D)	20.1	HF	0.001	0.001	Degrees C			06/04/24 13:03	1
BTU (ASTM D240-87)	DNF		200	200	BTU/lb		06/13/24 09:39	06/13/24 11:41	1

Client Sample ID: SED-03-WC

Lab Sample ID: 480-220421-3
Date Collected: 06/03/24 16:30
Matrix: Solid
Date Received: 06/03/24 19:00
Percent Solids: 72.1

Method: SW846 8015D - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		69	55	mg/Kg	☼		06/10/24 19:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	4930		139	55.7	mg/Kg	☼	06/06/24 08:13	06/06/24 09:18	1

Client Sample ID: SED-04-WC

Lab Sample ID: 480-220421-4
Date Collected: 06/03/24 17:00
Matrix: Solid
Date Received: 06/03/24 19:00

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Free Liquid (SW846 9095B)	Passed				mL/100g			06/04/24 13:13	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		9.7	9.7	mg/Kg		06/06/24 10:30	06/07/24 14:46	1
Sulfide, Reactive (SW846 9034)	155		9.7	9.7	mg/Kg		06/06/24 10:30	06/08/24 08:25	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	>175		50.0	50.0	Degrees F			06/05/24 08:08	1
pH (SW846 9045D)	7.9	HF	0.1	0.1	SU			06/04/24 13:03	1
Temperature (SW846 9045D)	20.1	HF	0.001	0.001	Degrees C			06/04/24 13:03	1
BTU (ASTM D240-87)	3110		200	200	BTU/lb		06/13/24 09:39	06/13/24 11:41	1

Client Sample ID: SED-04-WC

Lab Sample ID: 480-220421-4
Date Collected: 06/03/24 17:00
Matrix: Solid
Date Received: 06/03/24 19:00
Percent Solids: 52.0

Method: SW846 8015D - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND	H	48	38	mg/Kg	☼		07/09/24 03:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	11700		191	76.3	mg/Kg	☼	06/06/24 08:13	06/06/24 09:18	1

Client Sample ID: SED-05-WC

Lab Sample ID: 480-220421-5

Date Collected: 06/03/24 17:35

Matrix: Solid

Date Received: 06/03/24 19:00

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Free Liquid (SW846 9095B)	**Passed**				mL/100g			06/04/24 13:13	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		9.9	9.9	mg/Kg		06/07/24 10:05	06/08/24 08:34	1
Sulfide, Reactive (SW846 9034)	**377**		9.9	9.9	mg/Kg		06/07/24 10:05	06/08/24 08:25	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	**>175**		50.0	50.0	Degrees F			06/05/24 08:08	1
pH (SW846 9045D)	**7.3**	**HF**	0.1	0.1	SU			06/04/24 13:03	1
Temperature (SW846 9045D)	**20.1**	**HF**	0.001	0.001	Degrees C			06/04/24 13:03	1
BTU (ASTM D240-87)	**DNF**		200	200	BTU/lb		06/13/24 09:39	06/13/24 11:41	1

Client Sample ID: SED-05-WC

Lab Sample ID: 480-220421-5

Date Collected: 06/03/24 17:35

Matrix: Solid

Date Received: 06/03/24 19:00

Percent Solids: 50.3

Method: SW846 8015D - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		98	79	mg/Kg	☼		06/10/24 19:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	**13300**		198	79.2	mg/Kg	☼	06/06/24 08:13	06/06/24 09:18	1

Method: 8015D - Nonhalogenated Organic Compounds - Direct Injection (GC)

Lab Sample ID: MB 400-674228/1-A
Matrix: Solid
Analysis Batch: 674267

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		50	40	mg/Kg			06/10/24 18:08	1

Lab Sample ID: LCS 400-674228/2-A
Matrix: Solid
Analysis Batch: 674267

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ethylene glycol			197	214		mg/Kg		109	70 - 135		

Lab Sample ID: LCSD 400-674228/3-A
Matrix: Solid
Analysis Batch: 674267

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethylene glycol			199	224		mg/Kg		113	70 - 135	5	50

Lab Sample ID: MB 400-677150/1-A
Matrix: Solid
Analysis Batch: 677176

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		25	20	mg/Kg			07/09/24 01:09	1

Lab Sample ID: LCS 400-677150/2-A
Matrix: Solid
Analysis Batch: 677176

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ethylene glycol			99.6	95.2		mg/Kg		96	70 - 135		

Lab Sample ID: LCSD 400-677150/3-A
Matrix: Solid
Analysis Batch: 677176

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethylene glycol			99.0	107		mg/Kg		108	70 - 135	11	50

Method: 1010A - Ignitability, Pensky-Martens Closed-Cup Method

Lab Sample ID: LCS 480-714433/1
Matrix: Solid
Analysis Batch: 714433

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Flashpoint			81.0	80.00		Degrees F		99	97.5 - 102.5		

Method: 1664B - HEM and SGT-HEM

Lab Sample ID: MB 480-714629/1-A
Matrix: Solid
Analysis Batch: 714651

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714629

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	ND		99.6	39.8	mg/Kg		06/06/24 08:13	06/06/24 09:18	1

Lab Sample ID: LCS 480-714629/3-A
Matrix: Solid
Analysis Batch: 714651

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714629

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
SGT-HEM	940	775.4		mg/Kg		82	64 - 132

Lab Sample ID: 480-220421-1 DU
Matrix: Solid
Analysis Batch: 714651

Client Sample ID: SED-01-WC
Prep Type: Total/NA
Prep Batch: 714629

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
SGT-HEM	4380		3152	F3	mg/Kg	☼	33	20

Method: 9012 - Cyanide, Reactive

Lab Sample ID: MB 480-714815/1-A
Matrix: Solid
Analysis Batch: 714907

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714815

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive	ND		10.0	10.0	mg/Kg		06/06/24 10:30	06/07/24 14:24	1

Lab Sample ID: LCS 480-714815/2-A
Matrix: Solid
Analysis Batch: 714907

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714815

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Reactive	1000	710.0		mg/Kg		71	10 - 100

Lab Sample ID: MB 480-714913/1-A
Matrix: Solid
Analysis Batch: 714955

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714913

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive	ND		10.0	10.0	mg/Kg		06/07/24 10:05	06/08/24 08:24	1

Lab Sample ID: LCS 480-714913/2-A
Matrix: Solid
Analysis Batch: 714955

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714913

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Reactive	1000	740.0		mg/Kg		74	10 - 100

Method: 9034 - Sulfide, Reactive

Lab Sample ID: MB 480-714817/1-A
Matrix: Solid
Analysis Batch: 714945

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714817

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Reactive	ND		10.0	10.0	mg/Kg		06/06/24 10:30	06/08/24 08:25	1

Lab Sample ID: LCS 480-714817/2-A
Matrix: Solid
Analysis Batch: 714945

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714817

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide, Reactive	620	500.9		mg/Kg		81	10 - 100

Lab Sample ID: MB 480-714917/1-A
Matrix: Solid
Analysis Batch: 714945

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714917

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Reactive	ND		10.0	10.0	mg/Kg		06/07/24 10:05	06/08/24 08:25	1

Lab Sample ID: LCS 480-714917/2-A
Matrix: Solid
Analysis Batch: 714945

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714917

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide, Reactive	620	541.0		mg/Kg		87	10 - 100

Method: 9045D - pH

Lab Sample ID: LCS 480-714404/1
Matrix: Solid
Analysis Batch: 714404

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.0		SU		100	99 - 101

Lab Sample ID: 480-220421-1 DU
Matrix: Solid
Analysis Batch: 714404

Client Sample ID: SED-01-WC
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.6	HF	7.9		SU		4	5
Temperature	20.0	HF	19.9		Degrees C		0.5	10

Method: 9095B - Paint Filter

Lab Sample ID: 480-220421-1 DU
Matrix: Solid
Analysis Batch: 714342

Client Sample ID: SED-01-WC
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Free Liquid	Passed		Passed		mL/100g		NC	

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220421-1

Method: D240-87 - Heat of Combustion

Lab Sample ID: LCS 680-842088/1-A
Matrix: Solid
Analysis Batch: 842133

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 842088

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
BTU			5740	5342		BTU/lb		93	70 - 130		

Lab Sample ID: LCSD 680-842088/2-A
Matrix: Solid
Analysis Batch: 842133

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 842088

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
BTU			5740	5703		BTU/lb		99	70 - 130	7	30

GC Semi VOA

Leach Batch: 674228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220421-1	SED-01-WC	Soluble	Solid	DI Leach	
480-220421-2	SED-02-WC	Soluble	Solid	DI Leach	
480-220421-3	SED-03-WC	Soluble	Solid	DI Leach	
480-220421-5	SED-05-WC	Soluble	Solid	DI Leach	
MB 400-674228/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 400-674228/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 400-674228/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 674267

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220421-1	SED-01-WC	Soluble	Solid	8015D	674228
480-220421-2	SED-02-WC	Soluble	Solid	8015D	674228
480-220421-3	SED-03-WC	Soluble	Solid	8015D	674228
480-220421-5	SED-05-WC	Soluble	Solid	8015D	674228
MB 400-674228/1-A	Method Blank	Soluble	Solid	8015D	674228
LCS 400-674228/2-A	Lab Control Sample	Soluble	Solid	8015D	674228
LCSD 400-674228/3-A	Lab Control Sample Dup	Soluble	Solid	8015D	674228

Leach Batch: 677150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220421-4	SED-04-WC	Soluble	Solid	DI Leach	
MB 400-677150/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 400-677150/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 400-677150/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 677176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220421-4	SED-04-WC	Soluble	Solid	8015D	677150
MB 400-677150/1-A	Method Blank	Soluble	Solid	8015D	677150
LCS 400-677150/2-A	Lab Control Sample	Soluble	Solid	8015D	677150
LCSD 400-677150/3-A	Lab Control Sample Dup	Soluble	Solid	8015D	677150

General Chemistry

Analysis Batch: 714342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220421-1	SED-01-WC	Total/NA	Solid	9095B	
480-220421-2	SED-02-WC	Total/NA	Solid	9095B	
480-220421-3	SED-03-WC	Total/NA	Solid	9095B	
480-220421-4	SED-04-WC	Total/NA	Solid	9095B	
480-220421-5	SED-05-WC	Total/NA	Solid	9095B	
480-220421-1 DU	SED-01-WC	Total/NA	Solid	9095B	

Analysis Batch: 714379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220421-1	SED-01-WC	Total/NA	Solid	Moisture	
480-220421-2	SED-02-WC	Total/NA	Solid	Moisture	
480-220421-3	SED-03-WC	Total/NA	Solid	Moisture	
480-220421-4	SED-04-WC	Total/NA	Solid	Moisture	
480-220421-5	SED-05-WC	Total/NA	Solid	Moisture	

General Chemistry

Analysis Batch: 714404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220421-1	SED-01-WC	Total/NA	Solid	9045D	
480-220421-2	SED-02-WC	Total/NA	Solid	9045D	
480-220421-3	SED-03-WC	Total/NA	Solid	9045D	
480-220421-4	SED-04-WC	Total/NA	Solid	9045D	
480-220421-5	SED-05-WC	Total/NA	Solid	9045D	
LCS 480-714404/1	Lab Control Sample	Total/NA	Solid	9045D	
480-220421-1 DU	SED-01-WC	Total/NA	Solid	9045D	

Analysis Batch: 714433

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220421-1	SED-01-WC	Total/NA	Solid	1010A	
480-220421-2	SED-02-WC	Total/NA	Solid	1010A	
480-220421-3	SED-03-WC	Total/NA	Solid	1010A	
480-220421-4	SED-04-WC	Total/NA	Solid	1010A	
480-220421-5	SED-05-WC	Total/NA	Solid	1010A	
LCS 480-714433/1	Lab Control Sample	Total/NA	Solid	1010A	

Prep Batch: 714629

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220421-1	SED-01-WC	Total/NA	Solid	1664B	
480-220421-2	SED-02-WC	Total/NA	Solid	1664B	
480-220421-3	SED-03-WC	Total/NA	Solid	1664B	
480-220421-4	SED-04-WC	Total/NA	Solid	1664B	
480-220421-5	SED-05-WC	Total/NA	Solid	1664B	
MB 480-714629/1-A	Method Blank	Total/NA	Solid	1664B	
LCS 480-714629/2-A	Lab Control Sample	Total/NA	Solid	1664B	
LCS 480-714629/3-A	Lab Control Sample	Total/NA	Solid	1664B	
480-220421-1 DU	SED-01-WC	Total/NA	Solid	1664B	

Analysis Batch: 714651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220421-1	SED-01-WC	Total/NA	Solid	1664B	714629
480-220421-2	SED-02-WC	Total/NA	Solid	1664B	714629
480-220421-3	SED-03-WC	Total/NA	Solid	1664B	714629
480-220421-4	SED-04-WC	Total/NA	Solid	1664B	714629
480-220421-5	SED-05-WC	Total/NA	Solid	1664B	714629
MB 480-714629/1-A	Method Blank	Total/NA	Solid	1664B	714629
LCS 480-714629/2-A	Lab Control Sample	Total/NA	Solid	1664B	714629
LCS 480-714629/3-A	Lab Control Sample	Total/NA	Solid	1664B	714629
480-220421-1 DU	SED-01-WC	Total/NA	Solid	1664B	714629

Prep Batch: 714815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220421-1	SED-01-WC	Total/NA	Solid	7.3.3	
480-220421-2	SED-02-WC	Total/NA	Solid	7.3.3	
480-220421-3	SED-03-WC	Total/NA	Solid	7.3.3	
480-220421-4	SED-04-WC	Total/NA	Solid	7.3.3	
MB 480-714815/1-A	Method Blank	Total/NA	Solid	7.3.3	
LCS 480-714815/2-A	Lab Control Sample	Total/NA	Solid	7.3.3	

General Chemistry

Prep Batch: 714817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220421-1	SED-01-WC	Total/NA	Solid	7.3.4	
480-220421-2	SED-02-WC	Total/NA	Solid	7.3.4	
480-220421-3	SED-03-WC	Total/NA	Solid	7.3.4	
480-220421-4	SED-04-WC	Total/NA	Solid	7.3.4	
MB 480-714817/1-A	Method Blank	Total/NA	Solid	7.3.4	
LCS 480-714817/2-A	Lab Control Sample	Total/NA	Solid	7.3.4	

Analysis Batch: 714907

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220421-1	SED-01-WC	Total/NA	Solid	9012	714815
480-220421-2	SED-02-WC	Total/NA	Solid	9012	714815
480-220421-3	SED-03-WC	Total/NA	Solid	9012	714815
480-220421-4	SED-04-WC	Total/NA	Solid	9012	714815
MB 480-714815/1-A	Method Blank	Total/NA	Solid	9012	714815
LCS 480-714815/2-A	Lab Control Sample	Total/NA	Solid	9012	714815

Prep Batch: 714913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220421-5	SED-05-WC	Total/NA	Solid	7.3.3	
MB 480-714913/1-A	Method Blank	Total/NA	Solid	7.3.3	
LCS 480-714913/2-A	Lab Control Sample	Total/NA	Solid	7.3.3	

Prep Batch: 714917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220421-5	SED-05-WC	Total/NA	Solid	7.3.4	
MB 480-714917/1-A	Method Blank	Total/NA	Solid	7.3.4	
LCS 480-714917/2-A	Lab Control Sample	Total/NA	Solid	7.3.4	

Analysis Batch: 714945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220421-1	SED-01-WC	Total/NA	Solid	9034	714817
480-220421-2	SED-02-WC	Total/NA	Solid	9034	714817
480-220421-3	SED-03-WC	Total/NA	Solid	9034	714817
480-220421-4	SED-04-WC	Total/NA	Solid	9034	714817
480-220421-5	SED-05-WC	Total/NA	Solid	9034	714917
MB 480-714817/1-A	Method Blank	Total/NA	Solid	9034	714817
MB 480-714917/1-A	Method Blank	Total/NA	Solid	9034	714917
LCS 480-714817/2-A	Lab Control Sample	Total/NA	Solid	9034	714817
LCS 480-714917/2-A	Lab Control Sample	Total/NA	Solid	9034	714917

Analysis Batch: 714955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220421-5	SED-05-WC	Total/NA	Solid	9012	714913
MB 480-714913/1-A	Method Blank	Total/NA	Solid	9012	714913
LCS 480-714913/2-A	Lab Control Sample	Total/NA	Solid	9012	714913

Prep Batch: 842088

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220421-1	SED-01-WC	Total/NA	Solid	D240-87	
480-220421-2	SED-02-WC	Total/NA	Solid	D240-87	
480-220421-3	SED-03-WC	Total/NA	Solid	D240-87	

General Chemistry (Continued)

Prep Batch: 842088 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220421-4	SED-04-WC	Total/NA	Solid	D240-87	
480-220421-5	SED-05-WC	Total/NA	Solid	D240-87	
LCS 680-842088/1-A	Lab Control Sample	Total/NA	Solid	D240-87	
LCSD 680-842088/2-A	Lab Control Sample Dup	Total/NA	Solid	D240-87	

Analysis Batch: 842133

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220421-1	SED-01-WC	Total/NA	Solid	D240-87	842088
480-220421-2	SED-02-WC	Total/NA	Solid	D240-87	842088
480-220421-3	SED-03-WC	Total/NA	Solid	D240-87	842088
480-220421-4	SED-04-WC	Total/NA	Solid	D240-87	842088
480-220421-5	SED-05-WC	Total/NA	Solid	D240-87	842088
LCS 680-842088/1-A	Lab Control Sample	Total/NA	Solid	D240-87	842088
LCSD 680-842088/2-A	Lab Control Sample Dup	Total/NA	Solid	D240-87	842088

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220421-1

Client Sample ID: SED-01-WC
Date Collected: 06/03/24 15:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220421-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1010A		1	714433	KM	EET BUF	06/05/24 08:08
Total/NA	Prep	7.3.3			714815	AM	EET BUF	06/06/24 10:30
Total/NA	Analysis	9012		1	714907	AM	EET BUF	06/07/24 14:42
Total/NA	Prep	7.3.4			714817	AM	EET BUF	06/06/24 10:30
Total/NA	Analysis	9034		1	714945	AM	EET BUF	06/08/24 08:25
Total/NA	Analysis	9045D		1	714404	KB	EET BUF	06/04/24 13:03
Total/NA	Analysis	9095B		1	714342	KM	EET BUF	06/04/24 13:13
Total/NA	Prep	D240-87			842088	SM	EET SAV	06/13/24 09:39
Total/NA	Analysis	D240-87		1	842133	SM	EET SAV	06/13/24 11:41
Total/NA	Analysis	Moisture		1	714379	JMM	EET BUF	06/04/24 15:38

Client Sample ID: SED-01-WC
Date Collected: 06/03/24 15:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220421-1
Matrix: Solid
Percent Solids: 80.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			674228	BJ	EET PEN	06/10/24 09:29
Soluble	Analysis	8015D		1	674267	BJ	EET PEN	06/10/24 18:57
Total/NA	Prep	1664B			714629	KM	EET BUF	06/06/24 08:13
Total/NA	Analysis	1664B		1	714651	KM	EET BUF	06/06/24 09:18

Client Sample ID: SED-02-WC
Date Collected: 06/03/24 16:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220421-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1010A		1	714433	KM	EET BUF	06/05/24 08:08
Total/NA	Prep	7.3.3			714815	AM	EET BUF	06/06/24 10:30
Total/NA	Analysis	9012		1	714907	AM	EET BUF	06/07/24 14:43
Total/NA	Prep	7.3.4			714817	AM	EET BUF	06/06/24 10:30
Total/NA	Analysis	9034		1	714945	AM	EET BUF	06/08/24 08:25
Total/NA	Analysis	9045D		1	714404	KB	EET BUF	06/04/24 13:03
Total/NA	Analysis	9095B		1	714342	KM	EET BUF	06/04/24 13:13
Total/NA	Prep	D240-87			842088	SM	EET SAV	06/13/24 09:39
Total/NA	Analysis	D240-87		1	842133	SM	EET SAV	06/13/24 11:41
Total/NA	Analysis	Moisture		1	714379	JMM	EET BUF	06/04/24 15:38

Client Sample ID: SED-02-WC
Date Collected: 06/03/24 16:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220421-2
Matrix: Solid
Percent Solids: 53.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			674228	BJ	EET PEN	06/10/24 09:29
Soluble	Analysis	8015D		1	674267	BJ	EET PEN	06/10/24 19:04

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220421-1

Client Sample ID: SED-02-WC
Date Collected: 06/03/24 16:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220421-2
Matrix: Solid
Percent Solids: 53.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1664B			714629	KM	EET BUF	06/06/24 08:13
Total/NA	Analysis	1664B		1	714651	KM	EET BUF	06/06/24 09:18

Client Sample ID: SED-03-WC
Date Collected: 06/03/24 16:30
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220421-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1010A		1	714433	KM	EET BUF	06/05/24 08:08
Total/NA	Prep	7.3.3			714815	AM	EET BUF	06/06/24 10:30
Total/NA	Analysis	9012		1	714907	AM	EET BUF	06/07/24 14:44
Total/NA	Prep	7.3.4			714817	AM	EET BUF	06/06/24 10:30
Total/NA	Analysis	9034		1	714945	AM	EET BUF	06/08/24 08:25
Total/NA	Analysis	9045D		1	714404	KB	EET BUF	06/04/24 13:03
Total/NA	Analysis	9095B		1	714342	KM	EET BUF	06/04/24 13:13
Total/NA	Prep	D240-87			842088	SM	EET SAV	06/13/24 09:39
Total/NA	Analysis	D240-87		1	842133	SM	EET SAV	06/13/24 11:41
Total/NA	Analysis	Moisture		1	714379	JMM	EET BUF	06/04/24 15:38

Client Sample ID: SED-03-WC
Date Collected: 06/03/24 16:30
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220421-3
Matrix: Solid
Percent Solids: 72.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			674228	BJ	EET PEN	06/10/24 09:29
Soluble	Analysis	8015D		1	674267	BJ	EET PEN	06/10/24 19:11
Total/NA	Prep	1664B			714629	KM	EET BUF	06/06/24 08:13
Total/NA	Analysis	1664B		1	714651	KM	EET BUF	06/06/24 09:18

Client Sample ID: SED-04-WC
Date Collected: 06/03/24 17:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220421-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1010A		1	714433	KM	EET BUF	06/05/24 08:08
Total/NA	Prep	7.3.3			714815	AM	EET BUF	06/06/24 10:30
Total/NA	Analysis	9012		1	714907	AM	EET BUF	06/07/24 14:46
Total/NA	Prep	7.3.4			714817	AM	EET BUF	06/06/24 10:30
Total/NA	Analysis	9034		1	714945	AM	EET BUF	06/08/24 08:25
Total/NA	Analysis	9045D		1	714404	KB	EET BUF	06/04/24 13:03
Total/NA	Analysis	9095B		1	714342	KM	EET BUF	06/04/24 13:13
Total/NA	Prep	D240-87			842088	SM	EET SAV	06/13/24 09:39
Total/NA	Analysis	D240-87		1	842133	SM	EET SAV	06/13/24 11:41
Total/NA	Analysis	Moisture		1	714379	JMM	EET BUF	06/04/24 15:38

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220421-1

Client Sample ID: SED-04-WC

Lab Sample ID: 480-220421-4
Date Collected: 06/03/24 17:00
Matrix: Solid
Date Received: 06/03/24 19:00
Percent Solids: 52.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			677150	BJ	EET PEN	07/08/24 13:40
Soluble	Analysis	8015D		1	677176	BJ	EET PEN	07/09/24 03:45
Total/NA	Prep	1664B			714629	KM	EET BUF	06/06/24 08:13
Total/NA	Analysis	1664B		1	714651	KM	EET BUF	06/06/24 09:18

Client Sample ID: SED-05-WC

Lab Sample ID: 480-220421-5
Date Collected: 06/03/24 17:35
Matrix: Solid
Date Received: 06/03/24 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1010A		1	714433	KM	EET BUF	06/05/24 08:08
Total/NA	Prep	7.3.3			714913	AM	EET BUF	06/07/24 10:05
Total/NA	Analysis	9012		1	714955	AM	EET BUF	06/08/24 08:34
Total/NA	Prep	7.3.4			714917	AM	EET BUF	06/07/24 10:05
Total/NA	Analysis	9034		1	714945	AM	EET BUF	06/08/24 08:25
Total/NA	Analysis	9045D		1	714404	KB	EET BUF	06/04/24 13:03
Total/NA	Analysis	9095B		1	714342	KM	EET BUF	06/04/24 13:13
Total/NA	Prep	D240-87			842088	SM	EET SAV	06/13/24 09:39
Total/NA	Analysis	D240-87		1	842133	SM	EET SAV	06/13/24 11:41
Total/NA	Analysis	Moisture		1	714379	JMM	EET BUF	06/04/24 15:38

Client Sample ID: SED-05-WC

Lab Sample ID: 480-220421-5
Date Collected: 06/03/24 17:35
Matrix: Solid
Date Received: 06/03/24 19:00
Percent Solids: 50.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			674228	BJ	EET PEN	06/10/24 09:29
Soluble	Analysis	8015D		1	674267	BJ	EET PEN	06/10/24 19:18
Total/NA	Prep	1664B			714629	KM	EET BUF	06/06/24 08:13
Total/NA	Analysis	1664B		1	714651	KM	EET BUF	06/06/24 09:18

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001
EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220421-1

Laboratory: Eurofins Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	06-11-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1664B	1664B	Solid	SGT-HEM
9012	7.3.3	Solid	Cyanide, Reactive
9034	7.3.4	Solid	Sulfide, Reactive
9045D		Solid	Temperature
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-25
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-25
Florida	NELAP	E81010	06-30-25
Georgia	State	E81010(FL)	06-30-25
Illinois	NELAP	200041	10-09-24
Kansas	NELAP	E-10253	10-31-24
Kentucky (UST)	State	53	06-30-25
Louisiana (All)	NELAP	30976	06-30-25
Louisiana (DW)	State	LA017	12-31-24
North Carolina (WW/SW)	State	314	12-31-24
Oklahoma	NELAP	9810	08-31-24
Pennsylvania	NELAP	68-00467	01-31-25
South Carolina	State	96026	06-30-25
Tennessee	State	TN02907	06-30-25
Texas	NELAP	T104704286	09-30-24
USDA	US Federal Programs	FLGNV23001	01-08-26
USDA	US Federal Programs	P330-21-00056	01-09-26
Virginia	NELAP	460166	06-14-25
West Virginia DEP	State	136	03-31-25

Laboratory: Eurofins Savannah

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
	AFCEE	SAVLAB	
Alabama	State	41450	06-30-24
ANAB	Dept. of Defense ELAP	L2463	09-22-24
Arkansas (DW)	State	GA00006	06-30-24
Arkansas DEQ	State	88-00692	02-01-25
California	State	2939	06-30-24
Florida	NELAP	E87052	06-30-24
Georgia	State	E87052	06-30-24
Georgia (DW)	State	803	06-30-24

Accreditation/Certification Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220421-1

Laboratory: Eurofins Savannah (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Guam	State	24-05R	04-17-25
Hawaii	State	<cert No.>	06-30-24
Illinois	NELAP	200022	11-30-24
Indiana	State	C-GA-02	06-30-24
Iowa	State	353	07-01-25
Kentucky (UST)	State	NA	06-30-24
Louisiana	NELAP	30690	06-30-24
Louisiana (All)	NELAP	30690	06-30-24
Louisiana (DW)	State	LA009	12-31-24
Maine	State	GA00006	09-25-24
Maryland	State	250	12-31-24
Massachusetts	State	M-GA006	06-30-24
Michigan	State	9925	06-30-24
Mississippi	State	<cert No.>	06-30-24
Nebraska	State	NE-OS-7-04	06-30-24
New Jersey	NELAP	GA769	06-30-24
New Mexico	State	GA00006	06-30-24
North Carolina (DW)	State	13701	07-31-24
North Carolina (WW/SW)	State	269	12-31-24
Pennsylvania	NELAP	68-00474	06-30-24
Puerto Rico	State	GA00006	01-01-25
South Carolina	State	98001	06-30-24
Tennessee	State	TN02961	06-27-24
Texas	NELAP	T1047004185	11-30-24
Texas	TCEQ Water Supply	T104704185	06-30-24
USDA	US Federal Programs	P330-18-00313	04-04-27
Virginia	NELAP	460161	06-14-24
Wyoming	State	8TMS-L	06-30-24

Method Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220421-1

Method	Method Description	Protocol	Laboratory
8015D	Nonhalogenated Organic Compounds - Direct Injection (GC)	SW846	EET PEN
1010A	Ignitability, Pensky-Martens Closed-Cup Method	SW846	EET BUF
1664B	HEM and SGT-HEM	1664B	EET BUF
9012	Cyanide, Reactive	SW846	EET BUF
9034	Sulfide, Reactive	SW846	EET BUF
9045D	pH	SW846	EET BUF
9095B	Paint Filter	SW846	EET BUF
D240-87	Heat of Combustion	ASTM	EET SAV
Moisture	Percent Moisture	EPA	EET BUF
1664B	HEM and SGT-HEM (Solid)	1664B	EET BUF
7.3.3	Cyanide, Reactive	SW846	EET BUF
7.3.4	Sulfide, Reactive	SW846	EET BUF
D240-87	Preparation, Heat of Combustion	ASTM	EET SAV
DI Leach	Deionized Water Leaching Procedure	ASTM	EET PEN

Protocol References:

1664B = EPA-821-98-002
ASTM = ASTM International
EPA = US Environmental Protection Agency
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001
EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Sample Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220421-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-220421-1	SED-01-WC	Solid	06/03/24 15:00	06/03/24 19:00
480-220421-2	SED-02-WC	Solid	06/03/24 16:00	06/03/24 19:00
480-220421-3	SED-03-WC	Solid	06/03/24 16:30	06/03/24 19:00
480-220421-4	SED-04-WC	Solid	06/03/24 17:00	06/03/24 19:00
480-220421-5	SED-05-WC	Solid	06/03/24 17:35	06/03/24 19:00

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

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Client Information	Sampler: Ethan Smith	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-196949-40791.1
Client Contact: Ms. Ann Marie Kropovitch	Phone: 716-912-4452	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: AECOM	PWSID:			Job #:
Address: 50 Lakefront Boulevard Suite 111	Due Date Requested: STD			Preservation Codes: N - None
City: Buffalo	TAT Requested (days): Per PO			
State, Zip: NY, 14202	Compliance Project: Δ Yes Δ No			
Phone: 614-790-2274(Tel)	PO #: 1120269 Task 300			
Email: ann.marie.kropovitch@aecom.com	WO #: Ann.Marie.Kropovitch@aecom.com			Other:
Project Name: Tank 75 - Sediment Disposal Char	Project #: 48027595			
Site:	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9012_ReactiveCN, 9034_Reactive, 9095B	1010A, 1664B, 9045D	6010C, 7470A, 8081B, 8151A, 8270D	8260C - TCLP Volatiles	8015C_DAI_GLY - Ethylene Glycol	D240_87 - Heat of Combustion (BTU)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N	N	N		
SED-01-WC	6/3/24	1500	G	Solid			X	X	X	X	X	X	6	
SED-02-WC		1600		Solid			X	X	X	X	X	X	6	
SED-03-WC		1630		Solid			X	X	X	X	X	X	6	
SED-04-WC		1700		Solid			X	X	X	X	X	X	6	
SED-05-WC		1735		Solid			X	X	X	X	X	X	6	
~~FB-060324~~	~~6/3/24~~	-	G	Solid						X			2	
				Solid										
				Solid										
				Solid										
				Solid										
				Solid										

480-220421 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: Add Ethan.Smith@aecom.com and Edyta.Chrostkowska@aecom.com

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: To all lab correspondence
Relinquished by:	Date/Time: 6/3/24 1900	Company: AECOM	Received by: SM
Relinquished by	Date/Time:	Company	Received by:
Relinquished by:	Date/Time:	Company	Received by:

Date/Time:	Company
6/3/24 1900	Eurofins

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.2 ICE

Ver: 04/02/2024

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-87878.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing Southeast L		Accreditations Required (See note): NELAP - New York		Job #: 480-220421-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 6/17/2024	Analysis Requested		Preservation Codes: -
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site:	SSOW#:			Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015D_DAI/3580A Ethylene Glycol	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SED-01-WC (480-220421-1)	6/3/24	15:00 Eastern		Solid			X	1	
SED-02-WC (480-220421-2)	6/3/24	16:00 Eastern		Solid			X	1	
SED-03-WC (480-220421-3)	6/3/24	16:30 Eastern		Solid			X	1	
SED-04-WC (480-220421-4)	6/3/24	17:00 Eastern		Solid			X	1	
SED-05-WC (480-220421-5)	6/3/24	17:35 Eastern		Solid			X	1	

Note. Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 6/5/24 1600	Company TA	Received by: 6/6/24	Date/Time: 6/6/24 927	Company
Relinquished by:	Date/Time: 6/6/24 927	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.7° IR10

Ver: 04/02/2024

XH PNSA

32514
BFM
FL-US

TRK# 0201 7117 9320 7345

PRIORITY OVERNIGHT

THU - 06 JUN 10:30A

FedEx Express

TO RECEIVING
EUROFINS PENSACOLA
3355 MCLEMORE DRIVE

PENSACOLA FL 32514
(850) 474-1001

REF: TA PENSACOLA

BILL SENDER

DIMS: 15x12x11 IN
CAD: 07592273/CAFE3755

EUROFINS ENVIRONMENT TESTING
10 HAZELWOOD
BUFFALO NY
UNITED STATES US

Part # 159469-434 MTW EXP 02/25

SRSC3/E69C/9E87

3.2.C

Login Sample Receipt Checklist

Client: Ashland LLC

Job Number: 480-220421-1

Login Number: 220421
List Number: 1
Creator: Yeager, Brian A

List Source: Eurofins Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	AECOM
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: Ashland LLC

Job Number: 480-220421-1

Login Number: 220421
List Number: 3
Creator: Pardonner, Brett

List Source: Eurofins Pensacola
List Creation: 06/07/24 11:05 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.7°C IR10
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Ashland LLC

Job Number: 480-220421-1

Login Number: 220421
List Number: 4
Creator: Roberts, Alexis J

List Source: Eurofins Pensacola
List Creation: 07/06/24 12:55 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.7°C IR11
COC is present.	False	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Ashland LLC

Job Number: 480-220421-1

Login Number: 220421
List Number: 2
Creator: Faught, Timothy

List Source: Eurofins Savannah
List Creation: 06/05/24 01:26 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Shannon Lloyd
Ashland LLC
PO BOX 2219
Columbus, Ohio 43216

Generated 7/3/2024 1:04:26 PM

JOB DESCRIPTION

Tank 75 Analysis

JOB NUMBER

480-220423-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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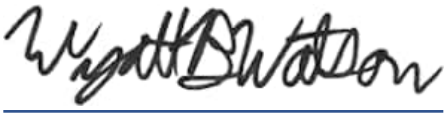

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Definitions/Glossary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220423-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

GC/MS Semi VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

LCMS

Qualifier	Qualifier Description
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
480-220423-1

Receipt
The samples were received on 6/3/2024 7:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.2º C and 3.9º C.

GC/MS VOA
Method 8260C: The following samples were analyzed using medium level soil analysis and diluted to bring the concentration of target analytes within the calibration range: SED-01 (480-220423-1), SED-02 (480-220423-2), SED-03 (480-220423-3), SED-04 (480-220423-4) and SED-05 (480-220423-5). Elevated reporting limits (RLs) are provided.

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-714450 recovered above the upper control limit for cis-1,3-Dichloropropene, trans-1,3-Dichloropropene, and 2-Butanone (MEK). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: SED-01 (480-220423-1), SED-02 (480-220423-2), SED-03 (480-220423-3), SED-04 (480-220423-4) and SED-05 (480-220423-5).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-714450 recovered outside acceptance criteria, low biased, for Chloromethane. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 480-714478 and analytical batch 480-714450 recovered outside control limits for the following analytes: cis-1,3-Dichloropropene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method 8270D: The following samples were diluted due to the nature of the sample matrix: SED-01 (480-220423-1) and SED-02 (480-220423-2)

Method 8270D: The following samples required a dilution due to the nature of the sample matrix: SED-03 (480-220423-3) and SED-04 (480-220423-4). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8270D: Surrogate recovery for the following sample was outside control limits: SED-05 (480-220423-5). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-714483 recovered above the upper control limit for Atrazine. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: SED-01 (480-220423-1), SED-02 (480-220423-2), SED-03 (480-220423-3), SED-04 (480-220423-4) and SED-05 (480-220423-5).

Method 8270D: The following sample was diluted due to color, appearance and viscosity: SED-05 (480-220423-5). Elevated reporting limits (RL) are provided.

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-714483 recovered outside acceptance criteria, low biased, for 2,2-oxybis[1-chloropropane. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method Lloyd Kahn: Please note that the reporting limit for Lloyd Kahn TOC analysis is a nominal value and does not reflect adjustments in sample mass processed on an individual basis

SED-01 (480-220423-1), SED-02 (480-220423-2), SED-03 (480-220423-3), SED-04 (480-220423-4), SED-05 (480-220423-5), (480-220474-B-1), (480-220474-B-1 MS) and (480-220474-B-1 MSD)

Method Lloyd Kahn: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 180-471505 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are

suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method Lloyd Kahn: The native sample, matrix spike, and matrix spike duplicate (MS/MSD) associated with analytical batch 180-471505 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of Total Organic Carbon in the MS/MSD was above the instrument calibration range. The data have been reported and qualified.

Method Lloyd Kahn: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 180-471677 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method Lloyd Kahn: Please note that the reporting limit for Lloyd Kahn TOC analysis is a nominal value and does not reflect adjustments in sample mass processed on an individual basis

SED-01 (480-220423-1), SED-02 (480-220423-2), (180-174986-O-24), (180-174986-O-24 MS) and (180-174986-O-24 MSD)

Method Lloyd Kahn: Reanalysis of the following sample(s) was performed outside of the analytical holding time due to a 2 day power outage at the laboratory. Both sets of results are reported. : SED-04 (480-220423-4) and SED-05 (480-220423-5).

Method Lloyd Kahn: Please note that the reporting limit for Lloyd Kahn TOC analysis is a nominal value and does not reflect adjustments in sample mass processed on an individual basis.

SED-04 (480-220423-4), SED-05 (480-220423-5), (480-220474-B-1), (480-220474-B-1 MS) and (480-220474-B-1 MSD)

Method 8082A: The following sample was diluted due to the nature of the sample matrix: SED-03 (480-220423-3). Elevated reporting limits (RLs) are provided.

Method 8082A: For method 8082, the recovery of the one surrogate in samples SED-03 (480-220423-3) exceeds quality control limits due to the sample matrix. The recovery of the secondary surrogate is within quality control criteria; no corrective action is required.

Method 8081B: The following samples were diluted due to the nature of the sample matrix: SED-01 (480-220423-1), SED-02 (480-220423-2), SED-03 (480-220423-3), SED-04 (480-220423-4) and SED-05 (480-220423-5). As such, surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method 8081B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 480-714592 and analytical batch 480-714611 recovered outside control limits for the following analytes: cis-Chlordane and Endrin ketone.

Method 8082A: The following samples were diluted due to the nature of the sample matrix: SED-01 (480-220423-1), SED-02 (480-220423-2), SED-04 (480-220423-4) and SED-05 (480-220423-5). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method 6010C: The laboratory control sample (LCS) for preparation batch 480-714327 and analytical batch 480-714510 recovered outside control limits for the following analytes: Cadmium. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

LCMS

Method 1633: The low level continuing calibration verification (CCVL) associated with batch 240-617699 recovered above the upper control limit for Perfluorohexanesulfonic acid (PFHxS). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 1633: The method blank for preparation batch 240-617589 and analytical batch 240-617699 contained Perfluorooctanesulfonic acid (PFOS) above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Job ID: 480-220423-1 (Continued) Eurofins Buffalo

General Chemistry
Method 9012B: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 480-714887 and analytical batch 480-714906 was outside control limits. Sample non-homogeneity is suspected.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method 3550C: Due to the matrix, the initial volume(s) used for the following samples deviated from the standard procedure: SED-01 (480-220423-1), SED-02 (480-220423-2), SED-03 (480-220423-3), SED-04 (480-220423-4) and SED-05 (480-220423-5). The reporting limits (RLs) have been adjusted proportionately.

Method 3550C: Due to the matrix, the initial volume(s) used for the following samples deviated from the standard procedure: SED-01 (480-220423-1), SED-02 (480-220423-2), SED-03 (480-220423-3), SED-04 (480-220423-4) and SED-05 (480-220423-5). The reporting limits (RLs) have been adjusted proportionately.

Method 3550C: Due to the matrix, the following samples could not be concentrated to the final method required volume: SED-01 (480-220423-1) and SED-05 (480-220423-5). The reporting limits (RLs) are elevated proportionately.

Method 3550C: Due to the matrix, the initial volume(s) used for the following samples deviated from the standard procedure: SED-01 (480-220423-1), SED-02 (480-220423-2), SED-03 (480-220423-3), SED-04 (480-220423-4) and SED-05 (480-220423-5). The reporting limits (RLs) have been adjusted proportionately.

Method 3550C: The following samples required a Florisil clean-up, via EPA Method 3620C, to reduce matrix interferences: SED-01 (480-220423-1), SED-02 (480-220423-2), SED-03 (480-220423-3), SED-04 (480-220423-4) and SED-05 (480-220423-5).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220423-1

Client Sample ID: SED-01 — Lab Sample ID: 480-220423-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	290000		8000	1500	ug/Kg	100	☼	8260C	Total/NA
Ethylbenzene	53000		8000	2300	ug/Kg	100	☼	8260C	Total/NA
Isopropylbenzene	3200	J	8000	1200	ug/Kg	100	☼	8260C	Total/NA
Methylcyclohexane	11000		8000	3800	ug/Kg	100	☼	8260C	Total/NA
Toluene	300000		8000	2200	ug/Kg	100	☼	8260C	Total/NA
Xylenes, Total	420000		16000	4400	ug/Kg	100	☼	8260C	Total/NA
Styrene	24000		8000	1900	ug/Kg	100	☼	8260C	Total/NA
2-Methylnaphthalene	1500000		190000	38000	ug/Kg	20	☼	8270D	Total/NA
Acenaphthene	82000	J	190000	28000	ug/Kg	20	☼	8270D	Total/NA
Anthracene	94000	J	190000	47000	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]anthracene	120000	J	190000	19000	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]pyrene	74000	J	190000	28000	ug/Kg	20	☼	8270D	Total/NA
Benzo[b]fluoranthene	39000	J	190000	30000	ug/Kg	20	☼	8270D	Total/NA
Biphenyl	62000	J	190000	28000	ug/Kg	20	☼	8270D	Total/NA
Carbazole	50000	J	190000	23000	ug/Kg	20	☼	8270D	Total/NA
Chrysene	270000		190000	43000	ug/Kg	20	☼	8270D	Total/NA
Fluoranthene	57000	J	190000	20000	ug/Kg	20	☼	8270D	Total/NA
Fluorene	160000	J	190000	23000	ug/Kg	20	☼	8270D	Total/NA
Naphthalene	1000000		190000	25000	ug/Kg	20	☼	8270D	Total/NA
N-Nitrosodiphenylamine	280000		190000	160000	ug/Kg	20	☼	8270D	Total/NA
Phenanthrene	840000		190000	28000	ug/Kg	20	☼	8270D	Total/NA
Pyrene	200000		190000	23000	ug/Kg	20	☼	8270D	Total/NA
Aluminum	49600		10.4	9.0	mg/Kg	1	☼	6010C	Total/NA
Arsenic	91.4		2.1	0.92	mg/Kg	1	☼	6010C	Total/NA
Barium	26.3		0.53	0.15	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.26	F1	0.21	0.042	mg/Kg	1	☼	6010C	Total/NA
Calcium	2320	F1 F2	52.0	28.1	mg/Kg	1	☼	6010C	Total/NA
Chromium	31.7		0.53	0.38	mg/Kg	1	☼	6010C	Total/NA
Cobalt	2.7		0.53	0.11	mg/Kg	1	☼	6010C	Total/NA
Copper	13.4		1.1	0.60	mg/Kg	1	☼	6010C	Total/NA
Iron	3800	F1	10.4	8.8	mg/Kg	1	☼	6010C	Total/NA
Lead	40.2	F1	1.1	0.48	mg/Kg	1	☼	6010C	Total/NA
Magnesium	634	F1 F2	20.8	8.8	mg/Kg	1	☼	6010C	Total/NA
Manganese	15.8		1.1	0.29	mg/Kg	1	☼	6010C	Total/NA
Nickel	90.5		5.2	0.26	mg/Kg	1	☼	6010C	Total/NA
Potassium	98.5	F1	31.2	25.2	mg/Kg	1	☼	6010C	Total/NA
Sodium	1100	F1	146	63.8	mg/Kg	1	☼	6010C	Total/NA
Vanadium	95.6	F1	0.53	0.14	mg/Kg	1	☼	6010C	Total/NA
Zinc	20.5	F1 F2	2.1	1.1	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.020	J	0.021	0.0048	mg/Kg	1	☼	7471B	Total/NA
Total Organic Carbon	266000		1060	1030	mg/Kg	1	☼	EPA-Lloyd Kahn	Total/NA

Client Sample ID: SED-02 — Lab Sample ID: 480-220423-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	73000		7900	1500	ug/Kg	40	☼	8260C	Total/NA
Chlorobenzene	3500	J	7900	1000	ug/Kg	40	☼	8260C	Total/NA
Cyclohexane	27000		7900	1800	ug/Kg	40	☼	8260C	Total/NA
Ethylbenzene	7600	J	7900	2300	ug/Kg	40	☼	8260C	Total/NA
Isopropylbenzene	15000		7900	1200	ug/Kg	40	☼	8260C	Total/NA
Methylcyclohexane	46000		7900	3700	ug/Kg	40	☼	8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Client Sample ID: SED-02 (Continued)

Lab Sample ID: 480-220423-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	590000		37000	7400	ug/Kg	20	☼	8270D	Total/NA
Acenaphthene	32000	J	37000	5400	ug/Kg	20	☼	8270D	Total/NA
Anthracene	25000	J	37000	9200	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]anthracene	25000	J	37000	3700	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]pyrene	13000	J	37000	5400	ug/Kg	20	☼	8270D	Total/NA
Benzo[b]fluoranthene	9000	J	37000	5900	ug/Kg	20	☼	8270D	Total/NA
Benzo[g,h,i]perylene	7000	J	37000	3900	ug/Kg	20	☼	8270D	Total/NA
Carbazole	10000	J	37000	4400	ug/Kg	20	☼	8270D	Total/NA
Chrysene	49000		37000	8300	ug/Kg	20	☼	8270D	Total/NA
Dibenzofuran	31000	J	37000	4400	ug/Kg	20	☼	8270D	Total/NA
Fluoranthene	21000	J	37000	3900	ug/Kg	20	☼	8270D	Total/NA
Fluorene	64000		37000	4400	ug/Kg	20	☼	8270D	Total/NA
Phenanthrene	220000		37000	5400	ug/Kg	20	☼	8270D	Total/NA
Pyrene	48000		37000	4400	ug/Kg	20	☼	8270D	Total/NA
Aluminum	14700		19.5	16.8	mg/Kg	1	☼	6010C	Total/NA
Antimony	6.2	J	29.2	1.0	mg/Kg	1	☼	6010C	Total/NA
Arsenic	31.9		3.9	1.7	mg/Kg	1	☼	6010C	Total/NA
Barium	247		0.94	0.26	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.49		0.38	0.075	mg/Kg	1	☼	6010C	Total/NA
Cadmium	2.9		0.38	0.13	mg/Kg	1	☼	6010C	Total/NA
Calcium	25500		97.4	52.6	mg/Kg	1	☼	6010C	Total/NA
Chromium	1860		0.94	0.68	mg/Kg	1	☼	6010C	Total/NA
Cobalt	14.6		0.94	0.19	mg/Kg	1	☼	6010C	Total/NA
Copper	302		1.9	1.1	mg/Kg	1	☼	6010C	Total/NA
Iron	45500		19.5	16.5	mg/Kg	1	☼	6010C	Total/NA
Lead	4660		1.9	0.87	mg/Kg	1	☼	6010C	Total/NA
Magnesium	7370		39.0	16.5	mg/Kg	1	☼	6010C	Total/NA
Manganese	351		1.9	0.53	mg/Kg	1	☼	6010C	Total/NA
Nickel	311		9.7	0.49	mg/Kg	1	☼	6010C	Total/NA
Potassium	2620		58.5	47.2	mg/Kg	1	☼	6010C	Total/NA
Selenium	5.8	J	7.5	1.5	mg/Kg	1	☼	6010C	Total/NA
Silver	0.63	J	1.2	0.39	mg/Kg	1	☼	6010C	Total/NA
Sodium	962		273	119	mg/Kg	1	☼	6010C	Total/NA
Vanadium	151		0.94	0.25	mg/Kg	1	☼	6010C	Total/NA
Zinc	1940		3.9	2.0	mg/Kg	1	☼	6010C	Total/NA
Mercury	6.4		0.38	0.088	mg/Kg	10	☼	7471B	Total/NA
Cyanide, Total	6.7		1.8	0.89	mg/Kg	1	☼	9012B	Total/NA
Total Organic Carbon	403000		1970	1920	mg/Kg	1	☼	EPA-Lloyd Kahn	Total/NA

Client Sample ID: SED-03

Lab Sample ID: 480-220423-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyclohexane	6300		3600	790	ug/Kg	40	☼	8260C	Total/NA
Isopropylbenzene	3800		3600	540	ug/Kg	40	☼	8260C	Total/NA
Methylcyclohexane	12000		3600	1700	ug/Kg	40	☼	8260C	Total/NA
2-Methylnaphthalene	79000		24000	4800	ug/Kg	20	☼	8270D	Total/NA
Acenaphthene	4500	J	24000	3600	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]pyrene	4400	J	24000	3600	ug/Kg	20	☼	8270D	Total/NA
Chrysene	11000	J	24000	5400	ug/Kg	20	☼	8270D	Total/NA
Fluoranthene	4300	J	24000	2600	ug/Kg	20	☼	8270D	Total/NA
Fluorene	10000	J	24000	2900	ug/Kg	20	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SED-03 (Continued)

Lab Sample ID: 480-220423-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	38000		24000	3600	ug/Kg	20	☼	8270D	Total/NA
Pyrene	11000	J	24000	2900	ug/Kg	20	☼	8270D	Total/NA
PCB-1248	4.0		2.5	0.49	mg/Kg	5	☼	8082A	Total/NA
Aluminum	13300		13.4	11.6	mg/Kg	1	☼	6010C	Total/NA
Antimony	2.5	J	20.1	0.71	mg/Kg	1	☼	6010C	Total/NA
Arsenic	10.8		2.7	1.2	mg/Kg	1	☼	6010C	Total/NA
Barium	110		0.70	0.20	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.32		0.28	0.056	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.92		0.28	0.099	mg/Kg	1	☼	6010C	Total/NA
Calcium	45100		67.0	36.2	mg/Kg	1	☼	6010C	Total/NA
Chromium	1150		0.70	0.51	mg/Kg	1	☼	6010C	Total/NA
Cobalt	5.4		0.70	0.14	mg/Kg	1	☼	6010C	Total/NA
Copper	93.9		1.4	0.80	mg/Kg	1	☼	6010C	Total/NA
Iron	24200		13.4	11.4	mg/Kg	1	☼	6010C	Total/NA
Lead	662		1.4	0.65	mg/Kg	1	☼	6010C	Total/NA
Magnesium	13600		26.8	11.4	mg/Kg	1	☼	6010C	Total/NA
Manganese	270		1.4	0.39	mg/Kg	1	☼	6010C	Total/NA
Nickel	73.2		6.7	0.34	mg/Kg	1	☼	6010C	Total/NA
Potassium	3660		40.2	32.5	mg/Kg	1	☼	6010C	Total/NA
Selenium	2.2	J	5.6	1.1	mg/Kg	1	☼	6010C	Total/NA
Sodium	492		188	82.2	mg/Kg	1	☼	6010C	Total/NA
Vanadium	31.2		0.70	0.18	mg/Kg	1	☼	6010C	Total/NA
Zinc	481		2.7	1.4	mg/Kg	1	☼	6010C	Total/NA
Mercury	1.1		0.027	0.0062	mg/Kg	1	☼	7471B	Total/NA
Cyanide, Total	0.62	J	1.2	0.57	mg/Kg	1	☼	9012B	Total/NA
Total Organic Carbon	140000		1370	1330	mg/Kg	1	☼	EPA-Lloyd Kahn	Total/NA

Client Sample ID: SED-04

Lab Sample ID: 480-220423-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	500000		14000	2700	ug/Kg	100	☼	8260C	Total/NA
Cyclohexane	12000	J	14000	3100	ug/Kg	100	☼	8260C	Total/NA
Ethylbenzene	89000		14000	4100	ug/Kg	100	☼	8260C	Total/NA
Isopropylbenzene	7600	J	14000	2100	ug/Kg	100	☼	8260C	Total/NA
Methylcyclohexane	19000		14000	6600	ug/Kg	100	☼	8260C	Total/NA
2-Methylnaphthalene	560000		33000	6600	ug/Kg	20	☼	8270D	Total/NA
Acenaphthene	27000	J	33000	4800	ug/Kg	20	☼	8270D	Total/NA
Anthracene	23000	J	33000	8100	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]anthracene	23000	J	33000	3300	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]pyrene	14000	J	33000	4800	ug/Kg	20	☼	8270D	Total/NA
Benzo[b]fluoranthene	6600	J	33000	5200	ug/Kg	20	☼	8270D	Total/NA
Benzo[g,h,i]perylene	8400	J	33000	3500	ug/Kg	20	☼	8270D	Total/NA
Carbazole	12000	J	33000	3900	ug/Kg	20	☼	8270D	Total/NA
Chrysene	49000		33000	7400	ug/Kg	20	☼	8270D	Total/NA
Dibenzofuran	21000	J	33000	3900	ug/Kg	20	☼	8270D	Total/NA
Di-n-octyl phthalate	5600	J	33000	3900	ug/Kg	20	☼	8270D	Total/NA
Fluoranthene	16000	J	33000	3500	ug/Kg	20	☼	8270D	Total/NA
Fluorene	59000		33000	3900	ug/Kg	20	☼	8270D	Total/NA
Naphthalene	150000		33000	4300	ug/Kg	20	☼	8270D	Total/NA
N-Nitrosodiphenylamine	110000		33000	27000	ug/Kg	20	☼	8270D	Total/NA
Phenanthrene	230000		33000	4800	ug/Kg	20	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SED-04 (Continued)

Lab Sample ID: 480-220423-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pyrene	43000		33000	3900	ug/Kg	20	☼	8270D	Total/NA
Perfluorooctanoic acid (PFOA)	0.67		0.60	0.15	ug/Kg	1	☼	1633	Total/NA
Perfluorononanoic acid (PFNA)	10	I	0.60	0.15	ug/Kg	1	☼	1633	Total/NA
Perfluorotridecanoic acid (PFTrDA)	8.5	I	0.60	0.15	ug/Kg	1	☼	1633	Total/NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.46	J	0.60	0.15	ug/Kg	1	☼	1633	Total/NA
Aluminum	17000		18.9	16.3	mg/Kg	1	☼	6010C	Total/NA
Antimony	1.8	J	28.3	1.0	mg/Kg	1	☼	6010C	Total/NA
Arsenic	39.7		3.8	1.7	mg/Kg	1	☼	6010C	Total/NA
Barium	790		0.96	0.27	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.65		0.38	0.077	mg/Kg	1	☼	6010C	Total/NA
Cadmium	5.5		0.38	0.13	mg/Kg	1	☼	6010C	Total/NA
Calcium	48000		94.3	50.9	mg/Kg	1	☼	6010C	Total/NA
Chromium	8490		95.6	68.9	mg/Kg	100	☼	6010C	Total/NA
Cobalt	22.8		0.96	0.19	mg/Kg	1	☼	6010C	Total/NA
Copper	464		1.9	1.1	mg/Kg	1	☼	6010C	Total/NA
Iron	26800		18.9	16.0	mg/Kg	1	☼	6010C	Total/NA
Lead	5480		1.9	0.88	mg/Kg	1	☼	6010C	Total/NA
Magnesium	8840		37.7	16.0	mg/Kg	1	☼	6010C	Total/NA
Manganese	497		1.9	0.54	mg/Kg	1	☼	6010C	Total/NA
Nickel	377		9.4	0.47	mg/Kg	1	☼	6010C	Total/NA
Potassium	2160		56.6	45.7	mg/Kg	1	☼	6010C	Total/NA
Selenium	10.6		7.7	1.5	mg/Kg	1	☼	6010C	Total/NA
Silver	0.46	J	1.1	0.38	mg/Kg	1	☼	6010C	Total/NA
Sodium	508		264	116	mg/Kg	1	☼	6010C	Total/NA
Vanadium	252		0.96	0.25	mg/Kg	1	☼	6010C	Total/NA
Zinc	3050		3.8	1.9	mg/Kg	1	☼	6010C	Total/NA
Mercury	4.3		0.36	0.083	mg/Kg	10	☼	7471B	Total/NA
Cyanide, Total	8.3		8.1	3.9	mg/Kg	5	☼	9012B	Total/NA
Total Organic Carbon	280000		1810	1760	mg/Kg	1	☼	EPA-Lloyd Kahn	Total/NA
Total Organic Carbon	256000	H	1810	1760	mg/Kg	1	☼	EPA-Lloyd Kahn	Total/NA

Client Sample ID: SED-05

Lab Sample ID: 480-220423-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	250000		7000	1300	ug/Kg	40	☼	8260C	Total/NA
Cyclohexane	19000		7000	1600	ug/Kg	40	☼	8260C	Total/NA
Ethylbenzene	130000		7000	2000	ug/Kg	40	☼	8260C	Total/NA
Isopropylbenzene	12000		7000	1100	ug/Kg	40	☼	8260C	Total/NA
Methylcyclohexane	30000		7000	3300	ug/Kg	40	☼	8260C	Total/NA
Toluene	2000	J	7000	1900	ug/Kg	40	☼	8260C	Total/NA
Xylenes, Total	6100	J	14000	3900	ug/Kg	40	☼	8260C	Total/NA
2-Methylnaphthalene	470000		180000	37000	ug/Kg	10	☼	8270D	Total/NA
Fluoranthene	22000	J	180000	19000	ug/Kg	10	☼	8270D	Total/NA
Fluorene	52000	J	180000	22000	ug/Kg	10	☼	8270D	Total/NA
Phenanthrene	200000		180000	27000	ug/Kg	10	☼	8270D	Total/NA
Pyrene	54000	J	180000	22000	ug/Kg	10	☼	8270D	Total/NA
Aluminum	15700		20.3	17.5	mg/Kg	1	☼	6010C	Total/NA
Antimony	13.2	J	30.4	1.1	mg/Kg	1	☼	6010C	Total/NA
Arsenic	29.0		4.1	1.8	mg/Kg	1	☼	6010C	Total/NA
Barium	428		1.1	0.29	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.70		0.42	0.084	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SED-05 (Continued)

Lab Sample ID: 480-220423-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cadmium	3.6		0.42	0.15	mg/Kg	1	☼	6010C	Total/NA
Calcium	20900		101	54.7	mg/Kg	1	☼	6010C	Total/NA
Chromium	2560		21.0	15.1	mg/Kg	20	☼	6010C	Total/NA
Cobalt	21.3		1.1	0.21	mg/Kg	1	☼	6010C	Total/NA
Copper	349		2.1	1.2	mg/Kg	1	☼	6010C	Total/NA
Iron	39700		20.3	17.2	mg/Kg	1	☼	6010C	Total/NA
Lead	11300		42.0	19.3	mg/Kg	20	☼	6010C	Total/NA
Magnesium	6980		40.6	17.2	mg/Kg	1	☼	6010C	Total/NA
Manganese	328		2.1	0.59	mg/Kg	1	☼	6010C	Total/NA
Nickel	325		10.1	0.51	mg/Kg	1	☼	6010C	Total/NA
Potassium	2540		60.9	49.2	mg/Kg	1	☼	6010C	Total/NA
Selenium	8.0	J	8.4	1.7	mg/Kg	1	☼	6010C	Total/NA
Silver	0.56	J	1.2	0.41	mg/Kg	1	☼	6010C	Total/NA
Sodium	1280		284	124	mg/Kg	1	☼	6010C	Total/NA
Vanadium	205		1.1	0.27	mg/Kg	1	☼	6010C	Total/NA
Zinc	1720		4.1	2.1	mg/Kg	1	☼	6010C	Total/NA
Mercury	3.0		0.039	0.0090	mg/Kg	1	☼	7471B	Total/NA
Cyanide, Total	4.7		1.8	0.86	mg/Kg	1	☼	9012B	Total/NA
Total Organic Carbon	447000		2030	1970	mg/Kg	1	☼	EPA-Lloyd Kahn	Total/NA
Total Organic Carbon	374000	H	2030	1970	mg/Kg	1	☼	EPA-Lloyd Kahn	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SED-01
Date Collected: 06/03/24 15:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-1
Matrix: Solid
Percent Solids: 94.6

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		8000	2200	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
1,1,2,2-Tetrachloroethane	ND		8000	1300	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		8000	4000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
1,1,2-Trichloroethane	ND		8000	1700	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
1,1-Dichloroethane	ND		8000	2500	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
1,1-Dichloroethene	ND		8000	2800	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
1,2,4-Trichlorobenzene	ND		8000	3000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
1,2-Dibromo-3-Chloropropane	ND		8000	4000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
1,2-Dichlorobenzene	ND		8000	2000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
1,2-Dichloroethane	ND		8000	3300	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
1,2-Dichloropropane	ND		8000	1300	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
1,3-Dichlorobenzene	ND		8000	2100	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
1,4-Dichlorobenzene	ND		8000	1100	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
2-Butanone (MEK)	ND		40000	24000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
2-Hexanone	ND		40000	16000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
4-Methyl-2-pentanone (MIBK)	ND		40000	2600	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Acetone	ND		40000	33000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Benzene	**290000**		8000	1500	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Bromoform	ND		8000	4000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Bromomethane	ND		8000	1800	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Carbon disulfide	ND		8000	3700	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Carbon tetrachloride	ND		8000	2000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Chlorobenzene	ND		8000	1100	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Dibromochloromethane	ND		8000	3900	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Chloroethane	ND		8000	1700	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Chloroform	ND		8000	5500	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Chloromethane	ND		8000	1900	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
cis-1,2-Dichloroethene	ND		8000	2200	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Cyclohexane	ND		8000	1800	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Bromodichloromethane	ND		8000	1600	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Dichlorodifluoromethane	ND		8000	3500	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Ethylbenzene	**53000**		8000	2300	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
1,2-Dibromoethane	ND		8000	1400	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Isopropylbenzene	**3200**	**J**	8000	1200	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Methyl acetate	ND		40000	3800	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Methyl tert-butyl ether	ND		8000	3000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Methylcyclohexane	**11000**		8000	3800	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Methylene Chloride	ND		8000	1600	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Tetrachloroethene	ND		8000	1100	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Toluene	**300000**		8000	2200	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
trans-1,2-Dichloroethene	ND		8000	1900	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
trans-1,3-Dichloropropene	ND		8000	790	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Trichloroethene	ND		8000	2200	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Trichlorofluoromethane	ND		8000	3800	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Vinyl chloride	ND		8000	2700	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Xylenes, Total	**420000**		16000	4400	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
cis-1,3-Dichloropropene	ND	*+	8000	1900	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100
Styrene	**24000**		8000	1900	ug/Kg	☼	06/05/24 09:40	06/05/24 14:16	100

Client Sample ID: SED-01
Date Collected: 06/03/24 15:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-1
Matrix: Solid
Percent Solids: 94.6

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	320000		ug/Kg	☼	7.96	179601-23-1	06/05/24 09:40	06/05/24 14:16	100
Benzene, 1,2,3-trimethyl-	260000	T J N	ug/Kg	☼	9.79	526-73-8	06/05/24 09:40	06/05/24 14:16	100
Unknown	150000	T J	ug/Kg	☼	11.63	N/A	06/05/24 09:40	06/05/24 14:16	100
Naphthalene	500000	T J N	ug/Kg	☼	12.18	91-20-3	06/05/24 09:40	06/05/24 14:16	100
Unknown	630000	T J	ug/Kg	☼	13.11	N/A	06/05/24 09:40	06/05/24 14:16	100
Naphthalene, 2-methyl-	300000	T J N	ug/Kg	☼	13.25	91-57-6	06/05/24 09:40	06/05/24 14:16	100
Naphthalene, 1-ethyl-	180000	T J N	ug/Kg	☼	13.83	1127-76-0	06/05/24 09:40	06/05/24 14:16	100
Naphthalene, 2,6-dimethyl-	410000	T J N	ug/Kg	☼	13.91	581-42-0	06/05/24 09:40	06/05/24 14:16	100
Naphthalene, 2,3-dimethyl-	360000	T J N	ug/Kg	☼	14.03	581-40-8	06/05/24 09:40	06/05/24 14:16	100
Naphthalene, 1,3-dimethyl-	260000	T J N	ug/Kg	☼	14.21	575-41-7	06/05/24 09:40	06/05/24 14:16	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		53 - 146	06/05/24 09:40	06/05/24 14:16	100
4-Bromofluorobenzene (Surr)	105		49 - 148	06/05/24 09:40	06/05/24 14:16	100
Toluene-d8 (Surr)	101		50 - 149	06/05/24 09:40	06/05/24 14:16	100
Dibromofluoromethane (Surr)	87		60 - 140	06/05/24 09:40	06/05/24 14:16	100

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		190000	52000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
2,4,6-Trichlorophenol	ND		190000	38000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
2,4-Dichlorophenol	ND		190000	20000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
2,4-Dimethylphenol	ND		190000	46000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
2,4-Dinitrophenol	ND		1900000	880000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
2,4-Dinitrotoluene	ND		190000	39000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
2,6-Dinitrotoluene	ND		190000	23000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
2-Chloronaphthalene	ND		190000	32000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
2-Chlorophenol	ND		370000	35000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
2-Methylnaphthalene	**1500000**		190000	38000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
2-Methylphenol	ND		190000	23000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
2-Nitroaniline	ND		370000	28000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
2-Nitrophenol	ND		190000	54000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
3,3'-Dichlorobenzidine	ND		370000	230000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
3-Nitroaniline	ND		370000	53000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
4,6-Dinitro-2-methylphenol	ND		370000	190000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
4-Bromophenyl phenyl ether	ND		190000	27000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
4-Chloro-3-methylphenol	ND		190000	47000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
4-Chloroaniline	ND		190000	47000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
4-Chlorophenyl phenyl ether	ND		190000	24000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
4-Methylphenol	ND		370000	23000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
4-Nitroaniline	ND		370000	100000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
4-Nitrophenol	ND		370000	130000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Acenaphthene	**82000**	**J**	190000	28000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Acenaphthylene	ND		190000	25000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Acetophenone	ND		190000	26000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Anthracene	**94000**	**J**	190000	47000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Atrazine	ND		190000	66000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Benzaldehyde	ND		190000	150000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Benzo[a]anthracene	**120000**	**J**	190000	19000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Benzo[a]pyrene	**74000**	**J**	190000	28000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20

Client Sample ID: SED-01
Date Collected: 06/03/24 15:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-1
Matrix: Solid
Percent Solids: 94.6

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	**39000**	**J**	190000	30000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Benzo[g,h,i]perylene	ND		190000	20000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Benzo[k]fluoranthene	ND		190000	25000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Biphenyl	**62000**	**J**	190000	28000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
bis (2-chloroisopropyl) ether	ND		190000	38000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Bis(2-chloroethoxy)methane	ND		190000	41000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Bis(2-chloroethyl)ether	ND		190000	25000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Bis(2-ethylhexyl) phthalate	ND		190000	65000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Butyl benzyl phthalate	ND		190000	32000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Caprolactam	ND		190000	57000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Carbazole	**50000**	**J**	190000	23000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Chrysene	**270000**		190000	43000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Dibenz(a,h)anthracene	ND		190000	34000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Dibenzofuran	ND		190000	23000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Diethyl phthalate	ND		190000	25000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Dimethyl phthalate	ND		190000	23000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Di-n-butyl phthalate	ND		190000	33000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Di-n-octyl phthalate	ND		190000	23000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Fluoranthene	**57000**	**J**	190000	20000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Fluorene	**160000**	**J**	190000	23000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Hexachlorobenzene	ND		190000	26000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Hexachlorobutadiene	ND		190000	28000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Hexachlorocyclopentadiene	ND		190000	26000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Hexachloroethane	ND		190000	25000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Indeno[1,2,3-cd]pyrene	ND		190000	24000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Isophorone	ND		190000	41000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Naphthalene	**1000000**		190000	25000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Nitrobenzene	ND		190000	21000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
N-Nitrosodi-n-propylamine	ND		190000	33000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
N-Nitrosodiphenylamine	**280000**		190000	160000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Pentachlorophenol	ND		370000	190000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Phenanthrene	**840000**		190000	28000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Phenol	ND		190000	29000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20
Pyrene	**200000**		190000	23000	ug/Kg	☼	06/04/24 15:55	06/07/24 14:23	20

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Methylene Chloride	*2400000*	*T J N*	*ug/Kg*	☼	*2.09*	*75-09-2*	*06/04/24 15:55*	*06/07/24 14:23*	*20*
Naphthalene, 2,6-dimethyl-	*1000000*	*T J N*	*ug/Kg*	☼	*8.89*	*581-42-0*	*06/04/24 15:55*	*06/07/24 14:23*	*20*
Naphthalene, 2,3-dimethyl-	*1100000*	*T J N*	*ug/Kg*	☼	*8.97*	*581-40-8*	*06/04/24 15:55*	*06/07/24 14:23*	*20*
Heptadecane	*1100000*	*T J N*	*ug/Kg*	☼	*10.45*	*629-78-7*	*06/04/24 15:55*	*06/07/24 14:23*	*20*
Octadecane	*1200000*	*T J N*	*ug/Kg*	☼	*10.91*	*593-45-3*	*06/04/24 15:55*	*06/07/24 14:23*	*20*
Nonadecane	*1700000*	*T J N*	*ug/Kg*	☼	*11.33*	*629-92-5*	*06/04/24 15:55*	*06/07/24 14:23*	*20*
Phenanthrene, 1-methyl-	*1300000*	*T J N*	*ug/Kg*	☼	*11.47*	*832-69-9*	*06/04/24 15:55*	*06/07/24 14:23*	*20*
Anthracene, 2-methyl-	*2000000*	*T J N*	*ug/Kg*	☼	*11.50*	*613-12-7*	*06/04/24 15:55*	*06/07/24 14:23*	*20*
Anthracene, 1-methyl-	*1100000*	*T J N*	*ug/Kg*	☼	*11.57*	*610-48-0*	*06/04/24 15:55*	*06/07/24 14:23*	*20*
1H-Cyclopropa[l]phenanthrene,1a,9b -dihydro-	*1100000*	*T J N*	*ug/Kg*	☼	*11.60*	*949-41-7*	*06/04/24 15:55*	*06/07/24 14:23*	*20*
Eicosane	*1700000*	*T J N*	*ug/Kg*	☼	*11.71*	*112-95-8*	*06/04/24 15:55*	*06/07/24 14:23*	*20*
2,8-Dimethyldibenzo(B,D)thiophene	*1000000*	*T J N*	*ug/Kg*	☼	*11.77*	*1207-15-4*	*06/04/24 15:55*	*06/07/24 14:23*	*20*
Phenanthrene, 3,6-dimethyl-	*1100000*	*T J N*	*ug/Kg*	☼	*11.92*	*1576-67-6*	*06/04/24 15:55*	*06/07/24 14:23*	*20*

Client Sample ID: SED-01
Date Collected: 06/03/24 15:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-1
Matrix: Solid
Percent Solids: 94.6

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Phenanthrene, 2,3-dimethyl-	2400000	T J N	ug/Kg	☼	11.99	3674-65-5	06/04/24 15:55	06/07/24 14:23	20
Phenanthrene, 2,7-dimethyl-	1100000	T J N	ug/Kg	☼	12.02	1576-69-8	06/04/24 15:55	06/07/24 14:23	20
Heneicosane	2600000	T J N	ug/Kg	☼	12.07	629-94-7	06/04/24 15:55	06/07/24 14:23	20
Hexadecane	2500000	T J N	ug/Kg	☼	12.39	544-76-3	06/04/24 15:55	06/07/24 14:23	20
Tricosane	1900000	T J N	ug/Kg	☼	12.70	638-67-5	06/04/24 15:55	06/07/24 14:23	20
Tetracosane	1000000	T J N	ug/Kg	☼	12.98	646-31-1	06/04/24 15:55	06/07/24 14:23	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	0	S1-	26 - 143	06/04/24 15:55	06/07/24 14:23	20
2-Fluorobiphenyl	113		50 - 121	06/04/24 15:55	06/07/24 14:23	20
2-Fluorophenol	0	S1-	36 - 120	06/04/24 15:55	06/07/24 14:23	20
Nitrobenzene-d5	0	S1-	40 - 121	06/04/24 15:55	06/07/24 14:23	20
Phenol-d5	99		41 - 120	06/04/24 15:55	06/07/24 14:23	20
p-Terphenyl-d14	0	S1-	46 - 143	06/04/24 15:55	06/07/24 14:23	20

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2000	400	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
4,4'-DDE	ND		2000	430	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
4,4'-DDT	ND		2000	480	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
Aldrin	ND		2000	500	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
alpha-BHC	ND		2000	370	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
cis-Chlordane	ND	*1	2000	1000	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
beta-BHC	ND		2000	370	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
delta-BHC	ND		2000	380	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
Dieldrin	ND		2000	490	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
Endosulfan I	ND		2000	390	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
Endosulfan II	ND		2000	370	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
Endosulfan sulfate	ND		2000	380	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
Endrin	ND		2000	400	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
Endrin aldehyde	ND		2000	520	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
Endrin ketone	ND	*1	2000	500	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
gamma-BHC (Lindane)	ND		2000	370	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
trans-Chlordane	ND		2000	650	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
Heptachlor	ND		2000	440	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
Heptachlor epoxide	ND		2000	520	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
Methoxychlor	ND		2000	410	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50
Toxaphene	ND		20000	12000	ug/Kg	☼	06/05/24 16:46	06/06/24 11:09	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	264	S1+	45 - 120	06/05/24 16:46	06/06/24 11:09	50
DCB Decachlorobiphenyl	1985	S1+	45 - 120	06/05/24 16:46	06/06/24 11:09	50
Tetrachloro-m-xylene	0	S1-	30 - 124	06/05/24 16:46	06/06/24 11:09	50
Tetrachloro-m-xylene	0	S1-	30 - 124	06/05/24 16:46	06/06/24 11:09	50

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.76	0.15	mg/Kg	☼	06/04/24 16:08	06/06/24 16:27	2
PCB-1221	ND		0.76	0.15	mg/Kg	☼	06/04/24 16:08	06/06/24 16:27	2
PCB-1232	ND		0.76	0.15	mg/Kg	☼	06/04/24 16:08	06/06/24 16:27	2

Client Sample ID: SED-01
Date Collected: 06/03/24 15:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-1
Matrix: Solid
Percent Solids: 94.6

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1242	ND		0.76	0.15	mg/Kg	☼	06/04/24 16:08	06/06/24 16:27	2
PCB-1248	ND		0.76	0.15	mg/Kg	☼	06/04/24 16:08	06/06/24 16:27	2
PCB-1254	ND		0.76	0.35	mg/Kg	☼	06/04/24 16:08	06/06/24 16:27	2
PCB-1260	ND		0.76	0.35	mg/Kg	☼	06/04/24 16:08	06/06/24 16:27	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*64*		*60 - 154*	*06/04/24 16:08*	*06/06/24 16:27*	*2*
Tetrachloro-m-xylene	*60*		*60 - 154*	*06/04/24 16:08*	*06/06/24 16:27*	*2*
DCB Decachlorobiphenyl	*73*		*65 - 174*	*06/04/24 16:08*	*06/06/24 16:27*	*2*
DCB Decachlorobiphenyl	*79*		*65 - 174*	*06/04/24 16:08*	*06/06/24 16:27*	*2*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**49600**		10.4	9.0	mg/Kg	☼	06/04/24 15:43	06/05/24 10:53	1
Antimony	ND	F1	15.6	0.55	mg/Kg	☼	06/04/24 15:43	06/05/24 10:53	1
Arsenic	**91.4**		2.1	0.92	mg/Kg	☼	06/04/24 15:43	06/05/24 10:53	1
Barium	**26.3**		0.53	0.15	mg/Kg	☼	06/06/24 14:39	06/07/24 16:11	1
Beryllium	**0.26**	**F1**	0.21	0.042	mg/Kg	☼	06/06/24 14:39	06/07/24 16:11	1
Cadmium	ND	*+	0.21	0.073	mg/Kg	☼	06/04/24 15:43	06/05/24 10:53	1
Calcium	**2320**	**F1 F2**	52.0	28.1	mg/Kg	☼	06/04/24 15:43	06/05/24 10:53	1
Chromium	**31.7**		0.53	0.38	mg/Kg	☼	06/06/24 14:39	06/07/24 16:11	1
Cobalt	**2.7**		0.53	0.11	mg/Kg	☼	06/06/24 14:39	06/07/24 16:11	1
Copper	**13.4**		1.1	0.60	mg/Kg	☼	06/06/24 14:39	06/07/24 16:11	1
Iron	**3800**	**F1**	10.4	8.8	mg/Kg	☼	06/04/24 15:43	06/05/24 10:53	1
Lead	**40.2**	**F1**	1.1	0.48	mg/Kg	☼	06/06/24 14:39	06/07/24 16:11	1
Magnesium	**634**	**F1 F2**	20.8	8.8	mg/Kg	☼	06/04/24 15:43	06/05/24 10:53	1
Manganese	**15.8**		1.1	0.29	mg/Kg	☼	06/06/24 14:39	06/07/24 16:11	1
Nickel	**90.5**		5.2	0.26	mg/Kg	☼	06/04/24 15:43	06/05/24 10:53	1
Potassium	**98.5**	**F1**	31.2	25.2	mg/Kg	☼	06/04/24 15:43	06/05/24 10:53	1
Selenium	ND	F1	4.2	0.84	mg/Kg	☼	06/06/24 14:39	06/07/24 16:11	1
Silver	ND	F1	0.62	0.21	mg/Kg	☼	06/04/24 15:43	06/05/24 10:53	1
Sodium	**1100**	**F1**	146	63.8	mg/Kg	☼	06/04/24 15:43	06/05/24 10:53	1
Thallium	ND		31.5	4.0	mg/Kg	☼	06/06/24 14:39	06/10/24 11:06	5
Vanadium	**95.6**	**F1**	0.53	0.14	mg/Kg	☼	06/06/24 14:39	06/07/24 16:11	1
Zinc	**20.5**	**F1 F2**	2.1	1.1	mg/Kg	☼	06/04/24 15:43	06/05/24 10:53	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.020**	**J**	0.021	0.0048	mg/Kg	☼	06/05/24 08:44	06/05/24 11:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.90	0.44	mg/Kg	☼	06/07/24 12:22	06/07/24 16:05	1
Total Organic Carbon (EPA-Lloyd Kahn)	**266000**		1060	1030	mg/Kg	☼		06/14/24 14:12	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220423-1

Client Sample ID: SED-02
Date Collected: 06/03/24 16:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-2
Matrix: Solid
Percent Solids: 50.7

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		7900	2200	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
1,1,2,2-Tetrachloroethane	ND		7900	1300	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		7900	4000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
1,1,2-Trichloroethane	ND		7900	1700	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
1,1-Dichloroethane	ND		7900	2400	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
1,1-Dichloroethene	ND		7900	2700	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
1,2,4-Trichlorobenzene	ND		7900	3000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
1,2-Dibromo-3-Chloropropane	ND		7900	4000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
1,2-Dichlorobenzene	ND		7900	2000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
1,2-Dichloroethane	ND		7900	3200	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
1,2-Dichloropropane	ND		7900	1300	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
1,3-Dichlorobenzene	ND		7900	2100	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
1,4-Dichlorobenzene	ND		7900	1100	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
2-Butanone (MEK)	ND		40000	23000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
2-Hexanone	ND		40000	16000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
4-Methyl-2-pentanone (MIBK)	ND		40000	2500	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Acetone	ND		40000	33000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Benzene	**73000**		7900	1500	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Bromoform	ND		7900	4000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Bromomethane	ND		7900	1700	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Carbon disulfide	ND		7900	3600	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Carbon tetrachloride	ND		7900	2000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Chlorobenzene	**3500**	**J**	7900	1000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Dibromochloromethane	ND		7900	3800	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Chloroethane	ND		7900	1600	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Chloroform	ND		7900	5400	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Chloromethane	ND		7900	1900	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
cis-1,2-Dichloroethene	ND		7900	2200	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Cyclohexane	**27000**		7900	1800	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Bromodichloromethane	ND		7900	1600	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Dichlorodifluoromethane	ND		7900	3400	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Ethylbenzene	**7600**	**J**	7900	2300	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
1,2-Dibromoethane	ND		7900	1400	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Isopropylbenzene	**15000**		7900	1200	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Methyl acetate	ND		40000	3800	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Methyl tert-butyl ether	ND		7900	3000	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Methylcyclohexane	**46000**		7900	3700	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Methylene Chloride	ND		7900	1600	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Tetrachloroethene	ND		7900	1100	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Toluene	ND		7900	2100	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
trans-1,2-Dichloroethene	ND		7900	1900	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
trans-1,3-Dichloropropene	ND		7900	780	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Trichloroethene	ND		7900	2200	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Trichlorofluoromethane	ND		7900	3700	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Vinyl chloride	ND		7900	2600	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Xylenes, Total	ND		16000	4400	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
cis-1,3-Dichloropropene	ND	*+	7900	1900	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40
Styrene	ND		7900	1900	ug/Kg	☼	06/05/24 09:40	06/05/24 14:39	40

Client Sample ID: SED-02
Date Collected: 06/03/24 16:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-2
Matrix: Solid
Percent Solids: 50.7

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Benzene, propyl-	59000	T J N	ug/Kg	☼	9.21	103-65-1	06/05/24 09:40	06/05/24 14:39	40
Benzene, cyclopropyl-	91000	T J N	ug/Kg	☼	10.40	873-49-4	06/05/24 09:40	06/05/24 14:39	40
Benzene, 4-ethyl-1,2-dimethyl-	57000	T J N	ug/Kg	☼	10.85	934-80-5	06/05/24 09:40	06/05/24 14:39	40
Unknown	140000	T J	ug/Kg	☼	11.62	N/A	06/05/24 09:40	06/05/24 14:39	40
Naphthalene, 2-methyl-	380000	T J N	ug/Kg	☼	13.10	91-57-6	06/05/24 09:40	06/05/24 14:39	40
1,4-Methanonaphthalene, 1,4-dihydro-	200000	T J N	ug/Kg	☼	13.25	4453-90-1	06/05/24 09:40	06/05/24 14:39	40
Naphthalene, 2-ethyl-	67000	T J N	ug/Kg	☼	13.83	939-27-5	06/05/24 09:40	06/05/24 14:39	40
Naphthalene, 2,6-dimethyl-	110000	T J N	ug/Kg	☼	13.91	581-42-0	06/05/24 09:40	06/05/24 14:39	40
Naphthalene, 1,5-dimethyl-	140000	T J N	ug/Kg	☼	14.03	571-61-9	06/05/24 09:40	06/05/24 14:39	40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		53 - 146	06/05/24 09:40	06/05/24 14:39	40
4-Bromofluorobenzene (Surr)	112		49 - 148	06/05/24 09:40	06/05/24 14:39	40
Toluene-d8 (Surr)	109		50 - 149	06/05/24 09:40	06/05/24 14:39	40
Dibromofluoromethane (Surr)	102		60 - 140	06/05/24 09:40	06/05/24 14:39	40

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		37000	10000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
2,4,6-Trichlorophenol	ND		37000	7400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
2,4-Dichlorophenol	ND		37000	3900	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
2,4-Dimethylphenol	ND		37000	8900	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
2,4-Dinitrophenol	ND		360000	170000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
2,4-Dinitrotoluene	ND		37000	7600	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
2,6-Dinitrotoluene	ND		37000	4400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
2-Chloronaphthalene	ND		37000	6100	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
2-Chlorophenol	ND		72000	6800	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
2-Methylnaphthalene	**590000**		37000	7400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
2-Methylphenol	ND		37000	4400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
2-Nitroaniline	ND		72000	5400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
2-Nitrophenol	ND		37000	10000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
3,3'-Dichlorobenzidine	ND		72000	44000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
3-Nitroaniline	ND		72000	10000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
4,6-Dinitro-2-methylphenol	ND		72000	37000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
4-Bromophenyl phenyl ether	ND		37000	5200	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
4-Chloro-3-methylphenol	ND		37000	9200	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
4-Chloroaniline	ND		37000	9200	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
4-Chlorophenyl phenyl ether	ND		37000	4600	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
4-Methylphenol	ND		72000	4400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
4-Nitroaniline	ND		72000	19000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
4-Nitrophenol	ND		72000	26000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Acenaphthene	**32000**	**J**	37000	5400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Acenaphthylene	ND		37000	4800	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Acetophenone	ND		37000	5000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Anthracene	**25000**	**J**	37000	9200	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Atrazine	ND		37000	13000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Benzaldehyde	ND		37000	29000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Benzo[a]anthracene	**25000**	**J**	37000	3700	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Benzo[a]pyrene	**13000**	**J**	37000	5400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Benzo[b]fluoranthene	**9000**	**J**	37000	5900	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20

Client Sample ID: SED-02
Date Collected: 06/03/24 16:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-2
Matrix: Solid
Percent Solids: 50.7

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	**7000**	**J**	37000	3900	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Benzo[k]fluoranthene	ND		37000	4800	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Biphenyl	ND		37000	5400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
bis (2-chloroisopropyl) ether	ND		37000	7400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Bis(2-chloroethoxy)methane	ND		37000	7800	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Bis(2-chloroethyl)ether	ND		37000	4800	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Bis(2-ethylhexyl) phthalate	ND		37000	13000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Butyl benzyl phthalate	ND		37000	6100	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Caprolactam	ND		37000	11000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Carbazole	**10000**	**J**	37000	4400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Chrysene	**49000**		37000	8300	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Dibenz(a,h)anthracene	ND		37000	6500	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Dibenzofuran	**31000**	**J**	37000	4400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Diethyl phthalate	ND		37000	4800	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Dimethyl phthalate	ND		37000	4400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Di-n-butyl phthalate	ND		37000	6300	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Di-n-octyl phthalate	ND		37000	4400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Fluoranthene	**21000**	**J**	37000	3900	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Fluorene	**64000**		37000	4400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Hexachlorobenzene	ND		37000	5000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Hexachlorobutadiene	ND		37000	5400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Hexachlorocyclopentadiene	ND		37000	5000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Hexachloroethane	ND		37000	4800	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Indeno[1,2,3-cd]pyrene	ND		37000	4600	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Isophorone	ND		37000	7800	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Naphthalene	ND		37000	4800	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Nitrobenzene	ND		37000	4100	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
N-Nitrosodi-n-propylamine	ND		37000	6300	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
N-Nitrosodiphenylamine	ND		37000	30000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Pentachlorophenol	ND		72000	37000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Phenanthrene	**220000**		37000	5400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Phenol	ND		37000	5700	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20
Pyrene	**48000**		37000	4400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:19	20

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Methylene Chloride	*350000*	*T J N*	*ug/Kg*	☼	*2.10*	*75-09-2*	*06/04/24 15:55*	*06/07/24 15:19*	*20*
Unknown	*340000*	*T J*	*ug/Kg*	☼	*7.87*	*N/A*	*06/04/24 15:55*	*06/07/24 15:19*	*20*
1,4-Methanonaphthalene, 1,4-dihydro-	*320000*	*T J N*	*ug/Kg*	☼	*8.26*	*4453-90-1*	*06/04/24 15:55*	*06/07/24 15:19*	*20*
Naphthalene, 1-ethyl-	*230000*	*T J N*	*ug/Kg*	☼	*8.81*	*1127-76-0*	*06/04/24 15:55*	*06/07/24 15:19*	*20*
Naphthalene, 2,6-dimethyl-	*460000*	*T J N*	*ug/Kg*	☼	*8.89*	*581-42-0*	*06/04/24 15:55*	*06/07/24 15:19*	*20*
Naphthalene, 2,3-dimethyl-	*500000*	*T J N*	*ug/Kg*	☼	*8.98*	*581-40-8*	*06/04/24 15:55*	*06/07/24 15:19*	*20*
Naphthalene, 1,5-dimethyl-	*270000*	*T J N*	*ug/Kg*	☼	*9.00*	*571-61-9*	*06/04/24 15:55*	*06/07/24 15:19*	*20*
Naphthalene, 1,3-dimethyl-	*470000*	*T J N*	*ug/Kg*	☼	*9.11*	*575-41-7*	*06/04/24 15:55*	*06/07/24 15:19*	*20*
Naphthalene, 2-(1-methylethyl)-	*320000*	*T J N*	*ug/Kg*	☼	*9.50*	*2027-17-0*	*06/04/24 15:55*	*06/07/24 15:19*	*20*
Naphthalene, 2,3,6-trimethyl-	*290000*	*T J N*	*ug/Kg*	☼	*9.66*	*829-26-5*	*06/04/24 15:55*	*06/07/24 15:19*	*20*
Naphthalene, 1,4,6-trimethyl-	*260000*	*T J N*	*ug/Kg*	☼	*9.75*	*2131-42-2*	*06/04/24 15:55*	*06/07/24 15:19*	*20*
Tridecane, 5-propyl-	*610000*	*T J N*	*ug/Kg*	☼	*10.18*	*55045-11-9*	*06/04/24 15:55*	*06/07/24 15:19*	*20*
Pentadecane, 2,6,10,14-tetramethyl-	*620000*	*T J N*	*ug/Kg*	☼	*10.47*	*1921-70-6*	*06/04/24 15:55*	*06/07/24 15:19*	*20*
Hexadecane, 2,6,10,14-tetramethyl-	*430000*	*T J N*	*ug/Kg*	☼	*10.95*	*638-36-8*	*06/04/24 15:55*	*06/07/24 15:19*	*20*

Client Sample ID: SED-02
Date Collected: 06/03/24 16:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-2
Matrix: Solid
Percent Solids: 50.7

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Anthracene, 2-methyl-	330000	T J N	ug/Kg	☼	11.48	613-12-7	06/04/24 15:55	06/07/24 15:19	20
1H-Cyclopropa[l]phenanthrene,1a,9b-dihydro-	420000	T J N	ug/Kg	☼	11.50	949-41-7	06/04/24 15:55	06/07/24 15:19	20
Anthracene, 1-methyl-	270000	T J N	ug/Kg	☼	11.58	610-48-0	06/04/24 15:55	06/07/24 15:19	20
Phenanthrene, 3,6-dimethyl-	220000	T J N	ug/Kg	☼	11.93	1576-67-6	06/04/24 15:55	06/07/24 15:19	20
Phenanthrene, 2,5-dimethyl-	470000	T J N	ug/Kg	☼	11.99	3674-66-6	06/04/24 15:55	06/07/24 15:19	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	84		26 - 143	06/04/24 15:55	06/07/24 15:19	20
2-Fluorobiphenyl	87		50 - 121	06/04/24 15:55	06/07/24 15:19	20
2-Fluorophenol	71		36 - 120	06/04/24 15:55	06/07/24 15:19	20
Nitrobenzene-d5	0	S1-	40 - 121	06/04/24 15:55	06/07/24 15:19	20
Phenol-d5	68		41 - 120	06/04/24 15:55	06/07/24 15:19	20
p-Terphenyl-d14	78		46 - 143	06/04/24 15:55	06/07/24 15:19	20

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1300	250	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
4,4'-DDE	ND		1300	270	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
4,4'-DDT	ND		1300	300	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
Aldrin	ND		1300	320	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
alpha-BHC	ND		1300	230	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
cis-Chlordane	ND	*1	1300	650	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
beta-BHC	ND		1300	230	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
delta-BHC	ND		1300	240	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
Dieldrin	ND		1300	310	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
Endosulfan I	ND		1300	250	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
Endosulfan II	ND		1300	230	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
Endosulfan sulfate	ND		1300	240	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
Endrin	ND		1300	260	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
Endrin aldehyde	ND		1300	330	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
Endrin ketone	ND	*1	1300	320	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
gamma-BHC (Lindane)	ND		1300	240	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
trans-Chlordane	ND		1300	410	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
Heptachlor	ND		1300	280	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
Heptachlor epoxide	ND		1300	330	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
Methoxychlor	ND		1300	260	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20
Toxaphene	ND		13000	7600	ug/Kg	☼	06/05/24 16:46	06/06/24 11:29	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	0	S1-	45 - 120	06/05/24 16:46	06/06/24 11:29	20
DCB Decachlorobiphenyl	0	S1-	45 - 120	06/05/24 16:46	06/06/24 11:29	20
Tetrachloro-m-xylene	0	S1-	30 - 124	06/05/24 16:46	06/06/24 11:29	20
Tetrachloro-m-xylene	0	S1-	30 - 124	06/05/24 16:46	06/06/24 11:29	20

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		1.4	0.28	mg/Kg	☼	06/04/24 16:08	06/06/24 16:44	2
PCB-1221	ND		1.4	0.28	mg/Kg	☼	06/04/24 16:08	06/06/24 16:44	2
PCB-1232	ND		1.4	0.28	mg/Kg	☼	06/04/24 16:08	06/06/24 16:44	2

Client Sample ID: SED-02
Date Collected: 06/03/24 16:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-2
Matrix: Solid
Percent Solids: 50.7

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1242	ND		1.4	0.28	mg/Kg	☼	06/04/24 16:08	06/06/24 16:44	2
PCB-1248	ND		1.4	0.28	mg/Kg	☼	06/04/24 16:08	06/06/24 16:44	2
PCB-1254	ND		1.4	0.66	mg/Kg	☼	06/04/24 16:08	06/06/24 16:44	2
PCB-1260	ND		1.4	0.66	mg/Kg	☼	06/04/24 16:08	06/06/24 16:44	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*65*		*60 - 154*	*06/04/24 16:08*	*06/06/24 16:44*	*2*
Tetrachloro-m-xylene	*60*		*60 - 154*	*06/04/24 16:08*	*06/06/24 16:44*	*2*
DCB Decachlorobiphenyl	*73*		*65 - 174*	*06/04/24 16:08*	*06/06/24 16:44*	*2*
DCB Decachlorobiphenyl	*82*		*65 - 174*	*06/04/24 16:08*	*06/06/24 16:44*	*2*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**14700**		19.5	16.8	mg/Kg	☼	06/04/24 15:43	06/05/24 11:02	1
Antimony	**6.2**	**J**	29.2	1.0	mg/Kg	☼	06/04/24 15:43	06/05/24 11:02	1
Arsenic	**31.9**		3.9	1.7	mg/Kg	☼	06/04/24 15:43	06/05/24 11:02	1
Barium	**247**		0.94	0.26	mg/Kg	☼	06/06/24 14:39	06/07/24 16:26	1
Beryllium	**0.49**		0.38	0.075	mg/Kg	☼	06/06/24 14:39	06/07/24 16:26	1
Cadmium	**2.9**		0.38	0.13	mg/Kg	☼	06/06/24 14:39	06/07/24 16:26	1
Calcium	**25500**		97.4	52.6	mg/Kg	☼	06/04/24 15:43	06/05/24 11:02	1
Chromium	**1860**		0.94	0.68	mg/Kg	☼	06/06/24 14:39	06/07/24 16:26	1
Cobalt	**14.6**		0.94	0.19	mg/Kg	☼	06/06/24 14:39	06/07/24 16:26	1
Copper	**302**		1.9	1.1	mg/Kg	☼	06/06/24 14:39	06/07/24 16:26	1
Iron	**45500**		19.5	16.5	mg/Kg	☼	06/04/24 15:43	06/05/24 11:02	1
Lead	**4660**		1.9	0.87	mg/Kg	☼	06/06/24 14:39	06/07/24 16:26	1
Magnesium	**7370**		39.0	16.5	mg/Kg	☼	06/04/24 15:43	06/05/24 11:02	1
Manganese	**351**		1.9	0.53	mg/Kg	☼	06/06/24 14:39	06/07/24 16:26	1
Nickel	**311**		9.7	0.49	mg/Kg	☼	06/04/24 15:43	06/05/24 11:02	1
Potassium	**2620**		58.5	47.2	mg/Kg	☼	06/04/24 15:43	06/05/24 11:02	1
Selenium	**5.8**	**J**	7.5	1.5	mg/Kg	☼	06/06/24 14:39	06/07/24 16:26	1
Silver	**0.63**	**J**	1.2	0.39	mg/Kg	☼	06/04/24 15:43	06/05/24 11:02	1
Sodium	**962**		273	119	mg/Kg	☼	06/04/24 15:43	06/05/24 11:02	1
Thallium	ND		11.7	1.5	mg/Kg	☼	06/04/24 15:43	06/05/24 11:02	1
Vanadium	**151**		0.94	0.25	mg/Kg	☼	06/06/24 14:39	06/07/24 16:26	1
Zinc	**1940**		3.9	2.0	mg/Kg	☼	06/04/24 15:43	06/05/24 11:02	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**6.4**		0.38	0.088	mg/Kg	☼	06/05/24 08:44	06/05/24 11:31	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	**6.7**		1.8	0.89	mg/Kg	☼	06/07/24 12:22	06/07/24 16:06	1
Total Organic Carbon (EPA-Lloyd Kahn)	**403000**		1970	1920	mg/Kg	☼		06/14/24 14:35	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220423-1

Client Sample ID: SED-03
Date Collected: 06/03/24 16:30
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-3
Matrix: Solid
Percent Solids: 73.0

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		3600	990	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
1,1,2,2-Tetrachloroethane	ND		3600	580	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3600	1800	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
1,1,2-Trichloroethane	ND		3600	750	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
1,1-Dichloroethane	ND		3600	1100	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
1,1-Dichloroethene	ND		3600	1200	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
1,2,4-Trichlorobenzene	ND		3600	1400	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
1,2-Dibromo-3-Chloropropane	ND		3600	1800	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
1,2-Dichlorobenzene	ND		3600	910	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
1,2-Dichloroethane	ND		3600	1500	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
1,2-Dichloropropane	ND		3600	580	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
1,3-Dichlorobenzene	ND		3600	950	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
1,4-Dichlorobenzene	ND		3600	500	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
2-Butanone (MEK)	ND		18000	11000	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
2-Hexanone	ND		18000	7300	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
4-Methyl-2-pentanone (MIBK)	ND		18000	1100	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Acetone	ND		18000	15000	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Benzene	ND		3600	680	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Bromoform	ND		3600	1800	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Bromomethane	ND		3600	790	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Carbon disulfide	ND		3600	1600	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Carbon tetrachloride	ND		3600	910	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Chlorobenzene	ND		3600	470	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Dibromochloromethane	ND		3600	1700	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Chloroethane	ND		3600	740	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Chloroform	ND		3600	2500	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Chloromethane	ND		3600	850	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
cis-1,2-Dichloroethene	ND		3600	990	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Cyclohexane	**6300**		3600	790	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Bromodichloromethane	ND		3600	710	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Dichlorodifluoromethane	ND		3600	1600	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Ethylbenzene	ND		3600	1000	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
1,2-Dibromoethane	ND		3600	630	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Isopropylbenzene	**3800**		3600	540	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Methyl acetate	ND		18000	1700	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Methyl tert-butyl ether	ND		3600	1400	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Methylcyclohexane	**12000**		3600	1700	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Methylene Chloride	ND		3600	710	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Tetrachloroethene	ND		3600	480	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Toluene	ND		3600	960	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
trans-1,2-Dichloroethene	ND		3600	840	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
trans-1,3-Dichloropropene	ND		3600	350	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Trichloroethene	ND		3600	990	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Trichlorofluoromethane	ND		3600	1700	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Vinyl chloride	ND		3600	1200	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Xylenes, Total	ND		7100	2000	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
cis-1,3-Dichloropropene	ND	*+	3600	850	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40
Styrene	ND		3600	860	ug/Kg	☼	06/05/24 09:40	06/05/24 15:02	40

Client Sample ID: SED-03

Date Collected: 06/03/24 16:30
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-3

Matrix: Solid
Percent Solids: 73.0

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Benzene, 1-ethenyl-2-methyl-	21000	T J N	ug/Kg	☼	10.40	611-15-4	06/05/24 09:40	06/05/24 15:02	40
Benzene, 1-ethyl-2,3-dimethyl-	15000	T J N	ug/Kg	☼	10.85	933-98-2	06/05/24 09:40	06/05/24 15:02	40
Unknown	43000	T J	ug/Kg	☼	11.62	N/A	06/05/24 09:40	06/05/24 15:02	40
1H-Indene, 2,3-dihydro-1,2-dimethyl-	14000	T J N	ug/Kg	☼	12.64	17057-82-8	06/05/24 09:40	06/05/24 15:02	40
Naphthalene, 2-methyl-	120000	T J N	ug/Kg	☼	13.10	91-57-6	06/05/24 09:40	06/05/24 15:02	40
1,4-Methanonaphthalene, 1,4-dihydro-	72000	T J N	ug/Kg	☼	13.25	4453-90-1	06/05/24 09:40	06/05/24 15:02	40
Naphthalene, 2-ethyl-	22000	T J N	ug/Kg	☼	13.83	939-27-5	06/05/24 09:40	06/05/24 15:02	40
Naphthalene, 2,7-dimethyl-	55000	T J N	ug/Kg	☼	13.91	582-16-1	06/05/24 09:40	06/05/24 15:02	40
Unknown	70000	T J	ug/Kg	☼	14.03	N/A	06/05/24 09:40	06/05/24 15:02	40
Naphthalene, 2,3-dimethyl-	25000	T J N	ug/Kg	☼	14.21	581-40-8	06/05/24 09:40	06/05/24 15:02	40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		53 - 146	06/05/24 09:40	06/05/24 15:02	40
4-Bromofluorobenzene (Surr)	105		49 - 148	06/05/24 09:40	06/05/24 15:02	40
Toluene-d8 (Surr)	100		50 - 149	06/05/24 09:40	06/05/24 15:02	40
Dibromofluoromethane (Surr)	88		60 - 140	06/05/24 09:40	06/05/24 15:02	40

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		24000	6600	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
2,4,6-Trichlorophenol	ND		24000	4800	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
2,4-Dichlorophenol	ND		24000	2600	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
2,4-Dimethylphenol	ND		24000	5800	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
2,4-Dinitrophenol	ND		240000	110000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
2,4-Dinitrotoluene	ND		24000	5000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
2,6-Dinitrotoluene	ND		24000	2900	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
2-Chloronaphthalene	ND		24000	4000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
2-Chlorophenol	ND		47000	4400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
2-Methylnaphthalene	**79000**		24000	4800	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
2-Methylphenol	ND		24000	2900	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
2-Nitroaniline	ND		47000	3600	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
2-Nitrophenol	ND		24000	6800	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
3,3'-Dichlorobenzidine	ND		47000	29000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
3-Nitroaniline	ND		47000	6700	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
4,6-Dinitro-2-methylphenol	ND		47000	24000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
4-Bromophenyl phenyl ether	ND		24000	3400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
4-Chloro-3-methylphenol	ND		24000	6000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
4-Chloroaniline	ND		24000	6000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
4-Chlorophenyl phenyl ether	ND		24000	3000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
4-Methylphenol	ND		47000	2900	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
4-Nitroaniline	ND		47000	13000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
4-Nitrophenol	ND		47000	17000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Acenaphthene	**4500**	**J**	24000	3600	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Acenaphthylene	ND		24000	3100	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Acetophenone	ND		24000	3300	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Anthracene	ND		24000	6000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Atrazine	ND		24000	8400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Benzaldehyde	ND		24000	19000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Benzo[a]anthracene	ND		24000	2400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Benzo[a]pyrene	**4400**	**J**	24000	3600	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20

Client Sample ID: SED-03
Date Collected: 06/03/24 16:30
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-3
Matrix: Solid
Percent Solids: 73.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	ND		24000	3800	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Benzo[g,h,i]perylene	ND		24000	2600	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Benzo[k]fluoranthene	ND		24000	3100	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Biphenyl	ND		24000	3600	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
bis (2-chloroisopropyl) ether	ND		24000	4800	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Bis(2-chloroethoxy)methane	ND		24000	5100	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Bis(2-chloroethyl)ether	ND		24000	3100	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Bis(2-ethylhexyl) phthalate	ND		24000	8300	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Butyl benzyl phthalate	ND		24000	4000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Caprolactam	ND		24000	7300	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Carbazole	ND		24000	2900	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Chrysene	**11000**	**J**	24000	5400	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Dibenz(a,h)anthracene	ND		24000	4300	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Dibenzofuran	ND		24000	2900	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Diethyl phthalate	ND		24000	3100	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Dimethyl phthalate	ND		24000	2900	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Di-n-butyl phthalate	ND		24000	4100	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Di-n-octyl phthalate	ND		24000	2900	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Fluoranthene	**4300**	**J**	24000	2600	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Fluorene	**10000**	**J**	24000	2900	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Hexachlorobenzene	ND		24000	3300	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Hexachlorobutadiene	ND		24000	3600	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Hexachlorocyclopentadiene	ND		24000	3300	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Hexachloroethane	ND		24000	3100	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Indeno[1,2,3-cd]pyrene	ND		24000	3000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Isophorone	ND		24000	5100	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Naphthalene	ND		24000	3100	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Nitrobenzene	ND		24000	2700	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
N-Nitrosodi-n-propylamine	ND		24000	4100	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
N-Nitrosodiphenylamine	ND		24000	20000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Pentachlorophenol	ND		47000	24000	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Phenanthrene	**38000**		24000	3600	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Phenol	ND		24000	3700	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20
Pyrene	**11000**	**J**	24000	2900	ug/Kg	☼	06/04/24 15:55	06/07/24 15:46	20

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Methylene Chloride	*300000*	*T J N*	*ug/Kg*	☼	*2.09*	*75-09-2*	*06/04/24 15:55*	*06/07/24 15:46*	*20*
Unknown	*59000*	*T J*	*ug/Kg*	☼	*7.87*	*N/A*	*06/04/24 15:55*	*06/07/24 15:46*	*20*
1,4-Methanonaphthalene, 1,4-dihydro-	*58000*	*T J N*	*ug/Kg*	☼	*8.26*	*4453-90-1*	*06/04/24 15:55*	*06/07/24 15:46*	*20*
Naphthalene, 1,6-dimethyl-	*83000*	*T J N*	*ug/Kg*	☼	*8.89*	*575-43-9*	*06/04/24 15:55*	*06/07/24 15:46*	*20*
Naphthalene, 1,8-dimethyl-	*93000*	*T J N*	*ug/Kg*	☼	*8.97*	*569-41-5*	*06/04/24 15:55*	*06/07/24 15:46*	*20*
Naphthalene, 2,6-dimethyl-	*55000*	*T J N*	*ug/Kg*	☼	*9.00*	*581-42-0*	*06/04/24 15:55*	*06/07/24 15:46*	*20*
Naphthalene, 1,3-dimethyl-	*110000*	*T J N*	*ug/Kg*	☼	*9.11*	*575-41-7*	*06/04/24 15:55*	*06/07/24 15:46*	*20*
Naphthalene, 1,4,6-trimethyl-	*63000*	*T J N*	*ug/Kg*	☼	*9.50*	*2131-42-2*	*06/04/24 15:55*	*06/07/24 15:46*	*20*
Naphthalene, 2,3,6-trimethyl-	*65000*	*T J N*	*ug/Kg*	☼	*9.61*	*829-26-5*	*06/04/24 15:55*	*06/07/24 15:46*	*20*
Azulene, 4,6,8-trimethyl-	*61000*	*T J N*	*ug/Kg*	☼	*9.66*	*941-81-1*	*06/04/24 15:55*	*06/07/24 15:46*	*20*
Naphthalene, 1,6,7-trimethyl-	*53000*	*T J N*	*ug/Kg*	☼	*9.75*	*2245-38-7*	*06/04/24 15:55*	*06/07/24 15:46*	*20*
Tridecane, 5-propyl-	*98000*	*T J N*	*ug/Kg*	☼	*10.18*	*55045-11-9*	*06/04/24 15:55*	*06/07/24 15:46*	*20*
Pentadecane, 2,6,10,14-tetramethyl-	*110000*	*T J N*	*ug/Kg*	☼	*10.47*	*1921-70-6*	*06/04/24 15:55*	*06/07/24 15:46*	*20*

Client Sample ID: SED-03
Date Collected: 06/03/24 16:30
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-3
Matrix: Solid
Percent Solids: 73.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tridecane, 7-hexyl-	75000	T J N	ug/Kg	☼	10.94	7225-66-3	06/04/24 15:55	06/07/24 15:46	20
Anthracene, 2-methyl-	59000	T J N	ug/Kg	☼	11.47	613-12-7	06/04/24 15:55	06/07/24 15:46	20
Phenanthrene, 2-methyl-	80000	T J N	ug/Kg	☼	11.50	2531-84-2	06/04/24 15:55	06/07/24 15:46	20
1H-Cyclopropa[l]phenanthrene,1a,9b -dihydro-	52000	T J N	ug/Kg	☼	11.57	949-41-7	06/04/24 15:55	06/07/24 15:46	20
Phenanthrene, 2,5-dimethyl-	100000	T J N	ug/Kg	☼	11.99	3674-66-6	06/04/24 15:55	06/07/24 15:46	20
Unknown	49000	T J	ug/Kg	☼	12.39	N/A	06/04/24 15:55	06/07/24 15:46	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	66		26 - 143	06/04/24 15:55	06/07/24 15:46	20
2-Fluorobiphenyl	85		50 - 121	06/04/24 15:55	06/07/24 15:46	20
2-Fluorophenol	78		36 - 120	06/04/24 15:55	06/07/24 15:46	20
Nitrobenzene-d5	88		40 - 121	06/04/24 15:55	06/07/24 15:46	20
Phenol-d5	67		41 - 120	06/04/24 15:55	06/07/24 15:46	20
p-Terphenyl-d14	75		46 - 143	06/04/24 15:55	06/07/24 15:46	20

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		950	190	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
4,4'-DDE	ND		950	200	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
4,4'-DDT	ND		950	220	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
Aldrin	ND		950	230	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
alpha-BHC	ND		950	170	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
cis-Chlordane	ND	*1	950	470	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
beta-BHC	ND		950	170	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
delta-BHC	ND		950	180	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
Dieldrin	ND		950	230	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
Endosulfan I	ND		950	180	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
Endosulfan II	ND		950	170	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
Endosulfan sulfate	ND		950	180	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
Endrin	ND		950	190	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
Endrin aldehyde	ND		950	240	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
Endrin ketone	ND	*1	950	230	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
gamma-BHC (Lindane)	ND		950	170	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
trans-Chlordane	ND		950	300	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
Heptachlor	ND		950	210	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
Heptachlor epoxide	ND		950	250	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
Methoxychlor	ND		950	190	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20
Toxaphene	ND		9500	5500	ug/Kg	☼	06/05/24 16:46	06/06/24 11:49	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	0	S1-	45 - 120	06/05/24 16:46	06/06/24 11:49	20
DCB Decachlorobiphenyl	0	S1-	45 - 120	06/05/24 16:46	06/06/24 11:49	20
Tetrachloro-m-xylene	0	S1-	30 - 124	06/05/24 16:46	06/06/24 11:49	20
Tetrachloro-m-xylene	0	S1-	30 - 124	06/05/24 16:46	06/06/24 11:49	20

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		2.5	0.49	mg/Kg	☼	06/04/24 16:08	06/06/24 02:18	5
PCB-1221	ND		2.5	0.49	mg/Kg	☼	06/04/24 16:08	06/06/24 02:18	5

Client Sample ID: SED-03
Date Collected: 06/03/24 16:30
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-3
Matrix: Solid
Percent Solids: 73.0

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1232	ND		2.5	0.49	mg/Kg	☼	06/04/24 16:08	06/06/24 02:18	5
PCB-1242	ND		2.5	0.49	mg/Kg	☼	06/04/24 16:08	06/06/24 02:18	5
PCB-1248	**4.0**		2.5	0.49	mg/Kg	☼	06/04/24 16:08	06/06/24 02:18	5
PCB-1254	ND		2.5	1.2	mg/Kg	☼	06/04/24 16:08	06/06/24 02:18	5
PCB-1260	ND		2.5	1.2	mg/Kg	☼	06/04/24 16:08	06/06/24 02:18	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*63*		*60 - 154*	*06/04/24 16:08*	*06/06/24 02:18*	*5*
Tetrachloro-m-xylene	*58*	*S1-*	*60 - 154*	*06/04/24 16:08*	*06/06/24 02:18*	*5*
DCB Decachlorobiphenyl	*70*		*65 - 174*	*06/04/24 16:08*	*06/06/24 02:18*	*5*
DCB Decachlorobiphenyl	*99*		*65 - 174*	*06/04/24 16:08*	*06/06/24 02:18*	*5*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**13300**		13.4	11.6	mg/Kg	☼	06/04/24 15:43	06/05/24 11:04	1
Antimony	**2.5**	**J**	20.1	0.71	mg/Kg	☼	06/04/24 15:43	06/05/24 11:04	1
Arsenic	**10.8**		2.7	1.2	mg/Kg	☼	06/04/24 15:43	06/05/24 11:04	1
Barium	**110**		0.70	0.20	mg/Kg	☼	06/06/24 14:39	06/07/24 16:28	1
Beryllium	**0.32**		0.28	0.056	mg/Kg	☼	06/06/24 14:39	06/07/24 16:28	1
Cadmium	**0.92**		0.28	0.099	mg/Kg	☼	06/06/24 14:39	06/07/24 16:28	1
Calcium	**45100**		67.0	36.2	mg/Kg	☼	06/04/24 15:43	06/05/24 11:04	1
Chromium	**1150**		0.70	0.51	mg/Kg	☼	06/06/24 14:39	06/07/24 16:28	1
Cobalt	**5.4**		0.70	0.14	mg/Kg	☼	06/06/24 14:39	06/07/24 16:28	1
Copper	**93.9**		1.4	0.80	mg/Kg	☼	06/06/24 14:39	06/07/24 16:28	1
Iron	**24200**		13.4	11.4	mg/Kg	☼	06/04/24 15:43	06/05/24 11:04	1
Lead	**662**		1.4	0.65	mg/Kg	☼	06/06/24 14:39	06/07/24 16:28	1
Magnesium	**13600**		26.8	11.4	mg/Kg	☼	06/04/24 15:43	06/05/24 11:04	1
Manganese	**270**		1.4	0.39	mg/Kg	☼	06/06/24 14:39	06/07/24 16:28	1
Nickel	**73.2**		6.7	0.34	mg/Kg	☼	06/04/24 15:43	06/05/24 11:04	1
Potassium	**3660**		40.2	32.5	mg/Kg	☼	06/04/24 15:43	06/05/24 11:04	1
Selenium	**2.2**	**J**	5.6	1.1	mg/Kg	☼	06/06/24 14:39	06/07/24 16:28	1
Silver	ND		0.80	0.27	mg/Kg	☼	06/04/24 15:43	06/05/24 11:04	1
Sodium	**492**		188	82.2	mg/Kg	☼	06/04/24 15:43	06/05/24 11:04	1
Thallium	ND		8.0	1.0	mg/Kg	☼	06/04/24 15:43	06/05/24 11:04	1
Vanadium	**31.2**		0.70	0.18	mg/Kg	☼	06/06/24 14:39	06/07/24 16:28	1
Zinc	**481**		2.7	1.4	mg/Kg	☼	06/04/24 15:43	06/05/24 11:04	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**1.1**		0.027	0.0062	mg/Kg	☼	06/05/24 08:44	06/05/24 11:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	**0.62**	**J**	1.2	0.57	mg/Kg	☼	06/07/24 12:22	06/07/24 16:07	1
Total Organic Carbon (EPA-Lloyd Kahn)	**140000**		1370	1330	mg/Kg	☼		06/13/24 19:30	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220423-1

Client Sample ID: SED-04
Date Collected: 06/03/24 17:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-4
Matrix: Solid
Percent Solids: 55.2

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		14000	3900	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
1,1,2,2-Tetrachloroethane	ND		14000	2300	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		14000	7000	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
1,1,2-Trichloroethane	ND		14000	3000	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
1,1-Dichloroethane	ND		14000	4300	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
1,1-Dichloroethene	ND		14000	4900	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
1,2,4-Trichlorobenzene	ND		14000	5300	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
1,2-Dibromo-3-Chloropropane	ND		14000	7000	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
1,2-Dichlorobenzene	ND		14000	3600	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
1,2-Dichloroethane	ND		14000	5700	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
1,2-Dichloropropane	ND		14000	2300	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
1,3-Dichlorobenzene	ND		14000	3800	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
1,4-Dichlorobenzene	ND		14000	2000	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
2-Butanone (MEK)	ND		70000	42000	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
2-Hexanone	ND		70000	29000	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
4-Methyl-2-pentanone (MIBK)	ND		70000	4500	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Acetone	ND		70000	58000	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Benzene	**500000**		14000	2700	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Bromoform	ND		14000	7000	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Bromomethane	ND		14000	3100	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Carbon disulfide	ND		14000	6400	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Carbon tetrachloride	ND		14000	3600	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Chlorobenzene	ND		14000	1900	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Dibromochloromethane	ND		14000	6800	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Chloroethane	ND		14000	2900	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Chloroform	ND		14000	9600	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Chloromethane	ND		14000	3300	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
cis-1,2-Dichloroethene	ND		14000	3900	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Cyclohexane	**12000**	**J**	14000	3100	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Bromodichloromethane	ND		14000	2800	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Dichlorodifluoromethane	ND		14000	6100	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Ethylbenzene	**89000**		14000	4100	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
1,2-Dibromoethane	ND		14000	2500	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Isopropylbenzene	**7600**	**J**	14000	2100	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Methyl acetate	ND		70000	6700	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Methyl tert-butyl ether	ND		14000	5300	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Methylcyclohexane	**19000**		14000	6600	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Methylene Chloride	ND		14000	2800	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Tetrachloroethene	ND		14000	1900	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Toluene	ND		14000	3800	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
trans-1,2-Dichloroethene	ND		14000	3300	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
trans-1,3-Dichloropropene	ND		14000	1400	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Trichloroethene	ND		14000	3900	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Trichlorofluoromethane	ND		14000	6600	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Vinyl chloride	ND		14000	4700	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Xylenes, Total	ND		28000	7800	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
cis-1,3-Dichloropropene	ND	*+	14000	3400	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100
Styrene	ND		14000	3400	ug/Kg	☼	06/05/24 09:40	06/05/24 15:25	100

Client Sample ID: SED-04
Date Collected: 06/03/24 17:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-4
Matrix: Solid
Percent Solids: 55.2

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Indane	51000	T J N	ug/Kg	☼	10.40	496-11-7	06/05/24 09:40	06/05/24 15:25	100
Unknown	99000	T J	ug/Kg	☼	11.62	N/A	06/05/24 09:40	06/05/24 15:25	100
Naphthalene	170000	T J N	ug/Kg	☼	12.18	91-20-3	06/05/24 09:40	06/05/24 15:25	100
Naphthalene, 2-methyl-	340000	T J N	ug/Kg	☼	13.11	91-57-6	06/05/24 09:40	06/05/24 15:25	100
Benzocycloheptatriene	190000	T J N	ug/Kg	☼	13.25	264-09-5	06/05/24 09:40	06/05/24 15:25	100
Naphthalene, 2-ethyl-	86000	T J N	ug/Kg	☼	13.83	939-27-5	06/05/24 09:40	06/05/24 15:25	100
Naphthalene, 2,7-dimethyl-	150000	T J N	ug/Kg	☼	13.91	582-16-1	06/05/24 09:40	06/05/24 15:25	100
Naphthalene, 2,3-dimethyl-	150000	T J N	ug/Kg	☼	14.03	581-40-8	06/05/24 09:40	06/05/24 15:25	100
Naphthalene, 1,2-dimethyl-	68000	T J N	ug/Kg	☼	14.21	573-98-8	06/05/24 09:40	06/05/24 15:25	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		53 - 146	06/05/24 09:40	06/05/24 15:25	100
4-Bromofluorobenzene (Surr)	115		49 - 148	06/05/24 09:40	06/05/24 15:25	100
Toluene-d8 (Surr)	111		50 - 149	06/05/24 09:40	06/05/24 15:25	100
Dibromofluoromethane (Surr)	98		60 - 140	06/05/24 09:40	06/05/24 15:25	100

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		19000	11000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
2,4,5-Trichlorophenol	ND		33000	8900	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
2,4,6-Trichlorophenol	ND		33000	6600	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
2,4-Dichlorophenol	ND		33000	3500	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
2,4-Dimethylphenol	ND		33000	7900	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
2,4-Dinitrophenol	ND		320000	150000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
2,4-Dinitrotoluene	ND		33000	6800	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
2,6-Dinitrotoluene	ND		33000	3900	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
2-Chloronaphthalene	ND		33000	5400	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
2-Chlorophenol	ND		64000	6000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
2-Methylnaphthalene	**560000**		33000	6600	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
2-Methylphenol	ND		33000	3900	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
2-Nitroaniline	ND		64000	4800	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
2-Nitrophenol	ND		33000	9300	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
3,3'-Dichlorobenzidine	ND		64000	39000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
3-Nitroaniline	ND		64000	9100	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
4,6-Dinitro-2-methylphenol	ND		64000	33000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
4-Bromophenyl phenyl ether	ND		33000	4600	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
4-Chloro-3-methylphenol	ND		33000	8100	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
4-Chloroaniline	ND		33000	8100	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
4-Chlorophenyl phenyl ether	ND		33000	4100	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
4-Methylphenol	ND		64000	3900	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
4-Nitroaniline	ND		64000	17000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
4-Nitrophenol	ND		64000	23000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Acenaphthene	**27000**	**J**	33000	4800	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Acenaphthylene	ND		33000	4300	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Acetophenone	ND		33000	4500	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Anthracene	**23000**	**J**	33000	8100	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Atrazine	ND		33000	11000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Benzaldehyde	ND		33000	26000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Benzo[a]anthracene	**23000**	**J**	33000	3300	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Benzo[a]pyrene	**14000**	**J**	33000	4800	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20

Client Sample ID: SED-04
Date Collected: 06/03/24 17:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-4
Matrix: Solid
Percent Solids: 55.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	**6600**	**J**	33000	5200	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Benzo[g,h,i]perylene	**8400**	**J**	33000	3500	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Benzo[k]fluoranthene	ND		33000	4300	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Biphenyl	ND		33000	4800	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
bis (2-chloroisopropyl) ether	ND		33000	6600	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Bis(2-chloroethoxy)methane	ND		33000	7000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Bis(2-chloroethyl)ether	ND		33000	4300	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Bis(2-ethylhexyl) phthalate	ND		33000	11000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Butyl benzyl phthalate	ND		33000	5400	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Caprolactam	ND		33000	9900	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Carbazole	**12000**	**J**	33000	3900	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Chrysene	**49000**		33000	7400	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Dibenz(a,h)anthracene	ND		33000	5800	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Dibenzofuran	**21000**	**J**	33000	3900	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Diethyl phthalate	ND		33000	4300	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Dimethyl phthalate	ND		33000	3900	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Di-n-butyl phthalate	ND		33000	5600	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Di-n-octyl phthalate	**5600**	**J**	33000	3900	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Fluoranthene	**16000**	**J**	33000	3500	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Fluorene	**59000**		33000	3900	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Hexachlorobenzene	ND		33000	4500	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Hexachlorobutadiene	ND		33000	4800	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Hexachlorocyclopentadiene	ND		33000	4500	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Hexachloroethane	ND		33000	4300	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Indeno[1,2,3-cd]pyrene	ND		33000	4100	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Isophorone	ND		33000	7000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Naphthalene	**150000**		33000	4300	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Nitrobenzene	ND		33000	3700	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
N-Nitrosodi-n-propylamine	ND		33000	5600	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
N-Nitrosodiphenylamine	**110000**		33000	27000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Pentachlorophenol	ND		64000	33000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Phenanthrene	**230000**		33000	4800	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Phenol	ND		33000	5000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20
Pyrene	**43000**		33000	3900	ug/Kg	☼	06/04/24 15:55	06/07/24 16:14	20

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Methylene Chloride	*390000*	*T J N*	*ug/Kg*	☼	*2.09*	*75-09-2*	*06/04/24 15:55*	*06/07/24 16:14*	*20*
Unknown	*260000*	*T J*	*ug/Kg*	☼	*7.87*	*N/A*	*06/04/24 15:55*	*06/07/24 16:14*	*20*
Naphthalene, 1-methyl-	*300000*	*T J N*	*ug/Kg*	☼	*8.26*	*90-12-0*	*06/04/24 15:55*	*06/07/24 16:14*	*20*
Naphthalene, 2,7-dimethyl-	*400000*	*T J N*	*ug/Kg*	☼	*8.89*	*582-16-1*	*06/04/24 15:55*	*06/07/24 16:14*	*20*
Naphthalene, 1,3-dimethyl-	*410000*	*T J N*	*ug/Kg*	☼	*8.98*	*575-41-7*	*06/04/24 15:55*	*06/07/24 16:14*	*20*
Naphthalene, 2,6-dimethyl-	*240000*	*T J N*	*ug/Kg*	☼	*9.00*	*581-42-0*	*06/04/24 15:55*	*06/07/24 16:14*	*20*
Naphthalene, 2,3-dimethyl-	*360000*	*T J N*	*ug/Kg*	☼	*9.11*	*581-40-8*	*06/04/24 15:55*	*06/07/24 16:14*	*20*
Naphthalene, 2-(1-methylethyl)-	*260000*	*T J N*	*ug/Kg*	☼	*9.50*	*2027-17-0*	*06/04/24 15:55*	*06/07/24 16:14*	*20*
Naphthalene, 2,3,6-trimethyl-	*240000*	*T J N*	*ug/Kg*	☼	*9.66*	*829-26-5*	*06/04/24 15:55*	*06/07/24 16:14*	*20*
Unknown	*470000*	*T J*	*ug/Kg*	☼	*10.19*	*N/A*	*06/04/24 15:55*	*06/07/24 16:14*	*20*
Tridecane, 5-propyl-	*440000*	*T J N*	*ug/Kg*	☼	*10.47*	*55045-11-9*	*06/04/24 15:55*	*06/07/24 16:14*	*20*
Unknown	*240000*	*T J*	*ug/Kg*	☼	*10.62*	*N/A*	*06/04/24 15:55*	*06/07/24 16:14*	*20*
Hexadecane, 2,6,10,14-tetramethyl-	*320000*	*T J N*	*ug/Kg*	☼	*10.95*	*638-36-8*	*06/04/24 15:55*	*06/07/24 16:14*	*20*
Phenanthrene, 2-methyl-	*330000*	*T J N*	*ug/Kg*	☼	*11.48*	*2531-84-2*	*06/04/24 15:55*	*06/07/24 16:14*	*20*

Client Sample ID: SED-04
Date Collected: 06/03/24 17:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-4
Matrix: Solid
Percent Solids: 55.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Anthracene, 2-methyl-	420000	T J N	ug/Kg	☼	11.50	613-12-7	06/04/24 15:55	06/07/24 16:14	20
1H-Cyclopropa[l]phenanthrene,1a,9b-dihydro-	260000	T J N	ug/Kg	☼	11.57	949-41-7	06/04/24 15:55	06/07/24 16:14	20
Phenanthrene, 1-methyl-	250000	T J N	ug/Kg	☼	11.60	832-69-9	06/04/24 15:55	06/07/24 16:14	20
Phenanthrene, 2,7-dimethyl-	220000	T J N	ug/Kg	☼	11.92	1576-69-8	06/04/24 15:55	06/07/24 16:14	20
Phenanthrene, 2,5-dimethyl-	500000	T J N	ug/Kg	☼	11.99	3674-66-6	06/04/24 15:55	06/07/24 16:14	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	81		26 - 143	06/04/24 15:55	06/07/24 16:14	20
2-Fluorobiphenyl	90		50 - 121	06/04/24 15:55	06/07/24 16:14	20
2-Fluorophenol	77		36 - 120	06/04/24 15:55	06/07/24 16:14	20
Nitrobenzene-d5	202	S1+	40 - 121	06/04/24 15:55	06/07/24 16:14	20
Phenol-d5	67		41 - 120	06/04/24 15:55	06/07/24 16:14	20
p-Terphenyl-d14	81		46 - 143	06/04/24 15:55	06/07/24 16:14	20

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1600	310	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
4,4'-DDE	ND		1600	340	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
4,4'-DDT	ND		1600	380	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
Aldrin	ND		1600	400	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
alpha-BHC	ND		1600	290	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
cis-Chlordane	ND	*1	1600	810	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
beta-BHC	ND		1600	290	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
delta-BHC	ND		1600	300	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
Dieldrin	ND		1600	390	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
Endosulfan I	ND		1600	310	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
Endosulfan II	ND		1600	290	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
Endosulfan sulfate	ND		1600	300	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
Endrin	ND		1600	320	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
Endrin aldehyde	ND		1600	410	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
Endrin ketone	ND	*1	1600	400	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
gamma-BHC (Lindane)	ND		1600	300	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
trans-Chlordane	ND		1600	510	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
Heptachlor	ND		1600	350	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
Heptachlor epoxide	ND		1600	420	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
Methoxychlor	ND		1600	330	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20
Toxaphene	ND		16000	9400	ug/Kg	☼	06/05/24 16:46	06/06/24 12:08	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	0	S1-	45 - 120	06/05/24 16:46	06/06/24 12:08	20
DCB Decachlorobiphenyl	0	S1-	45 - 120	06/05/24 16:46	06/06/24 12:08	20
Tetrachloro-m-xylene	0	S1-	30 - 124	06/05/24 16:46	06/06/24 12:08	20
Tetrachloro-m-xylene	0	S1-	30 - 124	06/05/24 16:46	06/06/24 12:08	20

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		1.2	0.23	mg/Kg	☼	06/04/24 16:08	06/06/24 17:01	2
PCB-1221	ND		1.2	0.23	mg/Kg	☼	06/04/24 16:08	06/06/24 17:01	2
PCB-1232	ND		1.2	0.23	mg/Kg	☼	06/04/24 16:08	06/06/24 17:01	2

Client Sample ID: SED-04
Date Collected: 06/03/24 17:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-4
Matrix: Solid
Percent Solids: 55.2

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1242	ND		1.2	0.23	mg/Kg	☼	06/04/24 16:08	06/06/24 17:01	2
PCB-1248	ND		1.2	0.23	mg/Kg	☼	06/04/24 16:08	06/06/24 17:01	2
PCB-1254	ND		1.2	0.55	mg/Kg	☼	06/04/24 16:08	06/06/24 17:01	2
PCB-1260	ND		1.2	0.55	mg/Kg	☼	06/04/24 16:08	06/06/24 17:01	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*63*		*60 - 154*	*06/04/24 16:08*	*06/06/24 17:01*	*2*
Tetrachloro-m-xylene	*57*	*S1-*	*60 - 154*	*06/04/24 16:08*	*06/06/24 17:01*	*2*
DCB Decachlorobiphenyl	*68*		*65 - 174*	*06/04/24 16:08*	*06/06/24 17:01*	*2*
DCB Decachlorobiphenyl	*75*		*65 - 174*	*06/04/24 16:08*	*06/06/24 17:01*	*2*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.4	0.60	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluoropentanoic acid (PFPeA)	ND		1.2	0.30	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluorohexanoic acid (PFHxA)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluoroheptanoic acid (PFHpA)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluorooctanoic acid (PFOA)	**0.67**		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluorononanoic acid (PFNA)	**10**	**I**	0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluorodecanoic acid (PFDA)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluoroundecanoic acid (PFUnA)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluorododecanoic acid (PFDoA)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluorotridecanoic acid (PFTrDA)	**8.5**	**I**	0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluorononanesulfonic acid (PFNS)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		2.4	0.60	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2.4	0.60	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		2.4	0.60	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	**0.46**	**J**	0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		6.0	1.5	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1

Client Sample ID: SED-04
Date Collected: 06/03/24 17:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-4
Matrix: Solid
Percent Solids: 55.2

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		6.0	1.5	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		2.4	0.60	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.4	0.60	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.2	0.30	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.2	0.30	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		2.4	0.60	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		2.4	0.60	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.2	0.30	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.0	0.75	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		15	3.7	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		15	3.7	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.60	0.15	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.2	0.30	ug/Kg	☼	06/24/24 09:15	06/25/24 04:17	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*106*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
13C5 PFPeA	*78.8*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
13C5 PFHxA	*91.7*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
13C4 PFHpA	*91.8*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
13C8 PFOA	*81.5*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
13C9 PFNA	*80.2*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
13C6 PFDA	*84.1*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
13C7 PFUnA	*85.3*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
13C2 PFTeDA	*87.6*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
13C3 PFBS	*102*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
13C3 PFHxS	*107*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
13C8 PFOS	*73.0*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
13C8 FOSA	*41.3*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
d3-NMeFOSAA	*59.3*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
d5-NEtFOSAA	*64.2*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
M2-4:2 FTS	*128*	*I*	*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
M2-6:2 FTS	*88.8*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
M2-8:2 FTS	*76.7*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
13C3 HFPO-DA	*99.7*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
d7-N-MeFOSE-M	*42.6*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
d9-N-EtFOSE-M	*33.4*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
d5-NEtPFOSA	*31.5*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
d3-NMePFOSA	*37.6*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*
13C2-PFDoDA	*83.9*		*20 - 150*	*06/24/24 09:15*	*06/25/24 04:17*	*1*

Client Sample ID: SED-04

Date Collected: 06/03/24 17:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-4

Matrix: Solid
Percent Solids: 55.2

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	17000		18.9	16.3	mg/Kg	☼	06/04/24 15:43	06/05/24 11:12	1
Antimony	1.8	J	28.3	1.0	mg/Kg	☼	06/04/24 15:43	06/05/24 11:12	1
Arsenic	39.7		3.8	1.7	mg/Kg	☼	06/04/24 15:43	06/05/24 11:12	1
Barium	790		0.96	0.27	mg/Kg	☼	06/06/24 14:39	06/07/24 16:30	1
Beryllium	0.65		0.38	0.077	mg/Kg	☼	06/06/24 14:39	06/07/24 16:30	1
Cadmium	5.5		0.38	0.13	mg/Kg	☼	06/06/24 14:39	06/07/24 16:30	1
Calcium	48000		94.3	50.9	mg/Kg	☼	06/04/24 15:43	06/05/24 11:12	1
Chromium	8490		95.6	68.9	mg/Kg	☼	06/06/24 14:39	06/10/24 11:16	100
Cobalt	22.8		0.96	0.19	mg/Kg	☼	06/06/24 14:39	06/07/24 16:30	1
Copper	464		1.9	1.1	mg/Kg	☼	06/06/24 14:39	06/07/24 16:30	1
Iron	26800		18.9	16.0	mg/Kg	☼	06/04/24 15:43	06/05/24 11:12	1
Lead	5480		1.9	0.88	mg/Kg	☼	06/06/24 14:39	06/07/24 16:30	1
Magnesium	8840		37.7	16.0	mg/Kg	☼	06/04/24 15:43	06/05/24 11:12	1
Manganese	497		1.9	0.54	mg/Kg	☼	06/06/24 14:39	06/07/24 16:30	1
Nickel	377		9.4	0.47	mg/Kg	☼	06/04/24 15:43	06/05/24 11:12	1
Potassium	2160		56.6	45.7	mg/Kg	☼	06/04/24 15:43	06/05/24 11:12	1
Selenium	10.6		7.7	1.5	mg/Kg	☼	06/06/24 14:39	06/07/24 16:30	1
Silver	0.46	J	1.1	0.38	mg/Kg	☼	06/04/24 15:43	06/05/24 11:12	1
Sodium	508		264	116	mg/Kg	☼	06/04/24 15:43	06/05/24 11:12	1
Thallium	ND		11.3	1.4	mg/Kg	☼	06/04/24 15:43	06/05/24 11:12	1
Vanadium	252		0.96	0.25	mg/Kg	☼	06/06/24 14:39	06/07/24 16:30	1
Zinc	3050		3.8	1.9	mg/Kg	☼	06/04/24 15:43	06/05/24 11:12	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	4.3		0.36	0.083	mg/Kg	☼	06/05/24 08:44	06/05/24 11:32	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	8.3		8.1	3.9	mg/Kg	☼	06/07/24 12:22	06/07/24 16:25	5
Total Organic Carbon (EPA-Lloyd Kahn)	280000		1810	1760	mg/Kg	☼		06/13/24 19:53	1
Total Organic Carbon (EPA-Lloyd Kahn)	256000	H	1810	1760	mg/Kg	☼		06/24/24 18:36	1

Client Sample ID: SED-05

Date Collected: 06/03/24 17:35
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-5

Matrix: Solid
Percent Solids: 49.2

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		7000	1900	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
1,1,2,2-Tetrachloroethane	ND		7000	1100	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		7000	3500	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
1,1,2-Trichloroethane	ND		7000	1500	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
1,1-Dichloroethane	ND		7000	2200	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
1,1-Dichloroethene	ND		7000	2400	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
1,2,4-Trichlorobenzene	ND		7000	2700	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
1,2-Dibromo-3-Chloropropane	ND		7000	3500	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
1,2-Dichlorobenzene	ND		7000	1800	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
1,2-Dichloroethane	ND		7000	2900	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40

Client Sample ID: SED-05
Date Collected: 06/03/24 17:35
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-5
Matrix: Solid
Percent Solids: 49.2

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		7000	1100	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
1,3-Dichlorobenzene	ND		7000	1900	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
1,4-Dichlorobenzene	ND		7000	980	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
2-Butanone (MEK)	ND		35000	21000	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
2-Hexanone	ND		35000	14000	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
4-Methyl-2-pentanone (MIBK)	ND		35000	2200	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Acetone	ND		35000	29000	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Benzene	**250000**		7000	1300	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Bromoform	ND		7000	3500	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Bromomethane	ND		7000	1500	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Carbon disulfide	ND		7000	3200	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Carbon tetrachloride	ND		7000	1800	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Chlorobenzene	ND		7000	920	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Dibromochloromethane	ND		7000	3400	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Chloroethane	ND		7000	1500	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Chloroform	ND		7000	4800	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Chloromethane	ND		7000	1700	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
cis-1,2-Dichloroethene	ND		7000	1900	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Cyclohexane	**19000**		7000	1600	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Bromodichloromethane	ND		7000	1400	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Dichlorodifluoromethane	ND		7000	3100	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Ethylbenzene	**130000**		7000	2000	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
1,2-Dibromoethane	ND		7000	1200	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Isopropylbenzene	**12000**		7000	1100	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Methyl acetate	ND		35000	3300	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Methyl tert-butyl ether	ND		7000	2600	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Methylcyclohexane	**30000**		7000	3300	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Methylene Chloride	ND		7000	1400	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Tetrachloroethene	ND		7000	940	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Toluene	**2000**	**J**	7000	1900	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
trans-1,2-Dichloroethene	ND		7000	1700	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
trans-1,3-Dichloropropene	ND		7000	690	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Trichloroethene	ND		7000	1900	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Trichlorofluoromethane	ND		7000	3300	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Vinyl chloride	ND		7000	2300	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Xylenes, Total	**6100**	**J**	14000	3900	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
cis-1,3-Dichloropropene	ND	*+	7000	1700	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40
Styrene	ND		7000	1700	ug/Kg	☼	06/05/24 09:40	06/05/24 15:48	40

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
o-Xylene	*6100*	*J*	*ug/Kg*	☼	*8.38*	*95-47-6*	*06/05/24 09:40*	*06/05/24 15:48*	*40*
Benzene, cyclopropyl-	*78000*	*T J N*	*ug/Kg*	☼	*10.40*	*873-49-4*	*06/05/24 09:40*	*06/05/24 15:48*	*40*
Unknown	*110000*	*T J*	*ug/Kg*	☼	*11.62*	*N/A*	*06/05/24 09:40*	*06/05/24 15:48*	*40*
Naphthalene	*160000*	*T J N*	*ug/Kg*	☼	*12.18*	*91-20-3*	*06/05/24 09:40*	*06/05/24 15:48*	*40*
Naphthalene, 2-methyl-	*430000*	*T J N*	*ug/Kg*	☼	*13.10*	*91-57-6*	*06/05/24 09:40*	*06/05/24 15:48*	*40*
Naphthalene, 1-methyl-	*230000*	*T J N*	*ug/Kg*	☼	*13.25*	*90-12-0*	*06/05/24 09:40*	*06/05/24 15:48*	*40*
Naphthalene, 1-ethyl-	*100000*	*T J N*	*ug/Kg*	☼	*13.83*	*1127-76-0*	*06/05/24 09:40*	*06/05/24 15:48*	*40*
Naphthalene, 2,6-dimethyl-	*190000*	*T J N*	*ug/Kg*	☼	*13.91*	*581-42-0*	*06/05/24 09:40*	*06/05/24 15:48*	*40*
Unknown	*190000*	*T J*	*ug/Kg*	☼	*14.03*	*N/A*	*06/05/24 09:40*	*06/05/24 15:48*	*40*
Naphthalene, 2,3-dimethyl-	*80000*	*T J N*	*ug/Kg*	☼	*14.21*	*581-40-8*	*06/05/24 09:40*	*06/05/24 15:48*	*40*

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220423-1

Client Sample ID: SED-05
Date Collected: 06/03/24 17:35
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-5
Matrix: Solid
Percent Solids: 49.2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		53 - 146	06/05/24 09:40	06/05/24 15:48	40
4-Bromofluorobenzene (Surr)	114		49 - 148	06/05/24 09:40	06/05/24 15:48	40
Toluene-d8 (Surr)	111		50 - 149	06/05/24 09:40	06/05/24 15:48	40
Dibromofluoromethane (Surr)	99		60 - 140	06/05/24 09:40	06/05/24 15:48	40

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		180000	49000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
2,4,6-Trichlorophenol	ND		180000	37000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
2,4-Dichlorophenol	ND		180000	19000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
2,4-Dimethylphenol	ND		180000	44000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
2,4-Dinitrophenol	ND		1800000	840000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
2,4-Dinitrotoluene	ND		180000	38000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
2,6-Dinitrotoluene	ND		180000	22000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
2-Chloronaphthalene	ND		180000	30000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
2-Chlorophenol	ND		360000	33000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
2-Methylnaphthalene	**470000**		180000	37000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
2-Methylphenol	ND		180000	22000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
2-Nitroaniline	ND		360000	27000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
2-Nitrophenol	ND		180000	52000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
3,3'-Dichlorobenzidine	ND		360000	220000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
3-Nitroaniline	ND		360000	51000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
4,6-Dinitro-2-methylphenol	ND		360000	180000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
4-Bromophenyl phenyl ether	ND		180000	26000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
4-Chloro-3-methylphenol	ND		180000	45000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
4-Chloroaniline	ND		180000	45000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
4-Chlorophenyl phenyl ether	ND		180000	23000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
4-Methylphenol	ND		360000	22000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
4-Nitroaniline	ND		360000	96000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
4-Nitrophenol	ND		360000	130000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Acenaphthene	ND		180000	27000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Acenaphthylene	ND		180000	24000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Acetophenone	ND		180000	25000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Anthracene	ND		180000	45000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Atrazine	ND		180000	63000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Benzaldehyde	ND		180000	150000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Benzo[a]anthracene	ND		180000	18000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Benzo[a]pyrene	ND		180000	27000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Benzo[b]fluoranthene	ND		180000	29000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Benzo[g,h,i]perylene	ND		180000	19000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Benzo[k]fluoranthene	ND		180000	24000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Biphenyl	ND		180000	27000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
bis (2-chloroisopropyl) ether	ND		180000	37000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Bis(2-chloroethoxy)methane	ND		180000	39000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Bis(2-chloroethyl)ether	ND		180000	24000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Bis(2-ethylhexyl) phthalate	ND		180000	62000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Butyl benzyl phthalate	ND		180000	30000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Caprolactam	ND		180000	55000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Carbazole	ND		180000	22000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Chrysene	ND		180000	41000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10

Client Sample ID: SED-05
Date Collected: 06/03/24 17:35
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-5
Matrix: Solid
Percent Solids: 49.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		180000	32000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Dibenzofuran	ND		180000	22000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Diethyl phthalate	ND		180000	24000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Dimethyl phthalate	ND		180000	22000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Di-n-butyl phthalate	ND		180000	31000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Di-n-octyl phthalate	ND		180000	22000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Fluoranthene	**22000**	**J**	180000	19000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Fluorene	**52000**	**J**	180000	22000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Hexachlorobenzene	ND		180000	25000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Hexachlorobutadiene	ND		180000	27000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Hexachlorocyclopentadiene	ND		180000	25000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Hexachloroethane	ND		180000	24000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Indeno[1,2,3-cd]pyrene	ND		180000	23000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Isophorone	ND		180000	39000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Naphthalene	ND		180000	24000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Nitrobenzene	ND		180000	20000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
N-Nitrosodi-n-propylamine	ND		180000	31000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
N-Nitrosodiphenylamine	ND		180000	150000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Pentachlorophenol	ND		360000	180000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Phenanthrene	**200000**		180000	27000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Phenol	ND		180000	28000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10
Pyrene	**54000**	**J**	180000	22000	ug/Kg	☼	06/04/24 15:55	06/07/24 16:51	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Methylene Chloride	*1900000*	*T J N*	*ug/Kg*	☼	*2.10*	*75-09-2*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
Unknown	*380000*	*T J*	*ug/Kg*	☼	*7.86*	*N/A*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
Naphthalene, 1-methyl-	*330000*	*T J N*	*ug/Kg*	☼	*8.26*	*90-12-0*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
Naphthalene, 1-ethyl-	*260000*	*T J N*	*ug/Kg*	☼	*8.80*	*1127-76-0*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
Naphthalene, 2,7-dimethyl-	*480000*	*T J N*	*ug/Kg*	☼	*8.89*	*582-16-1*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
Naphthalene, 1,7-dimethyl-	*540000*	*T J N*	*ug/Kg*	☼	*8.97*	*575-37-1*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
Naphthalene, 2,6-dimethyl-	*310000*	*T J N*	*ug/Kg*	☼	*9.00*	*581-42-0*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
Naphthalene, 1,4-dimethyl-	*600000*	*T J N*	*ug/Kg*	☼	*9.11*	*571-58-4*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
Naphthalene, 2-(1-methylethyl)-	*320000*	*T J N*	*ug/Kg*	☼	*9.50*	*2027-17-0*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
Naphthalene, 1,4,6-trimethyl-	*400000*	*T J N*	*ug/Kg*	☼	*9.61*	*2131-42-2*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
Naphthalene, 1,4,5-trimethyl-	*320000*	*T J N*	*ug/Kg*	☼	*9.66*	*2131-41-1*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
Naphthalene, 1,6,7-trimethyl-	*280000*	*T J N*	*ug/Kg*	☼	*9.75*	*2245-38-7*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
3-Methyl-4-(methoxycarbonyl)hexa-2,4-dienoic acid	*460000*	*T J N*	*ug/Kg*	☼	*10.18*	*1000104-10-8*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
Pentadecane, 2,6,10,14-tetramethyl-	*440000*	*T J N*	*ug/Kg*	☼	*10.47*	*1921-70-6*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
Hexadecane, 2,6,10,14-tetramethyl-	*300000*	*T J N*	*ug/Kg*	☼	*10.94*	*638-36-8*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
Anthracene, 1-methyl-	*290000*	*T J N*	*ug/Kg*	☼	*11.47*	*610-48-0*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
Anthracene, 2-methyl-	*390000*	*T J N*	*ug/Kg*	☼	*11.50*	*613-12-7*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
1H-Cyclopropa[l]phenanthrene,1a,9b-dihydro-	*260000*	*T J N*	*ug/Kg*	☼	*11.57*	*949-41-7*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
Phenanthrene, 2,5-dimethyl-	*490000*	*T J N*	*ug/Kg*	☼	*11.99*	*3674-66-6*	*06/04/24 15:55*	*06/07/24 16:51*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*122*		*26 - 143*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
2-Fluorobiphenyl	*87*		*50 - 121*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
2-Fluorophenol	*81*		*36 - 120*	*06/04/24 15:55*	*06/07/24 16:51*	*10*

Client Sample ID: SED-05

Date Collected: 06/03/24 17:35
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-5

Matrix: Solid
Percent Solids: 49.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*123*	*S1+*	*40 - 121*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
Phenol-d5	*76*		*41 - 120*	*06/04/24 15:55*	*06/07/24 16:51*	*10*
p-Terphenyl-d14	*72*		*46 - 143*	*06/04/24 15:55*	*06/07/24 16:51*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1200	240	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
4,4'-DDE	ND		1200	260	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
4,4'-DDT	ND		1200	290	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
Aldrin	ND		1200	310	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
alpha-BHC	ND		1200	220	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
cis-Chlordane	ND	*1	1200	620	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
beta-BHC	ND		1200	220	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
delta-BHC	ND		1200	230	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
Dieldrin	ND		1200	300	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
Endosulfan I	ND		1200	240	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
Endosulfan II	ND		1200	220	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
Endosulfan sulfate	ND		1200	230	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
Endrin	ND		1200	250	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
Endrin aldehyde	ND		1200	320	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
Endrin ketone	ND	*1	1200	310	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
gamma-BHC (Lindane)	ND		1200	230	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
trans-Chlordane	ND		1200	400	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
Heptachlor	ND		1200	270	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
Heptachlor epoxide	ND		1200	320	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
Methoxychlor	ND		1200	250	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20
Toxaphene	ND		12000	7300	ug/Kg	☼	06/05/24 16:46	06/06/24 12:28	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*06/05/24 16:46*	*06/06/24 12:28*	*20*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*06/05/24 16:46*	*06/06/24 12:28*	*20*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/05/24 16:46*	*06/06/24 12:28*	*20*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/05/24 16:46*	*06/06/24 12:28*	*20*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		1.3	0.26	mg/Kg	☼	06/04/24 16:08	06/06/24 17:18	2
PCB-1221	ND		1.3	0.26	mg/Kg	☼	06/04/24 16:08	06/06/24 17:18	2
PCB-1232	ND		1.3	0.26	mg/Kg	☼	06/04/24 16:08	06/06/24 17:18	2
PCB-1242	ND		1.3	0.26	mg/Kg	☼	06/04/24 16:08	06/06/24 17:18	2
PCB-1248	ND		1.3	0.26	mg/Kg	☼	06/04/24 16:08	06/06/24 17:18	2
PCB-1254	ND		1.3	0.62	mg/Kg	☼	06/04/24 16:08	06/06/24 17:18	2
PCB-1260	ND		1.3	0.62	mg/Kg	☼	06/04/24 16:08	06/06/24 17:18	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*64*		*60 - 154*	*06/04/24 16:08*	*06/06/24 17:18*	*2*
Tetrachloro-m-xylene	*59*	*S1-*	*60 - 154*	*06/04/24 16:08*	*06/06/24 17:18*	*2*
DCB Decachlorobiphenyl	*70*		*65 - 174*	*06/04/24 16:08*	*06/06/24 17:18*	*2*
DCB Decachlorobiphenyl	*77*		*65 - 174*	*06/04/24 16:08*	*06/06/24 17:18*	*2*

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220423-1

Client Sample ID: SED-05
Date Collected: 06/03/24 17:35
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-5
Matrix: Solid
Percent Solids: 49.2

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	15700		20.3	17.5	mg/Kg	☼	06/04/24 15:43	06/05/24 11:14	1
Antimony	13.2	J	30.4	1.1	mg/Kg	☼	06/04/24 15:43	06/05/24 11:14	1
Arsenic	29.0		4.1	1.8	mg/Kg	☼	06/04/24 15:43	06/05/24 11:14	1
Barium	428		1.1	0.29	mg/Kg	☼	06/06/24 14:39	06/07/24 16:32	1
Beryllium	0.70		0.42	0.084	mg/Kg	☼	06/06/24 14:39	06/07/24 16:32	1
Cadmium	3.6		0.42	0.15	mg/Kg	☼	06/06/24 14:39	06/07/24 16:32	1
Calcium	20900		101	54.7	mg/Kg	☼	06/04/24 15:43	06/05/24 11:14	1
Chromium	2560		21.0	15.1	mg/Kg	☼	06/06/24 14:39	06/10/24 11:23	20
Cobalt	21.3		1.1	0.21	mg/Kg	☼	06/06/24 14:39	06/07/24 16:32	1
Copper	349		2.1	1.2	mg/Kg	☼	06/06/24 14:39	06/07/24 16:32	1
Iron	39700		20.3	17.2	mg/Kg	☼	06/04/24 15:43	06/05/24 11:14	1
Lead	11300		42.0	19.3	mg/Kg	☼	06/06/24 14:39	06/10/24 11:23	20
Magnesium	6980		40.6	17.2	mg/Kg	☼	06/04/24 15:43	06/05/24 11:14	1
Manganese	328		2.1	0.59	mg/Kg	☼	06/06/24 14:39	06/07/24 16:32	1
Nickel	325		10.1	0.51	mg/Kg	☼	06/04/24 15:43	06/05/24 11:14	1
Potassium	2540		60.9	49.2	mg/Kg	☼	06/04/24 15:43	06/05/24 11:14	1
Selenium	8.0	J	8.4	1.7	mg/Kg	☼	06/06/24 14:39	06/07/24 16:32	1
Silver	0.56	J	1.2	0.41	mg/Kg	☼	06/04/24 15:43	06/05/24 11:14	1
Sodium	1280		284	124	mg/Kg	☼	06/04/24 15:43	06/05/24 11:14	1
Thallium	ND		12.2	1.5	mg/Kg	☼	06/04/24 15:43	06/05/24 11:14	1
Vanadium	205		1.1	0.27	mg/Kg	☼	06/06/24 14:39	06/07/24 16:32	1
Zinc	1720		4.1	2.1	mg/Kg	☼	06/04/24 15:43	06/05/24 11:14	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	3.0		0.039	0.0090	mg/Kg	☼	06/05/24 08:44	06/05/24 11:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	4.7		1.8	0.86	mg/Kg	☼	06/07/24 12:22	06/07/24 16:10	1
Total Organic Carbon (EPA-Lloyd Kahn)	447000		2030	1970	mg/Kg	☼		06/13/24 20:38	1
Total Organic Carbon (EPA-Lloyd Kahn)	374000	H	2030	1970	mg/Kg	☼		06/24/24 18:51	1

Surrogate Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220423-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(53-146)	(49-148)	(50-149)	(60-140)
480-220423-1	SED-01	99	105	101	87
480-220423-2	SED-02	113	112	109	102
480-220423-3	SED-03	100	105	100	88
480-220423-4	SED-04	110	115	111	98
480-220423-5	SED-05	112	114	111	99
LCS 480-714478/1-A	Lab Control Sample	108	118	112	101
MB 480-714478/2-A	Method Blank	101	103	103	89

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPHd14
Lab Sample ID	Client Sample ID	(26-143)	(50-121)	(36-120)	(40-121)	(41-120)	(46-143)
480-220423-1	SED-01	0 S1-	113	0 S1-	0 S1-	99	0 S1-
480-220423-2	SED-02	84	87	71	0 S1-	68	78
480-220423-3	SED-03	66	85	78	88	67	75
480-220423-4	SED-04	81	90	77	202 S1+	67	81
480-220423-5	SED-05	122	87	81	123 S1+	76	72
LCS 480-714386/2-A	Lab Control Sample	91	90	73	74	76	83
MB 480-714386/1-A	Method Blank	83	83	73	71	75	79

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHd14 = p-Terphenyl-d14

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1	DCBP2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(45-120)	(45-120)	(30-124)	(30-124)
480-220423-1	SED-01	264 S1+	1985 S1+	0 S1-	0 S1-
480-220423-2	SED-02	0 S1-	0 S1-	0 S1-	0 S1-
480-220423-3	SED-03	0 S1-	0 S1-	0 S1-	0 S1-
480-220423-4	SED-04	0 S1-	0 S1-	0 S1-	0 S1-
480-220423-5	SED-05	0 S1-	0 S1-	0 S1-	0 S1-
LCS 480-714592/2-A	Lab Control Sample	70	90	57	60
LCSD 480-714592/3-A	Lab Control Sample Dup	81	99	65	66
MB 480-714592/1-A	Method Blank	65	92	53	57

Surrogate Legend

Surrogate Summary

Client: Ashland LLC
Job ID: 480-220423-1
Project/Site: Tank 75 Analysis

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCBP1	DCBP2
Lab Sample ID	Client Sample ID	(60-154)	(60-154)	(65-174)	(65-174)
480-220423-1	SED-01	60	64	79	73
480-220423-2	SED-02	60	65	82	73
480-220423-3	SED-03	58 S1-	63	99	70
480-220423-4	SED-04	57 S1-	63	75	68
480-220423-5	SED-05	59 S1-	64	77	70
LCS 480-714392/2-A	Lab Control Sample	97	106	128	110
MB 480-714392/1-A	Method Blank	86	89	107	90

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCBP = DCB Decachlorobiphenyl

Isotope Dilution Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220423-1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Matrix: Solid

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (20-150)	PFPeA (20-150)	13C5PHA (20-150)	C4PFHA (20-150)	C8PFOA (20-150)	C9PFNA (20-150)	C6PFDA (20-150)	13C7PUA (20-150)
480-220423-4	SED-04	106	78.8	91.7	91.8	81.5	80.2	84.1	85.3
LCS 240-617589/3-A	Lab Control Sample	108	97.9	93.2	97.2	93.3	80.0	94.7	87.1
LLCS 240-617589/2-A	Lab Control Sample	105	98.2	99.7	99.3	83.1	81.6	91.9	90.1
MB 240-617589/1-A	Method Blank	109	99.4	97.6	104	85.8	86.8	94.4	89.6

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFTDA (20-150)	C3PFBS (20-150)	C3PFHS (20-150)	C8PFOS (20-150)	PFOSA (20-150)	d3NMFOS (20-150)	d5NEFOS (20-150)	M242FTS (20-150)
480-220423-4	SED-04	87.6	102	107	73.0	41.3	59.3	64.2	128 I
LCS 240-617589/3-A	Lab Control Sample	85.2	94.3	91.9	88.9	78.2	91.5	132	96.2
LLCS 240-617589/2-A	Lab Control Sample	84.7	85.0	83.4	86.2	78.3	96.1	127	89.8
MB 240-617589/1-A	Method Blank	81.7	86.1	88.5	94.4	81.7	102	141	91.4

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M262FTS (20-150)	M282FTS (20-150)	HFPODA (20-150)	NMFM (20-150)	NEFM (20-150)	d5NPFSA (20-150)	d3NMFSA (20-150)	PFDoDA (20-150)
480-220423-4	SED-04	88.8	76.7	99.7	42.6	33.4	31.5	37.6	83.9
LCS 240-617589/3-A	Lab Control Sample	104	88.5	103	99.0	84.0	54.3	62.7	89.4
LLCS 240-617589/2-A	Lab Control Sample	91.2	86.2	101	103	88.9	56.2	67.4	85.8
MB 240-617589/1-A	Method Blank	100	81.3	111	108	92.0	55.6	69.3	92.0

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoDA = 13C2-PFDoDA

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-714478/2-A
Matrix: Solid
Analysis Batch: 714450

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714478

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		100	28	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
1,1,2,2-Tetrachloroethane	ND		100	16	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		100	50	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
1,1,2-Trichloroethane	ND		100	21	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
1,1-Dichloroethane	ND		100	31	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
1,1-Dichloroethene	ND		100	35	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
1,2,4-Trichlorobenzene	ND		100	38	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
1,2-Dibromo-3-Chloropropane	ND		100	50	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
1,2-Dichlorobenzene	ND		100	26	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
1,2-Dichloroethane	ND		100	41	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
1,2-Dichloropropane	ND		100	16	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
1,3-Dichlorobenzene	ND		100	27	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
1,4-Dichlorobenzene	ND		100	14	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
2-Butanone (MEK)	ND		500	300	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
2-Hexanone	ND		500	210	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
4-Methyl-2-pentanone (MIBK)	ND		500	32	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
Acetone	ND		500	410	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
Benzene	ND		100	19	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
Bromoform	ND		100	50	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
Bromomethane	ND		100	22	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
Carbon disulfide	ND		100	46	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
Carbon tetrachloride	ND		100	26	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
Chlorobenzene	ND		100	13	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
Dibromochloromethane	ND		100	48	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
Chloroethane	ND		100	21	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
Chloroform	ND		100	69	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
Chloromethane	ND		100	24	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
cis-1,2-Dichloroethene	ND		100	28	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
Cyclohexane	ND		100	22	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
Bromodichloromethane	ND		100	20	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
Dichlorodifluoromethane	ND		100	44	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
Ethylbenzene	ND		100	29	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
1,2-Dibromoethane	ND		100	18	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
Isopropylbenzene	ND		100	15	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
Methyl acetate	ND		500	48	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
Methyl tert-butyl ether	ND		100	38	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
Methylcyclohexane	ND		100	47	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
Methylene Chloride	ND		100	20	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
Tetrachloroethene	ND		100	13	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
Toluene	ND		100	27	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
trans-1,2-Dichloroethene	ND		100	24	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
trans-1,3-Dichloropropene	ND		100	9.8	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
Trichloroethene	ND		100	28	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
Trichlorofluoromethane	ND		100	47	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
Vinyl chloride	ND		100	34	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
Xylenes, Total	ND		200	55	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
cis-1,3-Dichloropropene	ND		100	24	ug/Kg		06/05/24 09:40	06/05/24 12:51	1
Styrene	ND		100	24	ug/Kg		06/05/24 09:40	06/05/24 12:51	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-714478/2-A
Matrix: Solid
Analysis Batch: 714450

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714478

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/Kg			N/A	06/05/24 09:40	06/05/24 12:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		53 - 146	06/05/24 09:40	06/05/24 12:51	1
4-Bromofluorobenzene (Surr)	103		49 - 148	06/05/24 09:40	06/05/24 12:51	1
Toluene-d8 (Surr)	103		50 - 149	06/05/24 09:40	06/05/24 12:51	1
Dibromofluoromethane (Surr)	89		60 - 140	06/05/24 09:40	06/05/24 12:51	1

Lab Sample ID: LCS 480-714478/1-A
Matrix: Solid
Analysis Batch: 714450

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714478

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	2500	2470		ug/Kg		99	68 - 130
1,1,2,2-Tetrachloroethane	2500	2400		ug/Kg		96	73 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	2500	2250		ug/Kg		90	10 - 179
1,1,2-Trichloroethane	2500	2720		ug/Kg		109	80 - 120
1,1-Dichloroethane	2500	2320		ug/Kg		93	78 - 121
1,1-Dichloroethene	2500	2280		ug/Kg		91	48 - 133
1,2,4-Trichlorobenzene	2500	2010		ug/Kg		80	70 - 140
1,2-Dibromo-3-Chloropropane	2500	1860		ug/Kg		74	56 - 122
1,2-Dichlorobenzene	2500	2470		ug/Kg		99	78 - 125
1,2-Dichloroethane	2500	2590		ug/Kg		104	74 - 127
1,2-Dichloropropane	2500	2830		ug/Kg		113	80 - 120
1,3-Dichlorobenzene	2500	2720		ug/Kg		109	80 - 120
1,4-Dichlorobenzene	2500	2700		ug/Kg		108	80 - 120
2-Butanone (MEK)	12500	14100		ug/Kg		113	54 - 149
2-Hexanone	12500	12600		ug/Kg		101	59 - 127
4-Methyl-2-pentanone (MIBK)	12500	11000		ug/Kg		88	74 - 120
Acetone	12500	10200		ug/Kg		82	47 - 141
Benzene	2500	2680		ug/Kg		107	77 - 125
Bromoform	2500	2290		ug/Kg		92	48 - 125
Bromomethane	2500	2050		ug/Kg		82	39 - 149
Carbon disulfide	2500	2040		ug/Kg		82	40 - 136
Carbon tetrachloride	2500	2410		ug/Kg		96	54 - 135
Chlorobenzene	2500	2830		ug/Kg		113	76 - 126
Dibromochloromethane	2500	2450		ug/Kg		98	64 - 120
Chloroethane	2500	1970		ug/Kg		79	23 - 150
Chloroform	2500	2170		ug/Kg		87	78 - 120
Chloromethane	2500	1810		ug/Kg		72	61 - 124
cis-1,2-Dichloroethene	2500	2190		ug/Kg		87	79 - 124
Cyclohexane	2500	2240		ug/Kg		89	49 - 129
Bromodichloromethane	2500	2490		ug/Kg		100	71 - 121
Dichlorodifluoromethane	2500	1540		ug/Kg		61	10 - 150
Ethylbenzene	2500	2730		ug/Kg		109	78 - 124
1,2-Dibromoethane	2500	2900		ug/Kg		116	80 - 120
Isopropylbenzene	2500	2600		ug/Kg		104	76 - 120

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-714478/1-A
Matrix: Solid
Analysis Batch: 714450

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714478

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methyl acetate	5000	4380		ug/Kg		88	71 - 123
Methyl tert-butyl ether	2500	2150		ug/Kg		86	67 - 137
Methylcyclohexane	2500	2350		ug/Kg		94	50 - 130
Methylene Chloride	2500	2430		ug/Kg		97	75 - 118
Tetrachloroethene	2500	2750		ug/Kg		110	73 - 133
Toluene	2500	2630		ug/Kg		105	75 - 124
trans-1,2-Dichloroethene	2500	2260		ug/Kg		90	74 - 129
Trichloroethene	2500	2680		ug/Kg		107	75 - 131
Trichlorofluoromethane	2500	2060		ug/Kg		82	29 - 158
Vinyl chloride	2500	2090		ug/Kg		83	59 - 124
cis-1,3-Dichloropropene	2500	3160	*+	ug/Kg		126	75 - 121
Styrene	2500	2670		ug/Kg		107	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*108*		*53 - 146*
4-Bromofluorobenzene (Surr)	*118*		*49 - 148*
Toluene-d8 (Surr)	*112*		*50 - 149*
Dibromofluoromethane (Surr)	*101*		*60 - 140*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-714386/1-A
Matrix: Solid
Analysis Batch: 714479

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714386

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		100	55	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
2,4,5-Trichlorophenol	ND		170	46	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
2,4,6-Trichlorophenol	ND		170	34	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
2,4-Dichlorophenol	ND		170	18	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
2,4-Dimethylphenol	ND		170	41	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
2,4-Dinitrophenol	ND		1700	780	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
2,4-Dinitrotoluene	ND		170	35	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
2,6-Dinitrotoluene	ND		170	20	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
2-Chloronaphthalene	ND		170	28	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
2-Chlorophenol	ND		330	31	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
2-Methylnaphthalene	ND		170	34	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
2-Methylphenol	ND		170	20	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
2-Nitroaniline	ND		330	25	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
2-Nitrophenol	ND		170	48	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
3,3'-Dichlorobenzidine	ND		330	200	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
3-Nitroaniline	ND		330	47	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
4,6-Dinitro-2-methylphenol	ND		330	170	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
4-Bromophenyl phenyl ether	ND		170	24	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
4-Chloro-3-methylphenol	ND		170	42	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
4-Chloroaniline	ND		170	42	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
4-Chlorophenyl phenyl ether	ND		170	21	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
4-Methylphenol	ND		330	20	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
4-Nitroaniline	ND		330	89	ug/Kg		06/04/24 15:55	06/05/24 15:48	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-714386/1-A
Matrix: Solid
Analysis Batch: 714479

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714386

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	ND		330	120	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Acenaphthene	ND		170	25	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Acenaphthylene	ND		170	22	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Acetophenone	ND		170	23	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Anthracene	ND		170	42	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Atrazine	ND		170	59	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Benzaldehyde	ND		170	140	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Benzo[a]anthracene	ND		170	17	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Benzo[a]pyrene	ND		170	25	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Benzo[b]fluoranthene	ND		170	27	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Benzo[g,h,i]perylene	ND		170	18	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Benzo[k]fluoranthene	ND		170	22	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Biphenyl	ND		170	25	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
bis (2-chloroisopropyl) ether	ND		170	34	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Bis(2-chloroethoxy)methane	ND		170	36	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Bis(2-chloroethyl)ether	ND		170	22	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Bis(2-ethylhexyl) phthalate	ND		170	58	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Butyl benzyl phthalate	ND		170	28	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Caprolactam	ND		170	51	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Carbazole	ND		170	20	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Chrysene	ND		170	38	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Dibenz(a,h)anthracene	ND		170	30	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Dibenzofuran	ND		170	20	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Diethyl phthalate	ND		170	22	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Dimethyl phthalate	ND		170	20	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Di-n-butyl phthalate	ND		170	29	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Di-n-octyl phthalate	ND		170	20	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Fluoranthene	ND		170	18	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Fluorene	ND		170	20	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Hexachlorobenzene	ND		170	23	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Hexachlorobutadiene	ND		170	25	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Hexachlorocyclopentadiene	ND		170	23	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Hexachloroethane	ND		170	22	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Indeno[1,2,3-cd]pyrene	ND		170	21	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Isophorone	ND		170	36	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Naphthalene	ND		170	22	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Nitrobenzene	ND		170	19	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
N-Nitrosodi-n-propylamine	ND		170	29	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
N-Nitrosodiphenylamine	ND		170	140	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Pentachlorophenol	ND		330	170	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Phenanthrene	ND		170	25	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Phenol	ND		170	26	ug/Kg		06/04/24 15:55	06/05/24 15:48	1
Pyrene	ND		170	20	ug/Kg		06/04/24 15:55	06/05/24 15:48	1

Tentatively Identified Compound	*Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*1970*	*T J*	*ug/Kg*		*2.01*	*N/A*	*06/04/24 15:55*	*06/05/24 15:48*	*1*
Unknown	*644*	*T J*	*ug/Kg*		*3.49*	*N/A*	*06/04/24 15:55*	*06/05/24 15:48*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-714386/1-A
Matrix: Solid
Analysis Batch: 714479

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714386

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	83		26 - 143	06/04/24 15:55	06/05/24 15:48	1
2-Fluorobiphenyl	83		50 - 121	06/04/24 15:55	06/05/24 15:48	1
2-Fluorophenol	73		36 - 120	06/04/24 15:55	06/05/24 15:48	1
Nitrobenzene-d5	71		40 - 121	06/04/24 15:55	06/05/24 15:48	1
Phenol-d5	75		41 - 120	06/04/24 15:55	06/05/24 15:48	1
p-Terphenyl-d14	79		46 - 143	06/04/24 15:55	06/05/24 15:48	1

Lab Sample ID: LCS 480-714386/2-A
Matrix: Solid
Analysis Batch: 714479

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714386

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	1670	675		ug/Kg		41	23 - 120
2,4,5-Trichlorophenol	1670	1640		ug/Kg		99	59 - 126
2,4,6-Trichlorophenol	1670	1590		ug/Kg		96	59 - 123
2,4-Dichlorophenol	1670	1490		ug/Kg		89	61 - 120
2,4-Dimethylphenol	1670	1130		ug/Kg		68	59 - 120
2,4-Dinitrophenol	3330	3220		ug/Kg		97	41 - 146
2,4-Dinitrotoluene	1670	1630		ug/Kg		98	63 - 120
2,6-Dinitrotoluene	1670	1660		ug/Kg		100	66 - 120
2-Chloronaphthalene	1670	1420		ug/Kg		85	57 - 120
2-Chlorophenol	1670	1290		ug/Kg		77	53 - 120
2-Methylnaphthalene	1670	1390		ug/Kg		83	59 - 120
2-Methylphenol	1670	1190		ug/Kg		72	54 - 120
2-Nitroaniline	1670	1420		ug/Kg		85	61 - 120
2-Nitrophenol	1670	1460		ug/Kg		88	56 - 120
3,3'-Dichlorobenzidine	3330	3340		ug/Kg		100	54 - 120
3-Nitroaniline	1670	1480		ug/Kg		89	48 - 120
4,6-Dinitro-2-methylphenol	3330	3140		ug/Kg		94	49 - 122
4-Bromophenyl phenyl ether	1670	1500		ug/Kg		90	58 - 120
4-Chloro-3-methylphenol	1670	1510		ug/Kg		90	61 - 120
4-Chloroaniline	1670	1270		ug/Kg		76	38 - 120
4-Chlorophenyl phenyl ether	1670	1550		ug/Kg		93	63 - 124
4-Methylphenol	1670	1250		ug/Kg		75	55 - 120
4-Nitroaniline	1670	1430		ug/Kg		86	56 - 120
4-Nitrophenol	3330	3080		ug/Kg		92	43 - 147
Acenaphthene	1670	1460		ug/Kg		88	62 - 120
Acenaphthylene	1670	1430		ug/Kg		86	58 - 121
Acetophenone	1670	1230		ug/Kg		74	54 - 120
Anthracene	1670	1450		ug/Kg		87	62 - 120
Atrazine	3330	3440		ug/Kg		103	60 - 127
Benzaldehyde	3330	2420		ug/Kg		73	10 - 150
Benzo[a]anthracene	1670	1490		ug/Kg		89	65 - 120
Benzo[a]pyrene	1670	1520		ug/Kg		91	64 - 120
Benzo[b]fluoranthene	1670	1480		ug/Kg		89	64 - 120
Benzo[g,h,i]perylene	1670	1640		ug/Kg		98	45 - 145
Benzo[k]fluoranthene	1670	1610		ug/Kg		96	65 - 120
Biphenyl	1670	1460		ug/Kg		88	59 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-714386/2-A
Matrix: Solid
Analysis Batch: 714479

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714386

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
bis (2-chloroisopropyl) ether	1670	1020		ug/Kg		61	44 - 120
Bis(2-chloroethoxy)methane	1670	1300		ug/Kg		78	55 - 120
Bis(2-chloroethyl)ether	1670	1150		ug/Kg		69	45 - 120
Bis(2-ethylhexyl) phthalate	1670	1380		ug/Kg		83	61 - 133
Butyl benzyl phthalate	1670	1410		ug/Kg		85	61 - 129
Caprolactam	3330	3160		ug/Kg		95	47 - 120
Carbazole	1670	1500		ug/Kg		90	65 - 120
Chrysene	1670	1400		ug/Kg		84	64 - 120
Dibenz(a,h)anthracene	1670	1590		ug/Kg		96	54 - 132
Dibenzofuran	1670	1540		ug/Kg		93	63 - 120
Diethyl phthalate	1670	1580		ug/Kg		95	66 - 120
Dimethyl phthalate	1670	1600		ug/Kg		96	65 - 124
Di-n-butyl phthalate	1670	1490		ug/Kg		89	58 - 130
Di-n-octyl phthalate	1670	1510		ug/Kg		91	57 - 133
Fluoranthene	1670	1600		ug/Kg		96	62 - 120
Fluorene	1670	1480		ug/Kg		89	63 - 120
Hexachlorobenzene	1670	1540		ug/Kg		92	60 - 120
Hexachlorobutadiene	1670	1340		ug/Kg		81	45 - 120
Hexachlorocyclopentadiene	1670	799		ug/Kg		48	47 - 120
Hexachloroethane	1670	1050		ug/Kg		63	41 - 120
Indeno[1,2,3-cd]pyrene	1670	1620		ug/Kg		97	56 - 134
Isophorone	1670	1360		ug/Kg		81	56 - 120
Naphthalene	1670	1290		ug/Kg		77	55 - 120
Nitrobenzene	1670	1220		ug/Kg		73	54 - 120
N-Nitrosodi-n-propylamine	1670	1170		ug/Kg		70	52 - 120
Pentachlorophenol	3330	2960		ug/Kg		89	10 - 120
Phenanthrene	1670	1450		ug/Kg		87	60 - 120
Phenol	1670	1250		ug/Kg		75	53 - 120
Pyrene	1670	1420		ug/Kg		85	61 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*91*		*26 - 143*
2-Fluorobiphenyl	*90*		*50 - 121*
2-Fluorophenol	*73*		*36 - 120*
Nitrobenzene-d5	*74*		*40 - 121*
Phenol-d5	*76*		*41 - 120*
p-Terphenyl-d14	*83*		*46 - 143*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 480-714592/1-A
Matrix: Solid
Analysis Batch: 714611

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714592

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1.7	0.32	ug/Kg		06/05/24 16:46	06/06/24 10:10	1
4,4'-DDE	ND		1.7	0.35	ug/Kg		06/05/24 16:46	06/06/24 10:10	1
4,4'-DDT	ND		1.7	0.39	ug/Kg		06/05/24 16:46	06/06/24 10:10	1
Aldrin	ND		1.7	0.41	ug/Kg		06/05/24 16:46	06/06/24 10:10	1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 480-714592/1-A
Matrix: Solid
Analysis Batch: 714611

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714592

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
alpha-BHC	ND		1.7	0.30	ug/Kg		06/05/24 16:46	06/06/24 10:10	1
cis-Chlordane	ND		1.7	0.83	ug/Kg		06/05/24 16:46	06/06/24 10:10	1
beta-BHC	ND		1.7	0.30	ug/Kg		06/05/24 16:46	06/06/24 10:10	1
delta-BHC	ND		1.7	0.31	ug/Kg		06/05/24 16:46	06/06/24 10:10	1
Dieldrin	ND		1.7	0.40	ug/Kg		06/05/24 16:46	06/06/24 10:10	1
Endosulfan I	ND		1.7	0.32	ug/Kg		06/05/24 16:46	06/06/24 10:10	1
Endosulfan II	ND		1.7	0.30	ug/Kg		06/05/24 16:46	06/06/24 10:10	1
Endosulfan sulfate	ND		1.7	0.31	ug/Kg		06/05/24 16:46	06/06/24 10:10	1
Endrin	ND		1.7	0.33	ug/Kg		06/05/24 16:46	06/06/24 10:10	1
Endrin aldehyde	ND		1.7	0.43	ug/Kg		06/05/24 16:46	06/06/24 10:10	1
Endrin ketone	ND		1.7	0.41	ug/Kg		06/05/24 16:46	06/06/24 10:10	1
gamma-BHC (Lindane)	ND		1.7	0.31	ug/Kg		06/05/24 16:46	06/06/24 10:10	1
trans-Chlordane	ND		1.7	0.53	ug/Kg		06/05/24 16:46	06/06/24 10:10	1
Heptachlor	ND		1.7	0.36	ug/Kg		06/05/24 16:46	06/06/24 10:10	1
Heptachlor epoxide	ND		1.7	0.43	ug/Kg		06/05/24 16:46	06/06/24 10:10	1
Methoxychlor	ND		1.7	0.34	ug/Kg		06/05/24 16:46	06/06/24 10:10	1
Toxaphene	ND		17	9.7	ug/Kg		06/05/24 16:46	06/06/24 10:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*65*		*45 - 120*	*06/05/24 16:46*	*06/06/24 10:10*	*1*
DCB Decachlorobiphenyl	*92*		*45 - 120*	*06/05/24 16:46*	*06/06/24 10:10*	*1*
Tetrachloro-m-xylene	*53*		*30 - 124*	*06/05/24 16:46*	*06/06/24 10:10*	*1*
Tetrachloro-m-xylene	*57*		*30 - 124*	*06/05/24 16:46*	*06/06/24 10:10*	*1*

Lab Sample ID: LCS 480-714592/2-A
Matrix: Solid
Analysis Batch: 714611

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714592

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	16.7	13.5		ug/Kg		81	56 - 120
4,4'-DDE	16.7	12.0		ug/Kg		72	44 - 120
4,4'-DDT	16.7	14.2		ug/Kg		85	38 - 120
Aldrin	16.7	11.8		ug/Kg		71	38 - 120
alpha-BHC	16.7	8.09		ug/Kg		49	39 - 120
cis-Chlordane	16.7	10.1		ug/Kg		61	47 - 120
beta-BHC	16.7	11.1		ug/Kg		67	40 - 120
delta-BHC	16.7	10.2		ug/Kg		61	45 - 120
Dieldrin	16.7	13.9		ug/Kg		83	58 - 120
Endosulfan I	16.7	12.1		ug/Kg		73	49 - 120
Endosulfan II	16.7	15.1		ug/Kg		90	55 - 120
Endosulfan sulfate	16.7	14.7		ug/Kg		88	49 - 124
Endrin	16.7	13.9		ug/Kg		83	58 - 120
Endrin aldehyde	16.7	9.83		ug/Kg		59	37 - 121
Endrin ketone	16.7	15.2		ug/Kg		91	46 - 123
gamma-BHC (Lindane)	16.7	9.61		ug/Kg		58	50 - 120
trans-Chlordane	16.7	12.5		ug/Kg		75	48 - 120
Heptachlor	16.7	12.1		ug/Kg		72	50 - 120
Heptachlor epoxide	16.7	13.9		ug/Kg		84	50 - 120

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 480-714592/2-A
Matrix: Solid
Analysis Batch: 714611

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714592

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Methoxychlor			16.7	16.5		ug/Kg		99	58 - 133		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*70*		*45 - 120*
DCB Decachlorobiphenyl	*90*		*45 - 120*
Tetrachloro-m-xylene	*57*		*30 - 124*
Tetrachloro-m-xylene	*60*		*30 - 124*

Lab Sample ID: LCSD 480-714592/3-A
Matrix: Solid
Analysis Batch: 714611

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 714592

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD			16.7	15.7		ug/Kg		94	56 - 120	15	18
4,4'-DDE			16.7	14.0		ug/Kg		84	44 - 120	16	16
4,4'-DDT			16.7	16.6		ug/Kg		100	38 - 120	16	17
Aldrin			16.7	13.5		ug/Kg		81	38 - 120	14	24
alpha-BHC			16.7	8.90		ug/Kg		53	39 - 120	9	19
cis-Chlordane			16.7	11.8	*1	ug/Kg		71	47 - 120	16	13
beta-BHC			16.7	12.0		ug/Kg		72	40 - 120	7	17
delta-BHC			16.7	11.5		ug/Kg		69	45 - 120	12	14
Dieldrin			16.7	15.5		ug/Kg		93	58 - 120	11	13
Endosulfan I			16.7	14.1		ug/Kg		84	49 - 120	15	16
Endosulfan II			16.7	17.5		ug/Kg		105	55 - 120	15	17
Endosulfan sulfate			16.7	16.8		ug/Kg		101	49 - 124	14	14
Endrin			16.7	15.9		ug/Kg		96	58 - 120	14	19
Endrin aldehyde			16.7	11.6		ug/Kg		69	37 - 121	16	23
Endrin ketone			16.7	17.8	*1	ug/Kg		107	46 - 123	16	14
gamma-BHC (Lindane)			16.7	10.8		ug/Kg		65	50 - 120	11	20
trans-Chlordane			16.7	14.3		ug/Kg		86	48 - 120	14	14
Heptachlor			16.7	13.4		ug/Kg		81	50 - 120	11	16
Heptachlor epoxide			16.7	16.0		ug/Kg		96	50 - 120	14	17
Methoxychlor			16.7	19.0		ug/Kg		114	58 - 133	14	14

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*81*		*45 - 120*
DCB Decachlorobiphenyl	*99*		*45 - 120*
Tetrachloro-m-xylene	*65*		*30 - 124*
Tetrachloro-m-xylene	*66*		*30 - 124*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 480-714392/1-A
Matrix: Solid
Analysis Batch: 714571

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714392

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.25	0.049	mg/Kg		06/04/24 16:08	06/05/24 21:22	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 480-714392/1-A
Matrix: Solid
Analysis Batch: 714571

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714392

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1221	ND		0.25	0.049	mg/Kg		06/04/24 16:08	06/05/24 21:22	1
PCB-1232	ND		0.25	0.049	mg/Kg		06/04/24 16:08	06/05/24 21:22	1
PCB-1242	ND		0.25	0.049	mg/Kg		06/04/24 16:08	06/05/24 21:22	1
PCB-1248	ND		0.25	0.049	mg/Kg		06/04/24 16:08	06/05/24 21:22	1
PCB-1254	ND		0.25	0.12	mg/Kg		06/04/24 16:08	06/05/24 21:22	1
PCB-1260	ND		0.25	0.12	mg/Kg		06/04/24 16:08	06/05/24 21:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*89*		*60 - 154*	*06/04/24 16:08*	*06/05/24 21:22*	*1*
Tetrachloro-m-xylene	*86*		*60 - 154*	*06/04/24 16:08*	*06/05/24 21:22*	*1*
DCB Decachlorobiphenyl	*90*		*65 - 174*	*06/04/24 16:08*	*06/05/24 21:22*	*1*
DCB Decachlorobiphenyl	*107*		*65 - 174*	*06/04/24 16:08*	*06/05/24 21:22*	*1*

Lab Sample ID: LCS 480-714392/2-A
Matrix: Solid
Analysis Batch: 714571

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714392

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
PCB-1016			2.50	2.43		mg/Kg		97	51 - 185		
PCB-1260			2.50	3.10		mg/Kg		124	61 - 184		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*106*		*60 - 154*
Tetrachloro-m-xylene	*97*		*60 - 154*
DCB Decachlorobiphenyl	*110*		*65 - 174*
DCB Decachlorobiphenyl	*128*		*65 - 174*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Lab Sample ID: MB 240-617589/1-A
Matrix: Solid
Analysis Batch: 617699

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 617589

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.80	0.20	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
Perfluoropentanoic acid (PFPeA)	ND		0.40	0.10	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
Perfluorohexanoic acid (PFHxA)	ND		0.20	0.050	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
Perfluoroheptanoic acid (PFHpA)	ND		0.20	0.050	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
Perfluorooctanoic acid (PFOA)	ND		0.20	0.050	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
Perfluorononanoic acid (PFNA)	ND		0.20	0.050	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
Perfluorodecanoic acid (PFDA)	ND		0.20	0.050	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
Perfluoroundecanoic acid (PFUnA)	ND		0.20	0.050	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
Perfluorododecanoic acid (PFDoA)	ND		0.20	0.050	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.20	0.050	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.20	0.050	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.20	0.050	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.20	0.050	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.20	0.050	ug/Kg		06/24/24 09:15	06/24/24 22:09	1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 240-617589/1-A
Matrix: Solid
Analysis Batch: 617699

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 617589

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.20	0.050	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
Perfluorooctanesulfonic acid (PFOS)	0.140	J	0.20	0.050	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
Perfluorononanesulfonic acid (PFNS)	ND		0.20	0.050	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.20	0.050	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		0.80	0.20	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		0.80	0.20	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		0.80	0.20	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.20	0.050	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.20	0.050	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.20	0.050	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.20	0.050	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.20	0.050	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		2.0	0.50	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		2.0	0.50	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.80	0.20	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.80	0.20	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.40	0.10	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.40	0.10	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		0.80	0.20	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		0.80	0.20	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.40	0.10	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1.0	0.25	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		5.0	1.3	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		5.0	1.3	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.20	0.050	ug/Kg		06/24/24 09:15	06/24/24 22:09	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.40	0.10	ug/Kg		06/24/24 09:15	06/24/24 22:09	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*109*		*20 - 150*	*06/24/24 09:15*	*06/24/24 22:09*	*1*
13C5 PFPeA	*99.4*		*20 - 150*	*06/24/24 09:15*	*06/24/24 22:09*	*1*
13C5 PFHxA	*97.6*		*20 - 150*	*06/24/24 09:15*	*06/24/24 22:09*	*1*
13C4 PFHpA	*104*		*20 - 150*	*06/24/24 09:15*	*06/24/24 22:09*	*1*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 240-617589/1-A
Matrix: Solid
Analysis Batch: 617699

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 617589

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOA	85.8		20 - 150	06/24/24 09:15	06/24/24 22:09	1
13C9 PFNA	86.8		20 - 150	06/24/24 09:15	06/24/24 22:09	1
13C6 PFDA	94.4		20 - 150	06/24/24 09:15	06/24/24 22:09	1
13C7 PFUnA	89.6		20 - 150	06/24/24 09:15	06/24/24 22:09	1
13C2 PFTeDA	81.7		20 - 150	06/24/24 09:15	06/24/24 22:09	1
13C3 PFBS	86.1		20 - 150	06/24/24 09:15	06/24/24 22:09	1
13C3 PFHxS	88.5		20 - 150	06/24/24 09:15	06/24/24 22:09	1
13C8 PFOS	94.4		20 - 150	06/24/24 09:15	06/24/24 22:09	1
13C8 FOSA	81.7		20 - 150	06/24/24 09:15	06/24/24 22:09	1
d3-NMeFOSAA	102		20 - 150	06/24/24 09:15	06/24/24 22:09	1
d5-NEtFOSAA	141		20 - 150	06/24/24 09:15	06/24/24 22:09	1
M2-4:2 FTS	91.4		20 - 150	06/24/24 09:15	06/24/24 22:09	1
M2-6:2 FTS	100		20 - 150	06/24/24 09:15	06/24/24 22:09	1
M2-8:2 FTS	81.3		20 - 150	06/24/24 09:15	06/24/24 22:09	1
13C3 HFPO-DA	111		20 - 150	06/24/24 09:15	06/24/24 22:09	1
d7-N-MeFOSE-M	108		20 - 150	06/24/24 09:15	06/24/24 22:09	1
d9-N-EtFOSE-M	92.0		20 - 150	06/24/24 09:15	06/24/24 22:09	1
d5-NEtPFOSA	55.6		20 - 150	06/24/24 09:15	06/24/24 22:09	1
d3-NMePFOSA	69.3		20 - 150	06/24/24 09:15	06/24/24 22:09	1
13C2-PFDoDA	92.0		20 - 150	06/24/24 09:15	06/24/24 22:09	1

Lab Sample ID: LCS 240-617589/3-A
Matrix: Solid
Analysis Batch: 617699

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 617589

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	10.0	10.6		ug/Kg		106	40 - 150
Perfluoropentanoic acid (PFPeA)	5.00	4.93		ug/Kg		99	40 - 150
Perfluorohexanoic acid (PFHxA)	2.50	2.66		ug/Kg		106	40 - 150
Perfluoroheptanoic acid (PFHpA)	2.50	2.73		ug/Kg		109	40 - 150
Perfluorooctanoic acid (PFOA)	2.50	2.77		ug/Kg		111	40 - 150
Perfluorononanoic acid (PFNA)	2.50	2.95		ug/Kg		118	40 - 150
Perfluorodecanoic acid (PFDA)	2.50	2.49		ug/Kg		100	40 - 150
Perfluoroundecanoic acid (PFUnA)	2.50	2.76		ug/Kg		110	40 - 150
Perfluorododecanoic acid (PFDoA)	2.50	2.74		ug/Kg		110	40 - 150
Perfluorotridecanoic acid (PFTrDA)	2.50	2.62		ug/Kg		105	40 - 150
Perfluorotetradecanoic acid (PFTeDA)	2.50	2.65		ug/Kg		106	40 - 150
Perfluorobutanesulfonic acid (PFBS)	2.21	2.48		ug/Kg		112	40 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.35	2.95		ug/Kg		126	40 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.28	2.91		ug/Kg		128	40 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.38	2.68		ug/Kg		112	40 - 150
Perfluorooctanesulfonic acid (PFOS)	2.32	3.05		ug/Kg		132	40 - 150

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 240-617589/3-A
Matrix: Solid
Analysis Batch: 617699

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 617589

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorononanesulfonic acid (PFNS)	2.40	2.50		ug/Kg		104	40 - 150
Perfluorododecanesulfonic acid (PFDoS)	2.42	2.31		ug/Kg		95	40 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	9.34	9.29		ug/Kg		99	40 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	9.48	9.34		ug/Kg		99	40 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	9.58	10.6		ug/Kg		111	40 - 150
Perfluorooctanesulfonamide (PFOSA)	2.50	3.05		ug/Kg		122	40 - 150
N-methylperfluorooctane sulfonamide (NMeFOSA)	2.50	3.04		ug/Kg		122	40 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	2.50	2.73		ug/Kg		109	40 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.50	2.54		ug/Kg		102	40 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.50	2.92		ug/Kg		117	40 - 150
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	25.0	23.9		ug/Kg		96	40 - 150
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	25.0	27.7		ug/Kg		111	40 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	10.0	10.4		ug/Kg		104	40 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	9.42	10.1		ug/Kg		107	40 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	5.00	5.28		ug/Kg		106	40 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	5.00	5.22		ug/Kg		104	40 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	9.32	9.19		ug/Kg		99	40 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	9.42	8.90		ug/Kg		94	40 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	4.45	5.15		ug/Kg		116	40 - 150
3-Perfluoropropylpropanoic acid (3:3 FTCA)	12.5	12.0		ug/Kg		96	40 - 150
3-Perfluoropentylpropanoic acid (5:3 FTCA)	62.5	71.0		ug/Kg		114	40 - 150
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	62.5	64.9		ug/Kg		104	40 - 150
Perfluorodecanesulfonic acid (PFDS)	2.41	2.61		ug/Kg		108	40 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	5.00	5.02		ug/Kg		100	40 - 150

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*108*		*20 - 150*
13C5 PFPeA	*97.9*		*20 - 150*
13C5 PFHxA	*93.2*		*20 - 150*
13C4 PFHpA	*97.2*		*20 - 150*
13C8 PFOA	*93.3*		*20 - 150*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 240-617589/3-A
Matrix: Solid
Analysis Batch: 617699

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 617589

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C9 PFNA	*80.0*		*20 - 150*
13C6 PFDA	*94.7*		*20 - 150*
13C7 PFUnA	*87.1*		*20 - 150*
13C2 PFTeDA	*85.2*		*20 - 150*
13C3 PFBS	*94.3*		*20 - 150*
13C3 PFHxS	*91.9*		*20 - 150*
13C8 PFOS	*88.9*		*20 - 150*
13C8 FOSA	*78.2*		*20 - 150*
d3-NMeFOSAA	*91.5*		*20 - 150*
d5-NEtFOSAA	*132*		*20 - 150*
M2-4:2 FTS	*96.2*		*20 - 150*
M2-6:2 FTS	*104*		*20 - 150*
M2-8:2 FTS	*88.5*		*20 - 150*
13C3 HFPO-DA	*103*		*20 - 150*
d7-N-MeFOSE-M	*99.0*		*20 - 150*
d9-N-EtFOSE-M	*84.0*		*20 - 150*
d5-NEtPFOSA	*54.3*		*20 - 150*
d3-NMePFOSA	*62.7*		*20 - 150*
13C2-PFDoDA	*89.4*		*20 - 150*

Lab Sample ID: LLCS 240-617589/2-A
Matrix: Solid
Analysis Batch: 617699

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 617589

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	0.800	0.939		ug/Kg		117	40 - 150
Perfluoropentanoic acid (PFPeA)	0.400	0.429		ug/Kg		107	40 - 150
Perfluorohexanoic acid (PFHxA)	0.200	0.249	I	ug/Kg		124	40 - 150
Perfluoroheptanoic acid (PFHpA)	0.200	0.214		ug/Kg		107	40 - 150
Perfluorooctanoic acid (PFOA)	0.200	0.293		ug/Kg		147	40 - 150
Perfluorononanoic acid (PFNA)	0.200	0.260		ug/Kg		130	40 - 150
Perfluorodecanoic acid (PFDA)	0.200	0.234		ug/Kg		117	40 - 150
Perfluoroundecanoic acid (PFUnA)	0.200	0.204		ug/Kg		102	40 - 150
Perfluorododecanoic acid (PFDoA)	0.200	0.222		ug/Kg		111	40 - 150
Perfluorotridecanoic acid (PFTrDA)	0.200	0.225		ug/Kg		113	40 - 150
Perfluorotetradecanoic acid (PFTeDA)	0.200	0.201		ug/Kg		100	40 - 150
Perfluorobutanesulfonic acid (PFBS)	0.177	0.203		ug/Kg		115	40 - 150
Perfluoropentanesulfonic acid (PFPeS)	0.188	0.253		ug/Kg		135	40 - 150
Perfluorohexanesulfonic acid (PFHxS)	0.182	0.223		ug/Kg		123	40 - 150
Perfluoroheptanesulfonic acid (PFHpS)	0.190	0.240		ug/Kg		126	40 - 150
Perfluorooctanesulfonic acid (PFOS)	0.186	0.273		ug/Kg		147	40 - 150

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 240-617589/2-A
Matrix: Solid
Analysis Batch: 617699

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 617589

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorononanesulfonic acid (PFNS)	0.192	0.226		ug/Kg		118	40 - 150
Perfluorododecanesulfonic acid (PFDoS)	0.194	0.190	J	ug/Kg		98	40 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	0.747	0.893		ug/Kg		119	40 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	0.758	0.787	J	ug/Kg		104	40 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	0.766	0.856		ug/Kg		112	40 - 150
Perfluorooctanesulfonamide (PFOSA)	0.200	0.261		ug/Kg		131	40 - 150
N-methylperfluorooctane sulfonamide (NMeFOSA)	0.200	0.233		ug/Kg		117	40 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	0.200	0.256		ug/Kg		128	40 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.200	0.255		ug/Kg		127	40 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.200	0.237		ug/Kg		119	40 - 150
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	2.00	1.91	J	ug/Kg		96	40 - 150
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	2.00	2.10		ug/Kg		105	40 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	0.800	0.831		ug/Kg		104	40 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	0.754	0.859		ug/Kg		114	40 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	0.400	0.443		ug/Kg		111	40 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	0.400	0.411		ug/Kg		103	40 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	0.746	0.724	J	ug/Kg		97	40 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	0.754	0.699	J	ug/Kg		93	40 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	0.356	0.355	J	ug/Kg		100	40 - 150
3-Perfluoropropylpropanoic acid (3:3 FTCA)	1.00	0.961	J	ug/Kg		96	40 - 150
3-Perfluoropentylpropanoic acid (5:3 FTCA)	5.00	5.59		ug/Kg		112	40 - 150
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	5.00	4.90	J	ug/Kg		98	40 - 150
Perfluorodecanesulfonic acid (PFDS)	0.193	0.208		ug/Kg		108	40 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	0.400	0.418		ug/Kg		104	40 - 150

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*105*		*20 - 150*
13C5 PFPeA	*98.2*		*20 - 150*
13C5 PFHxA	*99.7*		*20 - 150*
13C4 PFHpA	*99.3*		*20 - 150*
13C8 PFOA	*83.1*		*20 - 150*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 240-617589/2-A
Matrix: Solid
Analysis Batch: 617699

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 617589

Isotope Dilution	LLCS %Recovery	LLCS Qualifier	Limits
13C9 PFNA	81.6		20 - 150
13C6 PFDA	91.9		20 - 150
13C7 PFUnA	90.1		20 - 150
13C2 PFTeDA	84.7		20 - 150
13C3 PFBS	85.0		20 - 150
13C3 PFHxS	83.4		20 - 150
13C8 PFOS	86.2		20 - 150
13C8 FOSA	78.3		20 - 150
d3-NMeFOSAA	96.1		20 - 150
d5-NEtFOSAA	127		20 - 150
M2-4:2 FTS	89.8		20 - 150
M2-6:2 FTS	91.2		20 - 150
M2-8:2 FTS	86.2		20 - 150
13C3 HFPO-DA	101		20 - 150
d7-N-MeFOSE-M	103		20 - 150
d9-N-EtFOSE-M	88.9		20 - 150
d5-NEtPFOSA	56.2		20 - 150
d3-NMePFOSA	67.4		20 - 150
13C2-PFDoDA	85.8		20 - 150

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-714327/1-A
Matrix: Solid
Analysis Batch: 714510

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714327

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		10.3	8.9	mg/Kg		06/04/24 15:43	06/05/24 10:49	1
Antimony	ND		15.4	0.55	mg/Kg		06/04/24 15:43	06/05/24 10:49	1
Arsenic	ND		2.1	0.91	mg/Kg		06/04/24 15:43	06/05/24 10:49	1
Barium	ND		0.51	0.14	mg/Kg		06/04/24 15:43	06/05/24 10:49	1
Beryllium	ND		0.21	0.041	mg/Kg		06/04/24 15:43	06/05/24 10:49	1
Cadmium	ND		0.21	0.072	mg/Kg		06/04/24 15:43	06/05/24 10:49	1
Calcium	ND		51.5	27.8	mg/Kg		06/04/24 15:43	06/05/24 10:49	1
Chromium	ND		0.51	0.37	mg/Kg		06/04/24 15:43	06/05/24 10:49	1
Cobalt	ND		0.51	0.10	mg/Kg		06/04/24 15:43	06/05/24 10:49	1
Copper	ND		1.0	0.59	mg/Kg		06/04/24 15:43	06/05/24 10:49	1
Iron	ND		10.3	8.7	mg/Kg		06/04/24 15:43	06/05/24 10:49	1
Lead	ND		1.0	0.47	mg/Kg		06/04/24 15:43	06/05/24 10:49	1
Magnesium	ND		20.6	8.7	mg/Kg		06/04/24 15:43	06/05/24 10:49	1
Manganese	ND		1.0	0.29	mg/Kg		06/04/24 15:43	06/05/24 10:49	1
Nickel	ND		5.1	0.26	mg/Kg		06/04/24 15:43	06/05/24 10:49	1
Potassium	ND		30.9	25.0	mg/Kg		06/04/24 15:43	06/05/24 10:49	1
Selenium	ND		4.1	0.82	mg/Kg		06/04/24 15:43	06/05/24 10:49	1
Silver	ND		0.62	0.21	mg/Kg		06/04/24 15:43	06/05/24 10:49	1
Sodium	ND		144	63.1	mg/Kg		06/04/24 15:43	06/05/24 10:49	1
Thallium	ND		6.2	0.78	mg/Kg		06/04/24 15:43	06/05/24 10:49	1
Vanadium	ND		0.51	0.13	mg/Kg		06/04/24 15:43	06/05/24 10:49	1
Zinc	ND		2.1	1.1	mg/Kg		06/04/24 15:43	06/05/24 10:49	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 480-714327/2-A
Matrix: Solid
Analysis Batch: 714510

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714327

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	200	154.1		mg/Kg		77	60.8 - 113.2
Beryllium	100	109.0		mg/Kg		109	66.2 - 110.2
Cadmium	100	174.5	*+	mg/Kg		175	64.7 - 110.1
Nickel	100	97.27		mg/Kg		97	62.0 - 114.9
Thallium	200	141.5		mg/Kg		71	55.0 - 120.1

Lab Sample ID: 480-220423-1 MS
Matrix: Solid
Analysis Batch: 714510

Client Sample ID: SED-01
Prep Type: Total/NA
Prep Batch: 714327

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	49600		1140	53360	4	mg/Kg	☼	332	75 - 125
Antimony	ND	F1	112	22.05	F1	mg/Kg	☼	20	75 - 125
Calcium	2320	F1 F2	5610	8893		mg/Kg	☼	117	75 - 125
Iron	3800	F1	1140	4300	F1	mg/Kg	☼	44	75 - 125
Magnesium	634	F1 F2	5610	5243		mg/Kg	☼	82	75 - 125
Potassium	98.5	F1	5610	4079	F1	mg/Kg	☼	71	75 - 125
Silver	ND	F1	11.2	7.05	F1	mg/Kg	☼	63	75 - 125
Sodium	1100	F1	5610	5086	F1	mg/Kg	☼	71	75 - 125
Zinc	20.5	F1 F2	112	144.6		mg/Kg	☼	111	75 - 125

Lab Sample ID: 480-220423-1 MSD
Matrix: Solid
Analysis Batch: 714510

Client Sample ID: SED-01
Prep Type: Total/NA
Prep Batch: 714327

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	49600		1060	51930	4	mg/Kg	☼	223	75 - 125	3	20
Antimony	ND	F1	104	19.67	F1	mg/Kg	☼	19	75 - 125	11	20
Calcium	2320	F1 F2	5180	5410	F1 F2	mg/Kg	☼	60	75 - 125	49	20
Iron	3800	F1	1060	4027	F1	mg/Kg	☼	22	75 - 125	7	20
Magnesium	634	F1 F2	5180	3923	F1 F2	mg/Kg	☼	63	75 - 125	29	20
Potassium	98.5	F1	5180	3651	F1	mg/Kg	☼	69	75 - 125	11	20
Silver	ND	F1	10.4	6.35	F1	mg/Kg	☼	61	75 - 125	10	20
Sodium	1100	F1	5180	4601	F1	mg/Kg	☼	68	75 - 125	10	20
Zinc	20.5	F1 F2	104	90.70	F1 F2	mg/Kg	☼	68	75 - 125	46	20

Lab Sample ID: MB 480-714675/1-A
Matrix: Solid
Analysis Batch: 714940

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714675

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		0.50	0.14	mg/Kg		06/06/24 14:39	06/07/24 16:01	1
Beryllium	ND		0.20	0.040	mg/Kg		06/06/24 14:39	06/07/24 16:01	1
Cadmium	ND		0.20	0.070	mg/Kg		06/06/24 14:39	06/07/24 16:01	1
Chromium	ND		0.50	0.36	mg/Kg		06/06/24 14:39	06/07/24 16:01	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 480-714675/1-A
Matrix: Solid
Analysis Batch: 714940

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714675

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	ND		0.50	0.10	mg/Kg		06/06/24 14:39	06/07/24 16:01	1
Copper	ND		1.0	0.57	mg/Kg		06/06/24 14:39	06/07/24 16:01	1
Lead	ND		1.0	0.46	mg/Kg		06/06/24 14:39	06/07/24 16:01	1
Manganese	ND		1.0	0.28	mg/Kg		06/06/24 14:39	06/07/24 16:01	1
Selenium	ND		4.0	0.80	mg/Kg		06/06/24 14:39	06/07/24 16:01	1
Vanadium	ND		0.50	0.13	mg/Kg		06/06/24 14:39	06/07/24 16:01	1

Lab Sample ID: LCSSRM 480-714675/2-A
Matrix: Solid
Analysis Batch: 714940

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714675

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Barium	431	393.3		mg/Kg		91.2	74.9 - 125.1
Beryllium	121	117.0		mg/Kg		96.7	74.8 - 124.8
Cadmium	199	187.0		mg/Kg		94.0	74.9 - 125.1
Chromium	210	205.5		mg/Kg		97.9	70.0 - 130.0
Cobalt	237	251.6		mg/Kg		106.2	75.1 - 124.9
Copper	229	207.0		mg/Kg		90.4	75.1 - 124.9
Lead	261	274.3		mg/Kg		105.1	78.2 - 121.1
Manganese	316	287.1		mg/Kg		90.9	74.7 - 125.0
Selenium	117	100.4		mg/Kg		85.8	65.8 - 133.3
Vanadium	183	163.4		mg/Kg		89.3	68.9 - 119.1

Lab Sample ID: 480-220423-1 MS
Matrix: Solid
Analysis Batch: 714940

Client Sample ID: SED-01
Prep Type: Total/NA
Prep Batch: 714675

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	26.3		210	192.1		mg/Kg	☼	79	75 - 125
Beryllium	0.26	F1	105	77.61	F1	mg/Kg	☼	74	75 - 125
Chromium	31.7		105	110.5		mg/Kg	☼	75	75 - 125
Cobalt	2.7		105	120.7		mg/Kg	☼	112	75 - 125
Copper	13.4		105	103.7		mg/Kg	☼	86	75 - 125
Lead	40.2	F1	105	193.3	F1	mg/Kg	☼	146	75 - 125
Manganese	15.8		105	96.79		mg/Kg	☼	77	75 - 125
Selenium	ND	F1	210	128.5	F1	mg/Kg	☼	61	75 - 125
Vanadium	95.6	F1	105	241.5	F1	mg/Kg	☼	139	75 - 125

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-220423-1 MSD
Matrix: Solid
Analysis Batch: 714940

Client Sample ID: SED-01
Prep Type: Total/NA
Prep Batch: 714675

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Barium	26.3		207	186.3		mg/Kg	☼	77	75 - 125	3	20
Beryllium	0.26	F1	103	74.92	F1	mg/Kg	☼	72	75 - 125	4	20
Chromium	31.7		103	117.4		mg/Kg	☼	83	75 - 125	6	20
Cobalt	2.7		103	121.4		mg/Kg	☼	115	75 - 125	1	20
Copper	13.4		103	99.03		mg/Kg	☼	83	75 - 125	5	20
Lead	40.2	F1	103	200.2	F1	mg/Kg	☼	155	75 - 125	4	20
Manganese	15.8		103	93.83		mg/Kg	☼	75	75 - 125	3	20
Selenium	ND	F1	207	125.9	F1	mg/Kg	☼	61	75 - 125	2	20
Vanadium	95.6	F1	103	231.1	F1	mg/Kg	☼	131	75 - 125	4	20

Lab Sample ID: 480-220423-1 MSD
Matrix: Solid
Analysis Batch: 715038

Client Sample ID: SED-01
Prep Type: Total/NA
Prep Batch: 714675

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Thallium	ND		207	206.4		mg/Kg	☼	100	75 - 125	13	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 480-714338/1-A
Matrix: Solid
Analysis Batch: 714512

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714338

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.019	0.0044	mg/Kg		06/05/24 08:44	06/05/24 10:57	1

Lab Sample ID: LCSSRM 480-714338/2-A ^10
Matrix: Solid
Analysis Batch: 714512

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714338

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	19.1	18.08		mg/Kg		94.7	59.7 - 139.8

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 480-714887/1-A
Matrix: Solid
Analysis Batch: 714906

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714887

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.99	0.48	mg/Kg		06/07/24 12:22	06/07/24 15:50	1

Lab Sample ID: LCS 480-714887/3-A
Matrix: Solid
Analysis Batch: 714906

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714887

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.400	0.380		mg/Kg		95	29 - 122

Method: 9012B - Cyanide, Total andor Amenable (Continued)

Lab Sample ID: LCS 480-714887/4-A
Matrix: Solid
Analysis Batch: 714906

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714887

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.250	0.238		mg/Kg		95	29 - 122

Lab Sample ID: LCSSRM 480-714887/2-A ^10
Matrix: Solid
Analysis Batch: 714906

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714887

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	154	42.87		mg/Kg		27.8	20.6 - 120.8

Method: EPA-Lloyd Kahn - Organic Carbon, Total (TOC)

Lab Sample ID: MB 180-471505/4
Matrix: Solid
Analysis Batch: 471505

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1000	971	mg/Kg			06/13/24 13:59	1

Lab Sample ID: LCS 180-471505/5
Matrix: Solid
Analysis Batch: 471505

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	40000	35950		mg/Kg		90	75 - 125

Lab Sample ID: MB 180-471677/4
Matrix: Solid
Analysis Batch: 471677

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1000	971	mg/Kg			06/14/24 12:43	1

Lab Sample ID: LCS 180-471677/5
Matrix: Solid
Analysis Batch: 471677

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	40000	35250		mg/Kg		88	75 - 125

Lab Sample ID: MB 180-472359/4
Matrix: Solid
Analysis Batch: 472359

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1000	971	mg/Kg			06/24/24 10:03	1

Method: EPA-Lloyd Kahn - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: LCS 180-472359/5
Matrix: Solid
Analysis Batch: 472359

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon			40000	35470		mg/Kg		89	75 - 125		

Lab Sample ID: LCSD 180-472359/6
Matrix: Solid
Analysis Batch: 472359

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon			40000	35770		mg/Kg		89	75 - 125	1	20

GC/MS VOA

Analysis Batch: 714450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220423-1	SED-01	Total/NA	Solid	8260C	714478
480-220423-2	SED-02	Total/NA	Solid	8260C	714478
480-220423-3	SED-03	Total/NA	Solid	8260C	714478
480-220423-4	SED-04	Total/NA	Solid	8260C	714478
480-220423-5	SED-05	Total/NA	Solid	8260C	714478
MB 480-714478/2-A	Method Blank	Total/NA	Solid	8260C	714478
LCS 480-714478/1-A	Lab Control Sample	Total/NA	Solid	8260C	714478

Prep Batch: 714478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220423-1	SED-01	Total/NA	Solid	5035A_H	
480-220423-2	SED-02	Total/NA	Solid	5035A_H	
480-220423-3	SED-03	Total/NA	Solid	5035A_H	
480-220423-4	SED-04	Total/NA	Solid	5035A_H	
480-220423-5	SED-05	Total/NA	Solid	5035A_H	
MB 480-714478/2-A	Method Blank	Total/NA	Solid	5035A_H	
LCS 480-714478/1-A	Lab Control Sample	Total/NA	Solid	5035A_H	

GC/MS Semi VOA

Prep Batch: 714386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220423-1	SED-01	Total/NA	Solid	3550C	
480-220423-2	SED-02	Total/NA	Solid	3550C	
480-220423-3	SED-03	Total/NA	Solid	3550C	
480-220423-4	SED-04	Total/NA	Solid	3550C	
480-220423-5	SED-05	Total/NA	Solid	3550C	
MB 480-714386/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-714386/2-A	Lab Control Sample	Total/NA	Solid	3550C	

Analysis Batch: 714479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-714386/1-A	Method Blank	Total/NA	Solid	8270D	714386
LCS 480-714386/2-A	Lab Control Sample	Total/NA	Solid	8270D	714386

Analysis Batch: 714483

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220423-1	SED-01	Total/NA	Solid	8270D	714386
480-220423-2	SED-02	Total/NA	Solid	8270D	714386
480-220423-3	SED-03	Total/NA	Solid	8270D	714386
480-220423-4	SED-04	Total/NA	Solid	8270D	714386
480-220423-5	SED-05	Total/NA	Solid	8270D	714386

GC Semi VOA

Prep Batch: 714392

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220423-1	SED-01	Total/NA	Solid	3550C	
480-220423-2	SED-02	Total/NA	Solid	3550C	
480-220423-3	SED-03	Total/NA	Solid	3550C	
480-220423-4	SED-04	Total/NA	Solid	3550C	
480-220423-5	SED-05	Total/NA	Solid	3550C	

GC Semi VOA (Continued)

Prep Batch: 714392 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-714392/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-714392/2-A	Lab Control Sample	Total/NA	Solid	3550C	

Analysis Batch: 714571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220423-3	SED-03	Total/NA	Solid	8082A	714392
MB 480-714392/1-A	Method Blank	Total/NA	Solid	8082A	714392
LCS 480-714392/2-A	Lab Control Sample	Total/NA	Solid	8082A	714392

Prep Batch: 714592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220423-1	SED-01	Total/NA	Solid	3550C	
480-220423-2	SED-02	Total/NA	Solid	3550C	
480-220423-3	SED-03	Total/NA	Solid	3550C	
480-220423-4	SED-04	Total/NA	Solid	3550C	
480-220423-5	SED-05	Total/NA	Solid	3550C	
MB 480-714592/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-714592/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 480-714592/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	

Analysis Batch: 714611

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220423-1	SED-01	Total/NA	Solid	8081B	714592
480-220423-2	SED-02	Total/NA	Solid	8081B	714592
480-220423-3	SED-03	Total/NA	Solid	8081B	714592
480-220423-4	SED-04	Total/NA	Solid	8081B	714592
480-220423-5	SED-05	Total/NA	Solid	8081B	714592
MB 480-714592/1-A	Method Blank	Total/NA	Solid	8081B	714592
LCS 480-714592/2-A	Lab Control Sample	Total/NA	Solid	8081B	714592
LCSD 480-714592/3-A	Lab Control Sample Dup	Total/NA	Solid	8081B	714592

Analysis Batch: 714682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220423-1	SED-01	Total/NA	Solid	8082A	714392
480-220423-2	SED-02	Total/NA	Solid	8082A	714392
480-220423-4	SED-04	Total/NA	Solid	8082A	714392
480-220423-5	SED-05	Total/NA	Solid	8082A	714392

LCMS

Prep Batch: 617589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220423-4	SED-04	Total/NA	Solid	1633 Shake	
MB 240-617589/1-A	Method Blank	Total/NA	Solid	1633 Shake	
LCS 240-617589/3-A	Lab Control Sample	Total/NA	Solid	1633 Shake	
LLCS 240-617589/2-A	Lab Control Sample	Total/NA	Solid	1633 Shake	

Analysis Batch: 617699

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220423-4	SED-04	Total/NA	Solid	1633	617589
MB 240-617589/1-A	Method Blank	Total/NA	Solid	1633	617589

LCMS (Continued)

Analysis Batch: 617699 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-617589/3-A	Lab Control Sample	Total/NA	Solid	1633	617589
LLCS 240-617589/2-A	Lab Control Sample	Total/NA	Solid	1633	617589

Metals

Prep Batch: 714327

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220423-1	SED-01	Total/NA	Solid	3050B	
480-220423-2	SED-02	Total/NA	Solid	3050B	
480-220423-3	SED-03	Total/NA	Solid	3050B	
480-220423-4	SED-04	Total/NA	Solid	3050B	
480-220423-5	SED-05	Total/NA	Solid	3050B	
MB 480-714327/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 480-714327/2-A	Lab Control Sample	Total/NA	Solid	3050B	
480-220423-1 MS	SED-01	Total/NA	Solid	3050B	
480-220423-1 MSD	SED-01	Total/NA	Solid	3050B	

Prep Batch: 714338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220423-1	SED-01	Total/NA	Solid	7471B	
480-220423-2	SED-02	Total/NA	Solid	7471B	
480-220423-3	SED-03	Total/NA	Solid	7471B	
480-220423-4	SED-04	Total/NA	Solid	7471B	
480-220423-5	SED-05	Total/NA	Solid	7471B	
MB 480-714338/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 480-714338/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	

Analysis Batch: 714510

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220423-1	SED-01	Total/NA	Solid	6010C	714327
480-220423-2	SED-02	Total/NA	Solid	6010C	714327
480-220423-3	SED-03	Total/NA	Solid	6010C	714327
480-220423-4	SED-04	Total/NA	Solid	6010C	714327
480-220423-5	SED-05	Total/NA	Solid	6010C	714327
MB 480-714327/1-A	Method Blank	Total/NA	Solid	6010C	714327
LCSSRM 480-714327/2-A	Lab Control Sample	Total/NA	Solid	6010C	714327
480-220423-1 MS	SED-01	Total/NA	Solid	6010C	714327
480-220423-1 MSD	SED-01	Total/NA	Solid	6010C	714327

Analysis Batch: 714512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220423-1	SED-01	Total/NA	Solid	7471B	714338
480-220423-2	SED-02	Total/NA	Solid	7471B	714338
480-220423-3	SED-03	Total/NA	Solid	7471B	714338
480-220423-4	SED-04	Total/NA	Solid	7471B	714338
480-220423-5	SED-05	Total/NA	Solid	7471B	714338
MB 480-714338/1-A	Method Blank	Total/NA	Solid	7471B	714338
LCSSRM 480-714338/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	714338

QC Association Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220423-1

Metals

Prep Batch: 714675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220423-1	SED-01	Total/NA	Solid	3050B	
480-220423-2	SED-02	Total/NA	Solid	3050B	
480-220423-3	SED-03	Total/NA	Solid	3050B	
480-220423-4	SED-04	Total/NA	Solid	3050B	
480-220423-5	SED-05	Total/NA	Solid	3050B	
MB 480-714675/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 480-714675/2-A	Lab Control Sample	Total/NA	Solid	3050B	
480-220423-1 MS	SED-01	Total/NA	Solid	3050B	
480-220423-1 MSD	SED-01	Total/NA	Solid	3050B	

Analysis Batch: 714940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220423-1	SED-01	Total/NA	Solid	6010C	714675
480-220423-2	SED-02	Total/NA	Solid	6010C	714675
480-220423-3	SED-03	Total/NA	Solid	6010C	714675
480-220423-4	SED-04	Total/NA	Solid	6010C	714675
480-220423-5	SED-05	Total/NA	Solid	6010C	714675
MB 480-714675/1-A	Method Blank	Total/NA	Solid	6010C	714675
LCSSRM 480-714675/2-A	Lab Control Sample	Total/NA	Solid	6010C	714675
480-220423-1 MS	SED-01	Total/NA	Solid	6010C	714675
480-220423-1 MSD	SED-01	Total/NA	Solid	6010C	714675

Analysis Batch: 715038

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220423-1	SED-01	Total/NA	Solid	6010C	714675
480-220423-4	SED-04	Total/NA	Solid	6010C	714675
480-220423-5	SED-05	Total/NA	Solid	6010C	714675
480-220423-1 MSD	SED-01	Total/NA	Solid	6010C	714675

General Chemistry

Analysis Batch: 471505

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220423-3	SED-03	Total/NA	Solid	EPA-Lloyd Kahn	
480-220423-4	SED-04	Total/NA	Solid	EPA-Lloyd Kahn	
480-220423-5	SED-05	Total/NA	Solid	EPA-Lloyd Kahn	
MB 180-471505/4	Method Blank	Total/NA	Solid	EPA-Lloyd Kahn	
LCS 180-471505/5	Lab Control Sample	Total/NA	Solid	EPA-Lloyd Kahn	

Analysis Batch: 471677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220423-1	SED-01	Total/NA	Solid	EPA-Lloyd Kahn	
480-220423-2	SED-02	Total/NA	Solid	EPA-Lloyd Kahn	
MB 180-471677/4	Method Blank	Total/NA	Solid	EPA-Lloyd Kahn	
LCS 180-471677/5	Lab Control Sample	Total/NA	Solid	EPA-Lloyd Kahn	

Analysis Batch: 472359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220423-4	SED-04	Total/NA	Solid	EPA-Lloyd Kahn	
480-220423-5	SED-05	Total/NA	Solid	EPA-Lloyd Kahn	
MB 180-472359/4	Method Blank	Total/NA	Solid	EPA-Lloyd Kahn	

General Chemistry (Continued)

Analysis Batch: 472359 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 180-472359/5	Lab Control Sample	Total/NA	Solid	EPA-Lloyd Kahn	
LCSD 180-472359/6	Lab Control Sample Dup	Total/NA	Solid	EPA-Lloyd Kahn	

Analysis Batch: 714379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220423-1	SED-01	Total/NA	Solid	Moisture	
480-220423-2	SED-02	Total/NA	Solid	Moisture	
480-220423-3	SED-03	Total/NA	Solid	Moisture	
480-220423-4	SED-04	Total/NA	Solid	Moisture	
480-220423-5	SED-05	Total/NA	Solid	Moisture	

Prep Batch: 714887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220423-1	SED-01	Total/NA	Solid	9012B	
480-220423-2	SED-02	Total/NA	Solid	9012B	
480-220423-3	SED-03	Total/NA	Solid	9012B	
480-220423-4	SED-04	Total/NA	Solid	9012B	
480-220423-5	SED-05	Total/NA	Solid	9012B	
MB 480-714887/1-A	Method Blank	Total/NA	Solid	9012B	
LCS 480-714887/3-A	Lab Control Sample	Total/NA	Solid	9012B	
LCS 480-714887/4-A	Lab Control Sample	Total/NA	Solid	9012B	
LCSSRM 480-714887/2-A ^1	Lab Control Sample	Total/NA	Solid	9012B	

Analysis Batch: 714906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220423-1	SED-01	Total/NA	Solid	9012B	714887
480-220423-2	SED-02	Total/NA	Solid	9012B	714887
480-220423-3	SED-03	Total/NA	Solid	9012B	714887
480-220423-4	SED-04	Total/NA	Solid	9012B	714887
480-220423-5	SED-05	Total/NA	Solid	9012B	714887
MB 480-714887/1-A	Method Blank	Total/NA	Solid	9012B	714887
LCS 480-714887/3-A	Lab Control Sample	Total/NA	Solid	9012B	714887
LCS 480-714887/4-A	Lab Control Sample	Total/NA	Solid	9012B	714887
LCSSRM 480-714887/2-A ^1	Lab Control Sample	Total/NA	Solid	9012B	714887

Client Sample ID: SED-01
Date Collected: 06/03/24 15:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	714379	JMM	EET BUF	06/04/24 15:38

Client Sample ID: SED-01
Date Collected: 06/03/24 15:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-1
Matrix: Solid
Percent Solids: 94.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_H			714478	ZN	EET BUF	06/05/24 09:40
Total/NA	Analysis	8260C		100	714450	ZN	EET BUF	06/05/24 14:16
Total/NA	Prep	3550C			714386	SJM	EET BUF	06/04/24 15:55
Total/NA	Analysis	8270D		20	714483	JMM	EET BUF	06/07/24 14:23
Total/NA	Prep	3550C			714592	SJM	EET BUF	06/05/24 16:46
Total/NA	Analysis	8081B		50	714611	JLS	EET BUF	06/06/24 11:09
Total/NA	Prep	3550C			714392	SJM	EET BUF	06/04/24 16:08
Total/NA	Analysis	8082A		2	714682	H9RU	EET BUF	06/06/24 16:27
Total/NA	Prep	3050B			714675	EMO	EET BUF	06/06/24 14:39
Total/NA	Analysis	6010C		5	715038	NZG	EET BUF	06/10/24 11:06
Total/NA	Prep	3050B			714327	EMO	EET BUF	06/04/24 15:43
Total/NA	Analysis	6010C		1	714510	NZG	EET BUF	06/05/24 10:53
Total/NA	Prep	3050B			714675	EMO	EET BUF	06/06/24 14:39
Total/NA	Analysis	6010C		1	714940	NZG	EET BUF	06/07/24 16:11
Total/NA	Prep	7471B			714338	ESB	EET BUF	06/05/24 08:44
Total/NA	Analysis	7471B		1	714512	ESB	EET BUF	06/05/24 11:00
Total/NA	Prep	9012B			714887	AM	EET BUF	06/07/24 12:22
Total/NA	Analysis	9012B		1	714906	AM	EET BUF	06/07/24 16:05
Total/NA	Analysis	EPA-Lloyd Kahn		1	471677	SMW	EET PIT	06/14/24 14:12

Client Sample ID: SED-02
Date Collected: 06/03/24 16:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	714379	JMM	EET BUF	06/04/24 15:38

Client Sample ID: SED-02
Date Collected: 06/03/24 16:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-2
Matrix: Solid
Percent Solids: 50.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_H			714478	ZN	EET BUF	06/05/24 09:40
Total/NA	Analysis	8260C		40	714450	ZN	EET BUF	06/05/24 14:39
Total/NA	Prep	3550C			714386	SJM	EET BUF	06/04/24 15:55
Total/NA	Analysis	8270D		20	714483	JMM	EET BUF	06/07/24 15:19
Total/NA	Prep	3550C			714592	SJM	EET BUF	06/05/24 16:46
Total/NA	Analysis	8081B		20	714611	JLS	EET BUF	06/06/24 11:29

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220423-1

Client Sample ID: SED-02

Lab Sample ID: 480-220423-2
Date Collected: 06/03/24 16:00
Matrix: Solid
Date Received: 06/03/24 19:00
Percent Solids: 50.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			714392	SJM	EET BUF	06/04/24 16:08
Total/NA	Analysis	8082A		2	714682	H9RU	EET BUF	06/06/24 16:44
Total/NA	Prep	3050B			714327	EMO	EET BUF	06/04/24 15:43
Total/NA	Analysis	6010C		1	714510	NZG	EET BUF	06/05/24 11:02
Total/NA	Prep	3050B			714675	EMO	EET BUF	06/06/24 14:39
Total/NA	Analysis	6010C		1	714940	NZG	EET BUF	06/07/24 16:26
Total/NA	Prep	7471B			714338	ESB	EET BUF	06/05/24 08:44
Total/NA	Analysis	7471B		10	714512	ESB	EET BUF	06/05/24 11:31
Total/NA	Prep	9012B			714887	AM	EET BUF	06/07/24 12:22
Total/NA	Analysis	9012B		1	714906	AM	EET BUF	06/07/24 16:06
Total/NA	Analysis	EPA-Lloyd Kahn		1	471677	SMW	EET PIT	06/14/24 14:35

Client Sample ID: SED-03

Lab Sample ID: 480-220423-3
Date Collected: 06/03/24 16:30
Matrix: Solid
Date Received: 06/03/24 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	714379	JMM	EET BUF	06/04/24 15:38

Client Sample ID: SED-03

Lab Sample ID: 480-220423-3
Date Collected: 06/03/24 16:30
Matrix: Solid
Date Received: 06/03/24 19:00
Percent Solids: 73.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_H			714478	ZN	EET BUF	06/05/24 09:40
Total/NA	Analysis	8260C		40	714450	ZN	EET BUF	06/05/24 15:02
Total/NA	Prep	3550C			714386	SJM	EET BUF	06/04/24 15:55
Total/NA	Analysis	8270D		20	714483	JMM	EET BUF	06/07/24 15:46
Total/NA	Prep	3550C			714592	SJM	EET BUF	06/05/24 16:46
Total/NA	Analysis	8081B		20	714611	JLS	EET BUF	06/06/24 11:49
Total/NA	Prep	3550C			714392	SJM	EET BUF	06/04/24 16:08
Total/NA	Analysis	8082A		5	714571	H9RU	EET BUF	06/06/24 02:18
Total/NA	Prep	3050B			714327	EMO	EET BUF	06/04/24 15:43
Total/NA	Analysis	6010C		1	714510	NZG	EET BUF	06/05/24 11:04
Total/NA	Prep	3050B			714675	EMO	EET BUF	06/06/24 14:39
Total/NA	Analysis	6010C		1	714940	NZG	EET BUF	06/07/24 16:28
Total/NA	Prep	7471B			714338	ESB	EET BUF	06/05/24 08:44
Total/NA	Analysis	7471B		1	714512	ESB	EET BUF	06/05/24 11:04
Total/NA	Prep	9012B			714887	AM	EET BUF	06/07/24 12:22
Total/NA	Analysis	9012B		1	714906	AM	EET BUF	06/07/24 16:07
Total/NA	Analysis	EPA-Lloyd Kahn		1	471505	SMW	EET PIT	06/13/24 19:30

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220423-1

Client Sample ID: SED-04
Date Collected: 06/03/24 17:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	714379	JMM	EET BUF	06/04/24 15:38

Client Sample ID: SED-04
Date Collected: 06/03/24 17:00
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-4
Matrix: Solid
Percent Solids: 55.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_H			714478	ZN	EET BUF	06/05/24 09:40
Total/NA	Analysis	8260C		100	714450	ZN	EET BUF	06/05/24 15:25
Total/NA	Prep	3550C			714386	SJM	EET BUF	06/04/24 15:55
Total/NA	Analysis	8270D		20	714483	JMM	EET BUF	06/07/24 16:14
Total/NA	Prep	3550C			714592	SJM	EET BUF	06/05/24 16:46
Total/NA	Analysis	8081B		20	714611	JLS	EET BUF	06/06/24 12:08
Total/NA	Prep	3550C			714392	SJM	EET BUF	06/04/24 16:08
Total/NA	Analysis	8082A		2	714682	H9RU	EET BUF	06/06/24 17:01
Total/NA	Prep	1633 Shake			617589	CLB	EET CLE	06/24/24 09:15
Total/NA	Analysis	1633		1	617699	RMN	EET CLE	06/25/24 04:17
Total/NA	Prep	3050B			714675	EMO	EET BUF	06/06/24 14:39
Total/NA	Analysis	6010C		100	715038	NZG	EET BUF	06/10/24 11:16
Total/NA	Prep	3050B			714327	EMO	EET BUF	06/04/24 15:43
Total/NA	Analysis	6010C		1	714510	NZG	EET BUF	06/05/24 11:12
Total/NA	Prep	3050B			714675	EMO	EET BUF	06/06/24 14:39
Total/NA	Analysis	6010C		1	714940	NZG	EET BUF	06/07/24 16:30
Total/NA	Prep	7471B			714338	ESB	EET BUF	06/05/24 08:44
Total/NA	Analysis	7471B		10	714512	ESB	EET BUF	06/05/24 11:32
Total/NA	Prep	9012B			714887	AM	EET BUF	06/07/24 12:22
Total/NA	Analysis	9012B		5	714906	AM	EET BUF	06/07/24 16:25
Total/NA	Analysis	EPA-Lloyd Kahn		1	471505	SMW	EET PIT	06/13/24 19:53
Total/NA	Analysis	EPA-Lloyd Kahn		1	472359	ERP	EET PIT	06/24/24 18:36

Client Sample ID: SED-05
Date Collected: 06/03/24 17:35
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	714379	JMM	EET BUF	06/04/24 15:38

Client Sample ID: SED-05
Date Collected: 06/03/24 17:35
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-5
Matrix: Solid
Percent Solids: 49.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_H			714478	ZN	EET BUF	06/05/24 09:40
Total/NA	Analysis	8260C		40	714450	ZN	EET BUF	06/05/24 15:48

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220423-1

Client Sample ID: SED-05

Date Collected: 06/03/24 17:35
Date Received: 06/03/24 19:00

Lab Sample ID: 480-220423-5

Matrix: Solid
Percent Solids: 49.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			714386	SJM	EET BUF	06/04/24 15:55
Total/NA	Analysis	8270D		10	714483	JMM	EET BUF	06/07/24 16:51
Total/NA	Prep	3550C			714592	SJM	EET BUF	06/05/24 16:46
Total/NA	Analysis	8081B		20	714611	JLS	EET BUF	06/06/24 12:28
Total/NA	Prep	3550C			714392	SJM	EET BUF	06/04/24 16:08
Total/NA	Analysis	8082A		2	714682	H9RU	EET BUF	06/06/24 17:18
Total/NA	Prep	3050B			714675	EMO	EET BUF	06/06/24 14:39
Total/NA	Analysis	6010C		20	715038	NZG	EET BUF	06/10/24 11:23
Total/NA	Prep	3050B			714327	EMO	EET BUF	06/04/24 15:43
Total/NA	Analysis	6010C		1	714510	NZG	EET BUF	06/05/24 11:14
Total/NA	Prep	3050B			714675	EMO	EET BUF	06/06/24 14:39
Total/NA	Analysis	6010C		1	714940	NZG	EET BUF	06/07/24 16:32
Total/NA	Prep	7471B			714338	ESB	EET BUF	06/05/24 08:44
Total/NA	Analysis	7471B		1	714512	ESB	EET BUF	06/05/24 11:06
Total/NA	Prep	9012B			714887	AM	EET BUF	06/07/24 12:22
Total/NA	Analysis	9012B		1	714906	AM	EET BUF	06/07/24 16:10
Total/NA	Analysis	EPA-Lloyd Kahn		1	471505	SMW	EET PIT	06/13/24 20:38
Total/NA	Analysis	EPA-Lloyd Kahn		1	472359	ERP	EET PIT	06/24/24 18:51

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396
EET PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Accreditation/Certification Summary

Client: Ashland LLC
Job ID: 480-220423-1
Project/Site: Tank 75 Analysis

Laboratory: Eurofins Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	06-11-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	06-25-24
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	06-30-24
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-28-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-24
California	State	2891	04-30-24 *
Connecticut	State	PH-0688	09-30-24
Florida	NELAP	E871008	06-30-24
Georgia	State	PA 02-00416	04-30-25
Illinois	NELAP	004375	07-31-25
Kansas	NELAP	E-10350	01-31-25
Kentucky (UST)	State	162013	04-30-23 *
Kentucky (WW)	State	KY98043	12-31-24
Louisiana	NELAP	04041	06-30-22 *
Louisiana (All)	NELAP	04041	06-30-24
Maine	State	PA00164	03-06-26
Minnesota	NELAP	042-999-482	12-31-24
New Hampshire	NELAP	2030	04-04-25
New Jersey	NELAP	PA005	06-30-24
New York	NELAP	11182	04-01-25
North Carolina (WW/SW)	State	434	12-31-24
North Dakota	State	R-227	04-30-24 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Ashland LLC
Job ID: 480-220423-1
Project/Site: Tank 75 Analysis

Laboratory: Eurofins Pittsburgh (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	PA-2151	02-06-25
Pennsylvania	NELAP	02-00416	04-30-25
Rhode Island	State	LAO00362	01-01-25
South Carolina	State	89014	04-30-25
Texas	NELAP	T104704528	03-31-25
US Fish & Wildlife	US Federal Programs	058448	04-30-25
USDA	US Federal Programs	P330-16-00211	04-11-26
Utah	NELAP	PA001462019-8	05-31-24 *
Virginia	NELAP	10043	07-14-24
West Virginia DEP	State	142	01-31-25
Wisconsin	State	998027800	08-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220423-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET BUF
8081B	Organochlorine Pesticides (GC)	SW846	EET BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET BUF
1633	Per- and Polyfluoroalkyl Substances by LC/MS/MS	EPA	EET CLE
6010C	Metals (ICP)	SW846	EET BUF
7471B	Mercury (CVAA)	SW846	EET BUF
9012B	Cyanide, Total andor Amenable	SW846	EET BUF
EPA-Lloyd Kahn	Organic Carbon, Total (TOC)	EPA	EET PIT
Moisture	Percent Moisture	EPA	EET BUF
1633 Shake	Shake Extraction with SPE	EPA	EET CLE
3050B	Preparation, Metals	SW846	EET BUF
3550C	Ultrasonic Extraction	SW846	EET BUF
5035A_H	Closed System Purge and Trap	SW846	EET BUF
7471B	Preparation, Mercury	SW846	EET BUF
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	EET BUF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Sample Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220423-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-220423-1	SED-01	Solid	06/03/24 15:00	06/03/24 19:00
480-220423-2	SED-02	Solid	06/03/24 16:00	06/03/24 19:00
480-220423-3	SED-03	Solid	06/03/24 16:30	06/03/24 19:00
480-220423-4	SED-04	Solid	06/03/24 17:00	06/03/24 19:00
480-220423-5	SED-05	Solid	06/03/24 17:35	06/03/24 19:00

Eurofins Buffalo
10 Hazelwood Drive

Amherst, NY 14228-2223
phone 716.691.2600 fax 716.691.7991

Chain of Custody Record

eurofins | Environment Testing America

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Colin Wasteneys	Site Contact: Ethan Smith	Date: 613124	Eurofins Environment Testing America
AECOM	Email: colin.wasteneys@aecom.com	Lab Contact: John Beninati	Carrier:	COC No: 1 of 1 COCs
50 LAKEFRONT BLVD SUITE 111	Tel/Fax: (716) 225-4396			TALS Project #: Ethan Smith
BUFFALO, NY	Analysis Turnaround Time			Sampler:
(716) 856-5636 Phone	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(xxx) xxx-xxxx FAX	TAT if different from Below STD			Walk-in Client:
Project Name: Ashland Tank 75 Site	☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day			Lab Sampling:
Site: Tank 75 Site, Tonawanda, NY				Job / SDG No.:
P O # 60730037				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	TCL, 1,4-Dioxane	8260C-TCL VOCs	9012B Cyanide	6010C - TAL metals	7471B - mercury	8270D-SVOCs, 1,4-Dioxane	8082A - PCBs	8081B - Pesticides	1633 - PFAS	Sample Specific Notes:
Sed-01	613124	1500	G	Sed	9			X	X	X	X	X	X	X	X		NO 1,4-Dioxane for SED-1,2,3 and 5
Sed-02		1600			9			X	X	X	X	X	X	X	X		
Sed-03		1630			9			X	X	X	X	X	X	X	X		
Sed-04		1700			10			X	X	X	X	X	X	X	X	XX	
Sed-05		1735			9			X	X	X	X	X	X	X	X		

480-220423 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
Add ethan.smith@aecom.com and edyta.chorostkowska@aecom.com

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____ Corr'd: _____		Therm ID No.: _____	
Relinquished by:	Company: AECOM	Date/Time: 1900 613124	Received by: JM	Company: EUROFINS	Date/Time: 6/3/24	
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time: 1400	
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:	

3.9 3.2 ICE

7/3/2024


Part # 159469-434 MTW EXP 09/24
eurofins
Environment Testing
TestAmerica
ORIGIN ID:LDJA (732) 549-3900
DIAA NIMER
EUROFINS EDISON
777 NEW DURHAM ROAD
EDISON, NJ 08817
UNITED STATES US
SHIP DATE: 11JUN24
ACTWGT: 26.05 LB
CAD: 0619092/CAFE3808
BILL SENDER
TO SHIPPING/RECEIVING
EUROFINS ENVIRONMENT TESTING NORTHE
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238
(412) 963-7058
REF: 8460-182919
PO: YES
Uncorrected temp 3.1 °C
Thermometer ID 206
CF 0 Initials RD
PT-WI-SR-001 effective 11/8/18
FedEx Express
TRK# 0201 6553 1012 2970
WED - 12 JUN 10:30A
PRIORITY OVERNIGHT
NX AGCA
15238
PA-US PIT
480-220423 Waybill

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone 732-549-3900 Fax: 732-549-3679

54BB

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler	Lab PM: Beninati, John	Carrier Tracking No(s)	COC No: 460-71444 1
Client Contact: Shipping/Receiving	Phone	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing Northeast,		Accreditations Required (See note): NELAP - New York		Job #: 480-220423-1
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested: 6/17/2024			
City: Pittsburgh	TAT Requested (days):			
State, Zip: PA, 15238				
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO #:			
Email	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site	SSOW#:			

Analysis Requested

Preservation Codes: -

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Lloyd_Kahn_Mod/ Lloyd Kahn-Single Burn	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SED-01 (480-220423-1)	6/3/24	15:00 Eastern		Solid			X	1	weigh 5 mg only
SED-02 (480-220423-2)	6/3/24	16 00 Eastern		Solid			X	1	
SED-03 (480-220423-3)	6/3/24	16:30 Eastern		Solid			X	1	
SED-04 (480-220423-4)	6/3/24	17.00 Eastern		Solid			X	1	
SED-05 (480-220423-5)	6/3/24	17:35 Eastern		Solid			X	1	

480-220423 Chain of Custody

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank. 4	Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	[signature]	6/11/24 1900	EEL	[signature]	6/12/24 1030	EEL
2						
3						

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

4.4/48

eurofins Environment Testing

Client Information (Sub Contract Lab)	Sampler	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-88090 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note): NELAP New York		Job #: 480-220423-1
Address: 180 S. Van Buren Avenue,	Due Date Requested: 6/17/2024			
City: Barberton	TAT Requested (days):			
State, Zip: OH 44203				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

Other

PFAS 26

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633/1633_Shake 1633 Standard List	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SED-04 (480-220423-4)	6/3/24	17:00 Eastern		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I, II, III IV Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
KS	6/19/24 4:00pm	ETA	TAMMY ROYER	6-20-24 930	ETNC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Eurofins - Cleveland Sample Receipt Form/Narrative Login #
Barberton Facility

Client ETA Site Name

Cooler unpacked by: TAMMY ROYER

Cooler Received on 6-20-24 Opened on 6-20-24

FedEx: 1st Grd (Exp) UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used. Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 17 (CF 0+2 °C) Observed Cooler Temp. 4.6 °C Corrected Cooler Temp. 4.8 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
-Were tamper/custody seals intact and uncompromised?	(Yes)	No NA
3 Shippers' packing slip attached to the cooler(s)?	(Yes)	No
4 Did custody papers accompany the sample(s)?	(Yes)	No
5 Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	(No)
7 Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes)	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp(Y/N)?	(Y)	(Y) (Y)
10 Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
11 Sufficient quantity received to perform indicated analyses?	(Yes)	No
12. Are these work share samples and all listed on the COC?	(Yes)	No
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA
14 Were VOAs on the COC?	Yes	No
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes	No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	No
17 Was a LL Hg or Me Hg trip blank present?	Yes	No

pH Strip Lot# ~~HC339814~~ HC442471

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19 SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container
Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory
Time preserved. Preservative(s) added/Lot number(s)

VOA Sample Preservation - Date/Time VOAs Frozen.

Do not lift using this tag

SAMPLE CONTROL
EUROFINS ENVIRONMENT TESTING
10 HAZELWOOD DRIVE

BUFFALO, NY 142282223
UNITED STATES US

ACTWGT: 25.15 LB
CAD 0759273/CAFE3808
DIMS 18x15x13 IN

BILL SENDER

Part# 159469434 MTW EXP 03/25

TO SAMPLE RECEIPT
EUROFINS CLEVELAND
180 S VAN BUREN AVE

BARBERTON OH 442033543
(330) 497-9396
REF: BARBERTON

FedEx Express

THU - 20 JUN 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7117 9321 1565

NX CAKA

44203
OH-US CLE

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-87847 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing Northeast,		Accreditations Required (See note): NELAP New York		Job #: 480-220423-1
Address: 777 New Durham Road,	Due Date Requested: 6/17/2024			Preservation Codes: -
City: Edison	TAT Requested (days):			
State, Zip: NJ 08817				
Phone: 732-549-3900(Tel) 732-549-3679(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site:	SSOW#:			Other:

Analysis Requested

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Lloyd_Kahn_Modf Organic Carbon, Total (TOC)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SED-01 (480-220423-1)	6/3/24	15:00 Eastern		Solid			X	1	
SED-02 (480-220423-2)	6/3/24	16:00 Eastern		Solid			X	1	
SED-03 (480-220423-3)	6/3/24	16:30 Eastern		Solid			X	1	
SED-04 (480-220423-4)	6/3/24	17:00 Eastern		Solid			X	1	
SED-05 (480-220423-5)	6/3/24	17:35 Eastern		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested. I, II, III, IV Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 6/4/24 1600	Company TA	Received by: via Fedex	Date/Time: 6/5/24 1010	Company ET
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks: 0.9 1.3 IR9

Ver: 04/02/2024

Login Sample Receipt Checklist

Client: Ashland LLC

Job Number: 480-220423-1

Login Number: 220423
List Number: 1
Creator: Yeager, Brian A

List Source: Eurofins Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	FREEZE 6-4-24 10:45
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	AECOM
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: Ashland LLC

Job Number: 480-220423-1

Login Number: 220423
List Number: 3
Creator: Rucker, Keenyn J

List Source: Eurofins Pittsburgh
List Creation: 06/12/24 06:52 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Shannon Lloyd
Ashland LLC
PO BOX 2219
Columbus, Ohio 43216

Generated 6/19/2024 10:04:37 AM

JOB DESCRIPTION

Tank 75 Analysis

JOB NUMBER

480-220470-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

See page two for job notes and contact information.

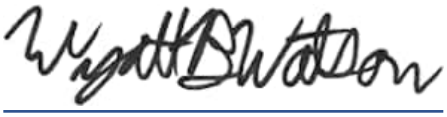
myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

Authorization



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Authorized for release by
Wyatt Watson, Project Management Assistant I
Wyatt.Watson@et.eurofinsus.com
Designee for
John Beninati, Project Manager I
John.Beninati@et.eurofinsus.com
(716)504-9874

Table of Contents

Definitions/Glossary

Client: Ashland LLC
Job ID: 480-220470-1
Project/Site: Tank 75 Analysis

Qualifiers

General Chemistry

Qualifier	Qualifier Description
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
480-220470-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 6/4/2024 4:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 3.0°C, 3.6°C, 3.7°C, 3.9°C, 5.2°C and 5.4°C.

GC Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 9045D: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: SED-06 (480-220470-1), SED-07 (480-220470-2), SED-08 (480-220470-3), SED-09 (480-220470-4), SED-10 (480-220470-5), SED-11 (480-220470-6), SED-12 (480-220470-7), SED-13 (480-220470-8), SED-14 (480-220470-9) and SED-15 (480-220470-10).

Method D240_87: When prepped for Heat of Combustion/BTU analysis, the following sample did not combust: SED-13 (480-220470-8). The sample(s) was run in duplicate to confirm. The result(s) has been reported as "Did Not Fire" (DNF).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220470-1

Client Sample ID: SED-06 — Lab Sample ID: 480-220470-1

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Flashpoint	>175		50.0	50.0	Degrees F	1		1010A	Total/NA
SGT-HEM	45000		188	75.2	mg/Kg	1	☼	1664B	Total/NA
Sulfide, Reactive	79.1		9.9	9.9	mg/Kg	1		9034	Total/NA
pH	7.5	HF	0.1	0.1	SU	1		9045D	Total/NA
Temperature	18.5	HF	0.001	0.001	Degrees C	1		9045D	Total/NA
Free Liquid	Passed				mL/100g	1		9095B	Total/NA
BTU	3900		200	200	BTU/lb	1		D240-87	Total/NA

Client Sample ID: SED-07 — Lab Sample ID: 480-220470-2

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Flashpoint	>175		50.0	50.0	Degrees F	1		1010A	Total/NA
SGT-HEM	19700		122	48.9	mg/Kg	1	☼	1664B	Total/NA
pH	7.6	HF	0.1	0.1	SU	1		9045D	Total/NA
Temperature	18.4	HF	0.001	0.001	Degrees C	1		9045D	Total/NA
Free Liquid	Passed				mL/100g	1		9095B	Total/NA
BTU	5430		200	200	BTU/lb	1		D240-87	Total/NA

Client Sample ID: SED-08 — Lab Sample ID: 480-220470-3

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Flashpoint	>175		50.0	50.0	Degrees F	1		1010A	Total/NA
SGT-HEM	10400		201	80.5	mg/Kg	1	☼	1664B	Total/NA
Sulfide, Reactive	119		9.9	9.9	mg/Kg	1		9034	Total/NA
pH	8.0	HF	0.1	0.1	SU	1		9045D	Total/NA
Temperature	18.4	HF	0.001	0.001	Degrees C	1		9045D	Total/NA
Free Liquid	Passed				mL/100g	1		9095B	Total/NA
BTU	4310		200	200	BTU/lb	1		D240-87	Total/NA

Client Sample ID: SED-09 — Lab Sample ID: 480-220470-4

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Flashpoint	>175		50.0	50.0	Degrees F	1		1010A	Total/NA
SGT-HEM	19000		173	69.1	mg/Kg	1	☼	1664B	Total/NA
Sulfide, Reactive	156		9.7	9.7	mg/Kg	1		9034	Total/NA
pH	7.5	HF	0.1	0.1	SU	1		9045D	Total/NA
Temperature	18.3	HF	0.001	0.001	Degrees C	1		9045D	Total/NA
Free Liquid	Passed				mL/100g	1		9095B	Total/NA
BTU	3280		200	200	BTU/lb	1		D240-87	Total/NA

Client Sample ID: SED-10 — Lab Sample ID: 480-220470-5

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Flashpoint	>175		50.0	50.0	Degrees F	1		1010A	Total/NA
SGT-HEM	18000		196	78.5	mg/Kg	1	☼	1664B	Total/NA
Sulfide, Reactive	180		10	10	mg/Kg	1		9034	Total/NA
pH	7.1	HF	0.1	0.1	SU	1		9045D	Total/NA
Temperature	18.4	HF	0.001	0.001	Degrees C	1		9045D	Total/NA
Free Liquid	Passed				mL/100g	1		9095B	Total/NA
BTU	3090		200	200	BTU/lb	1		D240-87	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Detection Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220470-1

Client Sample ID: SED-11 — Lab Sample ID: 480-220470-6

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Flashpoint	>175		50.0	50.0	Degrees F	1		1010A	Total/NA
SGT-HEM	27200		203	81.3	mg/Kg	1	☼	1664B	Total/NA
Sulfide, Reactive	291		9.7	9.7	mg/Kg	1		9034	Total/NA
pH	7.0	HF	0.1	0.1	SU	1		9045D	Total/NA
Temperature	18.6	HF	0.001	0.001	Degrees C	1		9045D	Total/NA
Free Liquid	Passed				mL/100g	1		9095B	Total/NA
BTU	3930		200	200	BTU/lb	1		D240-87	Total/NA

Client Sample ID: SED-12 — Lab Sample ID: 480-220470-7

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Flashpoint	>175		50.0	50.0	Degrees F	1		1010A	Total/NA
SGT-HEM	16600		189	75.4	mg/Kg	1	☼	1664B	Total/NA
Sulfide, Reactive	132		9.4	9.4	mg/Kg	1		9034	Total/NA
pH	7.3	HF	0.1	0.1	SU	1		9045D	Total/NA
Temperature	18.5	HF	0.001	0.001	Degrees C	1		9045D	Total/NA
Free Liquid	Passed				mL/100g	1		9095B	Total/NA
BTU	2660		200	200	BTU/lb	1		D240-87	Total/NA

Client Sample ID: SED-13 — Lab Sample ID: 480-220470-8

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Flashpoint	>175		50.0	50.0	Degrees F	1		1010A	Total/NA
SGT-HEM	45600		245	98.0	mg/Kg	1	☼	1664B	Total/NA
Sulfide, Reactive	152		9.5	9.5	mg/Kg	1		9034	Total/NA
pH	7.2	HF	0.1	0.1	SU	1		9045D	Total/NA
Temperature	18.4	HF	0.001	0.001	Degrees C	1		9045D	Total/NA
Free Liquid	Passed				mL/100g	1		9095B	Total/NA
BTU	DNF		200	200	BTU/lb	1		D240-87	Total/NA

Client Sample ID: SED-14 — Lab Sample ID: 480-220470-9

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Flashpoint	>175		50.0	50.0	Degrees F	1		1010A	Total/NA
SGT-HEM	31700		165	65.9	mg/Kg	1	☼	1664B	Total/NA
Sulfide, Reactive	79.4		9.9	9.9	mg/Kg	1		9034	Total/NA
pH	7.3	HF	0.1	0.1	SU	1		9045D	Total/NA
Temperature	18.6	HF	0.001	0.001	Degrees C	1		9045D	Total/NA
Free Liquid	Passed				mL/100g	1		9095B	Total/NA
BTU	3090		200	200	BTU/lb	1		D240-87	Total/NA

Client Sample ID: SED-15 — Lab Sample ID: 480-220470-10

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Flashpoint	>175		50.0	50.0	Degrees F	1		1010A	Total/NA
SGT-HEM	13500		134	53.7	mg/Kg	1	☼	1664B	Total/NA
Sulfide, Reactive	18.5		9.2	9.2	mg/Kg	1		9034	Total/NA
pH	7.7	HF	0.1	0.1	SU	1		9045D	Total/NA
Temperature	18.3	HF	0.001	0.001	Degrees C	1		9045D	Total/NA
Free Liquid	Passed				mL/100g	1		9095B	Total/NA
BTU	1400		200	200	BTU/lb	1		D240-87	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Client Sample ID: SED-06

Lab Sample ID: 480-220470-1
Date Collected: 06/04/24 07:10
Matrix: Solid
Date Received: 06/04/24 16:00

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Free Liquid (SW846 9095B)	**Passed**				mL/100g			06/05/24 13:18	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		9.9	9.9	mg/Kg		06/07/24 10:05	06/08/24 08:35	1
Sulfide, Reactive (SW846 9034)	**79.1**		9.9	9.9	mg/Kg		06/07/24 10:05	06/08/24 08:25	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	**>175**		50.0	50.0	Degrees F			06/06/24 07:46	1
pH (SW846 9045D)	**7.5**	**HF**	0.1	0.1	SU			06/10/24 15:54	1
Temperature (SW846 9045D)	**18.5**	**HF**	0.001	0.001	Degrees C			06/10/24 15:54	1
BTU (ASTM D240-87)	**3900**		200	200	BTU/lb		06/12/24 14:48	06/12/24 21:00	1

Client Sample ID: SED-06

Lab Sample ID: 480-220470-1
Date Collected: 06/04/24 07:10
Matrix: Solid
Date Received: 06/04/24 16:00
Percent Solids: 53.1

Method: SW846 8015D - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		93	74	mg/Kg	☼		06/10/24 19:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	**45000**		188	75.2	mg/Kg	☼	06/06/24 08:13	06/06/24 09:18	1

Client Sample ID: SED-07

Lab Sample ID: 480-220470-2
Date Collected: 06/04/24 07:45
Matrix: Solid
Date Received: 06/04/24 16:00

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Free Liquid (SW846 9095B)	**Passed**				mL/100g			06/05/24 13:18	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		9.6	9.6	mg/Kg		06/07/24 10:05	06/08/24 08:37	1
Sulfide, Reactive (SW846 9034)	ND		9.6	9.6	mg/Kg		06/07/24 10:05	06/08/24 08:25	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	**>175**		50.0	50.0	Degrees F			06/06/24 07:46	1
pH (SW846 9045D)	**7.6**	**HF**	0.1	0.1	SU			06/10/24 15:54	1
Temperature (SW846 9045D)	**18.4**	**HF**	0.001	0.001	Degrees C			06/10/24 15:54	1
BTU (ASTM D240-87)	**5430**		200	200	BTU/lb		06/12/24 14:48	06/12/24 21:00	1

Client Sample ID: SED-07

Lab Sample ID: 480-220470-2
Date Collected: 06/04/24 07:45
Matrix: Solid
Date Received: 06/04/24 16:00
Percent Solids: 81.2

Method: SW846 8015D - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		61	49	mg/Kg	☼		06/10/24 20:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	**19700**		122	48.9	mg/Kg	☼	06/06/24 08:13	06/06/24 09:18	1

Client Sample ID: SED-08

Lab Sample ID: 480-220470-3
Date Collected: 06/04/24 08:15
Matrix: Solid
Date Received: 06/04/24 16:00

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Free Liquid (SW846 9095B)	**Passed**				mL/100g			06/05/24 13:18	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		9.9	9.9	mg/Kg		06/07/24 10:05	06/08/24 08:41	1
Sulfide, Reactive (SW846 9034)	**119**		9.9	9.9	mg/Kg		06/07/24 10:05	06/08/24 08:25	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	**>175**		50.0	50.0	Degrees F			06/06/24 07:46	1
pH (SW846 9045D)	**8.0**	**HF**	0.1	0.1	SU			06/10/24 15:54	1
Temperature (SW846 9045D)	**18.4**	**HF**	0.001	0.001	Degrees C			06/10/24 15:54	1
BTU (ASTM D240-87)	**4310**		200	200	BTU/lb		06/18/24 15:27	06/18/24 19:55	1

Client Sample ID: SED-08

Lab Sample ID: 480-220470-3
Date Collected: 06/04/24 08:15
Matrix: Solid
Date Received: 06/04/24 16:00
Percent Solids: 49.3

Method: SW846 8015D - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		100	80	mg/Kg	☼		06/10/24 20:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	**10400**		201	80.5	mg/Kg	☼	06/06/24 08:13	06/06/24 09:18	1

Client Sample ID: SED-09

Lab Sample ID: 480-220470-4
Date Collected: 06/04/24 08:45
Matrix: Solid
Date Received: 06/04/24 16:00

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Free Liquid (SW846 9095B)	**Passed**				mL/100g			06/05/24 13:18	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		9.7	9.7	mg/Kg		06/07/24 10:05	06/08/24 08:43	1
Sulfide, Reactive (SW846 9034)	**156**		9.7	9.7	mg/Kg		06/07/24 10:05	06/08/24 08:25	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	**>175**		50.0	50.0	Degrees F			06/06/24 07:46	1
pH (SW846 9045D)	**7.5**	**HF**	0.1	0.1	SU			06/10/24 15:54	1
Temperature (SW846 9045D)	**18.3**	**HF**	0.001	0.001	Degrees C			06/10/24 15:54	1
BTU (ASTM D240-87)	**3280**		200	200	BTU/lb		06/18/24 15:27	06/18/24 19:55	1

Client Sample ID: SED-09

Lab Sample ID: 480-220470-4
Date Collected: 06/04/24 08:45
Matrix: Solid
Date Received: 06/04/24 16:00
Percent Solids: 57.5

Method: SW846 8015D - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		85	68	mg/Kg	☼		06/10/24 20:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	**19000**		173	69.1	mg/Kg	☼	06/06/24 08:13	06/06/24 09:18	1

Client Sample ID: SED-10

Lab Sample ID: 480-220470-5
Date Collected: 06/04/24 09:15
Matrix: Solid
Date Received: 06/04/24 16:00

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Free Liquid (SW846 9095B)	**Passed**				mL/100g			06/05/24 13:18	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		10	10	mg/Kg		06/07/24 10:05	06/08/24 08:44	1
Sulfide, Reactive (SW846 9034)	**180**		10	10	mg/Kg		06/07/24 10:05	06/08/24 08:25	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	**>175**		50.0	50.0	Degrees F			06/06/24 07:46	1
pH (SW846 9045D)	**7.1**	**HF**	0.1	0.1	SU			06/10/24 15:54	1
Temperature (SW846 9045D)	**18.4**	**HF**	0.001	0.001	Degrees C			06/10/24 15:54	1
BTU (ASTM D240-87)	**3090**		200	200	BTU/lb		06/18/24 15:27	06/18/24 19:55	1

Client Sample ID: SED-10

Lab Sample ID: 480-220470-5
Date Collected: 06/04/24 09:15
Matrix: Solid
Date Received: 06/04/24 16:00
Percent Solids: 50.9

Method: SW846 8015D - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		97	78	mg/Kg	☼		06/10/24 20:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	**18000**		196	78.5	mg/Kg	☼	06/06/24 08:13	06/06/24 09:18	1

Client Sample ID: SED-11

Lab Sample ID: 480-220470-6
Date Collected: 06/04/24 09:50
Matrix: Solid
Date Received: 06/04/24 16:00

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Free Liquid (SW846 9095B)	**Passed**				mL/100g			06/05/24 13:18	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		9.7	9.7	mg/Kg		06/12/24 09:55	06/13/24 10:26	1
Sulfide, Reactive (SW846 9034)	**291**		9.7	9.7	mg/Kg		06/12/24 09:55	06/13/24 11:30	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	**>175**		50.0	50.0	Degrees F			06/06/24 07:46	1
pH (SW846 9045D)	**7.0**	**HF**	0.1	0.1	SU			06/10/24 15:54	1
Temperature (SW846 9045D)	**18.6**	**HF**	0.001	0.001	Degrees C			06/10/24 15:54	1
BTU (ASTM D240-87)	**3930**		200	200	BTU/lb		06/18/24 15:27	06/18/24 19:55	1

Client Sample ID: SED-11

Lab Sample ID: 480-220470-6
Date Collected: 06/04/24 09:50
Matrix: Solid
Date Received: 06/04/24 16:00
Percent Solids: 48.9

Method: SW846 8015D - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		100	80	mg/Kg	☼		06/10/24 20:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	**27200**		203	81.3	mg/Kg	☼	06/06/24 08:13	06/06/24 09:18	1

Client Sample ID: SED-12

Lab Sample ID: 480-220470-7
Date Collected: 06/04/24 10:30
Matrix: Solid
Date Received: 06/04/24 16:00

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Free Liquid (SW846 9095B)	Passed				mL/100g			06/05/24 13:18	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		9.4	9.4	mg/Kg		06/12/24 09:55	06/13/24 10:27	1
Sulfide, Reactive (SW846 9034)	132		9.4	9.4	mg/Kg		06/12/24 09:55	06/13/24 11:30	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	>175		50.0	50.0	Degrees F			06/11/24 09:28	1
pH (SW846 9045D)	7.3	HF	0.1	0.1	SU			06/10/24 15:54	1
Temperature (SW846 9045D)	18.5	HF	0.001	0.001	Degrees C			06/10/24 15:54	1
BTU (ASTM D240-87)	2660		200	200	BTU/lb		06/18/24 15:27	06/18/24 19:55	1

Client Sample ID: SED-12

Lab Sample ID: 480-220470-7
Date Collected: 06/04/24 10:30
Matrix: Solid
Date Received: 06/04/24 16:00
Percent Solids: 53.1

Method: SW846 8015D - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		93	75	mg/Kg	☼		06/10/24 20:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	16600		189	75.4	mg/Kg	☼	06/06/24 08:13	06/06/24 09:18	1

Client Sample ID: SED-13

Lab Sample ID: 480-220470-8
Date Collected: 06/04/24 11:00
Matrix: Solid
Date Received: 06/04/24 16:00

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Free Liquid (SW846 9095B)	Passed				mL/100g			06/05/24 13:18	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		9.5	9.5	mg/Kg		06/12/24 09:55	06/13/24 10:32	1
Sulfide, Reactive (SW846 9034)	152		9.5	9.5	mg/Kg		06/12/24 09:55	06/13/24 11:30	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	>175		50.0	50.0	Degrees F			06/11/24 09:28	1
pH (SW846 9045D)	7.2	HF	0.1	0.1	SU			06/10/24 15:54	1
Temperature (SW846 9045D)	18.4	HF	0.001	0.001	Degrees C			06/10/24 15:54	1
BTU (ASTM D240-87)	DNF		200	200	BTU/lb		06/18/24 15:27	06/18/24 19:55	1

Client Sample ID: SED-13

Lab Sample ID: 480-220470-8
Date Collected: 06/04/24 11:00
Matrix: Solid
Date Received: 06/04/24 16:00
Percent Solids: 40.9

Method: SW846 8015D - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		120	97	mg/Kg	☼		06/10/24 20:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	45600		245	98.0	mg/Kg	☼	06/06/24 08:13	06/06/24 09:18	1

Client Sample ID: SED-14

Lab Sample ID: 480-220470-9
Date Collected: 06/04/24 11:30
Matrix: Solid
Date Received: 06/04/24 16:00

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Free Liquid (SW846 9095B)	**Passed**				mL/100g			06/05/24 13:18	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		9.9	9.9	mg/Kg		06/12/24 09:55	06/13/24 10:33	1
Sulfide, Reactive (SW846 9034)	**79.4**		9.9	9.9	mg/Kg		06/12/24 09:55	06/13/24 11:30	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	**>175**		50.0	50.0	Degrees F			06/11/24 09:28	1
pH (SW846 9045D)	**7.3**	**HF**	0.1	0.1	SU			06/10/24 15:54	1
Temperature (SW846 9045D)	**18.6**	**HF**	0.001	0.001	Degrees C			06/10/24 15:54	1
BTU (ASTM D240-87)	**3090**		200	200	BTU/lb		06/18/24 15:27	06/18/24 19:55	1

Client Sample ID: SED-14

Lab Sample ID: 480-220470-9
Date Collected: 06/04/24 11:30
Matrix: Solid
Date Received: 06/04/24 16:00
Percent Solids: 60.7

Method: SW846 8015D - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		82	65	mg/Kg	☼		06/10/24 20:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	**31700**		165	65.9	mg/Kg	☼	06/06/24 08:13	06/06/24 09:18	1

Client Sample ID: SED-15

Lab Sample ID: 480-220470-10
Date Collected: 06/04/24 12:00
Matrix: Solid
Date Received: 06/04/24 16:00

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Free Liquid (SW846 9095B)	**Passed**				mL/100g			06/05/24 13:18	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		9.2	9.2	mg/Kg		06/12/24 09:55	06/13/24 10:35	1
Sulfide, Reactive (SW846 9034)	**18.5**		9.2	9.2	mg/Kg		06/12/24 09:55	06/13/24 11:30	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	**>175**		50.0	50.0	Degrees F			06/11/24 09:28	1
pH (SW846 9045D)	**7.7**	**HF**	0.1	0.1	SU			06/10/24 15:54	1
Temperature (SW846 9045D)	**18.3**	**HF**	0.001	0.001	Degrees C			06/10/24 15:54	1
BTU (ASTM D240-87)	**1400**		200	200	BTU/lb		06/18/24 15:27	06/18/24 19:55	1

Client Sample ID: SED-15

Lab Sample ID: 480-220470-10
Date Collected: 06/04/24 12:00
Matrix: Solid
Date Received: 06/04/24 16:00
Percent Solids: 74.4

Method: SW846 8015D - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		67	54	mg/Kg	☼		06/10/24 20:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM (1664B)	**13500**		134	53.7	mg/Kg	☼	06/06/24 08:13	06/06/24 09:18	1

Method: 8015D - Nonhalogenated Organic Compounds - Direct Injection (GC)

Lab Sample ID: MB 400-674228/1-A
Matrix: Solid
Analysis Batch: 674267

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene glycol	ND		50	40	mg/Kg			06/10/24 18:08	1

Lab Sample ID: LCS 400-674228/2-A
Matrix: Solid
Analysis Batch: 674267

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ethylene glycol			197	214		mg/Kg		109	70 - 135		

Lab Sample ID: LCSD 400-674228/3-A
Matrix: Solid
Analysis Batch: 674267

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethylene glycol			199	224		mg/Kg		113	70 - 135	5	50

Method: 1010A - Ignitability, Pensky-Martens Closed-Cup Method

Lab Sample ID: LCS 480-714622/1
Matrix: Solid
Analysis Batch: 714622

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Flashpoint			81.0	81.00		Degrees F		100	97.5 - 102.5		

Lab Sample ID: LCS 480-715157/1
Matrix: Solid
Analysis Batch: 715157

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Flashpoint			81.0	81.00		Degrees F		100	97.5 - 102.5		

Method: 1664B - HEM and SGT-HEM

Lab Sample ID: MB 480-714629/1-A
Matrix: Solid
Analysis Batch: 714651

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714629

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	ND		99.6	39.8	mg/Kg		06/06/24 08:13	06/06/24 09:18	1

Lab Sample ID: LCS 480-714629/3-A
Matrix: Solid
Analysis Batch: 714651

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714629

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
SGT-HEM			940	775.4		mg/Kg		82	64 - 132		

Method: 9012 - Cyanide, Reactive

Lab Sample ID: MB 480-714913/1-A
Matrix: Solid
Analysis Batch: 714955

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714913

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive	ND		10.0	10.0	mg/Kg		06/07/24 10:05	06/08/24 08:24	1

Lab Sample ID: LCS 480-714913/2-A
Matrix: Solid
Analysis Batch: 714955

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714913

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Reactive	1000	740.0		mg/Kg		74	10 - 100

Lab Sample ID: MB 480-715447/1-A
Matrix: Solid
Analysis Batch: 715493

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 715447

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive	ND		10.0	10.0	mg/Kg		06/12/24 09:55	06/13/24 10:14	1

Lab Sample ID: LCS 480-715447/2-A
Matrix: Solid
Analysis Batch: 715493

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 715447

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Reactive	1000	695.0		mg/Kg		70	10 - 100

Method: 9034 - Sulfide, Reactive

Lab Sample ID: MB 480-714917/1-A
Matrix: Solid
Analysis Batch: 714945

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714917

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Reactive	ND		10.0	10.0	mg/Kg		06/07/24 10:05	06/08/24 08:25	1

Lab Sample ID: LCS 480-714917/2-A
Matrix: Solid
Analysis Batch: 714945

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714917

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide, Reactive	620	541.0		mg/Kg		87	10 - 100

Lab Sample ID: MB 480-715451/1-A
Matrix: Solid
Analysis Batch: 715495

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 715451

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Reactive	ND		10.0	10.0	mg/Kg		06/12/24 09:55	06/13/24 11:30	1

Method: 9034 - Sulfide, Reactive (Continued)

Lab Sample ID: LCS 480-715451/2-A
Matrix: Solid
Analysis Batch: 715495

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 715451

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide, Reactive	620	500.9		mg/Kg		81	10 - 100

Method: 9045D - pH

Lab Sample ID: LCS 480-715184/1
Matrix: Solid
Analysis Batch: 715184

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.0		SU		99	99 - 101

Method: 9095B - Paint Filter

Lab Sample ID: 480-220470-1 DU
Matrix: Solid
Analysis Batch: 714527

Client Sample ID: SED-06
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Free Liquid	Passed		Passed		mL/100g		NC	

Method: D240-87 - Heat of Combustion

Lab Sample ID: LCS 680-842088/1-A
Matrix: Solid
Analysis Batch: 842133

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 842088

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
BTU	5740	5342		BTU/lb		93	70 - 130

Lab Sample ID: LCSD 680-842088/2-A
Matrix: Solid
Analysis Batch: 842133

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 842088

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
BTU	5740	5703		BTU/lb		99	70 - 130	7	30

Lab Sample ID: LCS 680-843039/1-A
Matrix: Solid
Analysis Batch: 843072

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 843039

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
BTU	5740	4998		BTU/lb		87	70 - 130

GC Semi VOA

Leach Batch: 674228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220470-1	SED-06	Soluble	Solid	DI Leach	
480-220470-2	SED-07	Soluble	Solid	DI Leach	
480-220470-3	SED-08	Soluble	Solid	DI Leach	
480-220470-4	SED-09	Soluble	Solid	DI Leach	
480-220470-5	SED-10	Soluble	Solid	DI Leach	
480-220470-6	SED-11	Soluble	Solid	DI Leach	
480-220470-7	SED-12	Soluble	Solid	DI Leach	
480-220470-8	SED-13	Soluble	Solid	DI Leach	
480-220470-9	SED-14	Soluble	Solid	DI Leach	
480-220470-10	SED-15	Soluble	Solid	DI Leach	
MB 400-674228/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 400-674228/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 400-674228/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 674267

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220470-1	SED-06	Soluble	Solid	8015D	674228
480-220470-2	SED-07	Soluble	Solid	8015D	674228
480-220470-3	SED-08	Soluble	Solid	8015D	674228
480-220470-4	SED-09	Soluble	Solid	8015D	674228
480-220470-5	SED-10	Soluble	Solid	8015D	674228
480-220470-6	SED-11	Soluble	Solid	8015D	674228
480-220470-7	SED-12	Soluble	Solid	8015D	674228
480-220470-8	SED-13	Soluble	Solid	8015D	674228
480-220470-9	SED-14	Soluble	Solid	8015D	674228
480-220470-10	SED-15	Soluble	Solid	8015D	674228
MB 400-674228/1-A	Method Blank	Soluble	Solid	8015D	674228
LCS 400-674228/2-A	Lab Control Sample	Soluble	Solid	8015D	674228
LCSD 400-674228/3-A	Lab Control Sample Dup	Soluble	Solid	8015D	674228

General Chemistry

Analysis Batch: 714527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220470-1	SED-06	Total/NA	Solid	9095B	
480-220470-2	SED-07	Total/NA	Solid	9095B	
480-220470-3	SED-08	Total/NA	Solid	9095B	
480-220470-4	SED-09	Total/NA	Solid	9095B	
480-220470-5	SED-10	Total/NA	Solid	9095B	
480-220470-6	SED-11	Total/NA	Solid	9095B	
480-220470-7	SED-12	Total/NA	Solid	9095B	
480-220470-8	SED-13	Total/NA	Solid	9095B	
480-220470-9	SED-14	Total/NA	Solid	9095B	
480-220470-10	SED-15	Total/NA	Solid	9095B	
480-220470-1 DU	SED-06	Total/NA	Solid	9095B	

Analysis Batch: 714567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220470-1	SED-06	Total/NA	Solid	Moisture	
480-220470-2	SED-07	Total/NA	Solid	Moisture	
480-220470-3	SED-08	Total/NA	Solid	Moisture	

General Chemistry (Continued)

Analysis Batch: 714567 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220470-4	SED-09	Total/NA	Solid	Moisture	
480-220470-5	SED-10	Total/NA	Solid	Moisture	
480-220470-6	SED-11	Total/NA	Solid	Moisture	
480-220470-7	SED-12	Total/NA	Solid	Moisture	
480-220470-8	SED-13	Total/NA	Solid	Moisture	
480-220470-9	SED-14	Total/NA	Solid	Moisture	
480-220470-10	SED-15	Total/NA	Solid	Moisture	

Analysis Batch: 714622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220470-1	SED-06	Total/NA	Solid	1010A	
480-220470-2	SED-07	Total/NA	Solid	1010A	
480-220470-3	SED-08	Total/NA	Solid	1010A	
480-220470-4	SED-09	Total/NA	Solid	1010A	
480-220470-5	SED-10	Total/NA	Solid	1010A	
480-220470-6	SED-11	Total/NA	Solid	1010A	
LCS 480-714622/1	Lab Control Sample	Total/NA	Solid	1010A	

Prep Batch: 714629

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220470-1	SED-06	Total/NA	Solid	1664B	
480-220470-2	SED-07	Total/NA	Solid	1664B	
480-220470-3	SED-08	Total/NA	Solid	1664B	
480-220470-4	SED-09	Total/NA	Solid	1664B	
480-220470-5	SED-10	Total/NA	Solid	1664B	
480-220470-6	SED-11	Total/NA	Solid	1664B	
480-220470-7	SED-12	Total/NA	Solid	1664B	
480-220470-8	SED-13	Total/NA	Solid	1664B	
480-220470-9	SED-14	Total/NA	Solid	1664B	
480-220470-10	SED-15	Total/NA	Solid	1664B	
MB 480-714629/1-A	Method Blank	Total/NA	Solid	1664B	
LCS 480-714629/2-A	Lab Control Sample	Total/NA	Solid	1664B	
LCS 480-714629/3-A	Lab Control Sample	Total/NA	Solid	1664B	

Analysis Batch: 714651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220470-1	SED-06	Total/NA	Solid	1664B	714629
480-220470-2	SED-07	Total/NA	Solid	1664B	714629
480-220470-3	SED-08	Total/NA	Solid	1664B	714629
480-220470-4	SED-09	Total/NA	Solid	1664B	714629
480-220470-5	SED-10	Total/NA	Solid	1664B	714629
480-220470-6	SED-11	Total/NA	Solid	1664B	714629
480-220470-7	SED-12	Total/NA	Solid	1664B	714629
480-220470-8	SED-13	Total/NA	Solid	1664B	714629
480-220470-9	SED-14	Total/NA	Solid	1664B	714629
480-220470-10	SED-15	Total/NA	Solid	1664B	714629
MB 480-714629/1-A	Method Blank	Total/NA	Solid	1664B	714629
LCS 480-714629/2-A	Lab Control Sample	Total/NA	Solid	1664B	714629
LCS 480-714629/3-A	Lab Control Sample	Total/NA	Solid	1664B	714629

General Chemistry

Prep Batch: 714913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220470-1	SED-06	Total/NA	Solid	7.3.3	
480-220470-2	SED-07	Total/NA	Solid	7.3.3	
480-220470-3	SED-08	Total/NA	Solid	7.3.3	
480-220470-4	SED-09	Total/NA	Solid	7.3.3	
480-220470-5	SED-10	Total/NA	Solid	7.3.3	
MB 480-714913/1-A	Method Blank	Total/NA	Solid	7.3.3	
LCS 480-714913/2-A	Lab Control Sample	Total/NA	Solid	7.3.3	

Prep Batch: 714917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220470-1	SED-06	Total/NA	Solid	7.3.4	
480-220470-2	SED-07	Total/NA	Solid	7.3.4	
480-220470-3	SED-08	Total/NA	Solid	7.3.4	
480-220470-4	SED-09	Total/NA	Solid	7.3.4	
480-220470-5	SED-10	Total/NA	Solid	7.3.4	
MB 480-714917/1-A	Method Blank	Total/NA	Solid	7.3.4	
LCS 480-714917/2-A	Lab Control Sample	Total/NA	Solid	7.3.4	

Analysis Batch: 714945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220470-1	SED-06	Total/NA	Solid	9034	714917
480-220470-2	SED-07	Total/NA	Solid	9034	714917
480-220470-3	SED-08	Total/NA	Solid	9034	714917
480-220470-4	SED-09	Total/NA	Solid	9034	714917
480-220470-5	SED-10	Total/NA	Solid	9034	714917
MB 480-714917/1-A	Method Blank	Total/NA	Solid	9034	714917
LCS 480-714917/2-A	Lab Control Sample	Total/NA	Solid	9034	714917

Analysis Batch: 714955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220470-1	SED-06	Total/NA	Solid	9012	714913
480-220470-2	SED-07	Total/NA	Solid	9012	714913
480-220470-3	SED-08	Total/NA	Solid	9012	714913
480-220470-4	SED-09	Total/NA	Solid	9012	714913
480-220470-5	SED-10	Total/NA	Solid	9012	714913
MB 480-714913/1-A	Method Blank	Total/NA	Solid	9012	714913
LCS 480-714913/2-A	Lab Control Sample	Total/NA	Solid	9012	714913

Analysis Batch: 715157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220470-7	SED-12	Total/NA	Solid	1010A	
480-220470-8	SED-13	Total/NA	Solid	1010A	
480-220470-9	SED-14	Total/NA	Solid	1010A	
480-220470-10	SED-15	Total/NA	Solid	1010A	
LCS 480-715157/1	Lab Control Sample	Total/NA	Solid	1010A	

Analysis Batch: 715184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220470-1	SED-06	Total/NA	Solid	9045D	
480-220470-2	SED-07	Total/NA	Solid	9045D	
480-220470-3	SED-08	Total/NA	Solid	9045D	

General Chemistry (Continued)

Analysis Batch: 715184 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220470-4	SED-09	Total/NA	Solid	9045D	
480-220470-5	SED-10	Total/NA	Solid	9045D	
480-220470-6	SED-11	Total/NA	Solid	9045D	
480-220470-7	SED-12	Total/NA	Solid	9045D	
480-220470-8	SED-13	Total/NA	Solid	9045D	
480-220470-9	SED-14	Total/NA	Solid	9045D	
480-220470-10	SED-15	Total/NA	Solid	9045D	
LCS 480-715184/1	Lab Control Sample	Total/NA	Solid	9045D	

Prep Batch: 715447

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220470-6	SED-11	Total/NA	Solid	7.3.3	
480-220470-7	SED-12	Total/NA	Solid	7.3.3	
480-220470-8	SED-13	Total/NA	Solid	7.3.3	
480-220470-9	SED-14	Total/NA	Solid	7.3.3	
480-220470-10	SED-15	Total/NA	Solid	7.3.3	
MB 480-715447/1-A	Method Blank	Total/NA	Solid	7.3.3	
LCS 480-715447/2-A	Lab Control Sample	Total/NA	Solid	7.3.3	

Prep Batch: 715451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220470-6	SED-11	Total/NA	Solid	7.3.4	
480-220470-7	SED-12	Total/NA	Solid	7.3.4	
480-220470-8	SED-13	Total/NA	Solid	7.3.4	
480-220470-9	SED-14	Total/NA	Solid	7.3.4	
480-220470-10	SED-15	Total/NA	Solid	7.3.4	
MB 480-715451/1-A	Method Blank	Total/NA	Solid	7.3.4	
LCS 480-715451/2-A	Lab Control Sample	Total/NA	Solid	7.3.4	

Analysis Batch: 715493

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220470-6	SED-11	Total/NA	Solid	9012	715447
480-220470-7	SED-12	Total/NA	Solid	9012	715447
480-220470-8	SED-13	Total/NA	Solid	9012	715447
480-220470-9	SED-14	Total/NA	Solid	9012	715447
480-220470-10	SED-15	Total/NA	Solid	9012	715447
MB 480-715447/1-A	Method Blank	Total/NA	Solid	9012	715447
LCS 480-715447/2-A	Lab Control Sample	Total/NA	Solid	9012	715447

Analysis Batch: 715495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220470-6	SED-11	Total/NA	Solid	9034	715451
480-220470-7	SED-12	Total/NA	Solid	9034	715451
480-220470-8	SED-13	Total/NA	Solid	9034	715451
480-220470-9	SED-14	Total/NA	Solid	9034	715451
480-220470-10	SED-15	Total/NA	Solid	9034	715451
MB 480-715451/1-A	Method Blank	Total/NA	Solid	9034	715451
LCS 480-715451/2-A	Lab Control Sample	Total/NA	Solid	9034	715451

QC Association Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220470-1

General Chemistry

Prep Batch: 842088

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220470-1	SED-06	Total/NA	Solid	D240-87	
480-220470-2	SED-07	Total/NA	Solid	D240-87	
LCS 680-842088/1-A	Lab Control Sample	Total/NA	Solid	D240-87	
LCSD 680-842088/2-A	Lab Control Sample Dup	Total/NA	Solid	D240-87	

Analysis Batch: 842133

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220470-1	SED-06	Total/NA	Solid	D240-87	842088
480-220470-2	SED-07	Total/NA	Solid	D240-87	842088
LCS 680-842088/1-A	Lab Control Sample	Total/NA	Solid	D240-87	842088
LCSD 680-842088/2-A	Lab Control Sample Dup	Total/NA	Solid	D240-87	842088

Prep Batch: 843039

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220470-3	SED-08	Total/NA	Solid	D240-87	
480-220470-4	SED-09	Total/NA	Solid	D240-87	
480-220470-5	SED-10	Total/NA	Solid	D240-87	
480-220470-6	SED-11	Total/NA	Solid	D240-87	
480-220470-7	SED-12	Total/NA	Solid	D240-87	
480-220470-8	SED-13	Total/NA	Solid	D240-87	
480-220470-9	SED-14	Total/NA	Solid	D240-87	
480-220470-10	SED-15	Total/NA	Solid	D240-87	
LCS 680-843039/1-A	Lab Control Sample	Total/NA	Solid	D240-87	

Analysis Batch: 843072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220470-3	SED-08	Total/NA	Solid	D240-87	843039
480-220470-4	SED-09	Total/NA	Solid	D240-87	843039
480-220470-5	SED-10	Total/NA	Solid	D240-87	843039
480-220470-6	SED-11	Total/NA	Solid	D240-87	843039
480-220470-7	SED-12	Total/NA	Solid	D240-87	843039
480-220470-8	SED-13	Total/NA	Solid	D240-87	843039
480-220470-9	SED-14	Total/NA	Solid	D240-87	843039
480-220470-10	SED-15	Total/NA	Solid	D240-87	843039
LCS 680-843039/1-A	Lab Control Sample	Total/NA	Solid	D240-87	843039

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220470-1

Client Sample ID: SED-06
Date Collected: 06/04/24 07:10
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220470-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1010A		1	714622	KM	EET BUF	06/06/24 07:46
Total/NA	Prep	7.3.3			714913	AM	EET BUF	06/07/24 10:05
Total/NA	Analysis	9012		1	714955	AM	EET BUF	06/08/24 08:35
Total/NA	Prep	7.3.4			714917	AM	EET BUF	06/07/24 10:05
Total/NA	Analysis	9034		1	714945	AM	EET BUF	06/08/24 08:25
Total/NA	Analysis	9045D		1	715184	KB	EET BUF	06/10/24 15:54
Total/NA	Analysis	9095B		1	714527	KM	EET BUF	06/05/24 13:18
Total/NA	Prep	D240-87			842088	SM	EET SAV	06/12/24 14:48
Total/NA	Analysis	D240-87		1	842133	SM	EET SAV	06/12/24 21:00
Total/NA	Analysis	Moisture		1	714567	EMD	EET BUF	06/05/24 15:04

Client Sample ID: SED-06
Date Collected: 06/04/24 07:10
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220470-1
Matrix: Solid
Percent Solids: 53.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			674228	BJ	EET PEN	06/10/24 09:29
Soluble	Analysis	8015D		1	674267	BJ	EET PEN	06/10/24 19:53
Total/NA	Prep	1664B			714629	KM	EET BUF	06/06/24 08:13
Total/NA	Analysis	1664B		1	714651	KM	EET BUF	06/06/24 09:18

Client Sample ID: SED-07
Date Collected: 06/04/24 07:45
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220470-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1010A		1	714622	KM	EET BUF	06/06/24 07:46
Total/NA	Prep	7.3.3			714913	AM	EET BUF	06/07/24 10:05
Total/NA	Analysis	9012		1	714955	AM	EET BUF	06/08/24 08:37
Total/NA	Prep	7.3.4			714917	AM	EET BUF	06/07/24 10:05
Total/NA	Analysis	9034		1	714945	AM	EET BUF	06/08/24 08:25
Total/NA	Analysis	9045D		1	715184	KB	EET BUF	06/10/24 15:54
Total/NA	Analysis	9095B		1	714527	KM	EET BUF	06/05/24 13:18
Total/NA	Prep	D240-87			842088	SM	EET SAV	06/12/24 14:48
Total/NA	Analysis	D240-87		1	842133	SM	EET SAV	06/12/24 21:00
Total/NA	Analysis	Moisture		1	714567	EMD	EET BUF	06/05/24 15:04

Client Sample ID: SED-07
Date Collected: 06/04/24 07:45
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220470-2
Matrix: Solid
Percent Solids: 81.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			674228	BJ	EET PEN	06/10/24 09:29
Soluble	Analysis	8015D		1	674267	BJ	EET PEN	06/10/24 20:00

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220470-1

Client Sample ID: SED-07

Lab Sample ID: 480-220470-2
Date Collected: 06/04/24 07:45
Matrix: Solid
Date Received: 06/04/24 16:00
Percent Solids: 81.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1664B			714629	KM	EET BUF	06/06/24 08:13
Total/NA	Analysis	1664B		1	714651	KM	EET BUF	06/06/24 09:18

Client Sample ID: SED-08

Lab Sample ID: 480-220470-3
Date Collected: 06/04/24 08:15
Matrix: Solid
Date Received: 06/04/24 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1010A		1	714622	KM	EET BUF	06/06/24 07:46
Total/NA	Prep	7.3.3			714913	AM	EET BUF	06/07/24 10:05
Total/NA	Analysis	9012		1	714955	AM	EET BUF	06/08/24 08:41
Total/NA	Prep	7.3.4			714917	AM	EET BUF	06/07/24 10:05
Total/NA	Analysis	9034		1	714945	AM	EET BUF	06/08/24 08:25
Total/NA	Analysis	9045D		1	715184	KB	EET BUF	06/10/24 15:54
Total/NA	Analysis	9095B		1	714527	KM	EET BUF	06/05/24 13:18
Total/NA	Prep	D240-87			843039	SM	EET SAV	06/18/24 15:27
Total/NA	Analysis	D240-87		1	843072	SM	EET SAV	06/18/24 19:55
Total/NA	Analysis	Moisture		1	714567	EMD	EET BUF	06/05/24 15:04

Client Sample ID: SED-08

Lab Sample ID: 480-220470-3
Date Collected: 06/04/24 08:15
Matrix: Solid
Date Received: 06/04/24 16:00
Percent Solids: 49.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			674228	BJ	EET PEN	06/10/24 09:29
Soluble	Analysis	8015D		1	674267	BJ	EET PEN	06/10/24 20:07
Total/NA	Prep	1664B			714629	KM	EET BUF	06/06/24 08:13
Total/NA	Analysis	1664B		1	714651	KM	EET BUF	06/06/24 09:18

Client Sample ID: SED-09

Lab Sample ID: 480-220470-4
Date Collected: 06/04/24 08:45
Matrix: Solid
Date Received: 06/04/24 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1010A		1	714622	KM	EET BUF	06/06/24 07:46
Total/NA	Prep	7.3.3			714913	AM	EET BUF	06/07/24 10:05
Total/NA	Analysis	9012		1	714955	AM	EET BUF	06/08/24 08:43
Total/NA	Prep	7.3.4			714917	AM	EET BUF	06/07/24 10:05
Total/NA	Analysis	9034		1	714945	AM	EET BUF	06/08/24 08:25
Total/NA	Analysis	9045D		1	715184	KB	EET BUF	06/10/24 15:54
Total/NA	Analysis	9095B		1	714527	KM	EET BUF	06/05/24 13:18
Total/NA	Prep	D240-87			843039	SM	EET SAV	06/18/24 15:27
Total/NA	Analysis	D240-87		1	843072	SM	EET SAV	06/18/24 19:55
Total/NA	Analysis	Moisture		1	714567	EMD	EET BUF	06/05/24 15:04

Client Sample ID: SED-09

Lab Sample ID: 480-220470-4

Date Collected: 06/04/24 08:45

Matrix: Solid

Date Received: 06/04/24 16:00

Percent Solids: 57.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			674228	BJ	EET PEN	06/10/24 09:29
Soluble	Analysis	8015D		1	674267	BJ	EET PEN	06/10/24 20:14
Total/NA	Prep	1664B			714629	KM	EET BUF	06/06/24 08:13
Total/NA	Analysis	1664B		1	714651	KM	EET BUF	06/06/24 09:18

Client Sample ID: SED-10

Lab Sample ID: 480-220470-5

Date Collected: 06/04/24 09:15

Matrix: Solid

Date Received: 06/04/24 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1010A		1	714622	KM	EET BUF	06/06/24 07:46
Total/NA	Prep	7.3.3			714913	AM	EET BUF	06/07/24 10:05
Total/NA	Analysis	9012		1	714955	AM	EET BUF	06/08/24 08:44
Total/NA	Prep	7.3.4			714917	AM	EET BUF	06/07/24 10:05
Total/NA	Analysis	9034		1	714945	AM	EET BUF	06/08/24 08:25
Total/NA	Analysis	9045D		1	715184	KB	EET BUF	06/10/24 15:54
Total/NA	Analysis	9095B		1	714527	KM	EET BUF	06/05/24 13:18
Total/NA	Prep	D240-87			843039	SM	EET SAV	06/18/24 15:27
Total/NA	Analysis	D240-87		1	843072	SM	EET SAV	06/18/24 19:55
Total/NA	Analysis	Moisture		1	714567	EMD	EET BUF	06/05/24 15:04

Client Sample ID: SED-10

Lab Sample ID: 480-220470-5

Date Collected: 06/04/24 09:15

Matrix: Solid

Date Received: 06/04/24 16:00

Percent Solids: 50.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			674228	BJ	EET PEN	06/10/24 09:29
Soluble	Analysis	8015D		1	674267	BJ	EET PEN	06/10/24 20:21
Total/NA	Prep	1664B			714629	KM	EET BUF	06/06/24 08:13
Total/NA	Analysis	1664B		1	714651	KM	EET BUF	06/06/24 09:18

Client Sample ID: SED-11

Lab Sample ID: 480-220470-6

Date Collected: 06/04/24 09:50

Matrix: Solid

Date Received: 06/04/24 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1010A		1	714622	KM	EET BUF	06/06/24 07:46
Total/NA	Prep	7.3.3			715447	AM	EET BUF	06/12/24 09:55
Total/NA	Analysis	9012		1	715493	AM	EET BUF	06/13/24 10:26
Total/NA	Prep	7.3.4			715451	AM	EET BUF	06/12/24 09:55
Total/NA	Analysis	9034		1	715495	AM	EET BUF	06/13/24 11:30
Total/NA	Analysis	9045D		1	715184	KB	EET BUF	06/10/24 15:54
Total/NA	Analysis	9095B		1	714527	KM	EET BUF	06/05/24 13:18
Total/NA	Prep	D240-87			843039	SM	EET SAV	06/18/24 15:27
Total/NA	Analysis	D240-87		1	843072	SM	EET SAV	06/18/24 19:55

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220470-1

Client Sample ID: SED-11
Date Collected: 06/04/24 09:50
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220470-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	714567	EMD	EET BUF	06/05/24 15:04

Client Sample ID: SED-11
Date Collected: 06/04/24 09:50
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220470-6
Matrix: Solid
Percent Solids: 48.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			674228	BJ	EET PEN	06/10/24 09:29
Soluble	Analysis	8015D		1	674267	BJ	EET PEN	06/10/24 20:28
Total/NA	Prep	1664B			714629	KM	EET BUF	06/06/24 08:13
Total/NA	Analysis	1664B		1	714651	KM	EET BUF	06/06/24 09:18

Client Sample ID: SED-12
Date Collected: 06/04/24 10:30
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220470-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1010A		1	715157	KM	EET BUF	06/11/24 09:28
Total/NA	Prep	7.3.3			715447	AM	EET BUF	06/12/24 09:55
Total/NA	Analysis	9012		1	715493	AM	EET BUF	06/13/24 10:27
Total/NA	Prep	7.3.4			715451	AM	EET BUF	06/12/24 09:55
Total/NA	Analysis	9034		1	715495	AM	EET BUF	06/13/24 11:30
Total/NA	Analysis	9045D		1	715184	KB	EET BUF	06/10/24 15:54
Total/NA	Analysis	9095B		1	714527	KM	EET BUF	06/05/24 13:18
Total/NA	Prep	D240-87			843039	SM	EET SAV	06/18/24 15:27
Total/NA	Analysis	D240-87		1	843072	SM	EET SAV	06/18/24 19:55
Total/NA	Analysis	Moisture		1	714567	EMD	EET BUF	06/05/24 15:04

Client Sample ID: SED-12
Date Collected: 06/04/24 10:30
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220470-7
Matrix: Solid
Percent Solids: 53.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			674228	BJ	EET PEN	06/10/24 09:29
Soluble	Analysis	8015D		1	674267	BJ	EET PEN	06/10/24 20:35
Total/NA	Prep	1664B			714629	KM	EET BUF	06/06/24 08:13
Total/NA	Analysis	1664B		1	714651	KM	EET BUF	06/06/24 09:18

Client Sample ID: SED-13
Date Collected: 06/04/24 11:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220470-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1010A		1	715157	KM	EET BUF	06/11/24 09:28

Client Sample ID: SED-13

Lab Sample ID: 480-220470-8

Date Collected: 06/04/24 11:00

Matrix: Solid

Date Received: 06/04/24 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7.3.3			715447	AM	EET BUF	06/12/24 09:55
Total/NA	Analysis	9012		1	715493	AM	EET BUF	06/13/24 10:32
Total/NA	Prep	7.3.4			715451	AM	EET BUF	06/12/24 09:55
Total/NA	Analysis	9034		1	715495	AM	EET BUF	06/13/24 11:30
Total/NA	Analysis	9045D		1	715184	KB	EET BUF	06/10/24 15:54
Total/NA	Analysis	9095B		1	714527	KM	EET BUF	06/05/24 13:18
Total/NA	Prep	D240-87			843039	SM	EET SAV	06/18/24 15:27
Total/NA	Analysis	D240-87		1	843072	SM	EET SAV	06/18/24 19:55
Total/NA	Analysis	Moisture		1	714567	EMD	EET BUF	06/05/24 15:04

Client Sample ID: SED-13

Lab Sample ID: 480-220470-8

Date Collected: 06/04/24 11:00

Matrix: Solid

Date Received: 06/04/24 16:00

Percent Solids: 40.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			674228	BJ	EET PEN	06/10/24 09:29
Soluble	Analysis	8015D		1	674267	BJ	EET PEN	06/10/24 20:42
Total/NA	Prep	1664B			714629	KM	EET BUF	06/06/24 08:13
Total/NA	Analysis	1664B		1	714651	KM	EET BUF	06/06/24 09:18

Client Sample ID: SED-14

Lab Sample ID: 480-220470-9

Date Collected: 06/04/24 11:30

Matrix: Solid

Date Received: 06/04/24 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1010A		1	715157	KM	EET BUF	06/11/24 09:28
Total/NA	Prep	7.3.3			715447	AM	EET BUF	06/12/24 09:55
Total/NA	Analysis	9012		1	715493	AM	EET BUF	06/13/24 10:33
Total/NA	Prep	7.3.4			715451	AM	EET BUF	06/12/24 09:55
Total/NA	Analysis	9034		1	715495	AM	EET BUF	06/13/24 11:30
Total/NA	Analysis	9045D		1	715184	KB	EET BUF	06/10/24 15:54
Total/NA	Analysis	9095B		1	714527	KM	EET BUF	06/05/24 13:18
Total/NA	Prep	D240-87			843039	SM	EET SAV	06/18/24 15:27
Total/NA	Analysis	D240-87		1	843072	SM	EET SAV	06/18/24 19:55
Total/NA	Analysis	Moisture		1	714567	EMD	EET BUF	06/05/24 15:04

Client Sample ID: SED-14

Lab Sample ID: 480-220470-9

Date Collected: 06/04/24 11:30

Matrix: Solid

Date Received: 06/04/24 16:00

Percent Solids: 60.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			674228	BJ	EET PEN	06/10/24 09:29
Soluble	Analysis	8015D		1	674267	BJ	EET PEN	06/10/24 20:49
Total/NA	Prep	1664B			714629	KM	EET BUF	06/06/24 08:13
Total/NA	Analysis	1664B		1	714651	KM	EET BUF	06/06/24 09:18

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220470-1

Client Sample ID: SED-15
Date Collected: 06/04/24 12:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220470-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1010A		1	715157	KM	EET BUF	06/11/24 09:28
Total/NA	Prep	7.3.3			715447	AM	EET BUF	06/12/24 09:55
Total/NA	Analysis	9012		1	715493	AM	EET BUF	06/13/24 10:35
Total/NA	Prep	7.3.4			715451	AM	EET BUF	06/12/24 09:55
Total/NA	Analysis	9034		1	715495	AM	EET BUF	06/13/24 11:30
Total/NA	Analysis	9045D		1	715184	KB	EET BUF	06/10/24 15:54
Total/NA	Analysis	9095B		1	714527	KM	EET BUF	06/05/24 13:18
Total/NA	Prep	D240-87			843039	SM	EET SAV	06/18/24 15:27
Total/NA	Analysis	D240-87		1	843072	SM	EET SAV	06/18/24 19:55
Total/NA	Analysis	Moisture		1	714567	EMD	EET BUF	06/05/24 15:04

Client Sample ID: SED-15
Date Collected: 06/04/24 12:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220470-10
Matrix: Solid
Percent Solids: 74.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			674228	BJ	EET PEN	06/10/24 09:29
Soluble	Analysis	8015D		1	674267	BJ	EET PEN	06/10/24 20:56
Total/NA	Prep	1664B			714629	KM	EET BUF	06/06/24 08:13
Total/NA	Analysis	1664B		1	714651	KM	EET BUF	06/06/24 09:18

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001
EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220470-1

Laboratory: Eurofins Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1664B	1664B	Solid	SGT-HEM
9012	7.3.3	Solid	Cyanide, Reactive
9034	7.3.4	Solid	Sulfide, Reactive
9045D		Solid	Temperature
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-24
Kansas	NELAP	E-10253	10-31-24
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-24
North Carolina (WW/SW)	State	314	12-31-24
Oklahoma	NELAP	9810	08-31-24
Pennsylvania	NELAP	68-00467	01-31-25
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-24
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	FLGNV23001	01-08-26
USDA	US Federal Programs	P330-21-00056	01-09-26
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-25

Laboratory: Eurofins Savannah

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
	AFCEE	SAVLAB	
Alabama	State	41450	06-30-24
ANAB	Dept. of Defense ELAP	L2463	09-22-24
Arkansas (DW)	State	GA00006	06-30-24
California	State	2939	06-30-24
Florida	NELAP	E87052	06-30-24
Georgia	State	E87052	06-30-24
Georgia (DW)	State	803	06-30-24

Accreditation/Certification Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220470-1

Laboratory: Eurofins Savannah (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Hawaii	State	<cert No.>	06-30-24
Illinois	NELAP	200022	11-30-24
Indiana	State	C-GA-02	06-30-24
Iowa	State	353	07-01-25
Kentucky (UST)	State	NA	06-30-24
Louisiana	NELAP	30690	06-30-24
Louisiana (All)	NELAP	30690	06-30-24
Louisiana (DW)	State	LA009	12-31-24
Maine	State	GA00006	09-25-24
Maryland	State	250	12-31-24
Massachusetts	State	M-GA006	06-30-24
Michigan	State	9925	06-30-24
Mississippi	State	<cert No.>	06-30-24
Nebraska	State	NE-OS-7-04	06-30-24
New Jersey	NELAP	GA769	06-30-24
New Mexico	State	GA00006	06-30-24
North Carolina (DW)	State	13701	07-31-24
North Carolina (WW/SW)	State	269	12-31-24
Pennsylvania	NELAP	68-00474	06-30-24
Puerto Rico	State	GA00006	01-01-25
South Carolina	State	98001	06-30-24
Tennessee	State	TN02961	06-30-24
Texas	NELAP	T1047004185	11-30-24
Texas	TCEQ Water Supply	T104704185	06-30-24
USDA	US Federal Programs	P330-18-00313	04-04-27
Wyoming	State	8TMS-L	06-30-24

Method Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220470-1

Method	Method Description	Protocol	Laboratory
8015D	Nonhalogenated Organic Compounds - Direct Injection (GC)	SW846	EET PEN
1010A	Ignitability, Pensky-Martens Closed-Cup Method	SW846	EET BUF
1664B	HEM and SGT-HEM	1664B	EET BUF
9012	Cyanide, Reactive	SW846	EET BUF
9034	Sulfide, Reactive	SW846	EET BUF
9045D	pH	SW846	EET BUF
9095B	Paint Filter	SW846	EET BUF
D240-87	Heat of Combustion	ASTM	EET SAV
Moisture	Percent Moisture	EPA	EET BUF
1664B	HEM and SGT-HEM (Solid)	1664B	EET BUF
7.3.3	Cyanide, Reactive	SW846	EET BUF
7.3.4	Sulfide, Reactive	SW846	EET BUF
D240-87	Preparation, Heat of Combustion	ASTM	EET SAV
DI Leach	Deionized Water Leaching Procedure	ASTM	EET PEN

Protocol References:

1664B = EPA-821-98-002
ASTM = ASTM International
EPA = US Environmental Protection Agency
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001
EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Sample Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220470-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-220470-1	SED-06	Solid	06/04/24 07:10	06/04/24 16:00
480-220470-2	SED-07	Solid	06/04/24 07:45	06/04/24 16:00
480-220470-3	SED-08	Solid	06/04/24 08:15	06/04/24 16:00
480-220470-4	SED-09	Solid	06/04/24 08:45	06/04/24 16:00
480-220470-5	SED-10	Solid	06/04/24 09:15	06/04/24 16:00
480-220470-6	SED-11	Solid	06/04/24 09:50	06/04/24 16:00
480-220470-7	SED-12	Solid	06/04/24 10:30	06/04/24 16:00
480-220470-8	SED-13	Solid	06/04/24 11:00	06/04/24 16:00
480-220470-9	SED-14	Solid	06/04/24 11:30	06/04/24 16:00
480-220470-10	SED-15	Solid	06/04/24 12:00	06/04/24 16:00

10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins Environment Testing

Client Information	Sampler: Ethan Smith	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-196949-40791.2
Client Contact: Ms. Ann Marie Kropovitch	Phone: 716-912-4456	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin:	Page: Page [redacted] lot1
Company: AECOM	PWSID:	Analysis Requested		Job #:
Address: 50 Lakefront Boulevard Suite 111	Due Date Requested: STD			Preservation Codes: N - None
City: Buffalo	TAT Requested (days): Per PO			
State, Zip: NY, 14202	Compliance Project: Δ Yes Δ No			
Phone: 614-790-2274(Tel)	PO #: 1120269 Task 300			
Email: ann.marie.kropovitch@aecom.com	WO #: Ann.Marie.Kropovitch@aecom.com			
Project Name: Tank 75 - Sediment Disposal Char	Project #: 48027595			
Site:	SSOW#:			

480-220470 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9012_ReactiveCN, 9034_Reactive, 9095B	1010A, 1664B, 9045D	6010C, 7470A, 8081B, 8151A, 8270D	8260C - TCLP Volatiles	8015C_DAI_GLY - Ethylene Glycol	D240_87 - Heat of Combustion (BTU)	Total Number of conta	Special Instructions/Note:
		Preservation Code:					N	N	N	N	N	N		Other:
~~SED-05~~	~~6/4/24~~		G	Solid									6	
SED-06	6/4/24	0710	G	Solid			X	X	X	X	X	X	6	
SED-07		0745		Solid									6	
SED-08		0815		Solid									6	
SED-09		0845											6	
SED-10		0915											6	
SED-11		0950											6	
SED-12		1030											6	
SED-13		1100											6	
SED-14		1130											6	
SED-15		1200											6	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: add Ethan.Smith@aecom.com and Edyta.Chorostkowska@aecom.com

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: to all labs carrier/ondeck

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	6/4/24 1600	AECOM			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: [signature]	Date/Time: 6/4/24 1600	Company TMB

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: 3.0, 3.1, 4, 5.1, 2, 5.1, 4, 3.7, 3.0 #1 ICE | Cooler Temperature(s) °C and Other Remarks: [signature]

Ver: 04/02/2024

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-87879.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 2
Company: Eurofins Environment Testing Southeast L		Accreditations Required (See note): NELAP - New York		Job #: 480-220470-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 6/17/2024			Preservation Codes: -
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site:	SSOW#:			Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015D_DAI/3580A Ethylene Glycol	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SED-06 (480-220470-1)	6/4/24	07:10 Eastern		Solid			X	1	
SED-07 (480-220470-2)	6/4/24	07:45 Eastern		Solid			X	1	
SED-08 (480-220470-3)	6/4/24	08:15 Eastern		Solid			X	1	
SED-09 (480-220470-4)	6/4/24	08:45 Eastern		Solid			X	1	
SED-10 (480-220470-5)	6/4/24	09:15 Eastern		Solid			X	1	
SED-11 (480-220470-6)	6/4/24	09:50 Eastern		Solid			X	1	
SED-12 (480-220470-7)	6/4/24	10:30 Eastern		Solid			X	1	
SED-13 (480-220470-8)	6/4/24	11:00 Eastern		Solid			X	1	
SED-14 (480-220470-9)	6/4/24	11:30 Eastern		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[illegible]	6/5/24 1600	TA	[illegible]	6/6/24 927	
2	[illegible]	6/6/24 927		[illegible]		
3						

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.7° IR 10

Ver: 04/02/2024

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-87879.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 2 of 2
Company: Eurofins Environment Testing Southeast L		Accreditations Required (See note): NELAP - New York		Job #: 480-220470-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 6/17/2024	Analysis Requested		Preservation Codes: -
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site:	SSOW#:			Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015D_DAI/3580A Ethylene Glycol	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SED-15 (480-220470-10)	6/4/24	12:00 Eastern		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[illegible]	6/5/24 [illegible] TA			6/6/24 927	
2		6/6/24 927				
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.7° IR10

Ver: 04/02/2024

Login Sample Receipt Checklist

Client: Ashland LLC

Job Number: 480-220470-1

Login Number: 220470
List Number: 1
Creator: Kolb, Chris M

List Source: Eurofins Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	aecom
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: Ashland LLC

Job Number: 480-220470-1

Login Number: 220470
List Number: 3
Creator: Pardonner, Brett

List Source: Eurofins Pensacola
List Creation: 06/07/24 11:05 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.7°C IR10
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Ashland LLC

Job Number: 480-220470-1

Login Number: 220470
List Number: 2
Creator: Munro, Caroline

List Source: Eurofins Savannah
List Creation: 06/06/24 05:19 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Shannon Lloyd
Ashland LLC
PO BOX 2219
Columbus, Ohio 43216

Generated 6/24/2024 10:30:50 AM

JOB DESCRIPTION

Tank 75 Analysis

JOB NUMBER

480-220471-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

Authorization

Generated
6/24/2024 10:30:50 AM

Authorized for release by
John Beninati, Project Manager I
John.Beninati@et.eurofinsus.com
(716)504-9874

Table of Contents

Definitions/Glossary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220471-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

LCMS

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
480-220471-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 6/4/2024 4:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 3.0°C, 3.6°C, 3.7°C, 3.9°C, 5.2°C and 5.4°C.

GC/MS VOA
Method 8260C: The continuing calibration verification (CCV) associated with batch 480-714555 recovered outside acceptance criteria, low biased, for Chloromethane and 1,2,4-Trichlorobenzene. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 480-714555 recovered outside control limits for the following analytes: cis-1,3-Dichloropropene and trans-1,3-Dichloropropene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 480-714691 recovered outside control limits for the following analytes: 1,2-Dichloroethane, 1,1,1-Trichloroethane and Acetone. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. The associated samples are impacted: SED-RB-060424 (480-220471-1) and SW-RB-06424 (480-220471-2).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-714691 recovered above the upper control limit for 1,1,1-Trichloroethane, 1,2-Dichloroethane, Chlorodibromomethane, Carbon tetrachloride, Tetrachloroethene and Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: SED-RB-060424 (480-220471-1) and SW-RB-06424 (480-220471-2).

Method 8260C: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 480-714691 recovered outside control limits for the following analytes: Acetone, Chloromethane, Vinyl chloride, trans-1,3-Dichloropropene, Bromoform and Bromomethane. The associated samples are impacted: SED-RB-060424 (480-220471-1) and SW-RB-06424 (480-220471-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 8270D: The continuing calibration verification (CCV) associated with batch 480-715312 recovered above the upper control limit for 4-Nitrophenol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: SED-RB-060424 (480-220471-1) and SW-RB-06424 (480-220471-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

PCBs
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Pesticides
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Job ID: 480-220471-1 (Continued) Eurofins Buffalo

PFAS
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220471-1

Client Sample ID: SED-RB-060424 — Lab Sample ID: 480-220471-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon disulfide	0.36	J	1.0	0.19	ug/L	1		8260C	Total/NA
alpha-BHC	0.0086	J	0.050	0.0077	ug/L	1		8081B	Total/NA
gamma-BHC (Lindane)	0.0092	J	0.050	0.0080	ug/L	1		8081B	Total/NA
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	1.6	J	6.6	1.6	ng/L	1		1633	Total/NA
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.8	J	6.6	1.6	ng/L	1		1633	Total/NA
Barium	0.0014	J	0.0020	0.00070	mg/L	1		6010C	Total/NA
Calcium	0.32	J	0.50	0.10	mg/L	1		6010C	Total/NA
Lead	0.0038	J	0.010	0.0030	mg/L	1		6010C	Total/NA
Potassium	0.13	J	0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	0.79	J	1.0	0.32	mg/L	1		6010C	Total/NA

Client Sample ID: SW-RB-06424 — Lab Sample ID: 480-220471-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2,4-Dichlorophenol	0.54	J	5.0	0.51	ug/L	1		8270D	Total/NA
alpha-BHC	0.0099	J	0.052	0.0080	ug/L	1		8081B	Total/NA
Barium	0.0011	J	0.0020	0.00070	mg/L	1		6010C	Total/NA
Calcium	0.27	J	0.50	0.10	mg/L	1		6010C	Total/NA
Cobalt	0.00086	J	0.0040	0.00063	mg/L	1		6010C	Total/NA
Lead	0.0031	J	0.010	0.0030	mg/L	1		6010C	Total/NA
Sodium	0.63	J	1.0	0.32	mg/L	1		6010C	Total/NA
Barium	0.0013	J	0.0020	0.00070	mg/L	1		6010C	Dissolved
Calcium	0.33	J	0.50	0.10	mg/L	1		6010C	Dissolved
Lead	0.0053	J	0.010	0.0030	mg/L	1		6010C	Dissolved
Sodium	0.68	J	1.0	0.32	mg/L	1		6010C	Dissolved

Client Sample ID: TRIP BLANK — Lab Sample ID: 480-220471-3

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220471-1

Client Sample ID: SED-RB-060424
Date Collected: 06/04/24 13:15
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220471-1
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	*+	1.0	0.82	ug/L			06/06/24 16:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/06/24 16:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			06/06/24 16:26	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/06/24 16:26	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/06/24 16:26	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/06/24 16:26	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			06/06/24 16:26	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/06/24 16:26	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/06/24 16:26	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/06/24 16:26	1
1,2-Dichloroethane	ND	*+	1.0	0.21	ug/L			06/06/24 16:26	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/06/24 16:26	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			06/06/24 16:26	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/06/24 16:26	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/06/24 16:26	1
2-Hexanone	ND		5.0	1.2	ug/L			06/06/24 16:26	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			06/06/24 16:26	1
Acetone	ND	*+ *1	10	3.0	ug/L			06/06/24 16:26	1
Benzene	ND		1.0	0.41	ug/L			06/06/24 16:26	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/06/24 16:26	1
Bromoform	ND	*1	1.0	0.26	ug/L			06/06/24 16:26	1
Bromomethane	ND	*1	1.0	0.69	ug/L			06/06/24 16:26	1
Carbon disulfide	**0.36**	**J**	1.0	0.19	ug/L			06/06/24 16:26	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/06/24 16:26	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/06/24 16:26	1
Chloroethane	ND		1.0	0.32	ug/L			06/06/24 16:26	1
Chloroform	ND		1.0	0.34	ug/L			06/06/24 16:26	1
Chloromethane	ND	*1	1.0	0.35	ug/L			06/06/24 16:26	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/06/24 16:26	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/06/24 16:26	1
Cyclohexane	ND		1.0	0.18	ug/L			06/06/24 16:26	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/06/24 16:26	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			06/06/24 16:26	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/06/24 16:26	1
Isopropylbenzene	ND		1.0	0.79	ug/L			06/06/24 16:26	1
Methyl acetate	ND		2.5	1.3	ug/L			06/06/24 16:26	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			06/06/24 16:26	1
Methylcyclohexane	ND		1.0	0.16	ug/L			06/06/24 16:26	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/06/24 16:26	1
Styrene	ND		1.0	0.73	ug/L			06/06/24 16:26	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/06/24 16:26	1
Toluene	ND		1.0	0.51	ug/L			06/06/24 16:26	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/06/24 16:26	1
trans-1,3-Dichloropropene	ND	*1	1.0	0.37	ug/L			06/06/24 16:26	1
Trichloroethene	ND		1.0	0.46	ug/L			06/06/24 16:26	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/06/24 16:26	1
Vinyl chloride	ND	*1	1.0	0.90	ug/L			06/06/24 16:26	1
Xylenes, Total	ND		2.0	0.66	ug/L			06/06/24 16:26	1

Client Sample ID: SED-RB-060424
Date Collected: 06/04/24 13:15
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220471-1
Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A		06/06/24 16:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		77 - 120		06/06/24 16:26	1
4-Bromofluorobenzene (Surr)	93		73 - 120		06/06/24 16:26	1
Dibromofluoromethane (Surr)	104		75 - 123		06/06/24 16:26	1
Toluene-d8 (Surr)	91		80 - 120		06/06/24 16:26	1

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		06/05/24 13:46	06/07/24 02:20	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	36		15 - 110	06/05/24 13:46	06/07/24 02:20	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		06/11/24 09:14	06/12/24 20:03	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		06/11/24 09:14	06/12/24 20:03	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		06/11/24 09:14	06/12/24 20:03	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		06/11/24 09:14	06/12/24 20:03	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		06/11/24 09:14	06/12/24 20:03	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		06/11/24 09:14	06/12/24 20:03	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		06/11/24 09:14	06/12/24 20:03	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		06/11/24 09:14	06/12/24 20:03	1
2-Chlorophenol	ND		5.0	0.53	ug/L		06/11/24 09:14	06/12/24 20:03	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		06/11/24 09:14	06/12/24 20:03	1
2-Methylphenol	ND		5.0	0.40	ug/L		06/11/24 09:14	06/12/24 20:03	1
2-Nitroaniline	ND		10	0.42	ug/L		06/11/24 09:14	06/12/24 20:03	1
2-Nitrophenol	ND		5.0	0.48	ug/L		06/11/24 09:14	06/12/24 20:03	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		06/11/24 09:14	06/12/24 20:03	1
3-Nitroaniline	ND		10	0.48	ug/L		06/11/24 09:14	06/12/24 20:03	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		06/11/24 09:14	06/12/24 20:03	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		06/11/24 09:14	06/12/24 20:03	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		06/11/24 09:14	06/12/24 20:03	1
4-Chloroaniline	ND		5.0	0.59	ug/L		06/11/24 09:14	06/12/24 20:03	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		06/11/24 09:14	06/12/24 20:03	1
4-Methylphenol	ND		10	0.36	ug/L		06/11/24 09:14	06/12/24 20:03	1
4-Nitroaniline	ND		10	0.25	ug/L		06/11/24 09:14	06/12/24 20:03	1
4-Nitrophenol	ND		10	1.5	ug/L		06/11/24 09:14	06/12/24 20:03	1
Acenaphthene	ND		5.0	0.41	ug/L		06/11/24 09:14	06/12/24 20:03	1
Acenaphthylene	ND		5.0	0.38	ug/L		06/11/24 09:14	06/12/24 20:03	1
Acetophenone	ND		5.0	0.54	ug/L		06/11/24 09:14	06/12/24 20:03	1
Anthracene	ND		5.0	0.28	ug/L		06/11/24 09:14	06/12/24 20:03	1
Atrazine	ND		5.0	0.46	ug/L		06/11/24 09:14	06/12/24 20:03	1
Benzaldehyde	ND		5.0	0.27	ug/L		06/11/24 09:14	06/12/24 20:03	1
Benzo(a)anthracene	ND		5.0	0.36	ug/L		06/11/24 09:14	06/12/24 20:03	1
Benzo(a)pyrene	ND		5.0	0.47	ug/L		06/11/24 09:14	06/12/24 20:03	1
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L		06/11/24 09:14	06/12/24 20:03	1
Benzo(g,h,i)perylene	ND		5.0	0.35	ug/L		06/11/24 09:14	06/12/24 20:03	1
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L		06/11/24 09:14	06/12/24 20:03	1

Client Sample ID: SED-RB-060424
Date Collected: 06/04/24 13:15
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220471-1
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.0	0.65	ug/L		06/11/24 09:14	06/12/24 20:03	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		06/11/24 09:14	06/12/24 20:03	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		06/11/24 09:14	06/12/24 20:03	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		06/11/24 09:14	06/12/24 20:03	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		06/11/24 09:14	06/12/24 20:03	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		06/11/24 09:14	06/12/24 20:03	1
Caprolactam	ND		5.0	2.2	ug/L		06/11/24 09:14	06/12/24 20:03	1
Carbazole	ND		5.0	0.30	ug/L		06/11/24 09:14	06/12/24 20:03	1
Chrysene	ND		5.0	0.33	ug/L		06/11/24 09:14	06/12/24 20:03	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		06/11/24 09:14	06/12/24 20:03	1
Dibenzofuran	ND		10	0.51	ug/L		06/11/24 09:14	06/12/24 20:03	1
Diethyl phthalate	ND		5.0	0.22	ug/L		06/11/24 09:14	06/12/24 20:03	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		06/11/24 09:14	06/12/24 20:03	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		06/11/24 09:14	06/12/24 20:03	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		06/11/24 09:14	06/12/24 20:03	1
Fluoranthene	ND		5.0	0.40	ug/L		06/11/24 09:14	06/12/24 20:03	1
Fluorene	ND		5.0	0.36	ug/L		06/11/24 09:14	06/12/24 20:03	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		06/11/24 09:14	06/12/24 20:03	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		06/11/24 09:14	06/12/24 20:03	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		06/11/24 09:14	06/12/24 20:03	1
Hexachloroethane	ND		5.0	0.59	ug/L		06/11/24 09:14	06/12/24 20:03	1
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L		06/11/24 09:14	06/12/24 20:03	1
Isophorone	ND		5.0	0.43	ug/L		06/11/24 09:14	06/12/24 20:03	1
Naphthalene	ND		5.0	0.76	ug/L		06/11/24 09:14	06/12/24 20:03	1
Nitrobenzene	ND		5.0	0.29	ug/L		06/11/24 09:14	06/12/24 20:03	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		06/11/24 09:14	06/12/24 20:03	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		06/11/24 09:14	06/12/24 20:03	1
Pentachlorophenol	ND		10	2.2	ug/L		06/11/24 09:14	06/12/24 20:03	1
Phenanthrene	ND		5.0	0.44	ug/L		06/11/24 09:14	06/12/24 20:03	1
Phenol	ND		5.0	0.39	ug/L		06/11/24 09:14	06/12/24 20:03	1
Pyrene	ND		5.0	0.34	ug/L		06/11/24 09:14	06/12/24 20:03	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
2-Butanone, 3-methyl-	*2.0*	*T J N*	*ug/L*		*3.17*	*563-80-4*	*06/11/24 09:14*	*06/12/24 20:03*	*1*
Benzene	*1.7*	*T J N*	*ug/L*		*3.22*	*71-43-2*	*06/11/24 09:14*	*06/12/24 20:03*	*1*
Unknown	*13*	*T J*	*ug/L*		*4.72*	*N/A*	*06/11/24 09:14*	*06/12/24 20:03*	*1*
Aniline	*4.1*	*T J N*	*ug/L*		*6.08*	*62-53-3*	*06/11/24 09:14*	*06/12/24 20:03*	*1*
Benzenamine, 3-methyl-	*2.2*	*T J N*	*ug/L*		*7.16*	*108-44-1*	*06/11/24 09:14*	*06/12/24 20:03*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*82*		*25 - 144*	*06/11/24 09:14*	*06/12/24 20:03*	*1*
2-Fluorobiphenyl	*74*		*53 - 126*	*06/11/24 09:14*	*06/12/24 20:03*	*1*
2-Fluorophenol	*59*		*24 - 120*	*06/11/24 09:14*	*06/12/24 20:03*	*1*
Nitrobenzene-d5	*68*		*29 - 129*	*06/11/24 09:14*	*06/12/24 20:03*	*1*
Phenol-d5	*37*		*10 - 120*	*06/11/24 09:14*	*06/12/24 20:03*	*1*
p-Terphenyl-d14	*77*		*33 - 132*	*06/11/24 09:14*	*06/12/24 20:03*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.050	0.0092	ug/L		06/06/24 13:46	06/07/24 10:29	1

Client Sample ID: SED-RB-060424
Date Collected: 06/04/24 13:15
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Lab Sample ID: 480-220471-1
Matrix: Water

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDE	ND		0.050	0.012	ug/L		06/06/24 13:46	06/07/24 10:29	1
4,4'-DDT	ND		0.050	0.011	ug/L		06/06/24 13:46	06/07/24 10:29	1
Aldrin	ND		0.050	0.0081	ug/L		06/06/24 13:46	06/07/24 10:29	1
alpha-BHC	**0.0086**	**J**	0.050	0.0077	ug/L		06/06/24 13:46	06/07/24 10:29	1
cis-Chlordane	ND		0.050	0.015	ug/L		06/06/24 13:46	06/07/24 10:29	1
beta-BHC	ND		0.050	0.025	ug/L		06/06/24 13:46	06/07/24 10:29	1
delta-BHC	ND		0.050	0.010	ug/L		06/06/24 13:46	06/07/24 10:29	1
Dieldrin	ND		0.050	0.0098	ug/L		06/06/24 13:46	06/07/24 10:29	1
Endosulfan I	ND		0.050	0.011	ug/L		06/06/24 13:46	06/07/24 10:29	1
Endosulfan II	ND		0.050	0.012	ug/L		06/06/24 13:46	06/07/24 10:29	1
Endosulfan sulfate	ND		0.050	0.016	ug/L		06/06/24 13:46	06/07/24 10:29	1
Endrin	ND		0.050	0.014	ug/L		06/06/24 13:46	06/07/24 10:29	1
Endrin aldehyde	ND		0.050	0.016	ug/L		06/06/24 13:46	06/07/24 10:29	1
Endrin ketone	ND		0.050	0.012	ug/L		06/06/24 13:46	06/07/24 10:29	1
gamma-BHC (Lindane)	**0.0092**	**J**	0.050	0.0080	ug/L		06/06/24 13:46	06/07/24 10:29	1
trans-Chlordane	ND		0.050	0.011	ug/L		06/06/24 13:46	06/07/24 10:29	1
Heptachlor	ND		0.050	0.0085	ug/L		06/06/24 13:46	06/07/24 10:29	1
Heptachlor epoxide	ND		0.050	0.0074	ug/L		06/06/24 13:46	06/07/24 10:29	1
Methoxychlor	ND		0.050	0.014	ug/L		06/06/24 13:46	06/07/24 10:29	1
Toxaphene	ND		0.50	0.12	ug/L		06/06/24 13:46	06/07/24 10:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*66*		*20 - 120*	*06/06/24 13:46*	*06/07/24 10:29*	*1*
DCB Decachlorobiphenyl	*61*		*20 - 120*	*06/06/24 13:46*	*06/07/24 10:29*	*1*
Tetrachloro-m-xylene	*89*		*44 - 120*	*06/06/24 13:46*	*06/07/24 10:29*	*1*
Tetrachloro-m-xylene	*72*		*44 - 120*	*06/06/24 13:46*	*06/07/24 10:29*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 20:22	1
PCB-1221	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 20:22	1
PCB-1232	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 20:22	1
PCB-1242	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 20:22	1
PCB-1248	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 20:22	1
PCB-1254	ND		0.50	0.25	ug/L		06/06/24 06:53	06/06/24 20:22	1
PCB-1260	ND		0.50	0.25	ug/L		06/06/24 06:53	06/06/24 20:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*47*		*19 - 120*	*06/06/24 06:53*	*06/06/24 20:22*	*1*
DCB Decachlorobiphenyl	*58*		*19 - 120*	*06/06/24 06:53*	*06/06/24 20:22*	*1*
Tetrachloro-m-xylene	*60*		*39 - 121*	*06/06/24 06:53*	*06/06/24 20:22*	*1*
Tetrachloro-m-xylene	*54*		*39 - 121*	*06/06/24 06:53*	*06/06/24 20:22*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		6.6	1.8	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluoropentanoic acid (PFPeA)	ND		3.3	0.82	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluorooctanoic acid (PFOA)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1

Client Sample ID: SED-RB-060424
Date Collected: 06/04/24 13:15
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220471-1
Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanoic acid (PFNA)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.42	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		6.6	1.6	ng/L		06/10/24 08:21	06/10/24 20:13	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	**1.6**	**J**	6.6	1.6	ng/L		06/10/24 08:21	06/10/24 20:13	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	**2.8**	**J**	6.6	1.6	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	0.51	ng/L		06/10/24 08:21	06/10/24 20:13	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	0.43	ng/L		06/10/24 08:21	06/10/24 20:13	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		16	4.1	ng/L		06/10/24 08:21	06/10/24 20:13	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		16	4.1	ng/L		06/10/24 08:21	06/10/24 20:13	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		6.6	1.6	ng/L		06/10/24 08:21	06/10/24 20:13	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		6.6	1.6	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		3.3	0.82	ng/L		06/10/24 08:21	06/10/24 20:13	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		3.3	1.0	ng/L		06/10/24 08:21	06/10/24 20:13	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		6.6	1.6	ng/L		06/10/24 08:21	06/10/24 20:13	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		6.6	1.6	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		3.3	0.82	ng/L		06/10/24 08:21	06/10/24 20:13	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		8.2	2.1	ng/L		06/10/24 08:21	06/10/24 20:13	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		41	10	ng/L		06/10/24 08:21	06/10/24 20:13	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		41	12	ng/L		06/10/24 08:21	06/10/24 20:13	1

Client Sample ID: SED-RB-060424

Date Collected: 06/04/24 13:15
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220471-1
Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.41	ng/L		06/10/24 08:21	06/10/24 20:13	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		3.3	0.82	ng/L		06/10/24 08:21	06/10/24 20:13	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*106*		*10 - 130*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
13C5 PFPeA	*105*		*35 - 150*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
13C5 PFHxA	*112*		*55 - 150*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
13C4 PFHpA	*102*		*55 - 150*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
13C8 PFOA	*112*		*60 - 140*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
13C9 PFNA	*121*		*55 - 140*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
13C6 PFDA	*106*		*50 - 140*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
13C7 PFUnA	*113*		*30 - 140*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
13C2 PFTeDA	*80.7*		*10 - 130*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
13C3 PFBS	*123*		*55 - 150*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
13C3 PFHxS	*111*		*55 - 150*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
13C8 PFOS	*115*		*45 - 140*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
13C8 FOSA	*97.0*		*30 - 130*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
d3-NMeFOSAA	*112*		*45 - 200*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
d5-NEtFOSAA	*108*		*10 - 200*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
M2-4:2 FTS	*123*		*60 - 200*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
M2-6:2 FTS	*104*		*60 - 200*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
M2-8:2 FTS	*103*		*50 - 200*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
13C3 HFPO-DA	*107*		*25 - 160*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
d7-N-MeFOSE-M	*115*		*10 - 150*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
d9-N-EtFOSE-M	*112*		*10 - 150*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
d5-NEtPFOSA	*82.2*		*10 - 130*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
d3-NMePFOSA	*80.2*		*15 - 130*	*06/10/24 08:21*	*06/10/24 20:13*	*1*
13C2-PFDoDA	*104*		*10 - 150*	*06/10/24 08:21*	*06/10/24 20:13*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		06/06/24 09:11	06/06/24 19:11	1
Antimony	ND		0.020	0.0068	mg/L		06/06/24 09:11	06/06/24 19:11	1
Arsenic	ND		0.015	0.0056	mg/L		06/06/24 09:11	06/06/24 19:11	1
Barium	**0.0014**	**J**	0.0020	0.00070	mg/L		06/06/24 09:11	06/06/24 19:11	1
Beryllium	ND		0.0020	0.00030	mg/L		06/06/24 09:11	06/06/24 19:11	1
Cadmium	ND		0.0020	0.00050	mg/L		06/06/24 09:11	06/06/24 19:11	1
Calcium	**0.32**	**J**	0.50	0.10	mg/L		06/06/24 09:11	06/06/24 19:11	1
Chromium	ND		0.0040	0.0010	mg/L		06/06/24 09:11	06/06/24 19:11	1
Cobalt	ND		0.0040	0.00063	mg/L		06/06/24 09:11	06/06/24 19:11	1
Copper	ND		0.010	0.0016	mg/L		06/06/24 09:11	06/06/24 19:11	1
Iron	ND		0.050	0.019	mg/L		06/06/24 09:11	06/06/24 19:11	1
Lead	**0.0038**	**J**	0.010	0.0030	mg/L		06/06/24 09:11	06/06/24 19:11	1
Magnesium	ND		0.20	0.043	mg/L		06/06/24 09:11	06/06/24 19:11	1
Manganese	ND		0.0030	0.00040	mg/L		06/06/24 09:11	06/06/24 19:11	1
Nickel	ND		0.010	0.0013	mg/L		06/06/24 09:11	06/06/24 19:11	1
Potassium	**0.13**	**J**	0.50	0.10	mg/L		06/06/24 09:11	06/06/24 19:11	1
Selenium	ND		0.025	0.0087	mg/L		06/06/24 09:11	06/06/24 19:11	1
Silver	ND		0.0060	0.0017	mg/L		06/06/24 09:11	06/06/24 19:11	1
Sodium	**0.79**	**J**	1.0	0.32	mg/L		06/06/24 09:11	06/06/24 19:11	1

Client Sample ID: SED-RB-060424

Lab Sample ID: 480-220471-1

Date Collected: 06/04/24 13:15

Matrix: Water

Date Received: 06/04/24 16:00

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	ND		0.020	0.010	mg/L		06/06/24 09:11	06/06/24 19:11	1
Vanadium	ND		0.0050	0.0015	mg/L		06/06/24 09:11	06/06/24 19:11	1
Zinc	ND		0.010	0.0015	mg/L		06/06/24 09:11	06/06/24 19:11	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		06/06/24 12:22	06/06/24 16:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			06/09/24 17:43	1
Total Organic Carbon (SW846 9060A)	ND		1.0	0.43	mg/L			06/07/24 21:30	1
Total Organic Carbon - Quad (SW846 9060A)	ND		1.0	0.43	mg/L			06/07/24 21:30	1
TOC Result 1 (SW846 9060A)	ND		1.0	0.43	mg/L			06/07/24 21:30	1
TOC Result 2 (SW846 9060A)	ND		1.0	0.43	mg/L			06/07/24 21:30	1
TOC Result 3 (SW846 9060A)	ND		1.0	0.43	mg/L			06/07/24 21:30	1
TOC Result 4 (SW846 9060A)	ND		1.0	0.43	mg/L			06/07/24 21:30	1

Client Sample ID: SW-RB-06424

Lab Sample ID: 480-220471-2

Date Collected: 06/04/24 14:00

Matrix: Water

Date Received: 06/04/24 16:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	*+	1.0	0.82	ug/L			06/06/24 16:48	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/06/24 16:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			06/06/24 16:48	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/06/24 16:48	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/06/24 16:48	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/06/24 16:48	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			06/06/24 16:48	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/06/24 16:48	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/06/24 16:48	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/06/24 16:48	1
1,2-Dichloroethane	ND	*+	1.0	0.21	ug/L			06/06/24 16:48	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/06/24 16:48	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			06/06/24 16:48	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/06/24 16:48	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/06/24 16:48	1
2-Hexanone	ND		5.0	1.2	ug/L			06/06/24 16:48	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			06/06/24 16:48	1
Acetone	ND	*+ *1	10	3.0	ug/L			06/06/24 16:48	1
Benzene	ND		1.0	0.41	ug/L			06/06/24 16:48	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/06/24 16:48	1
Bromoform	ND	*1	1.0	0.26	ug/L			06/06/24 16:48	1
Bromomethane	ND	*1	1.0	0.69	ug/L			06/06/24 16:48	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/06/24 16:48	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/06/24 16:48	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/06/24 16:48	1
Chloroethane	ND		1.0	0.32	ug/L			06/06/24 16:48	1

Client Sample ID: SW-RB-06424
Date Collected: 06/04/24 14:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220471-2
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		1.0	0.34	ug/L			06/06/24 16:48	1
Chloromethane	ND	*1	1.0	0.35	ug/L			06/06/24 16:48	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/06/24 16:48	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/06/24 16:48	1
Cyclohexane	ND		1.0	0.18	ug/L			06/06/24 16:48	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/06/24 16:48	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			06/06/24 16:48	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/06/24 16:48	1
Isopropylbenzene	ND		1.0	0.79	ug/L			06/06/24 16:48	1
Methyl acetate	ND		2.5	1.3	ug/L			06/06/24 16:48	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			06/06/24 16:48	1
Methylcyclohexane	ND		1.0	0.16	ug/L			06/06/24 16:48	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/06/24 16:48	1
Styrene	ND		1.0	0.73	ug/L			06/06/24 16:48	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/06/24 16:48	1
Toluene	ND		1.0	0.51	ug/L			06/06/24 16:48	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/06/24 16:48	1
trans-1,3-Dichloropropene	ND	*1	1.0	0.37	ug/L			06/06/24 16:48	1
Trichloroethene	ND		1.0	0.46	ug/L			06/06/24 16:48	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/06/24 16:48	1
Vinyl chloride	ND	*1	1.0	0.90	ug/L			06/06/24 16:48	1
Xylenes, Total	ND		2.0	0.66	ug/L			06/06/24 16:48	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*		*06/06/24 16:48*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*77 - 120*		*06/06/24 16:48*	*1*
4-Bromofluorobenzene (Surr)	*94*		*73 - 120*		*06/06/24 16:48*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 123*		*06/06/24 16:48*	*1*
Toluene-d8 (Surr)	*89*		*80 - 120*		*06/06/24 16:48*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		06/11/24 09:14	06/12/24 20:31	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		06/11/24 09:14	06/12/24 20:31	1
2,4-Dichlorophenol	**0.54**	**J**	5.0	0.51	ug/L		06/11/24 09:14	06/12/24 20:31	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		06/11/24 09:14	06/12/24 20:31	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		06/11/24 09:14	06/12/24 20:31	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		06/11/24 09:14	06/12/24 20:31	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		06/11/24 09:14	06/12/24 20:31	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		06/11/24 09:14	06/12/24 20:31	1
2-Chlorophenol	ND		5.0	0.53	ug/L		06/11/24 09:14	06/12/24 20:31	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		06/11/24 09:14	06/12/24 20:31	1
2-Methylphenol	ND		5.0	0.40	ug/L		06/11/24 09:14	06/12/24 20:31	1
2-Nitroaniline	ND		10	0.42	ug/L		06/11/24 09:14	06/12/24 20:31	1
2-Nitrophenol	ND		5.0	0.48	ug/L		06/11/24 09:14	06/12/24 20:31	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		06/11/24 09:14	06/12/24 20:31	1
3-Nitroaniline	ND		10	0.48	ug/L		06/11/24 09:14	06/12/24 20:31	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		06/11/24 09:14	06/12/24 20:31	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220471-1

Client Sample ID: SW-RB-06424
Date Collected: 06/04/24 14:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220471-2
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		06/11/24 09:14	06/12/24 20:31	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		06/11/24 09:14	06/12/24 20:31	1
4-Chloroaniline	ND		5.0	0.59	ug/L		06/11/24 09:14	06/12/24 20:31	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		06/11/24 09:14	06/12/24 20:31	1
4-Methylphenol	ND		10	0.36	ug/L		06/11/24 09:14	06/12/24 20:31	1
4-Nitroaniline	ND		10	0.25	ug/L		06/11/24 09:14	06/12/24 20:31	1
4-Nitrophenol	ND		10	1.5	ug/L		06/11/24 09:14	06/12/24 20:31	1
Acenaphthene	ND		5.0	0.41	ug/L		06/11/24 09:14	06/12/24 20:31	1
Acenaphthylene	ND		5.0	0.38	ug/L		06/11/24 09:14	06/12/24 20:31	1
Acetophenone	ND		5.0	0.54	ug/L		06/11/24 09:14	06/12/24 20:31	1
Anthracene	ND		5.0	0.28	ug/L		06/11/24 09:14	06/12/24 20:31	1
Atrazine	ND		5.0	0.46	ug/L		06/11/24 09:14	06/12/24 20:31	1
Benzaldehyde	ND		5.0	0.27	ug/L		06/11/24 09:14	06/12/24 20:31	1
Benzo(a)anthracene	ND		5.0	0.36	ug/L		06/11/24 09:14	06/12/24 20:31	1
Benzo(a)pyrene	ND		5.0	0.47	ug/L		06/11/24 09:14	06/12/24 20:31	1
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L		06/11/24 09:14	06/12/24 20:31	1
Benzo(g,h,i)perylene	ND		5.0	0.35	ug/L		06/11/24 09:14	06/12/24 20:31	1
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L		06/11/24 09:14	06/12/24 20:31	1
Biphenyl	ND		5.0	0.65	ug/L		06/11/24 09:14	06/12/24 20:31	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		06/11/24 09:14	06/12/24 20:31	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		06/11/24 09:14	06/12/24 20:31	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		06/11/24 09:14	06/12/24 20:31	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		06/11/24 09:14	06/12/24 20:31	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		06/11/24 09:14	06/12/24 20:31	1
Caprolactam	ND		5.0	2.2	ug/L		06/11/24 09:14	06/12/24 20:31	1
Carbazole	ND		5.0	0.30	ug/L		06/11/24 09:14	06/12/24 20:31	1
Chrysene	ND		5.0	0.33	ug/L		06/11/24 09:14	06/12/24 20:31	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		06/11/24 09:14	06/12/24 20:31	1
Dibenzofuran	ND		10	0.51	ug/L		06/11/24 09:14	06/12/24 20:31	1
Diethyl phthalate	ND		5.0	0.22	ug/L		06/11/24 09:14	06/12/24 20:31	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		06/11/24 09:14	06/12/24 20:31	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		06/11/24 09:14	06/12/24 20:31	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		06/11/24 09:14	06/12/24 20:31	1
Fluoranthene	ND		5.0	0.40	ug/L		06/11/24 09:14	06/12/24 20:31	1
Fluorene	ND		5.0	0.36	ug/L		06/11/24 09:14	06/12/24 20:31	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		06/11/24 09:14	06/12/24 20:31	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		06/11/24 09:14	06/12/24 20:31	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		06/11/24 09:14	06/12/24 20:31	1
Hexachloroethane	ND		5.0	0.59	ug/L		06/11/24 09:14	06/12/24 20:31	1
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L		06/11/24 09:14	06/12/24 20:31	1
Isophorone	ND		5.0	0.43	ug/L		06/11/24 09:14	06/12/24 20:31	1
Naphthalene	ND		5.0	0.76	ug/L		06/11/24 09:14	06/12/24 20:31	1
Nitrobenzene	ND		5.0	0.29	ug/L		06/11/24 09:14	06/12/24 20:31	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		06/11/24 09:14	06/12/24 20:31	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		06/11/24 09:14	06/12/24 20:31	1
Pentachlorophenol	ND		10	2.2	ug/L		06/11/24 09:14	06/12/24 20:31	1
Phenanthrene	ND		5.0	0.44	ug/L		06/11/24 09:14	06/12/24 20:31	1
Phenol	ND		5.0	0.39	ug/L		06/11/24 09:14	06/12/24 20:31	1
Pyrene	ND		5.0	0.34	ug/L		06/11/24 09:14	06/12/24 20:31	1

Client Sample ID: SW-RB-06424
Date Collected: 06/04/24 14:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220471-2
Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	1.8	T J	ug/L		3.17	N/A	06/11/24 09:14	06/12/24 20:31	1
Unknown	15	T J	ug/L		4.72	N/A	06/11/24 09:14	06/12/24 20:31	1
Unknown	1.6	T J	ug/L		5.13	N/A	06/11/24 09:14	06/12/24 20:31	1
1H-Isoindole-1,3(2H)-dione	2.1	T J N	ug/L		10.05	85-41-6	06/11/24 09:14	06/12/24 20:31	1
Unknown	5.7	T J	ug/L		12.54	N/A	06/11/24 09:14	06/12/24 20:31	1
Unknown	4.1	T J	ug/L		13.06	N/A	06/11/24 09:14	06/12/24 20:31	1
Unknown	11	T J	ug/L		13.43	N/A	06/11/24 09:14	06/12/24 20:31	1
Unknown	1.7	T J	ug/L		13.72	N/A	06/11/24 09:14	06/12/24 20:31	1
Unknown	5.5	T J	ug/L		13.94	N/A	06/11/24 09:14	06/12/24 20:31	1
Erucylamide	1.8	T J N	ug/L		14.69	112-84-5	06/11/24 09:14	06/12/24 20:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	95		25 - 144	06/11/24 09:14	06/12/24 20:31	1
2-Fluorobiphenyl	73		53 - 126	06/11/24 09:14	06/12/24 20:31	1
2-Fluorophenol	60		24 - 120	06/11/24 09:14	06/12/24 20:31	1
Nitrobenzene-d5	67		29 - 129	06/11/24 09:14	06/12/24 20:31	1
Phenol-d5	38		10 - 120	06/11/24 09:14	06/12/24 20:31	1
p-Terphenyl-d14	78		33 - 132	06/11/24 09:14	06/12/24 20:31	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.052	0.0096	ug/L		06/06/24 13:46	06/07/24 10:48	1
4,4'-DDE	ND		0.052	0.012	ug/L		06/06/24 13:46	06/07/24 10:48	1
4,4'-DDT	ND		0.052	0.011	ug/L		06/06/24 13:46	06/07/24 10:48	1
Aldrin	ND		0.052	0.0084	ug/L		06/06/24 13:46	06/07/24 10:48	1
alpha-BHC	**0.0099**	**J**	0.052	0.0080	ug/L		06/06/24 13:46	06/07/24 10:48	1
cis-Chlordane	ND		0.052	0.015	ug/L		06/06/24 13:46	06/07/24 10:48	1
beta-BHC	ND		0.052	0.026	ug/L		06/06/24 13:46	06/07/24 10:48	1
delta-BHC	ND		0.052	0.010	ug/L		06/06/24 13:46	06/07/24 10:48	1
Dieldrin	ND		0.052	0.010	ug/L		06/06/24 13:46	06/07/24 10:48	1
Endosulfan I	ND		0.052	0.011	ug/L		06/06/24 13:46	06/07/24 10:48	1
Endosulfan II	ND		0.052	0.013	ug/L		06/06/24 13:46	06/07/24 10:48	1
Endosulfan sulfate	ND		0.052	0.016	ug/L		06/06/24 13:46	06/07/24 10:48	1
Endrin	ND		0.052	0.014	ug/L		06/06/24 13:46	06/07/24 10:48	1
Endrin aldehyde	ND		0.052	0.017	ug/L		06/06/24 13:46	06/07/24 10:48	1
Endrin ketone	ND		0.052	0.013	ug/L		06/06/24 13:46	06/07/24 10:48	1
gamma-BHC (Lindane)	ND		0.052	0.0083	ug/L		06/06/24 13:46	06/07/24 10:48	1
trans-Chlordane	ND		0.052	0.011	ug/L		06/06/24 13:46	06/07/24 10:48	1
Heptachlor	ND		0.052	0.0089	ug/L		06/06/24 13:46	06/07/24 10:48	1
Heptachlor epoxide	ND		0.052	0.0077	ug/L		06/06/24 13:46	06/07/24 10:48	1
Methoxychlor	ND		0.052	0.015	ug/L		06/06/24 13:46	06/07/24 10:48	1
Toxaphene	ND		0.52	0.13	ug/L		06/06/24 13:46	06/07/24 10:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	82		20 - 120	06/06/24 13:46	06/07/24 10:48	1
DCB Decachlorobiphenyl	77		20 - 120	06/06/24 13:46	06/07/24 10:48	1
Tetrachloro-m-xylene	94		44 - 120	06/06/24 13:46	06/07/24 10:48	1
Tetrachloro-m-xylene	98		44 - 120	06/06/24 13:46	06/07/24 10:48	1

Client Sample ID: SW-RB-06424
Date Collected: 06/04/24 14:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220471-2
Matrix: Water

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.54	0.19	ug/L		06/06/24 06:53	06/06/24 20:39	1
PCB-1221	ND		0.54	0.19	ug/L		06/06/24 06:53	06/06/24 20:39	1
PCB-1232	ND		0.54	0.19	ug/L		06/06/24 06:53	06/06/24 20:39	1
PCB-1242	ND		0.54	0.19	ug/L		06/06/24 06:53	06/06/24 20:39	1
PCB-1248	ND		0.54	0.19	ug/L		06/06/24 06:53	06/06/24 20:39	1
PCB-1254	ND		0.54	0.27	ug/L		06/06/24 06:53	06/06/24 20:39	1
PCB-1260	ND		0.54	0.27	ug/L		06/06/24 06:53	06/06/24 20:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*53*		*19 - 120*	*06/06/24 06:53*	*06/06/24 20:39*	*1*
DCB Decachlorobiphenyl	*60*		*19 - 120*	*06/06/24 06:53*	*06/06/24 20:39*	*1*
Tetrachloro-m-xylene	*66*		*39 - 121*	*06/06/24 06:53*	*06/06/24 20:39*	*1*
Tetrachloro-m-xylene	*59*		*39 - 121*	*06/06/24 06:53*	*06/06/24 20:39*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		6.0	1.6	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluoropentanoic acid (PFPeA)	ND		3.0	0.74	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluorohexanoic acid (PFHxA)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluoroheptanoic acid (PFHpA)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluorooctanoic acid (PFOA)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluorononanoic acid (PFNA)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluorodecanoic acid (PFDA)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluoroundecanoic acid (PFUnA)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluorododecanoic acid (PFDoA)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.5	0.39	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluorononanesulfonic acid (PFNS)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		6.0	1.5	ng/L		06/10/24 08:21	06/10/24 20:26	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		6.0	1.5	ng/L		06/10/24 08:21	06/10/24 20:26	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		6.0	1.5	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.5	0.46	ng/L		06/10/24 08:21	06/10/24 20:26	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.5	0.39	ng/L		06/10/24 08:21	06/10/24 20:26	1

Client Sample ID: SW-RB-06424
Date Collected: 06/04/24 14:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220471-2
Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		15	3.7	ng/L		06/10/24 08:21	06/10/24 20:26	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		15	3.7	ng/L		06/10/24 08:21	06/10/24 20:26	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		6.0	1.5	ng/L		06/10/24 08:21	06/10/24 20:26	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		6.0	1.5	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		3.0	0.74	ng/L		06/10/24 08:21	06/10/24 20:26	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		3.0	0.91	ng/L		06/10/24 08:21	06/10/24 20:26	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		6.0	1.5	ng/L		06/10/24 08:21	06/10/24 20:26	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		6.0	1.5	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		3.0	0.74	ng/L		06/10/24 08:21	06/10/24 20:26	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		7.4	1.9	ng/L		06/10/24 08:21	06/10/24 20:26	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		37	9.3	ng/L		06/10/24 08:21	06/10/24 20:26	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		37	11	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.5	0.37	ng/L		06/10/24 08:21	06/10/24 20:26	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		3.0	0.74	ng/L		06/10/24 08:21	06/10/24 20:26	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*101*		*10 - 130*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
13C5 PFPeA	*110*		*35 - 150*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
13C5 PFHxA	*106*		*55 - 150*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
13C4 PFHpA	*104*		*55 - 150*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
13C8 PFOA	*106*		*60 - 140*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
13C9 PFNA	*118*		*55 - 140*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
13C6 PFDA	*100*		*50 - 140*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
13C7 PFUnA	*101*		*30 - 140*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
13C2 PFTeDA	*71.1*		*10 - 130*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
13C3 PFBS	*121*		*55 - 150*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
13C3 PFHxS	*111*		*55 - 150*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
13C8 PFOS	*108*		*45 - 140*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
13C8 FOSA	*93.1*		*30 - 130*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
d3-NMeFOSAA	*97.9*		*45 - 200*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
d5-NEtFOSAA	*107*		*10 - 200*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
M2-4:2 FTS	*111*		*60 - 200*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
M2-6:2 FTS	*92.7*		*60 - 200*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
M2-8:2 FTS	*94.5*		*50 - 200*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
13C3 HFPO-DA	*115*		*25 - 160*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
d7-N-MeFOSE-M	*99.2*		*10 - 150*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
d9-N-EtFOSE-M	*98.3*		*10 - 150*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
d5-NEtPFOSA	*83.2*		*10 - 130*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
d3-NMePFOSA	*81.1*		*15 - 130*	*06/10/24 08:21*	*06/10/24 20:26*	*1*
13C2-PFDoDA	*92.5*		*10 - 150*	*06/10/24 08:21*	*06/10/24 20:26*	*1*

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220471-1

Client Sample ID: SW-RB-06424

Date Collected: 06/04/24 14:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220471-2

Matrix: Water

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		06/06/24 09:11	06/06/24 19:13	1
Antimony	ND		0.020	0.0068	mg/L		06/06/24 09:11	06/06/24 19:13	1
Arsenic	ND		0.015	0.0056	mg/L		06/06/24 09:11	06/06/24 19:13	1
Barium	**0.0011**	**J**	0.0020	0.00070	mg/L		06/06/24 09:11	06/06/24 19:13	1
Beryllium	ND		0.0020	0.00030	mg/L		06/06/24 09:11	06/06/24 19:13	1
Cadmium	ND		0.0020	0.00050	mg/L		06/06/24 09:11	06/06/24 19:13	1
Calcium	**0.27**	**J**	0.50	0.10	mg/L		06/06/24 09:11	06/06/24 19:13	1
Chromium	ND		0.0040	0.0010	mg/L		06/06/24 09:11	06/06/24 19:13	1
Cobalt	**0.00086**	**J**	0.0040	0.00063	mg/L		06/06/24 09:11	06/06/24 19:13	1
Copper	ND		0.010	0.0016	mg/L		06/06/24 09:11	06/06/24 19:13	1
Iron	ND		0.050	0.019	mg/L		06/06/24 09:11	06/06/24 19:13	1
Lead	**0.0031**	**J**	0.010	0.0030	mg/L		06/06/24 09:11	06/06/24 19:13	1
Magnesium	ND		0.20	0.043	mg/L		06/06/24 09:11	06/06/24 19:13	1
Manganese	ND		0.0030	0.00040	mg/L		06/06/24 09:11	06/06/24 19:13	1
Nickel	ND		0.010	0.0013	mg/L		06/06/24 09:11	06/06/24 19:13	1
Potassium	ND		0.50	0.10	mg/L		06/06/24 09:11	06/06/24 19:13	1
Selenium	ND		0.025	0.0087	mg/L		06/06/24 09:11	06/06/24 19:13	1
Silver	ND		0.0060	0.0017	mg/L		06/06/24 09:11	06/06/24 19:13	1
Sodium	**0.63**	**J**	1.0	0.32	mg/L		06/06/24 09:11	06/06/24 19:13	1
Thallium	ND		0.020	0.010	mg/L		06/06/24 09:11	06/06/24 19:13	1
Vanadium	ND		0.0050	0.0015	mg/L		06/06/24 09:11	06/06/24 19:13	1
Zinc	ND		0.010	0.0015	mg/L		06/06/24 09:11	06/06/24 19:13	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		06/06/24 09:12	06/07/24 14:39	1
Antimony	ND		0.020	0.0068	mg/L		06/06/24 09:12	06/07/24 14:39	1
Arsenic	ND		0.015	0.0056	mg/L		06/06/24 09:12	06/06/24 20:21	1
Barium	**0.0013**	**J**	0.0020	0.00070	mg/L		06/06/24 09:12	06/07/24 14:39	1
Beryllium	ND		0.0020	0.00030	mg/L		06/06/24 09:12	06/07/24 14:39	1
Cadmium	ND		0.0020	0.00050	mg/L		06/06/24 09:12	06/07/24 14:39	1
Calcium	**0.33**	**J**	0.50	0.10	mg/L		06/06/24 09:12	06/07/24 14:39	1
Chromium	ND		0.0040	0.0010	mg/L		06/06/24 09:12	06/07/24 14:39	1
Cobalt	ND		0.0040	0.00063	mg/L		06/06/24 09:12	06/07/24 14:39	1
Copper	ND		0.010	0.0016	mg/L		06/06/24 09:12	06/07/24 14:39	1
Iron	ND		0.050	0.019	mg/L		06/06/24 09:12	06/07/24 14:39	1
Lead	**0.0053**	**J**	0.010	0.0030	mg/L		06/06/24 09:12	06/06/24 20:21	1
Magnesium	ND		0.20	0.043	mg/L		06/06/24 09:12	06/07/24 14:39	1
Manganese	ND		0.0030	0.00040	mg/L		06/06/24 09:12	06/07/24 14:39	1
Nickel	ND		0.010	0.0013	mg/L		06/06/24 09:12	06/07/24 14:39	1
Potassium	ND		0.50	0.10	mg/L		06/06/24 09:12	06/07/24 14:39	1
Selenium	ND		0.025	0.0087	mg/L		06/06/24 09:12	06/07/24 14:39	1
Silver	ND		0.0060	0.0017	mg/L		06/06/24 09:12	06/07/24 14:39	1
Sodium	**0.68**	**J**	1.0	0.32	mg/L		06/06/24 09:12	06/07/24 14:39	1
Thallium	ND		0.020	0.010	mg/L		06/06/24 09:12	06/06/24 20:21	1
Vanadium	ND		0.0050	0.0015	mg/L		06/06/24 09:12	06/07/24 14:39	1
Zinc	ND		0.010	0.0015	mg/L		06/06/24 09:12	06/07/24 14:39	1

Client Sample ID: SW-RB-06424

Lab Sample ID: 480-220471-2

Date Collected: 06/04/24 14:00

Matrix: Water

Date Received: 06/04/24 16:00

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		06/06/24 12:22	06/06/24 16:04	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		06/06/24 12:22	06/06/24 16:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			06/09/24 17:46	1
Total Organic Carbon (SW846 9060A)	ND		1.0	0.43	mg/L			06/07/24 22:00	1
Total Organic Carbon - Quad (SW846 9060A)	ND		1.0	0.43	mg/L			06/07/24 22:00	1
TOC Result 1 (SW846 9060A)	ND		1.0	0.43	mg/L			06/07/24 22:00	1
TOC Result 2 (SW846 9060A)	ND		1.0	0.43	mg/L			06/07/24 22:00	1
TOC Result 3 (SW846 9060A)	ND		1.0	0.43	mg/L			06/07/24 22:00	1
TOC Result 4 (SW846 9060A)	ND		1.0	0.43	mg/L			06/07/24 22:00	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			06/09/24 17:50	1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-220471-3

Date Collected: 06/04/24 00:00

Matrix: Water

Date Received: 06/04/24 16:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/06/24 00:21	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/06/24 00:21	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			06/06/24 00:21	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/06/24 00:21	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/06/24 00:21	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/06/24 00:21	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			06/06/24 00:21	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/06/24 00:21	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/06/24 00:21	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/06/24 00:21	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/06/24 00:21	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/06/24 00:21	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			06/06/24 00:21	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/06/24 00:21	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/06/24 00:21	1
2-Hexanone	ND		5.0	1.2	ug/L			06/06/24 00:21	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			06/06/24 00:21	1
Acetone	ND		10	3.0	ug/L			06/06/24 00:21	1
Benzene	ND		1.0	0.41	ug/L			06/06/24 00:21	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/06/24 00:21	1
Bromoform	ND		1.0	0.26	ug/L			06/06/24 00:21	1
Bromomethane	ND		1.0	0.69	ug/L			06/06/24 00:21	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/06/24 00:21	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/06/24 00:21	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220471-1

Client Sample ID: TRIP BLANK

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220471-3

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND		1.0	0.75	ug/L			06/06/24 00:21	1
Chloroethane	ND		1.0	0.32	ug/L			06/06/24 00:21	1
Chloroform	ND		1.0	0.34	ug/L			06/06/24 00:21	1
Chloromethane	ND		1.0	0.35	ug/L			06/06/24 00:21	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/06/24 00:21	1
cis-1,3-Dichloropropene	ND	*+	1.0	0.36	ug/L			06/06/24 00:21	1
Cyclohexane	ND		1.0	0.18	ug/L			06/06/24 00:21	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/06/24 00:21	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			06/06/24 00:21	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/06/24 00:21	1
Isopropylbenzene	ND		1.0	0.79	ug/L			06/06/24 00:21	1
Methyl acetate	ND		2.5	1.3	ug/L			06/06/24 00:21	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			06/06/24 00:21	1
Methylcyclohexane	ND		1.0	0.16	ug/L			06/06/24 00:21	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/06/24 00:21	1
Styrene	ND		1.0	0.73	ug/L			06/06/24 00:21	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/06/24 00:21	1
Toluene	ND		1.0	0.51	ug/L			06/06/24 00:21	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/06/24 00:21	1
trans-1,3-Dichloropropene	ND	*+	1.0	0.37	ug/L			06/06/24 00:21	1
Trichloroethene	ND		1.0	0.46	ug/L			06/06/24 00:21	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/06/24 00:21	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/06/24 00:21	1
Xylenes, Total	ND		2.0	0.66	ug/L			06/06/24 00:21	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*		*06/06/24 00:21*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*		*06/06/24 00:21*	*1*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*06/06/24 00:21*	*1*
Dibromofluoromethane (Surr)	*94*		*75 - 123*		*06/06/24 00:21*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*06/06/24 00:21*	*1*

Surrogate Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220471-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(77-120)	(73-120)	(75-123)	(80-120)
480-220471-1	SED-RB-060424	109	93	104	91
480-220471-2	SW-RB-06424	110	94	104	89
480-220471-3	TRIP BLANK	100	103	94	100
LCS 480-714555/6	Lab Control Sample	109	117	102	110
LCS 480-714691/7	Lab Control Sample	118	92	100	95
LCSD 480-714691/30	Lab Control Sample Dup	106	87	99	90
MB 480-714555/8	Method Blank	108	112	99	110
MB 480-714691/9	Method Blank	109	89	101	88

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPHd14
Lab Sample ID	Client Sample ID	(25-144)	(53-126)	(24-120)	(29-129)	(10-120)	(33-132)
480-220471-1	SED-RB-060424	82	74	59	68	37	77
480-220471-2	SW-RB-06424	95	73	60	67	38	78
LCS 480-715151/2-A	Lab Control Sample	103	85	61	84	51	85
MB 480-715151/1-A	Method Blank	99	86	57	78	46	94

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHd14 = p-Terphenyl-d14

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1	DCBP2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(20-120)	(20-120)	(44-120)	(44-120)
480-220471-1	SED-RB-060424	66	61	89	72
480-220471-2	SW-RB-06424	82	77	94	98
LCS 480-714710/2-A	Lab Control Sample	49	42	72	69
MB 480-714710/1-A	Method Blank	52	46	91	76

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Surrogate Summary

Client: Ashland LLC
Job ID: 480-220471-1
Project/Site: Tank 75 Analysis

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1	DCBP2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(19-120)	(19-120)	(39-121)	(39-121)
480-220471-1	SED-RB-060424	58	47	54	60
480-220471-2	SW-RB-06424	60	53	59	66
LCS 480-714616/2-A	Lab Control Sample	39	34	72	77
MB 480-714616/1-A	Method Blank	45	40	70	69

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Isotope Dilution Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220471-1

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)
		DXE
Lab Sample ID	Client Sample ID	(15-110)
480-220471-1	SED-RB-060424	36
LCS 480-714544/2-A	Lab Control Sample	38
MB 480-714544/1-A	Method Blank	39

Surrogate Legend

DXE = 1,4-Dioxane-d8

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(10-130)	(35-150)	(55-150)	(55-150)	(60-140)	(55-140)	(50-140)	(30-140)
480-220471-1	SED-RB-060424	106	105	112	102	112	121	106	113
480-220471-2	SW-RB-06424	101	110	106	104	106	118	100	101
MB 240-615986/1-A	Method Blank	96.2	98.0	98.7	93.4	108	100	91.3	103

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFTDA	C3PFBS	C3PFHS	C8PFOS	PFOSA	d3NMFOS	d5NEFOS	M242FTS
Lab Sample ID	Client Sample ID	(10-130)	(55-150)	(55-150)	(45-140)	(30-130)	(45-200)	(10-200)	(60-200)
480-220471-1	SED-RB-060424	80.7	123	111	115	97.0	112	108	123
480-220471-2	SW-RB-06424	71.1	121	111	108	93.1	97.9	107	111
MB 240-615986/1-A	Method Blank	79.1	106	101	115	87.5	104	122	100

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M262FTS	M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	PFDoDA
Lab Sample ID	Client Sample ID	(60-200)	(50-200)	(25-160)	(10-150)	(10-150)	(10-130)	(15-130)	(10-150)
480-220471-1	SED-RB-060424	104	103	107	115	112	82.2	80.2	104
480-220471-2	SW-RB-06424	92.7	94.5	115	99.2	98.3	83.2	81.1	92.5
MB 240-615986/1-A	Method Blank	106	99.4	98.6	102	98.9	66.2	75.0	91.6

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M

Isotope Dilution Summary

Client: Ashland LLC
Job ID: 480-220471-1
Project/Site: Tank 75 Analysis

NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoDA = 13C2-PFDoDA

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(10-130)	(40-150)	(40-150)	(40-150)	(30-140)	(30-140)	(20-140)	(20-140)
LCS 240-615986/3-A	Lab Control Sample	97.5	99.0	100	103	101	101	96.4	109
LLCS 240-615986/2-A	Lab Control Sample	111	118	122	118	122	120	116	120

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFTDA	C3PFBS	C3PFHS	C8PFOS	PFOSA	d3NMFOS	d5NEFOS	M242FTS
Lab Sample ID	Client Sample ID	(10-130)	(25-150)	(25-150)	(20-140)	(10-130)	(10-200)	(10-200)	(25-200)
LCS 240-615986/3-A	Lab Control Sample	79.6	110	101	109	88.2	111	132	106
LLCS 240-615986/2-A	Lab Control Sample	83.8	129	131	129	107	121	145	119

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M262FTS	M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	PFDoDA
Lab Sample ID	Client Sample ID	(25-200)	(25-200)	(25-160)	(10-150)	(10-150)	(10-130)	(10-130)	(10-150)
LCS 240-615986/3-A	Lab Control Sample	97.8	93.4	107	105	112	70.9	75.1	102
LLCS 240-615986/2-A	Lab Control Sample	134	125	125	133	130	83.7	85.9	108

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoDA = 13C2-PFDoDA

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-714555/8
Matrix: Water
Analysis Batch: 714555

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/05/24 21:38	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/05/24 21:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			06/05/24 21:38	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/05/24 21:38	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/05/24 21:38	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/05/24 21:38	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			06/05/24 21:38	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/05/24 21:38	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/05/24 21:38	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/05/24 21:38	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/05/24 21:38	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/05/24 21:38	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			06/05/24 21:38	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/05/24 21:38	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/05/24 21:38	1
2-Hexanone	ND		5.0	1.2	ug/L			06/05/24 21:38	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			06/05/24 21:38	1
Acetone	ND		10	3.0	ug/L			06/05/24 21:38	1
Benzene	ND		1.0	0.41	ug/L			06/05/24 21:38	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/05/24 21:38	1
Bromoform	ND		1.0	0.26	ug/L			06/05/24 21:38	1
Bromomethane	ND		1.0	0.69	ug/L			06/05/24 21:38	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/05/24 21:38	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/05/24 21:38	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/05/24 21:38	1
Chloroethane	ND		1.0	0.32	ug/L			06/05/24 21:38	1
Chloroform	ND		1.0	0.34	ug/L			06/05/24 21:38	1
Chloromethane	ND		1.0	0.35	ug/L			06/05/24 21:38	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/05/24 21:38	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/05/24 21:38	1
Cyclohexane	ND		1.0	0.18	ug/L			06/05/24 21:38	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/05/24 21:38	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			06/05/24 21:38	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/05/24 21:38	1
Isopropylbenzene	ND		1.0	0.79	ug/L			06/05/24 21:38	1
Methyl acetate	ND		2.5	1.3	ug/L			06/05/24 21:38	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			06/05/24 21:38	1
Methylcyclohexane	ND		1.0	0.16	ug/L			06/05/24 21:38	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/05/24 21:38	1
Styrene	ND		1.0	0.73	ug/L			06/05/24 21:38	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/05/24 21:38	1
Toluene	ND		1.0	0.51	ug/L			06/05/24 21:38	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/05/24 21:38	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/05/24 21:38	1
Trichloroethene	ND		1.0	0.46	ug/L			06/05/24 21:38	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/05/24 21:38	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/05/24 21:38	1
Xylenes, Total	ND		2.0	0.66	ug/L			06/05/24 21:38	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-714555/8
Matrix: Water
Analysis Batch: 714555

Client Sample ID: Method Blank
Prep Type: Total/NA

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A		06/05/24 21:38	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		77 - 120		06/05/24 21:38	1
4-Bromofluorobenzene (Surr)	112		73 - 120		06/05/24 21:38	1
Dibromofluoromethane (Surr)	99		75 - 123		06/05/24 21:38	1
Toluene-d8 (Surr)	110		80 - 120		06/05/24 21:38	1

Lab Sample ID: LCS 480-714555/6
Matrix: Water
Analysis Batch: 714555

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	25.0	25.9		ug/L		103	73 - 126
1,1,2,2-Tetrachloroethane	25.0	25.1		ug/L		101	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	23.3		ug/L		93	61 - 148
1,1,2-Trichloroethane	25.0	27.3		ug/L		109	76 - 122
1,1-Dichloroethane	25.0	23.5		ug/L		94	77 - 120
1,1-Dichloroethene	25.0	24.7		ug/L		99	66 - 127
1,2,4-Trichlorobenzene	25.0	20.1		ug/L		81	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	20.7		ug/L		83	56 - 134
1,2-Dibromoethane	25.0	30.1		ug/L		120	77 - 120
1,2-Dichlorobenzene	25.0	24.8		ug/L		99	80 - 124
1,2-Dichloroethane	25.0	26.5		ug/L		106	75 - 120
1,2-Dichloropropane	25.0	27.8		ug/L		111	76 - 120
1,3-Dichlorobenzene	25.0	26.9		ug/L		108	77 - 120
1,4-Dichlorobenzene	25.0	26.9		ug/L		108	80 - 120
2-Butanone (MEK)	125	152		ug/L		122	57 - 140
2-Hexanone	125	150		ug/L		120	65 - 127
4-Methyl-2-pentanone (MIBK)	125	122		ug/L		98	71 - 125
Acetone	125	108		ug/L		87	56 - 142
Benzene	25.0	26.7		ug/L		107	71 - 124
Bromodichloromethane	25.0	25.8		ug/L		103	80 - 122
Bromoform	25.0	24.8		ug/L		99	61 - 132
Bromomethane	25.0	25.6		ug/L		103	55 - 144
Carbon disulfide	25.0	22.6		ug/L		90	59 - 134
Carbon tetrachloride	25.0	24.7		ug/L		99	72 - 134
Chlorobenzene	25.0	28.4		ug/L		113	80 - 120
Chloroethane	25.0	22.4		ug/L		90	69 - 136
Chloroform	25.0	22.3		ug/L		89	73 - 127
Chloromethane	25.0	19.8		ug/L		79	68 - 124
cis-1,2-Dichloroethene	25.0	22.2		ug/L		89	74 - 124
cis-1,3-Dichloropropene	25.0	31.4	*+	ug/L		126	74 - 124
Cyclohexane	25.0	22.0		ug/L		88	59 - 135
Dibromochloromethane	25.0	25.4		ug/L		102	75 - 125
Dichlorodifluoromethane	25.0	18.4		ug/L		74	59 - 135
Ethylbenzene	25.0	27.7		ug/L		111	77 - 123

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-714555/6
Matrix: Water
Analysis Batch: 714555

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Isopropylbenzene	25.0	25.6		ug/L		102	77 - 122
Methyl acetate	50.0	49.2		ug/L		98	74 - 133
Methyl tert-butyl ether	25.0	22.7		ug/L		91	77 - 120
Methylcyclohexane	25.0	22.5		ug/L		90	68 - 134
Methylene Chloride	25.0	25.0		ug/L		100	75 - 124
Styrene	25.0	27.4		ug/L		110	80 - 120
Tetrachloroethene	25.0	27.8		ug/L		111	74 - 122
Toluene	25.0	26.5		ug/L		106	80 - 122
trans-1,2-Dichloroethene	25.0	23.4		ug/L		94	73 - 127
Trichloroethene	25.0	26.8		ug/L		107	74 - 123
Trichlorofluoromethane	25.0	25.3		ug/L		101	62 - 150
Vinyl chloride	25.0	23.8		ug/L		95	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*109*		*77 - 120*
4-Bromofluorobenzene (Surr)	*117*		*73 - 120*
Dibromofluoromethane (Surr)	*102*		*75 - 123*
Toluene-d8 (Surr)	*110*		*80 - 120*

Lab Sample ID: MB 480-714691/9
Matrix: Water
Analysis Batch: 714691

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/06/24 15:53	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/06/24 15:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			06/06/24 15:53	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/06/24 15:53	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/06/24 15:53	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/06/24 15:53	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			06/06/24 15:53	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/06/24 15:53	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/06/24 15:53	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/06/24 15:53	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/06/24 15:53	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/06/24 15:53	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			06/06/24 15:53	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/06/24 15:53	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/06/24 15:53	1
2-Hexanone	ND		5.0	1.2	ug/L			06/06/24 15:53	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			06/06/24 15:53	1
Acetone	ND		10	3.0	ug/L			06/06/24 15:53	1
Benzene	ND		1.0	0.41	ug/L			06/06/24 15:53	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/06/24 15:53	1
Bromoform	ND		1.0	0.26	ug/L			06/06/24 15:53	1
Bromomethane	ND		1.0	0.69	ug/L			06/06/24 15:53	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/06/24 15:53	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/06/24 15:53	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-714691/9
Matrix: Water
Analysis Batch: 714691

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND		1.0	0.75	ug/L			06/06/24 15:53	1
Chloroethane	ND		1.0	0.32	ug/L			06/06/24 15:53	1
Chloroform	ND		1.0	0.34	ug/L			06/06/24 15:53	1
Chloromethane	ND		1.0	0.35	ug/L			06/06/24 15:53	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/06/24 15:53	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/06/24 15:53	1
Cyclohexane	ND		1.0	0.18	ug/L			06/06/24 15:53	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/06/24 15:53	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			06/06/24 15:53	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/06/24 15:53	1
Isopropylbenzene	ND		1.0	0.79	ug/L			06/06/24 15:53	1
Methyl acetate	ND		2.5	1.3	ug/L			06/06/24 15:53	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			06/06/24 15:53	1
Methylcyclohexane	ND		1.0	0.16	ug/L			06/06/24 15:53	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/06/24 15:53	1
Styrene	ND		1.0	0.73	ug/L			06/06/24 15:53	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/06/24 15:53	1
Toluene	ND		1.0	0.51	ug/L			06/06/24 15:53	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/06/24 15:53	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/06/24 15:53	1
Trichloroethene	ND		1.0	0.46	ug/L			06/06/24 15:53	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/06/24 15:53	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/06/24 15:53	1
Xylenes, Total	ND		2.0	0.66	ug/L			06/06/24 15:53	1

Tentatively Identified Compound	MB *Est. Result*	MB *Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*		*06/06/24 15:53*	*1*

Surrogate	MB *%Recovery*	MB *Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*77 - 120*		*06/06/24 15:53*	*1*
4-Bromofluorobenzene (Surr)	*89*		*73 - 120*		*06/06/24 15:53*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*06/06/24 15:53*	*1*
Toluene-d8 (Surr)	*88*		*80 - 120*		*06/06/24 15:53*	*1*

Lab Sample ID: LCS 480-714691/7
Matrix: Water
Analysis Batch: 714691

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	25.0	32.1	*+	ug/L		128	73 - 126
1,1,2,2-Tetrachloroethane	25.0	24.6		ug/L		98	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	29.3		ug/L		117	61 - 148
1,1,2-Trichloroethane	25.0	23.8		ug/L		95	76 - 122
1,1-Dichloroethane	25.0	27.5		ug/L		110	77 - 120
1,1-Dichloroethene	25.0	27.1		ug/L		108	66 - 127
1,2,4-Trichlorobenzene	25.0	28.6		ug/L		114	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	30.5		ug/L		122	56 - 134

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-714691/7
Matrix: Water
Analysis Batch: 714691

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromoethane	25.0	27.9		ug/L		112	77 - 120
1,2-Dichlorobenzene	25.0	27.3		ug/L		109	80 - 124
1,2-Dichloroethane	25.0	33.9	*+	ug/L		136	75 - 120
1,2-Dichloropropane	25.0	26.3		ug/L		105	76 - 120
1,3-Dichlorobenzene	25.0	26.9		ug/L		108	77 - 120
1,4-Dichlorobenzene	25.0	27.4		ug/L		110	80 - 120
2-Butanone (MEK)	125	157		ug/L		125	57 - 140
2-Hexanone	125	141		ug/L		113	65 - 127
4-Methyl-2-pentanone (MIBK)	125	128		ug/L		102	71 - 125
Acetone	125	189	*+	ug/L		151	56 - 142
Benzene	25.0	25.4		ug/L		101	71 - 124
Bromodichloromethane	25.0	30.2		ug/L		121	80 - 122
Bromoform	25.0	23.8		ug/L		95	61 - 132
Bromomethane	25.0	21.0		ug/L		84	55 - 144
Carbon disulfide	25.0	25.3		ug/L		101	59 - 134
Carbon tetrachloride	25.0	30.5		ug/L		122	72 - 134
Chlorobenzene	25.0	27.6		ug/L		110	80 - 120
Chloroethane	25.0	21.3		ug/L		85	69 - 136
Chloroform	25.0	28.5		ug/L		114	73 - 127
Chloromethane	25.0	22.9		ug/L		92	68 - 124
cis-1,2-Dichloroethene	25.0	25.6		ug/L		102	74 - 124
cis-1,3-Dichloropropene	25.0	28.0		ug/L		112	74 - 124
Cyclohexane	25.0	25.8		ug/L		103	59 - 135
Dibromochloromethane	25.0	27.9		ug/L		112	75 - 125
Dichlorodifluoromethane	25.0	30.2		ug/L		121	59 - 135
Ethylbenzene	25.0	27.7		ug/L		111	77 - 123
Isopropylbenzene	25.0	29.3		ug/L		117	77 - 122
Methyl acetate	50.0	51.7		ug/L		103	74 - 133
Methyl tert-butyl ether	25.0	26.6		ug/L		106	77 - 120
Methylcyclohexane	25.0	27.0		ug/L		108	68 - 134
Methylene Chloride	25.0	23.8		ug/L		95	75 - 124
Styrene	25.0	24.6		ug/L		98	80 - 120
Tetrachloroethene	25.0	28.9		ug/L		116	74 - 122
Toluene	25.0	26.2		ug/L		105	80 - 122
trans-1,2-Dichloroethene	25.0	24.9		ug/L		100	73 - 127
Trichloroethene	25.0	29.3		ug/L		117	74 - 123
Trichlorofluoromethane	25.0	31.4		ug/L		126	62 - 150
Vinyl chloride	25.0	21.8		ug/L		87	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*118*		*77 - 120*
4-Bromofluorobenzene (Surr)	*92*		*73 - 120*
Dibromofluoromethane (Surr)	*100*		*75 - 123*
Toluene-d8 (Surr)	*95*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 480-714691/30
Matrix: Water
Analysis Batch: 714691

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane			25.0	31.9	*+	ug/L		127	73 - 126	1	15
1,1,2,2-Tetrachloroethane			25.0	24.9		ug/L		100	76 - 120	1	15
1,1,2-Trichloro-1,2,2-trifluoroethane			25.0	29.3		ug/L		117	61 - 148	0	20
1,1,2-Trichloroethane			25.0	24.0		ug/L		96	76 - 122	1	15
1,1-Dichloroethane			25.0	26.4		ug/L		106	77 - 120	4	20
1,1-Dichloroethene			25.0	27.5		ug/L		110	66 - 127	1	16
1,2,4-Trichlorobenzene			25.0	27.3		ug/L		109	79 - 122	5	20
1,2-Dibromo-3-Chloropropane			25.0	28.0		ug/L		112	56 - 134	8	15
1,2-Dibromoethane			25.0	26.0		ug/L		104	77 - 120	7	15
1,2-Dichlorobenzene			25.0	27.3		ug/L		109	80 - 124	0	20
1,2-Dichloroethane			25.0	32.4	*+	ug/L		130	75 - 120	4	20
1,2-Dichloropropane			25.0	25.0		ug/L		100	76 - 120	5	20
1,3-Dichlorobenzene			25.0	27.1		ug/L		108	77 - 120	1	20
1,4-Dichlorobenzene			25.0	26.7		ug/L		107	80 - 120	2	20
2-Butanone (MEK)			125	133		ug/L		106	57 - 140	17	20
2-Hexanone			125	127		ug/L		101	65 - 127	11	15
4-Methyl-2-pentanone (MIBK)			125	121		ug/L		97	71 - 125	5	35
Acetone			125	146	*1	ug/L		117	56 - 142	26	15
Benzene			25.0	24.1		ug/L		97	71 - 124	5	13
Bromodichloromethane			25.0	27.6		ug/L		110	80 - 122	9	15
Bromoform			25.0	19.8	*1	ug/L		79	61 - 132	18	15
Bromomethane			25.0	15.4	*1	ug/L		61	55 - 144	31	15
Carbon disulfide			25.0	26.6		ug/L		106	59 - 134	5	15
Carbon tetrachloride			25.0	28.9		ug/L		116	72 - 134	5	15
Chlorobenzene			25.0	27.4		ug/L		110	80 - 120	1	25
Chloroethane			25.0	21.3		ug/L		85	69 - 136	0	15
Chloroform			25.0	27.5		ug/L		110	73 - 127	4	20
Chloromethane			25.0	18.9	*1	ug/L		76	68 - 124	19	15
cis-1,2-Dichloroethene			25.0	26.3		ug/L		105	74 - 124	3	15
cis-1,3-Dichloropropene			25.0	24.5		ug/L		98	74 - 124	13	15
Cyclohexane			25.0	25.3		ug/L		101	59 - 135	2	20
Dibromochloromethane			25.0	25.8		ug/L		103	75 - 125	8	15
Dichlorodifluoromethane			25.0	29.7		ug/L		119	59 - 135	2	20
Ethylbenzene			25.0	27.4		ug/L		110	77 - 123	1	15
Isopropylbenzene			25.0	30.1		ug/L		121	77 - 122	3	20
Methyl acetate			50.0	47.6		ug/L		95	74 - 133	8	20
Methyl tert-butyl ether			25.0	25.6		ug/L		102	77 - 120	4	37
Methylcyclohexane			25.0	26.1		ug/L		104	68 - 134	3	20
Methylene Chloride			25.0	25.0		ug/L		100	75 - 124	5	15
Styrene			25.0	24.7		ug/L		99	80 - 120	1	20
Tetrachloroethene			25.0	28.0		ug/L		112	74 - 122	3	20
Toluene			25.0	26.3		ug/L		105	80 - 122	0	15
trans-1,2-Dichloroethene			25.0	25.9		ug/L		104	73 - 127	4	20
Trichloroethene			25.0	28.1		ug/L		112	74 - 123	4	16
Trichlorofluoromethane			25.0	29.4		ug/L		117	62 - 150	7	20
Vinyl chloride			25.0	17.5	*1	ug/L		70	65 - 133	22	15

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 480-714691/30
Matrix: Water
Analysis Batch: 714691

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*
4-Bromofluorobenzene (Surr)	*87*		*73 - 120*
Dibromofluoromethane (Surr)	*99*		*75 - 123*
Toluene-d8 (Surr)	*90*		*80 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-715151/1-A
Matrix: Water
Analysis Batch: 715312

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 715151

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		06/11/24 09:14	06/12/24 15:29	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		06/11/24 09:14	06/12/24 15:29	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		06/11/24 09:14	06/12/24 15:29	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		06/11/24 09:14	06/12/24 15:29	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		06/11/24 09:14	06/12/24 15:29	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		06/11/24 09:14	06/12/24 15:29	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		06/11/24 09:14	06/12/24 15:29	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		06/11/24 09:14	06/12/24 15:29	1
2-Chlorophenol	ND		5.0	0.53	ug/L		06/11/24 09:14	06/12/24 15:29	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		06/11/24 09:14	06/12/24 15:29	1
2-Methylphenol	ND		5.0	0.40	ug/L		06/11/24 09:14	06/12/24 15:29	1
2-Nitroaniline	ND		10	0.42	ug/L		06/11/24 09:14	06/12/24 15:29	1
2-Nitrophenol	ND		5.0	0.48	ug/L		06/11/24 09:14	06/12/24 15:29	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		06/11/24 09:14	06/12/24 15:29	1
3-Nitroaniline	ND		10	0.48	ug/L		06/11/24 09:14	06/12/24 15:29	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		06/11/24 09:14	06/12/24 15:29	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		06/11/24 09:14	06/12/24 15:29	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		06/11/24 09:14	06/12/24 15:29	1
4-Chloroaniline	ND		5.0	0.59	ug/L		06/11/24 09:14	06/12/24 15:29	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		06/11/24 09:14	06/12/24 15:29	1
4-Methylphenol	ND		10	0.36	ug/L		06/11/24 09:14	06/12/24 15:29	1
4-Nitroaniline	ND		10	0.25	ug/L		06/11/24 09:14	06/12/24 15:29	1
4-Nitrophenol	ND		10	1.5	ug/L		06/11/24 09:14	06/12/24 15:29	1
Acenaphthene	ND		5.0	0.41	ug/L		06/11/24 09:14	06/12/24 15:29	1
Acenaphthylene	ND		5.0	0.38	ug/L		06/11/24 09:14	06/12/24 15:29	1
Acetophenone	ND		5.0	0.54	ug/L		06/11/24 09:14	06/12/24 15:29	1
Anthracene	ND		5.0	0.28	ug/L		06/11/24 09:14	06/12/24 15:29	1
Atrazine	ND		5.0	0.46	ug/L		06/11/24 09:14	06/12/24 15:29	1
Benzaldehyde	ND		5.0	0.27	ug/L		06/11/24 09:14	06/12/24 15:29	1
Benzo(a)anthracene	ND		5.0	0.36	ug/L		06/11/24 09:14	06/12/24 15:29	1
Benzo(a)pyrene	ND		5.0	0.47	ug/L		06/11/24 09:14	06/12/24 15:29	1
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L		06/11/24 09:14	06/12/24 15:29	1
Benzo(g,h,i)perylene	ND		5.0	0.35	ug/L		06/11/24 09:14	06/12/24 15:29	1
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L		06/11/24 09:14	06/12/24 15:29	1
Biphenyl	ND		5.0	0.65	ug/L		06/11/24 09:14	06/12/24 15:29	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		06/11/24 09:14	06/12/24 15:29	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		06/11/24 09:14	06/12/24 15:29	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-715151/1-A
Matrix: Water
Analysis Batch: 715312

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 715151

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		06/11/24 09:14	06/12/24 15:29	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		06/11/24 09:14	06/12/24 15:29	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		06/11/24 09:14	06/12/24 15:29	1
Caprolactam	ND		5.0	2.2	ug/L		06/11/24 09:14	06/12/24 15:29	1
Carbazole	ND		5.0	0.30	ug/L		06/11/24 09:14	06/12/24 15:29	1
Chrysene	ND		5.0	0.33	ug/L		06/11/24 09:14	06/12/24 15:29	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		06/11/24 09:14	06/12/24 15:29	1
Dibenzofuran	ND		10	0.51	ug/L		06/11/24 09:14	06/12/24 15:29	1
Diethyl phthalate	ND		5.0	0.22	ug/L		06/11/24 09:14	06/12/24 15:29	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		06/11/24 09:14	06/12/24 15:29	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		06/11/24 09:14	06/12/24 15:29	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		06/11/24 09:14	06/12/24 15:29	1
Fluoranthene	ND		5.0	0.40	ug/L		06/11/24 09:14	06/12/24 15:29	1
Fluorene	ND		5.0	0.36	ug/L		06/11/24 09:14	06/12/24 15:29	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		06/11/24 09:14	06/12/24 15:29	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		06/11/24 09:14	06/12/24 15:29	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		06/11/24 09:14	06/12/24 15:29	1
Hexachloroethane	ND		5.0	0.59	ug/L		06/11/24 09:14	06/12/24 15:29	1
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L		06/11/24 09:14	06/12/24 15:29	1
Isophorone	ND		5.0	0.43	ug/L		06/11/24 09:14	06/12/24 15:29	1
Naphthalene	ND		5.0	0.76	ug/L		06/11/24 09:14	06/12/24 15:29	1
Nitrobenzene	ND		5.0	0.29	ug/L		06/11/24 09:14	06/12/24 15:29	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		06/11/24 09:14	06/12/24 15:29	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		06/11/24 09:14	06/12/24 15:29	1
Pentachlorophenol	ND		10	2.2	ug/L		06/11/24 09:14	06/12/24 15:29	1
Phenanthrene	ND		5.0	0.44	ug/L		06/11/24 09:14	06/12/24 15:29	1
Phenol	ND		5.0	0.39	ug/L		06/11/24 09:14	06/12/24 15:29	1
Pyrene	ND		5.0	0.34	ug/L		06/11/24 09:14	06/12/24 15:29	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*2.43*	*T J*	*ug/L*		*3.19*	*N/A*	*06/11/24 09:14*	*06/12/24 15:29*	*1*
Unknown	*17.0*	*T J*	*ug/L*		*4.72*	*N/A*	*06/11/24 09:14*	*06/12/24 15:29*	*1*
1H-Isoindole-1,3(2H)-dione	*2.22*	*T J N*	*ug/L*		*10.04*	*85-41-6*	*06/11/24 09:14*	*06/12/24 15:29*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*99*		*25 - 144*	*06/11/24 09:14*	*06/12/24 15:29*	*1*
2-Fluorobiphenyl	*86*		*53 - 126*	*06/11/24 09:14*	*06/12/24 15:29*	*1*
2-Fluorophenol	*57*		*24 - 120*	*06/11/24 09:14*	*06/12/24 15:29*	*1*
Nitrobenzene-d5	*78*		*29 - 129*	*06/11/24 09:14*	*06/12/24 15:29*	*1*
Phenol-d5	*46*		*10 - 120*	*06/11/24 09:14*	*06/12/24 15:29*	*1*
p-Terphenyl-d14	*94*		*33 - 132*	*06/11/24 09:14*	*06/12/24 15:29*	*1*

Lab Sample ID: LCS 480-715151/2-A
Matrix: Water
Analysis Batch: 715312

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 715151

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4,5-Trichlorophenol	32.0	30.8		ug/L		96	65 - 126

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-715151/2-A
Matrix: Water
Analysis Batch: 715312

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 715151

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4,6-Trichlorophenol	32.0	30.2		ug/L		94	64 - 120
2,4-Dichlorophenol	32.0	28.1		ug/L		88	63 - 120
2,4-Dimethylphenol	32.0	31.3		ug/L		98	47 - 120
2,4-Dinitrophenol	64.0	68.9		ug/L		108	31 - 137
2,4-Dinitrotoluene	32.0	31.5		ug/L		98	69 - 120
2,6-Dinitrotoluene	32.0	30.4		ug/L		95	68 - 120
2-Chloronaphthalene	32.0	28.1		ug/L		88	58 - 120
2-Chlorophenol	32.0	26.7		ug/L		84	48 - 120
2-Methylnaphthalene	32.0	26.8		ug/L		84	59 - 120
2-Methylphenol	32.0	25.4		ug/L		79	39 - 120
2-Nitroaniline	32.0	31.8		ug/L		99	54 - 127
2-Nitrophenol	32.0	27.3		ug/L		85	52 - 125
3,3'-Dichlorobenzidine	64.0	63.6		ug/L		99	49 - 135
3-Nitroaniline	32.0	25.3		ug/L		79	51 - 120
4,6-Dinitro-2-methylphenol	64.0	63.8		ug/L		100	46 - 136
4-Bromophenyl phenyl ether	32.0	31.6		ug/L		99	65 - 120
4-Chloro-3-methylphenol	32.0	29.6		ug/L		92	61 - 123
4-Chloroaniline	32.0	21.2		ug/L		66	30 - 120
4-Chlorophenyl phenyl ether	32.0	30.9		ug/L		97	62 - 120
4-Methylphenol	32.0	25.5		ug/L		80	29 - 131
4-Nitroaniline	32.0	30.2		ug/L		94	65 - 120
4-Nitrophenol	64.0	67.4		ug/L		105	45 - 120
Acenaphthene	32.0	29.2		ug/L		91	60 - 120
Acenaphthylene	32.0	29.2		ug/L		91	63 - 120
Acetophenone	32.0	27.7		ug/L		87	45 - 120
Anthracene	32.0	29.5		ug/L		92	67 - 120
Atrazine	64.0	68.4		ug/L		107	71 - 130
Benzaldehyde	64.0	51.1		ug/L		80	10 - 140
Benzo(a)anthracene	32.0	30.0		ug/L		94	70 - 121
Benzo(a)pyrene	32.0	30.3		ug/L		95	60 - 123
Benzo(b)fluoranthene	32.0	28.4		ug/L		89	66 - 126
Benzo(g,h,i)perylene	32.0	30.3		ug/L		95	66 - 150
Benzo(k)fluoranthene	32.0	32.2		ug/L		100	65 - 124
Biphenyl	32.0	28.8		ug/L		90	59 - 120
bis (2-chloroisopropyl) ether	32.0	25.8		ug/L		81	21 - 136
Bis(2-chloroethoxy)methane	32.0	26.0		ug/L		81	50 - 128
Bis(2-chloroethyl)ether	32.0	28.4		ug/L		89	44 - 120
Bis(2-ethylhexyl) phthalate	32.0	26.4		ug/L		82	63 - 139
Butyl benzyl phthalate	32.0	27.0		ug/L		84	70 - 129
Caprolactam	64.0	21.3		ug/L		33	22 - 120
Carbazole	32.0	32.7		ug/L		102	66 - 123
Chrysene	32.0	28.4		ug/L		89	69 - 120
Dibenz(a,h)anthracene	32.0	30.3		ug/L		95	65 - 135
Dibenzofuran	32.0	29.4		ug/L		92	66 - 120
Diethyl phthalate	32.0	32.2		ug/L		101	59 - 127
Dimethyl phthalate	32.0	32.9		ug/L		103	68 - 120
Di-n-butyl phthalate	32.0	32.2		ug/L		101	69 - 131
Di-n-octyl phthalate	32.0	26.5		ug/L		83	63 - 140
Fluoranthene	32.0	30.9		ug/L		97	69 - 126

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-715151/2-A
Matrix: Water
Analysis Batch: 715312

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 715151

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluorene	32.0	30.4		ug/L		95	66 - 120
Hexachlorobenzene	32.0	32.5		ug/L		102	61 - 120
Hexachlorobutadiene	32.0	27.6		ug/L		86	35 - 120
Hexachlorocyclopentadiene	32.0	19.0		ug/L		59	31 - 120
Hexachloroethane	32.0	22.9		ug/L		72	33 - 120
Indeno(1,2,3-cd)pyrene	32.0	27.1		ug/L		85	69 - 146
Isophorone	32.0	27.5		ug/L		86	55 - 120
Naphthalene	32.0	26.0		ug/L		81	57 - 120
Nitrobenzene	32.0	26.4		ug/L		82	53 - 123
N-Nitrosodi-n-propylamine	32.0	27.8		ug/L		87	32 - 140
Pentachlorophenol	64.0	49.3		ug/L		77	10 - 136
Phenanthrene	32.0	29.6		ug/L		92	68 - 120
Phenol	32.0	17.5		ug/L		55	17 - 120
Pyrene	32.0	28.2		ug/L		88	70 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*103*		*25 - 144*
2-Fluorobiphenyl	*85*		*53 - 126*
2-Fluorophenol	*61*		*24 - 120*
Nitrobenzene-d5	*84*		*29 - 129*
Phenol-d5	*51*		*10 - 120*
p-Terphenyl-d14	*85*		*33 - 132*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 480-714544/1-A
Matrix: Water
Analysis Batch: 714657

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714544

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		06/05/24 13:46	06/06/24 18:42	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*39*		*15 - 110*	*06/05/24 13:46*	*06/06/24 18:42*	*1*

Lab Sample ID: LCS 480-714544/2-A
Matrix: Water
Analysis Batch: 714657

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714544

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	2.00	2.26		ug/L		113	40 - 140

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*38*		*15 - 110*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 480-714710/1-A
Matrix: Water
Analysis Batch: 714780

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714710

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.050	0.0092	ug/L		06/06/24 13:46	06/07/24 08:51	1
4,4'-DDE	ND		0.050	0.012	ug/L		06/06/24 13:46	06/07/24 08:51	1
4,4'-DDT	ND		0.050	0.011	ug/L		06/06/24 13:46	06/07/24 08:51	1
Aldrin	ND		0.050	0.0081	ug/L		06/06/24 13:46	06/07/24 08:51	1
alpha-BHC	ND		0.050	0.0077	ug/L		06/06/24 13:46	06/07/24 08:51	1
cis-Chlordane	ND		0.050	0.015	ug/L		06/06/24 13:46	06/07/24 08:51	1
beta-BHC	ND		0.050	0.025	ug/L		06/06/24 13:46	06/07/24 08:51	1
delta-BHC	ND		0.050	0.010	ug/L		06/06/24 13:46	06/07/24 08:51	1
Dieldrin	ND		0.050	0.0098	ug/L		06/06/24 13:46	06/07/24 08:51	1
Endosulfan I	ND		0.050	0.011	ug/L		06/06/24 13:46	06/07/24 08:51	1
Endosulfan II	ND		0.050	0.012	ug/L		06/06/24 13:46	06/07/24 08:51	1
Endosulfan sulfate	ND		0.050	0.016	ug/L		06/06/24 13:46	06/07/24 08:51	1
Endrin	ND		0.050	0.014	ug/L		06/06/24 13:46	06/07/24 08:51	1
Endrin aldehyde	ND		0.050	0.016	ug/L		06/06/24 13:46	06/07/24 08:51	1
Endrin ketone	ND		0.050	0.012	ug/L		06/06/24 13:46	06/07/24 08:51	1
gamma-BHC (Lindane)	ND		0.050	0.0080	ug/L		06/06/24 13:46	06/07/24 08:51	1
trans-Chlordane	ND		0.050	0.011	ug/L		06/06/24 13:46	06/07/24 08:51	1
Heptachlor	ND		0.050	0.0085	ug/L		06/06/24 13:46	06/07/24 08:51	1
Heptachlor epoxide	ND		0.050	0.0074	ug/L		06/06/24 13:46	06/07/24 08:51	1
Methoxychlor	ND		0.050	0.014	ug/L		06/06/24 13:46	06/07/24 08:51	1
Toxaphene	ND		0.50	0.12	ug/L		06/06/24 13:46	06/07/24 08:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*52*		*20 - 120*	*06/06/24 13:46*	*06/07/24 08:51*	*1*
DCB Decachlorobiphenyl	*46*		*20 - 120*	*06/06/24 13:46*	*06/07/24 08:51*	*1*
Tetrachloro-m-xylene	*91*		*44 - 120*	*06/06/24 13:46*	*06/07/24 08:51*	*1*
Tetrachloro-m-xylene	*76*		*44 - 120*	*06/06/24 13:46*	*06/07/24 08:51*	*1*

Lab Sample ID: LCS 480-714710/2-A
Matrix: Water
Analysis Batch: 714780

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714710

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	0.400	0.402		ug/L		101	64 - 129
4,4'-DDE	0.400	0.308		ug/L		77	50 - 120
4,4'-DDT	0.400	0.396		ug/L		99	59 - 120
Aldrin	0.400	0.286		ug/L		72	40 - 125
alpha-BHC	0.400	0.300		ug/L		75	52 - 125
cis-Chlordane	0.400	0.360		ug/L		90	52 - 120
beta-BHC	0.400	0.345		ug/L		86	51 - 120
delta-BHC	0.400	0.357		ug/L		89	51 - 120
Dieldrin	0.400	0.428		ug/L		107	66 - 128
Endosulfan I	0.400	0.394		ug/L		99	57 - 120
Endosulfan II	0.400	0.435		ug/L		109	66 - 131
Endosulfan sulfate	0.400	0.421		ug/L		105	66 - 136
Endrin	0.400	0.432		ug/L		108	65 - 135
Endrin aldehyde	0.400	0.330		ug/L		83	61 - 134
Endrin ketone	0.400	0.435		ug/L		109	71 - 133

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 480-714710/2-A
Matrix: Water
Analysis Batch: 714780

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714710

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
gamma-BHC (Lindane)	0.400	0.357		ug/L		89	56 - 120
trans-Chlordane	0.400	0.364		ug/L		91	54 - 120
Heptachlor	0.400	0.359		ug/L		90	58 - 120
Heptachlor epoxide	0.400	0.417		ug/L		104	65 - 125
Methoxychlor	0.400	0.502		ug/L		125	50 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*49*		*20 - 120*
DCB Decachlorobiphenyl	*42*		*20 - 120*
Tetrachloro-m-xylene	*72*		*44 - 120*
Tetrachloro-m-xylene	*69*		*44 - 120*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 480-714616/1-A
Matrix: Water
Analysis Batch: 714682

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714616

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 17:51	1
PCB-1221	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 17:51	1
PCB-1232	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 17:51	1
PCB-1242	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 17:51	1
PCB-1248	ND		0.50	0.18	ug/L		06/06/24 06:53	06/06/24 17:51	1
PCB-1254	ND		0.50	0.25	ug/L		06/06/24 06:53	06/06/24 17:51	1
PCB-1260	ND		0.50	0.25	ug/L		06/06/24 06:53	06/06/24 17:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*40*		*19 - 120*	*06/06/24 06:53*	*06/06/24 17:51*	*1*
DCB Decachlorobiphenyl	*45*		*19 - 120*	*06/06/24 06:53*	*06/06/24 17:51*	*1*
Tetrachloro-m-xylene	*69*		*39 - 121*	*06/06/24 06:53*	*06/06/24 17:51*	*1*
Tetrachloro-m-xylene	*70*		*39 - 121*	*06/06/24 06:53*	*06/06/24 17:51*	*1*

Lab Sample ID: LCS 480-714616/2-A
Matrix: Water
Analysis Batch: 714682

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714616

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016	4.00	2.88		ug/L		72	62 - 130
PCB-1260	4.00	2.42		ug/L		61	56 - 123

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*34*		*19 - 120*
DCB Decachlorobiphenyl	*39*		*19 - 120*
Tetrachloro-m-xylene	*77*		*39 - 121*
Tetrachloro-m-xylene	*72*		*39 - 121*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Lab Sample ID: MB 240-615986/1-A
Matrix: Water
Analysis Batch: 616091

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 615986

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		8.0	2.1	ng/L		06/10/24 08:21	06/10/24 17:30	1
Perfluoropentanoic acid (PFPeA)	ND		4.0	1.0	ng/L		06/10/24 08:21	06/10/24 17:30	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.50	ng/L		06/10/24 08:21	06/10/24 17:30	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.50	ng/L		06/10/24 08:21	06/10/24 17:30	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.50	ng/L		06/10/24 08:21	06/10/24 17:30	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.50	ng/L		06/10/24 08:21	06/10/24 17:30	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.50	ng/L		06/10/24 08:21	06/10/24 17:30	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.50	ng/L		06/10/24 08:21	06/10/24 17:30	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.50	ng/L		06/10/24 08:21	06/10/24 17:30	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0	0.50	ng/L		06/10/24 08:21	06/10/24 17:30	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	0.50	ng/L		06/10/24 08:21	06/10/24 17:30	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.50	ng/L		06/10/24 08:21	06/10/24 17:30	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	0.50	ng/L		06/10/24 08:21	06/10/24 17:30	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.52	ng/L		06/10/24 08:21	06/10/24 17:30	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0	0.50	ng/L		06/10/24 08:21	06/10/24 17:30	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.50	ng/L		06/10/24 08:21	06/10/24 17:30	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0	0.50	ng/L		06/10/24 08:21	06/10/24 17:30	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	0.50	ng/L		06/10/24 08:21	06/10/24 17:30	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		8.0	2.0	ng/L		06/10/24 08:21	06/10/24 17:30	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		8.0	2.0	ng/L		06/10/24 08:21	06/10/24 17:30	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		8.0	2.0	ng/L		06/10/24 08:21	06/10/24 17:30	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	0.50	ng/L		06/10/24 08:21	06/10/24 17:30	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	0.50	ng/L		06/10/24 08:21	06/10/24 17:30	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0	0.50	ng/L		06/10/24 08:21	06/10/24 17:30	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	0.62	ng/L		06/10/24 08:21	06/10/24 17:30	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	0.52	ng/L		06/10/24 08:21	06/10/24 17:30	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		20	5.0	ng/L		06/10/24 08:21	06/10/24 17:30	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		20	5.0	ng/L		06/10/24 08:21	06/10/24 17:30	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		8.0	2.0	ng/L		06/10/24 08:21	06/10/24 17:30	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		8.0	2.0	ng/L		06/10/24 08:21	06/10/24 17:30	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		4.0	1.0	ng/L		06/10/24 08:21	06/10/24 17:30	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		4.0	1.2	ng/L		06/10/24 08:21	06/10/24 17:30	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		8.0	2.0	ng/L		06/10/24 08:21	06/10/24 17:30	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		8.0	2.0	ng/L		06/10/24 08:21	06/10/24 17:30	1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 240-615986/1-A
Matrix: Water
Analysis Batch: 616091

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 615986

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		4.0	1.0	ng/L		06/10/24 08:21	06/10/24 17:30	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		10	2.5	ng/L		06/10/24 08:21	06/10/24 17:30	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		50	13	ng/L		06/10/24 08:21	06/10/24 17:30	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		50	15	ng/L		06/10/24 08:21	06/10/24 17:30	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.50	ng/L		06/10/24 08:21	06/10/24 17:30	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		4.0	1.0	ng/L		06/10/24 08:21	06/10/24 17:30	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*96.2*		*10 - 130*	*06/10/24 08:21*	*06/10/24 17:30*	*1*
13C5 PFPeA	*98.0*		*35 - 150*	*06/10/24 08:21*	*06/10/24 17:30*	*1*
13C5 PFHxA	*98.7*		*55 - 150*	*06/10/24 08:21*	*06/10/24 17:30*	*1*
13C4 PFHpA	*93.4*		*55 - 150*	*06/10/24 08:21*	*06/10/24 17:30*	*1*
13C8 PFOA	*108*		*60 - 140*	*06/10/24 08:21*	*06/10/24 17:30*	*1*
13C9 PFNA	*100*		*55 - 140*	*06/10/24 08:21*	*06/10/24 17:30*	*1*
13C6 PFDA	*91.3*		*50 - 140*	*06/10/24 08:21*	*06/10/24 17:30*	*1*
13C7 PFUnA	*103*		*30 - 140*	*06/10/24 08:21*	*06/10/24 17:30*	*1*
13C2 PFTeDA	*79.1*		*10 - 130*	*06/10/24 08:21*	*06/10/24 17:30*	*1*
13C3 PFBS	*106*		*55 - 150*	*06/10/24 08:21*	*06/10/24 17:30*	*1*
13C3 PFHxS	*101*		*55 - 150*	*06/10/24 08:21*	*06/10/24 17:30*	*1*
13C8 PFOS	*115*		*45 - 140*	*06/10/24 08:21*	*06/10/24 17:30*	*1*
13C8 FOSA	*87.5*		*30 - 130*	*06/10/24 08:21*	*06/10/24 17:30*	*1*
d3-NMeFOSAA	*104*		*45 - 200*	*06/10/24 08:21*	*06/10/24 17:30*	*1*
d5-NEtFOSAA	*122*		*10 - 200*	*06/10/24 08:21*	*06/10/24 17:30*	*1*
M2-4:2 FTS	*100*		*60 - 200*	*06/10/24 08:21*	*06/10/24 17:30*	*1*
M2-6:2 FTS	*106*		*60 - 200*	*06/10/24 08:21*	*06/10/24 17:30*	*1*
M2-8:2 FTS	*99.4*		*50 - 200*	*06/10/24 08:21*	*06/10/24 17:30*	*1*
13C3 HFPO-DA	*98.6*		*25 - 160*	*06/10/24 08:21*	*06/10/24 17:30*	*1*
d7-N-MeFOSE-M	*102*		*10 - 150*	*06/10/24 08:21*	*06/10/24 17:30*	*1*
d9-N-EtFOSE-M	*98.9*		*10 - 150*	*06/10/24 08:21*	*06/10/24 17:30*	*1*
d5-NEtPFOSA	*66.2*		*10 - 130*	*06/10/24 08:21*	*06/10/24 17:30*	*1*
d3-NMePFOSA	*75.0*		*15 - 130*	*06/10/24 08:21*	*06/10/24 17:30*	*1*
13C2-PFDoDA	*91.6*		*10 - 150*	*06/10/24 08:21*	*06/10/24 17:30*	*1*

Lab Sample ID: LCS 240-615986/3-A
Matrix: Water
Analysis Batch: 616091

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 615986

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	100	107		ng/L		107	58 - 148
Perfluoropentanoic acid (PFPeA)	50.0	51.2		ng/L		102	54 - 152
Perfluorohexanoic acid (PFHxA)	25.0	24.9		ng/L		100	55 - 152
Perfluoroheptanoic acid (PFHpA)	25.0	24.3		ng/L		97	54 - 154
Perfluorooctanoic acid (PFOA)	25.0	23.2		ng/L		93	52 - 161
Perfluorononanoic acid (PFNA)	25.0	25.9		ng/L		104	59 - 149
Perfluorodecanoic acid (PFDA)	25.0	25.5		ng/L		102	52 - 147

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 240-615986/3-A
Matrix: Water
Analysis Batch: 616091

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 615986

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	25.0	24.2		ng/L		97	48 - 159
Perfluorododecanoic acid (PFDoA)	25.0	23.5		ng/L		94	64 - 142
Perfluorotridecanoic acid (PFTrDA)	25.0	24.4		ng/L		97	49 - 148
Perfluorotetradecanoic acid (PFTeDA)	25.0	27.2		ng/L		109	47 - 161
Perfluorobutanesulfonic acid (PFBS)	22.1	22.8		ng/L		103	62 - 144
Perfluoropentanesulfonic acid (PFPeS)	23.5	25.9		ng/L		110	59 - 151
Perfluorohexanesulfonic acid (PFHxS)	22.8	21.2		ng/L		93	57 - 146
Perfluoroheptanesulfonic acid (PFHpS)	23.8	23.7		ng/L		100	55 - 152
Perfluorooctanesulfonic acid (PFOS)	23.2	24.3		ng/L		105	58 - 149
Perfluorononanesulfonic acid (PFNS)	24.0	23.7		ng/L		99	52 - 148
Perfluorododecanesulfonic acid (PFDoS)	24.2	21.7		ng/L		90	36 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	93.4	95.6		ng/L		102	67 - 146
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	94.8	104		ng/L		110	61 - 151
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	95.8	106		ng/L		111	63 - 152
Perfluorooctanesulfonamide (PFOSA)	25.0	29.3		ng/L		117	61 - 148
N-methylperfluorooctane sulfonamide (NMeFOSA)	25.0	29.0		ng/L		116	63 - 145
N-ethylperfluorooctane sulfonamide (NEtFOSA)	25.0	29.6		ng/L		118	65 - 139
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	25.0	27.3		ng/L		109	58 - 144
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	25.0	30.6		ng/L		122	59 - 146
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	250	291		ng/L		116	71 - 136
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	250	260		ng/L		104	69 - 137
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	100	103		ng/L		103	63 - 144
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	94.2	88.0		ng/L		93	68 - 146
Perfluoro-4-methoxybutanoic acid (PFMBA)	50.0	53.9		ng/L		108	55 - 148
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	50.0	51.5		ng/L		103	48 - 161
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	93.2	83.4		ng/L		89	56 - 156
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	94.2	84.4		ng/L		90	46 - 156
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	44.5	46.9		ng/L		105	56 - 151

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 240-615986/3-A
Matrix: Water
Analysis Batch: 616091

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 615986

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
3-Perfluoropropylpropanoic acid (3:3 FTCA)	125	132		ng/L		106	62 - 129
3-Perfluoropentylpropanoic acid (5:3 FTCA)	625	652		ng/L		104	63 - 134
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	625	546		ng/L		87	50 - 138
Perfluorodecanesulfonic acid (PFDS)	24.1	24.3		ng/L		101	51 - 147
Perfluoro-3-methoxypropanoic acid (PFMPA)	50.0	51.5		ng/L		103	51 - 145

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*97.5*		*10 - 130*
13C5 PFPeA	*99.0*		*40 - 150*
13C5 PFHxA	*100*		*40 - 150*
13C4 PFHpA	*103*		*40 - 150*
13C8 PFOA	*101*		*30 - 140*
13C9 PFNA	*101*		*30 - 140*
13C6 PFDA	*96.4*		*20 - 140*
13C7 PFUnA	*109*		*20 - 140*
13C2 PFTeDA	*79.6*		*10 - 130*
13C3 PFBS	*110*		*25 - 150*
13C3 PFHxS	*101*		*25 - 150*
13C8 PFOS	*109*		*20 - 140*
13C8 FOSA	*88.2*		*10 - 130*
d3-NMeFOSAA	*111*		*10 - 200*
d5-NEtFOSAA	*132*		*10 - 200*
M2-4:2 FTS	*106*		*25 - 200*
M2-6:2 FTS	*97.8*		*25 - 200*
M2-8:2 FTS	*93.4*		*25 - 200*
13C3 HFPO-DA	*107*		*25 - 160*
d7-N-MeFOSE-M	*105*		*10 - 150*
d9-N-EtFOSE-M	*112*		*10 - 150*
d5-NEtPFOSA	*70.9*		*10 - 130*
d3-NMePFOSA	*75.1*		*10 - 130*
13C2-PFDoDA	*102*		*10 - 150*

Lab Sample ID: LLCS 240-615986/2-A
Matrix: Water
Analysis Batch: 616091

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 615986

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	8.00	8.82		ng/L		110	44 - 157
Perfluoropentanoic acid (PFPeA)	4.00	4.42		ng/L		110	57 - 148
Perfluorohexanoic acid (PFHxA)	2.00	1.91	J	ng/L		95	62 - 149
Perfluoroheptanoic acid (PFHpA)	2.00	2.17		ng/L		109	56 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.38		ng/L		119	57 - 161
Perfluorononanoic acid (PFNA)	2.00	2.24		ng/L		112	53 - 157
Perfluorodecanoic acid (PFDA)	2.00	1.85	J	ng/L		93	43 - 158

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 240-615986/2-A
Matrix: Water
Analysis Batch: 616091

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 615986

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	2.00	2.01		ng/L		101	50 - 155
Perfluorododecanoic acid (PFDoA)	2.00	1.93	J	ng/L		97	60 - 141
Perfluorotridecanoic acid (PFTrDA)	2.00	2.05		ng/L		102	52 - 140
Perfluorotetradecanoic acid (PFTeDA)	2.00	2.20		ng/L		110	52 - 156
Perfluorobutanesulfonic acid (PFBS)	1.77	1.82	J	ng/L		103	63 - 145
Perfluoropentanesulfonic acid (PFPeS)	1.88	2.10		ng/L		112	58 - 144
Perfluorohexanesulfonic acid (PFHxS)	1.82	1.76	J	ng/L		97	44 - 158
Perfluoroheptanesulfonic acid (PFHpS)	1.90	1.92	J	ng/L		101	51 - 150
Perfluorooctanesulfonic acid (PFOS)	1.86	2.15		ng/L		116	43 - 162
Perfluorononanesulfonic acid (PFNS)	1.92	1.81	J	ng/L		94	46 - 151
Perfluorododecanesulfonic acid (PFDoS)	1.94	1.50	J	ng/L		78	30 - 138
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.47	8.09		ng/L		108	52 - 158
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.58	7.98	J	ng/L		105	48 - 158
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.66	9.61		ng/L		125	46 - 165
Perfluorooctanesulfonamide (PFOSA)	2.00	2.41		ng/L		121	47 - 163
N-methylperfluorooctane sulfonamide (NMeFOSA)	2.00	2.01		ng/L		100	54 - 155
N-ethylperfluorooctane sulfonamide (NEtFOSA)	2.00	2.34		ng/L		117	49 - 156
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	2.07		ng/L		104	32 - 160
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	2.32		ng/L		116	51 - 154
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	22.2		ng/L		111	56 - 151
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	21.8		ng/L		109	60 - 147
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	8.00	8.80		ng/L		110	58 - 154
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	7.54	7.42	J	ng/L		98	61 - 148
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.00	4.29		ng/L		107	49 - 154
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.00	4.05		ng/L		101	47 - 160
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	7.46	7.05	J	ng/L		95	44 - 167
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	7.54	6.66	J	ng/L		88	36 - 158
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.56	3.58	J	ng/L		101	56 - 144

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 240-615986/2-A
Matrix: Water
Analysis Batch: 616091

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 615986

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
3-Perfluoropropylpropanoic acid (3:3 FTCA)	10.0	9.35	J	ng/L		93	32 - 161
3-Perfluoropentylpropanoic acid (5:3 FTCA)	50.0	48.9	J	ng/L		98	39 - 156
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	50.0	43.1	J	ng/L		86	36 - 149
Perfluorodecanesulfonic acid (PFDS)	1.93	1.74	J	ng/L		90	50 - 144
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	4.12		ng/L		103	48 - 150

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*111*		*10 - 130*
13C5 PFPeA	*118*		*40 - 150*
13C5 PFHxA	*122*		*40 - 150*
13C4 PFHpA	*118*		*40 - 150*
13C8 PFOA	*122*		*30 - 140*
13C9 PFNA	*120*		*30 - 140*
13C6 PFDA	*116*		*20 - 140*
13C7 PFUnA	*120*		*20 - 140*
13C2 PFTeDA	*83.8*		*10 - 130*
13C3 PFBS	*129*		*25 - 150*
13C3 PFHxS	*131*		*25 - 150*
13C8 PFOS	*129*		*20 - 140*
13C8 FOSA	*107*		*10 - 130*
d3-NMeFOSAA	*121*		*10 - 200*
d5-NEtFOSAA	*145*		*10 - 200*
M2-4:2 FTS	*119*		*25 - 200*
M2-6:2 FTS	*134*		*25 - 200*
M2-8:2 FTS	*125*		*25 - 200*
13C3 HFPO-DA	*125*		*25 - 160*
d7-N-MeFOSE-M	*133*		*10 - 150*
d9-N-EtFOSE-M	*130*		*10 - 150*
d5-NEtPFOSA	*83.7*		*10 - 130*
d3-NMePFOSA	*85.9*		*10 - 130*
13C2-PFDoDA	*108*		*10 - 150*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-714556/1-A
Matrix: Water
Analysis Batch: 714798

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714556

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		06/06/24 09:11	06/06/24 18:07	1
Antimony	ND		0.020	0.0068	mg/L		06/06/24 09:11	06/06/24 18:07	1
Arsenic	ND		0.015	0.0056	mg/L		06/06/24 09:11	06/06/24 18:07	1
Barium	ND		0.0020	0.00070	mg/L		06/06/24 09:11	06/06/24 18:07	1
Beryllium	ND		0.0020	0.00030	mg/L		06/06/24 09:11	06/06/24 18:07	1
Cadmium	ND		0.0020	0.00050	mg/L		06/06/24 09:11	06/06/24 18:07	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 480-714556/1-A
Matrix: Water
Analysis Batch: 714798

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714556

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		0.50	0.10	mg/L		06/06/24 09:11	06/06/24 18:07	1
Chromium	ND		0.0040	0.0010	mg/L		06/06/24 09:11	06/06/24 18:07	1
Cobalt	ND		0.0040	0.00063	mg/L		06/06/24 09:11	06/06/24 18:07	1
Copper	ND		0.010	0.0016	mg/L		06/06/24 09:11	06/06/24 18:07	1
Iron	ND		0.050	0.019	mg/L		06/06/24 09:11	06/06/24 18:07	1
Lead	ND		0.010	0.0030	mg/L		06/06/24 09:11	06/06/24 18:07	1
Magnesium	ND		0.20	0.043	mg/L		06/06/24 09:11	06/06/24 18:07	1
Manganese	ND		0.0030	0.00040	mg/L		06/06/24 09:11	06/06/24 18:07	1
Nickel	ND		0.010	0.0013	mg/L		06/06/24 09:11	06/06/24 18:07	1
Potassium	ND		0.50	0.10	mg/L		06/06/24 09:11	06/06/24 18:07	1
Selenium	ND		0.025	0.0087	mg/L		06/06/24 09:11	06/06/24 18:07	1
Silver	ND		0.0060	0.0017	mg/L		06/06/24 09:11	06/06/24 18:07	1
Sodium	ND		1.0	0.32	mg/L		06/06/24 09:11	06/06/24 18:07	1
Thallium	ND		0.020	0.010	mg/L		06/06/24 09:11	06/06/24 18:07	1
Vanadium	ND		0.0050	0.0015	mg/L		06/06/24 09:11	06/06/24 18:07	1
Zinc	ND		0.010	0.0015	mg/L		06/06/24 09:11	06/06/24 18:07	1

Lab Sample ID: LCS 480-714556/2-A
Matrix: Water
Analysis Batch: 714798

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714556

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	5.10	5.12		mg/L		100	80 - 120
Antimony	0.500	0.489		mg/L		98	80 - 120
Arsenic	1.00	1.04		mg/L		104	80 - 120
Barium	1.00	1.02		mg/L		102	80 - 120
Beryllium	0.500	0.527		mg/L		105	80 - 120
Cadmium	0.500	0.491		mg/L		98	80 - 120
Calcium	25.0	25.94		mg/L		104	80 - 120
Chromium	0.500	0.511		mg/L		102	80 - 120
Cobalt	0.500	0.504		mg/L		101	80 - 120
Copper	0.500	0.477		mg/L		95	80 - 120
Iron	5.10	5.40		mg/L		106	80 - 120
Lead	0.500	0.502		mg/L		100	80 - 120
Magnesium	25.0	25.32		mg/L		101	80 - 120
Manganese	0.500	0.499		mg/L		100	80 - 120
Nickel	0.500	0.524		mg/L		105	80 - 120
Potassium	25.0	25.23		mg/L		101	80 - 120
Selenium	1.00	0.930		mg/L		93	80 - 120
Silver	0.0500	0.0493		mg/L		99	80 - 120
Sodium	25.0	25.60		mg/L		102	80 - 120
Thallium	1.00	0.939		mg/L		94	80 - 120
Vanadium	0.500	0.507		mg/L		101	80 - 120
Zinc	0.500	0.520		mg/L		104	80 - 120

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 480-714564/1-A
Matrix: Water
Analysis Batch: 714798

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 714564

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		06/06/24 09:12	06/06/24 19:43	1
Antimony	ND		0.020	0.0068	mg/L		06/06/24 09:12	06/06/24 19:43	1
Arsenic	ND		0.015	0.0056	mg/L		06/06/24 09:12	06/06/24 19:43	1
Barium	ND		0.0020	0.00070	mg/L		06/06/24 09:12	06/06/24 19:43	1
Beryllium	ND		0.0020	0.00030	mg/L		06/06/24 09:12	06/06/24 19:43	1
Cadmium	ND		0.0020	0.00050	mg/L		06/06/24 09:12	06/06/24 19:43	1
Calcium	ND		0.50	0.10	mg/L		06/06/24 09:12	06/06/24 19:43	1
Chromium	ND		0.0040	0.0010	mg/L		06/06/24 09:12	06/06/24 19:43	1
Cobalt	ND		0.0040	0.00063	mg/L		06/06/24 09:12	06/06/24 19:43	1
Copper	ND		0.010	0.0016	mg/L		06/06/24 09:12	06/06/24 19:43	1
Iron	ND		0.050	0.019	mg/L		06/06/24 09:12	06/06/24 19:43	1
Lead	ND		0.010	0.0030	mg/L		06/06/24 09:12	06/06/24 19:43	1
Magnesium	ND		0.20	0.043	mg/L		06/06/24 09:12	06/06/24 19:43	1
Manganese	ND		0.0030	0.00040	mg/L		06/06/24 09:12	06/06/24 19:43	1
Nickel	ND		0.010	0.0013	mg/L		06/06/24 09:12	06/06/24 19:43	1
Potassium	ND		0.50	0.10	mg/L		06/06/24 09:12	06/06/24 19:43	1
Selenium	ND		0.025	0.0087	mg/L		06/06/24 09:12	06/06/24 19:43	1
Silver	ND		0.0060	0.0017	mg/L		06/06/24 09:12	06/06/24 19:43	1
Sodium	ND		1.0	0.32	mg/L		06/06/24 09:12	06/06/24 19:43	1
Thallium	ND		0.020	0.010	mg/L		06/06/24 09:12	06/06/24 19:43	1
Vanadium	ND		0.0050	0.0015	mg/L		06/06/24 09:12	06/06/24 19:43	1
Zinc	ND		0.010	0.0015	mg/L		06/06/24 09:12	06/06/24 19:43	1

Lab Sample ID: LCS 480-714564/2-A
Matrix: Water
Analysis Batch: 714798

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 714564

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	5.10	5.09		mg/L		100	80 - 120
Antimony	0.500	0.477		mg/L		95	80 - 120
Arsenic	1.00	1.03		mg/L		103	80 - 120
Barium	1.00	1.03		mg/L		103	80 - 120
Beryllium	0.500	0.529		mg/L		106	80 - 120
Cadmium	0.500	0.496		mg/L		99	80 - 120
Calcium	25.0	25.94		mg/L		104	80 - 120
Chromium	0.500	0.517		mg/L		103	80 - 120
Cobalt	0.500	0.508		mg/L		102	80 - 120
Copper	0.500	0.479		mg/L		96	80 - 120
Iron	5.10	5.37		mg/L		105	80 - 120
Lead	0.500	0.502		mg/L		100	80 - 120
Magnesium	25.0	25.32		mg/L		101	80 - 120
Manganese	0.500	0.500		mg/L		100	80 - 120
Nickel	0.500	0.527		mg/L		105	80 - 120
Potassium	25.0	25.24		mg/L		101	80 - 120
Selenium	1.00	0.940		mg/L		94	80 - 120
Silver	0.0500	0.0497		mg/L		99	80 - 120
Sodium	25.0	25.71		mg/L		103	80 - 120
Thallium	1.00	0.931		mg/L		93	80 - 120
Vanadium	0.500	0.512		mg/L		102	80 - 120

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 480-714564/2-A
Matrix: Water
Analysis Batch: 714798

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 714564

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Zinc	0.500	0.521		mg/L		104	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-714673/1-A
Matrix: Water
Analysis Batch: 714753

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714673

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		06/06/24 12:22	06/06/24 15:39	1

Lab Sample ID: LCS 480-714673/2-A
Matrix: Water
Analysis Batch: 714753

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714673

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00669	0.00746		mg/L		111	80 - 120

Lab Sample ID: MB 480-714674/1-A
Matrix: Water
Analysis Batch: 714753

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714674

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		06/06/24 12:22	06/06/24 16:10	1

Lab Sample ID: LCS 480-714674/2-A
Matrix: Water
Analysis Batch: 714753

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714674

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00669	0.00747		mg/L		112	80 - 120

Lab Sample ID: 480-220471-2 MS
Matrix: Water
Analysis Batch: 714753

Client Sample ID: SW-RB-06424
Prep Type: Dissolved
Prep Batch: 714674

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		0.00669	0.00745		mg/L		111	80 - 120

Lab Sample ID: 480-220471-2 MSD
Matrix: Water
Analysis Batch: 714753

Client Sample ID: SW-RB-06424
Prep Type: Dissolved
Prep Batch: 714674

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.00669	0.00741		mg/L		111	80 - 120	1	20

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 480-715074/21
Matrix: Water
Analysis Batch: 715074

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0041	mg/L			06/09/24 16:43	1

Lab Sample ID: HLCS 480-715074/22
Matrix: Water
Analysis Batch: 715074

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.400	0.419		mg/L		105	90 - 110

Lab Sample ID: LCS 480-715074/23
Matrix: Water
Analysis Batch: 715074

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.250	0.272		mg/L		109	90 - 110

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 480-714977/4
Matrix: Water
Analysis Batch: 714977

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.0	0.43	mg/L			06/07/24 13:46	1
Total Organic Carbon - Quad	ND		1.0	0.43	mg/L			06/07/24 13:46	1
TOC Result 1	ND		1.0	0.43	mg/L			06/07/24 13:46	1
TOC Result 2	ND		1.0	0.43	mg/L			06/07/24 13:46	1
TOC Result 3	ND		1.0	0.43	mg/L			06/07/24 13:46	1
TOC Result 4	ND		1.0	0.43	mg/L			06/07/24 13:46	1

Lab Sample ID: LCS 480-714977/5
Matrix: Water
Analysis Batch: 714977

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	60.0	62.36		mg/L		104	90 - 110
Total Organic Carbon - Quad	60.0	62.36		mg/L		104	90 - 110
TOC Result 1	60.0	60.71		mg/L		101	90 - 110
TOC Result 2	60.0	63.20		mg/L		105	90 - 110
TOC Result 3	60.0	62.58		mg/L		104	90 - 110
TOC Result 4	60.0	62.96		mg/L		105	90 - 110

QC Association Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220471-1

GC/MS VOA

Analysis Batch: 714555

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220471-3	TRIP BLANK	Total/NA	Water	8260C	
MB 480-714555/8	Method Blank	Total/NA	Water	8260C	
LCS 480-714555/6	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 714691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220471-1	SED-RB-060424	Total/NA	Water	8260C	
480-220471-2	SW-RB-06424	Total/NA	Water	8260C	
MB 480-714691/9	Method Blank	Total/NA	Water	8260C	
LCS 480-714691/7	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-714691/30	Lab Control Sample Dup	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 714544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220471-1	SED-RB-060424	Total/NA	Water	3510C	
MB 480-714544/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-714544/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 714657

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-714544/1-A	Method Blank	Total/NA	Water	8270D SIM ID	714544
LCS 480-714544/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	714544

Analysis Batch: 714659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220471-1	SED-RB-060424	Total/NA	Water	8270D SIM ID	714544

Prep Batch: 715151

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220471-1	SED-RB-060424	Total/NA	Water	3510C	
480-220471-2	SW-RB-06424	Total/NA	Water	3510C	
MB 480-715151/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-715151/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 715312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220471-1	SED-RB-060424	Total/NA	Water	8270D	715151
480-220471-2	SW-RB-06424	Total/NA	Water	8270D	715151
MB 480-715151/1-A	Method Blank	Total/NA	Water	8270D	715151
LCS 480-715151/2-A	Lab Control Sample	Total/NA	Water	8270D	715151

GC Semi VOA

Prep Batch: 714616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220471-1	SED-RB-060424	Total/NA	Water	3510C	
480-220471-2	SW-RB-06424	Total/NA	Water	3510C	
MB 480-714616/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-714616/2-A	Lab Control Sample	Total/NA	Water	3510C	

QC Association Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220471-1

GC Semi VOA

Analysis Batch: 714682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220471-1	SED-RB-060424	Total/NA	Water	8082A	714616
480-220471-2	SW-RB-06424	Total/NA	Water	8082A	714616
MB 480-714616/1-A	Method Blank	Total/NA	Water	8082A	714616
LCS 480-714616/2-A	Lab Control Sample	Total/NA	Water	8082A	714616

Prep Batch: 714710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220471-1	SED-RB-060424	Total/NA	Water	3510C	
480-220471-2	SW-RB-06424	Total/NA	Water	3510C	
MB 480-714710/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-714710/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 714780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220471-1	SED-RB-060424	Total/NA	Water	8081B	714710
480-220471-2	SW-RB-06424	Total/NA	Water	8081B	714710
MB 480-714710/1-A	Method Blank	Total/NA	Water	8081B	714710
LCS 480-714710/2-A	Lab Control Sample	Total/NA	Water	8081B	714710

LCMS

Prep Batch: 615986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220471-1	SED-RB-060424	Total/NA	Water	1633	
480-220471-2	SW-RB-06424	Total/NA	Water	1633	
MB 240-615986/1-A	Method Blank	Total/NA	Water	1633	
LCS 240-615986/3-A	Lab Control Sample	Total/NA	Water	1633	
LLCS 240-615986/2-A	Lab Control Sample	Total/NA	Water	1633	

Analysis Batch: 616091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220471-1	SED-RB-060424	Total/NA	Water	1633	615986
480-220471-2	SW-RB-06424	Total/NA	Water	1633	615986
MB 240-615986/1-A	Method Blank	Total/NA	Water	1633	615986
LCS 240-615986/3-A	Lab Control Sample	Total/NA	Water	1633	615986
LLCS 240-615986/2-A	Lab Control Sample	Total/NA	Water	1633	615986

Metals

Prep Batch: 714556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220471-1	SED-RB-060424	Total/NA	Water	3005A	
480-220471-2	SW-RB-06424	Total/NA	Water	3005A	
MB 480-714556/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-714556/2-A	Lab Control Sample	Total/NA	Water	3005A	

Prep Batch: 714564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220471-2	SW-RB-06424	Dissolved	Water	3005A	
480-220471-2	SW-RB-06424	Dissolved	Water	3005A	
MB 480-714564/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 480-714564/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

QC Association Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220471-1

Metals

Prep Batch: 714673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220471-1	SED-RB-060424	Total/NA	Water	7470A	
480-220471-2	SW-RB-06424	Total/NA	Water	7470A	
MB 480-714673/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-714673/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 714674

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220471-2	SW-RB-06424	Dissolved	Water	7470A	
MB 480-714674/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-714674/2-A	Lab Control Sample	Total/NA	Water	7470A	
480-220471-2 MS	SW-RB-06424	Dissolved	Water	7470A	
480-220471-2 MSD	SW-RB-06424	Dissolved	Water	7470A	

Analysis Batch: 714753

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220471-1	SED-RB-060424	Total/NA	Water	7470A	714673
480-220471-2	SW-RB-06424	Dissolved	Water	7470A	714674
480-220471-2	SW-RB-06424	Total/NA	Water	7470A	714673
MB 480-714673/1-A	Method Blank	Total/NA	Water	7470A	714673
MB 480-714674/1-A	Method Blank	Total/NA	Water	7470A	714674
LCS 480-714673/2-A	Lab Control Sample	Total/NA	Water	7470A	714673
LCS 480-714674/2-A	Lab Control Sample	Total/NA	Water	7470A	714674
480-220471-2 MS	SW-RB-06424	Dissolved	Water	7470A	714674
480-220471-2 MSD	SW-RB-06424	Dissolved	Water	7470A	714674

Analysis Batch: 714798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220471-1	SED-RB-060424	Total/NA	Water	6010C	714556
480-220471-2	SW-RB-06424	Dissolved	Water	6010C	714564
480-220471-2	SW-RB-06424	Total/NA	Water	6010C	714556
MB 480-714556/1-A	Method Blank	Total/NA	Water	6010C	714556
MB 480-714564/1-A	Method Blank	Total Recoverable	Water	6010C	714564
LCS 480-714556/2-A	Lab Control Sample	Total/NA	Water	6010C	714556
LCS 480-714564/2-A	Lab Control Sample	Total Recoverable	Water	6010C	714564

Analysis Batch: 714898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220471-2	SW-RB-06424	Dissolved	Water	6010C	714564

General Chemistry

Analysis Batch: 714977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220471-1	SED-RB-060424	Total/NA	Water	9060A	
480-220471-2	SW-RB-06424	Total/NA	Water	9060A	
MB 480-714977/4	Method Blank	Total/NA	Water	9060A	
LCS 480-714977/5	Lab Control Sample	Total/NA	Water	9060A	

Analysis Batch: 715074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220471-1	SED-RB-060424	Total/NA	Water	9012B	

General Chemistry (Continued)

Analysis Batch: 715074 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220471-2	SW-RB-06424	Dissolved	Water	9012B	
480-220471-2	SW-RB-06424	Total/NA	Water	9012B	
MB 480-715074/21	Method Blank	Total/NA	Water	9012B	
HLCS 480-715074/22	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-715074/23	Lab Control Sample	Total/NA	Water	9012B	

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220471-1

Client Sample ID: SED-RB-060424

Date Collected: 06/04/24 13:15
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220471-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	714691	CC	EET BUF	06/06/24 16:26
Total/NA	Prep	3510C			715151	JMP	EET BUF	06/11/24 09:14
Total/NA	Analysis	8270D		1	715312	EMD	EET BUF	06/12/24 20:03
Total/NA	Prep	3510C			714544	LSC	EET BUF	06/05/24 13:46
Total/NA	Analysis	8270D SIM ID		1	714659	JMM	EET BUF	06/07/24 02:20
Total/NA	Prep	3510C			714710	LSC	EET BUF	06/06/24 13:46
Total/NA	Analysis	8081B		1	714780	JLS	EET BUF	06/07/24 10:29
Total/NA	Prep	3510C			714616	SMP	EET BUF	06/06/24 06:53
Total/NA	Analysis	8082A		1	714682	H9RU	EET BUF	06/06/24 20:22
Total/NA	Prep	1633			615986	JVB4	EET CLE	06/10/24 08:21
Total/NA	Analysis	1633		1	616091	MRL	EET CLE	06/10/24 20:13
Total/NA	Prep	3005A			714556	EMO	EET BUF	06/06/24 09:11
Total/NA	Analysis	6010C		1	714798	NZG	EET BUF	06/06/24 19:11
Total/NA	Prep	7470A			714673	ESB	EET BUF	06/06/24 12:22
Total/NA	Analysis	7470A		1	714753	ESB	EET BUF	06/06/24 16:03
Total/NA	Analysis	9012B		1	715074	GW	EET BUF	06/09/24 17:43
Total/NA	Analysis	9060A		1	714977	AF	EET BUF	06/07/24 21:30

Client Sample ID: SW-RB-06424

Date Collected: 06/04/24 14:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220471-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	714691	CC	EET BUF	06/06/24 16:48
Total/NA	Prep	3510C			715151	JMP	EET BUF	06/11/24 09:14
Total/NA	Analysis	8270D		1	715312	EMD	EET BUF	06/12/24 20:31
Total/NA	Prep	3510C			714710	LSC	EET BUF	06/06/24 13:46
Total/NA	Analysis	8081B		1	714780	JLS	EET BUF	06/07/24 10:48
Total/NA	Prep	3510C			714616	SMP	EET BUF	06/06/24 06:53
Total/NA	Analysis	8082A		1	714682	H9RU	EET BUF	06/06/24 20:39
Total/NA	Prep	1633			615986	JVB4	EET CLE	06/10/24 08:21
Total/NA	Analysis	1633		1	616091	MRL	EET CLE	06/10/24 20:26
Dissolved	Prep	3005A			714564	EMO	EET BUF	06/06/24 09:12
Dissolved	Analysis	6010C		1	714798	NZG	EET BUF	06/06/24 20:21
Dissolved	Prep	3005A			714564	EMO	EET BUF	06/06/24 09:12
Dissolved	Analysis	6010C		1	714898	NZG	EET BUF	06/07/24 14:39
Total/NA	Prep	3005A			714556	EMO	EET BUF	06/06/24 09:11
Total/NA	Analysis	6010C		1	714798	NZG	EET BUF	06/06/24 19:13
Dissolved	Prep	7470A			714674	ESB	EET BUF	06/06/24 12:22
Dissolved	Analysis	7470A		1	714753	ESB	EET BUF	06/06/24 16:13
Total/NA	Prep	7470A			714673	ESB	EET BUF	06/06/24 12:22
Total/NA	Analysis	7470A		1	714753	ESB	EET BUF	06/06/24 16:04
Dissolved	Analysis	9012B		1	715074	GW	EET BUF	06/09/24 17:50
Total/NA	Analysis	9012B		1	715074	GW	EET BUF	06/09/24 17:46

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220471-1

Client Sample ID: SW-RB-06424

Date Collected: 06/04/24 14:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220471-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9060A		1	714977	AF	EET BUF	06/07/24 22:00

Client Sample ID: TRIP BLANK

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220471-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	714555	ZN	EET BUF	06/06/24 00:21

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Ashland LLC
Job ID: 480-220471-1
Project/Site: Tank 75 Analysis

Laboratory: Eurofins Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
9060A		Water	TOC Result 1
9060A		Water	TOC Result 2
9060A		Water	TOC Result 3
9060A		Water	TOC Result 4

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	06-30-24
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Method Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220471-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET BUF
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	EET BUF
8081B	Organochlorine Pesticides (GC)	SW846	EET BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET BUF
1633	Per- and Polyfluoroalkyl Substances by LC/MS/MS	EPA	EET CLE
6010C	Metals (ICP)	SW846	EET BUF
7470A	Mercury (CVAA)	SW846	EET BUF
9012B	Cyanide, Total and/or Amenable	SW846	EET BUF
9060A	Organic Carbon, Total (TOC)	SW846	EET BUF
1633	Solid-Phase Extraction (SPE)	EPA	EET CLE
3005A	Preparation, Total Metals	SW846	EET BUF
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET BUF
5030C	Purge and Trap	SW846	EET BUF
7470A	Preparation, Mercury	SW846	EET BUF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220471-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-220471-1	SED-RB-060424	Water	06/04/24 13:15	06/04/24 16:00
480-220471-2	SW-RB-06424	Water	06/04/24 14:00	06/04/24 16:00
480-220471-3	TRIP BLANK	Water	06/04/24 00:00	06/04/24 16:00

10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

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Client Information	Sampler: Ethan Smith	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-196724-40768.3
Client Contact: Ms. Ann Marie Kropovitch	Phone: 716-912-4456	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin:	Page: Page 3 of 3 1 of 1
Company: AECOM	PWSID:			Job #:
Address: 50 Lakefront Boulevard Suite 111	Due Date Requested: STD			
City: Buffalo	TAT Requested (days): RUSH			
State, Zip: NY, 14202	Compliance Project: Δ Yes Δ No			
Phone: 614-790-2274(Tel)	PO #: 1120269			
Email: ann.marie.kropovitch@aecom.com	WO #: Ann.Marie.Kropovitch@aecom.com			
Project Name: Tank 75 - Surface Water	Project #: 48027595			
Site:	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL VOCs + TICs	6010D - TAL Metals ICP	6010D - TAL Metals ICP - Dissolved FF	9012B_NP - Cyanide, Total	8082A - TCL PCBs	8270D - TCL SVOCs + TICs	7470A - Mercury	7470A - Mercury - Dissolved FF	9012B_NP - Cyanide, Total - Dissolved FF	8081B - TCL Pesticides	1633 - 1633 Standard List	8270D_(MOD)_TCL_SVOA_CLP_v2 1,4-D, diane	[redacted] TOC	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	D	D	B	N	N	D	D	B	N	N	N	A		
SED-RB-060424	6/4/24	1315	G	Water	N	N	X	X		X	X	X	X			X	X	X	X	4	
SW-RB-060424	6/4/24	1400	G	Water	N	N	X	X	X	X	X	X	X	X	X	X	X		X	2	lab to filter
Trip Blank	6/4/24	-	G	Water			X													2	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	

480-220471 Chain of Custody

Preservation Codes:
A - HCL
D - HNO3
B - NaOH
N - None
Other:

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements: add Ethan.Smith@aecom.com and edyta.Chaberska@aecom.com to all lab correspondance

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by:	Date/Time: 6/4/24 1600	Company: AECOM	Received by:
Relinquished by:	Date/Time:	Company:	Received by:
Relinquished by:	Date/Time:	Company:	Received by:

Received by:	Date/Time:	Company
Received by:	Date/Time:	Company
Received by:	Date/Time: 6/4/24 1600	Company TMO

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.0 3.1 5.2 5.1 3.7 3.6 #17E

Ver: 04/02/2024

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691 7991

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-87862.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note): NELAP New York		Job #: 480-220471-1
Address: 180 S. Van Buren Avenue,	Due Date Requested: 6/17/2024			
City: Barberton	TAT Requested (days):			
State, Zip: OH, 44203				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site:	SSOW#:			

Analysis Requested

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633/1633_SPE 1633 Standard List	1633_DRAFT_TSS/ Percent Suspend Solids PFAS	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SED-RB-060424 (480-220471-1)	6/4/24	13:15 Eastern		Water			X	X	3	
SW-RB-06424 (480-220471-2)	6/4/24	14:00 Eastern		Water			X	X	3	

Other: PFAS 25

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I, II, III IV Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements:
Empty Kit Relinquished by:	Date: Time: Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[illegible]	6/5/24 16cc	TA	TAMMY ROYER	6-6-24 930	EETNC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Eurofins = Cleveland Sample Receipt Form/Narrative Login #:
Barberton Facility

Client ETA Site Name

Cooler Received on 6-6-24 Opened on 6-6-24

Cooler unpacked by: TAMMY ROYER

FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 17 (CF 0+2 °C) Observed Cooler Temp. 3.4 °C Corrected Cooler Temp. 3.6 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	No
4 Did custody papers accompany the sample(s)?	Yes	No
5 Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6 Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7 Did all bottles arrive in good condition (Unbroken)?	Yes	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	Yes	No
10 Were correct bottle(s) used for the test(s) indicated?	Yes	No
11 Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC339814
14. Were VOAs on the COC?	Yes	No
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes	No NA
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	No
17 Was a LL Hg or Me Hg trip blank present?	Yes	No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19 SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.

Sample(s) were received in a broken container

Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory

Time preserved. Preservative(s) added/Lot number(s).

VOA Sample Preservation - Date/Time VOAs Frozen.

SAMPLE CONTROL
EUROFINS ENVIRONMENT TESTING
10 HAZELWOOD DRIVE

BUFFALO, NY 142262223
UNITED STATES US

ACTWGT: 55.20 LB
CAD 0759273/CAFE3755
DIMS 29x15x14 IN

BILL SENDER

Part # 159469-134 MTW EXP 02/25

TO SAMPLE RECEIPT
EUROFINS CLEVELAND
180 S VAN BUREN AVE

BARBERTON OH 442033543
(330) 497-9396
REF. TA BARBERTON

FedEx Express

THU - 06 JUN 10:30A
PRIORITY OVERNIGHT

7717 9320 7367

NX CAKA

44203
OH-US CLE

Login Sample Receipt Checklist

Client: Ashland LLC

Job Number: 480-220471-1

Login Number: 220471
List Number: 1
Creator: Stopa, Erik S

List Source: Eurofins Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	AECOM
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Shannon Lloyd
Ashland LLC
PO BOX 2219
Columbus, Ohio 43216

Generated 6/28/2024 4:58:08 PM

JOB DESCRIPTION

Tank 75 Analysis

JOB NUMBER

480-220474-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

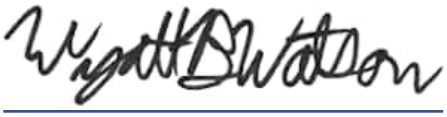
See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

Authorization



Generated
6/28/2024 4:58:08 PM

Authorized for release by
Wyatt Watson, Project Management Assistant I
Wyatt.Watson@et.eurofinsus.com
Designee for
John Beninati, Project Manager I
John.Beninati@et.eurofinsus.com
(716)504-9874

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS VOA TICs

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
J	Indicates an Estimated Value for TICs
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
E	Result exceeded calibration range.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

LCMS

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*5-	Isotope dilution analyte is outside acceptance limits, low biased.
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.

Qualifiers (Continued)

General Chemistry (Continued)

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
480-220474-1

Receipt
The samples were received on 6/4/2024 4:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 3.0º C, 3.6º C, 3.7º C, 3.9º C, 5.2º C and 5.4º C.

Receipt Exceptions
Times of collection not listed on coc, time of 00:00 was used for sample login.
SED-06 (480-220474-1), SED-06 (480-220474-1[MS]), SED-06 (480-220474-1[MSD]), SED-07 (480-220474-2), SED-08 (480-220474-3), SED-08-FD (480-220474-4), SED-09 (480-220474-5), SED-10 (480-220474-6), SED-11 (480-220474-7), SED-11-FD (480-220474-8), SED-12 (480-220474-9), SED-13 (480-220474-10), SED-14 (480-220474-11), SED-15 (480-220474-12), SED-06 (480-220474-13), SED-06 (480-220474-13[MS]), SED-06 (480-220474-13[MSD]), SED-07 (480-220474-14), SED-08 (480-220474-15), SED-08-FD (480-220474-16), SED-09 (480-220474-17), SED-10 (480-220474-18), SED-11 (480-220474-19), SED-11-FD (480-220474-20), SED-12 (480-220474-21), SED-13 (480-220474-22), SED-14 (480-220474-23) and SED-15 (480-220474-24)

GC/MS VOA
Method 8260C: The following samples were analyzed using medium level soil analysis and diluted to bring the concentration of target analytes within the calibration range: SED-06 (480-220474-1), SED-06 (480-220474-1[MS]), SED-06 (480-220474-1[MSD]), SED-07 (480-220474-2), SED-08 (480-220474-3), SED-08-FD (480-220474-4), SED-10 (480-220474-6), SED-11 (480-220474-7), SED-11-FD (480-220474-8), SED-12 (480-220474-9), SED-13 (480-220474-10), SED-14 (480-220474-11) and SED-15 (480-220474-12). Elevated reporting limits (RLs) are provided.

Method 8260C: The following sample was analyzed using medium level soil analysis and diluted due to the abundance of non-target analytes: SED-09 (480-220474-5). Elevated reporting limits (RLs) are provided.

Method 8260C: The following samples were diluted due to the nature of the sample matrix: SED-06 (480-220474-1[MS]) and SED-06 (480-220474-1[MSD]). Because of this dilution, the matrix spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8260C: The continuing calibration verification (CCV) analyzed in batch 480-714630 was outside the method criteria for the following analyte: Cyclohexane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated. The associated samples are impacted: SED-06 (480-220474-1), SED-07 (480-220474-2), SED-08 (480-220474-3), SED-08-FD (480-220474-4), SED-09 (480-220474-5), SED-11 (480-220474-7), SED-11-FD (480-220474-8), SED-12 (480-220474-9), SED-14 (480-220474-11) and SED-15 (480-220474-12).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-714630 recovered outside acceptance criteria, low biased, for 1,2,4-Trichlorobenzene, Chloromethane, and Methyl tert-butyl ether. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analytes, the data are reported. The associated samples are impacted: SED-06 (480-220474-1), SED-07 (480-220474-2), SED-08 (480-220474-3), SED-08-FD (480-220474-4), SED-09 (480-220474-5), SED-10 (480-220474-6), SED-11 (480-220474-7), SED-11-FD (480-220474-8), SED-12 (480-220474-9), SED-13 (480-220474-10), SED-14 (480-220474-11) and SED-15 (480-220474-12).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-714630 recovered outside acceptance criteria, low biased, for Cyclohexane. A reporting limit (RL) standard was analyzed, and the target analytes are detected above the reporting limit (RL). Since the associated samples were non-detect for the analyte(s), the data are reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method 8270D: The continuing calibration verification (CCV) associated with batch 480-715000 recovered above the upper control limit for Benzo[g,h,i]perylene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: SED-06 (480-220474-13), SED-07 (480-220474-14), SED-09 (480-220474-17), SED-11-FD (480-220474-20), SED-12 (480-220474-21) and SED-15 (480-220474-24).

Method 8270D: The following samples were diluted due to color, appearance, and viscosity: SED-06 (480-220474-13), SED-06 (480-220474-13[MS]), SED-06 (480-220474-13[MSD]), SED-07 (480-220474-14), SED-09 (480-220474-17) and SED-11-FD (480-220474-20). Elevated reporting limits (RL) are provided.

Job ID: 480-220474-1 (Continued)

Method 8270D: The following samples were diluted due to color, appearance and viscosity: SED-08-FD (480-220474-16), SED-11 (480-220474-19), SED-13 (480-220474-22) and SED-14 (480-220474-23). Elevated reporting limits (RL) are provided.

Method 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 480-714779 and analytical batch 480-715000 were diluted below the method detection limit (MDL) for 2,4-Dinitrophenol; therefore, percent recovery and RPD could not be calculated. The associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8270D: The following compound has been spiked at a level above the upper range of the initial calibration: 3,3-Dichlorobenzidine. The laboratory control sample (LCS) associated with preparation batch 480-714779 and analytical batch 480-715466 recovered within acceptable limits for this analyte and has been qualified with an "E" flag.

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-715000 recovered outside acceptance criteria, low biased, for Hexachlorocyclopentadiene. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA

Method Lloyd Kahn: Please note that the reporting limit for Lloyd Kahn TOC analysis is a nominal value and does not reflect adjustments in sample mass processed on an individual basis

SED-06 (480-220474-1), SED-06 (480-220474-1[MS]), SED-06 (480-220474-1[MSD]), SED-07 (480-220474-2), SED-08 (480-220474-3) and SED-08-FD (480-220474-4)

Method Lloyd Kahn: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 180-471505 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method Lloyd Kahn: Reanalysis of the following sample(s) was performed outside of the analytical holding time due to a 2 day power outage at the laboratory. Both sets of results are reported. : SED-06 (480-220474-1), SED-06 (480-220474-1[MS]), SED-06 (480-220474-1[MSD]), SED-07 (480-220474-2), SED-08 (480-220474-3), SED-08-FD (480-220474-4), SED-09 (480-220474-5), SED-10 (480-220474-6), SED-11 (480-220474-7), SED-11-FD (480-220474-8), SED-12 (480-220474-9), SED-13 (480-220474-10), SED-14 (480-220474-11) and SED-15 (480-220474-12).

Method Lloyd Kahn: Please note that the reporting limit for Lloyd Kahn TOC analysis is a nominal value and does not reflect adjustments in sample mass processed on an individual basis.

SED-06 (480-220474-1), SED-06 (480-220474-1[MS]), SED-06 (480-220474-1[MSD]), SED-07 (480-220474-2), SED-08 (480-220474-3), SED-08-FD (480-220474-4), SED-09 (480-220474-5), SED-10 (480-220474-6), SED-11 (480-220474-7), SED-11-FD (480-220474-8), SED-12 (480-220474-9), SED-13 (480-220474-10), SED-14 (480-220474-11) and SED-15 (480-220474-12)

Method 8081B: The following samples were diluted due to the nature of the sample matrix: SED-06 (480-220474-13), SED-07 (480-220474-14), SED-08 (480-220474-15), SED-08-FD (480-220474-16), SED-09 (480-220474-17), SED-10 (480-220474-18), SED-11 (480-220474-19), SED-11-FD (480-220474-20), SED-12 (480-220474-21), SED-13 (480-220474-22), SED-14 (480-220474-23) and SED-15 (480-220474-24). As such, surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method 8081B: The following samples were diluted due to the nature of the sample matrix: SED-06 (480-220474-13[MS]) and SED-06 (480-220474-13[MSD]). As such, spike and surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method 8082A: For method 8082, the recovery of the one surrogate in samples SED-09 (480-220474-17), SED-10 (480-220474-18), SED-11-FD (480-220474-20), SED-13 (480-220474-22) and SED-15 (480-220474-24) exceeds quality control limits due to the sample matrix. The recovery of the secondary surrogate is within quality control criteria; no corrective action is required.

Method 8082A: The following samples were diluted due to the nature of the sample matrix: SED-06 (480-220474-13), SED-06 (480-220474-13[MS]), SED-06 (480-220474-13[MSD]), SED-07 (480-220474-14), SED-08-FD (480-220474-16), SED-11 (480-220474-19), SED-11-FD (480-220474-20), SED-13 (480-220474-22) and SED-14 (480-220474-23). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

LCMS
Method 1633: Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following samples: SED-08 (480-220474-3), SED-08-FD (480-220474-4) and SED-10 (480-220474-6) for M2-4:2 FTS, M2-6:2 FTS and M2-8:2 FTS . Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries, samples are non detect for associated target analytes.

Method 1633: Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following sample: SED-12 (480-220474-9) for M2-4:2 FTS and M2-8:2 FTS . Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries, samples are non detect for associated target analytes.

Method 1633: The low level laboratory control sample (LLCS) for preparation batch 240-615785 and analytical batch 240-616342 recovered outside control limits for the following analytes: N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA). These analytes were biased high in the LLCS and were not detected in the associated samples; therefore, the data have been reported.

Method 1633: Isotope Dilution Analyte (IDA) recovery was outside the method recommended limit for the following sample: SED-06 (480-220474-1). Since this was likely due to matrix effects, samples were analyzed at a dilution and may have elevated RLs.

Method 1633: The Isotope Dilution Analyte (IDA) recovery associated with the following sample is below the method recommended limit: SED-06 (480-220474-1). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample(s).

Method 1633: The low level laboratory control sample (LLCS) for preparation batch 240-616481 and analytical batch 240-616627 recovered outside control limits for the following analytes: d5-NEtFOSAA. However, the native compounds were in spec, therefore the data has been reported

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
Method 9012B: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 480-714887 and analytical batch 480-714906 was outside control limits. Sample non-homogeneity is suspected.

Method 9012B: The matrix spike (MS) recovery for preparation batch 480-715215 and analytical batch 480-715244 was outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 9012B: The following sample was logged in outside of holding time: (480-220113-C-2-C).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method 3580A: The following samples required a Florisil clean-up, via EPA Method 3620C, to reduce matrix interferences: SED-06 (480-220474-13), SED-06 (480-220474-13[MS]), SED-06 (480-220474-13[MSD]), SED-07 (480-220474-14), SED-08 (480-220474-15), SED-08-FD (480-220474-16), SED-09 (480-220474-17), SED-10 (480-220474-18), SED-11 (480-220474-19), SED-11-FD (480-220474-20), SED-12 (480-220474-21), SED-13 (480-220474-22), SED-14 (480-220474-23) and SED-15 (480-220474-24).

Method 3580A: The sample were dark with foul other and oily and in insoluble in solvent property which before concentration filtered.

SED-06 (480-220474-13), SED-06 (480-220474-13[MS]), SED-06 (480-220474-13[MSD]), SED-07 (480-220474-14), SED-08 (480-220474-15), SED-08-FD (480-220474-16), SED-09 (480-220474-17), SED-10 (480-220474-18), SED-11 (480-220474-19), SED-11-FD (480-220474-20), SED-12 (480-220474-21), SED-13 (480-220474-22), SED-14 (480-220474-23) and SED-15 (480-220474-24)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220474-1

Client Sample ID: SED-06 — Lab Sample ID: 480-220474-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	99000	F2	5900	1100	ug/Kg	40	☼	8260C	Total/NA
Cyclohexane	6500	F1 F2	5900	1300	ug/Kg	40	☼	8260C	Total/NA
Ethylbenzene	36000	F2	5900	1700	ug/Kg	40	☼	8260C	Total/NA
Isopropylbenzene	3300	J F1 F2	5900	880	ug/Kg	40	☼	8260C	Total/NA
Methylcyclohexane	14000	F1 F2	5900	2700	ug/Kg	40	☼	8260C	Total/NA
Perfluorononanoic acid (PFNA)	9.0		0.28	0.069	ug/Kg	1	☼	1633	Total/NA
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	1.0	J I	1.1	0.28	ug/Kg	1	☼	1633	Total/NA
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.085	J	0.28	0.069	ug/Kg	1	☼	1633	Total/NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.17	J *+	0.28	0.069	ug/Kg	1	☼	1633	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.84	I	0.28	0.069	ug/Kg	1	☼	1633	Total/NA
Perfluorooctanoic acid (PFOA) - DL	2.4	J I	2.8	0.69	ug/Kg	10	☼	1633	Total/NA
Aluminum	7710		18.2	15.6	mg/Kg	1	☼	6010C	Total/NA
Arsenic	76.2		3.6	1.6	mg/Kg	1	☼	6010C	Total/NA
Barium	1080		0.91	0.25	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.50		0.36	0.073	mg/Kg	1	☼	6010C	Total/NA
Cadmium	4.5		0.36	0.13	mg/Kg	1	☼	6010C	Total/NA
Calcium	218000		908	490	mg/Kg	10	☼	6010C	Total/NA
Chromium	8210		9.1	6.5	mg/Kg	10	☼	6010C	Total/NA
Cobalt	23.8		0.91	0.18	mg/Kg	1	☼	6010C	Total/NA
Copper	450		1.8	1.0	mg/Kg	1	☼	6010C	Total/NA
Iron	39500	B	18.2	15.4	mg/Kg	1	☼	6010C	Total/NA
Lead	2300		1.8	0.83	mg/Kg	1	☼	6010C	Total/NA
Magnesium	14200		36.3	15.4	mg/Kg	1	☼	6010C	Total/NA
Manganese	547		1.8	0.51	mg/Kg	1	☼	6010C	Total/NA
Nickel	192		9.1	0.45	mg/Kg	1	☼	6010C	Total/NA
Potassium	1410		54.5	44.0	mg/Kg	1	☼	6010C	Total/NA
Selenium	25.1		7.3	1.5	mg/Kg	1	☼	6010C	Total/NA
Silver	0.62	J	1.1	0.36	mg/Kg	1	☼	6010C	Total/NA
Sodium	914		254	111	mg/Kg	1	☼	6010C	Total/NA
Thallium	3.1	J	10.9	1.4	mg/Kg	1	☼	6010C	Total/NA
Vanadium	139		0.91	0.24	mg/Kg	1	☼	6010C	Total/NA
Zinc	2930		3.6	1.9	mg/Kg	1	☼	6010C	Total/NA
Mercury	4.6		0.34	0.079	mg/Kg	10	☼	7471B	Total/NA
Cyanide, Total	5.2	F1 F2	1.6	0.76	mg/Kg	1	☼	9012B	Total/NA
Total Organic Carbon	231000	F2	1730	1680	mg/Kg	1	☼	EPA-Lloyd Kahn	Total/NA
Total Organic Carbon	280000	H	1730	1680	mg/Kg	1	☼	EPA-Lloyd Kahn	Total/NA

Client Sample ID: SED-07 — Lab Sample ID: 480-220474-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichlorobenzene	770	J	1100	270	ug/Kg	20	☼	8260C	Total/NA
Benzene	74000		1100	200	ug/Kg	20	☼	8260C	Total/NA
Chlorobenzene	370	J	1100	140	ug/Kg	20	☼	8260C	Total/NA
Cyclohexane	2700		1100	240	ug/Kg	20	☼	8260C	Total/NA
Ethylbenzene	26000		1100	310	ug/Kg	20	☼	8260C	Total/NA
Isopropylbenzene	2700		1100	160	ug/Kg	20	☼	8260C	Total/NA
Methylcyclohexane	7900		1100	500	ug/Kg	20	☼	8260C	Total/NA
Methylene Chloride	330	J B	1100	210	ug/Kg	20	☼	8260C	Total/NA
Toluene	3100		1100	280	ug/Kg	20	☼	8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Client Sample ID: SED-07 (Continued)

Lab Sample ID: 480-220474-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Xylenes, Total	50000		2100	590	ug/Kg	20	☼	8260C	Total/NA
Aluminum	128000		54.2	46.8	mg/Kg	5	☼	6010C	Total/NA
Arsenic	108		2.2	0.95	mg/Kg	1	☼	6010C	Total/NA
Barium	40.7		0.54	0.15	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.38		0.22	0.043	mg/Kg	1	☼	6010C	Total/NA
Calcium	8780		54.2	29.3	mg/Kg	1	☼	6010C	Total/NA
Chromium	54.3		0.54	0.39	mg/Kg	1	☼	6010C	Total/NA
Cobalt	5.2		0.54	0.11	mg/Kg	1	☼	6010C	Total/NA
Copper	116		1.1	0.62	mg/Kg	1	☼	6010C	Total/NA
Iron	6000	B	10.8	9.2	mg/Kg	1	☼	6010C	Total/NA
Lead	80.9		1.1	0.50	mg/Kg	1	☼	6010C	Total/NA
Magnesium	1480		21.7	9.2	mg/Kg	1	☼	6010C	Total/NA
Manganese	149		1.1	0.30	mg/Kg	1	☼	6010C	Total/NA
Nickel	71.8		5.4	0.27	mg/Kg	1	☼	6010C	Total/NA
Potassium	215		32.5	26.3	mg/Kg	1	☼	6010C	Total/NA
Sodium	807		152	66.5	mg/Kg	1	☼	6010C	Total/NA
Vanadium	107		0.54	0.14	mg/Kg	1	☼	6010C	Total/NA
Zinc	73.2		2.2	1.1	mg/Kg	1	☼	6010C	Total/NA
Total Organic Carbon	263000		1130	1100	mg/Kg	1	☼	EPA-Lloyd Kahn	Total/NA
Total Organic Carbon	239000	H	1130	1100	mg/Kg	1	☼	EPA-Lloyd Kahn	Total/NA

Client Sample ID: SED-08

Lab Sample ID: 480-220474-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	180000		4100	780	ug/Kg	20	☼	8260C	Total/NA
Cyclohexane	9000		4100	910	ug/Kg	20	☼	8260C	Total/NA
Ethylbenzene	73000		4100	1200	ug/Kg	20	☼	8260C	Total/NA
Isopropylbenzene	6500		4100	610	ug/Kg	20	☼	8260C	Total/NA
Methylcyclohexane	18000		4100	1900	ug/Kg	20	☼	8260C	Total/NA
Toluene	60000		4100	1100	ug/Kg	20	☼	8260C	Total/NA
Xylenes, Total	140000		8200	2300	ug/Kg	20	☼	8260C	Total/NA
Styrene	4400		4100	990	ug/Kg	20	☼	8260C	Total/NA
Perfluorooctanoic acid (PFOA)	0.73		0.35	0.087	ug/Kg	1	☼	1633	Total/NA
Perfluorononanoic acid (PFNA)	11		0.35	0.087	ug/Kg	1	☼	1633	Total/NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.21	J *+	0.35	0.087	ug/Kg	1	☼	1633	Total/NA
Perfluorodecanesulfonic acid (PFDS)	1.1	I	0.35	0.087	ug/Kg	1	☼	1633	Total/NA
Aluminum	12900		22.6	19.4	mg/Kg	1	☼	6010C	Total/NA
Arsenic	53.7		4.5	2.0	mg/Kg	1	☼	6010C	Total/NA
Barium	442		1.1	0.32	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.58		0.45	0.090	mg/Kg	1	☼	6010C	Total/NA
Cadmium	4.4		0.45	0.16	mg/Kg	1	☼	6010C	Total/NA
Calcium	36900		113	60.9	mg/Kg	1	☼	6010C	Total/NA
Chromium	7090		113	81.2	mg/Kg	100	☼	6010C	Total/NA
Cobalt	13.6		1.1	0.23	mg/Kg	1	☼	6010C	Total/NA
Copper	404		2.3	1.3	mg/Kg	1	☼	6010C	Total/NA
Iron	28300	B	22.6	19.1	mg/Kg	1	☼	6010C	Total/NA
Lead	3670		2.3	1.0	mg/Kg	1	☼	6010C	Total/NA
Magnesium	7760		45.1	19.1	mg/Kg	1	☼	6010C	Total/NA
Manganese	397		2.3	0.63	mg/Kg	1	☼	6010C	Total/NA
Nickel	365		11.3	0.56	mg/Kg	1	☼	6010C	Total/NA
Potassium	2300		67.7	54.7	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SED-08 (Continued)

Lab Sample ID: 480-220474-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	8.7	J	9.0	1.8	mg/Kg	1	☼	6010C	Total/NA
Sodium	352		316	138	mg/Kg	1	☼	6010C	Total/NA
Thallium	2.8	J	13.5	1.7	mg/Kg	1	☼	6010C	Total/NA
Vanadium	179		1.1	0.29	mg/Kg	1	☼	6010C	Total/NA
Zinc	3070		4.5	2.3	mg/Kg	1	☼	6010C	Total/NA
Mercury	4.6		0.41	0.095	mg/Kg	10	☼	7471B	Total/NA
Cyanide, Total	11.0		1.9	0.90	mg/Kg	1	☼	9012B	Total/NA
Total Organic Carbon	324000		2150	2090	mg/Kg	1	☼	EPA-Lloyd Kahn	Total/NA
Total Organic Carbon	290000	H	2150	2090	mg/Kg	1	☼	EPA-Lloyd Kahn	Total/NA

Client Sample ID: SED-08-FD

Lab Sample ID: 480-220474-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	200000		4600	870	ug/Kg	20	☼	8260C	Total/NA
Cyclohexane	11000		4600	1000	ug/Kg	20	☼	8260C	Total/NA
Ethylbenzene	91000		4600	1300	ug/Kg	20	☼	8260C	Total/NA
Isopropylbenzene	8400		4600	680	ug/Kg	20	☼	8260C	Total/NA
Methylcyclohexane	25000		4600	2100	ug/Kg	20	☼	8260C	Total/NA
Toluene	61000		4600	1200	ug/Kg	20	☼	8260C	Total/NA
Xylenes, Total	150000		9100	2500	ug/Kg	20	☼	8260C	Total/NA
Styrene	4600		4600	1100	ug/Kg	20	☼	8260C	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.18	J	0.34	0.085	ug/Kg	1	☼	1633	Total/NA
Perfluorooctanoic acid (PFOA)	0.74		0.34	0.085	ug/Kg	1	☼	1633	Total/NA
Perfluorononanoic acid (PFNA)	12		0.34	0.085	ug/Kg	1	☼	1633	Total/NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.21	J *+	0.34	0.085	ug/Kg	1	☼	1633	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.97	I	0.34	0.085	ug/Kg	1	☼	1633	Total/NA
Aluminum	12300		22.1	19.1	mg/Kg	1	☼	6010C	Total/NA
Arsenic	67.4		4.4	1.9	mg/Kg	1	☼	6010C	Total/NA
Barium	289		1.1	0.31	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.59		0.44	0.088	mg/Kg	1	☼	6010C	Total/NA
Cadmium	4.9		0.44	0.15	mg/Kg	1	☼	6010C	Total/NA
Calcium	41800		111	59.7	mg/Kg	1	☼	6010C	Total/NA
Chromium	9180		111	79.6	mg/Kg	100	☼	6010C	Total/NA
Cobalt	10.1		1.1	0.22	mg/Kg	1	☼	6010C	Total/NA
Copper	487		2.2	1.3	mg/Kg	1	☼	6010C	Total/NA
Iron	30300	B	22.1	18.8	mg/Kg	1	☼	6010C	Total/NA
Lead	3370		2.2	1.0	mg/Kg	1	☼	6010C	Total/NA
Magnesium	8260		44.2	18.8	mg/Kg	1	☼	6010C	Total/NA
Manganese	449		2.2	0.62	mg/Kg	1	☼	6010C	Total/NA
Nickel	185		11.1	0.55	mg/Kg	1	☼	6010C	Total/NA
Potassium	2130		66.4	53.6	mg/Kg	1	☼	6010C	Total/NA
Selenium	10.3		8.8	1.8	mg/Kg	1	☼	6010C	Total/NA
Silver	0.47	J	1.3	0.44	mg/Kg	1	☼	6010C	Total/NA
Sodium	346		310	136	mg/Kg	1	☼	6010C	Total/NA
Thallium	2.8	J	13.3	1.7	mg/Kg	1	☼	6010C	Total/NA
Vanadium	103		1.1	0.29	mg/Kg	1	☼	6010C	Total/NA
Zinc	4140		4.4	2.3	mg/Kg	1	☼	6010C	Total/NA
Mercury	4.6		0.42	0.096	mg/Kg	10	☼	7471B	Total/NA
Cyanide, Total	10.4		2.0	0.98	mg/Kg	1	☼	9012B	Total/NA
Total Organic Carbon	291000		2140	2080	mg/Kg	1	☼	EPA-Lloyd Kahn	Total/NA
Total Organic Carbon	303000	H	2140	2080	mg/Kg	1	☼	EPA-Lloyd Kahn	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220474-1

Client Sample ID: SED-09 — Lab Sample ID: 480-220474-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	6100		5000	950	ug/Kg	40	☼	8260C	Total/NA
Cyclohexane	6400		5000	1100	ug/Kg	40	☼	8260C	Total/NA
Isopropylbenzene	4000	J	5000	750	ug/Kg	40	☼	8260C	Total/NA
Methylcyclohexane	13000		5000	2300	ug/Kg	40	☼	8260C	Total/NA
Aluminum	18600		16.2	14.0	mg/Kg	1	☼	6010C	Total/NA
Arsenic	57.9		3.2	1.4	mg/Kg	1	☼	6010C	Total/NA
Barium	250		0.81	0.23	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.89		0.32	0.065	mg/Kg	1	☼	6010C	Total/NA
Cadmium	3.1		0.32	0.11	mg/Kg	1	☼	6010C	Total/NA
Calcium	41800		81.0	43.7	mg/Kg	1	☼	6010C	Total/NA
Chromium	6320		81.0	58.3	mg/Kg	100	☼	6010C	Total/NA
Cobalt	14.8		0.81	0.16	mg/Kg	1	☼	6010C	Total/NA
Copper	601		1.6	0.92	mg/Kg	1	☼	6010C	Total/NA
Iron	38400	B	16.2	13.7	mg/Kg	1	☼	6010C	Total/NA
Lead	3040		1.6	0.74	mg/Kg	1	☼	6010C	Total/NA
Magnesium	9210		32.4	13.7	mg/Kg	1	☼	6010C	Total/NA
Manganese	604		1.6	0.45	mg/Kg	1	☼	6010C	Total/NA
Nickel	163		8.1	0.40	mg/Kg	1	☼	6010C	Total/NA
Potassium	2580		48.6	39.3	mg/Kg	1	☼	6010C	Total/NA
Selenium	12.1		6.5	1.3	mg/Kg	1	☼	6010C	Total/NA
Sodium	384		227	99.3	mg/Kg	1	☼	6010C	Total/NA
Vanadium	104		0.81	0.21	mg/Kg	1	☼	6010C	Total/NA
Zinc	2120		3.2	1.7	mg/Kg	1	☼	6010C	Total/NA
Mercury	3.9		0.31	0.071	mg/Kg	10	☼	7471B	Total/NA
Cyanide, Total	3.4		1.4	0.65	mg/Kg	1	☼	9012B	Total/NA
Total Organic Carbon	216000	^2	1600	1550	mg/Kg	1	☼	EPA-Lloyd Kahn	Total/NA
Total Organic Carbon	193000	H	1600	1550	mg/Kg	1	☼	EPA-Lloyd Kahn	Total/NA

Client Sample ID: SED-10 — Lab Sample ID: 480-220474-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	97000		3500	660	ug/Kg	20	☼	8260C	Total/NA
Cyclohexane	2500	J	3500	780	ug/Kg	20	☼	8260C	Total/NA
Ethylbenzene	35000		3500	1000	ug/Kg	20	☼	8260C	Total/NA
Isopropylbenzene	3500		3500	520	ug/Kg	20	☼	8260C	Total/NA
Methylcyclohexane	6600		3500	1600	ug/Kg	20	☼	8260C	Total/NA
Toluene	16000		3500	940	ug/Kg	20	☼	8260C	Total/NA
Xylenes, Total	83000		7000	1900	ug/Kg	20	☼	8260C	Total/NA
Styrene	1200	J	3500	840	ug/Kg	20	☼	8260C	Total/NA
Perfluorooctanoic acid (PFOA)	0.46		0.34	0.084	ug/Kg	1	☼	1633	Total/NA
Perfluorononanoic acid (PFNA)	5.8		0.34	0.084	ug/Kg	1	☼	1633	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.60	I	0.34	0.084	ug/Kg	1	☼	1633	Total/NA
Perfluorononanesulfonic acid (PFNS)	0.30	J	0.34	0.084	ug/Kg	1	☼	1633	Total/NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.10	J *+	0.34	0.084	ug/Kg	1	☼	1633	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.95	I	0.34	0.084	ug/Kg	1	☼	1633	Total/NA
Aluminum	12500		21.5	18.5	mg/Kg	1	☼	6010C	Total/NA
Arsenic	75.2		4.3	1.9	mg/Kg	1	☼	6010C	Total/NA
Barium	315		1.1	0.30	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.55		0.43	0.086	mg/Kg	1	☼	6010C	Total/NA
Cadmium	5.2		0.43	0.15	mg/Kg	1	☼	6010C	Total/NA
Calcium	49800		107	57.9	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Client Sample ID: SED-10 (Continued)

Lab Sample ID: 480-220474-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	9650		107	77.2	mg/Kg	100	☼	6010C	Total/NA
Cobalt	10.8		1.1	0.21	mg/Kg	1	☼	6010C	Total/NA
Copper	505		2.1	1.2	mg/Kg	1	☼	6010C	Total/NA
Iron	31800	B	21.5	18.2	mg/Kg	1	☼	6010C	Total/NA
Lead	3560		2.1	0.99	mg/Kg	1	☼	6010C	Total/NA
Magnesium	8200		42.9	18.2	mg/Kg	1	☼	6010C	Total/NA
Manganese	463		2.1	0.60	mg/Kg	1	☼	6010C	Total/NA
Nickel	148		10.7	0.54	mg/Kg	1	☼	6010C	Total/NA
Potassium	1930		64.4	52.0	mg/Kg	1	☼	6010C	Total/NA
Selenium	12.2		8.6	1.7	mg/Kg	1	☼	6010C	Total/NA
Silver	0.55	J	1.3	0.43	mg/Kg	1	☼	6010C	Total/NA
Sodium	501		300	132	mg/Kg	1	☼	6010C	Total/NA
Vanadium	82.5		1.1	0.28	mg/Kg	1	☼	6010C	Total/NA
Zinc	4840		429	219	mg/Kg	100	☼	6010C	Total/NA
Mercury	5.8		0.40	0.092	mg/Kg	10	☼	7471B	Total/NA
Cyanide, Total	13.0		9.6	4.7	mg/Kg	5	☼	9012B	Total/NA
Total Organic Carbon	355000	^2	2060	2000	mg/Kg	1	☼	EPA-Lloyd Kahn	Total/NA
Total Organic Carbon	329000	H	2060	2000	mg/Kg	1	☼	EPA-Lloyd Kahn	Total/NA

Client Sample ID: SED-11

Lab Sample ID: 480-220474-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichlorobenzene	2000	J	6100	1600	ug/Kg	40	☼	8260C	Total/NA
Benzene	150000		6100	1200	ug/Kg	40	☼	8260C	Total/NA
Chlorobenzene	2200	J	6100	810	ug/Kg	40	☼	8260C	Total/NA
Cyclohexane	10000		6100	1400	ug/Kg	40	☼	8260C	Total/NA
Ethylbenzene	92000		6100	1800	ug/Kg	40	☼	8260C	Total/NA
Isopropylbenzene	8900		6100	920	ug/Kg	40	☼	8260C	Total/NA
Methylcyclohexane	29000		6100	2900	ug/Kg	40	☼	8260C	Total/NA
Toluene	2900	J	6100	1600	ug/Kg	40	☼	8260C	Total/NA
Xylenes, Total	29000		12000	3400	ug/Kg	40	☼	8260C	Total/NA
Aluminum	12800		18.4	15.8	mg/Kg	1	☼	6010C	Total/NA
Arsenic	40.2		3.7	1.6	mg/Kg	1	☼	6010C	Total/NA
Barium	423		0.92	0.26	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.61		0.37	0.074	mg/Kg	1	☼	6010C	Total/NA
Cadmium	4.5		0.37	0.13	mg/Kg	1	☼	6010C	Total/NA
Calcium	28300		91.9	49.6	mg/Kg	1	☼	6010C	Total/NA
Chromium	4650		91.9	66.2	mg/Kg	100	☼	6010C	Total/NA
Cobalt	18.9		0.92	0.18	mg/Kg	1	☼	6010C	Total/NA
Copper	300		1.8	1.0	mg/Kg	1	☼	6010C	Total/NA
Iron	27900	B	18.4	15.6	mg/Kg	1	☼	6010C	Total/NA
Lead	6950		1.8	0.85	mg/Kg	1	☼	6010C	Total/NA
Magnesium	7170		36.8	15.6	mg/Kg	1	☼	6010C	Total/NA
Manganese	344		1.8	0.51	mg/Kg	1	☼	6010C	Total/NA
Nickel	460		9.2	0.46	mg/Kg	1	☼	6010C	Total/NA
Potassium	2360		55.2	44.6	mg/Kg	1	☼	6010C	Total/NA
Selenium	7.7		7.4	1.5	mg/Kg	1	☼	6010C	Total/NA
Silver	0.46	J	1.1	0.37	mg/Kg	1	☼	6010C	Total/NA
Sodium	1890		257	113	mg/Kg	1	☼	6010C	Total/NA
Vanadium	314		0.92	0.24	mg/Kg	1	☼	6010C	Total/NA
Zinc	2260		3.7	1.9	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SED-11 (Continued) — Lab Sample ID: 480-220474-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	3.8		0.37	0.085	mg/Kg	10	☼	7471B	Total/NA
Cyanide, Total	7.3	F1	1.9	0.91	mg/Kg	1	☼	9012B	Total/NA
Total Organic Carbon	255000	^2	1920	1860	mg/Kg	1	☼	EPA-Lloyd Kahn	Total/NA
Total Organic Carbon	275000	H	1920	1860	mg/Kg	1	☼	EPA-Lloyd Kahn	Total/NA

Client Sample ID: SED-11-FD — Lab Sample ID: 480-220474-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichlorobenzene	2000	J	6900	1800	ug/Kg	40	☼	8260C	Total/NA
Benzene	170000		6900	1300	ug/Kg	40	☼	8260C	Total/NA
Cyclohexane	16000		6900	1500	ug/Kg	40	☼	8260C	Total/NA
Ethylbenzene	120000		6900	2000	ug/Kg	40	☼	8260C	Total/NA
Isopropylbenzene	13000		6900	1000	ug/Kg	40	☼	8260C	Total/NA
Methylcyclohexane	50000		6900	3200	ug/Kg	40	☼	8260C	Total/NA
Toluene	4000	J	6900	1800	ug/Kg	40	☼	8260C	Total/NA
Xylenes, Total	46000		14000	3800	ug/Kg	40	☼	8260C	Total/NA
Aluminum	16600		17.6	15.2	mg/Kg	1	☼	6010C	Total/NA
Arsenic	64.8		3.5	1.5	mg/Kg	1	☼	6010C	Total/NA
Barium	609		0.88	0.25	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.67		0.35	0.070	mg/Kg	1	☼	6010C	Total/NA
Cadmium	5.0		0.35	0.12	mg/Kg	1	☼	6010C	Total/NA
Calcium	48700		87.9	47.5	mg/Kg	1	☼	6010C	Total/NA
Chromium	8690		87.9	63.3	mg/Kg	100	☼	6010C	Total/NA
Cobalt	19.1		0.88	0.18	mg/Kg	1	☼	6010C	Total/NA
Copper	513		1.8	1.0	mg/Kg	1	☼	6010C	Total/NA
Iron	32000	B	17.6	14.9	mg/Kg	1	☼	6010C	Total/NA
Lead	5610		1.8	0.81	mg/Kg	1	☼	6010C	Total/NA
Magnesium	9150		35.2	14.9	mg/Kg	1	☼	6010C	Total/NA
Manganese	458		1.8	0.49	mg/Kg	1	☼	6010C	Total/NA
Nickel	542		8.8	0.44	mg/Kg	1	☼	6010C	Total/NA
Potassium	2220		52.8	42.6	mg/Kg	1	☼	6010C	Total/NA
Selenium	9.5		7.0	1.4	mg/Kg	1	☼	6010C	Total/NA
Silver	0.35	J	1.1	0.35	mg/Kg	1	☼	6010C	Total/NA
Sodium	2400		246	108	mg/Kg	1	☼	6010C	Total/NA
Thallium	2.1	J	10.6	1.3	mg/Kg	1	☼	6010C	Total/NA
Vanadium	388		0.88	0.23	mg/Kg	1	☼	6010C	Total/NA
Zinc	2720		3.5	1.8	mg/Kg	1	☼	6010C	Total/NA
Cyanide, Total	7.9		1.6	0.76	mg/Kg	1	☼	9012B	Total/NA
Total Organic Carbon	302000	^2	1830	1770	mg/Kg	1	☼	EPA-Lloyd Kahn	Total/NA
Total Organic Carbon	284000	H	1830	1770	mg/Kg	1	☼	EPA-Lloyd Kahn	Total/NA

Client Sample ID: SED-12 — Lab Sample ID: 480-220474-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichlorobenzene	13000	J	15000	3700	ug/Kg	80	☼	8260C	Total/NA
1,4-Dichlorobenzene	9300	J	15000	2100	ug/Kg	80	☼	8260C	Total/NA
Benzene	320000		15000	2800	ug/Kg	80	☼	8260C	Total/NA
Chlorobenzene	61000		15000	1900	ug/Kg	80	☼	8260C	Total/NA
Cyclohexane	17000		15000	3300	ug/Kg	80	☼	8260C	Total/NA
Ethylbenzene	230000		15000	4300	ug/Kg	80	☼	8260C	Total/NA
Isopropylbenzene	24000		15000	2200	ug/Kg	80	☼	8260C	Total/NA
Methylcyclohexane	52000		15000	6900	ug/Kg	80	☼	8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SED-12 (Continued)

Lab Sample ID: 480-220474-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Xylenes, Total	11000	J	29000	8100	ug/Kg	80	☼	8260C	Total/NA
Perfluoropentanoic acid (PFPeA)	0.82		0.67	0.17	ug/Kg	1	☼	1633	Total/NA
Perfluorooctanoic acid (PFOA)	1.1		0.33	0.084	ug/Kg	1	☼	1633	Total/NA
Perfluorononanoic acid (PFNA)	2.5		0.33	0.084	ug/Kg	1	☼	1633	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.27	J I	0.33	0.084	ug/Kg	1	☼	1633	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.58		0.33	0.084	ug/Kg	1	☼	1633	Total/NA
Perfluorooctanesulfonamide (PFOSA)	1.8	I	0.33	0.084	ug/Kg	1	☼	1633	Total/NA
N-ethylperfluorooctane sulfonamide (NEtFOSA)	0.12	J I	0.33	0.084	ug/Kg	1	☼	1633	Total/NA
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.41		0.33	0.084	ug/Kg	1	☼	1633	Total/NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.0		0.34	0.086	ug/Kg	1	☼	1633	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.43	I	0.33	0.084	ug/Kg	1	☼	1633	Total/NA
Aluminum	15900		20.7	17.9	mg/Kg	1	☼	6010C	Total/NA
Arsenic	49.2		4.1	1.8	mg/Kg	1	☼	6010C	Total/NA
Barium	553		1.0	0.29	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.76		0.41	0.083	mg/Kg	1	☼	6010C	Total/NA
Cadmium	6.0		0.41	0.15	mg/Kg	1	☼	6010C	Total/NA
Calcium	41900		104	56.0	mg/Kg	1	☼	6010C	Total/NA
Chromium	9550		104	74.7	mg/Kg	100	☼	6010C	Total/NA
Cobalt	21.6		1.0	0.21	mg/Kg	1	☼	6010C	Total/NA
Copper	369		2.1	1.2	mg/Kg	1	☼	6010C	Total/NA
Iron	32100	B	20.7	17.6	mg/Kg	1	☼	6010C	Total/NA
Lead	16400		207	95.4	mg/Kg	100	☼	6010C	Total/NA
Magnesium	7610		41.5	17.6	mg/Kg	1	☼	6010C	Total/NA
Manganese	460		2.1	0.58	mg/Kg	1	☼	6010C	Total/NA
Nickel	443		10.4	0.52	mg/Kg	1	☼	6010C	Total/NA
Potassium	2350		62.2	50.3	mg/Kg	1	☼	6010C	Total/NA
Selenium	10.3		8.3	1.7	mg/Kg	1	☼	6010C	Total/NA
Silver	0.62	J	1.2	0.41	mg/Kg	1	☼	6010C	Total/NA
Sodium	846		290	127	mg/Kg	1	☼	6010C	Total/NA
Vanadium	497		1.0	0.27	mg/Kg	1	☼	6010C	Total/NA
Zinc	3100		4.1	2.1	mg/Kg	1	☼	6010C	Total/NA
Mercury	5.3		0.41	0.093	mg/Kg	10	☼	7471B	Total/NA
Cyanide, Total	9.9		1.9	0.90	mg/Kg	1	☼	9012B	Total/NA
Total Organic Carbon	203000	^2	2060	2000	mg/Kg	1	☼	EPA-Lloyd Kahn	Total/NA
Total Organic Carbon	190000	H	2060	2000	mg/Kg	1	☼	EPA-Lloyd Kahn	Total/NA

Client Sample ID: SED-13

Lab Sample ID: 480-220474-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	180000		31000	5800	ug/Kg	80	☼	8260C	Total/NA
Cyclohexane	11000	J	31000	6800	ug/Kg	80	☼	8260C	Total/NA
Ethylbenzene	130000		31000	8900	ug/Kg	80	☼	8260C	Total/NA
Isopropylbenzene	15000	J	31000	4600	ug/Kg	80	☼	8260C	Total/NA
Methylcyclohexane	47000		31000	14000	ug/Kg	80	☼	8260C	Total/NA
Aluminum	19300		22.9	19.8	mg/Kg	1	☼	6010C	Total/NA
Arsenic	60.1		4.6	2.0	mg/Kg	1	☼	6010C	Total/NA
Barium	406		1.1	0.32	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.73		0.46	0.092	mg/Kg	1	☼	6010C	Total/NA
Cadmium	4.3		0.46	0.16	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SED-13 (Continued)

Lab Sample ID: 480-220474-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	34700		115	61.9	mg/Kg	1	☼	6010C	Total/NA
Chromium	7760		115	82.6	mg/Kg	100	☼	6010C	Total/NA
Cobalt	17.1		1.1	0.23	mg/Kg	1	☼	6010C	Total/NA
Copper	362		2.3	1.3	mg/Kg	1	☼	6010C	Total/NA
Iron	32200	B	22.9	19.5	mg/Kg	1	☼	6010C	Total/NA
Lead	4270		2.3	1.1	mg/Kg	1	☼	6010C	Total/NA
Magnesium	9090		45.9	19.5	mg/Kg	1	☼	6010C	Total/NA
Manganese	416		2.3	0.64	mg/Kg	1	☼	6010C	Total/NA
Nickel	356		11.5	0.57	mg/Kg	1	☼	6010C	Total/NA
Potassium	3070		68.8	55.6	mg/Kg	1	☼	6010C	Total/NA
Selenium	8.6	J	9.2	1.8	mg/Kg	1	☼	6010C	Total/NA
Sodium	732		321	141	mg/Kg	1	☼	6010C	Total/NA
Vanadium	226		1.1	0.30	mg/Kg	1	☼	6010C	Total/NA
Zinc	2860		4.6	2.3	mg/Kg	1	☼	6010C	Total/NA
Mercury	3.5		0.042	0.0097	mg/Kg	1	☼	7471B	Total/NA
Cyanide, Total	6.2		2.2	1.0	mg/Kg	1	☼	9012B	Total/NA
Total Organic Carbon	390000	^2	2200	2140	mg/Kg	1	☼	EPA-Lloyd Kahn	Total/NA
Total Organic Carbon	342000	H	2200	2140	mg/Kg	1	☼	EPA-Lloyd Kahn	Total/NA

Client Sample ID: SED-14

Lab Sample ID: 480-220474-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichlorobenzene	1400	J	3800	980	ug/Kg	40	☼	8260C	Total/NA
Benzene	170000		3800	730	ug/Kg	40	☼	8260C	Total/NA
Cyclohexane	9500		3800	850	ug/Kg	40	☼	8260C	Total/NA
Ethylbenzene	71000		3800	1100	ug/Kg	40	☼	8260C	Total/NA
Isopropylbenzene	6800		3800	580	ug/Kg	40	☼	8260C	Total/NA
Methylcyclohexane	24000		3800	1800	ug/Kg	40	☼	8260C	Total/NA
Toluene	1000	J	3800	1000	ug/Kg	40	☼	8260C	Total/NA
Xylenes, Total	3900	J	7700	2100	ug/Kg	40	☼	8260C	Total/NA
Aluminum	41000		15.2	13.1	mg/Kg	1	☼	6010C	Total/NA
Arsenic	103		3.0	1.3	mg/Kg	1	☼	6010C	Total/NA
Barium	300		0.76	0.21	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.73		0.30	0.061	mg/Kg	1	☼	6010C	Total/NA
Cadmium	3.0		0.30	0.11	mg/Kg	1	☼	6010C	Total/NA
Calcium	33600		76.2	41.1	mg/Kg	1	☼	6010C	Total/NA
Chromium	2830		76.2	54.9	mg/Kg	100	☼	6010C	Total/NA
Cobalt	13.5		0.76	0.15	mg/Kg	1	☼	6010C	Total/NA
Copper	406		1.5	0.87	mg/Kg	1	☼	6010C	Total/NA
Iron	28100	B	15.2	12.9	mg/Kg	1	☼	6010C	Total/NA
Lead	2630		1.5	0.70	mg/Kg	1	☼	6010C	Total/NA
Magnesium	7170		30.5	12.9	mg/Kg	1	☼	6010C	Total/NA
Manganese	405		1.5	0.43	mg/Kg	1	☼	6010C	Total/NA
Nickel	358		7.6	0.38	mg/Kg	1	☼	6010C	Total/NA
Potassium	1670		45.7	36.9	mg/Kg	1	☼	6010C	Total/NA
Selenium	5.1	J	6.1	1.2	mg/Kg	1	☼	6010C	Total/NA
Sodium	1220		213	93.4	mg/Kg	1	☼	6010C	Total/NA
Vanadium	354		0.76	0.20	mg/Kg	1	☼	6010C	Total/NA
Zinc	1220		3.0	1.6	mg/Kg	1	☼	6010C	Total/NA
Mercury	12.8		0.29	0.068	mg/Kg	10	☼	7471B	Total/NA
Cyanide, Total	3.6	J	6.3	3.0	mg/Kg	5	☼	9012B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SED-14 (Continued) — Lab Sample ID: 480-220474-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Organic Carbon	211000	^2	1500	1460	mg/Kg	1	☼	EPA-Lloyd Kahn	Total/NA
Total Organic Carbon	220000	H	1500	1460	mg/Kg	1	☼	EPA-Lloyd Kahn	Total/NA

Client Sample ID: SED-15 — Lab Sample ID: 480-220474-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichlorobenzene	1400	J	2500	650	ug/Kg	40	☼	8260C	Total/NA
1,4-Dichlorobenzene	1300	J	2500	350	ug/Kg	40	☼	8260C	Total/NA
Benzene	3500		2500	480	ug/Kg	40	☼	8260C	Total/NA
Chlorobenzene	12000		2500	330	ug/Kg	40	☼	8260C	Total/NA
Cyclohexane	5300		2500	560	ug/Kg	40	☼	8260C	Total/NA
Isopropylbenzene	3700		2500	380	ug/Kg	40	☼	8260C	Total/NA
Methylcyclohexane	18000		2500	1200	ug/Kg	40	☼	8260C	Total/NA
Aluminum	7080		12.2	10.5	mg/Kg	1	☼	6010C	Total/NA
Antimony	2.4	J	18.3	0.65	mg/Kg	1	☼	6010C	Total/NA
Arsenic	31.3		2.4	1.1	mg/Kg	1	☼	6010C	Total/NA
Barium	148		0.61	0.17	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.41		0.24	0.049	mg/Kg	1	☼	6010C	Total/NA
Cadmium	1.5		0.24	0.085	mg/Kg	1	☼	6010C	Total/NA
Calcium	40300		60.9	32.9	mg/Kg	1	☼	6010C	Total/NA
Chromium	182		0.61	0.44	mg/Kg	1	☼	6010C	Total/NA
Cobalt	17.8		0.61	0.12	mg/Kg	1	☼	6010C	Total/NA
Copper	11700		122	69.4	mg/Kg	100	☼	6010C	Total/NA
Iron	48100	B	12.2	10.3	mg/Kg	1	☼	6010C	Total/NA
Lead	472		1.2	0.56	mg/Kg	1	☼	6010C	Total/NA
Magnesium	13300		24.4	10.3	mg/Kg	1	☼	6010C	Total/NA
Manganese	539		1.2	0.34	mg/Kg	1	☼	6010C	Total/NA
Nickel	375		6.1	0.30	mg/Kg	1	☼	6010C	Total/NA
Potassium	1210		36.5	29.5	mg/Kg	1	☼	6010C	Total/NA
Selenium	8.0		4.9	0.97	mg/Kg	1	☼	6010C	Total/NA
Silver	0.74		0.73	0.24	mg/Kg	1	☼	6010C	Total/NA
Sodium	394		170	74.7	mg/Kg	1	☼	6010C	Total/NA
Vanadium	59.3		0.61	0.16	mg/Kg	1	☼	6010C	Total/NA
Zinc	2390		2.4	1.2	mg/Kg	1	☼	6010C	Total/NA
Mercury	1.4		0.024	0.0055	mg/Kg	1	☼	7471B	Total/NA
Cyanide, Total	6.6		5.5	2.7	mg/Kg	5	☼	9012B	Total/NA
Total Organic Carbon	155000	^2	1230	1190	mg/Kg	1	☼	EPA-Lloyd Kahn	Total/NA
Total Organic Carbon	177000	H	1230	1190	mg/Kg	1	☼	EPA-Lloyd Kahn	Total/NA

Client Sample ID: SED-06 — Lab Sample ID: 480-220474-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2,4-Dinitrotoluene	56000	J F1	150000	31000	ug/Kg	5		8270D	Total/NA
2-Methylnaphthalene	450000	F1	150000	30000	ug/Kg	5		8270D	Total/NA
Acenaphthene	26000	J	150000	22000	ug/Kg	5		8270D	Total/NA
Benzo[a]anthracene	35000	J F1	150000	15000	ug/Kg	5		8270D	Total/NA
Chrysene	59000	J F1	150000	34000	ug/Kg	5		8270D	Total/NA
Di-n-octyl phthalate	24000	J F2	150000	18000	ug/Kg	5		8270D	Total/NA
Fluoranthene	24000	J F2	150000	16000	ug/Kg	5		8270D	Total/NA
Fluorene	52000	J F1	150000	18000	ug/Kg	5		8270D	Total/NA
Naphthalene	150000		150000	19000	ug/Kg	5		8270D	Total/NA
Phenanthrene	220000	F1	150000	22000	ug/Kg	5		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SED-06 (Continued) — Lab Sample ID: 480-220474-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pyrene	56000	J F1	150000	18000	ug/Kg	5		8270D	Total/NA

Client Sample ID: SED-07 — Lab Sample ID: 480-220474-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	380000		300000	60000	ug/Kg	10		8270D	Total/NA
Fluorene	62000	J	300000	35000	ug/Kg	10		8270D	Total/NA
Naphthalene	200000	J	300000	39000	ug/Kg	10		8270D	Total/NA
Phenanthrene	330000		300000	44000	ug/Kg	10		8270D	Total/NA
Pyrene	92000	J	300000	35000	ug/Kg	10		8270D	Total/NA

Client Sample ID: SED-08 — Lab Sample ID: 480-220474-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Biphenyl	15000	J	43000	6300	ug/Kg	1		8270D	Total/NA
2-Methylnaphthalene	170000		43000	8500	ug/Kg	1		8270D	Total/NA
Acenaphthene	18000	J	43000	6300	ug/Kg	1		8270D	Total/NA
Acenaphthylene	15000	J	43000	5500	ug/Kg	1		8270D	Total/NA
Anthracene	46000		43000	11000	ug/Kg	1		8270D	Total/NA
Benzo[a]anthracene	45000		43000	4300	ug/Kg	1		8270D	Total/NA
Benzo[a]pyrene	36000	J	43000	6300	ug/Kg	1		8270D	Total/NA
Benzo[b]fluoranthene	32000	J	43000	6800	ug/Kg	1		8270D	Total/NA
Benzo[g,h,i]perylene	19000	J	43000	4500	ug/Kg	1		8270D	Total/NA
Benzo[k]fluoranthene	15000	J	43000	5500	ug/Kg	1		8270D	Total/NA
Carbazole	24000	J	43000	5000	ug/Kg	1		8270D	Total/NA
Chrysene	60000		43000	9500	ug/Kg	1		8270D	Total/NA
Dibenzofuran	46000		43000	5000	ug/Kg	1		8270D	Total/NA
Fluoranthene	120000		43000	4500	ug/Kg	1		8270D	Total/NA
Fluorene	75000		43000	5000	ug/Kg	1		8270D	Total/NA
Indeno[1,2,3-cd]pyrene	13000	J	43000	5300	ug/Kg	1		8270D	Total/NA
Naphthalene	410000		43000	5500	ug/Kg	1		8270D	Total/NA
Phenanthrene	260000		43000	6300	ug/Kg	1		8270D	Total/NA
Pyrene	98000		43000	5000	ug/Kg	1		8270D	Total/NA

Client Sample ID: SED-08-FD — Lab Sample ID: 480-220474-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	710000		320000	64000	ug/Kg	10		8270D	Total/NA
Acenaphthene	69000	J	320000	47000	ug/Kg	10		8270D	Total/NA
Acenaphthylene	57000	J	320000	41000	ug/Kg	10		8270D	Total/NA
Anthracene	140000	J	320000	79000	ug/Kg	10		8270D	Total/NA
Benzo[a]anthracene	150000	J	320000	32000	ug/Kg	10		8270D	Total/NA
Benzo[a]pyrene	120000	J	320000	47000	ug/Kg	10		8270D	Total/NA
Benzo[b]fluoranthene	100000	J	320000	51000	ug/Kg	10		8270D	Total/NA
Benzo[g,h,i]perylene	73000	J	320000	34000	ug/Kg	10		8270D	Total/NA
Benzo[k]fluoranthene	49000	J	320000	41000	ug/Kg	10		8270D	Total/NA
Carbazole	84000	J	320000	38000	ug/Kg	10		8270D	Total/NA
Chrysene	180000	J	320000	71000	ug/Kg	10		8270D	Total/NA
Dibenzofuran	140000	J	320000	38000	ug/Kg	10		8270D	Total/NA
Fluoranthene	350000		320000	34000	ug/Kg	10		8270D	Total/NA
Fluorene	230000	J	320000	38000	ug/Kg	10		8270D	Total/NA
Indeno[1,2,3-cd]pyrene	52000	J	320000	39000	ug/Kg	10		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SED-08-FD (Continued) — Lab Sample ID: 480-220474-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	1400000		320000	41000	ug/Kg	10		8270D	Total/NA
Phenanthrene	860000		320000	47000	ug/Kg	10		8270D	Total/NA
Pyrene	310000	J	320000	38000	ug/Kg	10		8270D	Total/NA

Client Sample ID: SED-09 — Lab Sample ID: 480-220474-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	420000		160000	32000	ug/Kg	5		8270D	Total/NA
Chrysene	50000	J	160000	36000	ug/Kg	5		8270D	Total/NA
Fluoranthene	43000	J	160000	17000	ug/Kg	5		8270D	Total/NA
Fluorene	56000	J	160000	19000	ug/Kg	5		8270D	Total/NA
Phenanthrene	220000		160000	23000	ug/Kg	5		8270D	Total/NA
Pyrene	53000	J	160000	19000	ug/Kg	5		8270D	Total/NA

Client Sample ID: SED-10 — Lab Sample ID: 480-220474-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Biphenyl	60000	J	300000	44000	ug/Kg	10		8270D	Total/NA
2-Methylnaphthalene	620000		300000	60000	ug/Kg	10		8270D	Total/NA
Acenaphthene	63000	J	300000	44000	ug/Kg	10		8270D	Total/NA
Acenaphthylene	110000	J	300000	39000	ug/Kg	10		8270D	Total/NA
Anthracene	220000	J	300000	74000	ug/Kg	10		8270D	Total/NA
Benzo[a]anthracene	200000	J	300000	30000	ug/Kg	10		8270D	Total/NA
Benzo[a]pyrene	130000	J	300000	44000	ug/Kg	10		8270D	Total/NA
Benzo[b]fluoranthene	150000	J	300000	48000	ug/Kg	10		8270D	Total/NA
Benzo[g,h,i]perylene	74000	J	300000	32000	ug/Kg	10		8270D	Total/NA
Benzo[k]fluoranthene	71000	J	300000	39000	ug/Kg	10		8270D	Total/NA
Carbazole	130000	J	300000	35000	ug/Kg	10		8270D	Total/NA
Chrysene	210000	J	300000	67000	ug/Kg	10		8270D	Total/NA
Dibenzofuran	270000	J	300000	35000	ug/Kg	10		8270D	Total/NA
Fluoranthene	550000		300000	32000	ug/Kg	10		8270D	Total/NA
Fluorene	390000		300000	35000	ug/Kg	10		8270D	Total/NA
Indeno[1,2,3-cd]pyrene	55000	J	300000	37000	ug/Kg	10		8270D	Total/NA
Naphthalene	2400000		300000	39000	ug/Kg	10		8270D	Total/NA
Phenanthrene	1100000		300000	44000	ug/Kg	10		8270D	Total/NA
Pyrene	370000		300000	35000	ug/Kg	10		8270D	Total/NA

Client Sample ID: SED-11 — Lab Sample ID: 480-220474-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	620000		280000	57000	ug/Kg	10		8270D	Total/NA
Acenaphthylene	38000	J	280000	37000	ug/Kg	10		8270D	Total/NA
Anthracene	71000	J	280000	70000	ug/Kg	10		8270D	Total/NA
Benzo[a]anthracene	84000	J	280000	28000	ug/Kg	10		8270D	Total/NA
Benzo[a]pyrene	56000	J	280000	42000	ug/Kg	10		8270D	Total/NA
Benzo[b]fluoranthene	62000	J	280000	45000	ug/Kg	10		8270D	Total/NA
Benzo[g,h,i]perylene	37000	J	280000	30000	ug/Kg	10		8270D	Total/NA
Carbazole	36000	J	280000	33000	ug/Kg	10		8270D	Total/NA
Chrysene	93000	J	280000	63000	ug/Kg	10		8270D	Total/NA
Dibenzofuran	67000	J	280000	33000	ug/Kg	10		8270D	Total/NA
Fluoranthene	180000	J	280000	30000	ug/Kg	10		8270D	Total/NA
Fluorene	130000	J	280000	33000	ug/Kg	10		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SED-11 (Continued) — Lab Sample ID: 480-220474-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	540000		280000	37000	ug/Kg	10		8270D	Total/NA
Phenanthrene	440000		280000	42000	ug/Kg	10		8270D	Total/NA
Pyrene	130000	J	280000	33000	ug/Kg	10		8270D	Total/NA

Client Sample ID: SED-11-FD — Lab Sample ID: 480-220474-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	470000		270000	54000	ug/Kg	10		8270D	Total/NA
Benzo[a]anthracene	47000	J	270000	27000	ug/Kg	10		8270D	Total/NA
Dibenzofuran	41000	J	270000	32000	ug/Kg	10		8270D	Total/NA
Fluoranthene	95000	J	270000	28000	ug/Kg	10		8270D	Total/NA
Fluorene	90000	J	270000	32000	ug/Kg	10		8270D	Total/NA
Naphthalene	380000		270000	35000	ug/Kg	10		8270D	Total/NA
Phenanthrene	280000		270000	39000	ug/Kg	10		8270D	Total/NA
Pyrene	78000	J	270000	32000	ug/Kg	10		8270D	Total/NA

Client Sample ID: SED-12 — Lab Sample ID: 480-220474-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	710000		36000	7300	ug/Kg	1		8270D	Total/NA
Acenaphthene	37000		36000	5400	ug/Kg	1		8270D	Total/NA
Anthracene	20000	J	36000	9000	ug/Kg	1		8270D	Total/NA
Benzo[a]anthracene	11000	J	36000	3600	ug/Kg	1		8270D	Total/NA
Carbazole	6900	J	36000	4300	ug/Kg	1		8270D	Total/NA
Chrysene	20000	J	36000	8100	ug/Kg	1		8270D	Total/NA
Dibenzofuran	36000		36000	4300	ug/Kg	1		8270D	Total/NA
Fluoranthene	11000	J	36000	3900	ug/Kg	1		8270D	Total/NA
Fluorene	66000		36000	4300	ug/Kg	1		8270D	Total/NA
Naphthalene	120000		36000	4700	ug/Kg	1		8270D	Total/NA
N-Nitrosodiphenylamine	140000		36000	30000	ug/Kg	1		8270D	Total/NA
Phenanthrene	190000		36000	5400	ug/Kg	1		8270D	Total/NA
Pyrene	23000	J	36000	4300	ug/Kg	1		8270D	Total/NA

Client Sample ID: SED-13 — Lab Sample ID: 480-220474-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	460000		280000	57000	ug/Kg	10		8270D	Total/NA
Benzo[a]anthracene	65000	J	280000	28000	ug/Kg	10		8270D	Total/NA
Benzo[a]pyrene	42000	J	280000	42000	ug/Kg	10		8270D	Total/NA
Chrysene	78000	J	280000	63000	ug/Kg	10		8270D	Total/NA
Dibenzofuran	51000	J	280000	33000	ug/Kg	10		8270D	Total/NA
Fluoranthene	130000	J	280000	30000	ug/Kg	10		8270D	Total/NA
Fluorene	100000	J	280000	33000	ug/Kg	10		8270D	Total/NA
Naphthalene	440000		280000	37000	ug/Kg	10		8270D	Total/NA
Phenanthrene	350000		280000	42000	ug/Kg	10		8270D	Total/NA
Pyrene	110000	J	280000	33000	ug/Kg	10		8270D	Total/NA

Client Sample ID: SED-14 — Lab Sample ID: 480-220474-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	470000		270000	54000	ug/Kg	10		8270D	Total/NA
Chrysene	91000	J	270000	60000	ug/Kg	10		8270D	Total/NA
Fluoranthene	110000	J	270000	28000	ug/Kg	10		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SED-14 (Continued)

Lab Sample ID: 480-220474-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluorene	83000	J	270000	32000	ug/Kg	10		8270D	Total/NA
Naphthalene	300000		270000	35000	ug/Kg	10		8270D	Total/NA
Phenanthrene	270000		270000	39000	ug/Kg	10		8270D	Total/NA
Pyrene	92000	J	270000	32000	ug/Kg	10		8270D	Total/NA

Client Sample ID: SED-15

Lab Sample ID: 480-220474-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	67000		27000	5400	ug/Kg	1		8270D	Total/NA
Fluoranthene	3700	J	27000	2800	ug/Kg	1		8270D	Total/NA
Fluorene	7900	J	27000	3200	ug/Kg	1		8270D	Total/NA
Phenanthrene	27000		27000	3900	ug/Kg	1		8270D	Total/NA
Pyrene	5800	J	27000	3200	ug/Kg	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220474-1

Client Sample ID: SED-06
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-1
Matrix: Solid
Percent Solids: 57.8

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	F2	5900	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
1,1,2,2-Tetrachloroethane	ND	F1 F2	5900	950	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5900	2900	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
1,1,2-Trichloroethane	ND	F1 F2	5900	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
1,1-Dichloroethane	ND	F2	5900	1800	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
1,1-Dichloroethene	ND	F2	5900	2000	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
1,2,4-Trichlorobenzene	ND	F1	5900	2200	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
1,2-Dibromo-3-Chloropropane	ND	F2	5900	2900	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
1,2-Dichlorobenzene	ND	F2 F1	5900	1500	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
1,2-Dichloroethane	ND	F2 F1	5900	2400	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
1,2-Dichloropropane	ND	F2 F1	5900	950	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
1,3-Dichlorobenzene	ND	F2	5900	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
1,4-Dichlorobenzene	ND	F2	5900	820	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
2-Butanone (MEK)	ND	F2	29000	17000	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
2-Hexanone	ND	F1 F2	29000	12000	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
4-Methyl-2-pentanone (MIBK)	ND	F2 F1	29000	1900	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Acetone	ND		29000	24000	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Benzene	**99000**	**F2**	5900	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Bromoform	ND	F2	5900	2900	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Bromomethane	ND	F1 F2	5900	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Carbon disulfide	ND	F2	5900	2700	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Carbon tetrachloride	ND	F2	5900	1500	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Chlorobenzene	ND	F1 F2	5900	770	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Dibromochloromethane	ND	F2	5900	2800	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Chloroethane	ND	F2	5900	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Chloroform	ND	F2	5900	4000	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Chloromethane	ND	F2	5900	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
cis-1,2-Dichloroethene	ND	F2	5900	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Cyclohexane	**6500**	**F1 F2**	5900	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Bromodichloromethane	ND	F1 F2	5900	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Dichlorodifluoromethane	ND	F1	5900	2600	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Ethylbenzene	**36000**	**F2**	5900	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
1,2-Dibromoethane	ND	F1 F2	5900	1000	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Isopropylbenzene	**3300**	**J F1 F2**	5900	880	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Methyl acetate	ND	F1 F2	29000	2800	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Methyl tert-butyl ether	ND	F2 F1	5900	2200	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Methylcyclohexane	**14000**	**F1 F2**	5900	2700	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Methylene Chloride	ND	F2 F1	5900	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Tetrachloroethene	ND	F2	5900	790	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Toluene	ND	F1 F2	5900	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
trans-1,2-Dichloroethene	ND	F2	5900	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
trans-1,3-Dichloropropene	ND	F2 F1	5900	580	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Trichloroethene	ND	F2 F1	5900	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Trichlorofluoromethane	ND		5900	2700	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Vinyl chloride	ND	F2	5900	2000	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Xylenes, Total	ND	F1 F2	12000	3200	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
cis-1,3-Dichloropropene	ND	F2 F1	5900	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40
Styrene	ND	F2	5900	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 14:09	40

Client Sample ID: SED-06
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-1
Matrix: Solid
Percent Solids: 57.8

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Indane	21000	T H J N	ug/Kg	☼	10.40	496-11-7	06/06/24 09:16	06/06/24 14:09	40
Benzene, 4-ethyl-1,2-dimethyl-	17000	T H J N	ug/Kg	☼	10.85	934-80-5	06/06/24 09:16	06/06/24 14:09	40
Unknown	54000	T H J	ug/Kg	☼	11.62	N/A	06/06/24 09:16	06/06/24 14:09	40
1H-Indene, 1-methylene-	110000	T H J N	ug/Kg	☼	12.18	2471-84-3	06/06/24 09:16	06/06/24 14:09	40
Unknown	160000	T H J	ug/Kg	☼	13.10	N/A	06/06/24 09:16	06/06/24 14:09	40
Naphthalene, 2-methyl-	88000	T H J N	ug/Kg	☼	13.26	91-57-6	06/06/24 09:16	06/06/24 14:09	40
Naphthalene, 1-ethyl-	30000	T H J N	ug/Kg	☼	13.83	1127-76-0	06/06/24 09:16	06/06/24 14:09	40
Naphthalene, 2,6-dimethyl-	55000	T H J N	ug/Kg	☼	13.91	581-42-0	06/06/24 09:16	06/06/24 14:09	40
Naphthalene, 2,3-dimethyl-	69000	T H J N	ug/Kg	☼	14.03	581-40-8	06/06/24 09:16	06/06/24 14:09	40
Naphthalene, 1,6-dimethyl-	24000	T H J N	ug/Kg	☼	14.21	575-43-9	06/06/24 09:16	06/06/24 14:09	40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		53 - 146	06/06/24 09:16	06/06/24 14:09	40
4-Bromofluorobenzene (Surr)	102		49 - 148	06/06/24 09:16	06/06/24 14:09	40
Toluene-d8 (Surr)	98		50 - 149	06/06/24 09:16	06/06/24 14:09	40
Dibromofluoromethane (Surr)	96		60 - 140	06/06/24 09:16	06/06/24 14:09	40

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanoic acid (PFNA)	**9.0**		0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
Perfluorodecanoic acid (PFDA)	ND		0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
Perfluoroundecanoic acid (PFUnA)	ND		0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
Perfluorododecanoic acid (PFDoA)	ND		0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
Perfluorononanesulfonic acid (PFNS)	ND		0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	**1.0**	**J I**	1.1	0.28	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1.1	0.28	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	**0.085**	**J**	0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	**0.17**	**J *+**	0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/12/24 18:28	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		2.8	0.69	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		2.8	0.69	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1

Client Sample ID: SED-06
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-1
Matrix: Solid
Percent Solids: 57.8

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorodecanesulfonic acid (PFDS)	0.84	I	0.28	0.069	ug/Kg	☼	06/06/24 15:07	06/07/24 21:52	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*2.18*	**5-*	*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
13C4 PFBA	*1.72*	**5-*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
13C5 PFPeA	*1.91*	**5-*	*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
13C5 PFPeA	*1.85*	**5-*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
13C5 PFHxA	*3.23*	**5-*	*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
13C5 PFHxA	*3.68*	*I *5-*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
13C4 PFHpA	*6.87*	**5-*	*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
13C4 PFHpA	*9.37*	**5-*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
13C8 PFOA	*14.1*	**5-*	*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
13C8 PFOA	*18.5*	**5-*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
13C9 PFNA	*53.4*		*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
13C9 PFNA	*38.5*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
13C6 PFDA	*53.9*		*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
13C6 PFDA	*73.2*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
13C7 PFUnA	*100*		*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
13C7 PFUnA	*1.73*	**5-*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
13C2 PFTeDA	*84.6*		*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
13C2 PFTeDA	*1.31*	**5-*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
13C3 PFBS	*29.7*	*I*	*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
13C3 PFBS	*20.1*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
13C3 PFHxS	*82.7*		*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
13C3 PFHxS	*55.8*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
13C8 PFOS	*144*	*I*	*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
13C8 PFOS	*3.82*	*I *5-*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
13C8 FOSA	*38.0*		*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
13C8 FOSA	*39.6*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
d3-NMeFOSAA	*69.7*		*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
d3-NMeFOSAA	*1.49*	**5-*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
d5-NEtFOSAA	*94.9*		*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
d5-NEtFOSAA	*97.7*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
M2-4:2 FTS	*13.1*	*I *5-*	*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
M2-4:2 FTS	*10.7*	*I *5-*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
M2-6:2 FTS	*37.5*	*I*	*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
M2-6:2 FTS	*37.3*	*I*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
M2-8:2 FTS	*123*	*I*	*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
M2-8:2 FTS	*153*	**5+*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
13C3 HFPO-DA	*2.58*	**5-*	*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
13C3 HFPO-DA	*3.24*	**5-*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
d7-N-MeFOSE-M	*27.2*		*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
d7-N-MeFOSE-M	*19.5*	**5-*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
d9-N-EtFOSE-M	*23.3*		*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
d9-N-EtFOSE-M	*15.5*	**5-*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
d5-NEtPFOSA	*64.7*		*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
d5-NEtPFOSA	*45.5*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*
d3-NMePFOSA	*59.2*		*20 - 150*	*06/06/24 15:07*	*06/07/24 21:52*	*1*
d3-NMePFOSA	*40.9*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:28*	*1*

Client Sample ID: SED-06
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-1
Matrix: Solid
Percent Solids: 57.8

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2-PFDoDA	89.7		20 - 150	06/06/24 15:07	06/07/24 21:52	1
13C2-PFDoDA	94.5		20 - 150	06/06/24 15:07	06/12/24 18:28	1

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		11	2.8	ug/Kg	☼	06/06/24 15:07	06/14/24 12:55	10
Perfluoropentanoic acid (PFPeA)	ND		5.5	1.4	ug/Kg	☼	06/06/24 15:07	06/14/24 12:55	10
Perfluorohexanoic acid (PFHxA)	ND		2.8	0.69	ug/Kg	☼	06/06/24 15:07	06/14/24 12:55	10
Perfluoroheptanoic acid (PFHpA)	ND		2.8	0.69	ug/Kg	☼	06/06/24 15:07	06/14/24 12:55	10
Perfluorooctanoic acid (PFOA)	**2.4**	**J I**	2.8	0.69	ug/Kg	☼	06/06/24 15:07	06/14/24 12:55	10
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		11	2.8	ug/Kg	☼	06/06/24 15:07	06/14/24 12:55	10
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		11	2.8	ug/Kg	☼	06/06/24 15:07	06/14/24 12:55	10
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		11	2.8	ug/Kg	☼	06/06/24 15:07	06/14/24 12:55	10
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		5.5	1.4	ug/Kg	☼	06/06/24 15:07	06/14/24 12:55	10
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		5.5	1.4	ug/Kg	☼	06/06/24 15:07	06/14/24 12:55	10
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		11	2.8	ug/Kg	☼	06/06/24 15:07	06/14/24 12:55	10
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		11	2.8	ug/Kg	☼	06/06/24 15:07	06/14/24 12:55	10
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		5.5	1.4	ug/Kg	☼	06/06/24 15:07	06/14/24 12:55	10
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		14	3.5	ug/Kg	☼	06/06/24 15:07	06/14/24 12:55	10
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		69	17	ug/Kg	☼	06/06/24 15:07	06/14/24 12:55	10
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		69	17	ug/Kg	☼	06/06/24 15:07	06/14/24 12:55	10
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		5.5	1.4	ug/Kg	☼	06/06/24 15:07	06/14/24 12:55	10

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	7.05	*5-	20 - 150	06/06/24 15:07	06/14/24 12:55	10
13C5 PFPeA	3.21	*5-	20 - 150	06/06/24 15:07	06/14/24 12:55	10
13C5 PFHxA	3.75	*5-	20 - 150	06/06/24 15:07	06/14/24 12:55	10
13C4 PFHpA	5.90	*5-	20 - 150	06/06/24 15:07	06/14/24 12:55	10
13C8 PFOA	18.7	*5-	20 - 150	06/06/24 15:07	06/14/24 12:55	10
13C9 PFNA	41.5		20 - 150	06/06/24 15:07	06/14/24 12:55	10
13C6 PFDA	66.8		20 - 150	06/06/24 15:07	06/14/24 12:55	10
13C7 PFUnA	97.3		20 - 150	06/06/24 15:07	06/14/24 12:55	10
13C2 PFTeDA	106		20 - 150	06/06/24 15:07	06/14/24 12:55	10
13C3 PFBS	15.2	I *5-	20 - 150	06/06/24 15:07	06/14/24 12:55	10
13C3 PFHxS	59.1		20 - 150	06/06/24 15:07	06/14/24 12:55	10
13C8 PFOS	84.7		20 - 150	06/06/24 15:07	06/14/24 12:55	10
13C8 FOSA	67.6		20 - 150	06/06/24 15:07	06/14/24 12:55	10
d3-NMeFOSAA	82.1		20 - 150	06/06/24 15:07	06/14/24 12:55	10
d5-NEtFOSAA	112		20 - 150	06/06/24 15:07	06/14/24 12:55	10
M2-4:2 FTS	12.6	I *5-	20 - 150	06/06/24 15:07	06/14/24 12:55	10
M2-6:2 FTS	11.6	*5-	20 - 150	06/06/24 15:07	06/14/24 12:55	10

Client Sample ID: SED-06
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-1
Matrix: Solid
Percent Solids: 57.8

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS - DL (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	88.7	I	20 - 150	06/06/24 15:07	06/14/24 12:55	10
13C3 HFPO-DA	2.99	*5-	20 - 150	06/06/24 15:07	06/14/24 12:55	10
d7-N-MeFOSE-M	48.2		20 - 150	06/06/24 15:07	06/14/24 12:55	10
d9-N-EtFOSE-M	35.4		20 - 150	06/06/24 15:07	06/14/24 12:55	10
d5-NEtPFOSA	67.9		20 - 150	06/06/24 15:07	06/14/24 12:55	10
d3-NMePFOSA	76.2		20 - 150	06/06/24 15:07	06/14/24 12:55	10
13C2-PFDoDA	105		20 - 150	06/06/24 15:07	06/14/24 12:55	10

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	7710		18.2	15.6	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Antimony	ND		27.2	0.96	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Arsenic	76.2		3.6	1.6	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Barium	1080		0.91	0.25	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Beryllium	0.50		0.36	0.073	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Cadmium	4.5		0.36	0.13	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Calcium	218000		908	490	mg/Kg	☼	06/05/24 15:25	06/07/24 14:53	10
Chromium	8210		9.1	6.5	mg/Kg	☼	06/05/24 15:25	06/07/24 14:53	10
Cobalt	23.8		0.91	0.18	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Copper	450		1.8	1.0	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Iron	39500	B	18.2	15.4	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Lead	2300		1.8	0.83	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Magnesium	14200		36.3	15.4	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Manganese	547		1.8	0.51	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Nickel	192		9.1	0.45	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Potassium	1410		54.5	44.0	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Selenium	25.1		7.3	1.5	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Silver	0.62	J	1.1	0.36	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Sodium	914		254	111	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Thallium	3.1	J	10.9	1.4	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Vanadium	139		0.91	0.24	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1
Zinc	2930		3.6	1.9	mg/Kg	☼	06/05/24 15:25	06/06/24 16:20	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	4.6		0.34	0.079	mg/Kg	☼	06/06/24 08:50	06/06/24 12:59	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	5.2	F1 F2	1.6	0.76	mg/Kg	☼	06/07/24 12:22	06/07/24 15:57	1
Total Organic Carbon (EPA-Lloyd Kahn)	231000	F2	1730	1680	mg/Kg	☼		06/13/24 21:01	1
Total Organic Carbon (EPA-Lloyd Kahn)	280000	H	1730	1680	mg/Kg	☼		06/24/24 11:32	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220474-1

Client Sample ID: SED-07
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-2
Matrix: Solid
Percent Solids: 88.4

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1100	290	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
1,1,2,2-Tetrachloroethane	ND		1100	170	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1100	530	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
1,1,2-Trichloroethane	ND		1100	220	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
1,1-Dichloroethane	ND		1100	330	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
1,1-Dichloroethene	ND		1100	370	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
1,2,4-Trichlorobenzene	ND		1100	400	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
1,2-Dibromo-3-Chloropropane	ND		1100	530	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
1,2-Dichlorobenzene	**770**	**J**	1100	270	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
1,2-Dichloroethane	ND		1100	430	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
1,2-Dichloropropane	ND		1100	170	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
1,3-Dichlorobenzene	ND		1100	280	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
1,4-Dichlorobenzene	ND		1100	150	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
2-Butanone (MEK)	ND		5300	3200	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
2-Hexanone	ND		5300	2200	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
4-Methyl-2-pentanone (MIBK)	ND		5300	340	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Acetone	ND		5300	4400	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Benzene	**74000**		1100	200	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Bromoform	ND		1100	530	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Bromomethane	ND		1100	230	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Carbon disulfide	ND		1100	480	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Carbon tetrachloride	ND		1100	270	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Chlorobenzene	**370**	**J**	1100	140	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Dibromochloromethane	ND		1100	510	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Chloroethane	ND		1100	220	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Chloroform	ND		1100	730	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Chloromethane	ND		1100	250	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
cis-1,2-Dichloroethene	ND		1100	290	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Cyclohexane	**2700**		1100	240	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Bromodichloromethane	ND		1100	210	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Dichlorodifluoromethane	ND		1100	460	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Ethylbenzene	**26000**		1100	310	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
1,2-Dibromoethane	ND		1100	190	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Isopropylbenzene	**2700**		1100	160	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Methyl acetate	ND		5300	510	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Methyl tert-butyl ether	ND		1100	400	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Methylcyclohexane	**7900**		1100	500	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Methylene Chloride	**330**	**J B**	1100	210	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Tetrachloroethene	ND		1100	140	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Toluene	**3100**		1100	280	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
trans-1,2-Dichloroethene	ND		1100	250	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
trans-1,3-Dichloropropene	ND		1100	100	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Trichloroethene	ND		1100	300	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Trichlorofluoromethane	ND		1100	500	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Vinyl chloride	ND		1100	360	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Xylenes, Total	**50000**		2100	590	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
cis-1,3-Dichloropropene	ND		1100	250	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20
Styrene	ND		1100	260	ug/Kg	☼	06/06/24 09:16	06/06/24 14:33	20

Client Sample ID: SED-07

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-2

Matrix: Solid
Percent Solids: 88.4

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	39000	H	ug/Kg	☼	7.96	179601-23-1	06/06/24 09:16	06/06/24 14:33	20
Benzene, 1,2,3-trimethyl-	85000	T H J N	ug/Kg	☼	9.79	526-73-8	06/06/24 09:16	06/06/24 14:33	20
Benzene, cyclopropyl-	77000	T H J N	ug/Kg	☼	10.40	873-49-4	06/06/24 09:16	06/06/24 14:33	20
Naphthalene	230000	T H J N	ug/Kg	☼	12.18	91-20-3	06/06/24 09:16	06/06/24 14:33	20
Unknown	310000	T H J	ug/Kg	☼	13.11	N/A	06/06/24 09:16	06/06/24 14:33	20
Naphthalene, 2-methyl-	160000	T H J N	ug/Kg	☼	13.26	91-57-6	06/06/24 09:16	06/06/24 14:33	20
Naphthalene, 1-ethyl-	89000	T H J N	ug/Kg	☼	13.83	1127-76-0	06/06/24 09:16	06/06/24 14:33	20
Naphthalene, 2,7-dimethyl-	200000	T H J N	ug/Kg	☼	13.91	582-16-1	06/06/24 09:16	06/06/24 14:33	20
Naphthalene, 2,6-dimethyl-	220000	T H J N	ug/Kg	☼	14.03	581-42-0	06/06/24 09:16	06/06/24 14:33	20
Naphthalene, 2,3-dimethyl-	79000	T H J N	ug/Kg	☼	14.21	581-40-8	06/06/24 09:16	06/06/24 14:33	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	119		53 - 146	06/06/24 09:16	06/06/24 14:33	20
4-Bromofluorobenzene (Surr)	118		49 - 148	06/06/24 09:16	06/06/24 14:33	20
Toluene-d8 (Surr)	110		50 - 149	06/06/24 09:16	06/06/24 14:33	20
Dibromofluoromethane (Surr)	106		60 - 140	06/06/24 09:16	06/06/24 14:33	20

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**128000**		54.2	46.8	mg/Kg	☼	06/05/24 15:25	06/07/24 15:17	5
Antimony	ND		16.3	0.58	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Arsenic	**108**		2.2	0.95	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Barium	**40.7**		0.54	0.15	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Beryllium	**0.38**		0.22	0.043	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Cadmium	ND		0.22	0.076	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Calcium	**8780**		54.2	29.3	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Chromium	**54.3**		0.54	0.39	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Cobalt	**5.2**		0.54	0.11	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Copper	**116**		1.1	0.62	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Iron	**6000**	**B**	10.8	9.2	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Lead	**80.9**		1.1	0.50	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Magnesium	**1480**		21.7	9.2	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Manganese	**149**		1.1	0.30	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Nickel	**71.8**		5.4	0.27	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Potassium	**215**		32.5	26.3	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Selenium	ND		4.3	0.87	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Silver	ND		3.3	1.1	mg/Kg	☼	06/05/24 15:25	06/07/24 15:17	5
Sodium	**807**		152	66.5	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Thallium	ND		32.5	4.1	mg/Kg	☼	06/05/24 15:25	06/07/24 15:17	5
Vanadium	**107**		0.54	0.14	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1
Zinc	**73.2**		2.2	1.1	mg/Kg	☼	06/05/24 15:25	06/06/24 16:30	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.022	0.0050	mg/Kg	☼	06/06/24 08:50	06/06/24 11:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.1	0.52	mg/Kg	☼	06/07/24 12:22	06/07/24 16:12	1
Total Organic Carbon (EPA-Lloyd Kahn)	**263000**		1130	1100	mg/Kg	☼		06/13/24 22:09	1

Client Sample ID: SED-07

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-2

Matrix: Solid
Percent Solids: 88.4

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon (EPA-Lloyd Kahn)	239000	H	1130	1100	mg/Kg	☼		06/24/24 13:04	1

Client Sample ID: SED-08

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-3

Matrix: Solid
Percent Solids: 46.5

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4100	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
1,1,2,2-Tetrachloroethane	ND		4100	670	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4100	2000	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
1,1,2-Trichloroethane	ND		4100	860	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
1,1-Dichloroethane	ND		4100	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
1,1-Dichloroethene	ND		4100	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
1,2,4-Trichlorobenzene	ND		4100	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
1,2-Dibromo-3-Chloropropane	ND		4100	2000	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
1,2-Dichlorobenzene	ND		4100	1000	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
1,2-Dichloroethane	ND		4100	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
1,2-Dichloropropane	ND		4100	660	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
1,3-Dichlorobenzene	ND		4100	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
1,4-Dichlorobenzene	ND		4100	570	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
2-Butanone (MEK)	ND		20000	12000	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
2-Hexanone	ND		20000	8400	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
4-Methyl-2-pentanone (MIBK)	ND		20000	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Acetone	ND		20000	17000	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Benzene	180000		4100	780	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Bromoform	ND		4100	2000	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Bromomethane	ND		4100	900	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Carbon disulfide	ND		4100	1900	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Carbon tetrachloride	ND		4100	1000	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Chlorobenzene	ND		4100	540	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Dibromochloromethane	ND		4100	2000	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Chloroethane	ND		4100	850	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Chloroform	ND		4100	2800	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Chloromethane	ND		4100	980	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
cis-1,2-Dichloroethene	ND		4100	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Cyclohexane	9000		4100	910	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Bromodichloromethane	ND		4100	820	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Dichlorodifluoromethane	ND		4100	1800	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Ethylbenzene	73000		4100	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
1,2-Dibromoethane	ND		4100	720	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Isopropylbenzene	6500		4100	610	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Methyl acetate	ND		20000	2000	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Methyl tert-butyl ether	ND		4100	1500	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Methylcyclohexane	18000		4100	1900	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Methylene Chloride	ND		4100	810	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Tetrachloroethene	ND		4100	550	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Toluene	60000		4100	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
trans-1,2-Dichloroethene	ND		4100	970	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20

Client Sample ID: SED-08
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-3
Matrix: Solid
Percent Solids: 46.5

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		4100	400	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Trichloroethene	ND		4100	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Trichlorofluoromethane	ND		4100	1900	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Vinyl chloride	ND		4100	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Xylenes, Total	**140000**		8200	2300	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
cis-1,3-Dichloropropene	ND		4100	980	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20
Styrene	**4400**		4100	990	ug/Kg	☼	06/06/24 09:16	06/06/24 14:56	20

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Benzene, 1,2,3-trimethyl-	*110000*	*T H J N*	*ug/Kg*	☼	*9.79*	*526-73-8*	*06/06/24 09:16*	*06/06/24 14:56*	*20*
Indene	*100000*	*T H J N*	*ug/Kg*	☼	*10.62*	*95-13-6*	*06/06/24 09:16*	*06/06/24 14:56*	*20*
Unknown	*99000*	*T H J*	*ug/Kg*	☼	*11.62*	*N/A*	*06/06/24 09:16*	*06/06/24 14:56*	*20*
Naphthalene	*1000000*	*T H J N*	*ug/Kg*	☼	*12.18*	*91-20-3*	*06/06/24 09:16*	*06/06/24 14:56*	*20*
Naphthalene, 1-methyl-	*410000*	*T H J N*	*ug/Kg*	☼	*13.11*	*90-12-0*	*06/06/24 09:16*	*06/06/24 14:56*	*20*
Benzocycloheptatriene	*210000*	*T H J N*	*ug/Kg*	☼	*13.25*	*264-09-5*	*06/06/24 09:16*	*06/06/24 14:56*	*20*
Naphthalene, 2-ethyl-	*98000*	*T H J N*	*ug/Kg*	☼	*13.83*	*939-27-5*	*06/06/24 09:16*	*06/06/24 14:56*	*20*
Naphthalene, 2,6-dimethyl-	*190000*	*T H J N*	*ug/Kg*	☼	*13.91*	*581-42-0*	*06/06/24 09:16*	*06/06/24 14:56*	*20*
Unknown	*230000*	*T H J*	*ug/Kg*	☼	*14.03*	*N/A*	*06/06/24 09:16*	*06/06/24 14:56*	*20*
Naphthalene, 2,3-dimethyl-	*83000*	*T H J N*	*ug/Kg*	☼	*14.21*	*581-40-8*	*06/06/24 09:16*	*06/06/24 14:56*	*20*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*53 - 146*	*06/06/24 09:16*	*06/06/24 14:56*	*20*
4-Bromofluorobenzene (Surr)	*106*		*49 - 148*	*06/06/24 09:16*	*06/06/24 14:56*	*20*
Toluene-d8 (Surr)	*98*		*50 - 149*	*06/06/24 09:16*	*06/06/24 14:56*	*20*
Dibromofluoromethane (Surr)	*92*		*60 - 140*	*06/06/24 09:16*	*06/06/24 14:56*	*20*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.4	0.35	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluoropentanoic acid (PFPeA)	ND		0.69	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluorohexanoic acid (PFHxA)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluoroheptanoic acid (PFHpA)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluorooctanoic acid (PFOA)	**0.73**		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluorononanoic acid (PFNA)	**11**		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluorodecanoic acid (PFDA)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluoroundecanoic acid (PFUnA)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluorododecanoic acid (PFDoA)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluorononanesulfonic acid (PFNS)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1.4	0.35	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1

Client Sample ID: SED-08
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-3
Matrix: Solid
Percent Solids: 46.5

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1.4	0.35	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1.4	0.35	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	**0.21**	**J *+**	0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/12/24 18:42	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		3.5	0.87	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		3.5	0.87	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.4	0.35	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.4	0.35	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.69	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.69	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		1.4	0.35	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		1.4	0.35	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.69	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1.7	0.43	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.7	2.2	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.7	2.2	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluorodecanesulfonic acid (PFDS)	**1.1**	**I**	0.35	0.087	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.69	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:07	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*93.0*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:07*	*1*
13C4 PFBA	*81.9*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:42*	*1*
13C5 PFPeA	*85.3*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:07*	*1*
13C5 PFPeA	*79.6*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:42*	*1*
13C5 PFHxA	*78.5*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:07*	*1*
13C5 PFHxA	*94.2*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:42*	*1*
13C4 PFHpA	*81.8*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:07*	*1*
13C4 PFHpA	*102*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:42*	*1*
13C8 PFOA	*71.0*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:07*	*1*
13C8 PFOA	*97.0*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:42*	*1*
13C9 PFNA	*111*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:07*	*1*
13C9 PFNA	*72.5*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:42*	*1*

Client Sample ID: SED-08
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-3
Matrix: Solid
Percent Solids: 46.5

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C6 PFDA	74.5		20 - 150	06/06/24 15:07	06/07/24 22:07	1
13C6 PFDA	80.0		20 - 150	06/06/24 15:07	06/12/24 18:42	1
13C7 PFUnA	80.7		20 - 150	06/06/24 15:07	06/07/24 22:07	1
13C7 PFUnA	76.8		20 - 150	06/06/24 15:07	06/12/24 18:42	1
13C2 PFTeDA	91.2		20 - 150	06/06/24 15:07	06/07/24 22:07	1
13C2 PFTeDA	2.85	*5-	20 - 150	06/06/24 15:07	06/12/24 18:42	1
13C3 PFBS	108		20 - 150	06/06/24 15:07	06/07/24 22:07	1
13C3 PFBS	122		20 - 150	06/06/24 15:07	06/12/24 18:42	1
13C3 PFHxS	94.7		20 - 150	06/06/24 15:07	06/07/24 22:07	1
13C3 PFHxS	95.0		20 - 150	06/06/24 15:07	06/12/24 18:42	1
13C8 PFOS	121	I	20 - 150	06/06/24 15:07	06/07/24 22:07	1
13C8 PFOS	4.27	I *5-	20 - 150	06/06/24 15:07	06/12/24 18:42	1
13C8 FOSA	64.3		20 - 150	06/06/24 15:07	06/07/24 22:07	1
13C8 FOSA	73.4		20 - 150	06/06/24 15:07	06/12/24 18:42	1
d3-NMeFOSAA	79.6		20 - 150	06/06/24 15:07	06/07/24 22:07	1
d3-NMeFOSAA	128		20 - 150	06/06/24 15:07	06/12/24 18:42	1
d5-NEtFOSAA	98.2		20 - 150	06/06/24 15:07	06/07/24 22:07	1
d5-NEtFOSAA	117		20 - 150	06/06/24 15:07	06/12/24 18:42	1
M2-4:2 FTS	202	I *5+	20 - 150	06/06/24 15:07	06/07/24 22:07	1
M2-4:2 FTS	419	I *5+	20 - 150	06/06/24 15:07	06/12/24 18:42	1
M2-6:2 FTS	170	*5+	20 - 150	06/06/24 15:07	06/07/24 22:07	1
M2-6:2 FTS	228	*5+	20 - 150	06/06/24 15:07	06/12/24 18:42	1
M2-8:2 FTS	189	*5+	20 - 150	06/06/24 15:07	06/07/24 22:07	1
M2-8:2 FTS	250	*5+	20 - 150	06/06/24 15:07	06/12/24 18:42	1
13C3 HFPO-DA	70.1		20 - 150	06/06/24 15:07	06/07/24 22:07	1
13C3 HFPO-DA	79.6		20 - 150	06/06/24 15:07	06/12/24 18:42	1
d7-N-MeFOSE-M	50.5		20 - 150	06/06/24 15:07	06/07/24 22:07	1
d7-N-MeFOSE-M	39.8		20 - 150	06/06/24 15:07	06/12/24 18:42	1
d9-N-EtFOSE-M	49.3		20 - 150	06/06/24 15:07	06/07/24 22:07	1
d9-N-EtFOSE-M	36.3		20 - 150	06/06/24 15:07	06/12/24 18:42	1
d5-NEtPFOSA	62.8		20 - 150	06/06/24 15:07	06/07/24 22:07	1
d5-NEtPFOSA	53.1		20 - 150	06/06/24 15:07	06/12/24 18:42	1
d3-NMePFOSA	62.1		20 - 150	06/06/24 15:07	06/07/24 22:07	1
d3-NMePFOSA	53.9		20 - 150	06/06/24 15:07	06/12/24 18:42	1
13C2-PFDoDA	77.3		20 - 150	06/06/24 15:07	06/07/24 22:07	1
13C2-PFDoDA	2.89	*5-	20 - 150	06/06/24 15:07	06/12/24 18:42	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**12900**		22.6	19.4	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Antimony	ND		33.8	1.2	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Arsenic	**53.7**		4.5	2.0	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Barium	**442**		1.1	0.32	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Beryllium	**0.58**		0.45	0.090	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Cadmium	**4.4**		0.45	0.16	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Calcium	**36900**		113	60.9	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Chromium	**7090**		113	81.2	mg/Kg	☼	06/05/24 15:25	06/07/24 15:21	100
Cobalt	**13.6**		1.1	0.23	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Copper	**404**		2.3	1.3	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Iron	**28300**	**B**	22.6	19.1	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1

Client Sample ID: SED-08

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-3

Matrix: Solid
Percent Solids: 46.5

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	3670		2.3	1.0	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Magnesium	7760		45.1	19.1	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Manganese	397		2.3	0.63	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Nickel	365		11.3	0.56	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Potassium	2300		67.7	54.7	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Selenium	8.7	J	9.0	1.8	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Silver	ND		1.4	0.45	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Sodium	352		316	138	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Thallium	2.8	J	13.5	1.7	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Vanadium	179		1.1	0.29	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1
Zinc	3070		4.5	2.3	mg/Kg	☼	06/05/24 15:25	06/06/24 16:31	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	4.6		0.41	0.095	mg/Kg	☼	06/06/24 08:50	06/06/24 13:03	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	11.0		1.9	0.90	mg/Kg	☼	06/07/24 12:22	06/07/24 16:13	1
Total Organic Carbon (EPA-Lloyd Kahn)	324000		2150	2090	mg/Kg	☼		06/13/24 22:32	1
Total Organic Carbon (EPA-Lloyd Kahn)	290000	H	2150	2090	mg/Kg	☼		06/24/24 13:19	1

Client Sample ID: SED-08-FD

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-4

Matrix: Solid
Percent Solids: 46.7

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4600	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
1,1,2,2-Tetrachloroethane	ND		4600	740	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4600	2300	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
1,1,2-Trichloroethane	ND		4600	960	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
1,1-Dichloroethane	ND		4600	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
1,1-Dichloroethene	ND		4600	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
1,2,4-Trichlorobenzene	ND		4600	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
1,2-Dibromo-3-Chloropropane	ND		4600	2300	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
1,2-Dichlorobenzene	ND		4600	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
1,2-Dichloroethane	ND		4600	1900	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
1,2-Dichloropropane	ND		4600	740	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
1,3-Dichlorobenzene	ND		4600	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
1,4-Dichlorobenzene	ND		4600	640	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
2-Butanone (MEK)	ND		23000	14000	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
2-Hexanone	ND		23000	9300	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
4-Methyl-2-pentanone (MIBK)	ND		23000	1500	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Acetone	ND		23000	19000	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Benzene	200000		4600	870	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Bromoform	ND		4600	2300	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Bromomethane	ND		4600	1000	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Carbon disulfide	ND		4600	2100	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20

Client Sample ID: SED-08-FD
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-4
Matrix: Solid
Percent Solids: 46.7

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	ND		4600	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Chlorobenzene	ND		4600	600	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Dibromochloromethane	ND		4600	2200	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Chloroethane	ND		4600	950	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Chloroform	ND		4600	3100	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Chloromethane	ND		4600	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
cis-1,2-Dichloroethene	ND		4600	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Cyclohexane	**11000**		4600	1000	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Bromodichloromethane	ND		4600	910	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Dichlorodifluoromethane	ND		4600	2000	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Ethylbenzene	**91000**		4600	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
1,2-Dibromoethane	ND		4600	800	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Isopropylbenzene	**8400**		4600	680	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Methyl acetate	ND		23000	2200	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Methyl tert-butyl ether	ND		4600	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Methylcyclohexane	**25000**		4600	2100	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Methylene Chloride	ND		4600	900	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Tetrachloroethene	ND		4600	610	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Toluene	**61000**		4600	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
trans-1,2-Dichloroethene	ND		4600	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
trans-1,3-Dichloropropene	ND		4600	450	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Trichloroethene	ND		4600	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Trichlorofluoromethane	ND		4600	2100	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Vinyl chloride	ND		4600	1500	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Xylenes, Total	**150000**		9100	2500	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
cis-1,3-Dichloropropene	ND		4600	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20
Styrene	**4600**		4600	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 15:20	20

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
m-Xylene & p-Xylene	*100000*	*H*	*ug/Kg*	☼	*7.96*	*179601-23-1*	*06/06/24 09:16*	*06/06/24 15:20*	*20*
Benzene, 1,2,3-trimethyl-	*120000*	*T H J N*	*ug/Kg*	☼	*9.79*	*526-73-8*	*06/06/24 09:16*	*06/06/24 15:20*	*20*
Benzene, 1-propynyl-	*100000*	*T H J N*	*ug/Kg*	☼	*10.62*	*673-32-5*	*06/06/24 09:16*	*06/06/24 15:20*	*20*
Unknown	*130000*	*T H J*	*ug/Kg*	☼	*11.62*	*N/A*	*06/06/24 09:16*	*06/06/24 15:20*	*20*
Naphthalene	*1000000*	*T H J N*	*ug/Kg*	☼	*12.18*	*91-20-3*	*06/06/24 09:16*	*06/06/24 15:20*	*20*
Naphthalene, 2-methyl-	*440000*	*T H J N*	*ug/Kg*	☼	*13.10*	*91-57-6*	*06/06/24 09:16*	*06/06/24 15:20*	*20*
Benzocycloheptatriene	*220000*	*T H J N*	*ug/Kg*	☼	*13.25*	*264-09-5*	*06/06/24 09:16*	*06/06/24 15:20*	*20*
Naphthalene, 2,7-dimethyl-	*190000*	*T H J N*	*ug/Kg*	☼	*13.91*	*582-16-1*	*06/06/24 09:16*	*06/06/24 15:20*	*20*
Naphthalene, 2,3-dimethyl-	*230000*	*T H J N*	*ug/Kg*	☼	*14.03*	*581-40-8*	*06/06/24 09:16*	*06/06/24 15:20*	*20*
Naphthalene, 1,3-dimethyl-	*80000*	*T H J N*	*ug/Kg*	☼	*14.21*	*575-41-7*	*06/06/24 09:16*	*06/06/24 15:20*	*20*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*53 - 146*	*06/06/24 09:16*	*06/06/24 15:20*	*20*
4-Bromofluorobenzene (Surr)	*104*		*49 - 148*	*06/06/24 09:16*	*06/06/24 15:20*	*20*
Toluene-d8 (Surr)	*99*		*50 - 149*	*06/06/24 09:16*	*06/06/24 15:20*	*20*
Dibromofluoromethane (Surr)	*90*		*60 - 140*	*06/06/24 09:16*	*06/06/24 15:20*	*20*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.4	0.34	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluoropentanoic acid (PFPeA)	ND		0.68	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1

Client Sample ID: SED-08-FD
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-4
Matrix: Solid
Percent Solids: 46.7

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid (PFHxA)	ND		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluoroheptanoic acid (PFHpA)	**0.18**	**J**	0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluorooctanoic acid (PFOA)	**0.74**		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluorononanoic acid (PFNA)	**12**		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluorodecanoic acid (PFDA)	ND		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluoroundecanoic acid (PFUnA)	ND		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluorododecanoic acid (PFDoA)	ND		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluorononanesulfonic acid (PFNS)	ND		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1.4	0.34	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1.4	0.34	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1.4	0.34	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	**0.21**	**J *+**	0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/12/24 18:56	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		3.4	0.85	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		3.4	0.85	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.4	0.34	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.4	0.34	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.68	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.68	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		1.4	0.34	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		1.4	0.34	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.68	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1.7	0.42	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1

Client Sample ID: SED-08-FD
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-4
Matrix: Solid
Percent Solids: 46.7

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.5	2.1	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.5	2.1	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluorodecanesulfonic acid (PFDS)	**0.97**	**I**	0.34	0.085	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.68	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:22	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*95.2*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
13C4 PFBA	*79.0*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
13C5 PFPeA	*94.3*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
13C5 PFPeA	*77.1*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
13C5 PFHxA	*82.8*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
13C5 PFHxA	*92.3*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
13C4 PFHpA	*88.9*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
13C4 PFHpA	*93.6*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
13C8 PFOA	*76.4*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
13C8 PFOA	*97.2*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
13C9 PFNA	*99.2*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
13C9 PFNA	*79.1*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
13C6 PFDA	*78.9*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
13C6 PFDA	*87.2*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
13C7 PFUnA	*92.6*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
13C7 PFUnA	*2.15*	*5-	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
13C2 PFTeDA	*96.0*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
13C2 PFTeDA	*74.6*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
13C3 PFBS	*88.4*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
13C3 PFBS	*106*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
13C3 PFHxS	*95.9*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
13C3 PFHxS	*99.9*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
13C8 PFOS	*137*	*I*	*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
13C8 PFOS	*3.90*	*I *5-	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
13C8 FOSA	*55.6*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
13C8 FOSA	*71.0*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
d3-NMeFOSAA	*81.1*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
d3-NMeFOSAA	*121*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
d5-NEtFOSAA	*86.1*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
d5-NEtFOSAA	*123*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
M2-4:2 FTS	*171*	*I *5+*	*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
M2-4:2 FTS	*432*	*I *5+*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
M2-6:2 FTS	*170*	*5+*	*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
M2-6:2 FTS	*239*	*5+*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
M2-8:2 FTS	*188*	*5+*	*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
M2-8:2 FTS	*256*	*5+*	*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
13C3 HFPO-DA	*78.2*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
13C3 HFPO-DA	*75.3*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
d7-N-MeFOSE-M	*43.9*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
d7-N-MeFOSE-M	*35.8*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
d9-N-EtFOSE-M	*43.4*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*

Client Sample ID: SED-08-FD

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-4

Matrix: Solid
Percent Solids: 46.7

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
d9-N-EtFOSE-M	*33.3*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
d5-NEtPFOSA	*53.5*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
d5-NEtPFOSA	*49.0*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
d3-NMePFOSA	*54.9*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
d3-NMePFOSA	*55.2*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*
13C2-PFDoDA	*88.5*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:22*	*1*
13C2-PFDoDA	*84.4*		*20 - 150*	*06/06/24 15:07*	*06/12/24 18:56*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**12300**		22.1	19.1	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Antimony	ND		33.2	1.2	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Arsenic	**67.4**		4.4	1.9	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Barium	**289**		1.1	0.31	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Beryllium	**0.59**		0.44	0.088	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Cadmium	**4.9**		0.44	0.15	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Calcium	**41800**		111	59.7	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Chromium	**9180**		111	79.6	mg/Kg	☼	06/05/24 15:25	06/07/24 15:23	100
Cobalt	**10.1**		1.1	0.22	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Copper	**487**		2.2	1.3	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Iron	**30300**	**B**	22.1	18.8	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Lead	**3370**		2.2	1.0	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Magnesium	**8260**		44.2	18.8	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Manganese	**449**		2.2	0.62	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Nickel	**185**		11.1	0.55	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Potassium	**2130**		66.4	53.6	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Selenium	**10.3**		8.8	1.8	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Silver	**0.47**	**J**	1.3	0.44	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Sodium	**346**		310	136	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Thallium	**2.8**	**J**	13.3	1.7	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Vanadium	**103**		1.1	0.29	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1
Zinc	**4140**		4.4	2.3	mg/Kg	☼	06/05/24 15:25	06/06/24 16:39	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**4.6**		0.42	0.096	mg/Kg	☼	06/06/24 08:50	06/06/24 13:04	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	**10.4**		2.0	0.98	mg/Kg	☼	06/07/24 12:22	06/07/24 16:15	1
Total Organic Carbon (EPA-Lloyd Kahn)	**291000**		2140	2080	mg/Kg	☼		06/13/24 23:18	1
Total Organic Carbon (EPA-Lloyd Kahn)	**303000**	**H**	2140	2080	mg/Kg	☼		06/24/24 13:34	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220474-1

Client Sample ID: SED-09
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-5
Matrix: Solid
Percent Solids: 62.6

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5000	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
1,1,2,2-Tetrachloroethane	ND		5000	810	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5000	2500	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
1,1,2-Trichloroethane	ND		5000	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
1,1-Dichloroethane	ND		5000	1500	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
1,1-Dichloroethene	ND		5000	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
1,2,4-Trichlorobenzene	ND		5000	1900	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
1,2-Dibromo-3-Chloropropane	ND		5000	2500	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
1,2-Dichlorobenzene	ND		5000	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
1,2-Dichloroethane	ND		5000	2000	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
1,2-Dichloropropane	ND		5000	810	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
1,3-Dichlorobenzene	ND		5000	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
1,4-Dichlorobenzene	ND		5000	700	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
2-Butanone (MEK)	ND		25000	15000	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
2-Hexanone	ND		25000	10000	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
4-Methyl-2-pentanone (MIBK)	ND		25000	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Acetone	ND		25000	21000	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Benzene	**6100**		5000	950	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Bromoform	ND		5000	2500	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Bromomethane	ND		5000	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Carbon disulfide	ND		5000	2300	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Carbon tetrachloride	ND		5000	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Chlorobenzene	ND		5000	660	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Dibromochloromethane	ND		5000	2400	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Chloroethane	ND		5000	1000	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Chloroform	ND		5000	3400	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Chloromethane	ND		5000	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
cis-1,2-Dichloroethene	ND		5000	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Cyclohexane	**6400**		5000	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Bromodichloromethane	ND		5000	1000	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Dichlorodifluoromethane	ND		5000	2200	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Ethylbenzene	ND		5000	1500	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
1,2-Dibromoethane	ND		5000	880	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Isopropylbenzene	**4000**	**J**	5000	750	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Methyl acetate	ND		25000	2400	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Methyl tert-butyl ether	ND		5000	1900	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Methylcyclohexane	**13000**		5000	2300	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Methylene Chloride	ND		5000	990	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Tetrachloroethene	ND		5000	670	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Toluene	ND		5000	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
trans-1,2-Dichloroethene	ND		5000	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
trans-1,3-Dichloropropene	ND		5000	490	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Trichloroethene	ND		5000	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Trichlorofluoromethane	ND		5000	2300	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Vinyl chloride	ND		5000	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Xylenes, Total	ND		10000	2800	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
cis-1,3-Dichloropropene	ND		5000	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40
Styrene	ND		5000	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 15:43	40

Client Sample ID: SED-09

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-5

Matrix: Solid
Percent Solids: 62.6

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Indane	35000	T H J N	ug/Kg	☼	10.40	496-11-7	06/06/24 09:16	06/06/24 15:43	40
Unknown	79000	T H J	ug/Kg	☼	11.62	N/A	06/06/24 09:16	06/06/24 15:43	40
Naphthalene, 2-methyl-	280000	T H J N	ug/Kg	☼	13.10	91-57-6	06/06/24 09:16	06/06/24 15:43	40
Naphthalene, 1-methyl-	150000	T H J N	ug/Kg	☼	13.25	90-12-0	06/06/24 09:16	06/06/24 15:43	40
Naphthalene, 1-ethyl-	72000	T H J N	ug/Kg	☼	13.83	1127-76-0	06/06/24 09:16	06/06/24 15:43	40
Naphthalene, 2,6-dimethyl-	160000	T H J N	ug/Kg	☼	13.91	581-42-0	06/06/24 09:16	06/06/24 15:43	40
Unknown	150000	T H J	ug/Kg	☼	14.03	N/A	06/06/24 09:16	06/06/24 15:43	40
Naphthalene, 2,3-dimethyl-	65000	T H J N	ug/Kg	☼	14.21	581-40-8	06/06/24 09:16	06/06/24 15:43	40
Naphthalene, 2,3,6-trimethyl-	46000	T H J N	ug/Kg	☼	14.58	829-26-5	06/06/24 09:16	06/06/24 15:43	40
Naphthalene, 1,4,6-trimethyl-	45000	T H J N	ug/Kg	☼	14.75	2131-42-2	06/06/24 09:16	06/06/24 15:43	40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		53 - 146	06/06/24 09:16	06/06/24 15:43	40
4-Bromofluorobenzene (Surr)	103		49 - 148	06/06/24 09:16	06/06/24 15:43	40
Toluene-d8 (Surr)	100		50 - 149	06/06/24 09:16	06/06/24 15:43	40
Dibromofluoromethane (Surr)	91		60 - 140	06/06/24 09:16	06/06/24 15:43	40

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**18600**		16.2	14.0	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Antimony	ND		24.3	0.86	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Arsenic	**57.9**		3.2	1.4	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Barium	**250**		0.81	0.23	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Beryllium	**0.89**		0.32	0.065	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Cadmium	**3.1**		0.32	0.11	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Calcium	**41800**		81.0	43.7	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Chromium	**6320**		81.0	58.3	mg/Kg	☼	06/05/24 15:25	06/07/24 15:25	100
Cobalt	**14.8**		0.81	0.16	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Copper	**601**		1.6	0.92	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Iron	**38400**	**B**	16.2	13.7	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Lead	**3040**		1.6	0.74	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Magnesium	**9210**		32.4	13.7	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Manganese	**604**		1.6	0.45	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Nickel	**163**		8.1	0.40	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Potassium	**2580**		48.6	39.3	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Selenium	**12.1**		6.5	1.3	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Silver	ND		0.97	0.32	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Sodium	**384**		227	99.3	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Thallium	ND		9.7	1.2	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Vanadium	**104**		0.81	0.21	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1
Zinc	**2120**		3.2	1.7	mg/Kg	☼	06/05/24 15:25	06/06/24 16:41	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**3.9**		0.31	0.071	mg/Kg	☼	06/06/24 08:50	06/06/24 13:05	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	**3.4**		1.4	0.65	mg/Kg	☼	06/07/24 12:22	06/07/24 16:16	1
Total Organic Carbon (EPA-Lloyd Kahn)	**216000**	**^2**	1600	1550	mg/Kg	☼		06/14/24 17:20	1

Client Sample ID: SED-09

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-5

Matrix: Solid
Percent Solids: 62.6

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon (EPA-Lloyd Kahn)	193000	H	1600	1550	mg/Kg	☼		06/24/24 14:12	1

Client Sample ID: SED-10

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-6

Matrix: Solid
Percent Solids: 48.6

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		3500	970	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
1,1,2,2-Tetrachloroethane	ND		3500	570	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3500	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
1,1,2-Trichloroethane	ND		3500	730	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
1,1-Dichloroethane	ND		3500	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
1,1-Dichloroethene	ND		3500	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
1,2,4-Trichlorobenzene	ND		3500	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
1,2-Dibromo-3-Chloropropane	ND		3500	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
1,2-Dichlorobenzene	ND		3500	890	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
1,2-Dichloroethane	ND		3500	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
1,2-Dichloropropane	ND		3500	570	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
1,3-Dichlorobenzene	ND		3500	930	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
1,4-Dichlorobenzene	ND		3500	490	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
2-Butanone (MEK)	ND		17000	10000	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
2-Hexanone	ND		17000	7200	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
4-Methyl-2-pentanone (MIBK)	ND		17000	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Acetone	ND		17000	14000	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Benzene	97000		3500	660	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Bromoform	ND		3500	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Bromomethane	ND		3500	770	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Carbon disulfide	ND		3500	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Carbon tetrachloride	ND		3500	890	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Chlorobenzene	ND		3500	460	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Dibromochloromethane	ND		3500	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Chloroethane	ND		3500	730	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Chloroform	ND		3500	2400	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Chloromethane	ND		3500	830	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
cis-1,2-Dichloroethene	ND		3500	960	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Cyclohexane	2500	J	3500	780	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Bromodichloromethane	ND		3500	700	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Dichlorodifluoromethane	ND		3500	1500	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Ethylbenzene	35000		3500	1000	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
1,2-Dibromoethane	ND		3500	610	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Isopropylbenzene	3500		3500	520	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Methyl acetate	ND		17000	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Methyl tert-butyl ether	ND		3500	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Methylcyclohexane	6600		3500	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Methylene Chloride	ND		3500	690	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Tetrachloroethene	ND		3500	470	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Toluene	16000		3500	940	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
trans-1,2-Dichloroethene	ND		3500	820	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20

Client Sample ID: SED-10
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-6
Matrix: Solid
Percent Solids: 48.6

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		3500	340	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Trichloroethene	ND		3500	970	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Trichlorofluoromethane	ND		3500	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Vinyl chloride	ND		3500	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Xylenes, Total	**83000**		7000	1900	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
cis-1,3-Dichloropropene	ND		3500	830	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20
Styrene	**1200**	**J**	3500	840	ug/Kg	☼	06/06/24 09:16	06/06/24 16:06	20

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
m-Xylene & p-Xylene	*62000*	*H*	*ug/Kg*	☼	*7.96*	*179601-23-1*	*06/06/24 09:16*	*06/06/24 16:06*	*20*
Benzene, 1,2,3-trimethyl-	*82000*	*T H J N*	*ug/Kg*	☼	*9.79*	*526-73-8*	*06/06/24 09:16*	*06/06/24 16:06*	*20*
Indane	*48000*	*T H J N*	*ug/Kg*	☼	*10.40*	*496-11-7*	*06/06/24 09:16*	*06/06/24 16:06*	*20*
Indene	*200000*	*T H J N*	*ug/Kg*	☼	*10.62*	*95-13-6*	*06/06/24 09:16*	*06/06/24 16:06*	*20*
Benzene, 1,2,4,5-tetramethyl-	*46000*	*T H J N*	*ug/Kg*	☼	*11.62*	*95-93-2*	*06/06/24 09:16*	*06/06/24 16:06*	*20*
Naphthalene	*1800000*	*T H J N*	*ug/Kg*	☼	*12.19*	*91-20-3*	*06/06/24 09:16*	*06/06/24 16:06*	*20*
Naphthalene, 2-methyl-	*330000*	*T H J N*	*ug/Kg*	☼	*13.11*	*91-57-6*	*06/06/24 09:16*	*06/06/24 16:06*	*20*
Benzocycloheptatriene	*160000*	*T H J N*	*ug/Kg*	☼	*13.25*	*264-09-5*	*06/06/24 09:16*	*06/06/24 16:06*	*20*
Unknown	*96000*	*T H J*	*ug/Kg*	☼	*13.91*	*N/A*	*06/06/24 09:16*	*06/06/24 16:06*	*20*
Naphthalene, 2,6-dimethyl-	*95000*	*T H J N*	*ug/Kg*	☼	*14.03*	*581-42-0*	*06/06/24 09:16*	*06/06/24 16:06*	*20*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*117*		*53 - 146*	*06/06/24 09:16*	*06/06/24 16:06*	*20*
4-Bromofluorobenzene (Surr)	*118*		*49 - 148*	*06/06/24 09:16*	*06/06/24 16:06*	*20*
Toluene-d8 (Surr)	*111*		*50 - 149*	*06/06/24 09:16*	*06/06/24 16:06*	*20*
Dibromofluoromethane (Surr)	*108*		*60 - 140*	*06/06/24 09:16*	*06/06/24 16:06*	*20*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.3	0.34	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluoropentanoic acid (PFPeA)	ND		0.67	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluorohexanoic acid (PFHxA)	ND		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluoroheptanoic acid (PFHpA)	ND		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluorooctanoic acid (PFOA)	**0.46**		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluorononanoic acid (PFNA)	**5.8**		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluorodecanoic acid (PFDA)	ND		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluoroundecanoic acid (PFUnA)	ND		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluorododecanoic acid (PFDoA)	ND		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluorooctanesulfonic acid (PFOS)	**0.60**	**I**	0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluorononanesulfonic acid (PFNS)	**0.30**	**J**	0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220474-1

Client Sample ID: SED-10
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-6
Matrix: Solid
Percent Solids: 48.6

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1.3	0.34	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1.3	0.34	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1.3	0.34	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	**0.10**	**J *+**	0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/12/24 19:09	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		3.4	0.84	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		3.4	0.84	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.3	0.34	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.3	0.34	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.67	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.67	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		1.3	0.34	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		1.3	0.34	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.67	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1.7	0.42	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.4	2.1	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.4	2.1	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluorodecanesulfonic acid (PFDS)	**0.95**	**I**	0.34	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.67	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:37	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*96.3*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:37*	*1*
13C4 PFBA	*80.6*		*20 - 150*	*06/06/24 15:07*	*06/12/24 19:09*	*1*
13C5 PFPeA	*84.4*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:37*	*1*
13C5 PFPeA	*78.8*		*20 - 150*	*06/06/24 15:07*	*06/12/24 19:09*	*1*
13C5 PFHxA	*74.0*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:37*	*1*
13C5 PFHxA	*90.9*		*20 - 150*	*06/06/24 15:07*	*06/12/24 19:09*	*1*
13C4 PFHpA	*88.6*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:37*	*1*
13C4 PFHpA	*95.1*		*20 - 150*	*06/06/24 15:07*	*06/12/24 19:09*	*1*
13C8 PFOA	*67.1*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:37*	*1*
13C8 PFOA	*95.8*		*20 - 150*	*06/06/24 15:07*	*06/12/24 19:09*	*1*

Client Sample ID: SED-10
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-6
Matrix: Solid
Percent Solids: 48.6

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C9 PFNA	98.8		20 - 150	06/06/24 15:07	06/07/24 22:37	1
13C9 PFNA	83.9		20 - 150	06/06/24 15:07	06/12/24 19:09	1
13C6 PFDA	94.6		20 - 150	06/06/24 15:07	06/07/24 22:37	1
13C6 PFDA	88.3		20 - 150	06/06/24 15:07	06/12/24 19:09	1
13C7 PFUnA	99.5		20 - 150	06/06/24 15:07	06/07/24 22:37	1
13C7 PFUnA	79.0		20 - 150	06/06/24 15:07	06/12/24 19:09	1
13C2 PFTeDA	104		20 - 150	06/06/24 15:07	06/07/24 22:37	1
13C2 PFTeDA	1.13	*5-	20 - 150	06/06/24 15:07	06/12/24 19:09	1
13C3 PFBS	109		20 - 150	06/06/24 15:07	06/07/24 22:37	1
13C3 PFBS	130		20 - 150	06/06/24 15:07	06/12/24 19:09	1
13C3 PFHxS	126	I	20 - 150	06/06/24 15:07	06/07/24 22:37	1
13C3 PFHxS	98.4		20 - 150	06/06/24 15:07	06/12/24 19:09	1
13C8 PFOS	140	I	20 - 150	06/06/24 15:07	06/07/24 22:37	1
13C8 PFOS	97.8		20 - 150	06/06/24 15:07	06/12/24 19:09	1
13C8 FOSA	49.0		20 - 150	06/06/24 15:07	06/07/24 22:37	1
13C8 FOSA	58.0		20 - 150	06/06/24 15:07	06/12/24 19:09	1
d3-NMeFOSAA	69.2		20 - 150	06/06/24 15:07	06/07/24 22:37	1
d3-NMeFOSAA	102		20 - 150	06/06/24 15:07	06/12/24 19:09	1
d5-NEtFOSAA	83.4		20 - 150	06/06/24 15:07	06/07/24 22:37	1
d5-NEtFOSAA	109		20 - 150	06/06/24 15:07	06/12/24 19:09	1
M2-4:2 FTS	199	I *5+	20 - 150	06/06/24 15:07	06/07/24 22:37	1
M2-4:2 FTS	409	I *5+	20 - 150	06/06/24 15:07	06/12/24 19:09	1
M2-6:2 FTS	181	*5+	20 - 150	06/06/24 15:07	06/07/24 22:37	1
M2-6:2 FTS	288	*5+	20 - 150	06/06/24 15:07	06/12/24 19:09	1
M2-8:2 FTS	240	*5+	20 - 150	06/06/24 15:07	06/07/24 22:37	1
M2-8:2 FTS	287	*5+	20 - 150	06/06/24 15:07	06/12/24 19:09	1
13C3 HFPO-DA	71.2		20 - 150	06/06/24 15:07	06/07/24 22:37	1
13C3 HFPO-DA	72.0		20 - 150	06/06/24 15:07	06/12/24 19:09	1
d7-N-MeFOSE-M	31.0		20 - 150	06/06/24 15:07	06/07/24 22:37	1
d7-N-MeFOSE-M	28.3		20 - 150	06/06/24 15:07	06/12/24 19:09	1
d9-N-EtFOSE-M	30.3		20 - 150	06/06/24 15:07	06/07/24 22:37	1
d9-N-EtFOSE-M	23.6		20 - 150	06/06/24 15:07	06/12/24 19:09	1
d5-NEtPFOSA	43.2		20 - 150	06/06/24 15:07	06/07/24 22:37	1
d5-NEtPFOSA	33.8		20 - 150	06/06/24 15:07	06/12/24 19:09	1
d3-NMePFOSA	45.7		20 - 150	06/06/24 15:07	06/07/24 22:37	1
d3-NMePFOSA	34.2		20 - 150	06/06/24 15:07	06/12/24 19:09	1
13C2-PFDoDA	92.4		20 - 150	06/06/24 15:07	06/07/24 22:37	1
13C2-PFDoDA	1.56	*5-	20 - 150	06/06/24 15:07	06/12/24 19:09	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**12500**		21.5	18.5	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Antimony	ND		32.2	1.1	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Arsenic	**75.2**		4.3	1.9	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Barium	**315**		1.1	0.30	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Beryllium	**0.55**		0.43	0.086	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Cadmium	**5.2**		0.43	0.15	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Calcium	**49800**		107	57.9	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Chromium	**9650**		107	77.2	mg/Kg	☼	06/05/24 15:25	06/07/24 15:33	100
Cobalt	**10.8**		1.1	0.21	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1

Client Sample ID: SED-10

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-6

Matrix: Solid
Percent Solids: 48.6

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	505		2.1	1.2	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Iron	31800	B	21.5	18.2	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Lead	3560		2.1	0.99	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Magnesium	8200		42.9	18.2	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Manganese	463		2.1	0.60	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Nickel	148		10.7	0.54	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Potassium	1930		64.4	52.0	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Selenium	12.2		8.6	1.7	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Silver	0.55	J	1.3	0.43	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Sodium	501		300	132	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Thallium	ND		12.9	1.6	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Vanadium	82.5		1.1	0.28	mg/Kg	☼	06/05/24 15:25	06/06/24 16:43	1
Zinc	4840		429	219	mg/Kg	☼	06/05/24 15:25	06/07/24 15:33	100

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	5.8		0.40	0.092	mg/Kg	☼	06/06/24 08:50	06/06/24 13:07	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	13.0		9.6	4.7	mg/Kg	☼	06/07/24 12:22	06/07/24 16:26	5
Total Organic Carbon (EPA-Lloyd Kahn)	355000	^2	2060	2000	mg/Kg	☼		06/14/24 17:35	1
Total Organic Carbon (EPA-Lloyd Kahn)	329000	H	2060	2000	mg/Kg	☼		06/24/24 14:27	1

Client Sample ID: SED-11

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-7

Matrix: Solid
Percent Solids: 52.1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		6100	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
1,1,2,2-Tetrachloroethane	ND		6100	990	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6100	3100	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
1,1,2-Trichloroethane	ND		6100	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
1,1-Dichloroethane	ND		6100	1900	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
1,1-Dichloroethene	ND		6100	2100	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
1,2,4-Trichlorobenzene	ND		6100	2300	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
1,2-Dibromo-3-Chloropropane	ND		6100	3100	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
1,2-Dichlorobenzene	2000	J	6100	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
1,2-Dichloroethane	ND		6100	2500	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
1,2-Dichloropropane	ND		6100	990	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
1,3-Dichlorobenzene	ND		6100	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
1,4-Dichlorobenzene	ND		6100	850	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
2-Butanone (MEK)	ND		31000	18000	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
2-Hexanone	ND		31000	13000	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
4-Methyl-2-pentanone (MIBK)	ND		31000	2000	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Acetone	ND		31000	25000	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Benzene	150000		6100	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Bromoform	ND		6100	3100	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40

Client Sample ID: SED-11
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-7
Matrix: Solid
Percent Solids: 52.1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		6100	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Carbon disulfide	ND		6100	2800	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Carbon tetrachloride	ND		6100	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Chlorobenzene	**2200**	**J**	6100	810	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Dibromochloromethane	ND		6100	3000	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Chloroethane	ND		6100	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Chloroform	ND		6100	4200	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Chloromethane	ND		6100	1500	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
cis-1,2-Dichloroethene	ND		6100	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Cyclohexane	**10000**		6100	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Bromodichloromethane	ND		6100	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Dichlorodifluoromethane	ND		6100	2700	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Ethylbenzene	**92000**		6100	1800	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
1,2-Dibromoethane	ND		6100	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Isopropylbenzene	**8900**		6100	920	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Methyl acetate	ND		31000	2900	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Methyl tert-butyl ether	ND		6100	2300	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Methylcyclohexane	**29000**		6100	2900	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Methylene Chloride	ND		6100	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Tetrachloroethene	ND		6100	820	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Toluene	**2900**	**J**	6100	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
trans-1,2-Dichloroethene	ND		6100	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
trans-1,3-Dichloropropene	ND		6100	600	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Trichloroethene	ND		6100	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Trichlorofluoromethane	ND		6100	2900	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Vinyl chloride	ND		6100	2000	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Xylenes, Total	**29000**		12000	3400	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
cis-1,3-Dichloropropene	ND		6100	1500	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40
Styrene	ND		6100	1500	ug/Kg	☼	06/06/24 09:16	06/06/24 16:29	40

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
m-Xylene & p-Xylene	*26000*	*H*	*ug/Kg*	☼	*7.96*	*179601-23-1*	*06/06/24 09:16*	*06/06/24 16:29*	*40*
Indane	*80000*	*T H J N*	*ug/Kg*	☼	*10.40*	*496-11-7*	*06/06/24 09:16*	*06/06/24 16:29*	*40*
Benzene, 1-ethyl-2,3-dimethyl-	*130000*	*T H J N*	*ug/Kg*	☼	*11.62*	*933-98-2*	*06/06/24 09:16*	*06/06/24 16:29*	*40*
Naphthalene	*640000*	*T H J N*	*ug/Kg*	☼	*12.18*	*91-20-3*	*06/06/24 09:16*	*06/06/24 16:29*	*40*
Naphthalene, 1-methyl-	*410000*	*T H J N*	*ug/Kg*	☼	*13.10*	*90-12-0*	*06/06/24 09:16*	*06/06/24 16:29*	*40*
Benzocycloheptatriene	*210000*	*T H J N*	*ug/Kg*	☼	*13.25*	*264-09-5*	*06/06/24 09:16*	*06/06/24 16:29*	*40*
Naphthalene, 1-ethyl-	*86000*	*T H J N*	*ug/Kg*	☼	*13.83*	*1127-76-0*	*06/06/24 09:16*	*06/06/24 16:29*	*40*
Naphthalene, 2,7-dimethyl-	*170000*	*T H J N*	*ug/Kg*	☼	*13.91*	*582-16-1*	*06/06/24 09:16*	*06/06/24 16:29*	*40*
Unknown	*210000*	*T H J*	*ug/Kg*	☼	*14.03*	*N/A*	*06/06/24 09:16*	*06/06/24 16:29*	*40*
Naphthalene, 2,6-dimethyl-	*94000*	*T H J N*	*ug/Kg*	☼	*14.06*	*581-42-0*	*06/06/24 09:16*	*06/06/24 16:29*	*40*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*117*		*53 - 146*	*06/06/24 09:16*	*06/06/24 16:29*	*40*
4-Bromofluorobenzene (Surr)	*120*		*49 - 148*	*06/06/24 09:16*	*06/06/24 16:29*	*40*
Toluene-d8 (Surr)	*113*		*50 - 149*	*06/06/24 09:16*	*06/06/24 16:29*	*40*
Dibromofluoromethane (Surr)	*111*		*60 - 140*	*06/06/24 09:16*	*06/06/24 16:29*	*40*

Client Sample ID: SED-11

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-7
Matrix: Solid
Percent Solids: 52.1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	12800		18.4	15.8	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Antimony	ND		27.6	0.97	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Arsenic	40.2		3.7	1.6	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Barium	423		0.92	0.26	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Beryllium	0.61		0.37	0.074	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Cadmium	4.5		0.37	0.13	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Calcium	28300		91.9	49.6	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Chromium	4650		91.9	66.2	mg/Kg	☼	06/05/24 15:25	06/07/24 15:36	100
Cobalt	18.9		0.92	0.18	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Copper	300		1.8	1.0	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Iron	27900	B	18.4	15.6	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Lead	6950		1.8	0.85	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Magnesium	7170		36.8	15.6	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Manganese	344		1.8	0.51	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Nickel	460		9.2	0.46	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Potassium	2360		55.2	44.6	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Selenium	7.7		7.4	1.5	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Silver	0.46	J	1.1	0.37	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Sodium	1890		257	113	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Thallium	ND		11.0	1.4	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Vanadium	314		0.92	0.24	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1
Zinc	2260		3.7	1.9	mg/Kg	☼	06/05/24 15:25	06/06/24 16:45	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	3.8		0.37	0.085	mg/Kg	☼	06/06/24 08:50	06/06/24 13:08	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	7.3	F1	1.9	0.91	mg/Kg	☼	06/07/24 12:22	06/07/24 16:22	1
Total Organic Carbon (EPA-Lloyd Kahn)	255000	^2	1920	1860	mg/Kg	☼		06/14/24 17:50	1
Total Organic Carbon (EPA-Lloyd Kahn)	275000	H	1920	1860	mg/Kg	☼		06/24/24 14:42	1

Client Sample ID: SED-11-FD

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-8
Matrix: Solid
Percent Solids: 54.8

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		6900	1900	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
1,1,2,2-Tetrachloroethane	ND		6900	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6900	3400	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
1,1,2-Trichloroethane	ND		6900	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
1,1-Dichloroethane	ND		6900	2100	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
1,1-Dichloroethene	ND		6900	2400	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
1,2,4-Trichlorobenzene	ND		6900	2600	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
1,2-Dibromo-3-Chloropropane	ND		6900	3400	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
1,2-Dichlorobenzene	2000	J	6900	1800	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
1,2-Dichloroethane	ND		6900	2800	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40

Client Sample ID: SED-11-FD
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-8
Matrix: Solid
Percent Solids: 54.8

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		6900	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
1,3-Dichlorobenzene	ND		6900	1800	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
1,4-Dichlorobenzene	ND		6900	960	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
2-Butanone (MEK)	ND		34000	20000	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
2-Hexanone	ND		34000	14000	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
4-Methyl-2-pentanone (MIBK)	ND		34000	2200	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Acetone	ND		34000	28000	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Benzene	**170000**		6900	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Bromoform	ND		6900	3400	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Bromomethane	ND		6900	1500	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Carbon disulfide	ND		6900	3100	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Carbon tetrachloride	ND		6900	1800	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Chlorobenzene	ND		6900	910	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Dibromochloromethane	ND		6900	3300	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Chloroethane	ND		6900	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Chloroform	ND		6900	4700	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Chloromethane	ND		6900	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
cis-1,2-Dichloroethene	ND		6900	1900	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Cyclohexane	**16000**		6900	1500	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Bromodichloromethane	ND		6900	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Dichlorodifluoromethane	ND		6900	3000	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Ethylbenzene	**120000**		6900	2000	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
1,2-Dibromoethane	ND		6900	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Isopropylbenzene	**13000**		6900	1000	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Methyl acetate	ND		34000	3300	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Methyl tert-butyl ether	ND		6900	2600	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Methylcyclohexane	**50000**		6900	3200	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Methylene Chloride	ND		6900	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Tetrachloroethene	ND		6900	930	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Toluene	**4000**	**J**	6900	1800	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
trans-1,2-Dichloroethene	ND		6900	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
trans-1,3-Dichloropropene	ND		6900	680	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Trichloroethene	ND		6900	1900	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Trichlorofluoromethane	ND		6900	3200	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Vinyl chloride	ND		6900	2300	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Xylenes, Total	**46000**		14000	3800	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
cis-1,3-Dichloropropene	ND		6900	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40
Styrene	ND		6900	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 16:52	40

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
m-Xylene & p-Xylene	*41000*	*H*	*ug/Kg*	☼	*7.96*	*179601-23-1*	*06/06/24 09:16*	*06/06/24 16:52*	*40*
Unknown	*120000*	*T H J*	*ug/Kg*	☼	*10.40*	*N/A*	*06/06/24 09:16*	*06/06/24 16:52*	*40*
Benzene, 1,2,4,5-tetramethyl-	*200000*	*T H J N*	*ug/Kg*	☼	*11.62*	*95-93-2*	*06/06/24 09:16*	*06/06/24 16:52*	*40*
Naphthalene	*820000*	*T H J N*	*ug/Kg*	☼	*12.18*	*91-20-3*	*06/06/24 09:16*	*06/06/24 16:52*	*40*
Naphthalene, 2-methyl-	*610000*	*T H J N*	*ug/Kg*	☼	*13.10*	*91-57-6*	*06/06/24 09:16*	*06/06/24 16:52*	*40*
Naphthalene, 1-methyl-	*310000*	*T H J N*	*ug/Kg*	☼	*13.25*	*90-12-0*	*06/06/24 09:16*	*06/06/24 16:52*	*40*
Naphthalene, 1-ethyl-	*140000*	*T H J N*	*ug/Kg*	☼	*13.83*	*1127-76-0*	*06/06/24 09:16*	*06/06/24 16:52*	*40*
Naphthalene, 2,7-dimethyl-	*290000*	*T H J N*	*ug/Kg*	☼	*13.91*	*582-16-1*	*06/06/24 09:16*	*06/06/24 16:52*	*40*
Unknown	*270000*	*T H J*	*ug/Kg*	☼	*14.03*	*N/A*	*06/06/24 09:16*	*06/06/24 16:52*	*40*
Naphthalene, 2,3-dimethyl-	*120000*	*T H J N*	*ug/Kg*	☼	*14.21*	*581-40-8*	*06/06/24 09:16*	*06/06/24 16:52*	*40*

Client Sample ID: SED-11-FD

Lab Sample ID: 480-220474-8

Date Collected: 06/04/24 00:00
Matrix: Solid
Date Received: 06/04/24 16:00
Percent Solids: 54.8

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*53 - 146*	*06/06/24 09:16*	*06/06/24 16:52*	*40*
4-Bromofluorobenzene (Surr)	*105*		*49 - 148*	*06/06/24 09:16*	*06/06/24 16:52*	*40*
Toluene-d8 (Surr)	*99*		*50 - 149*	*06/06/24 09:16*	*06/06/24 16:52*	*40*
Dibromofluoromethane (Surr)	*93*		*60 - 140*	*06/06/24 09:16*	*06/06/24 16:52*	*40*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**16600**		17.6	15.2	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Antimony	ND		26.4	0.93	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Arsenic	**64.8**		3.5	1.5	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Barium	**609**		0.88	0.25	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Beryllium	**0.67**		0.35	0.070	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Cadmium	**5.0**		0.35	0.12	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Calcium	**48700**		87.9	47.5	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Chromium	**8690**		87.9	63.3	mg/Kg	☼	06/05/24 15:25	06/07/24 15:38	100
Cobalt	**19.1**		0.88	0.18	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Copper	**513**		1.8	1.0	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Iron	**32000**	**B**	17.6	14.9	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Lead	**5610**		1.8	0.81	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Magnesium	**9150**		35.2	14.9	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Manganese	**458**		1.8	0.49	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Nickel	**542**		8.8	0.44	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Potassium	**2220**		52.8	42.6	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Selenium	**9.5**		7.0	1.4	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Silver	**0.35**	**J**	1.1	0.35	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Sodium	**2400**		246	108	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Thallium	**2.1**	**J**	10.6	1.3	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Vanadium	**388**		0.88	0.23	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1
Zinc	**2720**		3.5	1.8	mg/Kg	☼	06/05/24 15:25	06/06/24 16:47	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.035	0.0082	mg/Kg	☼	06/06/24 08:50	06/06/24 11:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	**7.9**		1.6	0.76	mg/Kg	☼	06/11/24 12:20	06/11/24 16:05	1
Total Organic Carbon (EPA-Lloyd Kahn)	**302000**	**^2**	1830	1770	mg/Kg	☼		06/14/24 18:05	1
Total Organic Carbon (EPA-Lloyd Kahn)	**284000**	**H**	1830	1770	mg/Kg	☼		06/24/24 14:57	1

Client Sample ID: SED-12

Lab Sample ID: 480-220474-9

Date Collected: 06/04/24 00:00
Matrix: Solid
Date Received: 06/04/24 16:00
Percent Solids: 48.6

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		15000	4100	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
1,1,2,2-Tetrachloroethane	ND		15000	2400	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		15000	7300	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
1,1,2-Trichloroethane	ND		15000	3100	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80

Client Sample ID: SED-12
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-9
Matrix: Solid
Percent Solids: 48.6

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		15000	4500	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
1,1-Dichloroethene	ND		15000	5100	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
1,2,4-Trichlorobenzene	ND		15000	5600	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
1,2-Dibromo-3-Chloropropane	ND		15000	7300	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
1,2-Dichlorobenzene	**13000**	**J**	15000	3700	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
1,2-Dichloroethane	ND		15000	6000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
1,2-Dichloropropane	ND		15000	2400	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
1,3-Dichlorobenzene	ND		15000	3900	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
1,4-Dichlorobenzene	**9300**	**J**	15000	2100	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
2-Butanone (MEK)	ND		73000	44000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
2-Hexanone	ND		73000	30000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
4-Methyl-2-pentanone (MIBK)	ND		73000	4700	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Acetone	ND		73000	60000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Benzene	**320000**		15000	2800	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Bromoform	ND		15000	7300	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Bromomethane	ND		15000	3200	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Carbon disulfide	ND		15000	6700	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Carbon tetrachloride	ND		15000	3700	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Chlorobenzene	**61000**		15000	1900	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Dibromochloromethane	ND		15000	7100	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Chloroethane	ND		15000	3000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Chloroform	ND		15000	10000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Chloromethane	ND		15000	3500	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
cis-1,2-Dichloroethene	ND		15000	4000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Cyclohexane	**17000**		15000	3300	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Bromodichloromethane	ND		15000	2900	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Dichlorodifluoromethane	ND		15000	6400	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Ethylbenzene	**230000**		15000	4300	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
1,2-Dibromoethane	ND		15000	2600	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Isopropylbenzene	**24000**		15000	2200	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Methyl acetate	ND		73000	7000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Methyl tert-butyl ether	ND		15000	5500	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Methylcyclohexane	**52000**		15000	6900	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Methylene Chloride	ND		15000	2900	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Tetrachloroethene	ND		15000	2000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Toluene	ND		15000	3900	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
trans-1,2-Dichloroethene	ND		15000	3500	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
trans-1,3-Dichloropropene	ND		15000	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Trichloroethene	ND		15000	4100	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Trichlorofluoromethane	ND		15000	6900	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Vinyl chloride	ND		15000	4900	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Xylenes, Total	**11000**	**J**	29000	8100	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
cis-1,3-Dichloropropene	ND		15000	3500	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80
Styrene	ND		15000	3500	ug/Kg	☼	06/06/24 09:16	06/06/24 17:15	80

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
m-Xylene & p-Xylene	*8500*	*J H*	*ug/Kg*	☼	*7.96*	*179601-23-1*	*06/06/24 09:16*	*06/06/24 17:15*	*80*
Benzene, 1-propenyl-	*93000*	*T H J N*	*ug/Kg*	☼	*10.40*	*637-50-3*	*06/06/24 09:16*	*06/06/24 17:15*	*80*
1-Phenyl-1-butene	*140000*	*T H J N*	*ug/Kg*	☼	*11.63*	*824-90-8*	*06/06/24 09:16*	*06/06/24 17:15*	*80*
Naphthalene	*230000*	*T H J N*	*ug/Kg*	☼	*12.18*	*91-20-3*	*06/06/24 09:16*	*06/06/24 17:15*	*80*

Client Sample ID: SED-12
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-9
Matrix: Solid
Percent Solids: 48.6

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	470000	T H J	ug/Kg	☼	13.10	N/A	06/06/24 09:16	06/06/24 17:15	80
Naphthalene, 2-methyl-	260000	T H J N	ug/Kg	☼	13.25	91-57-6	06/06/24 09:16	06/06/24 17:15	80
Naphthalene, 1-ethyl-	110000	T H J N	ug/Kg	☼	13.83	1127-76-0	06/06/24 09:16	06/06/24 17:15	80
Naphthalene, 2,6-dimethyl-	220000	T H J N	ug/Kg	☼	13.91	581-42-0	06/06/24 09:16	06/06/24 17:15	80
Naphthalene, 2,3-dimethyl-	280000	T H J N	ug/Kg	☼	14.03	581-40-8	06/06/24 09:16	06/06/24 17:15	80
Naphthalene, 1,4-dimethyl-	100000	T H J N	ug/Kg	☼	14.21	571-58-4	06/06/24 09:16	06/06/24 17:15	80

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		53 - 146	06/06/24 09:16	06/06/24 17:15	80
4-Bromofluorobenzene (Surr)	104		49 - 148	06/06/24 09:16	06/06/24 17:15	80
Toluene-d8 (Surr)	99		50 - 149	06/06/24 09:16	06/06/24 17:15	80
Dibromofluoromethane (Surr)	92		60 - 140	06/06/24 09:16	06/06/24 17:15	80

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.3	0.33	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluoropentanoic acid (PFPeA)	**0.82**		0.67	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluorohexanoic acid (PFHxA)	ND		0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluoroheptanoic acid (PFHpA)	ND		0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluorooctanoic acid (PFOA)	**1.1**		0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluorononanoic acid (PFNA)	**2.5**		0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluorodecanoic acid (PFDA)	ND		0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluoroundecanoic acid (PFUnA)	**0.27**	**J I**	0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluorododecanoic acid (PFDoA)	ND		0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluorooctanesulfonic acid (PFOS)	**0.58**		0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluorononanesulfonic acid (PFNS)	ND		0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1.3	0.33	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1.3	0.33	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1.3	0.33	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluorooctanesulfonamide (PFOSA)	**1.8**	**I**	0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	**0.12**	**J I**	0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	**0.41**		0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1

Client Sample ID: SED-12
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-9
Matrix: Solid
Percent Solids: 48.6

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	**2.0**		0.34	0.086	ug/Kg	☼	06/13/24 15:10	06/15/24 05:38	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		3.3	0.84	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		3.3	0.84	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.3	0.33	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.3	0.33	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.67	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.67	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		1.3	0.33	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		1.3	0.33	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.67	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1.7	0.42	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.4	2.1	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.4	2.1	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluorodecanesulfonic acid (PFDS)	**0.43**	**I**	0.33	0.084	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.67	0.17	ug/Kg	☼	06/06/24 15:07	06/07/24 22:53	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*98.0*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:53*	*1*
13C4 PFBA	*95.4*		*20 - 150*	*06/13/24 15:10*	*06/15/24 05:38*	*1*
13C5 PFPeA	*91.4*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:53*	*1*
13C5 PFPeA	*88.3*		*20 - 150*	*06/13/24 15:10*	*06/15/24 05:38*	*1*
13C5 PFHxA	*80.6*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:53*	*1*
13C5 PFHxA	*91.8*		*20 - 150*	*06/13/24 15:10*	*06/15/24 05:38*	*1*
13C4 PFHpA	*79.2*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:53*	*1*
13C4 PFHpA	*74.8*		*20 - 150*	*06/13/24 15:10*	*06/15/24 05:38*	*1*
13C8 PFOA	*87.6*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:53*	*1*
13C8 PFOA	*88.1*		*20 - 150*	*06/13/24 15:10*	*06/15/24 05:38*	*1*
13C9 PFNA	*122*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:53*	*1*
13C9 PFNA	*111*		*20 - 150*	*06/13/24 15:10*	*06/15/24 05:38*	*1*
13C6 PFDA	*83.7*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:53*	*1*
13C6 PFDA	*112*		*20 - 150*	*06/13/24 15:10*	*06/15/24 05:38*	*1*
13C7 PFUnA	*91.4*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:53*	*1*
13C7 PFUnA	*91.8*		*20 - 150*	*06/13/24 15:10*	*06/15/24 05:38*	*1*
13C2 PFTeDA	*92.0*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:53*	*1*
13C2 PFTeDA	*82.7*		*20 - 150*	*06/13/24 15:10*	*06/15/24 05:38*	*1*
13C3 PFBS	*107*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:53*	*1*
13C3 PFBS	*113*		*20 - 150*	*06/13/24 15:10*	*06/15/24 05:38*	*1*
13C3 PFHxS	*103*		*20 - 150*	*06/06/24 15:07*	*06/07/24 22:53*	*1*
13C3 PFHxS	*92.0*		*20 - 150*	*06/13/24 15:10*	*06/15/24 05:38*	*1*

Client Sample ID: SED-12
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-9
Matrix: Solid
Percent Solids: 48.6

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOS	74.8		20 - 150	06/06/24 15:07	06/07/24 22:53	1
13C8 PFOS	94.8		20 - 150	06/13/24 15:10	06/15/24 05:38	1
13C8 FOSA	58.5		20 - 150	06/06/24 15:07	06/07/24 22:53	1
13C8 FOSA	64.7		20 - 150	06/13/24 15:10	06/15/24 05:38	1
d3-NMeFOSAA	61.3		20 - 150	06/06/24 15:07	06/07/24 22:53	1
d3-NMeFOSAA	79.9		20 - 150	06/13/24 15:10	06/15/24 05:38	1
d5-NEtFOSAA	72.5		20 - 150	06/06/24 15:07	06/07/24 22:53	1
d5-NEtFOSAA	79.1		20 - 150	06/13/24 15:10	06/15/24 05:38	1
M2-4:2 FTS	177	I *5+	20 - 150	06/06/24 15:07	06/07/24 22:53	1
M2-4:2 FTS	225	I *5+	20 - 150	06/13/24 15:10	06/15/24 05:38	1
M2-6:2 FTS	135		20 - 150	06/06/24 15:07	06/07/24 22:53	1
M2-6:2 FTS	145		20 - 150	06/13/24 15:10	06/15/24 05:38	1
M2-8:2 FTS	151	I *5+	20 - 150	06/06/24 15:07	06/07/24 22:53	1
M2-8:2 FTS	149		20 - 150	06/13/24 15:10	06/15/24 05:38	1
13C3 HFPO-DA	73.1		20 - 150	06/06/24 15:07	06/07/24 22:53	1
13C3 HFPO-DA	78.8		20 - 150	06/13/24 15:10	06/15/24 05:38	1
d7-N-MeFOSE-M	36.0		20 - 150	06/06/24 15:07	06/07/24 22:53	1
d7-N-MeFOSE-M	78.9		20 - 150	06/13/24 15:10	06/15/24 05:38	1
d9-N-EtFOSE-M	34.1		20 - 150	06/06/24 15:07	06/07/24 22:53	1
d9-N-EtFOSE-M	62.6		20 - 150	06/13/24 15:10	06/15/24 05:38	1
d5-NEtPFOSA	53.5		20 - 150	06/06/24 15:07	06/07/24 22:53	1
d5-NEtPFOSA	59.3		20 - 150	06/13/24 15:10	06/15/24 05:38	1
d3-NMePFOSA	57.7		20 - 150	06/06/24 15:07	06/07/24 22:53	1
d3-NMePFOSA	77.3		20 - 150	06/13/24 15:10	06/15/24 05:38	1
13C2-PFDoDA	110		20 - 150	06/06/24 15:07	06/07/24 22:53	1
13C2-PFDoDA	90.7		20 - 150	06/13/24 15:10	06/15/24 05:38	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**15900**		20.7	17.9	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Antimony	ND		31.1	1.1	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Arsenic	**49.2**		4.1	1.8	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Barium	**553**		1.0	0.29	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Beryllium	**0.76**		0.41	0.083	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Cadmium	**6.0**		0.41	0.15	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Calcium	**41900**		104	56.0	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Chromium	**9550**		104	74.7	mg/Kg	☼	06/05/24 15:25	06/07/24 15:40	100
Cobalt	**21.6**		1.0	0.21	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Copper	**369**		2.1	1.2	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Iron	**32100**	**B**	20.7	17.6	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Lead	**16400**		207	95.4	mg/Kg	☼	06/05/24 15:25	06/07/24 15:40	100
Magnesium	**7610**		41.5	17.6	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Manganese	**460**		2.1	0.58	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Nickel	**443**		10.4	0.52	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Potassium	**2350**		62.2	50.3	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Selenium	**10.3**		8.3	1.7	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Silver	**0.62**	**J**	1.2	0.41	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Sodium	**846**		290	127	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Thallium	ND		12.4	1.6	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1
Vanadium	**497**		1.0	0.27	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1

Client Sample ID: SED-12

Lab Sample ID: 480-220474-9
Date Collected: 06/04/24 00:00
Matrix: Solid
Date Received: 06/04/24 16:00
Percent Solids: 48.6

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	3100		4.1	2.1	mg/Kg	☼	06/05/24 15:25	06/06/24 16:48	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	5.3		0.41	0.093	mg/Kg	☼	06/06/24 08:50	06/06/24 13:09	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	9.9		1.9	0.90	mg/Kg	☼	06/11/24 12:20	06/11/24 16:06	1
Total Organic Carbon (EPA-Lloyd Kahn)	203000	^2	2060	2000	mg/Kg	☼		06/14/24 18:20	1
Total Organic Carbon (EPA-Lloyd Kahn)	190000	H	2060	2000	mg/Kg	☼		06/24/24 15:12	1

Client Sample ID: SED-13

Lab Sample ID: 480-220474-10
Date Collected: 06/04/24 00:00
Matrix: Solid
Date Received: 06/04/24 16:00
Percent Solids: 45.5

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		31000	8500	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
1,1,2,2-Tetrachloroethane	ND		31000	5000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		31000	15000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
1,1,2-Trichloroethane	ND		31000	6400	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
1,1-Dichloroethane	ND		31000	9500	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
1,1-Dichloroethene	ND		31000	11000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
1,2,4-Trichlorobenzene	ND		31000	12000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
1,2-Dibromo-3-Chloropropane	ND		31000	15000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
1,2-Dichlorobenzene	ND		31000	7800	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
1,2-Dichloroethane	ND		31000	13000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
1,2-Dichloropropane	ND		31000	5000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
1,3-Dichlorobenzene	ND		31000	8200	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
1,4-Dichlorobenzene	ND		31000	4300	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
2-Butanone (MEK)	ND		150000	91000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
2-Hexanone	ND		150000	63000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
4-Methyl-2-pentanone (MIBK)	ND		150000	9800	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Acetone	ND		150000	130000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Benzene	180000		31000	5800	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Bromoform	ND		31000	15000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Bromomethane	ND		31000	6700	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Carbon disulfide	ND		31000	14000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Carbon tetrachloride	ND		31000	7800	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Chlorobenzene	ND		31000	4000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Dibromochloromethane	ND		31000	15000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Chloroethane	ND		31000	6400	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Chloroform	ND		31000	21000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Chloromethane	ND		31000	7300	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
cis-1,2-Dichloroethene	ND		31000	8400	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Cyclohexane	11000	J	31000	6800	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Bromodichloromethane	ND		31000	6100	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Dichlorodifluoromethane	ND		31000	13000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80

Client Sample ID: SED-13
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-10
Matrix: Solid
Percent Solids: 45.5

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**130000**		31000	8900	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
1,2-Dibromoethane	ND		31000	5400	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Isopropylbenzene	**15000**	**J**	31000	4600	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Methyl acetate	ND		150000	15000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Methyl tert-butyl ether	ND		31000	12000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Methylcyclohexane	**47000**		31000	14000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Methylene Chloride	ND		31000	6100	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Tetrachloroethene	ND		31000	4100	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Toluene	ND		31000	8200	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
trans-1,2-Dichloroethene	ND		31000	7200	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
trans-1,3-Dichloropropene	ND		31000	3000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Trichloroethene	ND		31000	8500	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Trichlorofluoromethane	ND		31000	14000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Vinyl chloride	ND		31000	10000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Xylenes, Total	ND		61000	17000	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
cis-1,3-Dichloropropene	ND		31000	7300	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80
Styrene	ND		31000	7400	ug/Kg	☼	06/06/24 09:16	06/06/24 17:39	80

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
o-Xylene	*9200*	*J H*	*ug/Kg*	☼	*8.38*	*95-47-6*	*06/06/24 09:16*	*06/06/24 17:39*	*80*
Benzene, 1,2,3-trimethyl-	*160000*	*T H J N*	*ug/Kg*	☼	*10.22*	*526-73-8*	*06/06/24 09:16*	*06/06/24 17:39*	*80*
Unknown	*280000*	*T H J*	*ug/Kg*	☼	*10.40*	*N/A*	*06/06/24 09:16*	*06/06/24 17:39*	*80*
Unknown	*320000*	*T H J*	*ug/Kg*	☼	*11.62*	*N/A*	*06/06/24 09:16*	*06/06/24 17:39*	*80*
Naphthalene	*1700000*	*T H J N*	*ug/Kg*	☼	*12.18*	*91-20-3*	*06/06/24 09:16*	*06/06/24 17:39*	*80*
Unknown	*950000*	*T H J*	*ug/Kg*	☼	*13.10*	*N/A*	*06/06/24 09:16*	*06/06/24 17:39*	*80*
Naphthalene, 2-methyl-	*500000*	*T H J N*	*ug/Kg*	☼	*13.26*	*91-57-6*	*06/06/24 09:16*	*06/06/24 17:39*	*80*
Naphthalene, 1-ethyl-	*150000*	*T H J N*	*ug/Kg*	☼	*13.83*	*1127-76-0*	*06/06/24 09:16*	*06/06/24 17:39*	*80*
Naphthalene, 2,7-dimethyl-	*280000*	*T H J N*	*ug/Kg*	☼	*13.91*	*582-16-1*	*06/06/24 09:16*	*06/06/24 17:39*	*80*
Unknown	*350000*	*T H J*	*ug/Kg*	☼	*14.03*	*N/A*	*06/06/24 09:16*	*06/06/24 17:39*	*80*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*53 - 146*	*06/06/24 09:16*	*06/06/24 17:39*	*80*
4-Bromofluorobenzene (Surr)	*103*		*49 - 148*	*06/06/24 09:16*	*06/06/24 17:39*	*80*
Toluene-d8 (Surr)	*98*		*50 - 149*	*06/06/24 09:16*	*06/06/24 17:39*	*80*
Dibromofluoromethane (Surr)	*92*		*60 - 140*	*06/06/24 09:16*	*06/06/24 17:39*	*80*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**19300**		22.9	19.8	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Antimony	ND		34.4	1.2	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Arsenic	**60.1**		4.6	2.0	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Barium	**406**		1.1	0.32	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Beryllium	**0.73**		0.46	0.092	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Cadmium	**4.3**		0.46	0.16	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Calcium	**34700**		115	61.9	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Chromium	**7760**		115	82.6	mg/Kg	☼	06/05/24 15:25	06/07/24 15:44	100
Cobalt	**17.1**		1.1	0.23	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Copper	**362**		2.3	1.3	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Iron	**32200**	**B**	22.9	19.5	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Lead	**4270**		2.3	1.1	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1

Client Sample ID: SED-13

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-10

Matrix: Solid
Percent Solids: 45.5

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	**9090**		45.9	19.5	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Manganese	**416**		2.3	0.64	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Nickel	**356**		11.5	0.57	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Potassium	**3070**		68.8	55.6	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Selenium	**8.6**	**J**	9.2	1.8	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Silver	ND		1.4	0.46	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Sodium	**732**		321	141	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Thallium	ND		13.8	1.7	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Vanadium	**226**		1.1	0.30	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1
Zinc	**2860**		4.6	2.3	mg/Kg	☼	06/05/24 15:25	06/06/24 16:50	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**3.5**		0.042	0.0097	mg/Kg	☼	06/06/24 08:50	06/06/24 12:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	**6.2**		2.2	1.0	mg/Kg	☼	06/11/24 12:20	06/11/24 16:11	1
Total Organic Carbon (EPA-Lloyd Kahn)	**390000**	**^2**	2200	2140	mg/Kg	☼		06/14/24 18:35	1
Total Organic Carbon (EPA-Lloyd Kahn)	**342000**	**H**	2200	2140	mg/Kg	☼		06/24/24 15:28	1

Client Sample ID: SED-14

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-11

Matrix: Solid
Percent Solids: 66.5

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		3800	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
1,1,2,2-Tetrachloroethane	ND		3800	620	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3800	1900	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
1,1,2-Trichloroethane	ND		3800	810	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
1,1-Dichloroethane	ND		3800	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
1,1-Dichloroethene	ND		3800	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
1,2,4-Trichlorobenzene	ND		3800	1500	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
1,2-Dibromo-3-Chloropropane	ND		3800	1900	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
1,2-Dichlorobenzene	**1400**	**J**	3800	980	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
1,2-Dichloroethane	ND		3800	1600	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
1,2-Dichloropropane	ND		3800	620	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
1,3-Dichlorobenzene	ND		3800	1000	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
1,4-Dichlorobenzene	ND		3800	540	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
2-Butanone (MEK)	ND		19000	11000	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
2-Hexanone	ND		19000	7900	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
4-Methyl-2-pentanone (MIBK)	ND		19000	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Acetone	ND		19000	16000	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Benzene	**170000**		3800	730	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Bromoform	ND		3800	1900	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Bromomethane	ND		3800	850	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Carbon disulfide	ND		3800	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Carbon tetrachloride	ND		3800	980	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40

Client Sample ID: SED-14
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-11
Matrix: Solid
Percent Solids: 66.5

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND		3800	510	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Dibromochloromethane	ND		3800	1900	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Chloroethane	ND		3800	800	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Chloroform	ND		3800	2600	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Chloromethane	ND		3800	920	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
cis-1,2-Dichloroethene	ND		3800	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Cyclohexane	**9500**		3800	850	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Bromodichloromethane	ND		3800	770	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Dichlorodifluoromethane	ND		3800	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Ethylbenzene	**71000**		3800	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
1,2-Dibromoethane	ND		3800	670	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Isopropylbenzene	**6800**		3800	580	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Methyl acetate	ND		19000	1800	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Methyl tert-butyl ether	ND		3800	1500	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Methylcyclohexane	**24000**		3800	1800	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Methylene Chloride	ND		3800	760	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Tetrachloroethene	ND		3800	520	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Toluene	**1000**	**J**	3800	1000	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
trans-1,2-Dichloroethene	ND		3800	910	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
trans-1,3-Dichloropropene	ND		3800	380	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Trichloroethene	ND		3800	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Trichlorofluoromethane	ND		3800	1800	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Vinyl chloride	ND		3800	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Xylenes, Total	**3900**	**J**	7700	2100	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
cis-1,3-Dichloropropene	ND		3800	920	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40
Styrene	ND		3800	930	ug/Kg	☼	06/06/24 09:16	06/06/24 18:02	40

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
m-Xylene & p-Xylene	*3200*	*J H*	*ug/Kg*	☼	*7.96*	*179601-23-1*	*06/06/24 09:16*	*06/06/24 18:02*	*40*
Benzene, propyl-	*24000*	*T H J N*	*ug/Kg*	☼	*9.21*	*103-65-1*	*06/06/24 09:16*	*06/06/24 18:02*	*40*
Unknown	*35000*	*T H J*	*ug/Kg*	☼	*10.40*	*N/A*	*06/06/24 09:16*	*06/06/24 18:02*	*40*
Benzene, 1-methyl-4-(1-methylethyl)-	*25000*	*T H J N*	*ug/Kg*	☼	*10.85*	*99-87-6*	*06/06/24 09:16*	*06/06/24 18:02*	*40*
Unknown	*58000*	*T H J*	*ug/Kg*	☼	*11.62*	*N/A*	*06/06/24 09:16*	*06/06/24 18:02*	*40*
Naphthalene	*230000*	*T H J N*	*ug/Kg*	☼	*12.18*	*91-20-3*	*06/06/24 09:16*	*06/06/24 18:02*	*40*
Unknown	*150000*	*T H J*	*ug/Kg*	☼	*13.10*	*N/A*	*06/06/24 09:16*	*06/06/24 18:02*	*40*
Naphthalene, 2-methyl-	*76000*	*T H J N*	*ug/Kg*	☼	*13.25*	*91-57-6*	*06/06/24 09:16*	*06/06/24 18:02*	*40*
Naphthalene, 2,6-dimethyl-	*41000*	*T H J N*	*ug/Kg*	☼	*13.91*	*581-42-0*	*06/06/24 09:16*	*06/06/24 18:02*	*40*
Naphthalene, 2,3-dimethyl-	*51000*	*T H J N*	*ug/Kg*	☼	*14.03*	*581-40-8*	*06/06/24 09:16*	*06/06/24 18:02*	*40*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*53 - 146*	*06/06/24 09:16*	*06/06/24 18:02*	*40*
4-Bromofluorobenzene (Surr)	*102*		*49 - 148*	*06/06/24 09:16*	*06/06/24 18:02*	*40*
Toluene-d8 (Surr)	*99*		*50 - 149*	*06/06/24 09:16*	*06/06/24 18:02*	*40*
Dibromofluoromethane (Surr)	*90*		*60 - 140*	*06/06/24 09:16*	*06/06/24 18:02*	*40*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**41000**		15.2	13.1	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Antimony	ND		22.9	0.81	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Arsenic	**103**		3.0	1.3	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1

Client Sample ID: SED-14

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-11

Matrix: Solid
Percent Solids: 66.5

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	300		0.76	0.21	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Beryllium	0.73		0.30	0.061	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Cadmium	3.0		0.30	0.11	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Calcium	33600		76.2	41.1	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Chromium	2830		76.2	54.9	mg/Kg	☼	06/05/24 15:25	06/07/24 15:46	100
Cobalt	13.5		0.76	0.15	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Copper	406		1.5	0.87	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Iron	28100	B	15.2	12.9	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Lead	2630		1.5	0.70	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Magnesium	7170		30.5	12.9	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Manganese	405		1.5	0.43	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Nickel	358		7.6	0.38	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Potassium	1670		45.7	36.9	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Selenium	5.1	J	6.1	1.2	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Silver	ND		0.91	0.30	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Sodium	1220		213	93.4	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Thallium	ND		9.1	1.2	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Vanadium	354		0.76	0.20	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1
Zinc	1220		3.0	1.6	mg/Kg	☼	06/05/24 15:25	06/06/24 16:52	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	12.8		0.29	0.068	mg/Kg	☼	06/06/24 08:50	06/06/24 13:10	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	3.6	J	6.3	3.0	mg/Kg	☼	06/11/24 12:20	06/11/24 16:21	5
Total Organic Carbon (EPA-Lloyd Kahn)	211000	^2	1500	1460	mg/Kg	☼		06/14/24 18:51	1
Total Organic Carbon (EPA-Lloyd Kahn)	220000	H	1500	1460	mg/Kg	☼		06/24/24 15:43	1

Client Sample ID: SED-15

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-12

Matrix: Solid
Percent Solids: 81.3

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2500	700	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
1,1,2,2-Tetrachloroethane	ND		2500	410	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2500	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
1,1,2-Trichloroethane	ND		2500	530	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
1,1-Dichloroethane	ND		2500	780	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
1,1-Dichloroethene	ND		2500	880	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
1,2,4-Trichlorobenzene	ND		2500	960	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
1,2-Dibromo-3-Chloropropane	ND		2500	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
1,2-Dichlorobenzene	1400	J	2500	650	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
1,2-Dichloroethane	ND		2500	1000	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
1,2-Dichloropropane	ND		2500	410	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
1,3-Dichlorobenzene	ND		2500	680	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
1,4-Dichlorobenzene	1300	J	2500	350	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40

Client Sample ID: SED-15
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-12
Matrix: Solid
Percent Solids: 81.3

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	ND		13000	7500	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
2-Hexanone	ND		13000	5200	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
4-Methyl-2-pentanone (MIBK)	ND		13000	810	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Acetone	ND		13000	10000	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Benzene	**3500**		2500	480	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Bromoform	ND		2500	1300	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Bromomethane	ND		2500	560	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Carbon disulfide	ND		2500	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Carbon tetrachloride	ND		2500	650	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Chlorobenzene	**12000**		2500	330	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Dibromochloromethane	ND		2500	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Chloroethane	ND		2500	530	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Chloroform	ND		2500	1700	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Chloromethane	ND		2500	600	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
cis-1,2-Dichloroethene	ND		2500	700	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Cyclohexane	**5300**		2500	560	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Bromodichloromethane	ND		2500	510	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Dichlorodifluoromethane	ND		2500	1100	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Ethylbenzene	ND		2500	740	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
1,2-Dibromoethane	ND		2500	440	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Isopropylbenzene	**3700**		2500	380	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Methyl acetate	ND		13000	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Methyl tert-butyl ether	ND		2500	960	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Methylcyclohexane	**18000**		2500	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Methylene Chloride	ND		2500	500	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Tetrachloroethene	ND		2500	340	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Toluene	ND		2500	680	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
trans-1,2-Dichloroethene	ND		2500	600	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
trans-1,3-Dichloropropene	ND		2500	250	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Trichloroethene	ND		2500	700	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Trichlorofluoromethane	ND		2500	1200	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Vinyl chloride	ND		2500	850	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Xylenes, Total	ND		5100	1400	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
cis-1,3-Dichloropropene	ND		2500	610	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40
Styrene	ND		2500	610	ug/Kg	☼	06/06/24 09:16	06/06/24 18:26	40

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Benzene, 1-propenyl-	*23000*	*T H J N*	*ug/Kg*	☼	*10.40*	*637-50-3*	*06/06/24 09:16*	*06/06/24 18:26*	*40*
Benzene, 2-ethyl-1,3-dimethyl-	*19000*	*T H J N*	*ug/Kg*	☼	*10.85*	*2870-04-4*	*06/06/24 09:16*	*06/06/24 18:26*	*40*
Benzene, 1,2,3,5-tetramethyl-	*16000*	*T H J N*	*ug/Kg*	☼	*11.21*	*527-53-7*	*06/06/24 09:16*	*06/06/24 18:26*	*40*
Unknown	*46000*	*T H J*	*ug/Kg*	☼	*11.62*	*N/A*	*06/06/24 09:16*	*06/06/24 18:26*	*40*
Unknown	*110000*	*T H J*	*ug/Kg*	☼	*13.10*	*N/A*	*06/06/24 09:16*	*06/06/24 18:26*	*40*
Naphthalene, 2-methyl-	*60000*	*T H J N*	*ug/Kg*	☼	*13.25*	*91-57-6*	*06/06/24 09:16*	*06/06/24 18:26*	*40*
Naphthalene, 1-ethyl-	*24000*	*T H J N*	*ug/Kg*	☼	*13.83*	*1127-76-0*	*06/06/24 09:16*	*06/06/24 18:26*	*40*
Naphthalene, 2,6-dimethyl-	*42000*	*T H J N*	*ug/Kg*	☼	*13.91*	*581-42-0*	*06/06/24 09:16*	*06/06/24 18:26*	*40*
Unknown	*52000*	*T H J*	*ug/Kg*	☼	*14.03*	*N/A*	*06/06/24 09:16*	*06/06/24 18:26*	*40*
Naphthalene, 2,3-dimethyl-	*18000*	*T H J N*	*ug/Kg*	☼	*14.21*	*581-40-8*	*06/06/24 09:16*	*06/06/24 18:26*	*40*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*53 - 146*	*06/06/24 09:16*	*06/06/24 18:26*	*40*

Client Sample ID: SED-15

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-12

Matrix: Solid
Percent Solids: 81.3

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*49 - 148*	*06/06/24 09:16*	*06/06/24 18:26*	*40*
Toluene-d8 (Surr)	*100*		*50 - 149*	*06/06/24 09:16*	*06/06/24 18:26*	*40*
Dibromofluoromethane (Surr)	*93*		*60 - 140*	*06/06/24 09:16*	*06/06/24 18:26*	*40*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	7080		12.2	10.5	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Antimony	2.4	J	18.3	0.65	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Arsenic	31.3		2.4	1.1	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Barium	148		0.61	0.17	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Beryllium	0.41		0.24	0.049	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Cadmium	1.5		0.24	0.085	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Calcium	40300		60.9	32.9	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Chromium	182		0.61	0.44	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Cobalt	17.8		0.61	0.12	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Copper	11700		122	69.4	mg/Kg	☼	06/05/24 15:25	06/07/24 15:48	100
Iron	48100	B	12.2	10.3	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Lead	472		1.2	0.56	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Magnesium	13300		24.4	10.3	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Manganese	539		1.2	0.34	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Nickel	375		6.1	0.30	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Potassium	1210		36.5	29.5	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Selenium	8.0		4.9	0.97	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Silver	0.74		0.73	0.24	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Sodium	394		170	74.7	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Thallium	ND		7.3	0.93	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Vanadium	59.3		0.61	0.16	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1
Zinc	2390		2.4	1.2	mg/Kg	☼	06/05/24 15:25	06/06/24 16:54	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.4		0.024	0.0055	mg/Kg	☼	06/06/24 08:50	06/06/24 12:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	6.6		5.5	2.7	mg/Kg	☼	06/11/24 12:20	06/11/24 16:22	5
Total Organic Carbon (EPA-Lloyd Kahn)	155000	^2	1230	1190	mg/Kg	☼		06/14/24 19:06	1
Total Organic Carbon (EPA-Lloyd Kahn)	177000	H	1230	1190	mg/Kg	☼		06/24/24 15:58	1

Client Sample ID: SED-06

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-13

Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND	F2	150000	22000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
1,4-Dioxane	ND		180000	49000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
bis (2-chloroisopropyl) ether	ND		150000	30000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
2,4,5-Trichlorophenol	ND	F2	150000	41000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220474-1

Client Sample ID: SED-06
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-13
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,6-Trichlorophenol	ND	F2	150000	30000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
2,4-Dichlorophenol	ND	F2	150000	16000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
2,4-Dimethylphenol	ND	F1	150000	36000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
2,4-Dinitrophenol	ND		1500000	690000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
2,4-Dinitrotoluene	**56000**	**J F1**	150000	31000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
2,6-Dinitrotoluene	ND	F2	150000	18000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
2-Chloronaphthalene	ND	F2	150000	25000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
2-Chlorophenol	ND	F2	150000	27000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
2-Methylnaphthalene	**450000**	**F1**	150000	30000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
2-Methylphenol	ND	F2	150000	18000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
2-Nitroaniline	ND	F1 F2	290000	22000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
2-Nitrophenol	ND	F2	150000	42000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
3,3'-Dichlorobenzidine	ND	F2	290000	180000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
3-Nitroaniline	ND	F2	290000	41000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
4,6-Dinitro-2-methylphenol	ND	F2	290000	150000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
4-Bromophenyl phenyl ether	ND	F2	150000	21000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
4-Chloro-3-methylphenol	ND		150000	37000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
4-Chloroaniline	ND	F2	150000	37000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
4-Chlorophenyl phenyl ether	ND	F2	150000	19000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
4-Methylphenol	ND	F2	290000	18000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
4-Nitroaniline	ND	F2	290000	79000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
4-Nitrophenol	ND		290000	110000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Acenaphthene	**26000**	**J**	150000	22000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Acenaphthylene	ND	F2	150000	19000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Acetophenone	ND	F2	150000	20000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Anthracene	ND	F2	150000	37000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Atrazine	ND	F2	150000	52000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Benzaldehyde	ND	F2	150000	120000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Benzo[a]anthracene	**35000**	**J F1**	150000	15000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Benzo[a]pyrene	ND	F2	150000	22000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Benzo[b]fluoranthene	ND	F2	150000	24000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Benzo[g,h,i]perylene	ND	F2	150000	16000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Benzo[k]fluoranthene	ND	F2	150000	19000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Bis(2-chloroethoxy)methane	ND	F2	150000	32000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Bis(2-chloroethyl)ether	ND	F2	150000	19000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Bis(2-ethylhexyl) phthalate	ND	F1 F2	150000	51000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Butyl benzyl phthalate	ND	F2	150000	25000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Caprolactam	ND		150000	45000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Carbazole	ND	F2	150000	18000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Chrysene	**59000**	**J F1**	150000	34000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Dibenz(a,h)anthracene	ND	F2	150000	26000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Dibenzofuran	ND	F2	150000	18000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Diethyl phthalate	ND	F2	150000	19000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Dimethyl phthalate	ND	F2	150000	18000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Di-n-butyl phthalate	ND	F2	150000	26000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Di-n-octyl phthalate	**24000**	**J F2**	150000	18000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Fluoranthene	**24000**	**J F2**	150000	16000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Fluorene	**52000**	**J F1**	150000	18000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Hexachlorobenzene	ND	F2	150000	20000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5

Client Sample ID: SED-06
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-13
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND		150000	22000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Hexachlorocyclopentadiene	ND	F1	150000	20000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Hexachloroethane	ND		150000	19000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Indeno[1,2,3-cd]pyrene	ND	F2	150000	19000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Isophorone	ND	F2	150000	32000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Naphthalene	**150000**		150000	19000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Nitrobenzene	ND	F2	150000	17000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
N-Nitrosodi-n-propylamine	ND	F2	150000	26000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
N-Nitrosodiphenylamine	ND		150000	120000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Pentachlorophenol	ND		290000	150000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Phenanthrene	**220000**	**F1**	150000	22000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Phenol	ND		150000	23000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5
Pyrene	**56000**	**J F1**	150000	18000	ug/Kg		06/07/24 06:49	06/10/24 16:36	5

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Undecane, 2,6-dimethyl-	*250000*	*T J N*	*ug/Kg*		*7.43*	*17301-23-4*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
Unknown	*380000*	*T J*	*ug/Kg*		*7.86*	*N/A*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
1,4-Methanonaphthalene, 1,4-dihydro-	*360000*	*T J N*	*ug/Kg*		*8.26*	*4453-90-1*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
Naphthalene, 1,7-dimethyl-	*440000*	*T J N*	*ug/Kg*		*8.88*	*575-37-1*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
Naphthalene, 2,3-dimethyl-	*500000*	*T J N*	*ug/Kg*		*8.97*	*581-40-8*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
Naphthalene, 2,6-dimethyl-	*260000*	*T J N*	*ug/Kg*		*9.00*	*581-42-0*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
3-(2-Methyl-propenyl)-1H-indene	*310000*	*T J N*	*ug/Kg*		*9.50*	*134261-85-1*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
Naphthalene, 1,4,6-trimethyl-	*320000*	*T J N*	*ug/Kg*		*9.66*	*2131-42-2*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
Naphthalene, 1,6,7-trimethyl-	*290000*	*T J N*	*ug/Kg*		*9.74*	*2245-38-7*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
Bacchotricuneatin c	*500000*	*T J N*	*ug/Kg*		*10.18*	*66563-30-2*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
Pentadecane, 2,6,10,14-tetramethyl-	*560000*	*T J N*	*ug/Kg*		*10.47*	*1921-70-6*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
Hexadecane, 2,6,10,14-tetramethyl-	*380000*	*T J N*	*ug/Kg*		*10.94*	*638-36-8*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
Anthracene, 2-methyl-	*330000*	*T J N*	*ug/Kg*		*11.47*	*613-12-7*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
Phenanthrene, 2-methyl-	*420000*	*T J N*	*ug/Kg*		*11.49*	*2531-84-2*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
Anthracene, 1-methyl-	*270000*	*T J N*	*ug/Kg*		*11.57*	*610-48-0*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
2,8-Dimethyldibenzo(B,D)thiophene	*270000*	*T J N*	*ug/Kg*		*11.77*	*1207-15-4*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
Phenanthrene, 2,7-dimethyl-	*270000*	*T J N*	*ug/Kg*		*11.92*	*1576-69-8*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
Phenanthrene, 2,5-dimethyl-	*590000*	*T J N*	*ug/Kg*		*11.99*	*3674-66-6*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
Phenanthrene, 3,6-dimethyl-	*240000*	*T J N*	*ug/Kg*		*12.01*	*1576-67-6*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
Unknown	*280000*	*T J*	*ug/Kg*		*12.39*	*N/A*	*06/07/24 06:49*	*06/10/24 16:36*	*5*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*60*		*40 - 121*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
p-Terphenyl-d14	*65*		*46 - 143*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
Phenol-d5	*59*		*41 - 120*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
2-Fluorophenol	*62*		*36 - 120*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
2,4,6-Tribromophenol	*49*		*26 - 143*	*06/07/24 06:49*	*06/10/24 16:36*	*5*
2-Fluorobiphenyl	*69*		*50 - 121*	*06/07/24 06:49*	*06/10/24 16:36*	*5*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.8	0.54	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
4,4'-DDE	ND		2.8	0.78	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
4,4'-DDT	ND		2.8	0.61	mg/Kg		06/06/24 10:13	06/07/24 10:09	10

Client Sample ID: SED-06

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-13

Matrix: Waste

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		2.8	0.28	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
alpha-BHC	ND		2.8	0.50	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
cis-Chlordane	ND		2.8	1.4	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
beta-BHC	ND		2.8	2.0	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
delta-BHC	ND	F2	2.8	0.37	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
Dieldrin	ND		2.8	0.67	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
Endosulfan I	ND		2.8	0.59	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
Endosulfan II	ND		2.8	0.50	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
Endosulfan sulfate	ND		2.8	0.52	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
Endrin	ND		2.8	0.89	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
Endrin aldehyde	ND		2.8	0.71	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
Endrin ketone	ND		2.8	0.67	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
gamma-BHC (Lindane)	ND		2.8	2.0	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
trans-Chlordane	ND	F1 F2	2.8	0.38	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
Heptachlor	ND		2.8	0.43	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
Heptachlor epoxide	ND		2.8	0.72	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
Methoxychlor	ND	F1	2.8	0.72	mg/Kg		06/06/24 10:13	06/07/24 10:09	10
Toxaphene	ND		28	16	mg/Kg		06/06/24 10:13	06/07/24 10:09	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*101*		*45 - 120*	*06/06/24 10:13*	*06/07/24 10:09*	*10*
DCB Decachlorobiphenyl	*251*	*S1+*	*45 - 120*	*06/06/24 10:13*	*06/07/24 10:09*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 10:09*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 10:09*	*10*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		21	4.1	mg/Kg		06/07/24 06:55	06/10/24 20:51	5
PCB-1221	ND		21	4.1	mg/Kg		06/07/24 06:55	06/10/24 20:51	5
PCB-1232	ND		21	4.1	mg/Kg		06/07/24 06:55	06/10/24 20:51	5
PCB-1242	ND		21	4.1	mg/Kg		06/07/24 06:55	06/10/24 20:51	5
PCB-1248	ND		21	4.1	mg/Kg		06/07/24 06:55	06/10/24 20:51	5
PCB-1254	ND		21	0.98	mg/Kg		06/07/24 06:55	06/10/24 20:51	5
PCB-1260	ND		21	0.98	mg/Kg		06/07/24 06:55	06/10/24 20:51	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*72*		*60 - 154*	*06/07/24 06:55*	*06/10/24 20:51*	*5*
Tetrachloro-m-xylene	*68*		*60 - 154*	*06/07/24 06:55*	*06/10/24 20:51*	*5*
DCB Decachlorobiphenyl	*80*		*65 - 174*	*06/07/24 06:55*	*06/10/24 20:51*	*5*
DCB Decachlorobiphenyl	*114*		*65 - 174*	*06/07/24 06:55*	*06/10/24 20:51*	*5*

Client Sample ID: SED-07

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-14

Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		300000	44000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
bis (2-chloroisopropyl) ether	ND		300000	60000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
2,4,5-Trichlorophenol	ND		300000	81000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
2,4,6-Trichlorophenol	ND		300000	60000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220474-1

Client Sample ID: SED-07
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-14
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		300000	32000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
2,4-Dimethylphenol	ND		300000	72000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
2,4-Dinitrophenol	ND		2900000	1400000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
2,4-Dinitrotoluene	ND		300000	62000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
2,6-Dinitrotoluene	ND		300000	35000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
2-Chloronaphthalene	ND		300000	49000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
2-Chlorophenol	ND		300000	55000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
2-Methylnaphthalene	**380000**		300000	60000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
2-Methylphenol	ND		300000	35000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
2-Nitroaniline	ND		580000	44000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
2-Nitrophenol	ND		300000	85000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
3,3'-Dichlorobenzidine	ND		580000	350000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
3-Nitroaniline	ND		580000	83000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
4,6-Dinitro-2-methylphenol	ND		580000	300000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
4-Bromophenyl phenyl ether	ND		300000	42000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
4-Chloro-3-methylphenol	ND		300000	74000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
4-Chloroaniline	ND		300000	74000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
4-Chlorophenyl phenyl ether	ND		300000	37000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
4-Methylphenol	ND		580000	35000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
4-Nitroaniline	ND		580000	160000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
4-Nitrophenol	ND		580000	210000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Acenaphthene	ND		300000	44000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Acenaphthylene	ND		300000	39000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Acetophenone	ND		300000	41000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Anthracene	ND		300000	74000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Atrazine	ND		300000	100000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Benzaldehyde	ND		300000	240000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Benzo[a]anthracene	ND		300000	30000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Benzo[a]pyrene	ND		300000	44000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Benzo[b]fluoranthene	ND		300000	48000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Benzo[g,h,i]perylene	ND		300000	32000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Benzo[k]fluoranthene	ND		300000	39000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Bis(2-chloroethoxy)methane	ND		300000	64000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Bis(2-chloroethyl)ether	ND		300000	39000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Bis(2-ethylhexyl) phthalate	ND		300000	100000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Butyl benzyl phthalate	ND		300000	49000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Caprolactam	ND		300000	90000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Carbazole	ND		300000	35000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Chrysene	ND		300000	67000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Dibenz(a,h)anthracene	ND		300000	53000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Dibenzofuran	ND		300000	35000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Diethyl phthalate	ND		300000	39000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Dimethyl phthalate	ND		300000	35000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Di-n-butyl phthalate	ND		300000	51000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Di-n-octyl phthalate	ND		300000	35000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Fluoranthene	ND		300000	32000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Fluorene	**62000**	**J**	300000	35000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Hexachlorobenzene	ND		300000	41000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Hexachlorobutadiene	ND		300000	44000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10

Client Sample ID: SED-07
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-14
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorocyclopentadiene	ND		300000	41000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Hexachloroethane	ND		300000	39000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Indeno[1,2,3-cd]pyrene	ND		300000	37000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Isophorone	ND		300000	64000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Naphthalene	**200000**	**J**	300000	39000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Nitrobenzene	ND		300000	34000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
N-Nitrosodi-n-propylamine	ND		300000	51000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
N-Nitrosodiphenylamine	ND		300000	240000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Pentachlorophenol	ND		580000	300000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Phenanthrene	**330000**		300000	44000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Phenol	ND		300000	46000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10
Pyrene	**92000**	**J**	300000	35000	ug/Kg		06/07/24 06:49	06/10/24 17:04	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Naphthalene, 2,7-dimethyl-	*460000*	*T J N*	*ug/Kg*		*8.88*	*582-16-1*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
Naphthalene, 1,6-dimethyl-	*520000*	*T J N*	*ug/Kg*		*8.97*	*575-43-9*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
Naphthalene, 2,3-dimethyl-	*430000*	*T J N*	*ug/Kg*		*9.11*	*581-40-8*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
Naphthalene, 2-(1-methylethyl)-	*350000*	*T J N*	*ug/Kg*		*9.49*	*2027-17-0*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
Naphthalene, 2,3,6-trimethyl-	*440000*	*T J N*	*ug/Kg*		*9.61*	*829-26-5*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
Naphthalene, 1,6,7-trimethyl-	*340000*	*T J N*	*ug/Kg*		*9.66*	*2245-38-7*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
Unknown	*440000*	*T J*	*ug/Kg*		*10.18*	*N/A*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
Dibenzothiophene, 3-methyl-	*360000*	*T J N*	*ug/Kg*		*11.30*	*16587-52-3*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
Anthracene, 1-methyl-	*520000*	*T J N*	*ug/Kg*		*11.47*	*610-48-0*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
Phenanthrene, 2-methyl-	*700000*	*T J N*	*ug/Kg*		*11.49*	*2531-84-2*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
Anthracene, 9-methyl-	*420000*	*T J N*	*ug/Kg*		*11.57*	*779-02-2*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
Anthracene, 2-methyl-	*400000*	*T J N*	*ug/Kg*		*11.60*	*613-12-7*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
2,8-Dimethyldibenzo(B,D)thiophene	*430000*	*T J N*	*ug/Kg*		*11.78*	*1207-15-4*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
Phenanthrene, 2,7-dimethyl-	*370000*	*T J N*	*ug/Kg*		*11.92*	*1576-69-8*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
Phenanthrene, 3,6-dimethyl-	*320000*	*T J N*	*ug/Kg*		*11.94*	*1576-67-6*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
9,10-Dimethylanthracene	*900000*	*T J N*	*ug/Kg*		*11.99*	*781-43-1*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
Phenanthrene, 2,5-dimethyl-	*440000*	*T J N*	*ug/Kg*		*12.01*	*3674-66-6*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
1H-Indene, 2-methyl-3-phenyl-	*330000*	*T J N*	*ug/Kg*		*12.06*	*35099-60-6*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
Unknown	*350000*	*T J*	*ug/Kg*		*12.36*	*N/A*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
Unknown	*490000*	*T J*	*ug/Kg*		*12.39*	*N/A*	*06/07/24 06:49*	*06/10/24 17:04*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*69*		*40 - 121*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
p-Terphenyl-d14	*66*		*46 - 143*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
Phenol-d5	*62*		*41 - 120*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
2-Fluorophenol	*63*		*36 - 120*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
2,4,6-Tribromophenol	*48*		*26 - 143*	*06/07/24 06:49*	*06/10/24 17:04*	*10*
2-Fluorobiphenyl	*79*		*50 - 121*	*06/07/24 06:49*	*06/10/24 17:04*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		3.1	0.61	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
4,4'-DDE	ND		3.1	0.88	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
4,4'-DDT	ND		3.1	0.69	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
Aldrin	ND		3.1	0.32	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
alpha-BHC	ND		3.1	0.56	mg/Kg		06/06/24 10:13	06/07/24 10:29	10

Client Sample ID: SED-07

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-14
Matrix: Waste

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-Chlordane	ND		3.1	1.6	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
beta-BHC	ND		3.1	2.3	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
delta-BHC	ND		3.1	0.41	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
Dieldrin	ND		3.1	0.75	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
Endosulfan I	ND		3.1	0.66	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
Endosulfan II	ND		3.1	0.56	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
Endosulfan sulfate	ND		3.1	0.58	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
Endrin	ND		3.1	1.0	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
Endrin aldehyde	ND		3.1	0.80	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
Endrin ketone	ND		3.1	0.75	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
gamma-BHC (Lindane)	ND		3.1	2.3	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
trans-Chlordane	ND		3.1	0.43	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
Heptachlor	ND		3.1	0.49	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
Heptachlor epoxide	ND		3.1	0.81	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
Methoxychlor	ND		3.1	0.81	mg/Kg		06/06/24 10:13	06/07/24 10:29	10
Toxaphene	ND		31	18	mg/Kg		06/06/24 10:13	06/07/24 10:29	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*143*	*S1+*	*45 - 120*	*06/06/24 10:13*	*06/07/24 10:29*	*10*
DCB Decachlorobiphenyl	*304*	*S1+*	*45 - 120*	*06/06/24 10:13*	*06/07/24 10:29*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 10:29*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 10:29*	*10*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		13	2.6	mg/Kg		06/07/24 06:55	06/10/24 21:08	5
PCB-1221	ND		13	2.6	mg/Kg		06/07/24 06:55	06/10/24 21:08	5
PCB-1232	ND		13	2.6	mg/Kg		06/07/24 06:55	06/10/24 21:08	5
PCB-1242	ND		13	2.6	mg/Kg		06/07/24 06:55	06/10/24 21:08	5
PCB-1248	ND		13	2.6	mg/Kg		06/07/24 06:55	06/10/24 21:08	5
PCB-1254	ND		13	0.62	mg/Kg		06/07/24 06:55	06/10/24 21:08	5
PCB-1260	ND		13	0.62	mg/Kg		06/07/24 06:55	06/10/24 21:08	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*64*		*60 - 154*	*06/07/24 06:55*	*06/10/24 21:08*	*5*
Tetrachloro-m-xylene	*62*		*60 - 154*	*06/07/24 06:55*	*06/10/24 21:08*	*5*
DCB Decachlorobiphenyl	*69*		*65 - 174*	*06/07/24 06:55*	*06/10/24 21:08*	*5*
DCB Decachlorobiphenyl	*103*		*65 - 174*	*06/07/24 06:55*	*06/10/24 21:08*	*5*

Client Sample ID: SED-08

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-15
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	**15000**	**J**	43000	6300	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
1,4-Dioxane	ND		50000	14000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
bis (2-chloroisopropyl) ether	ND		43000	8500	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
2,4,5-Trichlorophenol	ND		43000	12000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
2,4,6-Trichlorophenol	ND		43000	8500	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
2,4-Dichlorophenol	ND		43000	4500	ug/Kg		06/07/24 06:49	06/12/24 13:37	1

Client Sample ID: SED-08
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-15
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	ND		43000	10000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
2,4-Dinitrophenol	ND		420000	200000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
2,4-Dinitrotoluene	ND		43000	8800	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
2,6-Dinitrotoluene	ND		43000	5000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
2-Chloronaphthalene	ND		43000	7000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
2-Chlorophenol	ND		43000	7800	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
2-Methylnaphthalene	**170000**		43000	8500	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
2-Methylphenol	ND		43000	5000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
2-Nitroaniline	ND		83000	6300	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
2-Nitrophenol	ND		43000	12000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
3,3'-Dichlorobenzidine	ND		83000	50000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
3-Nitroaniline	ND		83000	12000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
4,6-Dinitro-2-methylphenol	ND		83000	43000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
4-Bromophenyl phenyl ether	ND		43000	6000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
4-Chloro-3-methylphenol	ND		43000	11000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
4-Chloroaniline	ND		43000	11000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
4-Chlorophenyl phenyl ether	ND		43000	5300	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
4-Methylphenol	ND		83000	5000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
4-Nitroaniline	ND		83000	22000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
4-Nitrophenol	ND		83000	30000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Acenaphthene	**18000**	**J**	43000	6300	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Acenaphthylene	**15000**	**J**	43000	5500	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Acetophenone	ND		43000	5800	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Anthracene	**46000**		43000	11000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Atrazine	ND		43000	15000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Benzaldehyde	ND		43000	34000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Benzo[a]anthracene	**45000**		43000	4300	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Benzo[a]pyrene	**36000**	**J**	43000	6300	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Benzo[b]fluoranthene	**32000**	**J**	43000	6800	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Benzo[g,h,i]perylene	**19000**	**J**	43000	4500	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Benzo[k]fluoranthene	**15000**	**J**	43000	5500	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Bis(2-chloroethoxy)methane	ND		43000	9000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Bis(2-chloroethyl)ether	ND		43000	5500	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Bis(2-ethylhexyl) phthalate	ND		43000	15000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Butyl benzyl phthalate	ND		43000	7000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Caprolactam	ND		43000	13000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Carbazole	**24000**	**J**	43000	5000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Chrysene	**60000**		43000	9500	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Dibenz(a,h)anthracene	ND		43000	7500	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Dibenzofuran	**46000**		43000	5000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Diethyl phthalate	ND		43000	5500	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Dimethyl phthalate	ND		43000	5000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Di-n-butyl phthalate	ND		43000	7300	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Di-n-octyl phthalate	ND		43000	5000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Fluoranthene	**120000**		43000	4500	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Fluorene	**75000**		43000	5000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Hexachlorobenzene	ND		43000	5800	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Hexachlorobutadiene	ND		43000	6300	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Hexachlorocyclopentadiene	ND	*-	43000	5800	ug/Kg		06/07/24 06:49	06/12/24 13:37	1

Client Sample ID: SED-08
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-15
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachloroethane	ND		43000	5500	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Indeno[1,2,3-cd]pyrene	**13000**	**J**	43000	5300	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Isophorone	ND		43000	9000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Naphthalene	**410000**		43000	5500	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Nitrobenzene	ND		43000	4800	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
N-Nitrosodi-n-propylamine	ND		43000	7300	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
N-Nitrosodiphenylamine	ND		43000	35000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Pentachlorophenol	ND		83000	43000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Phenanthrene	**260000**		43000	6300	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Phenol	ND		43000	6500	ug/Kg		06/07/24 06:49	06/12/24 13:37	1
Pyrene	**98000**		43000	5000	ug/Kg		06/07/24 06:49	06/12/24 13:37	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*200000*	*T J*	*ug/Kg*		*2.02*	*N/A*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Methylene Chloride	*390000*	*T J N*	*ug/Kg*		*2.09*	*75-09-2*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Dodecane	*140000*	*T J N*	*ug/Kg*		*7.33*	*112-40-3*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Tridecane	*160000*	*T J N*	*ug/Kg*		*8.06*	*629-50-5*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Pentadecane, 2,6,10-trimethyl-	*190000*	*T J N*	*ug/Kg*		*10.18*	*3892-00-0*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Heptadecane	*150000*	*T J N*	*ug/Kg*		*10.45*	*629-78-7*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Octadecane	*130000*	*T J N*	*ug/Kg*		*10.91*	*593-45-3*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Nonadecane	*150000*	*T J N*	*ug/Kg*		*11.33*	*629-92-5*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Phenanthrene, 2-methyl-	*170000*	*T J N*	*ug/Kg*		*11.47*	*2531-84-2*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Anthracene, 2-methyl-	*230000*	*T J N*	*ug/Kg*		*11.49*	*613-12-7*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Phenanthrene, 1-methyl-	*160000*	*T J N*	*ug/Kg*		*11.57*	*832-69-9*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Anthracene, 1-methyl-	*140000*	*T J N*	*ug/Kg*		*11.59*	*610-48-0*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Eicosane	*120000*	*T J N*	*ug/Kg*		*11.71*	*112-95-8*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Unknown	*120000*	*T J*	*ug/Kg*		*11.77*	*N/A*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Phenanthrene, 3,6-dimethyl-	*130000*	*T J N*	*ug/Kg*		*11.92*	*1576-67-6*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Phenanthrene, 2,5-dimethyl-	*310000*	*T J N*	*ug/Kg*		*11.99*	*3674-66-6*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Phenanthrene, 2,7-dimethyl-	*130000*	*T J N*	*ug/Kg*		*12.01*	*1576-69-8*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Docosane	*210000*	*T J N*	*ug/Kg*		*12.06*	*629-97-0*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Phenanthrene, 2,3,5-trimethyl-	*190000*	*T J N*	*ug/Kg*		*12.39*	*3674-73-5*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Tricosane	*140000*	*T J N*	*ug/Kg*		*12.69*	*638-67-5*	*06/07/24 06:49*	*06/12/24 13:37*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*62*		*40 - 121*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
p-Terphenyl-d14	*68*		*46 - 143*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
Phenol-d5	*61*		*41 - 120*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
2-Fluorophenol	*61*		*36 - 120*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
2,4,6-Tribromophenol	*62*		*26 - 143*	*06/07/24 06:49*	*06/12/24 13:37*	*1*
2-Fluorobiphenyl	*72*		*50 - 121*	*06/07/24 06:49*	*06/12/24 13:37*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.8	0.54	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
4,4'-DDE	ND		2.8	0.78	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
4,4'-DDT	ND		2.8	0.61	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
Aldrin	ND		2.8	0.28	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
alpha-BHC	ND		2.8	0.50	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
cis-Chlordane	ND		2.8	1.4	mg/Kg		06/06/24 10:13	06/07/24 10:49	10

Client Sample ID: SED-08

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-15
Matrix: Waste

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
beta-BHC	ND		2.8	2.0	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
delta-BHC	ND		2.8	0.37	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
Dieldrin	ND		2.8	0.67	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
Endosulfan I	ND		2.8	0.59	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
Endosulfan II	ND		2.8	0.50	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
Endosulfan sulfate	ND		2.8	0.52	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
Endrin	ND		2.8	0.89	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
Endrin aldehyde	ND		2.8	0.71	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
Endrin ketone	ND		2.8	0.67	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
gamma-BHC (Lindane)	ND		2.8	2.0	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
trans-Chlordane	ND		2.8	0.38	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
Heptachlor	ND		2.8	0.43	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
Heptachlor epoxide	ND		2.8	0.72	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
Methoxychlor	ND		2.8	0.72	mg/Kg		06/06/24 10:13	06/07/24 10:49	10
Toxaphene	ND		28	16	mg/Kg		06/06/24 10:13	06/07/24 10:49	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*118*		*45 - 120*	*06/06/24 10:13*	*06/07/24 10:49*	*10*
DCB Decachlorobiphenyl	*317*	*S1+*	*45 - 120*	*06/06/24 10:13*	*06/07/24 10:49*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 10:49*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 10:49*	*10*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		4.5	0.89	mg/Kg		06/07/24 06:55	06/10/24 21:25	1
PCB-1221	ND		4.5	0.89	mg/Kg		06/07/24 06:55	06/10/24 21:25	1
PCB-1232	ND		4.5	0.89	mg/Kg		06/07/24 06:55	06/10/24 21:25	1
PCB-1242	ND		4.5	0.89	mg/Kg		06/07/24 06:55	06/10/24 21:25	1
PCB-1248	ND		4.5	0.89	mg/Kg		06/07/24 06:55	06/10/24 21:25	1
PCB-1254	ND		4.5	0.21	mg/Kg		06/07/24 06:55	06/10/24 21:25	1
PCB-1260	ND		4.5	0.21	mg/Kg		06/07/24 06:55	06/10/24 21:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*64*		*60 - 154*	*06/07/24 06:55*	*06/10/24 21:25*	*1*
Tetrachloro-m-xylene	*61*		*60 - 154*	*06/07/24 06:55*	*06/10/24 21:25*	*1*
DCB Decachlorobiphenyl	*74*		*65 - 174*	*06/07/24 06:55*	*06/10/24 21:25*	*1*
DCB Decachlorobiphenyl	*83*		*65 - 174*	*06/07/24 06:55*	*06/10/24 21:25*	*1*

Client Sample ID: SED-08-FD

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-16
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		320000	47000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
1,4-Dioxane	ND		380000	100000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
bis (2-chloroisopropyl) ether	ND		320000	64000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
2,4,5-Trichlorophenol	ND		320000	86000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
2,4,6-Trichlorophenol	ND		320000	64000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
2,4-Dichlorophenol	ND		320000	34000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
2,4-Dimethylphenol	ND		320000	77000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10

Client Sample ID: SED-08-FD
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-16
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	ND		3100000	1500000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
2,4-Dinitrotoluene	ND		320000	66000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
2,6-Dinitrotoluene	ND		320000	38000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
2-Chloronaphthalene	ND		320000	53000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
2-Chlorophenol	ND		320000	58000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
2-Methylnaphthalene	**710000**		320000	64000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
2-Methylphenol	ND		320000	38000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
2-Nitroaniline	ND		620000	47000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
2-Nitrophenol	ND		320000	90000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
3,3'-Dichlorobenzidine	ND		620000	380000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
3-Nitroaniline	ND		620000	88000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
4,6-Dinitro-2-methylphenol	ND		620000	320000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
4-Bromophenyl phenyl ether	ND		320000	45000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
4-Chloro-3-methylphenol	ND		320000	79000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
4-Chloroaniline	ND		320000	79000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
4-Chlorophenyl phenyl ether	ND		320000	39000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
4-Methylphenol	ND		620000	38000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
4-Nitroaniline	ND		620000	170000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
4-Nitrophenol	ND		620000	220000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Acenaphthene	**69000**	**J**	320000	47000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Acenaphthylene	**57000**	**J**	320000	41000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Acetophenone	ND		320000	43000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Anthracene	**140000**	**J**	320000	79000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Atrazine	ND		320000	110000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Benzaldehyde	ND		320000	250000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Benzo[a]anthracene	**150000**	**J**	320000	32000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Benzo[a]pyrene	**120000**	**J**	320000	47000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Benzo[b]fluoranthene	**100000**	**J**	320000	51000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Benzo[g,h,i]perylene	**73000**	**J**	320000	34000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Benzo[k]fluoranthene	**49000**	**J**	320000	41000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Bis(2-chloroethoxy)methane	ND		320000	68000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Bis(2-chloroethyl)ether	ND		320000	41000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Bis(2-ethylhexyl) phthalate	ND		320000	110000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Butyl benzyl phthalate	ND		320000	53000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Caprolactam	ND		320000	96000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Carbazole	**84000**	**J**	320000	38000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Chrysene	**180000**	**J**	320000	71000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Dibenz(a,h)anthracene	ND		320000	56000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Dibenzofuran	**140000**	**J**	320000	38000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Diethyl phthalate	ND		320000	41000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Dimethyl phthalate	ND		320000	38000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Di-n-butyl phthalate	ND		320000	54000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Di-n-octyl phthalate	ND		320000	38000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Fluoranthene	**350000**		320000	34000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Fluorene	**230000**	**J**	320000	38000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Hexachlorobenzene	ND		320000	43000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Hexachlorobutadiene	ND		320000	47000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Hexachlorocyclopentadiene	ND		320000	43000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Hexachloroethane	ND		320000	41000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10

Client Sample ID: SED-08-FD
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-16
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	**52000**	**J**	320000	39000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Isophorone	ND		320000	68000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Naphthalene	**1400000**		320000	41000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Nitrobenzene	ND		320000	36000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
N-Nitrosodi-n-propylamine	ND		320000	54000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
N-Nitrosodiphenylamine	ND		320000	260000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Pentachlorophenol	ND		620000	320000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Phenanthrene	**860000**		320000	47000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Phenol	ND		320000	49000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10
Pyrene	**310000**	**J**	320000	38000	ug/Kg		06/07/24 06:49	06/12/24 14:06	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*420000*	*T J*	*ug/Kg*		*7.86*	*N/A*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
Tetradecane	*440000*	*T J N*	*ug/Kg*		*8.06*	*629-59-4*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
Naphthalene, 1-methyl-	*450000*	*T J N*	*ug/Kg*		*8.25*	*90-12-0*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
Naphthalene, 2,6-dimethyl-	*580000*	*T J N*	*ug/Kg*		*8.88*	*581-42-0*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
Naphthalene, 2,3-dimethyl-	*640000*	*T J N*	*ug/Kg*		*8.97*	*581-40-8*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
Naphthalene, 1,6-dimethyl-	*740000*	*T J N*	*ug/Kg*		*9.10*	*575-43-9*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
Naphthalene, 1,4,6-trimethyl-	*410000*	*T J N*	*ug/Kg*		*9.49*	*2131-42-2*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
Naphthalene, 1,6,7-trimethyl-	*430000*	*T J N*	*ug/Kg*		*9.66*	*2245-38-7*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
Pentadecane, 2,6,10,14-tetramethyl-	*740000*	*T J N*	*ug/Kg*		*10.46*	*1921-70-6*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
Anthracene, 2-methyl-	*660000*	*T J N*	*ug/Kg*		*11.47*	*613-12-7*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
1H-Cyclopropa[l]phenanthrene,1a,9b -dihydro-	*800000*	*T J N*	*ug/Kg*		*11.49*	*949-41-7*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
Phenanthrene, 1-methyl-	*580000*	*T J N*	*ug/Kg*		*11.57*	*832-69-9*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
Anthracene, 1-methyl-	*460000*	*T J N*	*ug/Kg*		*11.59*	*610-48-0*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
2,8-Dimethyldibenzo(B,D)thiophene	*430000*	*T J N*	*ug/Kg*		*11.77*	*1207-15-4*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
Phenanthrene, 2,7-dimethyl-	*500000*	*T J N*	*ug/Kg*		*11.92*	*1576-69-8*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
Phenanthrene, 2,3-dimethyl-	*1100000*	*T J N*	*ug/Kg*		*11.99*	*3674-65-5*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
Phenanthrene, 2,5-dimethyl-	*510000*	*T J N*	*ug/Kg*		*12.01*	*3674-66-6*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
9,10-Dimethylanthracene	*410000*	*T J N*	*ug/Kg*		*12.06*	*781-43-1*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
Unknown	*420000*	*T J*	*ug/Kg*		*12.35*	*N/A*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
Phenanthrene, 2,3,5-trimethyl-	*600000*	*T J N*	*ug/Kg*		*12.39*	*3674-73-5*	*06/07/24 06:49*	*06/12/24 14:06*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*70*		*40 - 121*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
p-Terphenyl-d14	*72*		*46 - 143*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
Phenol-d5	*61*		*41 - 120*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
2-Fluorophenol	*65*		*36 - 120*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
2,4,6-Tribromophenol	*60*		*26 - 143*	*06/07/24 06:49*	*06/12/24 14:06*	*10*
2-Fluorobiphenyl	*77*		*50 - 121*	*06/07/24 06:49*	*06/12/24 14:06*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		3.1	0.61	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
4,4'-DDE	ND		3.1	0.88	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
4,4'-DDT	ND		3.1	0.69	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
Aldrin	ND		3.1	0.32	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
alpha-BHC	ND		3.1	0.56	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
cis-Chlordane	ND		3.1	1.6	mg/Kg		06/06/24 10:13	06/07/24 11:08	10

Client Sample ID: SED-08-FD

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-16
Matrix: Waste

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
beta-BHC	ND		3.1	2.3	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
delta-BHC	ND		3.1	0.41	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
Dieldrin	ND		3.1	0.75	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
Endosulfan I	ND		3.1	0.66	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
Endosulfan II	ND		3.1	0.56	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
Endosulfan sulfate	ND		3.1	0.58	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
Endrin	ND		3.1	1.0	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
Endrin aldehyde	ND		3.1	0.80	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
Endrin ketone	ND		3.1	0.75	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
gamma-BHC (Lindane)	ND		3.1	2.3	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
trans-Chlordane	ND		3.1	0.43	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
Heptachlor	ND		3.1	0.49	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
Heptachlor epoxide	ND		3.1	0.81	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
Methoxychlor	ND		3.1	0.81	mg/Kg		06/06/24 10:13	06/07/24 11:08	10
Toxaphene	ND		31	18	mg/Kg		06/06/24 10:13	06/07/24 11:08	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*130*	*S1+*	*45 - 120*	*06/06/24 10:13*	*06/07/24 11:08*	*10*
DCB Decachlorobiphenyl	*209*	*S1+*	*45 - 120*	*06/06/24 10:13*	*06/07/24 11:08*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 11:08*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 11:08*	*10*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		18	3.5	mg/Kg		06/07/24 06:55	06/10/24 21:41	5
PCB-1221	ND		18	3.5	mg/Kg		06/07/24 06:55	06/10/24 21:41	5
PCB-1232	ND		18	3.5	mg/Kg		06/07/24 06:55	06/10/24 21:41	5
PCB-1242	ND		18	3.5	mg/Kg		06/07/24 06:55	06/10/24 21:41	5
PCB-1248	ND		18	3.5	mg/Kg		06/07/24 06:55	06/10/24 21:41	5
PCB-1254	ND		18	0.84	mg/Kg		06/07/24 06:55	06/10/24 21:41	5
PCB-1260	ND		18	0.84	mg/Kg		06/07/24 06:55	06/10/24 21:41	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*62*		*60 - 154*	*06/07/24 06:55*	*06/10/24 21:41*	*5*
Tetrachloro-m-xylene	*63*		*60 - 154*	*06/07/24 06:55*	*06/10/24 21:41*	*5*
DCB Decachlorobiphenyl	*92*		*65 - 174*	*06/07/24 06:55*	*06/10/24 21:41*	*5*
DCB Decachlorobiphenyl	*96*		*65 - 174*	*06/07/24 06:55*	*06/10/24 21:41*	*5*

Client Sample ID: SED-09

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-17
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		160000	23000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
bis (2-chloroisopropyl) ether	ND		160000	32000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
2,4,5-Trichlorophenol	ND		160000	43000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
2,4,6-Trichlorophenol	ND		160000	32000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
2,4-Dichlorophenol	ND		160000	17000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
2,4-Dimethylphenol	ND		160000	38000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
2,4-Dinitrophenol	ND		1600000	740000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5

Client Sample ID: SED-09
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-17
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		160000	33000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
2,6-Dinitrotoluene	ND		160000	19000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
2-Chloronaphthalene	ND		160000	26000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
2-Chlorophenol	ND		160000	29000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
2-Methylnaphthalene	**420000**		160000	32000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
2-Methylphenol	ND		160000	19000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
2-Nitroaniline	ND		310000	23000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
2-Nitrophenol	ND		160000	45000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
3,3'-Dichlorobenzidine	ND		310000	190000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
3-Nitroaniline	ND		310000	44000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
4,6-Dinitro-2-methylphenol	ND		310000	160000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
4-Bromophenyl phenyl ether	ND		160000	23000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
4-Chloro-3-methylphenol	ND		160000	39000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
4-Chloroaniline	ND		160000	39000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
4-Chlorophenyl phenyl ether	ND		160000	20000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
4-Methylphenol	ND		310000	19000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
4-Nitroaniline	ND		310000	83000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
4-Nitrophenol	ND		310000	110000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Acenaphthene	ND		160000	23000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Acenaphthylene	ND		160000	21000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Acetophenone	ND		160000	22000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Anthracene	ND		160000	39000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Atrazine	ND		160000	55000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Benzaldehyde	ND		160000	130000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Benzo[a]anthracene	ND		160000	16000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Benzo[a]pyrene	ND		160000	23000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Benzo[b]fluoranthene	ND		160000	25000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Benzo[g,h,i]perylene	ND		160000	17000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Benzo[k]fluoranthene	ND		160000	21000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Bis(2-chloroethoxy)methane	ND		160000	34000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Bis(2-chloroethyl)ether	ND		160000	21000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Bis(2-ethylhexyl) phthalate	ND		160000	54000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Butyl benzyl phthalate	ND		160000	26000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Caprolactam	ND		160000	48000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Carbazole	ND		160000	19000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Chrysene	**50000**	**J**	160000	36000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Dibenz(a,h)anthracene	ND		160000	28000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Dibenzofuran	ND		160000	19000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Diethyl phthalate	ND		160000	21000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Dimethyl phthalate	ND		160000	19000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Di-n-butyl phthalate	ND		160000	27000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Di-n-octyl phthalate	ND		160000	19000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Fluoranthene	**43000**	**J**	160000	17000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Fluorene	**56000**	**J**	160000	19000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Hexachlorobenzene	ND		160000	22000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Hexachlorobutadiene	ND		160000	23000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Hexachlorocyclopentadiene	ND		160000	22000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Hexachloroethane	ND		160000	21000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Indeno[1,2,3-cd]pyrene	ND		160000	20000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5

Client Sample ID: SED-09
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-17
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isophorone	ND		160000	34000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Naphthalene	ND		160000	21000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Nitrobenzene	ND		160000	18000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
N-Nitrosodi-n-propylamine	ND		160000	27000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
N-Nitrosodiphenylamine	ND		160000	130000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Pentachlorophenol	ND		310000	160000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Phenanthrene	**220000**		160000	23000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Phenol	ND		160000	24000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5
Pyrene	**53000**	**J**	160000	19000	ug/Kg		06/07/24 06:49	06/10/24 18:26	5

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*290000*	*T J*	*ug/Kg*		*7.86*	*N/A*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Benzocycloheptatriene	*320000*	*T J N*	*ug/Kg*		*8.26*	*264-09-5*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Naphthalene, 1,7-dimethyl-	*440000*	*T J N*	*ug/Kg*		*8.88*	*575-37-1*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Naphthalene, 2,3-dimethyl-	*500000*	*T J N*	*ug/Kg*		*8.97*	*581-40-8*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Naphthalene, 2,6-dimethyl-	*290000*	*T J N*	*ug/Kg*		*9.00*	*581-42-0*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Naphthalene, 1,4-dimethyl-	*550000*	*T J N*	*ug/Kg*		*9.11*	*571-58-4*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Naphthalene, 2-(1-methylethyl)-	*340000*	*T J N*	*ug/Kg*		*9.50*	*2027-17-0*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Naphthalene, 2,3,6-trimethyl-	*330000*	*T J N*	*ug/Kg*		*9.61*	*829-26-5*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Naphthalene, 1,6,7-trimethyl-	*320000*	*T J N*	*ug/Kg*		*9.66*	*2245-38-7*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Naphthalene, 1,4,6-trimethyl-	*300000*	*T J N*	*ug/Kg*		*9.74*	*2131-42-2*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Pentadecane, 2,6,10-trimethyl-	*500000*	*T J N*	*ug/Kg*		*10.18*	*3892-00-0*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Pentadecane, 2,6,10,14-tetramethyl-	*510000*	*T J N*	*ug/Kg*		*10.47*	*1921-70-6*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Hexadecane, 2,6,10,14-tetramethyl-	*410000*	*T J N*	*ug/Kg*		*10.94*	*638-36-8*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Anthracene, 9-methyl-	*310000*	*T J N*	*ug/Kg*		*11.47*	*779-02-2*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
1H-Cyclopropa[l]phenanthrene,1a,9b -dihydro-	*390000*	*T J N*	*ug/Kg*		*11.49*	*949-41-7*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Phenanthrene, 2-methyl-	*290000*	*T J N*	*ug/Kg*		*11.57*	*2531-84-2*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
2,8-Dimethyldibenzo(B,D)thiophene	*230000*	*T J N*	*ug/Kg*		*11.78*	*1207-15-4*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Phenanthrene, 2,7-dimethyl-	*210000*	*T J N*	*ug/Kg*		*11.92*	*1576-69-8*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Phenanthrene, 3,6-dimethyl-	*500000*	*T J N*	*ug/Kg*		*11.99*	*1576-67-6*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Unknown	*230000*	*T J*	*ug/Kg*		*12.39*	*N/A*	*06/07/24 06:49*	*06/10/24 18:26*	*5*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*61*		*40 - 121*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
p-Terphenyl-d14	*65*		*46 - 143*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
Phenol-d5	*57*		*41 - 120*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
2-Fluorophenol	*62*		*36 - 120*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
2,4,6-Tribromophenol	*48*		*26 - 143*	*06/07/24 06:49*	*06/10/24 18:26*	*5*
2-Fluorobiphenyl	*70*		*50 - 121*	*06/07/24 06:49*	*06/10/24 18:26*	*5*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.6	0.51	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
4,4'-DDE	ND		2.6	0.74	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
4,4'-DDT	ND		2.6	0.58	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
Aldrin	ND		2.6	0.27	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
alpha-BHC	ND		2.6	0.47	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
cis-Chlordane	ND		2.6	1.3	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
beta-BHC	ND		2.6	1.9	mg/Kg		06/06/24 10:13	06/07/24 11:28	10

Client Sample ID: SED-09

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-17
Matrix: Waste

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
delta-BHC	ND		2.6	0.35	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
Dieldrin	ND		2.6	0.63	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
Endosulfan I	ND		2.6	0.56	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
Endosulfan II	ND		2.6	0.47	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
Endosulfan sulfate	ND		2.6	0.49	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
Endrin	ND		2.6	0.84	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
Endrin aldehyde	ND		2.6	0.67	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
Endrin ketone	ND		2.6	0.63	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
gamma-BHC (Lindane)	ND		2.6	1.9	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
trans-Chlordane	ND		2.6	0.36	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
Heptachlor	ND		2.6	0.41	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
Heptachlor epoxide	ND		2.6	0.68	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
Methoxychlor	ND		2.6	0.68	mg/Kg		06/06/24 10:13	06/07/24 11:28	10
Toxaphene	ND		26	15	mg/Kg		06/06/24 10:13	06/07/24 11:28	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*120*		*45 - 120*	*06/06/24 10:13*	*06/07/24 11:28*	*10*
DCB Decachlorobiphenyl	*198*	*S1+*	*45 - 120*	*06/06/24 10:13*	*06/07/24 11:28*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 11:28*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 11:28*	*10*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		4.2	0.82	mg/Kg		06/07/24 06:55	06/10/24 21:58	1
PCB-1221	ND		4.2	0.82	mg/Kg		06/07/24 06:55	06/10/24 21:58	1
PCB-1232	ND		4.2	0.82	mg/Kg		06/07/24 06:55	06/10/24 21:58	1
PCB-1242	ND		4.2	0.82	mg/Kg		06/07/24 06:55	06/10/24 21:58	1
PCB-1248	ND		4.2	0.82	mg/Kg		06/07/24 06:55	06/10/24 21:58	1
PCB-1254	ND		4.2	0.20	mg/Kg		06/07/24 06:55	06/10/24 21:58	1
PCB-1260	ND		4.2	0.20	mg/Kg		06/07/24 06:55	06/10/24 21:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*61*		*60 - 154*	*06/07/24 06:55*	*06/10/24 21:58*	*1*
Tetrachloro-m-xylene	*57*	*S1-*	*60 - 154*	*06/07/24 06:55*	*06/10/24 21:58*	*1*
DCB Decachlorobiphenyl	*70*		*65 - 174*	*06/07/24 06:55*	*06/10/24 21:58*	*1*
DCB Decachlorobiphenyl	*80*		*65 - 174*	*06/07/24 06:55*	*06/10/24 21:58*	*1*

Client Sample ID: SED-10

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-18
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	**60000**	**J**	300000	44000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
1,4-Dioxane	ND		350000	97000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
bis (2-chloroisopropyl) ether	ND		300000	60000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
2,4,5-Trichlorophenol	ND		300000	81000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
2,4,6-Trichlorophenol	ND		300000	60000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
2,4-Dichlorophenol	ND		300000	32000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
2,4-Dimethylphenol	ND		300000	72000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
2,4-Dinitrophenol	ND		2900000	1400000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10

Client Sample ID: SED-10
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-18
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		300000	62000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
2,6-Dinitrotoluene	ND		300000	35000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
2-Chloronaphthalene	ND		300000	49000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
2-Chlorophenol	ND		300000	55000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
2-Methylnaphthalene	**620000**		300000	60000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
2-Methylphenol	ND		300000	35000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
2-Nitroaniline	ND		580000	44000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
2-Nitrophenol	ND		300000	85000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
3,3'-Dichlorobenzidine	ND		580000	350000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
3-Nitroaniline	ND		580000	83000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
4,6-Dinitro-2-methylphenol	ND		580000	300000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
4-Bromophenyl phenyl ether	ND		300000	42000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
4-Chloro-3-methylphenol	ND		300000	74000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
4-Chloroaniline	ND		300000	74000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
4-Chlorophenyl phenyl ether	ND		300000	37000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
4-Methylphenol	ND		580000	35000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
4-Nitroaniline	ND		580000	160000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
4-Nitrophenol	ND		580000	210000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Acenaphthene	**63000**	**J**	300000	44000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Acenaphthylene	**110000**	**J**	300000	39000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Acetophenone	ND		300000	41000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Anthracene	**220000**	**J**	300000	74000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Atrazine	ND		300000	100000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Benzaldehyde	ND		300000	240000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Benzo[a]anthracene	**200000**	**J**	300000	30000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Benzo[a]pyrene	**130000**	**J**	300000	44000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Benzo[b]fluoranthene	**150000**	**J**	300000	48000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Benzo[g,h,i]perylene	**74000**	**J**	300000	32000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Benzo[k]fluoranthene	**71000**	**J**	300000	39000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Bis(2-chloroethoxy)methane	ND		300000	64000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Bis(2-chloroethyl)ether	ND		300000	39000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Bis(2-ethylhexyl) phthalate	ND		300000	100000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Butyl benzyl phthalate	ND		300000	49000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Caprolactam	ND		300000	90000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Carbazole	**130000**	**J**	300000	35000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Chrysene	**210000**	**J**	300000	67000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Dibenz(a,h)anthracene	ND		300000	53000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Dibenzofuran	**270000**	**J**	300000	35000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Diethyl phthalate	ND		300000	39000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Dimethyl phthalate	ND		300000	35000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Di-n-butyl phthalate	ND		300000	51000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Di-n-octyl phthalate	ND		300000	35000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Fluoranthene	**550000**		300000	32000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Fluorene	**390000**		300000	35000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Hexachlorobenzene	ND		300000	41000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Hexachlorobutadiene	ND		300000	44000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Hexachlorocyclopentadiene	ND	*-	300000	41000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Hexachloroethane	ND		300000	39000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Indeno[1,2,3-cd]pyrene	**55000**	**J**	300000	37000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10

Client Sample ID: SED-10
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-18
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isophorone	ND		300000	64000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Naphthalene	**2400000**		300000	39000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Nitrobenzene	ND		300000	34000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
N-Nitrosodi-n-propylamine	ND		300000	51000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
N-Nitrosodiphenylamine	ND		300000	240000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Pentachlorophenol	ND		580000	300000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Phenanthrene	**1100000**		300000	44000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Phenol	ND		300000	46000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10
Pyrene	**370000**		300000	35000	ug/Kg		06/07/24 06:49	06/12/24 14:37	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Methylene Chloride	*3300000*	*T J N*	*ug/Kg*		*2.09*	*75-09-2*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
Indene	*310000*	*T J N*	*ug/Kg*		*6.06*	*95-13-6*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
Unknown	*280000*	*T J*	*ug/Kg*		*7.86*	*N/A*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
Naphthalene, 1-methyl-	*400000*	*T J N*	*ug/Kg*		*8.25*	*90-12-0*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
Naphthalene, 1,3-dimethyl-	*340000*	*T J N*	*ug/Kg*		*8.88*	*575-41-7*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
Naphthalene, 2,3-dimethyl-	*400000*	*T J N*	*ug/Kg*		*8.97*	*581-40-8*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
Naphthalene, 1,4-dimethyl-	*460000*	*T J N*	*ug/Kg*		*9.11*	*571-58-4*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
Naphthalene, 2,3,6-trimethyl-	*250000*	*T J N*	*ug/Kg*		*9.66*	*829-26-5*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
Pentadecane, 2,6,10,14-tetramethyl-	*420000*	*T J N*	*ug/Kg*		*10.46*	*1921-70-6*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
Tridecane	*340000*	*T J N*	*ug/Kg*		*10.94*	*629-50-5*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
Anthracene, 2-methyl-	*340000*	*T J N*	*ug/Kg*		*11.47*	*613-12-7*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
Anthracene, 9-methyl-	*510000*	*T J N*	*ug/Kg*		*11.49*	*779-02-2*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
Unknown	*400000*	*T J*	*ug/Kg*		*11.57*	*N/A*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
1H-Cyclopropa[l]phenanthrene,1a,9b -dihydro-	*240000*	*T J N*	*ug/Kg*		*11.59*	*949-41-7*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
Phenanthrene, 3,6-dimethyl-	*590000*	*T J N*	*ug/Kg*		*11.99*	*1576-67-6*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
Phenanthrene, 2,5-dimethyl-	*270000*	*T J N*	*ug/Kg*		*12.01*	*3674-66-6*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
Unknown	*300000*	*T J*	*ug/Kg*		*12.39*	*N/A*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
11H-Benzo[b]fluorene	*240000*	*T J N*	*ug/Kg*		*12.62*	*243-17-4*	*06/07/24 06:49*	*06/12/24 14:37*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*61*		*40 - 121*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
p-Terphenyl-d14	*61*		*46 - 143*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
Phenol-d5	*52*		*41 - 120*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
2-Fluorophenol	*57*		*36 - 120*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
2,4,6-Tribromophenol	*49*		*26 - 143*	*06/07/24 06:49*	*06/12/24 14:37*	*10*
2-Fluorobiphenyl	*67*		*50 - 121*	*06/07/24 06:49*	*06/12/24 14:37*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.8	0.54	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
4,4'-DDE	ND		2.8	0.78	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
4,4'-DDT	ND		2.8	0.61	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
Aldrin	ND		2.8	0.28	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
alpha-BHC	ND		2.8	0.50	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
cis-Chlordane	ND		2.8	1.4	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
beta-BHC	ND		2.8	2.0	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
delta-BHC	ND		2.8	0.37	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
Dieldrin	ND		2.8	0.67	mg/Kg		06/06/24 10:13	06/07/24 11:48	10

Client Sample ID: SED-10

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-18
Matrix: Waste

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I	ND		2.8	0.59	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
Endosulfan II	ND		2.8	0.50	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
Endosulfan sulfate	ND		2.8	0.52	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
Endrin	ND		2.8	0.89	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
Endrin aldehyde	ND		2.8	0.71	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
Endrin ketone	ND		2.8	0.67	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
gamma-BHC (Lindane)	ND		2.8	2.0	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
trans-Chlordane	ND		2.8	0.38	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
Heptachlor	ND		2.8	0.43	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
Heptachlor epoxide	ND		2.8	0.72	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
Methoxychlor	ND		2.8	0.72	mg/Kg		06/06/24 10:13	06/07/24 11:48	10
Toxaphene	ND		28	16	mg/Kg		06/06/24 10:13	06/07/24 11:48	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*79*		*45 - 120*	*06/06/24 10:13*	*06/07/24 11:48*	*10*
DCB Decachlorobiphenyl	*319*	*S1+*	*45 - 120*	*06/06/24 10:13*	*06/07/24 11:48*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 11:48*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 11:48*	*10*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		4.5	0.89	mg/Kg		06/07/24 06:55	06/10/24 22:15	1
PCB-1221	ND		4.5	0.89	mg/Kg		06/07/24 06:55	06/10/24 22:15	1
PCB-1232	ND		4.5	0.89	mg/Kg		06/07/24 06:55	06/10/24 22:15	1
PCB-1242	ND		4.5	0.89	mg/Kg		06/07/24 06:55	06/10/24 22:15	1
PCB-1248	ND		4.5	0.89	mg/Kg		06/07/24 06:55	06/10/24 22:15	1
PCB-1254	ND		4.5	0.21	mg/Kg		06/07/24 06:55	06/10/24 22:15	1
PCB-1260	ND		4.5	0.21	mg/Kg		06/07/24 06:55	06/10/24 22:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*61*		*60 - 154*	*06/07/24 06:55*	*06/10/24 22:15*	*1*
Tetrachloro-m-xylene	*56*	*S1-*	*60 - 154*	*06/07/24 06:55*	*06/10/24 22:15*	*1*
DCB Decachlorobiphenyl	*66*		*65 - 174*	*06/07/24 06:55*	*06/10/24 22:15*	*1*
DCB Decachlorobiphenyl	*74*		*65 - 174*	*06/07/24 06:55*	*06/10/24 22:15*	*1*

Client Sample ID: SED-11

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-19
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		280000	42000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
bis (2-chloroisopropyl) ether	ND		280000	57000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
2,4,5-Trichlorophenol	ND		280000	77000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
2,4,6-Trichlorophenol	ND		280000	57000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
2,4-Dichlorophenol	ND		280000	30000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
2,4-Dimethylphenol	ND		280000	68000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
2,4-Dinitrophenol	ND		2800000	1300000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
2,4-Dinitrotoluene	ND		280000	58000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
2,6-Dinitrotoluene	ND		280000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
2-Chloronaphthalene	ND		280000	47000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10

Client Sample ID: SED-11
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-19
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorophenol	ND		280000	52000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
2-Methylnaphthalene	**620000**		280000	57000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
2-Methylphenol	ND		280000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
2-Nitroaniline	ND		550000	42000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
2-Nitrophenol	ND		280000	80000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
3,3'-Dichlorobenzidine	ND		550000	330000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
3-Nitroaniline	ND		550000	78000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
4,6-Dinitro-2-methylphenol	ND		550000	280000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
4-Bromophenyl phenyl ether	ND		280000	40000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
4-Chloro-3-methylphenol	ND		280000	70000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
4-Chloroaniline	ND		280000	70000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
4-Chlorophenyl phenyl ether	ND		280000	35000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
4-Methylphenol	ND		550000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
4-Nitroaniline	ND		550000	150000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
4-Nitrophenol	ND		550000	200000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Acenaphthene	ND		280000	42000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Acenaphthylene	**38000**	**J**	280000	37000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Acetophenone	ND		280000	38000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Anthracene	**71000**	**J**	280000	70000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Atrazine	ND		280000	98000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Benzaldehyde	ND		280000	230000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Benzo[a]anthracene	**84000**	**J**	280000	28000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Benzo[a]pyrene	**56000**	**J**	280000	42000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Benzo[b]fluoranthene	**62000**	**J**	280000	45000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Benzo[g,h,i]perylene	**37000**	**J**	280000	30000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Benzo[k]fluoranthene	ND		280000	37000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Bis(2-chloroethoxy)methane	ND		280000	60000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Bis(2-chloroethyl)ether	ND		280000	37000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Bis(2-ethylhexyl) phthalate	ND		280000	97000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Butyl benzyl phthalate	ND		280000	47000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Caprolactam	ND		280000	85000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Carbazole	**36000**	**J**	280000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Chrysene	**93000**	**J**	280000	63000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Dibenz(a,h)anthracene	ND		280000	50000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Dibenzofuran	**67000**	**J**	280000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Diethyl phthalate	ND		280000	37000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Dimethyl phthalate	ND		280000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Di-n-butyl phthalate	ND		280000	48000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Di-n-octyl phthalate	ND		280000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Fluoranthene	**180000**	**J**	280000	30000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Fluorene	**130000**	**J**	280000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Hexachlorobenzene	ND		280000	38000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Hexachlorobutadiene	ND		280000	42000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Hexachlorocyclopentadiene	ND		280000	38000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Hexachloroethane	ND		280000	37000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Indeno[1,2,3-cd]pyrene	ND		280000	35000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Isophorone	ND		280000	60000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Naphthalene	**540000**		280000	37000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Nitrobenzene	ND		280000	32000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10

Client Sample ID: SED-11
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-19
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		280000	48000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
N-Nitrosodiphenylamine	ND		280000	230000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Pentachlorophenol	ND		550000	280000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Phenanthrene	**440000**		280000	42000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Phenol	ND		280000	43000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10
Pyrene	**130000**	**J**	280000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:07	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Benzene, 1,2,4,5-tetramethyl-	*270000*	*T J N*	*ug/Kg*		*7.00*	*95-93-2*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Unknown	*270000*	*T J*	*ug/Kg*		*7.43*	*N/A*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Unknown	*430000*	*T J*	*ug/Kg*		*7.86*	*N/A*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Naphthalene, 1-methyl-	*440000*	*T J N*	*ug/Kg*		*8.25*	*90-12-0*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Naphthalene, 1-ethyl-	*260000*	*T J N*	*ug/Kg*		*8.80*	*1127-76-0*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Naphthalene, 1,7-dimethyl-	*570000*	*T J N*	*ug/Kg*		*8.88*	*575-37-1*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Naphthalene, 2,3-dimethyl-	*620000*	*T J N*	*ug/Kg*		*8.97*	*581-40-8*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Naphthalene, 2,6-dimethyl-	*330000*	*T J N*	*ug/Kg*		*8.99*	*581-42-0*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Naphthalene, 1,3-dimethyl-	*700000*	*T J N*	*ug/Kg*		*9.11*	*575-41-7*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Naphthalene, 2-(1-methylethyl)-	*370000*	*T J N*	*ug/Kg*		*9.49*	*2027-17-0*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Naphthalene, 1,4,6-trimethyl-	*410000*	*T J N*	*ug/Kg*		*9.66*	*2131-42-2*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Naphthalene, 1,6,7-trimethyl-	*310000*	*T J N*	*ug/Kg*		*9.74*	*2245-38-7*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Naphthalene, 2,3,6-trimethyl-	*240000*	*T J N*	*ug/Kg*		*9.84*	*829-26-5*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Unknown	*580000*	*T J*	*ug/Kg*		*10.17*	*N/A*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Heptadecane, 2,6-dimethyl-	*580000*	*T J N*	*ug/Kg*		*10.46*	*54105-67-8*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Octadecane, 2-methyl-	*440000*	*T J N*	*ug/Kg*		*10.94*	*1560-88-9*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Anthracene, 9-methyl-	*340000*	*T J N*	*ug/Kg*		*11.47*	*779-02-2*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Anthracene, 1-methyl-	*420000*	*T J N*	*ug/Kg*		*11.49*	*610-48-0*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Unknown	*290000*	*T J*	*ug/Kg*		*11.57*	*N/A*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Phenanthrene, 2,5-dimethyl-	*470000*	*T J N*	*ug/Kg*		*11.99*	*3674-66-6*	*06/07/24 06:49*	*06/12/24 15:07*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*66*		*40 - 121*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
p-Terphenyl-d14	*74*		*46 - 143*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
Phenol-d5	*60*		*41 - 120*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
2-Fluorophenol	*68*		*36 - 120*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
2,4,6-Tribromophenol	*56*		*26 - 143*	*06/07/24 06:49*	*06/12/24 15:07*	*10*
2-Fluorobiphenyl	*73*		*50 - 121*	*06/07/24 06:49*	*06/12/24 15:07*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		3.6	0.69	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
4,4'-DDE	ND		3.6	1.0	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
4,4'-DDT	ND		3.6	0.79	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
Aldrin	ND		3.6	0.36	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
alpha-BHC	ND		3.6	0.64	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
cis-Chlordane	ND		3.6	1.8	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
beta-BHC	ND		3.6	2.6	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
delta-BHC	ND		3.6	0.47	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
Dieldrin	ND		3.6	0.86	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
Endosulfan I	ND		3.6	0.76	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
Endosulfan II	ND		3.6	0.64	mg/Kg		06/06/24 10:13	06/07/24 12:07	10

Client Sample ID: SED-11

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-19

Matrix: Waste

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan sulfate	ND		3.6	0.66	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
Endrin	ND		3.6	1.1	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
Endrin aldehyde	ND		3.6	0.91	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
Endrin ketone	ND		3.6	0.86	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
gamma-BHC (Lindane)	ND		3.6	2.6	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
trans-Chlordane	ND		3.6	0.49	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
Heptachlor	ND		3.6	0.56	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
Heptachlor epoxide	ND		3.6	0.93	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
Methoxychlor	ND		3.6	0.93	mg/Kg		06/06/24 10:13	06/07/24 12:07	10
Toxaphene	ND		36	21	mg/Kg		06/06/24 10:13	06/07/24 12:07	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*112*		*45 - 120*	*06/06/24 10:13*	*06/07/24 12:07*	*10*
DCB Decachlorobiphenyl	*121*	*S1+*	*45 - 120*	*06/06/24 10:13*	*06/07/24 12:07*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 12:07*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 12:07*	*10*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		15	2.9	mg/Kg		06/07/24 06:55	06/10/24 22:32	5
PCB-1221	ND		15	2.9	mg/Kg		06/07/24 06:55	06/10/24 22:32	5
PCB-1232	ND		15	2.9	mg/Kg		06/07/24 06:55	06/10/24 22:32	5
PCB-1242	ND		15	2.9	mg/Kg		06/07/24 06:55	06/10/24 22:32	5
PCB-1248	ND		15	2.9	mg/Kg		06/07/24 06:55	06/10/24 22:32	5
PCB-1254	ND		15	0.69	mg/Kg		06/07/24 06:55	06/10/24 22:32	5
PCB-1260	ND		15	0.69	mg/Kg		06/07/24 06:55	06/10/24 22:32	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*65*		*60 - 154*	*06/07/24 06:55*	*06/10/24 22:32*	*5*
Tetrachloro-m-xylene	*62*		*60 - 154*	*06/07/24 06:55*	*06/10/24 22:32*	*5*
DCB Decachlorobiphenyl	*69*		*65 - 174*	*06/07/24 06:55*	*06/10/24 22:32*	*5*
DCB Decachlorobiphenyl	*96*		*65 - 174*	*06/07/24 06:55*	*06/10/24 22:32*	*5*

Client Sample ID: SED-11-FD

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-20

Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		270000	39000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
bis (2-chloroisopropyl) ether	ND		270000	54000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
2,4,5-Trichlorophenol	ND		270000	73000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
2,4,6-Trichlorophenol	ND		270000	54000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
2,4-Dichlorophenol	ND		270000	28000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
2,4-Dimethylphenol	ND		270000	65000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
2,4-Dinitrophenol	ND		2600000	1200000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
2,4-Dinitrotoluene	ND		270000	55000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
2,6-Dinitrotoluene	ND		270000	32000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
2-Chloronaphthalene	ND		270000	44000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
2-Chlorophenol	ND		270000	49000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
2-Methylnaphthalene	**470000**		270000	54000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220474-1

Client Sample ID: SED-11-FD
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-20
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	ND		270000	32000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
2-Nitroaniline	ND		520000	39000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
2-Nitrophenol	ND		270000	76000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
3,3'-Dichlorobenzidine	ND		520000	320000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
3-Nitroaniline	ND		520000	74000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
4,6-Dinitro-2-methylphenol	ND		520000	270000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
4-Bromophenyl phenyl ether	ND		270000	38000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
4-Chloro-3-methylphenol	ND		270000	66000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
4-Chloroaniline	ND		270000	66000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
4-Chlorophenyl phenyl ether	ND		270000	33000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
4-Methylphenol	ND		520000	32000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
4-Nitroaniline	ND		520000	140000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
4-Nitrophenol	ND		520000	190000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Acenaphthene	ND		270000	39000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Acenaphthylene	ND		270000	35000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Acetophenone	ND		270000	36000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Anthracene	ND		270000	66000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Atrazine	ND		270000	93000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Benzaldehyde	ND		270000	210000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Benzo[a]anthracene	**47000**	**J**	270000	27000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Benzo[a]pyrene	ND		270000	39000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Benzo[b]fluoranthene	ND		270000	43000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Benzo[g,h,i]perylene	ND		270000	28000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Benzo[k]fluoranthene	ND		270000	35000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Bis(2-chloroethoxy)methane	ND		270000	57000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Bis(2-chloroethyl)ether	ND		270000	35000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Bis(2-ethylhexyl) phthalate	ND		270000	92000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Butyl benzyl phthalate	ND		270000	44000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Caprolactam	ND		270000	81000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Carbazole	ND		270000	32000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Chrysene	ND		270000	60000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Dibenz(a,h)anthracene	ND		270000	47000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Dibenzofuran	**41000**	**J**	270000	32000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Diethyl phthalate	ND		270000	35000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Dimethyl phthalate	ND		270000	32000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Di-n-butyl phthalate	ND		270000	46000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Di-n-octyl phthalate	ND		270000	32000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Fluoranthene	**95000**	**J**	270000	28000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Fluorene	**90000**	**J**	270000	32000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Hexachlorobenzene	ND		270000	36000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Hexachlorobutadiene	ND		270000	39000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Hexachlorocyclopentadiene	ND		270000	36000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Hexachloroethane	ND		270000	35000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Indeno[1,2,3-cd]pyrene	ND		270000	33000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Isophorone	ND		270000	57000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Naphthalene	**380000**		270000	35000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Nitrobenzene	ND		270000	30000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
N-Nitrosodi-n-propylamine	ND		270000	46000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
N-Nitrosodiphenylamine	ND		270000	220000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10

Client Sample ID: SED-11-FD

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-20

Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		520000	270000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Phenanthrene	**280000**		270000	39000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Phenol	ND		270000	41000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10
Pyrene	**78000**	**J**	270000	32000	ug/Kg		06/07/24 06:49	06/10/24 19:50	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Benzene, 1,2,4,5-tetramethyl-	*230000*	*T J N*	*ug/Kg*		*7.01*	*95-93-2*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
Unknown	*250000*	*T J*	*ug/Kg*		*7.43*	*N/A*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
Unknown	*380000*	*T J*	*ug/Kg*		*7.86*	*N/A*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
1H-Indene, 1-ethylidene-	*360000*	*T J N*	*ug/Kg*		*8.26*	*2471-83-2*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
Naphthalene, 1,3-dimethyl-	*210000*	*T J N*	*ug/Kg*		*8.80*	*575-41-7*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
Naphthalene, 1,7-dimethyl-	*440000*	*T J N*	*ug/Kg*		*8.88*	*575-37-1*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
Naphthalene, 2,3-dimethyl-	*490000*	*T J N*	*ug/Kg*		*8.97*	*581-40-8*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
Naphthalene, 2,7-dimethyl-	*270000*	*T J N*	*ug/Kg*		*9.00*	*582-16-1*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
Unknown	*640000*	*T J*	*ug/Kg*		*9.11*	*N/A*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
Naphthalene, 2-(1-methylethyl)-	*320000*	*T J N*	*ug/Kg*		*9.50*	*2027-17-0*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
Naphthalene, 1,6,7-trimethyl-	*300000*	*T J N*	*ug/Kg*		*9.66*	*2245-38-7*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
Naphthalene, 1,4,6-trimethyl-	*290000*	*T J N*	*ug/Kg*		*9.74*	*2131-42-2*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
Pentadecane, 2,6,10-trimethyl-	*470000*	*T J N*	*ug/Kg*		*10.18*	*3892-00-0*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
Heptadecane, 2,6-dimethyl-	*450000*	*T J N*	*ug/Kg*		*10.47*	*54105-67-8*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
Hexadecane, 2,6,10,14-tetramethyl-	*340000*	*T J N*	*ug/Kg*		*10.94*	*638-36-8*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
Anthracene, 2-methyl-	*250000*	*T J N*	*ug/Kg*		*11.47*	*613-12-7*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
Phenanthrene, 1-methyl-	*320000*	*T J N*	*ug/Kg*		*11.49*	*832-69-9*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
Phenanthrene, 2,5-dimethyl-	*350000*	*T J N*	*ug/Kg*		*11.99*	*3674-66-6*	*06/07/24 06:49*	*06/10/24 19:50*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*60*		*40 - 121*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
p-Terphenyl-d14	*62*		*46 - 143*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
Phenol-d5	*52*		*41 - 120*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
2-Fluorophenol	*53*		*36 - 120*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
2,4,6-Tribromophenol	*51*		*26 - 143*	*06/07/24 06:49*	*06/10/24 19:50*	*10*
2-Fluorobiphenyl	*67*		*50 - 121*	*06/07/24 06:49*	*06/10/24 19:50*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.8	0.54	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
4,4'-DDE	ND		2.8	0.78	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
4,4'-DDT	ND		2.8	0.61	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
Aldrin	ND		2.8	0.28	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
alpha-BHC	ND		2.8	0.50	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
cis-Chlordane	ND		2.8	1.4	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
beta-BHC	ND		2.8	2.0	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
delta-BHC	ND		2.8	0.37	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
Dieldrin	ND		2.8	0.67	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
Endosulfan I	ND		2.8	0.59	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
Endosulfan II	ND		2.8	0.50	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
Endosulfan sulfate	ND		2.8	0.52	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
Endrin	ND		2.8	0.89	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
Endrin aldehyde	ND		2.8	0.71	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
Endrin ketone	ND		2.8	0.67	mg/Kg		06/06/24 10:13	06/07/24 12:27	10

Client Sample ID: SED-11-FD

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-20

Matrix: Waste

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
gamma-BHC (Lindane)	ND		2.8	2.0	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
trans-Chlordane	ND		2.8	0.38	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
Heptachlor	ND		2.8	0.43	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
Heptachlor epoxide	ND		2.8	0.72	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
Methoxychlor	ND		2.8	0.72	mg/Kg		06/06/24 10:13	06/07/24 12:27	10
Toxaphene	ND		28	16	mg/Kg		06/06/24 10:13	06/07/24 12:27	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*87*		*45 - 120*	*06/06/24 10:13*	*06/07/24 12:27*	*10*
DCB Decachlorobiphenyl	*132*	*S1+*	*45 - 120*	*06/06/24 10:13*	*06/07/24 12:27*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 12:27*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 12:27*	*10*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		13	2.6	mg/Kg		06/07/24 06:55	06/10/24 22:49	5
PCB-1221	ND		13	2.6	mg/Kg		06/07/24 06:55	06/10/24 22:49	5
PCB-1232	ND		13	2.6	mg/Kg		06/07/24 06:55	06/10/24 22:49	5
PCB-1242	ND		13	2.6	mg/Kg		06/07/24 06:55	06/10/24 22:49	5
PCB-1248	ND		13	2.6	mg/Kg		06/07/24 06:55	06/10/24 22:49	5
PCB-1254	ND		13	0.62	mg/Kg		06/07/24 06:55	06/10/24 22:49	5
PCB-1260	ND		13	0.62	mg/Kg		06/07/24 06:55	06/10/24 22:49	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*66*		*60 - 154*	*06/07/24 06:55*	*06/10/24 22:49*	*5*
Tetrachloro-m-xylene	*57*	*S1-*	*60 - 154*	*06/07/24 06:55*	*06/10/24 22:49*	*5*
DCB Decachlorobiphenyl	*65*		*65 - 174*	*06/07/24 06:55*	*06/10/24 22:49*	*5*
DCB Decachlorobiphenyl	*93*		*65 - 174*	*06/07/24 06:55*	*06/10/24 22:49*	*5*

Client Sample ID: SED-12

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-21

Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		36000	5400	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
1,4-Dioxane	ND		43000	12000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
bis (2-chloroisopropyl) ether	ND		36000	7300	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
2,4,5-Trichlorophenol	ND		36000	9900	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
2,4,6-Trichlorophenol	ND		36000	7300	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
2,4-Dichlorophenol	ND		36000	3900	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
2,4-Dimethylphenol	ND		36000	8800	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
2,4-Dinitrophenol	ND		360000	170000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
2,4-Dinitrotoluene	ND		36000	7500	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
2,6-Dinitrotoluene	ND		36000	4300	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
2-Chloronaphthalene	ND		36000	6000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
2-Chlorophenol	ND		36000	6600	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
2-Methylnaphthalene	**710000**		36000	7300	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
2-Methylphenol	ND		36000	4300	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
2-Nitroaniline	ND		71000	5400	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
2-Nitrophenol	ND		36000	10000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1

Client Sample ID: SED-12
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-21
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	ND		71000	43000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
3-Nitroaniline	ND		71000	10000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
4,6-Dinitro-2-methylphenol	ND		71000	36000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
4-Bromophenyl phenyl ether	ND		36000	5100	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
4-Chloro-3-methylphenol	ND		36000	9000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
4-Chloroaniline	ND		36000	9000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
4-Chlorophenyl phenyl ether	ND		36000	4500	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
4-Methylphenol	ND		71000	4300	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
4-Nitroaniline	ND		71000	19000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
4-Nitrophenol	ND		71000	26000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Acenaphthene	**37000**		36000	5400	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Acenaphthylene	ND		36000	4700	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Acetophenone	ND		36000	4900	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Anthracene	**20000**	**J**	36000	9000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Atrazine	ND		36000	13000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Benzaldehyde	ND		36000	29000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Benzo[a]anthracene	**11000**	**J**	36000	3600	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Benzo[a]pyrene	ND		36000	5400	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Benzo[b]fluoranthene	ND		36000	5800	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Benzo[g,h,i]perylene	ND		36000	3900	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Benzo[k]fluoranthene	ND		36000	4700	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Bis(2-chloroethoxy)methane	ND		36000	7700	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Bis(2-chloroethyl)ether	ND		36000	4700	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Bis(2-ethylhexyl) phthalate	ND		36000	12000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Butyl benzyl phthalate	ND		36000	6000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Caprolactam	ND		36000	11000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Carbazole	**6900**	**J**	36000	4300	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Chrysene	**20000**	**J**	36000	8100	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Dibenz(a,h)anthracene	ND		36000	6400	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Dibenzofuran	**36000**		36000	4300	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Diethyl phthalate	ND		36000	4700	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Dimethyl phthalate	ND		36000	4300	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Di-n-butyl phthalate	ND		36000	6200	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Di-n-octyl phthalate	ND		36000	4300	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Fluoranthene	**11000**	**J**	36000	3900	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Fluorene	**66000**		36000	4300	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Hexachlorobenzene	ND		36000	4900	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Hexachlorobutadiene	ND		36000	5400	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Hexachlorocyclopentadiene	ND		36000	4900	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Hexachloroethane	ND		36000	4700	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Indeno[1,2,3-cd]pyrene	ND		36000	4500	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Isophorone	ND		36000	7700	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Naphthalene	**120000**		36000	4700	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Nitrobenzene	ND		36000	4100	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
N-Nitrosodi-n-propylamine	ND		36000	6200	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
N-Nitrosodiphenylamine	**140000**		36000	30000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Pentachlorophenol	ND		71000	36000	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Phenanthrene	**190000**		36000	5400	ug/Kg		06/07/24 06:49	06/10/24 20:18	1
Phenol	ND		36000	5600	ug/Kg		06/07/24 06:49	06/10/24 20:18	1

Client Sample ID: SED-12
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-21
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	**23000**	**J**	36000	4300	ug/Kg		06/07/24 06:49	06/10/24 20:18	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Methylene Chloride	*320000*	*T J N*	*ug/Kg*		*2.09*	*75-09-2*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Ethylbenzene	*300000*	*T J N*	*ug/Kg*		*3.85*	*100-41-4*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Octane, 2,6-dimethyl-	*310000*	*T J N*	*ug/Kg*		*4.82*	*2051-30-1*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Benzene, propyl-	*250000*	*T J N*	*ug/Kg*		*5.08*	*103-65-1*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Unknown	*350000*	*T J*	*ug/Kg*		*7.87*	*N/A*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Naphthalene, 1-methyl-	*250000*	*T J N*	*ug/Kg*		*8.26*	*90-12-0*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Naphthalene, 2-ethyl-	*250000*	*T J N*	*ug/Kg*		*8.81*	*939-27-5*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Naphthalene, 1,7-dimethyl-	*420000*	*T J N*	*ug/Kg*		*8.89*	*575-37-1*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Naphthalene, 2,3-dimethyl-	*490000*	*T J N*	*ug/Kg*		*8.98*	*581-40-8*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Naphthalene, 2,6-dimethyl-	*250000*	*T J N*	*ug/Kg*		*9.00*	*581-42-0*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Naphthalene, 1,4-dimethyl-	*550000*	*T J N*	*ug/Kg*		*9.11*	*571-58-4*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Naphthalene, 2-(1-methylethyl)-	*320000*	*T J N*	*ug/Kg*		*9.50*	*2027-17-0*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Naphthalene, 2,3,6-trimethyl-	*300000*	*T J N*	*ug/Kg*		*9.66*	*829-26-5*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Pentadecane, 2,6,10-trimethyl-	*800000*	*T J N*	*ug/Kg*		*10.19*	*3892-00-0*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Unknown	*270000*	*T J*	*ug/Kg*		*10.29*	*N/A*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Pentadecane, 2,6,10,14-tetramethyl-	*830000*	*T J N*	*ug/Kg*		*10.47*	*1921-70-6*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Hexadecane, 2,6,10,14-tetramethyl-	*560000*	*T J N*	*ug/Kg*		*10.95*	*638-36-8*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
1H-Cyclopropa[l]phenanthrene,1a,9b -dihydro-	*280000*	*T J N*	*ug/Kg*		*11.47*	*949-41-7*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Anthracene, 2-methyl-	*310000*	*T J N*	*ug/Kg*		*11.50*	*613-12-7*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Phenanthrene, 2,5-dimethyl-	*260000*	*T J N*	*ug/Kg*		*11.99*	*3674-66-6*	*06/07/24 06:49*	*06/10/24 20:18*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*68*		*40 - 121*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
p-Terphenyl-d14	*71*		*46 - 143*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
Phenol-d5	*67*		*41 - 120*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
2-Fluorophenol	*64*		*36 - 120*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
2,4,6-Tribromophenol	*71*		*26 - 143*	*06/07/24 06:49*	*06/10/24 20:18*	*1*
2-Fluorobiphenyl	*78*		*50 - 121*	*06/07/24 06:49*	*06/10/24 20:18*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		3.8	0.75	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
4,4'-DDE	ND		3.8	1.1	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
4,4'-DDT	ND		3.8	0.85	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
Aldrin	ND		3.8	0.39	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
alpha-BHC	ND		3.8	0.69	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
cis-Chlordane	ND		3.8	1.9	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
beta-BHC	ND		3.8	2.8	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
delta-BHC	ND		3.8	0.51	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
Dieldrin	ND		3.8	0.92	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
Endosulfan I	ND		3.8	0.82	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
Endosulfan II	ND		3.8	0.69	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
Endosulfan sulfate	ND		3.8	0.72	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
Endrin	ND		3.8	1.2	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
Endrin aldehyde	ND		3.8	0.98	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
Endrin ketone	ND		3.8	0.92	mg/Kg		06/06/24 10:13	06/07/24 12:47	10

Client Sample ID: SED-12

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-21
Matrix: Waste

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
gamma-BHC (Lindane)	ND		3.8	2.8	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
trans-Chlordane	ND		3.8	0.53	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
Heptachlor	ND		3.8	0.60	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
Heptachlor epoxide	ND		3.8	1.0	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
Methoxychlor	ND		3.8	1.0	mg/Kg		06/06/24 10:13	06/07/24 12:47	10
Toxaphene	ND		38	22	mg/Kg		06/06/24 10:13	06/07/24 12:47	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*95*		*45 - 120*	*06/06/24 10:13*	*06/07/24 12:47*	*10*
DCB Decachlorobiphenyl	*90*		*45 - 120*	*06/06/24 10:13*	*06/07/24 12:47*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 12:47*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 12:47*	*10*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		3.3	0.65	mg/Kg		06/07/24 06:55	06/10/24 23:05	1
PCB-1221	ND		3.3	0.65	mg/Kg		06/07/24 06:55	06/10/24 23:05	1
PCB-1232	ND		3.3	0.65	mg/Kg		06/07/24 06:55	06/10/24 23:05	1
PCB-1242	ND		3.3	0.65	mg/Kg		06/07/24 06:55	06/10/24 23:05	1
PCB-1248	ND		3.3	0.65	mg/Kg		06/07/24 06:55	06/10/24 23:05	1
PCB-1254	ND		3.3	0.16	mg/Kg		06/07/24 06:55	06/10/24 23:05	1
PCB-1260	ND		3.3	0.16	mg/Kg		06/07/24 06:55	06/10/24 23:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*65*		*60 - 154*	*06/07/24 06:55*	*06/10/24 23:05*	*1*
Tetrachloro-m-xylene	*60*		*60 - 154*	*06/07/24 06:55*	*06/10/24 23:05*	*1*
DCB Decachlorobiphenyl	*76*		*65 - 174*	*06/07/24 06:55*	*06/10/24 23:05*	*1*
DCB Decachlorobiphenyl	*84*		*65 - 174*	*06/07/24 06:55*	*06/10/24 23:05*	*1*

Client Sample ID: SED-13

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-22
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		280000	42000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
bis (2-chloroisopropyl) ether	ND		280000	57000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
2,4,5-Trichlorophenol	ND		280000	77000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
2,4,6-Trichlorophenol	ND		280000	57000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
2,4-Dichlorophenol	ND		280000	30000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
2,4-Dimethylphenol	ND		280000	68000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
2,4-Dinitrophenol	ND		2800000	1300000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
2,4-Dinitrotoluene	ND		280000	58000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
2,6-Dinitrotoluene	ND		280000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
2-Chloronaphthalene	ND		280000	47000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
2-Chlorophenol	ND		280000	52000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
2-Methylnaphthalene	**460000**		280000	57000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
2-Methylphenol	ND		280000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
2-Nitroaniline	ND		550000	42000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
2-Nitrophenol	ND		280000	80000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
3,3'-Dichlorobenzidine	ND		550000	330000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10

Client Sample ID: SED-13
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-22
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Nitroaniline	ND		550000	78000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
4,6-Dinitro-2-methylphenol	ND		550000	280000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
4-Bromophenyl phenyl ether	ND		280000	40000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
4-Chloro-3-methylphenol	ND		280000	70000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
4-Chloroaniline	ND		280000	70000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
4-Chlorophenyl phenyl ether	ND		280000	35000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
4-Methylphenol	ND		550000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
4-Nitroaniline	ND		550000	150000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
4-Nitrophenol	ND		550000	200000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Acenaphthene	ND		280000	42000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Acenaphthylene	ND		280000	37000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Acetophenone	ND		280000	38000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Anthracene	ND		280000	70000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Atrazine	ND		280000	98000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Benzaldehyde	ND		280000	230000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Benzo[a]anthracene	**65000**	**J**	280000	28000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Benzo[a]pyrene	**42000**	**J**	280000	42000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Benzo[b]fluoranthene	ND		280000	45000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Benzo[g,h,i]perylene	ND		280000	30000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Benzo[k]fluoranthene	ND		280000	37000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Bis(2-chloroethoxy)methane	ND		280000	60000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Bis(2-chloroethyl)ether	ND		280000	37000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Bis(2-ethylhexyl) phthalate	ND		280000	97000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Butyl benzyl phthalate	ND		280000	47000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Caprolactam	ND		280000	85000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Carbazole	ND		280000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Chrysene	**78000**	**J**	280000	63000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Dibenz(a,h)anthracene	ND		280000	50000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Dibenzofuran	**51000**	**J**	280000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Diethyl phthalate	ND		280000	37000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Dimethyl phthalate	ND		280000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Di-n-butyl phthalate	ND		280000	48000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Di-n-octyl phthalate	ND		280000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Fluoranthene	**130000**	**J**	280000	30000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Fluorene	**100000**	**J**	280000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Hexachlorobenzene	ND		280000	38000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Hexachlorobutadiene	ND		280000	42000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Hexachlorocyclopentadiene	ND		280000	38000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Hexachloroethane	ND		280000	37000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Indeno[1,2,3-cd]pyrene	ND		280000	35000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Isophorone	ND		280000	60000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Naphthalene	**440000**		280000	37000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Nitrobenzene	ND		280000	32000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
N-Nitrosodi-n-propylamine	ND		280000	48000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
N-Nitrosodiphenylamine	ND		280000	230000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Pentachlorophenol	ND		550000	280000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Phenanthrene	**350000**		280000	42000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Phenol	ND		280000	43000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10
Pyrene	**110000**	**J**	280000	33000	ug/Kg		06/07/24 06:49	06/12/24 15:36	10

Client Sample ID: SED-13
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-22
Matrix: Waste

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	320000	T J	ug/Kg		7.86	N/A	06/07/24 06:49	06/12/24 15:36	10
Naphthalene, 1-methyl-	330000	T J N	ug/Kg		8.25	90-12-0	06/07/24 06:49	06/12/24 15:36	10
Naphthalene, 1,7-dimethyl-	440000	T J N	ug/Kg		8.89	575-37-1	06/07/24 06:49	06/12/24 15:36	10
Naphthalene, 2,3-dimethyl-	510000	T J N	ug/Kg		8.97	581-40-8	06/07/24 06:49	06/12/24 15:36	10
Naphthalene, 1,5-dimethyl-	300000	T J N	ug/Kg		8.99	571-61-9	06/07/24 06:49	06/12/24 15:36	10
Naphthalene, 1,8-dimethyl-	540000	T J N	ug/Kg		9.11	569-41-5	06/07/24 06:49	06/12/24 15:36	10
Naphthalene, 2,3,6-trimethyl-	310000	T J N	ug/Kg		9.49	829-26-5	06/07/24 06:49	06/12/24 15:36	10
Naphthalene, 1,4,6-trimethyl-	300000	T J N	ug/Kg		9.66	2131-42-2	06/07/24 06:49	06/12/24 15:36	10
Naphthalene, 1,6,7-trimethyl-	270000	T J N	ug/Kg		9.74	2245-38-7	06/07/24 06:49	06/12/24 15:36	10
Unknown	380000	T J	ug/Kg		10.17	N/A	06/07/24 06:49	06/12/24 15:36	10
Pentadecane, 2,6,10,14-tetramethyl-	410000	T J N	ug/Kg		10.46	1921-70-6	06/07/24 06:49	06/12/24 15:36	10
Hexatriacontane	280000	T J N	ug/Kg		10.94	630-06-8	06/07/24 06:49	06/12/24 15:36	10
Anthracene, 1-methyl-	290000	T J N	ug/Kg		11.47	610-48-0	06/07/24 06:49	06/12/24 15:36	10
Anthracene, 2-methyl-	380000	T J N	ug/Kg		11.49	613-12-7	06/07/24 06:49	06/12/24 15:36	10
Phenanthrene, 4-methyl-	250000	T J N	ug/Kg		11.57	832-64-4	06/07/24 06:49	06/12/24 15:36	10
Phenanthrene, 3,6-dimethyl-	230000	T J N	ug/Kg		11.92	1576-67-6	06/07/24 06:49	06/12/24 15:36	10
Phenanthrene, 2,3-dimethyl-	450000	T J N	ug/Kg		11.99	3674-65-5	06/07/24 06:49	06/12/24 15:36	10
9,10-Dimethylanthracene	220000	T J N	ug/Kg		12.01	781-43-1	06/07/24 06:49	06/12/24 15:36	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	68		40 - 121	06/07/24 06:49	06/12/24 15:36	10
p-Terphenyl-d14	68		46 - 143	06/07/24 06:49	06/12/24 15:36	10
Phenol-d5	57		41 - 120	06/07/24 06:49	06/12/24 15:36	10
2-Fluorophenol	64		36 - 120	06/07/24 06:49	06/12/24 15:36	10
2,4,6-Tribromophenol	59		26 - 143	06/07/24 06:49	06/12/24 15:36	10
2-Fluorobiphenyl	77		50 - 121	06/07/24 06:49	06/12/24 15:36	10

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		3.3	0.65	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
4,4'-DDE	ND		3.3	0.93	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
4,4'-DDT	ND		3.3	0.73	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
Aldrin	ND		3.3	0.34	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
alpha-BHC	ND		3.3	0.60	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
cis-Chlordane	ND		3.3	1.7	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
beta-BHC	ND		3.3	2.4	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
delta-BHC	ND		3.3	0.44	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
Dieldrin	ND		3.3	0.80	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
Endosulfan I	ND		3.3	0.71	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
Endosulfan II	ND		3.3	0.60	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
Endosulfan sulfate	ND		3.3	0.62	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
Endrin	ND		3.3	1.1	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
Endrin aldehyde	ND		3.3	0.85	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
Endrin ketone	ND		3.3	0.80	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
gamma-BHC (Lindane)	ND		3.3	2.4	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
trans-Chlordane	ND		3.3	0.46	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
Heptachlor	ND		3.3	0.52	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
Heptachlor epoxide	ND		3.3	0.87	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
Methoxychlor	ND		3.3	0.87	mg/Kg		06/06/24 10:13	06/07/24 13:06	10
Toxaphene	ND		33	19	mg/Kg		06/06/24 10:13	06/07/24 13:06	10

Client Sample ID: SED-13

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-22
Matrix: Waste

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*90*		*45 - 120*	*06/06/24 10:13*	*06/07/24 13:06*	*10*
DCB Decachlorobiphenyl	*126*	*S1+*	*45 - 120*	*06/06/24 10:13*	*06/07/24 13:06*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 13:06*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*06/06/24 10:13*	*06/07/24 13:06*	*10*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		17	3.3	mg/Kg		06/07/24 06:55	06/10/24 23:22	5
PCB-1221	ND		17	3.3	mg/Kg		06/07/24 06:55	06/10/24 23:22	5
PCB-1232	ND		17	3.3	mg/Kg		06/07/24 06:55	06/10/24 23:22	5
PCB-1242	ND		17	3.3	mg/Kg		06/07/24 06:55	06/10/24 23:22	5
PCB-1248	ND		17	3.3	mg/Kg		06/07/24 06:55	06/10/24 23:22	5
PCB-1254	ND		17	0.78	mg/Kg		06/07/24 06:55	06/10/24 23:22	5
PCB-1260	ND		17	0.78	mg/Kg		06/07/24 06:55	06/10/24 23:22	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*61*		*60 - 154*	*06/07/24 06:55*	*06/10/24 23:22*	*5*
Tetrachloro-m-xylene	*59*	*S1-*	*60 - 154*	*06/07/24 06:55*	*06/10/24 23:22*	*5*
DCB Decachlorobiphenyl	*72*		*65 - 174*	*06/07/24 06:55*	*06/10/24 23:22*	*5*
DCB Decachlorobiphenyl	*95*		*65 - 174*	*06/07/24 06:55*	*06/10/24 23:22*	*5*

Client Sample ID: SED-14

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-23
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		270000	39000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
bis (2-chloroisopropyl) ether	ND		270000	54000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
2,4,5-Trichlorophenol	ND		270000	73000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
2,4,6-Trichlorophenol	ND		270000	54000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
2,4-Dichlorophenol	ND		270000	28000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
2,4-Dimethylphenol	ND		270000	65000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
2,4-Dinitrophenol	ND		2600000	1200000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
2,4-Dinitrotoluene	ND		270000	55000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
2,6-Dinitrotoluene	ND		270000	32000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
2-Chloronaphthalene	ND		270000	44000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
2-Chlorophenol	ND		270000	49000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
2-Methylnaphthalene	**470000**		270000	54000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
2-Methylphenol	ND		270000	32000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
2-Nitroaniline	ND		520000	39000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
2-Nitrophenol	ND		270000	76000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
3,3'-Dichlorobenzidine	ND		520000	320000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
3-Nitroaniline	ND		520000	74000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
4,6-Dinitro-2-methylphenol	ND		520000	270000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
4-Bromophenyl phenyl ether	ND		270000	38000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
4-Chloro-3-methylphenol	ND		270000	66000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
4-Chloroaniline	ND		270000	66000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
4-Chlorophenyl phenyl ether	ND		270000	33000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
4-Methylphenol	ND		520000	32000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
4-Nitroaniline	ND		520000	140000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220474-1

Client Sample ID: SED-14
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-23
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	ND		520000	190000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Acenaphthene	ND		270000	39000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Acenaphthylene	ND		270000	35000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Acetophenone	ND		270000	36000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Anthracene	ND		270000	66000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Atrazine	ND		270000	93000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Benzaldehyde	ND		270000	210000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Benzo[a]anthracene	ND		270000	27000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Benzo[a]pyrene	ND		270000	39000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Benzo[b]fluoranthene	ND		270000	43000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Benzo[g,h,i]perylene	ND		270000	28000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Benzo[k]fluoranthene	ND		270000	35000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Bis(2-chloroethoxy)methane	ND		270000	57000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Bis(2-chloroethyl)ether	ND		270000	35000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Bis(2-ethylhexyl) phthalate	ND		270000	92000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Butyl benzyl phthalate	ND		270000	44000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Caprolactam	ND		270000	81000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Carbazole	ND		270000	32000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Chrysene	**91000**	**J**	270000	60000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Dibenz(a,h)anthracene	ND		270000	47000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Dibenzofuran	ND		270000	32000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Diethyl phthalate	ND		270000	35000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Dimethyl phthalate	ND		270000	32000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Di-n-butyl phthalate	ND		270000	46000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Di-n-octyl phthalate	ND		270000	32000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Fluoranthene	**110000**	**J**	270000	28000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Fluorene	**83000**	**J**	270000	32000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Hexachlorobenzene	ND		270000	36000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Hexachlorobutadiene	ND		270000	39000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Hexachlorocyclopentadiene	ND		270000	36000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Hexachloroethane	ND		270000	35000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Indeno[1,2,3-cd]pyrene	ND		270000	33000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Isophorone	ND		270000	57000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Naphthalene	**300000**		270000	35000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Nitrobenzene	ND		270000	30000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
N-Nitrosodi-n-propylamine	ND		270000	46000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
N-Nitrosodiphenylamine	ND		270000	220000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Pentachlorophenol	ND		520000	270000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Phenanthrene	**270000**		270000	39000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Phenol	ND		270000	41000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10
Pyrene	**92000**	**J**	270000	32000	ug/Kg		06/07/24 06:49	06/12/24 16:04	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Benzene, 1-ethyl-2,3-dimethyl-	*290000*	*T J N*	*ug/Kg*		*7.00*	*933-98-2*	*06/07/24 06:49*	*06/12/24 16:04*	*10*
Unknown	*220000*	*T J*	*ug/Kg*		*7.43*	*N/A*	*06/07/24 06:49*	*06/12/24 16:04*	*10*
Unknown	*350000*	*T J*	*ug/Kg*		*7.86*	*N/A*	*06/07/24 06:49*	*06/12/24 16:04*	*10*
Naphthalene, 1-methyl-	*320000*	*T J N*	*ug/Kg*		*8.25*	*90-12-0*	*06/07/24 06:49*	*06/12/24 16:04*	*10*
Naphthalene, 1,8-dimethyl-	*430000*	*T J N*	*ug/Kg*		*8.88*	*569-41-5*	*06/07/24 06:49*	*06/12/24 16:04*	*10*
Naphthalene, 1,7-dimethyl-	*500000*	*T J N*	*ug/Kg*		*8.97*	*575-37-1*	*06/07/24 06:49*	*06/12/24 16:04*	*10*
Naphthalene, 1,5-dimethyl-	*250000*	*T J N*	*ug/Kg*		*8.99*	*571-61-9*	*06/07/24 06:49*	*06/12/24 16:04*	*10*

Client Sample ID: SED-14
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-23
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Naphthalene, 2,3-dimethyl-	560000	T J N	ug/Kg		9.11	581-40-8	06/07/24 06:49	06/12/24 16:04	10
Naphthalene, 2,3,6-trimethyl-	300000	T J N	ug/Kg		9.49	829-26-5	06/07/24 06:49	06/12/24 16:04	10
Naphthalene, 1,6,7-trimethyl-	290000	T J N	ug/Kg		9.65	2245-38-7	06/07/24 06:49	06/12/24 16:04	10
Naphthalene, 1,4,6-trimethyl-	280000	T J N	ug/Kg		9.74	2131-42-2	06/07/24 06:49	06/12/24 16:04	10
Unknown	430000	T J	ug/Kg		10.17	N/A	06/07/24 06:49	06/12/24 16:04	10
Pentadecane, 2,6,10,14-tetramethyl-	480000	T J N	ug/Kg		10.46	1921-70-6	06/07/24 06:49	06/12/24 16:04	10
Hexadecane, 2,6,10,14-tetramethyl-	370000	T J N	ug/Kg		10.94	638-36-8	06/07/24 06:49	06/12/24 16:04	10
Anthracene, 2-methyl-	310000	T J N	ug/Kg		11.47	613-12-7	06/07/24 06:49	06/12/24 16:04	10
Phenanthrene, 2-methyl-	380000	T J N	ug/Kg		11.49	2531-84-2	06/07/24 06:49	06/12/24 16:04	10
Anthracene, 1-methyl-	240000	T J N	ug/Kg		11.57	610-48-0	06/07/24 06:49	06/12/24 16:04	10
Phenanthrene, 2,5-dimethyl-	460000	T J N	ug/Kg		11.98	3674-66-6	06/07/24 06:49	06/12/24 16:04	10
Unknown	230000	T J	ug/Kg		12.39	N/A	06/07/24 06:49	06/12/24 16:04	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	56		40 - 121	06/07/24 06:49	06/12/24 16:04	10
p-Terphenyl-d14	63		46 - 143	06/07/24 06:49	06/12/24 16:04	10
Phenol-d5	50		41 - 120	06/07/24 06:49	06/12/24 16:04	10
2-Fluorophenol	54		36 - 120	06/07/24 06:49	06/12/24 16:04	10
2,4,6-Tribromophenol	52		26 - 143	06/07/24 06:49	06/12/24 16:04	10
2-Fluorobiphenyl	65		50 - 121	06/07/24 06:49	06/12/24 16:04	10

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.9	0.57	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
4,4'-DDE	ND		2.9	0.82	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
4,4'-DDT	ND		2.9	0.65	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
Aldrin	ND		2.9	0.30	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
alpha-BHC	ND		2.9	0.53	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
cis-Chlordane	ND		2.9	1.5	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
beta-BHC	ND		2.9	2.1	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
delta-BHC	ND		2.9	0.39	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
Dieldrin	ND		2.9	0.71	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
Endosulfan I	ND		2.9	0.62	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
Endosulfan II	ND		2.9	0.53	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
Endosulfan sulfate	ND		2.9	0.55	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
Endrin	ND		2.9	0.94	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
Endrin aldehyde	ND		2.9	0.75	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
Endrin ketone	ND		2.9	0.71	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
gamma-BHC (Lindane)	ND		2.9	2.1	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
trans-Chlordane	ND		2.9	0.41	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
Heptachlor	ND		2.9	0.46	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
Heptachlor epoxide	ND		2.9	0.76	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
Methoxychlor	ND		2.9	0.76	mg/Kg		06/06/24 10:13	06/07/24 13:26	10
Toxaphene	ND		29	17	mg/Kg		06/06/24 10:13	06/07/24 13:26	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	96		45 - 120	06/06/24 10:13	06/07/24 13:26	10
DCB Decachlorobiphenyl	205	S1+	45 - 120	06/06/24 10:13	06/07/24 13:26	10
Tetrachloro-m-xylene	0	S1-	30 - 124	06/06/24 10:13	06/07/24 13:26	10
Tetrachloro-m-xylene	0	S1-	30 - 124	06/06/24 10:13	06/07/24 13:26	10

Client Sample ID: SED-14

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-23
Matrix: Waste

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		18	3.5	mg/Kg		06/07/24 06:55	06/10/24 23:39	5
PCB-1221	ND		18	3.5	mg/Kg		06/07/24 06:55	06/10/24 23:39	5
PCB-1232	ND		18	3.5	mg/Kg		06/07/24 06:55	06/10/24 23:39	5
PCB-1242	ND		18	3.5	mg/Kg		06/07/24 06:55	06/10/24 23:39	5
PCB-1248	ND		18	3.5	mg/Kg		06/07/24 06:55	06/10/24 23:39	5
PCB-1254	ND		18	0.84	mg/Kg		06/07/24 06:55	06/10/24 23:39	5
PCB-1260	ND		18	0.84	mg/Kg		06/07/24 06:55	06/10/24 23:39	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*68*		*60 - 154*	*06/07/24 06:55*	*06/10/24 23:39*	*5*
Tetrachloro-m-xylene	*67*		*60 - 154*	*06/07/24 06:55*	*06/10/24 23:39*	*5*
DCB Decachlorobiphenyl	*68*		*65 - 174*	*06/07/24 06:55*	*06/10/24 23:39*	*5*
DCB Decachlorobiphenyl	*99*		*65 - 174*	*06/07/24 06:55*	*06/10/24 23:39*	*5*

Client Sample ID: SED-15

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-24
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		27000	3900	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
bis (2-chloroisopropyl) ether	ND		27000	5400	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
2,4,5-Trichlorophenol	ND		27000	7300	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
2,4,6-Trichlorophenol	ND		27000	5400	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
2,4-Dichlorophenol	ND		27000	2800	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
2,4-Dimethylphenol	ND		27000	6500	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
2,4-Dinitrophenol	ND		260000	120000	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
2,4-Dinitrotoluene	ND		27000	5500	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
2,6-Dinitrotoluene	ND		27000	3200	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
2-Chloronaphthalene	ND		27000	4400	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
2-Chlorophenol	ND		27000	4900	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
2-Methylnaphthalene	**67000**		27000	5400	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
2-Methylphenol	ND		27000	3200	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
2-Nitroaniline	ND		52000	3900	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
2-Nitrophenol	ND		27000	7600	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
3,3'-Dichlorobenzidine	ND		52000	32000	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
3-Nitroaniline	ND		52000	7400	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
4,6-Dinitro-2-methylphenol	ND		52000	27000	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
4-Bromophenyl phenyl ether	ND		27000	3800	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
4-Chloro-3-methylphenol	ND		27000	6600	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
4-Chloroaniline	ND		27000	6600	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
4-Chlorophenyl phenyl ether	ND		27000	3300	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
4-Methylphenol	ND		52000	3200	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
4-Nitroaniline	ND		52000	14000	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
4-Nitrophenol	ND		52000	19000	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Acenaphthene	ND		27000	3900	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Acenaphthylene	ND		27000	3500	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Acetophenone	ND		27000	3600	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Anthracene	ND		27000	6600	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Atrazine	ND		27000	9300	ug/Kg		06/07/24 06:49	06/10/24 21:40	1

Client Sample ID: SED-15
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-24
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzaldehyde	ND		27000	21000	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Benzo[a]anthracene	ND		27000	2700	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Benzo[a]pyrene	ND		27000	3900	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Benzo[b]fluoranthene	ND		27000	4300	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Benzo[g,h,i]perylene	ND		27000	2800	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Benzo[k]fluoranthene	ND		27000	3500	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Bis(2-chloroethoxy)methane	ND		27000	5700	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Bis(2-chloroethyl)ether	ND		27000	3500	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Bis(2-ethylhexyl) phthalate	ND		27000	9200	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Butyl benzyl phthalate	ND		27000	4400	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Caprolactam	ND		27000	8100	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Carbazole	ND		27000	3200	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Chrysene	ND		27000	6000	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Dibenz(a,h)anthracene	ND		27000	4700	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Dibenzofuran	ND		27000	3200	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Diethyl phthalate	ND		27000	3500	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Dimethyl phthalate	ND		27000	3200	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Di-n-butyl phthalate	ND		27000	4600	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Di-n-octyl phthalate	ND		27000	3200	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Fluoranthene	**3700**	**J**	27000	2800	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Fluorene	**7900**	**J**	27000	3200	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Hexachlorobenzene	ND		27000	3600	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Hexachlorobutadiene	ND		27000	3900	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Hexachlorocyclopentadiene	ND		27000	3600	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Hexachloroethane	ND		27000	3500	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Indeno[1,2,3-cd]pyrene	ND		27000	3300	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Isophorone	ND		27000	5700	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Naphthalene	ND		27000	3500	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Nitrobenzene	ND		27000	3000	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
N-Nitrosodi-n-propylamine	ND		27000	4600	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
N-Nitrosodiphenylamine	ND		27000	22000	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Pentachlorophenol	ND		52000	27000	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Phenanthrene	**27000**		27000	3900	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Phenol	ND		27000	4100	ug/Kg		06/07/24 06:49	06/10/24 21:40	1
Pyrene	**5800**	**J**	27000	3200	ug/Kg		06/07/24 06:49	06/10/24 21:40	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*110000*	*T J*	*ug/Kg*		*2.02*	*N/A*	*06/07/24 06:49*	*06/10/24 21:40*	*1*
Unknown	*50000*	*T J*	*ug/Kg*		*7.86*	*N/A*	*06/07/24 06:49*	*06/10/24 21:40*	*1*
Benzocycloheptatriene	*52000*	*T J N*	*ug/Kg*		*8.25*	*264-09-5*	*06/07/24 06:49*	*06/10/24 21:40*	*1*
Naphthalene, 1-ethyl-	*36000*	*T J N*	*ug/Kg*		*8.80*	*1127-76-0*	*06/07/24 06:49*	*06/10/24 21:40*	*1*
Naphthalene, 2,6-dimethyl-	*74000*	*T J N*	*ug/Kg*		*8.89*	*581-42-0*	*06/07/24 06:49*	*06/10/24 21:40*	*1*
Naphthalene, 1,3-dimethyl-	*84000*	*T J N*	*ug/Kg*		*8.97*	*575-41-7*	*06/07/24 06:49*	*06/10/24 21:40*	*1*
Naphthalene, 1,6-dimethyl-	*56000*	*T J N*	*ug/Kg*		*9.00*	*575-43-9*	*06/07/24 06:49*	*06/10/24 21:40*	*1*
Naphthalene, 1,4-dimethyl-	*82000*	*T J N*	*ug/Kg*		*9.11*	*571-58-4*	*06/07/24 06:49*	*06/10/24 21:40*	*1*
Naphthalene, 2-(1-methylethyl)-	*54000*	*T J N*	*ug/Kg*		*9.50*	*2027-17-0*	*06/07/24 06:49*	*06/10/24 21:40*	*1*
Azulene, 4,6,8-trimethyl-	*56000*	*T J N*	*ug/Kg*		*9.61*	*941-81-1*	*06/07/24 06:49*	*06/10/24 21:40*	*1*
Naphthalene, 2,3,6-trimethyl-	*55000*	*T J N*	*ug/Kg*		*9.66*	*829-26-5*	*06/07/24 06:49*	*06/10/24 21:40*	*1*
Naphthalene, 1,6,7-trimethyl-	*44000*	*T J N*	*ug/Kg*		*9.74*	*2245-38-7*	*06/07/24 06:49*	*06/10/24 21:40*	*1*
Naphthalene, 1,4,6-trimethyl-	*32000*	*T J N*	*ug/Kg*		*9.77*	*2131-42-2*	*06/07/24 06:49*	*06/10/24 21:40*	*1*

Client Sample ID: SED-15
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-24
Matrix: Waste

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Naphthalene, 1,4,5-trimethyl-	36000	T J N	ug/Kg		9.84	2131-41-1	06/07/24 06:49	06/10/24 21:40	1
Pentadecane, 2,6,10-trimethyl-	62000	T J N	ug/Kg		10.18	3892-00-0	06/07/24 06:49	06/10/24 21:40	1
Pentadecane, 2,6,10,14-tetramethyl-	84000	T J N	ug/Kg		10.47	1921-70-6	06/07/24 06:49	06/10/24 21:40	1
Eicosane	64000	T J N	ug/Kg		10.94	112-95-8	06/07/24 06:49	06/10/24 21:40	1
Anthracene, 1-methyl-	38000	T J N	ug/Kg		11.47	610-48-0	06/07/24 06:49	06/10/24 21:40	1
1H-Cyclopropa[l]phenanthrene,1a,9b-dihydro-	48000	T J N	ug/Kg		11.49	949-41-7	06/07/24 06:49	06/10/24 21:40	1
Phenanthrene, 2,5-dimethyl-	46000	T J N	ug/Kg		11.99	3674-66-6	06/07/24 06:49	06/10/24 21:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	57		40 - 121	06/07/24 06:49	06/10/24 21:40	1
p-Terphenyl-d14	66		46 - 143	06/07/24 06:49	06/10/24 21:40	1
Phenol-d5	56		41 - 120	06/07/24 06:49	06/10/24 21:40	1
2-Fluorophenol	54		36 - 120	06/07/24 06:49	06/10/24 21:40	1
2,4,6-Tribromophenol	58		26 - 143	06/07/24 06:49	06/10/24 21:40	1
2-Fluorobiphenyl	67		50 - 121	06/07/24 06:49	06/10/24 21:40	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.6	0.51	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
4,4'-DDE	ND		2.6	0.74	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
4,4'-DDT	ND		2.6	0.58	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
Aldrin	ND		2.6	0.27	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
alpha-BHC	ND		2.6	0.47	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
cis-Chlordane	ND		2.6	1.3	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
beta-BHC	ND		2.6	1.9	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
delta-BHC	ND		2.6	0.35	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
Dieldrin	ND		2.6	0.63	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
Endosulfan I	ND		2.6	0.56	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
Endosulfan II	ND		2.6	0.47	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
Endosulfan sulfate	ND		2.6	0.49	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
Endrin	ND		2.6	0.84	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
Endrin aldehyde	ND		2.6	0.67	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
Endrin ketone	ND		2.6	0.63	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
gamma-BHC (Lindane)	ND		2.6	1.9	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
trans-Chlordane	ND		2.6	0.36	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
Heptachlor	ND		2.6	0.41	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
Heptachlor epoxide	ND		2.6	0.68	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
Methoxychlor	ND		2.6	0.68	mg/Kg		06/06/24 10:13	06/07/24 13:46	10
Toxaphene	ND		26	15	mg/Kg		06/06/24 10:13	06/07/24 13:46	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	101		45 - 120	06/06/24 10:13	06/07/24 13:46	10
DCB Decachlorobiphenyl	91		45 - 120	06/06/24 10:13	06/07/24 13:46	10
Tetrachloro-m-xylene	0	S1-	30 - 124	06/06/24 10:13	06/07/24 13:46	10
Tetrachloro-m-xylene	0	S1-	30 - 124	06/06/24 10:13	06/07/24 13:46	10

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		2.9	0.58	mg/Kg		06/07/24 06:55	06/10/24 23:56	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220474-1

Client Sample ID: SED-15
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-24
Matrix: Waste

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1221	ND		2.9	0.58	mg/Kg		06/07/24 06:55	06/10/24 23:56	1
PCB-1232	ND		2.9	0.58	mg/Kg		06/07/24 06:55	06/10/24 23:56	1
PCB-1242	ND		2.9	0.58	mg/Kg		06/07/24 06:55	06/10/24 23:56	1
PCB-1248	ND		2.9	0.58	mg/Kg		06/07/24 06:55	06/10/24 23:56	1
PCB-1254	ND		2.9	0.14	mg/Kg		06/07/24 06:55	06/10/24 23:56	1
PCB-1260	ND		2.9	0.14	mg/Kg		06/07/24 06:55	06/10/24 23:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*62*		*60 - 154*	*06/07/24 06:55*	*06/10/24 23:56*	*1*
Tetrachloro-m-xylene	*58*	*S1-*	*60 - 154*	*06/07/24 06:55*	*06/10/24 23:56*	*1*
DCB Decachlorobiphenyl	*75*		*65 - 174*	*06/07/24 06:55*	*06/10/24 23:56*	*1*
DCB Decachlorobiphenyl	*85*		*65 - 174*	*06/07/24 06:55*	*06/10/24 23:56*	*1*

Surrogate Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220474-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(53-146)	(49-148)	(50-149)	(60-140)
480-220474-1	SED-06	103	102	98	96
480-220474-1 MS	SED-06	101	104	99	91
480-220474-1 MSD	SED-06	102	103	97	94
480-220474-2	SED-07	119	118	110	106
480-220474-3	SED-08	103	106	98	92
480-220474-4	SED-08-FD	102	104	99	90
480-220474-5	SED-09	101	103	100	91
480-220474-6	SED-10	117	118	111	108
480-220474-7	SED-11	117	120	113	111
480-220474-8	SED-11-FD	102	105	99	93
480-220474-9	SED-12	102	104	99	92
480-220474-10	SED-13	99	103	98	92
480-220474-11	SED-14	102	102	99	90
480-220474-12	SED-15	103	104	100	93
LCS 480-714650/1-A	Lab Control Sample	100	104	100	95
MB 480-714650/3-A	Method Blank	109	110	110	101

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Waste **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		NBZ	TPHd14	PHL	2FP	TBP	FBP
Lab Sample ID	Client Sample ID	(40-121)	(46-143)	(41-120)	(36-120)	(26-143)	(50-121)
480-220474-13	SED-06	60	65	59	62	49	69
480-220474-13 MS	SED-06	60	57	59	58	62	68
480-220474-13 MSD	SED-06	65	67	60	62	69	75
480-220474-14	SED-07	69	66	62	63	48	79
480-220474-15	SED-08	62	68	61	61	62	72
480-220474-16	SED-08-FD	70	72	61	65	60	77
480-220474-17	SED-09	61	65	57	62	48	70
480-220474-18	SED-10	61	61	52	57	49	67
480-220474-19	SED-11	66	74	60	68	56	73
480-220474-20	SED-11-FD	60	62	52	53	51	67
480-220474-21	SED-12	68	71	67	64	71	78
480-220474-22	SED-13	68	68	57	64	59	77
480-220474-23	SED-14	56	63	50	54	52	65
480-220474-24	SED-15	57	66	56	54	58	67
LCS 480-714779/2-A	Lab Control Sample	80	85	81	80	84	81
MB 480-714779/1-A	Method Blank	71	77	68	68	59	75

Surrogate Legend

NBZ = Nitrobenzene-d5
TPHd14 = p-Terphenyl-d14
PHL = Phenol-d5
2FP = 2-Fluorophenol

Surrogate Summary

Client: Ashland LLC
Job ID: 480-220474-1
Project/Site: Tank 75 Analysis

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Waste **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1	DCBP2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(45-120)	(45-120)	(30-124)	(30-124)
480-220474-13	SED-06	101	251 S1+	0 S1-	0 S1-
480-220474-13 MS	SED-06	182 S1+	276 S1+	63	73
480-220474-13 MSD	SED-06	131 S1+	284 S1+	57	59
480-220474-14	SED-07	143 S1+	304 S1+	0 S1-	0 S1-
480-220474-15	SED-08	118	317 S1+	0 S1-	0 S1-
480-220474-16	SED-08-FD	130 S1+	209 S1+	0 S1-	0 S1-
480-220474-17	SED-09	120	198 S1+	0 S1-	0 S1-
480-220474-18	SED-10	79	319 S1+	0 S1-	0 S1-
480-220474-19	SED-11	112	121 S1+	0 S1-	0 S1-
480-220474-20	SED-11-FD	87	132 S1+	0 S1-	0 S1-
480-220474-21	SED-12	95	90	0 S1-	0 S1-
480-220474-22	SED-13	90	126 S1+	0 S1-	0 S1-
480-220474-23	SED-14	96	205 S1+	0 S1-	0 S1-
480-220474-24	SED-15	101	91	0 S1-	0 S1-
LCS 480-714668/2-A	Lab Control Sample	99	110	91	91
MB 480-714668/1-A	Method Blank	81	98	55	62

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Waste **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCBP1	DCBP2
Lab Sample ID	Client Sample ID	(60-154)	(60-154)	(65-174)	(65-174)
480-220474-13	SED-06	68	72	114	80
480-220474-13 MS	SED-06	74	76	118	84
480-220474-13 MSD	SED-06	62	77	109	77
480-220474-14	SED-07	62	64	103	69
480-220474-15	SED-08	61	64	83	74
480-220474-16	SED-08-FD	63	62	96	92
480-220474-17	SED-09	57 S1-	61	80	70
480-220474-18	SED-10	56 S1-	61	74	66
480-220474-19	SED-11	62	65	96	69
480-220474-20	SED-11-FD	57 S1-	66	93	65
480-220474-21	SED-12	60	65	84	76
480-220474-22	SED-13	59 S1-	61	95	72
480-220474-23	SED-14	67	68	99	68
480-220474-24	SED-15	58 S1-	62	85	75
LCS 480-714782/2-A	Lab Control Sample	63	63	108	82
MB 480-714782/1-A	Method Blank	73	84	99	110

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCBP = DCB Decachlorobiphenyl

Isotope Dilution Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220474-1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (20-150)	PFPeA (20-150)	13C5PHA (20-150)	C4PFHA (20-150)	C8PFOA (20-150)	C9PFNA (20-150)	C6PFDA (20-150)	13C7PUA (20-150)
480-220474-1	SED-06	2.18 *5-	1.91 *5-	3.23 *5-	6.87 *5-	14.1 *5-	53.4	53.9	100
480-220474-1	SED-06	1.72 *5-	1.85 *5-	3.68 I *5-	9.37 *5-	18.5 *5-	38.5	73.2	1.73 *5-
480-220474-1 - DL	SED-06	7.05 *5-	3.21 *5-	3.75 *5-	5.90 *5-	18.7 *5-	41.5	66.8	97.3
480-220474-3	SED-08	93.0	85.3	78.5	81.8	71.0	111	74.5	80.7
480-220474-3	SED-08	81.9	79.6	94.2	102	97.0	72.5	80.0	76.8
480-220474-4	SED-08-FD	95.2	94.3	82.8	88.9	76.4	99.2	78.9	92.6
480-220474-4	SED-08-FD	79.0	77.1	92.3	93.6	97.2	79.1	87.2	2.15 *5-
480-220474-6	SED-10	96.3	84.4	74.0	88.6	67.1	98.8	94.6	99.5
480-220474-6	SED-10	80.6	78.8	90.9	95.1	95.8	83.9	88.3	79.0
480-220474-9	SED-12	98.0	91.4	80.6	79.2	87.6	122	83.7	91.4
480-220474-9	SED-12	95.4	88.3	91.8	74.8	88.1	111	112	91.8
LCS 240-615785/3-A	Lab Control Sample	96.1	86.3	95.2	95.8	110	103	93.1	95.5
LCS 240-616481/3-A	Lab Control Sample	97.9	93.7	96.9	100	99.7	99.2	110	96.5
LLCS 240-615785/2-A	Lab Control Sample	94.9	103	95.3	101	86.6	82.3	95.1	85.4
LLCS 240-616481/2-A	Lab Control Sample	93.3	84.6	93.6	92.0	88.2	96.3	107	96.2
MB 240-615785/1-A	Method Blank	98.9	87.1	84.4	86.7	97.8	95.2	90.2	85.4
MB 240-616481/1-A	Method Blank	106	101	105	103	97.0	110	118	108

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFTDA (20-150)	C3PFBS (20-150)	C3PFHS (20-150)	C8PFOS (20-150)	PFOSA (20-150)	d3NMFOS (20-150)	d5NEFOS (20-150)	M242FTS (20-150)
480-220474-1	SED-06	84.6	29.7 I	82.7	144 I	38.0	69.7	94.9	13.1 I *5-
480-220474-1	SED-06	1.31 *5-	20.1	55.8	3.82 I *5-	39.6	1.49 *5-	97.7	10.7 I *5-
480-220474-1 - DL	SED-06	106	15.2 I *5-	59.1	84.7	67.6	82.1	112	12.6 I *5-
480-220474-3	SED-08	91.2	108	94.7	121 I	64.3	79.6	98.2	202 I *5+
480-220474-3	SED-08	2.85 *5-	122	95.0	4.27 I *5-	73.4	128	117	419 I *5+
480-220474-4	SED-08-FD	96.0	88.4	95.9	137 I	55.6	81.1	86.1	171 I *5+
480-220474-4	SED-08-FD	74.6	106	99.9	3.90 I *5-	71.0	121	123	432 I *5+
480-220474-6	SED-10	104	109	126 I	140 I	49.0	69.2	83.4	199 I *5+
480-220474-6	SED-10	1.13 *5-	130	98.4	97.8	58.0	102	109	409 I *5+
480-220474-9	SED-12	92.0	107	103	74.8	58.5	61.3	72.5	177 I *5+
480-220474-9	SED-12	82.7	113	92.0	94.8	64.7	79.9	79.1	225 I *5+
LCS 240-615785/3-A	Lab Control Sample	80.5	99.4	99.8	88.1	79.3	75.1	87.8	107
LCS 240-616481/3-A	Lab Control Sample	83.6	85.5	83.8	96.9	81.0	90.7	130	84.7
LLCS 240-615785/2-A	Lab Control Sample	77.4	84.1	86.8	89.5	71.1	85.6	80.5	88.9
LLCS 240-616481/2-A	Lab Control Sample	84.3	85.6	85.3	92.0	70.6	89.1	156 *5+	90.9
MB 240-615785/1-A	Method Blank	79.8	93.7	86.4	91.5	78.9	89.2	93.5	93.6
MB 240-616481/1-A	Method Blank	101	86.4	90.7	101	87.9	94.8	129	105

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M262FTS (20-150)	M282FTS (20-150)	HFPODA (20-150)	NMFM (20-150)	NEFM (20-150)	d5NPFSA (20-150)	d3NMFSA (20-150)	PFDoDA (20-150)
480-220474-1	SED-06	37.5 I	123 I	2.58 *5-	27.2	23.3	64.7	59.2	89.7
480-220474-1	SED-06	37.3 I	153 *5+	3.24 *5-	19.5 *5-	15.5 *5-	45.5	40.9	94.5
480-220474-1 - DL	SED-06	11.6 *5-	88.7 I	2.99 *5-	48.2	35.4	67.9	76.2	105
480-220474-3	SED-08	170 *5+	189 *5+	70.1	50.5	49.3	62.8	62.1	77.3
480-220474-3	SED-08	228 *5+	250 *5+	79.6	39.8	36.3	53.1	53.9	2.89 *5-
480-220474-4	SED-08-FD	170 *5+	188 *5+	78.2	43.9	43.4	53.5	54.9	88.5
480-220474-4	SED-08-FD	239 *5+	256 *5+	75.3	35.8	33.3	49.0	55.2	84.4
480-220474-6	SED-10	181 *5+	240 *5+	71.2	31.0	30.3	43.2	45.7	92.4
480-220474-6	SED-10	288 *5+	287 *5+	72.0	28.3	23.6	33.8	34.2	1.56 *5-

Isotope Dilution Summary

Client: Ashland LLC
Job ID: 480-220474-1
Project/Site: Tank 75 Analysis

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M262FTS (20-150)	M282FTS (20-150)	HFPODA (20-150)	NMFM (20-150)	NEFM (20-150)	d5NPFSA (20-150)	d3NMFSA (20-150)	PFDoDA (20-150)
480-220474-9	SED-12	135	151 I *5+	73.1	36.0	34.1	53.5	57.7	110
480-220474-9	SED-12	145	149	78.8	78.9	62.6	59.3	77.3	90.7
LCS 240-615785/3-A	Lab Control Sample	115	113	98.3	80.2	74.5	63.0	70.0	98.5
LCS 240-616481/3-A	Lab Control Sample	98.2	91.7	99.1	104	98.8	74.4	77.4	95.4
LLCS 240-615785/2-A	Lab Control Sample	104	84.7	99.0	76.7	76.6	60.3	66.5	86.5
LLCS 240-616481/2-A	Lab Control Sample	106	90.0	88.8	96.9	93.2	66.1	66.8	96.6
MB 240-615785/1-A	Method Blank	120	103	83.5	84.6	80.6	61.4	71.8	86.6
MB 240-616481/1-A	Method Blank	115	109	101	111	106	80.7	83.5	106

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoDA = 13C2-PFDoDA

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-714650/3-A
Matrix: Solid
Analysis Batch: 714630

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714650

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		100	28	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
1,1,2,2-Tetrachloroethane	ND		100	16	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		100	50	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
1,1,2-Trichloroethane	ND		100	21	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
1,1-Dichloroethane	ND		100	31	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
1,1-Dichloroethene	ND		100	35	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
1,2,4-Trichlorobenzene	ND		100	38	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
1,2-Dibromo-3-Chloropropane	ND		100	50	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
1,2-Dichlorobenzene	ND		100	26	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
1,2-Dichloroethane	ND		100	41	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
1,2-Dichloropropane	ND		100	16	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
1,3-Dichlorobenzene	ND		100	27	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
1,4-Dichlorobenzene	ND		100	14	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
2-Butanone (MEK)	ND		500	300	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
2-Hexanone	ND		500	210	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
4-Methyl-2-pentanone (MIBK)	ND		500	32	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Acetone	ND		500	410	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Benzene	ND		100	19	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Bromoform	ND		100	50	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Bromomethane	ND		100	22	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Carbon disulfide	ND		100	46	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Carbon tetrachloride	ND		100	26	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Chlorobenzene	ND		100	13	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Dibromochloromethane	ND		100	48	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Chloroethane	ND		100	21	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Chloroform	ND		100	69	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Chloromethane	ND		100	24	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
cis-1,2-Dichloroethene	ND		100	28	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Cyclohexane	ND		100	22	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Bromodichloromethane	ND		100	20	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Dichlorodifluoromethane	ND		100	44	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Ethylbenzene	ND		100	29	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
1,2-Dibromoethane	ND		100	18	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Isopropylbenzene	ND		100	15	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Methyl acetate	ND		500	48	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Methyl tert-butyl ether	ND		100	38	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Methylcyclohexane	ND		100	47	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Methylene Chloride	35.9	J	100	20	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Tetrachloroethene	ND		100	13	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Toluene	ND		100	27	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
trans-1,2-Dichloroethene	ND		100	24	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
trans-1,3-Dichloropropene	ND		100	9.8	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Trichloroethene	ND		100	28	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Trichlorofluoromethane	ND		100	47	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Vinyl chloride	ND		100	34	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Xylenes, Total	ND		200	55	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
cis-1,3-Dichloropropene	ND		100	24	ug/Kg		06/06/24 09:16	06/06/24 12:09	1
Styrene	ND		100	24	ug/Kg		06/06/24 09:16	06/06/24 12:09	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-714650/3-A
Matrix: Solid
Analysis Batch: 714630

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714650

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/Kg			N/A	06/06/24 09:16	06/06/24 12:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		53 - 146	06/06/24 09:16	06/06/24 12:09	1
4-Bromofluorobenzene (Surr)	110		49 - 148	06/06/24 09:16	06/06/24 12:09	1
Toluene-d8 (Surr)	110		50 - 149	06/06/24 09:16	06/06/24 12:09	1
Dibromofluoromethane (Surr)	101		60 - 140	06/06/24 09:16	06/06/24 12:09	1

Lab Sample ID: LCS 480-714650/1-A
Matrix: Solid
Analysis Batch: 714630

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714650

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	2500	2330		ug/Kg		93	68 - 130
1,1,2,2-Tetrachloroethane	2500	2250		ug/Kg		90	73 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	2500	1910		ug/Kg		76	10 - 179
1,1,2-Trichloroethane	2500	2530		ug/Kg		101	80 - 120
1,1-Dichloroethane	2500	2230		ug/Kg		89	78 - 121
1,1-Dichloroethene	2500	2080		ug/Kg		83	48 - 133
1,2,4-Trichlorobenzene	2500	1990		ug/Kg		80	70 - 140
1,2-Dibromo-3-Chloropropane	2500	1880		ug/Kg		75	56 - 122
1,2-Dichlorobenzene	2500	2340		ug/Kg		94	78 - 125
1,2-Dichloroethane	2500	2480		ug/Kg		99	74 - 127
1,2-Dichloropropane	2500	2610		ug/Kg		105	80 - 120
1,3-Dichlorobenzene	2500	2540		ug/Kg		102	80 - 120
1,4-Dichlorobenzene	2500	2520		ug/Kg		101	80 - 120
2-Butanone (MEK)	12500	12200		ug/Kg		98	54 - 149
2-Hexanone	12500	12300		ug/Kg		99	59 - 127
4-Methyl-2-pentanone (MIBK)	12500	9850		ug/Kg		79	74 - 120
Acetone	12500	9640		ug/Kg		77	47 - 141
Benzene	2500	2540		ug/Kg		102	77 - 125
Bromoform	2500	2280		ug/Kg		91	48 - 125
Bromomethane	2500	2020		ug/Kg		81	39 - 149
Carbon disulfide	2500	1920		ug/Kg		77	40 - 136
Carbon tetrachloride	2500	2330		ug/Kg		93	54 - 135
Chlorobenzene	2500	2630		ug/Kg		105	76 - 126
Dibromochloromethane	2500	2370		ug/Kg		95	64 - 120
Chloroethane	2500	1480		ug/Kg		59	23 - 150
Chloroform	2500	2100		ug/Kg		84	78 - 120
Chloromethane	2500	1620		ug/Kg		65	61 - 124
cis-1,2-Dichloroethene	2500	2130		ug/Kg		85	79 - 124
Cyclohexane	2500	2010		ug/Kg		80	49 - 129
Bromodichloromethane	2500	2380		ug/Kg		95	71 - 121
Dichlorodifluoromethane	2500	1250		ug/Kg		50	10 - 150
Ethylbenzene	2500	2540		ug/Kg		102	78 - 124
1,2-Dibromoethane	2500	2680		ug/Kg		107	80 - 120
Isopropylbenzene	2500	2500		ug/Kg		100	76 - 120

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-714650/1-A
Matrix: Solid
Analysis Batch: 714630

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714650

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methyl acetate	5000	4280		ug/Kg		86	71 - 123
Methyl tert-butyl ether	2500	2100		ug/Kg		84	67 - 137
Methylcyclohexane	2500	2070		ug/Kg		83	50 - 130
Methylene Chloride	2500	2340		ug/Kg		94	75 - 118
Tetrachloroethene	2500	2570		ug/Kg		103	73 - 133
Toluene	2500	2460		ug/Kg		98	75 - 124
trans-1,2-Dichloroethene	2500	2200		ug/Kg		88	74 - 129
Trichloroethene	2500	2520		ug/Kg		101	75 - 131
Trichlorofluoromethane	2500	1950		ug/Kg		78	29 - 158
Vinyl chloride	2500	2010		ug/Kg		80	59 - 124
cis-1,3-Dichloropropene	2500	2960		ug/Kg		118	75 - 121
Styrene	2500	2580		ug/Kg		103	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*53 - 146*
4-Bromofluorobenzene (Surr)	*104*		*49 - 148*
Toluene-d8 (Surr)	*100*		*50 - 149*
Dibromofluoromethane (Surr)	*95*		*60 - 140*

Lab Sample ID: 480-220474-1 MS
Matrix: Solid
Analysis Batch: 714630

Client Sample ID: SED-06
Prep Type: Total/NA
Prep Batch: 714650

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	ND	F2	4560	4890	J	ug/Kg	☼	107	64 - 142
1,1,2,2-Tetrachloroethane	ND	F1 F2	4560	7390	J F1	ug/Kg	☼	162	56 - 128
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4560	4470	J	ug/Kg	☼	98	64 - 154
1,1,2-Trichloroethane	ND	F1 F2	4560	6790	J F1	ug/Kg	☼	149	63 - 133
1,1-Dichloroethane	ND	F2	4560	5310	J	ug/Kg	☼	117	64 - 135
1,1-Dichloroethene	ND	F2	4560	4930	J	ug/Kg	☼	108	62 - 145
1,2,4-Trichlorobenzene	ND	F1	4560	3890	J	ug/Kg	☼	85	56 - 145
1,2-Dibromo-3-Chloropropane	ND	F2	4560	4930	J	ug/Kg	☼	108	40 - 122
1,2-Dichlorobenzene	ND	F2 F1	4560	5320	J	ug/Kg	☼	117	68 - 133
1,2-Dichloroethane	ND	F2 F1	4560	5970	J	ug/Kg	☼	131	62 - 135
1,2-Dichloropropane	ND	F2 F1	4560	6320	J	ug/Kg	☼	139	67 - 139
1,3-Dichlorobenzene	ND	F2	4560	5530	J	ug/Kg	☼	121	68 - 136
1,4-Dichlorobenzene	ND	F2	4560	5630	J	ug/Kg	☼	124	69 - 136
2-Butanone (MEK)	ND	F2	22800	33300	J	ug/Kg	☼	NC	46 - 132
2-Hexanone	ND	F1 F2	22800	32400	J F1	ug/Kg	☼	142	44 - 130
4-Methyl-2-pentanone (MIBK)	ND	F2 F1	22800	27400	J	ug/Kg	☼	120	49 - 125
Acetone	ND		22800	ND		ug/Kg	☼	NC	32 - 136
Benzene	99000	F2	4560	168000	4	ug/Kg	☼	1505	68 - 137
Bromoform	ND	F2	4560	4570	J	ug/Kg	☼	100	43 - 134
Bromomethane	ND	F1 F2	4560	6600	J F1	ug/Kg	☼	145	38 - 137
Carbon disulfide	ND	F2	4560	4210	J	ug/Kg	☼	92	52 - 139
Carbon tetrachloride	ND	F2	4560	5050	J	ug/Kg	☼	111	60 - 150
Chlorobenzene	ND	F1 F2	4560	6480	J F1	ug/Kg	☼	142	67 - 136
Dibromochloromethane	ND	F2	4560	5060	J	ug/Kg	☼	111	57 - 137

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-220474-1 MS
Matrix: Solid
Analysis Batch: 714630

Client Sample ID: SED-06
Prep Type: Total/NA
Prep Batch: 714650

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroethane	ND	F2	4560	4360	J	ug/Kg	☼	96	34 - 140
Chloroform	ND	F2	4560	6480	J	ug/Kg	☼	NC	64 - 133
Chloromethane	ND	F2	4560	3200	J	ug/Kg	☼	70	47 - 143
cis-1,2-Dichloroethene	ND	F2	4560	4660	J	ug/Kg	☼	102	65 - 137
Cyclohexane	6500	F1 F2	4560	22700	F1	ug/Kg	☼	356	63 - 149
Bromodichloromethane	ND	F1 F2	4560	7170	J F1	ug/Kg	☼	157	62 - 136
Dichlorodifluoromethane	ND	F1	4560	ND	F1	ug/Kg	☼	0	26 - 150
Ethylbenzene	36000	F2	4560	97100	4	ug/Kg	☼	1336	67 - 136
1,2-Dibromoethane	ND	F1 F2	4560	6160	J F1	ug/Kg	☼	135	65 - 133
Isopropylbenzene	3300	J F1 F2	4560	15600	F1	ug/Kg	☼	269	65 - 147
Methyl acetate	ND	F1 F2	9120	28900	J F1	ug/Kg	☼	317	50 - 124
Methyl tert-butyl ether	ND	F2 F1	4560	5380	J	ug/Kg	☼	118	60 - 130
Methylcyclohexane	14000	F1 F2	4560	55600	F1	ug/Kg	☼	901	67 - 150
Methylene Chloride	ND	F2 F1	4560	5660	J	ug/Kg	☼	124	63 - 138
Tetrachloroethene	ND	F2	4560	5180	J	ug/Kg	☼	114	67 - 150
Toluene	ND	F1 F2	4560	7560	J F1	ug/Kg	☼	166	68 - 137
trans-1,2-Dichloroethene	ND	F2	4560	4850	J	ug/Kg	☼	106	65 - 138
Trichloroethene	ND	F2 F1	4560	6350	J	ug/Kg	☼	139	69 - 143
Trichlorofluoromethane	ND		4560	4370	J	ug/Kg	☼	96	35 - 150
Vinyl chloride	ND	F2	4560	4440	J	ug/Kg	☼	97	56 - 150
cis-1,3-Dichloropropene	ND	F2 F1	4560	6120	J	ug/Kg	☼	134	61 - 148
Styrene	ND	F2	4560	5890	J	ug/Kg	☼	129	68 - 137

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*53 - 146*
4-Bromofluorobenzene (Surr)	*104*		*49 - 148*
Toluene-d8 (Surr)	*99*		*50 - 149*
Dibromofluoromethane (Surr)	*91*		*60 - 140*

Lab Sample ID: 480-220474-1 MSD
Matrix: Solid
Analysis Batch: 714630

Client Sample ID: SED-06
Prep Type: Total/NA
Prep Batch: 714650

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND	F2	2470	3370	J F2	ug/Kg	☼	136	64 - 142	37	20
1,1,2,2-Tetrachloroethane	ND	F1 F2	2470	4550	J F1 F2	ug/Kg	☼	184	56 - 128	48	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2470	ND		ug/Kg	☼	NC	64 - 154	NC	20
1,1,2-Trichloroethane	ND	F1 F2	2470	3970	J F1 F2	ug/Kg	☼	161	63 - 133	52	20
1,1-Dichloroethane	ND	F2	2470	3170	J F2	ug/Kg	☼	128	64 - 135	50	20
1,1-Dichloroethene	ND	F2	2470	2990	J F2	ug/Kg	☼	121	62 - 145	49	20
1,2,4-Trichlorobenzene	ND	F1	2470	ND	F1	ug/Kg	☼	0	56 - 145	NC	20
1,2-Dibromo-3-Chloropropane	ND	F2	2470	3610	J F2	ug/Kg	☼	NC	40 - 122	31	20
1,2-Dichlorobenzene	ND	F2 F1	2470	3440	J F1 F2	ug/Kg	☼	139	68 - 133	43	20
1,2-Dichloroethane	ND	F2 F1	2470	4130	J F1 F2	ug/Kg	☼	167	62 - 135	37	20
1,2-Dichloropropane	ND	F2 F1	2470	3790	J F1 F2	ug/Kg	☼	153	67 - 139	50	20
1,3-Dichlorobenzene	ND	F2	2470	3310	J F2	ug/Kg	☼	134	68 - 136	50	20
1,4-Dichlorobenzene	ND	F2	2470	3290	J F2	ug/Kg	☼	133	69 - 136	52	20
2-Butanone (MEK)	ND	F2	12400	21900	J F2	ug/Kg	☼	NC	46 - 132	41	20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-220474-1 MSD
Matrix: Solid
Analysis Batch: 714630

Client Sample ID: SED-06
Prep Type: Total/NA
Prep Batch: 714650

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Hexanone	ND	F1 F2	12400	23100	J F1 F2	ug/Kg	☼	187	44 - 130	34	20
4-Methyl-2-pentanone (MIBK)	ND	F2 F1	12400	17900	J F1 F2	ug/Kg	☼	145	49 - 125	42	20
Acetone	ND		12400	ND		ug/Kg	☼	NC	32 - 136	NC	20
Benzene	99000	F2	2470	107000	4 F2	ug/Kg	☼	320	68 - 137	44	20
Bromoform	ND	F2	2470	2830	J F2	ug/Kg	☼	NC	43 - 134	47	20
Bromomethane	ND	F1 F2	2470	3420	J F1 F2	ug/Kg	☼	138	38 - 137	64	20
Carbon disulfide	ND	F2	2470	2610	J F2	ug/Kg	☼	NC	52 - 139	47	20
Carbon tetrachloride	ND	F2	2470	2920	J F2	ug/Kg	☼	118	60 - 150	53	20
Chlorobenzene	ND	F1 F2	2470	4210	J F1 F2	ug/Kg	☼	170	67 - 136	43	20
Dibromochloromethane	ND	F2	2470	3050	J F2	ug/Kg	☼	NC	57 - 137	50	20
Chloroethane	ND	F2	2470	2480	J F2	ug/Kg	☼	100	34 - 140	55	20
Chloroform	ND	F2	2470	4120	J F2	ug/Kg	☼	NC	64 - 133	45	20
Chloromethane	ND	F2	2470	1770	J F2	ug/Kg	☼	72	47 - 143	58	20
cis-1,2-Dichloroethene	ND	F2	2470	3260	J F2	ug/Kg	☼	132	65 - 137	35	20
Cyclohexane	6500	F1 F2	2470	13100	F1 F2	ug/Kg	☼	267	63 - 149	54	20
Bromodichloromethane	ND	F1 F2	2470	4050	J F1 F2	ug/Kg	☼	164	62 - 136	56	20
Dichlorodifluoromethane	ND	F1	2470	ND	F1	ug/Kg	☼	0	26 - 150	NC	20
Ethylbenzene	36000	F2	2470	59000	4 F2	ug/Kg	☼	922	67 - 136	49	20
1,2-Dibromoethane	ND	F1 F2	2470	3730	J F1 F2	ug/Kg	☼	151	65 - 133	49	20
Isopropylbenzene	3300	J F1 F2	2470	9410	F1 F2	ug/Kg	☼	246	65 - 147	49	20
Methyl acetate	ND	F1 F2	4950	16800	J F1 F2	ug/Kg	☼	339	50 - 124	53	20
Methyl tert-butyl ether	ND	F2 F1	2470	3280	J F1 F2	ug/Kg	☼	133	60 - 130	49	20
Methylcyclohexane	14000	F1 F2	2470	32200	4 F2	ug/Kg	☼	716	67 - 150	53	20
Methylene Chloride	ND	F2 F1	2470	3590	J F1 F2	ug/Kg	☼	145	63 - 138	45	20
Tetrachloroethene	ND	F2	2470	3060	J F2	ug/Kg	☼	124	67 - 150	51	20
Toluene	ND	F1 F2	2470	4510	J F1 F2	ug/Kg	☼	183	68 - 137	50	20
trans-1,2-Dichloroethene	ND	F2	2470	2570	J F2	ug/Kg	☼	104	65 - 138	62	20
Trichloroethene	ND	F2 F1	2470	3630	J F1 F2	ug/Kg	☼	147	69 - 143	55	20
Trichlorofluoromethane	ND		2470	ND		ug/Kg	☼	NC	35 - 150	NC	20
Vinyl chloride	ND	F2	2470	2410	J F2	ug/Kg	☼	97	56 - 150	59	20
cis-1,3-Dichloropropene	ND	F2 F1	2470	3960	J F1 F2	ug/Kg	☼	160	61 - 148	43	20
Styrene	ND	F2	2470	3280	J F2	ug/Kg	☼	133	68 - 137	57	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*53 - 146*
4-Bromofluorobenzene (Surr)	*103*		*49 - 148*
Toluene-d8 (Surr)	*97*		*50 - 149*
Dibromofluoromethane (Surr)	*94*		*60 - 140*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-714779/1-A
Matrix: Waste
Analysis Batch: 715000

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714779

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		51000	7500	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
1,4-Dioxane	ND		60000	17000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
bis (2-chloroisopropyl) ether	ND		51000	10000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-714779/1-A
Matrix: Waste
Analysis Batch: 715000

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714779

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		51000	14000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
2,4,6-Trichlorophenol	ND		51000	10000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
2,4-Dichlorophenol	ND		51000	5400	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
2,4-Dimethylphenol	ND		51000	12000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
2,4-Dinitrophenol	ND		500000	240000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
2,4-Dinitrotoluene	ND		51000	11000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
2,6-Dinitrotoluene	ND		51000	6000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
2-Chloronaphthalene	ND		51000	8400	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
2-Chlorophenol	ND		51000	9300	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
2-Methylnaphthalene	ND		51000	10000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
2-Methylphenol	ND		51000	6000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
2-Nitroaniline	ND		99000	7500	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
2-Nitrophenol	ND		51000	14000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
3,3'-Dichlorobenzidine	ND		99000	60000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
3-Nitroaniline	ND		99000	14000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
4,6-Dinitro-2-methylphenol	ND		99000	51000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
4-Bromophenyl phenyl ether	ND		51000	7200	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
4-Chloro-3-methylphenol	ND		51000	13000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
4-Chloroaniline	ND		51000	13000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
4-Chlorophenyl phenyl ether	ND		51000	6300	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
4-Methylphenol	ND		99000	6000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
4-Nitroaniline	ND		99000	27000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
4-Nitrophenol	ND		99000	36000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Acenaphthene	ND		51000	7500	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Acenaphthylene	ND		51000	6600	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Acetophenone	ND		51000	6900	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Anthracene	ND		51000	13000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Atrazine	ND		51000	18000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Benzaldehyde	ND		51000	41000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Benzo[a]anthracene	ND		51000	5100	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Benzo[a]pyrene	ND		51000	7500	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Benzo[b]fluoranthene	ND		51000	8100	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Benzo[g,h,i]perylene	ND		51000	5400	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Benzo[k]fluoranthene	ND		51000	6600	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Bis(2-chloroethoxy)methane	ND		51000	11000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Bis(2-chloroethyl)ether	ND		51000	6600	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Bis(2-ethylhexyl) phthalate	ND		51000	17000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Butyl benzyl phthalate	ND		51000	8400	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Caprolactam	ND		51000	15000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Carbazole	ND		51000	6000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Chrysene	ND		51000	11000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Dibenz(a,h)anthracene	ND		51000	9000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Dibenzofuran	ND		51000	6000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Diethyl phthalate	ND		51000	6600	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Dimethyl phthalate	ND		51000	6000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Di-n-butyl phthalate	ND		51000	8700	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Di-n-octyl phthalate	ND		51000	6000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Fluoranthene	ND		51000	5400	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Fluorene	ND		51000	6000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-714779/1-A
Matrix: Waste
Analysis Batch: 715000

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714779

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	ND		51000	6900	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Hexachlorobutadiene	ND		51000	7500	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Hexachlorocyclopentadiene	ND		51000	6900	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Hexachloroethane	ND		51000	6600	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Indeno[1,2,3-cd]pyrene	ND		51000	6300	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Isophorone	ND		51000	11000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Naphthalene	ND		51000	6600	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Nitrobenzene	ND		51000	5700	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
N-Nitrosodi-n-propylamine	ND		51000	8700	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
N-Nitrosodiphenylamine	ND		51000	41000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Pentachlorophenol	ND		99000	51000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Phenanthrene	ND		51000	7500	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Phenol	ND		51000	7800	ug/Kg		06/07/24 06:49	06/10/24 14:42	1
Pyrene	ND		51000	6000	ug/Kg		06/07/24 06:49	06/10/24 14:42	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*254000*	*T J*	*ug/Kg*		*2.02*	*N/A*	*06/07/24 06:49*	*06/10/24 14:42*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*71*		*40 - 121*	*06/07/24 06:49*	*06/10/24 14:42*	*1*
p-Terphenyl-d14	*77*		*46 - 143*	*06/07/24 06:49*	*06/10/24 14:42*	*1*
Phenol-d5	*68*		*41 - 120*	*06/07/24 06:49*	*06/10/24 14:42*	*1*
2-Fluorophenol	*68*		*36 - 120*	*06/07/24 06:49*	*06/10/24 14:42*	*1*
2,4,6-Tribromophenol	*59*		*26 - 143*	*06/07/24 06:49*	*06/10/24 14:42*	*1*
2-Fluorobiphenyl	*75*		*50 - 121*	*06/07/24 06:49*	*06/10/24 14:42*	*1*

Lab Sample ID: LCS 480-714779/2-A
Matrix: Waste
Analysis Batch: 715466

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714779

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Biphenyl	500000	397000		ug/Kg		79	59 - 120
1,4-Dioxane	500000	300000		ug/Kg		60	23 - 120
bis (2-chloroisopropyl) ether	500000	382000		ug/Kg		76	44 - 120
2,4,5-Trichlorophenol	500000	413000		ug/Kg		83	59 - 126
2,4,6-Trichlorophenol	500000	411000		ug/Kg		82	59 - 123
2,4-Dichlorophenol	500000	402000		ug/Kg		80	61 - 120
2,4-Dimethylphenol	500000	337000		ug/Kg		67	59 - 120
2,4-Dinitrophenol	1000000	818000		ug/Kg		82	41 - 146
2,4-Dinitrotoluene	500000	419000		ug/Kg		84	63 - 120
2,6-Dinitrotoluene	500000	405000		ug/Kg		81	66 - 120
2-Chloronaphthalene	500000	395000		ug/Kg		79	57 - 120
2-Chlorophenol	500000	389000		ug/Kg		78	53 - 120
2-Methylnaphthalene	500000	400000		ug/Kg		80	59 - 120
2-Methylphenol	500000	398000		ug/Kg		80	54 - 120
2-Nitroaniline	500000	402000		ug/Kg		80	61 - 120
2-Nitrophenol	500000	396000		ug/Kg		79	56 - 120
3,3'-Dichlorobenzidine	1000000	838000	E	ug/Kg		84	54 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-714779/2-A
Matrix: Waste
Analysis Batch: 715466

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714779

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
3-Nitroaniline	500000	373000		ug/Kg		75	48 - 120
4,6-Dinitro-2-methylphenol	1000000	838000		ug/Kg		84	49 - 122
4-Bromophenyl phenyl ether	500000	398000		ug/Kg		80	58 - 120
4-Chloro-3-methylphenol	500000	391000		ug/Kg		78	61 - 120
4-Chloroaniline	500000	363000		ug/Kg		73	38 - 120
4-Chlorophenyl phenyl ether	500000	392000		ug/Kg		78	63 - 124
4-Methylphenol	500000	408000		ug/Kg		82	55 - 120
4-Nitroaniline	500000	380000		ug/Kg		76	56 - 120
4-Nitrophenol	1000000	836000		ug/Kg		84	43 - 147
Acenaphthene	500000	400000		ug/Kg		80	62 - 120
Acenaphthylene	500000	398000		ug/Kg		80	58 - 121
Acetophenone	500000	395000		ug/Kg		79	54 - 120
Anthracene	500000	404000		ug/Kg		81	62 - 120
Atrazine	1000000	744000		ug/Kg		74	60 - 127
Benzaldehyde	1000000	664000		ug/Kg		66	10 - 150
Benzo[a]anthracene	500000	429000		ug/Kg		86	65 - 120
Benzo[a]pyrene	500000	417000		ug/Kg		83	64 - 120
Benzo[b]fluoranthene	500000	417000		ug/Kg		83	64 - 120
Benzo[g,h,i]perylene	500000	411000		ug/Kg		82	45 - 145
Benzo[k]fluoranthene	500000	406000		ug/Kg		81	65 - 120
Bis(2-chloroethoxy)methane	500000	397000		ug/Kg		79	55 - 120
Bis(2-chloroethyl)ether	500000	379000		ug/Kg		76	45 - 120
Bis(2-ethylhexyl) phthalate	500000	416000		ug/Kg		83	61 - 133
Butyl benzyl phthalate	500000	423000		ug/Kg		85	61 - 129
Caprolactam	1000000	775000		ug/Kg		78	47 - 120
Carbazole	500000	405000		ug/Kg		81	65 - 120
Chrysene	500000	413000		ug/Kg		83	64 - 120
Dibenz(a,h)anthracene	500000	415000		ug/Kg		83	54 - 132
Dibenzofuran	500000	392000		ug/Kg		78	63 - 120
Diethyl phthalate	500000	397000		ug/Kg		79	66 - 120
Dimethyl phthalate	500000	401000		ug/Kg		80	65 - 124
Di-n-butyl phthalate	500000	406000		ug/Kg		81	58 - 130
Di-n-octyl phthalate	500000	421000		ug/Kg		84	57 - 133
Fluoranthene	500000	409000		ug/Kg		82	62 - 120
Fluorene	500000	395000		ug/Kg		79	63 - 120
Hexachlorobenzene	500000	398000		ug/Kg		80	60 - 120
Hexachlorobutadiene	500000	372000		ug/Kg		74	45 - 120
Hexachlorocyclopentadiene	500000	305000		ug/Kg		61	47 - 120
Hexachloroethane	500000	359000		ug/Kg		72	41 - 120
Indeno[1,2,3-cd]pyrene	500000	414000		ug/Kg		83	56 - 134
Isophorone	500000	395000		ug/Kg		79	56 - 120
Naphthalene	500000	383000		ug/Kg		77	55 - 120
Nitrobenzene	500000	389000		ug/Kg		78	54 - 120
N-Nitrosodi-n-propylamine	500000	403000		ug/Kg		81	52 - 120
Pentachlorophenol	1000000	853000		ug/Kg		85	10 - 120
Phenanthrene	500000	411000		ug/Kg		82	60 - 120
Phenol	500000	393000		ug/Kg		79	53 - 120
Pyrene	500000	425000		ug/Kg		85	61 - 133

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-714779/2-A
Matrix: Waste
Analysis Batch: 715466

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714779

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*80*		*40 - 121*
p-Terphenyl-d14	*85*		*46 - 143*
Phenol-d5	*81*		*41 - 120*
2-Fluorophenol	*80*		*36 - 120*
2,4,6-Tribromophenol	*84*		*26 - 143*
2-Fluorobiphenyl	*81*		*50 - 121*

Lab Sample ID: 480-220474-13 MS
Matrix: Waste
Analysis Batch: 715000

Client Sample ID: SED-06
Prep Type: Total/NA
Prep Batch: 714779

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Biphenyl	ND	F2	417000	275000		ug/Kg		66	58 - 120
1,4-Dioxane	ND		417000	208000	J	ug/Kg		50	13 - 120
bis (2-chloroisopropyl) ether	ND		417000	198000	J	ug/Kg		48	31 - 120
2,4,5-Trichlorophenol	ND	F2	417000	275000		ug/Kg		66	46 - 120
2,4,6-Trichlorophenol	ND	F2	417000	281000		ug/Kg		67	41 - 123
2,4-Dichlorophenol	ND	F2	417000	268000		ug/Kg		64	45 - 120
2,4-Dimethylphenol	ND	F1	417000	207000	J F1	ug/Kg		50	52 - 120
2,4-Dinitrophenol	ND		833000	ND		ug/Kg		NC	41 - 146
2,4-Dinitrotoluene	56000	J F1	417000	310000	F1	ug/Kg		61	63 - 125
2,6-Dinitrotoluene	ND	F2	417000	294000		ug/Kg		71	66 - 120
2-Chloronaphthalene	ND	F2	417000	261000		ug/Kg		63	57 - 120
2-Chlorophenol	ND	F2	417000	261000		ug/Kg		63	43 - 120
2-Methylnaphthalene	450000	F1	417000	641000	F1	ug/Kg		47	55 - 120
2-Methylphenol	ND	F2	417000	251000		ug/Kg		60	48 - 120
2-Nitroaniline	ND	F1 F2	417000	221000	J F1	ug/Kg		53	61 - 120
2-Nitrophenol	ND	F2	417000	274000		ug/Kg		66	37 - 120
3,3'-Dichlorobenzidine	ND	F2	833000	633000		ug/Kg		76	37 - 126
3-Nitroaniline	ND	F2	417000	278000	J	ug/Kg		67	48 - 120
4,6-Dinitro-2-methylphenol	ND	F2	833000	523000		ug/Kg		63	23 - 149
4-Bromophenyl phenyl ether	ND	F2	417000	297000		ug/Kg		71	58 - 120
4-Chloro-3-methylphenol	ND		417000	255000		ug/Kg		61	49 - 125
4-Chloroaniline	ND	F2	417000	213000		ug/Kg		51	38 - 120
4-Chlorophenyl phenyl ether	ND	F2	417000	294000		ug/Kg		71	63 - 124
4-Methylphenol	ND	F2	417000	226000	J	ug/Kg		54	50 - 120
4-Nitroaniline	ND	F2	417000	252000	J	ug/Kg		61	47 - 120
4-Nitrophenol	ND		833000	515000		ug/Kg		62	31 - 147
Acenaphthene	26000	J	417000	279000		ug/Kg		61	60 - 120
Acenaphthylene	ND	F2	417000	275000		ug/Kg		66	58 - 121
Acetophenone	ND	F2	417000	253000		ug/Kg		61	47 - 120
Anthracene	ND	F2	417000	273000		ug/Kg		66	62 - 120
Atrazine	ND	F2	833000	609000		ug/Kg		73	60 - 150
Benzaldehyde	ND	F2	833000	423000		ug/Kg		51	10 - 150
Benzo[a]anthracene	35000	J F1	417000	300000	F1	ug/Kg		64	65 - 120
Benzo[a]pyrene	ND	F2	417000	298000		ug/Kg		71	64 - 120
Benzo[b]fluoranthene	ND	F2	417000	295000		ug/Kg		71	10 - 150
Benzo[g,h,i]perylene	ND	F2	417000	331000		ug/Kg		79	45 - 145

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-220474-13 MS
Matrix: Waste
Analysis Batch: 715000

Client Sample ID: SED-06
Prep Type: Total/NA
Prep Batch: 714779

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzo[k]fluoranthene	ND	F2	417000	279000		ug/Kg		67	23 - 150
Bis(2-chloroethoxy)methane	ND	F2	417000	253000		ug/Kg		61	52 - 120
Bis(2-chloroethyl)ether	ND	F2	417000	239000		ug/Kg		57	45 - 120
Bis(2-ethylhexyl) phthalate	ND	F1 F2	417000	248000	F1	ug/Kg		59	61 - 133
Butyl benzyl phthalate	ND	F2	417000	262000		ug/Kg		63	61 - 120
Caprolactam	ND		833000	525000		ug/Kg		63	37 - 133
Carbazole	ND	F2	417000	277000		ug/Kg		67	59 - 120
Chrysene	59000	J F1	417000	305000	F1	ug/Kg		59	64 - 120
Dibenz(a,h)anthracene	ND	F2	417000	302000		ug/Kg		73	54 - 132
Dibenzofuran	ND	F2	417000	290000		ug/Kg		70	62 - 120
Diethyl phthalate	ND	F2	417000	277000		ug/Kg		66	66 - 120
Dimethyl phthalate	ND	F2	417000	284000		ug/Kg		68	65 - 124
Di-n-butyl phthalate	ND	F2	417000	272000		ug/Kg		65	58 - 130
Di-n-octyl phthalate	24000	J F2	417000	276000		ug/Kg		60	57 - 133
Fluoranthene	24000	J F2	417000	313000		ug/Kg		69	62 - 120
Fluorene	52000	J F1	417000	311000	F1	ug/Kg		62	63 - 120
Hexachlorobenzene	ND	F2	417000	283000		ug/Kg		68	60 - 120
Hexachlorobutadiene	ND		417000	292000		ug/Kg		70	45 - 120
Hexachlorocyclopentadiene	ND	F1	417000	99200	J F1	ug/Kg		24	31 - 120
Hexachloroethane	ND		417000	227000		ug/Kg		55	21 - 120
Indeno[1,2,3-cd]pyrene	ND	F2	417000	311000		ug/Kg		75	56 - 134
Isophorone	ND	F2	417000	264000		ug/Kg		63	56 - 120
Naphthalene	150000		417000	400000		ug/Kg		61	46 - 120
Nitrobenzene	ND	F2	417000	247000		ug/Kg		59	49 - 120
N-Nitrosodi-n-propylamine	ND	F2	417000	237000		ug/Kg		57	46 - 120
Pentachlorophenol	ND		833000	428000		ug/Kg		51	10 - 136
Phenanthrene	220000	F1	417000	429000	F1	ug/Kg		51	60 - 122
Phenol	ND		417000	240000		ug/Kg		58	50 - 120
Pyrene	56000	J F1	417000	299000	F1	ug/Kg		58	61 - 133

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Nitrobenzene-d5	*60*		*40 - 121*
p-Terphenyl-d14	*57*		*46 - 143*
Phenol-d5	*59*		*41 - 120*
2-Fluorophenol	*58*		*36 - 120*
2,4,6-Tribromophenol	*62*		*26 - 143*
2-Fluorobiphenyl	*68*		*50 - 121*

Lab Sample ID: 480-220474-13 MSD
Matrix: Waste
Analysis Batch: 715000

Client Sample ID: SED-06
Prep Type: Total/NA
Prep Batch: 714779

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Biphenyl	ND	F2	294000	205000	F2	ug/Kg		70	58 - 120	29	20
1,4-Dioxane	ND		294000	148000	J	ug/Kg		50	13 - 120	34	50
bis (2-chloroisopropyl) ether	ND		294000	157000		ug/Kg		53	31 - 120	23	24
2,4,5-Trichlorophenol	ND	F2	294000	225000	F2	ug/Kg		77	46 - 120	20	18
2,4,6-Trichlorophenol	ND	F2	294000	219000	F2	ug/Kg		74	41 - 123	25	19

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-220474-13 MSD
Matrix: Waste
Analysis Batch: 715000

Client Sample ID: SED-06
Prep Type: Total/NA
Prep Batch: 714779

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4-Dichlorophenol	ND	F2	294000	200000	F2	ug/Kg		68	45 - 120	29	19
2,4-Dimethylphenol	ND	F1	294000	150000	F1	ug/Kg		51	52 - 120	32	42
2,4-Dinitrophenol	ND		588000	ND		ug/Kg		NC	41 - 146	NC	22
2,4-Dinitrotoluene	56000	J F1	294000	282000		ug/Kg		77	63 - 125	9	20
2,6-Dinitrotoluene	ND	F2	294000	228000	F2	ug/Kg		77	66 - 120	26	15
2-Chloronaphthalene	ND	F2	294000	207000	F2	ug/Kg		70	57 - 120	23	21
2-Chlorophenol	ND	F2	294000	189000	F2	ug/Kg		64	43 - 120	32	25
2-Methylnaphthalene	450000	F1	294000	751000		ug/Kg		104	55 - 120	16	21
2-Methylphenol	ND	F2	294000	177000	F2	ug/Kg		60	48 - 120	35	27
2-Nitroaniline	ND	F1 F2	294000	176000	J F1 F2	ug/Kg		60	61 - 120	23	15
2-Nitrophenol	ND	F2	294000	219000	F2	ug/Kg		74	37 - 120	23	18
3,3'-Dichlorobenzidine	ND	F2	588000	484000	F2	ug/Kg		82	37 - 126	27	25
3-Nitroaniline	ND	F2	294000	224000	J F2	ug/Kg		76	48 - 120	21	19
4,6-Dinitro-2-methylphenol	ND	F2	588000	358000	F2	ug/Kg		61	23 - 149	38	15
4-Bromophenyl phenyl ether	ND	F2	294000	220000	F2	ug/Kg		75	58 - 120	30	15
4-Chloro-3-methylphenol	ND		294000	202000		ug/Kg		69	49 - 125	23	27
4-Chloroaniline	ND	F2	294000	147000	J F2	ug/Kg		50	38 - 120	37	22
4-Chlorophenyl phenyl ether	ND	F2	294000	221000	F2	ug/Kg		75	63 - 124	28	16
4-Methylphenol	ND	F2	294000	166000	J F2	ug/Kg		56	50 - 120	31	24
4-Nitroaniline	ND	F2	294000	193000	J F2	ug/Kg		66	47 - 120	27	24
4-Nitrophenol	ND		588000	401000		ug/Kg		68	31 - 147	25	25
Acenaphthene	26000	J	294000	238000		ug/Kg		72	60 - 120	16	35
Acenaphthylene	ND	F2	294000	215000	F2	ug/Kg		73	58 - 121	25	18
Acetophenone	ND	F2	294000	181000	F2	ug/Kg		62	47 - 120	33	20
Anthracene	ND	F2	294000	218000	F2	ug/Kg		74	62 - 120	23	15
Atrazine	ND	F2	588000	460000	F2	ug/Kg		78	60 - 150	28	20
Benzaldehyde	ND	F2	588000	286000	F2	ug/Kg		49	10 - 150	39	20
Benzo[a]anthracene	35000	J F1	294000	261000		ug/Kg		77	65 - 120	14	15
Benzo[a]pyrene	ND	F2	294000	246000	F2	ug/Kg		84	64 - 120	19	15
Benzo[b]fluoranthene	ND	F2	294000	228000	F2	ug/Kg		77	10 - 150	26	15
Benzo[g,h,i]perylene	ND	F2	294000	262000	F2	ug/Kg		89	45 - 145	23	15
Benzo[k]fluoranthene	ND	F2	294000	215000	F2	ug/Kg		73	23 - 150	26	22
Bis(2-chloroethoxy)methane	ND	F2	294000	196000	F2	ug/Kg		67	52 - 120	25	17
Bis(2-chloroethyl)ether	ND	F2	294000	178000	F2	ug/Kg		61	45 - 120	29	21
Bis(2-ethylhexyl) phthalate	ND	F1 F2	294000	201000	F2	ug/Kg		68	61 - 133	21	15
Butyl benzyl phthalate	ND	F2	294000	211000	F2	ug/Kg		72	61 - 120	22	16
Caprolactam	ND		588000	434000		ug/Kg		74	37 - 133	19	20
Carbazole	ND	F2	294000	217000	F2	ug/Kg		74	59 - 120	24	20
Chrysene	59000	J F1	294000	279000		ug/Kg		75	64 - 120	9	15
Dibenz(a,h)anthracene	ND	F2	294000	243000	F2	ug/Kg		83	54 - 132	22	15
Dibenzofuran	ND	F2	294000	233000	F2	ug/Kg		79	62 - 120	22	15
Diethyl phthalate	ND	F2	294000	226000	F2	ug/Kg		77	66 - 120	20	15
Dimethyl phthalate	ND	F2	294000	213000	F2	ug/Kg		73	65 - 124	28	15
Di-n-butyl phthalate	ND	F2	294000	210000	F2	ug/Kg		71	58 - 130	26	15
Di-n-octyl phthalate	24000	J F2	294000	230000	F2	ug/Kg		70	57 - 133	18	16
Fluoranthene	24000	J F2	294000	254000	F2	ug/Kg		78	62 - 120	21	15
Fluorene	52000	J F1	294000	271000		ug/Kg		74	63 - 120	14	15
Hexachlorobenzene	ND	F2	294000	209000	F2	ug/Kg		71	60 - 120	30	15
Hexachlorobutadiene	ND		294000	229000		ug/Kg		78	45 - 120	24	44

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-220474-13 MSD
Matrix: Waste
Analysis Batch: 715000

Client Sample ID: SED-06
Prep Type: Total/NA
Prep Batch: 714779

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Hexachlorocyclopentadiene	ND	F1	294000	74800	J F1	ug/Kg		25	31 - 120	28	49
Hexachloroethane	ND		294000	169000		ug/Kg		57	21 - 120	29	46
Indeno[1,2,3-cd]pyrene	ND	F2	294000	253000	F2	ug/Kg		86	56 - 134	20	15
Isophorone	ND	F2	294000	195000	F2	ug/Kg		66	56 - 120	30	17
Naphthalene	150000		294000	374000		ug/Kg		77	46 - 120	7	29
Nitrobenzene	ND	F2	294000	180000	F2	ug/Kg		61	49 - 120	32	24
N-Nitrosodi-n-propylamine	ND	F2	294000	172000	F2	ug/Kg		58	46 - 120	32	31
Pentachlorophenol	ND		588000	316000		ug/Kg		54	10 - 136	30	35
Phenanthrene	220000	F1	294000	475000		ug/Kg		88	60 - 122	10	15
Phenol	ND		294000	169000		ug/Kg		57	50 - 120	35	35
Pyrene	56000	J F1	294000	274000		ug/Kg		74	61 - 133	9	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Nitrobenzene-d5	*65*		*40 - 121*
p-Terphenyl-d14	*67*		*46 - 143*
Phenol-d5	*60*		*41 - 120*
2-Fluorophenol	*62*		*36 - 120*
2,4,6-Tribromophenol	*69*		*26 - 143*
2-Fluorobiphenyl	*75*		*50 - 121*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 480-714668/1-A
Matrix: Waste
Analysis Batch: 714777

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714668

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.50	0.097	mg/Kg		06/06/24 10:13	06/07/24 08:51	1
4,4'-DDE	ND		0.50	0.14	mg/Kg		06/06/24 10:13	06/07/24 08:51	1
4,4'-DDT	ND		0.50	0.11	mg/Kg		06/06/24 10:13	06/07/24 08:51	1
Aldrin	ND		0.50	0.051	mg/Kg		06/06/24 10:13	06/07/24 08:51	1
alpha-BHC	ND		0.50	0.090	mg/Kg		06/06/24 10:13	06/07/24 08:51	1
cis-Chlordane	ND		0.50	0.25	mg/Kg		06/06/24 10:13	06/07/24 08:51	1
beta-BHC	ND		0.50	0.36	mg/Kg		06/06/24 10:13	06/07/24 08:51	1
delta-BHC	ND		0.50	0.066	mg/Kg		06/06/24 10:13	06/07/24 08:51	1
Dieldrin	ND		0.50	0.12	mg/Kg		06/06/24 10:13	06/07/24 08:51	1
Endosulfan I	ND		0.50	0.11	mg/Kg		06/06/24 10:13	06/07/24 08:51	1
Endosulfan II	ND		0.50	0.090	mg/Kg		06/06/24 10:13	06/07/24 08:51	1
Endosulfan sulfate	ND		0.50	0.093	mg/Kg		06/06/24 10:13	06/07/24 08:51	1
Endrin	ND		0.50	0.16	mg/Kg		06/06/24 10:13	06/07/24 08:51	1
Endrin aldehyde	ND		0.50	0.13	mg/Kg		06/06/24 10:13	06/07/24 08:51	1
Endrin ketone	ND		0.50	0.12	mg/Kg		06/06/24 10:13	06/07/24 08:51	1
gamma-BHC (Lindane)	ND		0.50	0.36	mg/Kg		06/06/24 10:13	06/07/24 08:51	1
trans-Chlordane	ND		0.50	0.069	mg/Kg		06/06/24 10:13	06/07/24 08:51	1
Heptachlor	ND		0.50	0.078	mg/Kg		06/06/24 10:13	06/07/24 08:51	1
Heptachlor epoxide	ND		0.50	0.13	mg/Kg		06/06/24 10:13	06/07/24 08:51	1
Methoxychlor	ND		0.50	0.13	mg/Kg		06/06/24 10:13	06/07/24 08:51	1
Toxaphene	ND		5.0	2.9	mg/Kg		06/06/24 10:13	06/07/24 08:51	1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 480-714668/1-A
Matrix: Waste
Analysis Batch: 714777

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714668

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	81		45 - 120	06/06/24 10:13	06/07/24 08:51	1
DCB Decachlorobiphenyl	98		45 - 120	06/06/24 10:13	06/07/24 08:51	1
Tetrachloro-m-xylene	55		30 - 124	06/06/24 10:13	06/07/24 08:51	1
Tetrachloro-m-xylene	62		30 - 124	06/06/24 10:13	06/07/24 08:51	1

Lab Sample ID: LCS 480-714668/2-A
Matrix: Waste
Analysis Batch: 714777

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714668

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	5.00	5.53		mg/Kg		111	56 - 120
4,4'-DDE	5.00	5.47		mg/Kg		109	44 - 120
4,4'-DDT	5.00	5.82		mg/Kg		116	38 - 120
Aldrin	5.00	5.61		mg/Kg		112	38 - 120
alpha-BHC	5.00	5.13		mg/Kg		103	39 - 120
cis-Chlordane	5.00	5.47		mg/Kg		109	47 - 120
beta-BHC	5.00	4.96		mg/Kg		99	40 - 120
delta-BHC	5.00	5.18		mg/Kg		104	45 - 120
Dieldrin	5.00	5.86		mg/Kg		117	58 - 120
Endosulfan I	5.00	5.55		mg/Kg		111	49 - 120
Endosulfan II	5.00	5.55		mg/Kg		111	55 - 120
Endosulfan sulfate	5.00	4.27		mg/Kg		85	49 - 124
Endrin	5.00	5.54		mg/Kg		111	58 - 120
Endrin aldehyde	5.00	4.51		mg/Kg		90	37 - 121
Endrin ketone	5.00	5.49		mg/Kg		110	46 - 123
gamma-BHC (Lindane)	5.00	5.43		mg/Kg		109	50 - 120
trans-Chlordane	5.00	5.50		mg/Kg		110	48 - 120
Heptachlor	5.00	5.84		mg/Kg		117	50 - 120
Heptachlor epoxide	5.00	5.62		mg/Kg		112	50 - 120
Methoxychlor	5.00	5.97		mg/Kg		119	58 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	99		45 - 120
DCB Decachlorobiphenyl	110		45 - 120
Tetrachloro-m-xylene	91		30 - 124
Tetrachloro-m-xylene	91		30 - 124

Lab Sample ID: 480-220474-13 MS
Matrix: Waste
Analysis Batch: 714777

Client Sample ID: SED-06
Prep Type: Total/NA
Prep Batch: 714668

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	ND		3.33	2.86	J	mg/Kg		86	37 - 126
4,4'-DDE	ND		3.33	2.61	J	mg/Kg		78	34 - 120
4,4'-DDT	ND		3.33	3.58		mg/Kg		107	43 - 123
Aldrin	ND		3.33	2.75	J	mg/Kg		82	37 - 125
alpha-BHC	ND		3.33	2.43	J	mg/Kg		73	39 - 120
cis-Chlordane	ND		3.33	2.59	J	mg/Kg		78	35 - 120

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 480-220474-13 MS
Matrix: Waste
Analysis Batch: 714777

Client Sample ID: SED-06
Prep Type: Total/NA
Prep Batch: 714668

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
beta-BHC	ND		3.33	2.54	J	mg/Kg		76	36 - 120
delta-BHC	ND	F2	3.33	2.15	J	mg/Kg		64	34 - 120
Dieldrin	ND		3.33	2.69	J	mg/Kg		81	45 - 120
Endosulfan I	ND		3.33	2.23	J	mg/Kg		67	39 - 120
Endosulfan II	ND		3.33	2.54	J	mg/Kg		76	34 - 126
Endosulfan sulfate	ND		3.33	2.50	J	mg/Kg		75	27 - 130
Endrin	ND		3.33	2.96	J	mg/Kg		89	47 - 121
Endrin aldehyde	ND		3.33	3.05	J	mg/Kg		91	33 - 123
Endrin ketone	ND		3.33	3.13	J	mg/Kg		94	43 - 126
gamma-BHC (Lindane)	ND		3.33	2.54	J	mg/Kg		76	50 - 120
trans-Chlordane	ND	F1 F2	3.33	4.85	F1	mg/Kg		146	31 - 120
Heptachlor	ND		3.33	2.49	J	mg/Kg		75	42 - 120
Heptachlor epoxide	ND		3.33	2.32	J	mg/Kg		70	40 - 120
Methoxychlor	ND	F1	3.33	5.20	F1	mg/Kg		156	44 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*182*	*S1+*	*45 - 120*
DCB Decachlorobiphenyl	*276*	*S1+*	*45 - 120*
Tetrachloro-m-xylene	*63*		*30 - 124*
Tetrachloro-m-xylene	*73*		*30 - 124*

Lab Sample ID: 480-220474-13 MSD
Matrix: Waste
Analysis Batch: 714777

Client Sample ID: SED-06
Prep Type: Total/NA
Prep Batch: 714668

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	ND		3.57	2.88	J	mg/Kg		81	37 - 126	1	21
4,4'-DDE	ND		3.57	2.56	J	mg/Kg		72	34 - 120	2	18
4,4'-DDT	ND		3.57	3.84		mg/Kg		108	43 - 123	7	25
Aldrin	ND		3.57	2.85	J	mg/Kg		80	37 - 125	4	12
alpha-BHC	ND		3.57	2.46	J	mg/Kg		69	39 - 120	1	15
cis-Chlordane	ND		3.57	2.71	J	mg/Kg		76	35 - 120	4	23
beta-BHC	ND		3.57	2.77	J	mg/Kg		78	36 - 120	9	19
delta-BHC	ND	F2	3.57	2.55	J F2	mg/Kg		71	34 - 120	17	14
Dieldrin	ND		3.57	2.87	J	mg/Kg		80	45 - 120	7	12
Endosulfan I	ND		3.57	2.11	J	mg/Kg		59	39 - 120	6	18
Endosulfan II	ND		3.57	2.70	J	mg/Kg		76	34 - 126	6	26
Endosulfan sulfate	ND		3.57	2.87	J	mg/Kg		80	27 - 130	14	35
Endrin	ND		3.57	2.96	J	mg/Kg		83	47 - 121	0	20
Endrin aldehyde	ND		3.57	3.13	J	mg/Kg		88	33 - 123	3	47
Endrin ketone	ND		3.57	3.55	J	mg/Kg		99	43 - 126	13	37
gamma-BHC (Lindane)	ND		3.57	2.60	J	mg/Kg		73	50 - 120	2	12
trans-Chlordane	ND	F1 F2	3.57	5.90	F1 F2	mg/Kg		165	31 - 120	20	15
Heptachlor	ND		3.57	2.53	J	mg/Kg		71	42 - 120	2	22
Heptachlor epoxide	ND		3.57	2.31	J	mg/Kg		65	40 - 120	1	15
Methoxychlor	ND	F1	3.57	5.59	F1	mg/Kg		157	44 - 150	7	24

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 480-220474-13 MSD
Matrix: Waste
Analysis Batch: 714777

Client Sample ID: SED-06
Prep Type: Total/NA
Prep Batch: 714668

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	131	S1+	45 - 120
DCB Decachlorobiphenyl	284	S1+	45 - 120
Tetrachloro-m-xylene	57		30 - 124
Tetrachloro-m-xylene	59		30 - 124

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 480-714782/1-A
Matrix: Waste
Analysis Batch: 715253

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714782

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		5.0	0.98	mg/Kg		06/07/24 06:55	06/11/24 20:02	1
PCB-1221	ND		5.0	0.98	mg/Kg		06/07/24 06:55	06/11/24 20:02	1
PCB-1232	ND		5.0	0.98	mg/Kg		06/07/24 06:55	06/11/24 20:02	1
PCB-1242	ND		5.0	0.98	mg/Kg		06/07/24 06:55	06/11/24 20:02	1
PCB-1248	ND		5.0	0.98	mg/Kg		06/07/24 06:55	06/11/24 20:02	1
PCB-1254	ND		5.0	0.23	mg/Kg		06/07/24 06:55	06/11/24 20:02	1
PCB-1260	ND		5.0	0.23	mg/Kg		06/07/24 06:55	06/11/24 20:02	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	73		60 - 154	06/07/24 06:55	06/11/24 20:02	1
Tetrachloro-m-xylene	84		60 - 154	06/07/24 06:55	06/11/24 20:02	1
DCB Decachlorobiphenyl	99		65 - 174	06/07/24 06:55	06/11/24 20:02	1
DCB Decachlorobiphenyl	110		65 - 174	06/07/24 06:55	06/11/24 20:02	1

Lab Sample ID: LCS 480-714782/2-A
Matrix: Waste
Analysis Batch: 714970

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714782

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
PCB-1016			50.0	32.7		mg/Kg		65	51 - 185		
PCB-1260			50.0	39.8		mg/Kg		80	61 - 184		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	63		60 - 154
Tetrachloro-m-xylene	63		60 - 154
DCB Decachlorobiphenyl	82		65 - 174
DCB Decachlorobiphenyl	108		65 - 174

Lab Sample ID: 480-220474-13 MS
Matrix: Waste
Analysis Batch: 714970

Client Sample ID: SED-06
Prep Type: Total/NA
Prep Batch: 714782

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
PCB-1016	ND		41.7	31.4		mg/Kg		75	50 - 177		
PCB-1260	ND		41.7	38.2		mg/Kg		92	33 - 200		

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 480-220474-13 MS
Matrix: Waste
Analysis Batch: 714970

Client Sample ID: SED-06
Prep Type: Total/NA
Prep Batch: 714782

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*76*		*60 - 154*
Tetrachloro-m-xylene	*74*		*60 - 154*
DCB Decachlorobiphenyl	*84*		*65 - 174*
DCB Decachlorobiphenyl	*118*		*65 - 174*

Lab Sample ID: 480-220474-13 MSD
Matrix: Waste
Analysis Batch: 714970

Client Sample ID: SED-06
Prep Type: Total/NA
Prep Batch: 714782

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016	ND		31.3	22.3		mg/Kg		71	50 - 177	34	50
PCB-1260	ND		31.3	26.9		mg/Kg		86	33 - 200	35	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*77*		*60 - 154*
Tetrachloro-m-xylene	*62*		*60 - 154*
DCB Decachlorobiphenyl	*77*		*65 - 174*
DCB Decachlorobiphenyl	*109*		*65 - 174*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Lab Sample ID: MB 240-615785/1-A
Matrix: Solid
Analysis Batch: 615906

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 615785

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.80	0.20	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
Perfluoropentanoic acid (PFPeA)	ND		0.40	0.10	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
Perfluorohexanoic acid (PFHxA)	ND		0.20	0.050	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
Perfluoroheptanoic acid (PFHpA)	ND		0.20	0.050	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
Perfluorooctanoic acid (PFOA)	ND		0.20	0.050	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
Perfluorononanoic acid (PFNA)	ND		0.20	0.050	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
Perfluorodecanoic acid (PFDA)	ND		0.20	0.050	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
Perfluoroundecanoic acid (PFUnA)	ND		0.20	0.050	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
Perfluorododecanoic acid (PFDoA)	ND		0.20	0.050	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.20	0.050	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.20	0.050	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.20	0.050	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.20	0.050	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.20	0.050	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.20	0.050	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.20	0.050	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
Perfluorononanesulfonic acid (PFNS)	ND		0.20	0.050	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.20	0.050	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		0.80	0.20	ug/Kg		06/06/24 15:07	06/07/24 18:05	1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 240-615785/1-A
Matrix: Solid
Analysis Batch: 615906

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 615785

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		0.80	0.20	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		0.80	0.20	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.20	0.050	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.20	0.050	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.20	0.050	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.20	0.050	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.20	0.050	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		2.0	0.50	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		2.0	0.50	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.80	0.20	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.80	0.20	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.40	0.10	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.40	0.10	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		0.80	0.20	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		0.80	0.20	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.40	0.10	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1.0	0.25	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		5.0	1.3	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		5.0	1.3	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.20	0.050	ug/Kg		06/06/24 15:07	06/07/24 18:05	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.40	0.10	ug/Kg		06/06/24 15:07	06/07/24 18:05	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*98.9*		*20 - 150*	*06/06/24 15:07*	*06/07/24 18:05*	*1*
13C5 PFPeA	*87.1*		*20 - 150*	*06/06/24 15:07*	*06/07/24 18:05*	*1*
13C5 PFHxA	*84.4*		*20 - 150*	*06/06/24 15:07*	*06/07/24 18:05*	*1*
13C4 PFHpA	*86.7*		*20 - 150*	*06/06/24 15:07*	*06/07/24 18:05*	*1*
13C8 PFOA	*97.8*		*20 - 150*	*06/06/24 15:07*	*06/07/24 18:05*	*1*
13C9 PFNA	*95.2*		*20 - 150*	*06/06/24 15:07*	*06/07/24 18:05*	*1*
13C6 PFDA	*90.2*		*20 - 150*	*06/06/24 15:07*	*06/07/24 18:05*	*1*
13C7 PFUnA	*85.4*		*20 - 150*	*06/06/24 15:07*	*06/07/24 18:05*	*1*
13C2 PFTeDA	*79.8*		*20 - 150*	*06/06/24 15:07*	*06/07/24 18:05*	*1*
13C3 PFBS	*93.7*		*20 - 150*	*06/06/24 15:07*	*06/07/24 18:05*	*1*
13C3 PFHxS	*86.4*		*20 - 150*	*06/06/24 15:07*	*06/07/24 18:05*	*1*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 240-615785/1-A
Matrix: Solid
Analysis Batch: 615906

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 615785

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOS	91.5		20 - 150	06/06/24 15:07	06/07/24 18:05	1
13C8 FOSA	78.9		20 - 150	06/06/24 15:07	06/07/24 18:05	1
d3-NMeFOSAA	89.2		20 - 150	06/06/24 15:07	06/07/24 18:05	1
d5-NEtFOSAA	93.5		20 - 150	06/06/24 15:07	06/07/24 18:05	1
M2-4:2 FTS	93.6		20 - 150	06/06/24 15:07	06/07/24 18:05	1
M2-6:2 FTS	120		20 - 150	06/06/24 15:07	06/07/24 18:05	1
M2-8:2 FTS	103		20 - 150	06/06/24 15:07	06/07/24 18:05	1
13C3 HFPO-DA	83.5		20 - 150	06/06/24 15:07	06/07/24 18:05	1
d7-N-MeFOSE-M	84.6		20 - 150	06/06/24 15:07	06/07/24 18:05	1
d9-N-EtFOSE-M	80.6		20 - 150	06/06/24 15:07	06/07/24 18:05	1
d5-NEtPFOSA	61.4		20 - 150	06/06/24 15:07	06/07/24 18:05	1
d3-NMePFOSA	71.8		20 - 150	06/06/24 15:07	06/07/24 18:05	1
13C2-PFDoDA	86.6		20 - 150	06/06/24 15:07	06/07/24 18:05	1

Lab Sample ID: LCS 240-615785/3-A
Matrix: Solid
Analysis Batch: 615906

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 615785

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	10.0	10.5		ug/Kg		105	40 - 150
Perfluoropentanoic acid (PFPeA)	5.00	5.81		ug/Kg		116	40 - 150
Perfluorohexanoic acid (PFHxA)	2.50	2.73		ug/Kg		109	40 - 150
Perfluoroheptanoic acid (PFHpA)	2.50	2.72		ug/Kg		109	40 - 150
Perfluorooctanoic acid (PFOA)	2.50	2.86		ug/Kg		115	40 - 150
Perfluorononanoic acid (PFNA)	2.50	2.13		ug/Kg		85	40 - 150
Perfluorodecanoic acid (PFDA)	2.50	2.47		ug/Kg		99	40 - 150
Perfluoroundecanoic acid (PFUnA)	2.50	2.41		ug/Kg		96	40 - 150
Perfluorododecanoic acid (PFDoA)	2.50	2.67		ug/Kg		107	40 - 150
Perfluorotridecanoic acid (PFTrDA)	2.50	2.29		ug/Kg		92	40 - 150
Perfluorotetradecanoic acid (PFTeDA)	2.50	2.71		ug/Kg		108	40 - 150
Perfluorobutanesulfonic acid (PFBS)	2.21	2.45		ug/Kg		111	40 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.35	2.39		ug/Kg		102	40 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.28	2.40		ug/Kg		106	40 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.38	2.75		ug/Kg		115	40 - 150
Perfluorooctanesulfonic acid (PFOS)	2.32	2.62		ug/Kg		113	40 - 150
Perfluorononanesulfonic acid (PFNS)	2.40	2.56		ug/Kg		107	40 - 150
Perfluorododecanesulfonic acid (PFDoS)	2.42	2.10		ug/Kg		87	40 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	9.34	9.83		ug/Kg		105	40 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	9.48	11.8		ug/Kg		124	40 - 150

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 240-615785/3-A
Matrix: Solid
Analysis Batch: 615906

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 615785

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	9.58	10.8		ug/Kg		113	40 - 150
Perfluorooctanesulfonamide (PFOSA)	2.50	2.68		ug/Kg		107	40 - 150
N-methylperfluorooctane sulfonamide (NMeFOSA)	2.50	2.52		ug/Kg		101	40 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	2.50	2.68		ug/Kg		107	40 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.50	3.53		ug/Kg		141	40 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.50	2.52		ug/Kg		101	40 - 150
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	25.0	27.5		ug/Kg		110	40 - 150
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	25.0	28.0		ug/Kg		112	40 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	10.0	10.5		ug/Kg		105	40 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	9.42	9.89		ug/Kg		105	40 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	5.00	5.71		ug/Kg		114	40 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	5.00	4.14		ug/Kg		83	40 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	9.32	9.45		ug/Kg		101	40 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	9.42	8.99		ug/Kg		95	40 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	4.45	4.81		ug/Kg		108	40 - 150
3-Perfluoropropylpropanoic acid (3:3 FTCA)	12.5	13.8		ug/Kg		110	40 - 150
3-Perfluoropentylpropanoic acid (5:3 FTCA)	62.5	67.1		ug/Kg		107	40 - 150
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	62.5	63.9		ug/Kg		102	40 - 150
Perfluorodecanesulfonic acid (PFDS)	2.41	2.42		ug/Kg		101	40 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	5.00	5.85		ug/Kg		117	40 - 150

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*96.1*		*20 - 150*
13C5 PFPeA	*86.3*		*20 - 150*
13C5 PFHxA	*95.2*		*20 - 150*
13C4 PFHpA	*95.8*		*20 - 150*
13C8 PFOA	*110*		*20 - 150*
13C9 PFNA	*103*		*20 - 150*
13C6 PFDA	*93.1*		*20 - 150*
13C7 PFUnA	*95.5*		*20 - 150*
13C2 PFTeDA	*80.5*		*20 - 150*
13C3 PFBS	*99.4*		*20 - 150*
13C3 PFHxS	*99.8*		*20 - 150*
13C8 PFOS	*88.1*		*20 - 150*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 240-615785/3-A
Matrix: Solid
Analysis Batch: 615906

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 615785

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C8 FOSA	79.3		20 - 150
d3-NMeFOSAA	75.1		20 - 150
d5-NEtFOSAA	87.8		20 - 150
M2-4:2 FTS	107		20 - 150
M2-6:2 FTS	115		20 - 150
M2-8:2 FTS	113		20 - 150
13C3 HFPO-DA	98.3		20 - 150
d7-N-MeFOSE-M	80.2		20 - 150
d9-N-EtFOSE-M	74.5		20 - 150
d5-NEtPFOSA	63.0		20 - 150
d3-NMePFOSA	70.0		20 - 150
13C2-PFDoDA	98.5		20 - 150

Lab Sample ID: LLCS 240-615785/2-A
Matrix: Solid
Analysis Batch: 615906

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 615785

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	0.800	0.710	J	ug/Kg		89	40 - 150
Perfluoropentanoic acid (PFPeA)	0.400	0.425		ug/Kg		106	40 - 150
Perfluorohexanoic acid (PFHxA)	0.200	0.246		ug/Kg		123	40 - 150
Perfluoroheptanoic acid (PFHpA)	0.200	0.259		ug/Kg		129	40 - 150
Perfluorooctanoic acid (PFOA)	0.200	0.241		ug/Kg		121	40 - 150
Perfluorononanoic acid (PFNA)	0.200	0.284		ug/Kg		142	40 - 150
Perfluorodecanoic acid (PFDA)	0.200	0.213		ug/Kg		107	40 - 150
Perfluoroundecanoic acid (PFUnA)	0.200	0.184	J	ug/Kg		92	40 - 150
Perfluorododecanoic acid (PFDoA)	0.200	0.252	I	ug/Kg		126	40 - 150
Perfluorotridecanoic acid (PFTrDA)	0.200	0.241		ug/Kg		121	40 - 150
Perfluorotetradecanoic acid (PFTeDA)	0.200	0.226		ug/Kg		113	40 - 150
Perfluorobutanesulfonic acid (PFBS)	0.177	0.196	J	ug/Kg		111	40 - 150
Perfluoropentanesulfonic acid (PFPeS)	0.188	0.189	J I	ug/Kg		101	40 - 150
Perfluorohexanesulfonic acid (PFHxS)	0.182	0.214		ug/Kg		118	40 - 150
Perfluoroheptanesulfonic acid (PFHpS)	0.190	0.225		ug/Kg		118	40 - 150
Perfluorooctanesulfonic acid (PFOS)	0.186	0.227		ug/Kg		122	40 - 150
Perfluorononanesulfonic acid (PFNS)	0.192	0.247		ug/Kg		128	40 - 150
Perfluorododecanesulfonic acid (PFDoS)	0.194	0.185	J	ug/Kg		95	40 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	0.747	0.809		ug/Kg		108	40 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	0.758	0.837		ug/Kg		110	40 - 150

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 240-615785/2-A
Matrix: Solid
Analysis Batch: 615906

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 615785

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)			0.766	0.841		ug/Kg		110	40 - 150		
Perfluorooctanesulfonamide (PFOSA)			0.200	0.220	I	ug/Kg		110	40 - 150		
N-methylperfluorooctane sulfonamide (NMeFOSA)			0.200	0.219		ug/Kg		109	40 - 150		
N-ethylperfluorooctane sulfonamide (NEtFOSA)			0.200	0.235		ug/Kg		117	40 - 150		
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			0.200	0.208		ug/Kg		104	40 - 150		
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			0.200	0.347	I *+	ug/Kg		174	40 - 150		
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)			2.00	2.38		ug/Kg		119	40 - 150		
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)			2.00	2.23		ug/Kg		112	40 - 150		
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)			0.800	0.868		ug/Kg		109	40 - 150		
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)			0.754	0.876		ug/Kg		116	40 - 150		
Perfluoro-4-methoxybutanoic acid (PFMBA)			0.400	0.396	J	ug/Kg		99	40 - 150		
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			0.400	0.471		ug/Kg		118	40 - 150		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid			0.746	0.830		ug/Kg		111	40 - 150		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid			0.754	0.755	J	ug/Kg		100	40 - 150		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			0.356	0.458		ug/Kg		129	40 - 150		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			1.00	0.936	J	ug/Kg		94	40 - 150		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			5.00	5.89		ug/Kg		118	40 - 150		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			5.00	5.52		ug/Kg		110	40 - 150		
Perfluorodecanesulfonic acid (PFDS)			0.193	0.187	J	ug/Kg		97	40 - 150		
Perfluoro-3-methoxypropanoic acid (PFMPA)			0.400	0.411		ug/Kg		103	40 - 150		

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*94.9*		*20 - 150*
13C5 PFPeA	*103*		*20 - 150*
13C5 PFHxA	*95.3*		*20 - 150*
13C4 PFHpA	*101*		*20 - 150*
13C8 PFOA	*86.6*		*20 - 150*
13C9 PFNA	*82.3*		*20 - 150*
13C6 PFDA	*95.1*		*20 - 150*
13C7 PFUnA	*85.4*		*20 - 150*
13C2 PFTeDA	*77.4*		*20 - 150*
13C3 PFBS	*84.1*		*20 - 150*
13C3 PFHxS	*86.8*		*20 - 150*
13C8 PFOS	*89.5*		*20 - 150*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 240-615785/2-A
Matrix: Solid
Analysis Batch: 615906

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 615785

Isotope Dilution	LLCS %Recovery	LLCS Qualifier	Limits
13C8 FOSA	71.1		20 - 150
d3-NMeFOSAA	85.6		20 - 150
d5-NEtFOSAA	80.5		20 - 150
M2-4:2 FTS	88.9		20 - 150
M2-6:2 FTS	104		20 - 150
M2-8:2 FTS	84.7		20 - 150
13C3 HFPO-DA	99.0		20 - 150
d7-N-MeFOSE-M	76.7		20 - 150
d9-N-EtFOSE-M	76.6		20 - 150
d5-NEtPFOSA	60.3		20 - 150
d3-NMePFOSA	66.5		20 - 150
13C2-PFDoDA	86.5		20 - 150

Lab Sample ID: MB 240-616481/1-A
Matrix: Solid
Analysis Batch: 616627

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 616481

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.80	0.20	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
Perfluoropentanoic acid (PFPeA)	ND		0.40	0.10	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
Perfluorohexanoic acid (PFHxA)	ND		0.20	0.050	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
Perfluoroheptanoic acid (PFHpA)	ND		0.20	0.050	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
Perfluorooctanoic acid (PFOA)	ND		0.20	0.050	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
Perfluorononanoic acid (PFNA)	ND		0.20	0.050	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
Perfluorodecanoic acid (PFDA)	ND		0.20	0.050	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
Perfluoroundecanoic acid (PFUnA)	ND		0.20	0.050	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
Perfluorododecanoic acid (PFDoA)	ND		0.20	0.050	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.20	0.050	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.20	0.050	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.20	0.050	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.20	0.050	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.20	0.050	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.20	0.050	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.20	0.050	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
Perfluorononanesulfonic acid (PFNS)	ND		0.20	0.050	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.20	0.050	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		0.80	0.20	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		0.80	0.20	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		0.80	0.20	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.20	0.050	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.20	0.050	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.20	0.050	ug/Kg		06/13/24 15:10	06/14/24 23:17	1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 240-616481/1-A
Matrix: Solid
Analysis Batch: 616627

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 616481

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.20	0.050	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.20	0.050	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		2.0	0.50	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		2.0	0.50	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.80	0.20	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.80	0.20	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.40	0.10	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.40	0.10	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		0.80	0.20	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		0.80	0.20	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.40	0.10	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1.0	0.25	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		5.0	1.3	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		5.0	1.3	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.20	0.050	ug/Kg		06/13/24 15:10	06/14/24 23:17	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.40	0.10	ug/Kg		06/13/24 15:10	06/14/24 23:17	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*106*		*20 - 150*	*06/13/24 15:10*	*06/14/24 23:17*	*1*
13C5 PFPeA	*101*		*20 - 150*	*06/13/24 15:10*	*06/14/24 23:17*	*1*
13C5 PFHxA	*105*		*20 - 150*	*06/13/24 15:10*	*06/14/24 23:17*	*1*
13C4 PFHpA	*103*		*20 - 150*	*06/13/24 15:10*	*06/14/24 23:17*	*1*
13C8 PFOA	*97.0*		*20 - 150*	*06/13/24 15:10*	*06/14/24 23:17*	*1*
13C9 PFNA	*110*		*20 - 150*	*06/13/24 15:10*	*06/14/24 23:17*	*1*
13C6 PFDA	*118*		*20 - 150*	*06/13/24 15:10*	*06/14/24 23:17*	*1*
13C7 PFUnA	*108*		*20 - 150*	*06/13/24 15:10*	*06/14/24 23:17*	*1*
13C2 PFTeDA	*101*		*20 - 150*	*06/13/24 15:10*	*06/14/24 23:17*	*1*
13C3 PFBS	*86.4*		*20 - 150*	*06/13/24 15:10*	*06/14/24 23:17*	*1*
13C3 PFHxS	*90.7*		*20 - 150*	*06/13/24 15:10*	*06/14/24 23:17*	*1*
13C8 PFOS	*101*		*20 - 150*	*06/13/24 15:10*	*06/14/24 23:17*	*1*
13C8 FOSA	*87.9*		*20 - 150*	*06/13/24 15:10*	*06/14/24 23:17*	*1*
d3-NMeFOSAA	*94.8*		*20 - 150*	*06/13/24 15:10*	*06/14/24 23:17*	*1*
d5-NEtFOSAA	*129*		*20 - 150*	*06/13/24 15:10*	*06/14/24 23:17*	*1*
M2-4:2 FTS	*105*		*20 - 150*	*06/13/24 15:10*	*06/14/24 23:17*	*1*
M2-6:2 FTS	*115*		*20 - 150*	*06/13/24 15:10*	*06/14/24 23:17*	*1*
M2-8:2 FTS	*109*		*20 - 150*	*06/13/24 15:10*	*06/14/24 23:17*	*1*
13C3 HFPO-DA	*101*		*20 - 150*	*06/13/24 15:10*	*06/14/24 23:17*	*1*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 240-616481/1-A
Matrix: Solid
Analysis Batch: 616627

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 616481

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
d7-N-MeFOSE-M	111		20 - 150	06/13/24 15:10	06/14/24 23:17	1
d9-N-EtFOSE-M	106		20 - 150	06/13/24 15:10	06/14/24 23:17	1
d5-NEtPFOSA	80.7		20 - 150	06/13/24 15:10	06/14/24 23:17	1
d3-NMePFOSA	83.5		20 - 150	06/13/24 15:10	06/14/24 23:17	1
13C2-PFDoDA	106		20 - 150	06/13/24 15:10	06/14/24 23:17	1

Lab Sample ID: LCS 240-616481/3-A
Matrix: Solid
Analysis Batch: 616627

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 616481

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	10.0	10.0		ug/Kg		100	40 - 150
Perfluoropentanoic acid (PFPeA)	5.00	5.27		ug/Kg		105	40 - 150
Perfluorohexanoic acid (PFHxA)	2.50	2.54		ug/Kg		102	40 - 150
Perfluoroheptanoic acid (PFHpA)	2.50	2.64		ug/Kg		105	40 - 150
Perfluorooctanoic acid (PFOA)	2.50	2.35		ug/Kg		94	40 - 150
Perfluorononanoic acid (PFNA)	2.50	2.45		ug/Kg		98	40 - 150
Perfluorodecanoic acid (PFDA)	2.50	2.18		ug/Kg		87	40 - 150
Perfluoroundecanoic acid (PFUnA)	2.50	2.40		ug/Kg		96	40 - 150
Perfluorododecanoic acid (PFDoA)	2.50	2.44		ug/Kg		97	40 - 150
Perfluorotridecanoic acid (PFTrDA)	2.50	2.48		ug/Kg		99	40 - 150
Perfluorotetradecanoic acid (PFTeDA)	2.50	2.66		ug/Kg		107	40 - 150
Perfluorobutanesulfonic acid (PFBS)	2.21	2.28		ug/Kg		103	40 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.35	2.58		ug/Kg		110	40 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.28	2.30		ug/Kg		101	40 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.38	2.60		ug/Kg		109	40 - 150
Perfluorooctanesulfonic acid (PFOS)	2.32	2.44		ug/Kg		105	40 - 150
Perfluorononanesulfonic acid (PFNS)	2.40	2.38		ug/Kg		99	40 - 150
Perfluorododecanesulfonic acid (PFDoS)	2.42	2.19		ug/Kg		91	40 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	9.34	10.4		ug/Kg		111	40 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	9.48	10.4		ug/Kg		110	40 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	9.58	9.77		ug/Kg		102	40 - 150
Perfluorooctanesulfonamide (PFOSA)	2.50	2.86		ug/Kg		114	40 - 150
N-methylperfluorooctane sulfonamide (NMeFOSA)	2.50	2.53		ug/Kg		101	40 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	2.50	2.44		ug/Kg		98	40 - 150

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 240-616481/3-A
Matrix: Solid
Analysis Batch: 616627

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 616481

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.50	2.80		ug/Kg		112	40 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.50	2.60		ug/Kg		104	40 - 150
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	25.0	25.1		ug/Kg		100	40 - 150
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	25.0	23.9		ug/Kg		96	40 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	10.0	10.6		ug/Kg		106	40 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	9.42	9.90		ug/Kg		105	40 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	5.00	5.33		ug/Kg		107	40 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	5.00	5.20		ug/Kg		104	40 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	9.32	10.3		ug/Kg		111	40 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	9.42	10.1		ug/Kg		108	40 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	4.45	4.78		ug/Kg		107	40 - 150
3-Perfluoropropylpropanoic acid (3:3 FTCA)	12.5	12.3		ug/Kg		98	40 - 150
3-Perfluoropentylpropanoic acid (5:3 FTCA)	62.5	60.3		ug/Kg		96	40 - 150
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	62.5	59.9		ug/Kg		96	40 - 150
Perfluorodecanesulfonic acid (PFDS)	2.41	2.32		ug/Kg		96	40 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	5.00	5.59		ug/Kg		112	40 - 150

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*97.9*		*20 - 150*
13C5 PFPeA	*93.7*		*20 - 150*
13C5 PFHxA	*96.9*		*20 - 150*
13C4 PFHpA	*100*		*20 - 150*
13C8 PFOA	*99.7*		*20 - 150*
13C9 PFNA	*99.2*		*20 - 150*
13C6 PFDA	*110*		*20 - 150*
13C7 PFUnA	*96.5*		*20 - 150*
13C2 PFTeDA	*83.6*		*20 - 150*
13C3 PFBS	*85.5*		*20 - 150*
13C3 PFHxS	*83.8*		*20 - 150*
13C8 PFOS	*96.9*		*20 - 150*
13C8 FOSA	*81.0*		*20 - 150*
d3-NMeFOSAA	*90.7*		*20 - 150*
d5-NEtFOSAA	*130*		*20 - 150*
M2-4:2 FTS	*84.7*		*20 - 150*
M2-6:2 FTS	*98.2*		*20 - 150*
M2-8:2 FTS	*91.7*		*20 - 150*
13C3 HFPO-DA	*99.1*		*20 - 150*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 240-616481/3-A
Matrix: Solid
Analysis Batch: 616627

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 616481

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
d7-N-MeFOSE-M	*104*		*20 - 150*
d9-N-EtFOSE-M	*98.8*		*20 - 150*
d5-NEtPFOSA	*74.4*		*20 - 150*
d3-NMePFOSA	*77.4*		*20 - 150*
13C2-PFDoDA	*95.4*		*20 - 150*

Lab Sample ID: LLCS 240-616481/2-A
Matrix: Solid
Analysis Batch: 616627

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 616481

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	0.800	0.790	J	ug/Kg		99	40 - 150
Perfluoropentanoic acid (PFPeA)	0.400	0.490		ug/Kg		122	40 - 150
Perfluorohexanoic acid (PFHxA)	0.200	0.210		ug/Kg		105	40 - 150
Perfluoroheptanoic acid (PFHpA)	0.200	0.208		ug/Kg		104	40 - 150
Perfluorooctanoic acid (PFOA)	0.200	0.280		ug/Kg		140	40 - 150
Perfluorononanoic acid (PFNA)	0.200	0.226		ug/Kg		113	40 - 150
Perfluorodecanoic acid (PFDA)	0.200	0.207		ug/Kg		103	40 - 150
Perfluoroundecanoic acid (PFUnA)	0.200	0.220		ug/Kg		110	40 - 150
Perfluorododecanoic acid (PFDoA)	0.200	0.197	J	ug/Kg		98	40 - 150
Perfluorotridecanoic acid (PFTrDA)	0.200	0.196	J	ug/Kg		98	40 - 150
Perfluorotetradecanoic acid (PFTeDA)	0.200	0.205		ug/Kg		103	40 - 150
Perfluorobutanesulfonic acid (PFBS)	0.177	0.165	J	ug/Kg		93	40 - 150
Perfluoropentanesulfonic acid (PFPeS)	0.188	0.208		ug/Kg		111	40 - 150
Perfluorohexanesulfonic acid (PFHxS)	0.182	0.188	J	ug/Kg		103	40 - 150
Perfluoroheptanesulfonic acid (PFHpS)	0.190	0.192	J	ug/Kg		101	40 - 150
Perfluorooctanesulfonic acid (PFOS)	0.186	0.221		ug/Kg		119	40 - 150
Perfluorononanesulfonic acid (PFNS)	0.192	0.201		ug/Kg		105	40 - 150
Perfluorododecanesulfonic acid (PFDoS)	0.194	0.185	J	ug/Kg		96	40 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	0.747	0.790	J	ug/Kg		106	40 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	0.758	0.871		ug/Kg		115	40 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	0.766	0.897		ug/Kg		117	40 - 150
Perfluorooctanesulfonamide (PFOSA)	0.200	0.204		ug/Kg		102	40 - 150
N-methylperfluorooctane sulfonamide (NMeFOSA)	0.200	0.226		ug/Kg		113	40 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	0.200	0.200		ug/Kg		100	40 - 150

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 240-616481/2-A
Matrix: Solid
Analysis Batch: 616627

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 616481

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.200	0.197	J	ug/Kg		98	40 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.200	0.200		ug/Kg		100	40 - 150
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	2.00	1.84	J	ug/Kg		92	40 - 150
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	2.00	1.92	J	ug/Kg		96	40 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	0.800	0.913		ug/Kg		114	40 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	0.754	0.865		ug/Kg		115	40 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	0.400	0.424		ug/Kg		106	40 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	0.400	0.425		ug/Kg		106	40 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	0.746	0.929		ug/Kg		125	40 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	0.754	0.864		ug/Kg		115	40 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	0.356	0.387	J	ug/Kg		109	40 - 150
3-Perfluoropropylpropanoic acid (3:3 FTCA)	1.00	1.03		ug/Kg		103	40 - 150
3-Perfluoropentylpropanoic acid (5:3 FTCA)	5.00	4.80	J	ug/Kg		96	40 - 150
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	5.00	4.65	J	ug/Kg		93	40 - 150
Perfluorodecanesulfonic acid (PFDS)	0.193	0.178	J	ug/Kg		92	40 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	0.400	0.467		ug/Kg		117	40 - 150

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*93.3*		*20 - 150*
13C5 PFPeA	*84.6*		*20 - 150*
13C5 PFHxA	*93.6*		*20 - 150*
13C4 PFHpA	*92.0*		*20 - 150*
13C8 PFOA	*88.2*		*20 - 150*
13C9 PFNA	*96.3*		*20 - 150*
13C6 PFDA	*107*		*20 - 150*
13C7 PFUnA	*96.2*		*20 - 150*
13C2 PFTeDA	*84.3*		*20 - 150*
13C3 PFBS	*85.6*		*20 - 150*
13C3 PFHxS	*85.3*		*20 - 150*
13C8 PFOS	*92.0*		*20 - 150*
13C8 FOSA	*70.6*		*20 - 150*
d3-NMeFOSAA	*89.1*		*20 - 150*
d5-NEtFOSAA	*156*	*5+	*20 - 150*
M2-4:2 FTS	*90.9*		*20 - 150*
M2-6:2 FTS	*106*		*20 - 150*
M2-8:2 FTS	*90.0*		*20 - 150*
13C3 HFPO-DA	*88.8*		*20 - 150*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 240-616481/2-A
Matrix: Solid
Analysis Batch: 616627

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 616481

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
d7-N-MeFOSE-M	*96.9*		*20 - 150*
d9-N-EtFOSE-M	*93.2*		*20 - 150*
d5-NEtPFOSA	*66.1*		*20 - 150*
d3-NMePFOSA	*66.8*		*20 - 150*
13C2-PFDoDA	*96.6*		*20 - 150*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-714545/1-A
Matrix: Solid
Analysis Batch: 714797

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714545

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		9.7	8.4	mg/Kg		06/05/24 15:25	06/06/24 16:16	1
Antimony	ND		14.6	0.52	mg/Kg		06/05/24 15:25	06/06/24 16:16	1
Arsenic	ND		1.9	0.86	mg/Kg		06/05/24 15:25	06/06/24 16:16	1
Barium	ND		0.49	0.14	mg/Kg		06/05/24 15:25	06/06/24 16:16	1
Beryllium	ND		0.19	0.039	mg/Kg		06/05/24 15:25	06/06/24 16:16	1
Cadmium	ND		0.19	0.068	mg/Kg		06/05/24 15:25	06/06/24 16:16	1
Calcium	ND		48.6	26.3	mg/Kg		06/05/24 15:25	06/06/24 16:16	1
Chromium	ND		0.49	0.35	mg/Kg		06/05/24 15:25	06/06/24 16:16	1
Cobalt	ND		0.49	0.097	mg/Kg		06/05/24 15:25	06/06/24 16:16	1
Copper	ND		0.97	0.55	mg/Kg		06/05/24 15:25	06/06/24 16:16	1
Iron	9.53	J	9.7	8.2	mg/Kg		06/05/24 15:25	06/06/24 16:16	1
Lead	ND		0.97	0.45	mg/Kg		06/05/24 15:25	06/06/24 16:16	1
Magnesium	ND		19.5	8.2	mg/Kg		06/05/24 15:25	06/06/24 16:16	1
Manganese	ND		0.97	0.27	mg/Kg		06/05/24 15:25	06/06/24 16:16	1
Nickel	ND		4.9	0.24	mg/Kg		06/05/24 15:25	06/06/24 16:16	1
Potassium	ND		29.2	23.6	mg/Kg		06/05/24 15:25	06/06/24 16:16	1
Selenium	ND		3.9	0.78	mg/Kg		06/05/24 15:25	06/06/24 16:16	1
Silver	ND		0.58	0.19	mg/Kg		06/05/24 15:25	06/06/24 16:16	1
Sodium	ND		136	59.6	mg/Kg		06/05/24 15:25	06/06/24 16:16	1
Thallium	ND		5.8	0.74	mg/Kg		06/05/24 15:25	06/06/24 16:16	1
Vanadium	ND		0.49	0.13	mg/Kg		06/05/24 15:25	06/06/24 16:16	1
Zinc	ND		1.9	0.99	mg/Kg		06/05/24 15:25	06/06/24 16:16	1

Lab Sample ID: LCSSRM 480-714545/2-A
Matrix: Solid
Analysis Batch: 714797

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714545

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	10600	10900		mg/Kg		102.8	52.7 - 148.1
Antimony	59.8	98.81		mg/Kg		165.2	46.2 - 633.8
Arsenic	180	168.9		mg/Kg		93.8	70.0 - 130.0
Barium	431	400.1		mg/Kg		92.8	74.9 - 125.1
Beryllium	121	120.4		mg/Kg		99.5	74.8 - 124.8

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 480-714545/2-A
Matrix: Solid
Analysis Batch: 714797

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714545

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Cadmium	199	191.1		mg/Kg		96.0	74.9 - 125.1
Calcium	5760	5580		mg/Kg		96.9	73.6 - 126.4
Chromium	210	203.7		mg/Kg		97.0	70.0 - 130.0
Cobalt	237	252.9		mg/Kg		106.7	75.1 - 124.9
Copper	229	209.1		mg/Kg		91.3	75.1 - 124.9
Iron	9280	8681		mg/Kg		93.5	18.4 - 181.0
Lead	261	271.1		mg/Kg		103.9	78.2 - 121.1
Magnesium	2520	2341		mg/Kg		92.9	63.5 - 136.5
Manganese	316	283.2		mg/Kg		89.6	74.7 - 125.0
Nickel	108	106.2		mg/Kg		98.3	69.8 - 129.6
Potassium	2100	2090		mg/Kg		99.5	70.0 - 130.0
Selenium	117	102.5		mg/Kg		87.6	65.8 - 133.3
Silver	65.5	63.95		mg/Kg		97.6	70.5 - 129.3
Sodium	442	413.3		mg/Kg		93.5	58.6 - 141.4
Thallium	144	154.6		mg/Kg		107.3	70.1 - 129.9
Vanadium	183	164.5		mg/Kg		89.9	68.9 - 119.1
Zinc	264	253.5		mg/Kg		96.0	69.7 - 129.5

Lab Sample ID: 480-220474-1 MS
Matrix: Solid
Analysis Batch: 714797

Client Sample ID: SED-06
Prep Type: Total/NA
Prep Batch: 714545

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	7710		1790	15510	4	mg/Kg	☼	436	75 - 125
Antimony	ND		175	113.3	F1	mg/Kg	☼	65	75 - 125
Arsenic	76.2		351	419.3		mg/Kg	☼	98	75 - 125
Barium	1080		351	1022	F1	mg/Kg	☼	-16	75 - 125
Beryllium	0.50		175	167.6		mg/Kg	☼	95	75 - 125
Cadmium	4.5		175	171.9		mg/Kg	☼	95	75 - 125
Cobalt	23.8		175	190.3		mg/Kg	☼	95	75 - 125
Copper	450		175	749.1	F1	mg/Kg	☼	171	75 - 125
Iron	39500	B	1790	37910	4	mg/Kg	☼	-88	75 - 125
Lead	2300		175	2943	4	mg/Kg	☼	365	75 - 125
Magnesium	14200		8770	20050	F1	mg/Kg	☼	67	75 - 125
Manganese	547		175	663.9	F1	mg/Kg	☼	67	75 - 125
Nickel	192		175	422.4	F1	mg/Kg	☼	131	75 - 125

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-220474-1 MS
Matrix: Solid
Analysis Batch: 714797

Client Sample ID: SED-06
Prep Type: Total/NA
Prep Batch: 714545

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Potassium	1410		8770	11110		mg/Kg	☼	111	75 - 125
Selenium	25.1		351	294.4		mg/Kg	☼	77	75 - 125
Silver	0.62	J	17.5	17.13		mg/Kg	☼	94	75 - 125
Sodium	914		8770	9411		mg/Kg	☼	97	75 - 125
Thallium	3.1	J	351	328.7		mg/Kg	☼	93	75 - 125
Vanadium	139		175	337.4		mg/Kg	☼	113	75 - 125
Zinc	2930		175	3126	4	mg/Kg	☼	111	75 - 125

Lab Sample ID: 480-220474-1 MS
Matrix: Solid
Analysis Batch: 714898

Client Sample ID: SED-06
Prep Type: Total/NA
Prep Batch: 714545

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	218000		8770	158500	4	mg/Kg	☼	-680	75 - 125
Chromium	8210		175	9672	4	mg/Kg	☼	833	75 - 125

Lab Sample ID: 480-220474-1 MSD
Matrix: Solid
Analysis Batch: 714797

Client Sample ID: SED-06
Prep Type: Total/NA
Prep Batch: 714545

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	7710		1680	13200	4	mg/Kg	☼	328	75 - 125	16	20
Antimony	ND		164	106.2	F1	mg/Kg	☼	65	75 - 125	7	20
Arsenic	76.2		329	400.3		mg/Kg	☼	99	75 - 125	5	20
Barium	1080		329	1243	F1	mg/Kg	☼	50	75 - 125	19	20
Beryllium	0.50		164	154.8		mg/Kg	☼	94	75 - 125	8	20
Cadmium	4.5		164	161.0		mg/Kg	☼	95	75 - 125	7	20
Cobalt	23.8		164	180.0		mg/Kg	☼	95	75 - 125	6	20
Copper	450		164	681.1	F1	mg/Kg	☼	141	75 - 125	10	20
Iron	39500	B	1680	39790	4	mg/Kg	☼	18	75 - 125	5	20
Lead	2300		164	2733	4	mg/Kg	☼	262	75 - 125	7	20
Magnesium	14200		8220	20570		mg/Kg	☼	78	75 - 125	3	20
Manganese	547		164	700.7		mg/Kg	☼	94	75 - 125	5	20
Nickel	192		164	355.5		mg/Kg	☼	100	75 - 125	17	20
Potassium	1410		8220	10130		mg/Kg	☼	106	75 - 125	9	20
Selenium	25.1		329	287.9		mg/Kg	☼	80	75 - 125	2	20
Silver	0.62	J	16.4	15.99		mg/Kg	☼	94	75 - 125	7	20
Sodium	914		8220	8830		mg/Kg	☼	96	75 - 125	6	20
Thallium	3.1	J	329	303.4		mg/Kg	☼	91	75 - 125	8	20
Vanadium	139		164	297.9		mg/Kg	☼	97	75 - 125	12	20
Zinc	2930		164	3156	4	mg/Kg	☼	136	75 - 125	1	20

Lab Sample ID: 480-220474-1 MSD
Matrix: Solid
Analysis Batch: 714898

Client Sample ID: SED-06
Prep Type: Total/NA
Prep Batch: 714545

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	218000		8220	195900	4 F2	mg/Kg	☼	-271	75 - 125	21	20
Chromium	8210		164	9778	4	mg/Kg	☼	953	75 - 125	1	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 480-714628/1-A
Matrix: Solid
Analysis Batch: 714714

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714628

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.0046	mg/Kg		06/06/24 08:50	06/06/24 11:38	1

Lab Sample ID: LCSSRM 480-714628/2-A ^10
Matrix: Solid
Analysis Batch: 714714

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714628

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	19.1	21.10		mg/Kg		110.5	59.7 - 139.8

Lab Sample ID: 480-220474-1 MS
Matrix: Solid
Analysis Batch: 714714

Client Sample ID: SED-06
Prep Type: Total/NA
Prep Batch: 714628

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	4.6		0.556	6.57	4	mg/Kg	☼	348	80 - 120

Lab Sample ID: 480-220474-1 MSD
Matrix: Solid
Analysis Batch: 714714

Client Sample ID: SED-06
Prep Type: Total/NA
Prep Batch: 714628

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	4.6		0.563	4.82	4 F2	mg/Kg	☼	32	80 - 120	31	20

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 480-714887/1-A
Matrix: Solid
Analysis Batch: 714906

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 714887

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.99	0.48	mg/Kg		06/07/24 12:22	06/07/24 15:50	1

Lab Sample ID: LCS 480-714887/3-A
Matrix: Solid
Analysis Batch: 714906

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714887

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.400	0.380		mg/Kg		95	29 - 122

Lab Sample ID: LCS 480-714887/4-A
Matrix: Solid
Analysis Batch: 714906

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714887

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.250	0.238		mg/Kg		95	29 - 122

Method: 9012B - Cyanide, Total andor Amenable (Continued)

Lab Sample ID: LCSSRM 480-714887/2-A ^10
Matrix: Solid
Analysis Batch: 714906

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 714887

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total			154	42.87		mg/Kg		27.8	20.6 - 120.8		

Lab Sample ID: 480-220474-1 MS
Matrix: Solid
Analysis Batch: 714906

Client Sample ID: SED-06
Prep Type: Total/NA
Prep Batch: 714887

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total	5.2	F1 F2	1.85	5.25	F1	mg/Kg	☼	4	85 - 115		

Lab Sample ID: 480-220474-1 MSD
Matrix: Solid
Analysis Batch: 714906

Client Sample ID: SED-06
Prep Type: Total/NA
Prep Batch: 714887

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyanide, Total	5.2	F1 F2	1.90	6.98	F2	mg/Kg	☼	95	85 - 115	28	15

Lab Sample ID: 480-220474-7 MS
Matrix: Solid
Analysis Batch: 714906

Client Sample ID: SED-11
Prep Type: Total/NA
Prep Batch: 714887

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total	7.3	F1	2.23	5.86	F1	mg/Kg	☼	-63	85 - 115		

Lab Sample ID: MB 480-715215/1-A
Matrix: Solid
Analysis Batch: 715244

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 715215

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.92	0.44	mg/Kg		06/11/24 12:20	06/11/24 15:53	1

Lab Sample ID: LCS 480-715215/3-A
Matrix: Solid
Analysis Batch: 715244

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 715215

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total			0.400	0.373		mg/Kg		93	29 - 122		

Lab Sample ID: LCS 480-715215/4-A
Matrix: Solid
Analysis Batch: 715244

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 715215

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total			0.250	0.242		mg/Kg		97	29 - 122		

Method: 9012B - Cyanide, Total andor Amenable (Continued)

Lab Sample ID: LCSSRM 480-715215/2-A ^10
Matrix: Solid
Analysis Batch: 715244

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 715215

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total			154	39.79		mg/Kg		25.8	20.6 - 120.8		

Lab Sample ID: 480-220474-12 MS
Matrix: Solid
Analysis Batch: 715244

Client Sample ID: SED-15
Prep Type: Total/NA
Prep Batch: 715215

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total	6.6		1.30	2.22	4	mg/Kg	☼	-334	85 - 115		

Method: EPA-Lloyd Kahn - Organic Carbon, Total (TOC)

Lab Sample ID: MB 180-471505/4
Matrix: Solid
Analysis Batch: 471505

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1000	971	mg/Kg			06/13/24 13:59	1

Lab Sample ID: LCS 180-471505/5
Matrix: Solid
Analysis Batch: 471505

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon			40000	35950		mg/Kg		90	75 - 125		

Lab Sample ID: 480-220474-1 MS
Matrix: Solid
Analysis Batch: 471505

Client Sample ID: SED-06
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon	231000	F2	43100	247000	4	mg/Kg	☼	37	75 - 125		

Lab Sample ID: 480-220474-1 MSD
Matrix: Solid
Analysis Batch: 471505

Client Sample ID: SED-06
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	231000	F2	43900	309100	4 F2	mg/Kg	☼	177	75 - 125	22	20

Lab Sample ID: MB 180-471678/4
Matrix: Solid
Analysis Batch: 471678

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1000	971	mg/Kg			06/14/24 14:00	1

Method: EPA-Lloyd Kahn - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: MB 180-472359/4
Matrix: Solid
Analysis Batch: 472359

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1000	971	mg/Kg			06/24/24 10:03	1

Lab Sample ID: LCS 180-472359/5
Matrix: Solid
Analysis Batch: 472359

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon			40000	35470		mg/Kg		89	75 - 125		

Lab Sample ID: LCSD 180-472359/6
Matrix: Solid
Analysis Batch: 472359

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon			40000	35770		mg/Kg		89	75 - 125	1	20

Lab Sample ID: 480-220474-1 MS
Matrix: Solid
Analysis Batch: 472359

Client Sample ID: SED-06
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon	251000	H	70700	313900	H	mg/Kg	☼	88	75 - 125		

Lab Sample ID: 480-220474-1 MSD
Matrix: Solid
Analysis Batch: 472359

Client Sample ID: SED-06
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	244000	H	69400	324400	H	mg/Kg	☼	116	75 - 125	3	20

QC Association Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220474-1

GC/MS VOA

Analysis Batch: 714630

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220474-1	SED-06	Total/NA	Solid	8260C	714650
480-220474-2	SED-07	Total/NA	Solid	8260C	714650
480-220474-3	SED-08	Total/NA	Solid	8260C	714650
480-220474-4	SED-08-FD	Total/NA	Solid	8260C	714650
480-220474-5	SED-09	Total/NA	Solid	8260C	714650
480-220474-6	SED-10	Total/NA	Solid	8260C	714650
480-220474-7	SED-11	Total/NA	Solid	8260C	714650
480-220474-8	SED-11-FD	Total/NA	Solid	8260C	714650
480-220474-9	SED-12	Total/NA	Solid	8260C	714650
480-220474-10	SED-13	Total/NA	Solid	8260C	714650
480-220474-11	SED-14	Total/NA	Solid	8260C	714650
480-220474-12	SED-15	Total/NA	Solid	8260C	714650
MB 480-714650/3-A	Method Blank	Total/NA	Solid	8260C	714650
LCS 480-714650/1-A	Lab Control Sample	Total/NA	Solid	8260C	714650
480-220474-1 MS	SED-06	Total/NA	Solid	8260C	714650
480-220474-1 MSD	SED-06	Total/NA	Solid	8260C	714650

Prep Batch: 714650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220474-1	SED-06	Total/NA	Solid	5035A_H	
480-220474-2	SED-07	Total/NA	Solid	5035A_H	
480-220474-3	SED-08	Total/NA	Solid	5035A_H	
480-220474-4	SED-08-FD	Total/NA	Solid	5035A_H	
480-220474-5	SED-09	Total/NA	Solid	5035A_H	
480-220474-6	SED-10	Total/NA	Solid	5035A_H	
480-220474-7	SED-11	Total/NA	Solid	5035A_H	
480-220474-8	SED-11-FD	Total/NA	Solid	5035A_H	
480-220474-9	SED-12	Total/NA	Solid	5035A_H	
480-220474-10	SED-13	Total/NA	Solid	5035A_H	
480-220474-11	SED-14	Total/NA	Solid	5035A_H	
480-220474-12	SED-15	Total/NA	Solid	5035A_H	
MB 480-714650/3-A	Method Blank	Total/NA	Solid	5035A_H	
LCS 480-714650/1-A	Lab Control Sample	Total/NA	Solid	5035A_H	
480-220474-1 MS	SED-06	Total/NA	Solid	5035A_H	
480-220474-1 MSD	SED-06	Total/NA	Solid	5035A_H	

GC/MS Semi VOA

Prep Batch: 714779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220474-13	SED-06	Total/NA	Waste	3580A	
480-220474-14	SED-07	Total/NA	Waste	3580A	
480-220474-15	SED-08	Total/NA	Waste	3580A	
480-220474-16	SED-08-FD	Total/NA	Waste	3580A	
480-220474-17	SED-09	Total/NA	Waste	3580A	
480-220474-18	SED-10	Total/NA	Waste	3580A	
480-220474-19	SED-11	Total/NA	Waste	3580A	
480-220474-20	SED-11-FD	Total/NA	Waste	3580A	
480-220474-21	SED-12	Total/NA	Waste	3580A	
480-220474-22	SED-13	Total/NA	Waste	3580A	
480-220474-23	SED-14	Total/NA	Waste	3580A	

GC/MS Semi VOA (Continued)

Prep Batch: 714779 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220474-24	SED-15	Total/NA	Waste	3580A	
MB 480-714779/1-A	Method Blank	Total/NA	Waste	3580A	
LCS 480-714779/2-A	Lab Control Sample	Total/NA	Waste	3580A	
480-220474-13 MS	SED-06	Total/NA	Waste	3580A	
480-220474-13 MSD	SED-06	Total/NA	Waste	3580A	

Analysis Batch: 715000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220474-13	SED-06	Total/NA	Waste	8270D	714779
480-220474-14	SED-07	Total/NA	Waste	8270D	714779
480-220474-17	SED-09	Total/NA	Waste	8270D	714779
480-220474-20	SED-11-FD	Total/NA	Waste	8270D	714779
480-220474-21	SED-12	Total/NA	Waste	8270D	714779
480-220474-24	SED-15	Total/NA	Waste	8270D	714779
MB 480-714779/1-A	Method Blank	Total/NA	Waste	8270D	714779
480-220474-13 MS	SED-06	Total/NA	Waste	8270D	714779
480-220474-13 MSD	SED-06	Total/NA	Waste	8270D	714779

Analysis Batch: 715300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220474-15	SED-08	Total/NA	Waste	8270D	714779
480-220474-16	SED-08-FD	Total/NA	Waste	8270D	714779
480-220474-18	SED-10	Total/NA	Waste	8270D	714779
480-220474-19	SED-11	Total/NA	Waste	8270D	714779
480-220474-22	SED-13	Total/NA	Waste	8270D	714779
480-220474-23	SED-14	Total/NA	Waste	8270D	714779

Analysis Batch: 715466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-714779/2-A	Lab Control Sample	Total/NA	Waste	8270D	714779

GC Semi VOA

Prep Batch: 714668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220474-13	SED-06	Total/NA	Waste	3580A	
480-220474-14	SED-07	Total/NA	Waste	3580A	
480-220474-15	SED-08	Total/NA	Waste	3580A	
480-220474-16	SED-08-FD	Total/NA	Waste	3580A	
480-220474-17	SED-09	Total/NA	Waste	3580A	
480-220474-18	SED-10	Total/NA	Waste	3580A	
480-220474-19	SED-11	Total/NA	Waste	3580A	
480-220474-20	SED-11-FD	Total/NA	Waste	3580A	
480-220474-21	SED-12	Total/NA	Waste	3580A	
480-220474-22	SED-13	Total/NA	Waste	3580A	
480-220474-23	SED-14	Total/NA	Waste	3580A	
480-220474-24	SED-15	Total/NA	Waste	3580A	
MB 480-714668/1-A	Method Blank	Total/NA	Waste	3580A	
LCS 480-714668/2-A	Lab Control Sample	Total/NA	Waste	3580A	
480-220474-13 MS	SED-06	Total/NA	Waste	3580A	
480-220474-13 MSD	SED-06	Total/NA	Waste	3580A	

GC Semi VOA

Analysis Batch: 714777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220474-13	SED-06	Total/NA	Waste	8081B	714668
480-220474-14	SED-07	Total/NA	Waste	8081B	714668
480-220474-15	SED-08	Total/NA	Waste	8081B	714668
480-220474-16	SED-08-FD	Total/NA	Waste	8081B	714668
480-220474-17	SED-09	Total/NA	Waste	8081B	714668
480-220474-18	SED-10	Total/NA	Waste	8081B	714668
480-220474-19	SED-11	Total/NA	Waste	8081B	714668
480-220474-20	SED-11-FD	Total/NA	Waste	8081B	714668
480-220474-21	SED-12	Total/NA	Waste	8081B	714668
480-220474-22	SED-13	Total/NA	Waste	8081B	714668
480-220474-23	SED-14	Total/NA	Waste	8081B	714668
480-220474-24	SED-15	Total/NA	Waste	8081B	714668
MB 480-714668/1-A	Method Blank	Total/NA	Waste	8081B	714668
LCS 480-714668/2-A	Lab Control Sample	Total/NA	Waste	8081B	714668
480-220474-13 MS	SED-06	Total/NA	Waste	8081B	714668
480-220474-13 MSD	SED-06	Total/NA	Waste	8081B	714668

Prep Batch: 714782

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220474-13	SED-06	Total/NA	Waste	3580A	
480-220474-14	SED-07	Total/NA	Waste	3580A	
480-220474-15	SED-08	Total/NA	Waste	3580A	
480-220474-16	SED-08-FD	Total/NA	Waste	3580A	
480-220474-17	SED-09	Total/NA	Waste	3580A	
480-220474-18	SED-10	Total/NA	Waste	3580A	
480-220474-19	SED-11	Total/NA	Waste	3580A	
480-220474-20	SED-11-FD	Total/NA	Waste	3580A	
480-220474-21	SED-12	Total/NA	Waste	3580A	
480-220474-22	SED-13	Total/NA	Waste	3580A	
480-220474-23	SED-14	Total/NA	Waste	3580A	
480-220474-24	SED-15	Total/NA	Waste	3580A	
MB 480-714782/1-A	Method Blank	Total/NA	Waste	3580A	
LCS 480-714782/2-A	Lab Control Sample	Total/NA	Waste	3580A	
480-220474-13 MS	SED-06	Total/NA	Waste	3580A	
480-220474-13 MSD	SED-06	Total/NA	Waste	3580A	

Analysis Batch: 714970

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220474-13	SED-06	Total/NA	Waste	8082A	714782
480-220474-14	SED-07	Total/NA	Waste	8082A	714782
480-220474-15	SED-08	Total/NA	Waste	8082A	714782
480-220474-16	SED-08-FD	Total/NA	Waste	8082A	714782
480-220474-17	SED-09	Total/NA	Waste	8082A	714782
480-220474-18	SED-10	Total/NA	Waste	8082A	714782
480-220474-19	SED-11	Total/NA	Waste	8082A	714782
480-220474-20	SED-11-FD	Total/NA	Waste	8082A	714782
480-220474-21	SED-12	Total/NA	Waste	8082A	714782
480-220474-22	SED-13	Total/NA	Waste	8082A	714782
480-220474-23	SED-14	Total/NA	Waste	8082A	714782
480-220474-24	SED-15	Total/NA	Waste	8082A	714782
LCS 480-714782/2-A	Lab Control Sample	Total/NA	Waste	8082A	714782

GC Semi VOA (Continued)

Analysis Batch: 714970 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220474-13 MS	SED-06	Total/NA	Waste	8082A	714782
480-220474-13 MSD	SED-06	Total/NA	Waste	8082A	714782

Analysis Batch: 715253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-714782/1-A	Method Blank	Total/NA	Waste	8082A	714782

LCMS

Prep Batch: 615785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220474-1	SED-06	Total/NA	Solid	1633 Shake	
480-220474-1 - DL	SED-06	Total/NA	Solid	1633 Shake	
480-220474-3	SED-08	Total/NA	Solid	1633 Shake	
480-220474-4	SED-08-FD	Total/NA	Solid	1633 Shake	
480-220474-6	SED-10	Total/NA	Solid	1633 Shake	
480-220474-9	SED-12	Total/NA	Solid	1633 Shake	
MB 240-615785/1-A	Method Blank	Total/NA	Solid	1633 Shake	
LCS 240-615785/3-A	Lab Control Sample	Total/NA	Solid	1633 Shake	
LLCS 240-615785/2-A	Lab Control Sample	Total/NA	Solid	1633 Shake	

Analysis Batch: 615906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220474-1	SED-06	Total/NA	Solid	1633	615785
480-220474-3	SED-08	Total/NA	Solid	1633	615785
480-220474-4	SED-08-FD	Total/NA	Solid	1633	615785
480-220474-6	SED-10	Total/NA	Solid	1633	615785
480-220474-9	SED-12	Total/NA	Solid	1633	615785
MB 240-615785/1-A	Method Blank	Total/NA	Solid	1633	615785
LCS 240-615785/3-A	Lab Control Sample	Total/NA	Solid	1633	615785
LLCS 240-615785/2-A	Lab Control Sample	Total/NA	Solid	1633	615785

Analysis Batch: 616342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220474-1	SED-06	Total/NA	Solid	1633	615785
480-220474-3	SED-08	Total/NA	Solid	1633	615785
480-220474-4	SED-08-FD	Total/NA	Solid	1633	615785
480-220474-6	SED-10	Total/NA	Solid	1633	615785

Prep Batch: 616481

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220474-9	SED-12	Total/NA	Solid	1633 Shake	
MB 240-616481/1-A	Method Blank	Total/NA	Solid	1633 Shake	
LCS 240-616481/3-A	Lab Control Sample	Total/NA	Solid	1633 Shake	
LLCS 240-616481/2-A	Lab Control Sample	Total/NA	Solid	1633 Shake	

Analysis Batch: 616541

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220474-1 - DL	SED-06	Total/NA	Solid	1633	615785

LCMS

Analysis Batch: 616627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220474-9	SED-12	Total/NA	Solid	1633	616481
MB 240-616481/1-A	Method Blank	Total/NA	Solid	1633	616481
LCS 240-616481/3-A	Lab Control Sample	Total/NA	Solid	1633	616481
LLCS 240-616481/2-A	Lab Control Sample	Total/NA	Solid	1633	616481

Metals

Prep Batch: 714545

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220474-1	SED-06	Total/NA	Solid	3050B	
480-220474-2	SED-07	Total/NA	Solid	3050B	
480-220474-3	SED-08	Total/NA	Solid	3050B	
480-220474-4	SED-08-FD	Total/NA	Solid	3050B	
480-220474-5	SED-09	Total/NA	Solid	3050B	
480-220474-6	SED-10	Total/NA	Solid	3050B	
480-220474-7	SED-11	Total/NA	Solid	3050B	
480-220474-8	SED-11-FD	Total/NA	Solid	3050B	
480-220474-9	SED-12	Total/NA	Solid	3050B	
480-220474-10	SED-13	Total/NA	Solid	3050B	
480-220474-11	SED-14	Total/NA	Solid	3050B	
480-220474-12	SED-15	Total/NA	Solid	3050B	
MB 480-714545/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 480-714545/2-A	Lab Control Sample	Total/NA	Solid	3050B	
480-220474-1 MS	SED-06	Total/NA	Solid	3050B	
480-220474-1 MSD	SED-06	Total/NA	Solid	3050B	

Prep Batch: 714628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220474-1	SED-06	Total/NA	Solid	7471B	
480-220474-2	SED-07	Total/NA	Solid	7471B	
480-220474-3	SED-08	Total/NA	Solid	7471B	
480-220474-4	SED-08-FD	Total/NA	Solid	7471B	
480-220474-5	SED-09	Total/NA	Solid	7471B	
480-220474-6	SED-10	Total/NA	Solid	7471B	
480-220474-7	SED-11	Total/NA	Solid	7471B	
480-220474-8	SED-11-FD	Total/NA	Solid	7471B	
480-220474-9	SED-12	Total/NA	Solid	7471B	
480-220474-10	SED-13	Total/NA	Solid	7471B	
480-220474-11	SED-14	Total/NA	Solid	7471B	
480-220474-12	SED-15	Total/NA	Solid	7471B	
MB 480-714628/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 480-714628/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	
480-220474-1 MS	SED-06	Total/NA	Solid	7471B	
480-220474-1 MSD	SED-06	Total/NA	Solid	7471B	

Analysis Batch: 714714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220474-1	SED-06	Total/NA	Solid	7471B	714628
480-220474-2	SED-07	Total/NA	Solid	7471B	714628
480-220474-3	SED-08	Total/NA	Solid	7471B	714628
480-220474-4	SED-08-FD	Total/NA	Solid	7471B	714628

Metals (Continued)

Analysis Batch: 714714 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220474-5	SED-09	Total/NA	Solid	7471B	714628
480-220474-6	SED-10	Total/NA	Solid	7471B	714628
480-220474-7	SED-11	Total/NA	Solid	7471B	714628
480-220474-8	SED-11-FD	Total/NA	Solid	7471B	714628
480-220474-9	SED-12	Total/NA	Solid	7471B	714628
480-220474-10	SED-13	Total/NA	Solid	7471B	714628
480-220474-11	SED-14	Total/NA	Solid	7471B	714628
480-220474-12	SED-15	Total/NA	Solid	7471B	714628
MB 480-714628/1-A	Method Blank	Total/NA	Solid	7471B	714628
LCSSRM 480-714628/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	714628
480-220474-1 MS	SED-06	Total/NA	Solid	7471B	714628
480-220474-1 MSD	SED-06	Total/NA	Solid	7471B	714628

Analysis Batch: 714797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220474-1	SED-06	Total/NA	Solid	6010C	714545
480-220474-2	SED-07	Total/NA	Solid	6010C	714545
480-220474-3	SED-08	Total/NA	Solid	6010C	714545
480-220474-4	SED-08-FD	Total/NA	Solid	6010C	714545
480-220474-5	SED-09	Total/NA	Solid	6010C	714545
480-220474-6	SED-10	Total/NA	Solid	6010C	714545
480-220474-7	SED-11	Total/NA	Solid	6010C	714545
480-220474-8	SED-11-FD	Total/NA	Solid	6010C	714545
480-220474-9	SED-12	Total/NA	Solid	6010C	714545
480-220474-10	SED-13	Total/NA	Solid	6010C	714545
480-220474-11	SED-14	Total/NA	Solid	6010C	714545
480-220474-12	SED-15	Total/NA	Solid	6010C	714545
MB 480-714545/1-A	Method Blank	Total/NA	Solid	6010C	714545
LCSSRM 480-714545/2-A	Lab Control Sample	Total/NA	Solid	6010C	714545
480-220474-1 MS	SED-06	Total/NA	Solid	6010C	714545
480-220474-1 MSD	SED-06	Total/NA	Solid	6010C	714545

Analysis Batch: 714898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220474-1	SED-06	Total/NA	Solid	6010C	714545
480-220474-2	SED-07	Total/NA	Solid	6010C	714545
480-220474-3	SED-08	Total/NA	Solid	6010C	714545
480-220474-4	SED-08-FD	Total/NA	Solid	6010C	714545
480-220474-5	SED-09	Total/NA	Solid	6010C	714545
480-220474-6	SED-10	Total/NA	Solid	6010C	714545
480-220474-7	SED-11	Total/NA	Solid	6010C	714545
480-220474-8	SED-11-FD	Total/NA	Solid	6010C	714545
480-220474-9	SED-12	Total/NA	Solid	6010C	714545
480-220474-10	SED-13	Total/NA	Solid	6010C	714545
480-220474-11	SED-14	Total/NA	Solid	6010C	714545
480-220474-12	SED-15	Total/NA	Solid	6010C	714545
480-220474-1 MS	SED-06	Total/NA	Solid	6010C	714545
480-220474-1 MSD	SED-06	Total/NA	Solid	6010C	714545

General Chemistry

Analysis Batch: 471505

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220474-1	SED-06	Total/NA	Solid	EPA-Lloyd Kahn	
480-220474-2	SED-07	Total/NA	Solid	EPA-Lloyd Kahn	
480-220474-3	SED-08	Total/NA	Solid	EPA-Lloyd Kahn	
480-220474-4	SED-08-FD	Total/NA	Solid	EPA-Lloyd Kahn	
MB 180-471505/4	Method Blank	Total/NA	Solid	EPA-Lloyd Kahn	
LCS 180-471505/5	Lab Control Sample	Total/NA	Solid	EPA-Lloyd Kahn	
480-220474-1 MS	SED-06	Total/NA	Solid	EPA-Lloyd Kahn	
480-220474-1 MSD	SED-06	Total/NA	Solid	EPA-Lloyd Kahn	

Analysis Batch: 471678

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220474-5	SED-09	Total/NA	Solid	EPA-Lloyd Kahn	
480-220474-6	SED-10	Total/NA	Solid	EPA-Lloyd Kahn	
480-220474-7	SED-11	Total/NA	Solid	EPA-Lloyd Kahn	
480-220474-8	SED-11-FD	Total/NA	Solid	EPA-Lloyd Kahn	
480-220474-9	SED-12	Total/NA	Solid	EPA-Lloyd Kahn	
480-220474-10	SED-13	Total/NA	Solid	EPA-Lloyd Kahn	
480-220474-11	SED-14	Total/NA	Solid	EPA-Lloyd Kahn	
480-220474-12	SED-15	Total/NA	Solid	EPA-Lloyd Kahn	
MB 180-471678/4	Method Blank	Total/NA	Solid	EPA-Lloyd Kahn	
LCS 180-471678/5	Lab Control Sample	Total/NA	Solid	EPA-Lloyd Kahn	
LCSD 180-471678/6	Lab Control Sample Dup	Total/NA	Solid	EPA-Lloyd Kahn	

Analysis Batch: 472359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220474-1	SED-06	Total/NA	Solid	EPA-Lloyd Kahn	
480-220474-2	SED-07	Total/NA	Solid	EPA-Lloyd Kahn	
480-220474-3	SED-08	Total/NA	Solid	EPA-Lloyd Kahn	
480-220474-4	SED-08-FD	Total/NA	Solid	EPA-Lloyd Kahn	
480-220474-5	SED-09	Total/NA	Solid	EPA-Lloyd Kahn	
480-220474-6	SED-10	Total/NA	Solid	EPA-Lloyd Kahn	
480-220474-7	SED-11	Total/NA	Solid	EPA-Lloyd Kahn	
480-220474-8	SED-11-FD	Total/NA	Solid	EPA-Lloyd Kahn	
480-220474-9	SED-12	Total/NA	Solid	EPA-Lloyd Kahn	
480-220474-10	SED-13	Total/NA	Solid	EPA-Lloyd Kahn	
480-220474-11	SED-14	Total/NA	Solid	EPA-Lloyd Kahn	
480-220474-12	SED-15	Total/NA	Solid	EPA-Lloyd Kahn	
MB 180-472359/4	Method Blank	Total/NA	Solid	EPA-Lloyd Kahn	
LCS 180-472359/5	Lab Control Sample	Total/NA	Solid	EPA-Lloyd Kahn	
LCSD 180-472359/6	Lab Control Sample Dup	Total/NA	Solid	EPA-Lloyd Kahn	
480-220474-1 MS	SED-06	Total/NA	Solid	EPA-Lloyd Kahn	
480-220474-1 MSD	SED-06	Total/NA	Solid	EPA-Lloyd Kahn	

Analysis Batch: 714567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220474-1	SED-06	Total/NA	Solid	Moisture	
480-220474-2	SED-07	Total/NA	Solid	Moisture	
480-220474-3	SED-08	Total/NA	Solid	Moisture	
480-220474-4	SED-08-FD	Total/NA	Solid	Moisture	
480-220474-5	SED-09	Total/NA	Solid	Moisture	
480-220474-6	SED-10	Total/NA	Solid	Moisture	

General Chemistry (Continued)

Analysis Batch: 714567 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220474-7	SED-11	Total/NA	Solid	Moisture	
480-220474-8	SED-11-FD	Total/NA	Solid	Moisture	
480-220474-9	SED-12	Total/NA	Solid	Moisture	
480-220474-10	SED-13	Total/NA	Solid	Moisture	
480-220474-11	SED-14	Total/NA	Solid	Moisture	
480-220474-12	SED-15	Total/NA	Solid	Moisture	
480-220474-1 MS	SED-06	Total/NA	Solid	Moisture	
480-220474-1 MSD	SED-06	Total/NA	Solid	Moisture	
480-220474-12 DU	SED-15	Total/NA	Solid	Moisture	

Prep Batch: 714887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220474-1	SED-06	Total/NA	Solid	9012B	
480-220474-2	SED-07	Total/NA	Solid	9012B	
480-220474-3	SED-08	Total/NA	Solid	9012B	
480-220474-4	SED-08-FD	Total/NA	Solid	9012B	
480-220474-5	SED-09	Total/NA	Solid	9012B	
480-220474-6	SED-10	Total/NA	Solid	9012B	
480-220474-7	SED-11	Total/NA	Solid	9012B	
MB 480-714887/1-A	Method Blank	Total/NA	Solid	9012B	
LCS 480-714887/3-A	Lab Control Sample	Total/NA	Solid	9012B	
LCS 480-714887/4-A	Lab Control Sample	Total/NA	Solid	9012B	
LCSSRM 480-714887/2-A ^1	Lab Control Sample	Total/NA	Solid	9012B	
480-220474-1 MS	SED-06	Total/NA	Solid	9012B	
480-220474-1 MSD	SED-06	Total/NA	Solid	9012B	
480-220474-7 MS	SED-11	Total/NA	Solid	9012B	

Analysis Batch: 714906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220474-1	SED-06	Total/NA	Solid	9012B	714887
480-220474-2	SED-07	Total/NA	Solid	9012B	714887
480-220474-3	SED-08	Total/NA	Solid	9012B	714887
480-220474-4	SED-08-FD	Total/NA	Solid	9012B	714887
480-220474-5	SED-09	Total/NA	Solid	9012B	714887
480-220474-6	SED-10	Total/NA	Solid	9012B	714887
480-220474-7	SED-11	Total/NA	Solid	9012B	714887
MB 480-714887/1-A	Method Blank	Total/NA	Solid	9012B	714887
LCS 480-714887/3-A	Lab Control Sample	Total/NA	Solid	9012B	714887
LCS 480-714887/4-A	Lab Control Sample	Total/NA	Solid	9012B	714887
LCSSRM 480-714887/2-A ^1	Lab Control Sample	Total/NA	Solid	9012B	714887
480-220474-1 MS	SED-06	Total/NA	Solid	9012B	714887
480-220474-1 MSD	SED-06	Total/NA	Solid	9012B	714887
480-220474-7 MS	SED-11	Total/NA	Solid	9012B	714887

Prep Batch: 715215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220474-8	SED-11-FD	Total/NA	Solid	9012B	
480-220474-9	SED-12	Total/NA	Solid	9012B	
480-220474-10	SED-13	Total/NA	Solid	9012B	
480-220474-11	SED-14	Total/NA	Solid	9012B	
480-220474-12	SED-15	Total/NA	Solid	9012B	

General Chemistry (Continued)

Prep Batch: 715215 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-715215/1-A	Method Blank	Total/NA	Solid	9012B	
LCS 480-715215/3-A	Lab Control Sample	Total/NA	Solid	9012B	
LCS 480-715215/4-A	Lab Control Sample	Total/NA	Solid	9012B	
LCSSRM 480-715215/2-A ^1	Lab Control Sample	Total/NA	Solid	9012B	
480-220474-12 MS	SED-15	Total/NA	Solid	9012B	

Analysis Batch: 715244

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-220474-8	SED-11-FD	Total/NA	Solid	9012B	715215
480-220474-9	SED-12	Total/NA	Solid	9012B	715215
480-220474-10	SED-13	Total/NA	Solid	9012B	715215
480-220474-11	SED-14	Total/NA	Solid	9012B	715215
480-220474-12	SED-15	Total/NA	Solid	9012B	715215
MB 480-715215/1-A	Method Blank	Total/NA	Solid	9012B	715215
LCS 480-715215/3-A	Lab Control Sample	Total/NA	Solid	9012B	715215
LCS 480-715215/4-A	Lab Control Sample	Total/NA	Solid	9012B	715215
LCSSRM 480-715215/2-A ^1	Lab Control Sample	Total/NA	Solid	9012B	715215
480-220474-12 MS	SED-15	Total/NA	Solid	9012B	715215

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220474-1

Client Sample ID: SED-06
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	714567	EMD	EET BUF	06/05/24 15:04

Client Sample ID: SED-06
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-1
Matrix: Solid
Percent Solids: 57.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_H			714650	ZN	EET BUF	06/06/24 09:16
Total/NA	Analysis	8260C		40	714630	ZN	EET BUF	06/06/24 14:09
Total/NA	Prep	1633 Shake			615785	WJW	EET CLE	06/06/24 15:07
Total/NA	Analysis	1633		1	616342	MRL	EET CLE	06/12/24 18:28
Total/NA	Prep	1633 Shake	DL		615785	WJW	EET CLE	06/06/24 15:07
Total/NA	Analysis	1633	DL	10	616541	MRL	EET CLE	06/14/24 12:55
Total/NA	Prep	1633 Shake			615785	WJW	EET CLE	06/06/24 15:07
Total/NA	Analysis	1633		1	615906	MRL	EET CLE	06/07/24 21:52
Total/NA	Prep	3050B			714545	EMO	EET BUF	06/05/24 15:25
Total/NA	Analysis	6010C		1	714797	NZG	EET BUF	06/06/24 16:20
Total/NA	Prep	3050B			714545	EMO	EET BUF	06/05/24 15:25
Total/NA	Analysis	6010C		10	714898	NZG	EET BUF	06/07/24 14:53
Total/NA	Prep	7471B			714628	ESB	EET BUF	06/06/24 08:50
Total/NA	Analysis	7471B		10	714714	ESB	EET BUF	06/06/24 12:59
Total/NA	Prep	9012B			714887	AM	EET BUF	06/07/24 12:22
Total/NA	Analysis	9012B		1	714906	AM	EET BUF	06/07/24 15:57
Total/NA	Analysis	EPA-Lloyd Kahn		1	471505	SMW	EET PIT	06/13/24 21:01
Total/NA	Analysis	EPA-Lloyd Kahn		1	472359	ERP	EET PIT	06/24/24 11:32

Client Sample ID: SED-07
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	714567	EMD	EET BUF	06/05/24 15:04

Client Sample ID: SED-07
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-2
Matrix: Solid
Percent Solids: 88.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_H			714650	ZN	EET BUF	06/06/24 09:16
Total/NA	Analysis	8260C		20	714630	ZN	EET BUF	06/06/24 14:33
Total/NA	Prep	3050B			714545	EMO	EET BUF	06/05/24 15:25
Total/NA	Analysis	6010C		1	714797	NZG	EET BUF	06/06/24 16:30
Total/NA	Prep	3050B			714545	EMO	EET BUF	06/05/24 15:25
Total/NA	Analysis	6010C		5	714898	NZG	EET BUF	06/07/24 15:17

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220474-1

Client Sample ID: SED-07
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-2
Matrix: Solid
Percent Solids: 88.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7471B			714628	ESB	EET BUF	06/06/24 08:50
Total/NA	Analysis	7471B		1	714714	ESB	EET BUF	06/06/24 11:47
Total/NA	Prep	9012B			714887	AM	EET BUF	06/07/24 12:22
Total/NA	Analysis	9012B		1	714906	AM	EET BUF	06/07/24 16:12
Total/NA	Analysis	EPA-Lloyd Kahn		1	471505	SMW	EET PIT	06/13/24 22:09
Total/NA	Analysis	EPA-Lloyd Kahn		1	472359	ERP	EET PIT	06/24/24 13:04

Client Sample ID: SED-08
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	714567	EMD	EET BUF	06/05/24 15:04

Client Sample ID: SED-08
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-3
Matrix: Solid
Percent Solids: 46.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_H			714650	ZN	EET BUF	06/06/24 09:16
Total/NA	Analysis	8260C		20	714630	ZN	EET BUF	06/06/24 14:56
Total/NA	Prep	1633 Shake			615785	WJW	EET CLE	06/06/24 15:07
Total/NA	Analysis	1633		1	616342	MRL	EET CLE	06/12/24 18:42
Total/NA	Prep	1633 Shake			615785	WJW	EET CLE	06/06/24 15:07
Total/NA	Analysis	1633		1	615906	MRL	EET CLE	06/07/24 22:07
Total/NA	Prep	3050B			714545	EMO	EET BUF	06/05/24 15:25
Total/NA	Analysis	6010C		1	714797	NZG	EET BUF	06/06/24 16:31
Total/NA	Prep	3050B			714545	EMO	EET BUF	06/05/24 15:25
Total/NA	Analysis	6010C		100	714898	NZG	EET BUF	06/07/24 15:21
Total/NA	Prep	7471B			714628	ESB	EET BUF	06/06/24 08:50
Total/NA	Analysis	7471B		10	714714	ESB	EET BUF	06/06/24 13:03
Total/NA	Prep	9012B			714887	AM	EET BUF	06/07/24 12:22
Total/NA	Analysis	9012B		1	714906	AM	EET BUF	06/07/24 16:13
Total/NA	Analysis	EPA-Lloyd Kahn		1	471505	SMW	EET PIT	06/13/24 22:32
Total/NA	Analysis	EPA-Lloyd Kahn		1	472359	ERP	EET PIT	06/24/24 13:19

Client Sample ID: SED-08-FD
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	714567	EMD	EET BUF	06/05/24 15:04

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220474-1

Client Sample ID: SED-08-FD

Lab Sample ID: 480-220474-4

Date Collected: 06/04/24 00:00
Matrix: Solid
Date Received: 06/04/24 16:00
Percent Solids: 46.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_H			714650	ZN	EET BUF	06/06/24 09:16
Total/NA	Analysis	8260C		20	714630	ZN	EET BUF	06/06/24 15:20
Total/NA	Prep	1633 Shake			615785	WJW	EET CLE	06/06/24 15:07
Total/NA	Analysis	1633		1	616342	MRL	EET CLE	06/12/24 18:56
Total/NA	Prep	1633 Shake			615785	WJW	EET CLE	06/06/24 15:07
Total/NA	Analysis	1633		1	615906	MRL	EET CLE	06/07/24 22:22
Total/NA	Prep	3050B			714545	EMO	EET BUF	06/05/24 15:25
Total/NA	Analysis	6010C		1	714797	NZG	EET BUF	06/06/24 16:39
Total/NA	Prep	3050B			714545	EMO	EET BUF	06/05/24 15:25
Total/NA	Analysis	6010C		100	714898	NZG	EET BUF	06/07/24 15:23
Total/NA	Prep	7471B			714628	ESB	EET BUF	06/06/24 08:50
Total/NA	Analysis	7471B		10	714714	ESB	EET BUF	06/06/24 13:04
Total/NA	Prep	9012B			714887	AM	EET BUF	06/07/24 12:22
Total/NA	Analysis	9012B		1	714906	AM	EET BUF	06/07/24 16:15
Total/NA	Analysis	EPA-Lloyd Kahn		1	471505	SMW	EET PIT	06/13/24 23:18
Total/NA	Analysis	EPA-Lloyd Kahn		1	472359	ERP	EET PIT	06/24/24 13:34

Client Sample ID: SED-09

Lab Sample ID: 480-220474-5

Date Collected: 06/04/24 00:00
Matrix: Solid
Date Received: 06/04/24 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	714567	EMD	EET BUF	06/05/24 15:04

Client Sample ID: SED-09

Lab Sample ID: 480-220474-5

Date Collected: 06/04/24 00:00
Matrix: Solid
Date Received: 06/04/24 16:00
Percent Solids: 62.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_H			714650	ZN	EET BUF	06/06/24 09:16
Total/NA	Analysis	8260C		40	714630	ZN	EET BUF	06/06/24 15:43
Total/NA	Prep	3050B			714545	EMO	EET BUF	06/05/24 15:25
Total/NA	Analysis	6010C		1	714797	NZG	EET BUF	06/06/24 16:41
Total/NA	Prep	3050B			714545	EMO	EET BUF	06/05/24 15:25
Total/NA	Analysis	6010C		100	714898	NZG	EET BUF	06/07/24 15:25
Total/NA	Prep	7471B			714628	ESB	EET BUF	06/06/24 08:50
Total/NA	Analysis	7471B		10	714714	ESB	EET BUF	06/06/24 13:05
Total/NA	Prep	9012B			714887	AM	EET BUF	06/07/24 12:22
Total/NA	Analysis	9012B		1	714906	AM	EET BUF	06/07/24 16:16
Total/NA	Analysis	EPA-Lloyd Kahn		1	471678	SMW	EET PIT	06/14/24 17:20
Total/NA	Analysis	EPA-Lloyd Kahn		1	472359	ERP	EET PIT	06/24/24 14:12

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220474-1

Client Sample ID: SED-10
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	714567	EMD	EET BUF	06/05/24 15:04

Client Sample ID: SED-10
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-6
Matrix: Solid
Percent Solids: 48.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_H			714650	ZN	EET BUF	06/06/24 09:16
Total/NA	Analysis	8260C		20	714630	ZN	EET BUF	06/06/24 16:06
Total/NA	Prep	1633 Shake			615785	WJW	EET CLE	06/06/24 15:07
Total/NA	Analysis	1633		1	616342	MRL	EET CLE	06/12/24 19:09
Total/NA	Prep	1633 Shake			615785	WJW	EET CLE	06/06/24 15:07
Total/NA	Analysis	1633		1	615906	MRL	EET CLE	06/07/24 22:37
Total/NA	Prep	3050B			714545	EMO	EET BUF	06/05/24 15:25
Total/NA	Analysis	6010C		1	714797	NZG	EET BUF	06/06/24 16:43
Total/NA	Prep	3050B			714545	EMO	EET BUF	06/05/24 15:25
Total/NA	Analysis	6010C		100	714898	NZG	EET BUF	06/07/24 15:33
Total/NA	Prep	7471B			714628	ESB	EET BUF	06/06/24 08:50
Total/NA	Analysis	7471B		10	714714	ESB	EET BUF	06/06/24 13:07
Total/NA	Prep	9012B			714887	AM	EET BUF	06/07/24 12:22
Total/NA	Analysis	9012B		5	714906	AM	EET BUF	06/07/24 16:26
Total/NA	Analysis	EPA-Lloyd Kahn		1	471678	SMW	EET PIT	06/14/24 17:35
Total/NA	Analysis	EPA-Lloyd Kahn		1	472359	ERP	EET PIT	06/24/24 14:27

Client Sample ID: SED-11
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	714567	EMD	EET BUF	06/05/24 15:04

Client Sample ID: SED-11
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-7
Matrix: Solid
Percent Solids: 52.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_H			714650	ZN	EET BUF	06/06/24 09:16
Total/NA	Analysis	8260C		40	714630	ZN	EET BUF	06/06/24 16:29
Total/NA	Prep	3050B			714545	EMO	EET BUF	06/05/24 15:25
Total/NA	Analysis	6010C		1	714797	NZG	EET BUF	06/06/24 16:45
Total/NA	Prep	3050B			714545	EMO	EET BUF	06/05/24 15:25
Total/NA	Analysis	6010C		100	714898	NZG	EET BUF	06/07/24 15:36
Total/NA	Prep	7471B			714628	ESB	EET BUF	06/06/24 08:50
Total/NA	Analysis	7471B		10	714714	ESB	EET BUF	06/06/24 13:08

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220474-1

Client Sample ID: SED-11
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-7
Matrix: Solid
Percent Solids: 52.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	9012B			714887	AM	EET BUF	06/07/24 12:22
Total/NA	Analysis	9012B		1	714906	AM	EET BUF	06/07/24 16:22
Total/NA	Analysis	EPA-Lloyd Kahn		1	471678	SMW	EET PIT	06/14/24 17:50
Total/NA	Analysis	EPA-Lloyd Kahn		1	472359	ERP	EET PIT	06/24/24 14:42

Client Sample ID: SED-11-FD
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	714567	EMD	EET BUF	06/05/24 15:04

Client Sample ID: SED-11-FD
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-8
Matrix: Solid
Percent Solids: 54.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_H			714650	ZN	EET BUF	06/06/24 09:16
Total/NA	Analysis	8260C		40	714630	ZN	EET BUF	06/06/24 16:52
Total/NA	Prep	3050B			714545	EMO	EET BUF	06/05/24 15:25
Total/NA	Analysis	6010C		1	714797	NZG	EET BUF	06/06/24 16:47
Total/NA	Prep	3050B			714545	EMO	EET BUF	06/05/24 15:25
Total/NA	Analysis	6010C		100	714898	NZG	EET BUF	06/07/24 15:38
Total/NA	Prep	7471B			714628	ESB	EET BUF	06/06/24 08:50
Total/NA	Analysis	7471B		1	714714	ESB	EET BUF	06/06/24 11:59
Total/NA	Prep	9012B			715215	AM	EET BUF	06/11/24 12:20
Total/NA	Analysis	9012B		1	715244	AM	EET BUF	06/11/24 16:05
Total/NA	Analysis	EPA-Lloyd Kahn		1	471678	SMW	EET PIT	06/14/24 18:05
Total/NA	Analysis	EPA-Lloyd Kahn		1	472359	ERP	EET PIT	06/24/24 14:57

Client Sample ID: SED-12
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	714567	EMD	EET BUF	06/05/24 15:04

Client Sample ID: SED-12
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-9
Matrix: Solid
Percent Solids: 48.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_H			714650	ZN	EET BUF	06/06/24 09:16
Total/NA	Analysis	8260C		80	714630	ZN	EET BUF	06/06/24 17:15

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220474-1

Client Sample ID: SED-12

Lab Sample ID: 480-220474-9
Date Collected: 06/04/24 00:00
Matrix: Solid
Date Received: 06/04/24 16:00
Percent Solids: 48.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633 Shake			615785	WJW	EET CLE	06/06/24 15:07
Total/NA	Analysis	1633		1	615906	MRL	EET CLE	06/07/24 22:53
Total/NA	Prep	1633 Shake			616481	JVB4	EET CLE	06/13/24 15:10
Total/NA	Analysis	1633		1	616627	MRL	EET CLE	06/15/24 05:38
Total/NA	Prep	3050B			714545	EMO	EET BUF	06/05/24 15:25
Total/NA	Analysis	6010C		1	714797	NZG	EET BUF	06/06/24 16:48
Total/NA	Prep	3050B			714545	EMO	EET BUF	06/05/24 15:25
Total/NA	Analysis	6010C		100	714898	NZG	EET BUF	06/07/24 15:40
Total/NA	Prep	7471B			714628	ESB	EET BUF	06/06/24 08:50
Total/NA	Analysis	7471B		10	714714	ESB	EET BUF	06/06/24 13:09
Total/NA	Prep	9012B			715215	AM	EET BUF	06/11/24 12:20
Total/NA	Analysis	9012B		1	715244	AM	EET BUF	06/11/24 16:06
Total/NA	Analysis	EPA-Lloyd Kahn		1	471678	SMW	EET PIT	06/14/24 18:20
Total/NA	Analysis	EPA-Lloyd Kahn		1	472359	ERP	EET PIT	06/24/24 15:12

Client Sample ID: SED-13

Lab Sample ID: 480-220474-10
Date Collected: 06/04/24 00:00
Matrix: Solid
Date Received: 06/04/24 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	714567	EMD	EET BUF	06/05/24 15:04

Client Sample ID: SED-13

Lab Sample ID: 480-220474-10
Date Collected: 06/04/24 00:00
Matrix: Solid
Date Received: 06/04/24 16:00
Percent Solids: 45.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_H			714650	ZN	EET BUF	06/06/24 09:16
Total/NA	Analysis	8260C		80	714630	ZN	EET BUF	06/06/24 17:39
Total/NA	Prep	3050B			714545	EMO	EET BUF	06/05/24 15:25
Total/NA	Analysis	6010C		1	714797	NZG	EET BUF	06/06/24 16:50
Total/NA	Prep	3050B			714545	EMO	EET BUF	06/05/24 15:25
Total/NA	Analysis	6010C		100	714898	NZG	EET BUF	06/07/24 15:44
Total/NA	Prep	7471B			714628	ESB	EET BUF	06/06/24 08:50
Total/NA	Analysis	7471B		1	714714	ESB	EET BUF	06/06/24 12:02
Total/NA	Prep	9012B			715215	AM	EET BUF	06/11/24 12:20
Total/NA	Analysis	9012B		1	715244	AM	EET BUF	06/11/24 16:11
Total/NA	Analysis	EPA-Lloyd Kahn		1	471678	SMW	EET PIT	06/14/24 18:35
Total/NA	Analysis	EPA-Lloyd Kahn		1	472359	ERP	EET PIT	06/24/24 15:28

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220474-1

Client Sample ID: SED-14
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	714567	EMD	EET BUF	06/05/24 15:04

Client Sample ID: SED-14
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-11
Matrix: Solid
Percent Solids: 66.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_H			714650	ZN	EET BUF	06/06/24 09:16
Total/NA	Analysis	8260C		40	714630	ZN	EET BUF	06/06/24 18:02
Total/NA	Prep	3050B			714545	EMO	EET BUF	06/05/24 15:25
Total/NA	Analysis	6010C		1	714797	NZG	EET BUF	06/06/24 16:52
Total/NA	Prep	3050B			714545	EMO	EET BUF	06/05/24 15:25
Total/NA	Analysis	6010C		100	714898	NZG	EET BUF	06/07/24 15:46
Total/NA	Prep	7471B			714628	ESB	EET BUF	06/06/24 08:50
Total/NA	Analysis	7471B		10	714714	ESB	EET BUF	06/06/24 13:10
Total/NA	Prep	9012B			715215	AM	EET BUF	06/11/24 12:20
Total/NA	Analysis	9012B		5	715244	AM	EET BUF	06/11/24 16:21
Total/NA	Analysis	EPA-Lloyd Kahn		1	471678	SMW	EET PIT	06/14/24 18:51
Total/NA	Analysis	EPA-Lloyd Kahn		1	472359	ERP	EET PIT	06/24/24 15:43

Client Sample ID: SED-15
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	714567	EMD	EET BUF	06/05/24 15:04

Client Sample ID: SED-15
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-12
Matrix: Solid
Percent Solids: 81.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_H			714650	ZN	EET BUF	06/06/24 09:16
Total/NA	Analysis	8260C		40	714630	ZN	EET BUF	06/06/24 18:26
Total/NA	Prep	3050B			714545	EMO	EET BUF	06/05/24 15:25
Total/NA	Analysis	6010C		1	714797	NZG	EET BUF	06/06/24 16:54
Total/NA	Prep	3050B			714545	EMO	EET BUF	06/05/24 15:25
Total/NA	Analysis	6010C		100	714898	NZG	EET BUF	06/07/24 15:48
Total/NA	Prep	7471B			714628	ESB	EET BUF	06/06/24 08:50
Total/NA	Analysis	7471B		1	714714	ESB	EET BUF	06/06/24 12:06
Total/NA	Prep	9012B			715215	AM	EET BUF	06/11/24 12:20
Total/NA	Analysis	9012B		5	715244	AM	EET BUF	06/11/24 16:22
Total/NA	Analysis	EPA-Lloyd Kahn		1	471678	SMW	EET PIT	06/14/24 19:06
Total/NA	Analysis	EPA-Lloyd Kahn		1	472359	ERP	EET PIT	06/24/24 15:58

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220474-1

Client Sample ID: SED-06

Lab Sample ID: 480-220474-13
Matrix: Waste
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3580A			714779	SMP	EET BUF	06/07/24 06:49
Total/NA	Analysis	8270D		5	715000	EMD	EET BUF	06/10/24 16:36
Total/NA	Prep	3580A			714668	VXF	EET BUF	06/06/24 10:13
Total/NA	Analysis	8081B		10	714777	JLS	EET BUF	06/07/24 10:09
Total/NA	Prep	3580A			714782	SMP	EET BUF	06/07/24 06:55
Total/NA	Analysis	8082A		5	714970	H9RU	EET BUF	06/10/24 20:51

Client Sample ID: SED-07

Lab Sample ID: 480-220474-14
Matrix: Waste
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3580A			714779	SMP	EET BUF	06/07/24 06:49
Total/NA	Analysis	8270D		10	715000	EMD	EET BUF	06/10/24 17:04
Total/NA	Prep	3580A			714668	VXF	EET BUF	06/06/24 10:13
Total/NA	Analysis	8081B		10	714777	JLS	EET BUF	06/07/24 10:29
Total/NA	Prep	3580A			714782	SMP	EET BUF	06/07/24 06:55
Total/NA	Analysis	8082A		5	714970	H9RU	EET BUF	06/10/24 21:08

Client Sample ID: SED-08

Lab Sample ID: 480-220474-15
Matrix: Waste
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3580A			714779	SMP	EET BUF	06/07/24 06:49
Total/NA	Analysis	8270D		1	715300	EMD	EET BUF	06/12/24 13:37
Total/NA	Prep	3580A			714668	VXF	EET BUF	06/06/24 10:13
Total/NA	Analysis	8081B		10	714777	JLS	EET BUF	06/07/24 10:49
Total/NA	Prep	3580A			714782	SMP	EET BUF	06/07/24 06:55
Total/NA	Analysis	8082A		1	714970	H9RU	EET BUF	06/10/24 21:25

Client Sample ID: SED-08-FD

Lab Sample ID: 480-220474-16
Matrix: Waste
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3580A			714779	SMP	EET BUF	06/07/24 06:49
Total/NA	Analysis	8270D		10	715300	EMD	EET BUF	06/12/24 14:06
Total/NA	Prep	3580A			714668	VXF	EET BUF	06/06/24 10:13
Total/NA	Analysis	8081B		10	714777	JLS	EET BUF	06/07/24 11:08
Total/NA	Prep	3580A			714782	SMP	EET BUF	06/07/24 06:55
Total/NA	Analysis	8082A		5	714970	H9RU	EET BUF	06/10/24 21:41

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220474-1

Client Sample ID: SED-09
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-17
Matrix: Waste

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3580A			714779	SMP	EET BUF	06/07/24 06:49
Total/NA	Analysis	8270D		5	715000	EMD	EET BUF	06/10/24 18:26
Total/NA	Prep	3580A			714668	VXF	EET BUF	06/06/24 10:13
Total/NA	Analysis	8081B		10	714777	JLS	EET BUF	06/07/24 11:28
Total/NA	Prep	3580A			714782	SMP	EET BUF	06/07/24 06:55
Total/NA	Analysis	8082A		1	714970	H9RU	EET BUF	06/10/24 21:58

Client Sample ID: SED-10
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-18
Matrix: Waste

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3580A			714779	SMP	EET BUF	06/07/24 06:49
Total/NA	Analysis	8270D		10	715300	EMD	EET BUF	06/12/24 14:37
Total/NA	Prep	3580A			714668	VXF	EET BUF	06/06/24 10:13
Total/NA	Analysis	8081B		10	714777	JLS	EET BUF	06/07/24 11:48
Total/NA	Prep	3580A			714782	SMP	EET BUF	06/07/24 06:55
Total/NA	Analysis	8082A		1	714970	H9RU	EET BUF	06/10/24 22:15

Client Sample ID: SED-11
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-19
Matrix: Waste

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3580A			714779	SMP	EET BUF	06/07/24 06:49
Total/NA	Analysis	8270D		10	715300	EMD	EET BUF	06/12/24 15:07
Total/NA	Prep	3580A			714668	VXF	EET BUF	06/06/24 10:13
Total/NA	Analysis	8081B		10	714777	JLS	EET BUF	06/07/24 12:07
Total/NA	Prep	3580A			714782	SMP	EET BUF	06/07/24 06:55
Total/NA	Analysis	8082A		5	714970	H9RU	EET BUF	06/10/24 22:32

Client Sample ID: SED-11-FD
Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-20
Matrix: Waste

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3580A			714779	SMP	EET BUF	06/07/24 06:49
Total/NA	Analysis	8270D		10	715000	EMD	EET BUF	06/10/24 19:50
Total/NA	Prep	3580A			714668	VXF	EET BUF	06/06/24 10:13
Total/NA	Analysis	8081B		10	714777	JLS	EET BUF	06/07/24 12:27
Total/NA	Prep	3580A			714782	SMP	EET BUF	06/07/24 06:55
Total/NA	Analysis	8082A		5	714970	H9RU	EET BUF	06/10/24 22:49

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220474-1

Client Sample ID: SED-12

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-21

Matrix: Waste

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3580A			714779	SMP	EET BUF	06/07/24 06:49
Total/NA	Analysis	8270D		1	715000	EMD	EET BUF	06/10/24 20:18
Total/NA	Prep	3580A			714668	VXF	EET BUF	06/06/24 10:13
Total/NA	Analysis	8081B		10	714777	JLS	EET BUF	06/07/24 12:47
Total/NA	Prep	3580A			714782	SMP	EET BUF	06/07/24 06:55
Total/NA	Analysis	8082A		1	714970	H9RU	EET BUF	06/10/24 23:05

Client Sample ID: SED-13

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-22

Matrix: Waste

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3580A			714779	SMP	EET BUF	06/07/24 06:49
Total/NA	Analysis	8270D		10	715300	EMD	EET BUF	06/12/24 15:36
Total/NA	Prep	3580A			714668	VXF	EET BUF	06/06/24 10:13
Total/NA	Analysis	8081B		10	714777	JLS	EET BUF	06/07/24 13:06
Total/NA	Prep	3580A			714782	SMP	EET BUF	06/07/24 06:55
Total/NA	Analysis	8082A		5	714970	H9RU	EET BUF	06/10/24 23:22

Client Sample ID: SED-14

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-23

Matrix: Waste

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3580A			714779	SMP	EET BUF	06/07/24 06:49
Total/NA	Analysis	8270D		10	715300	EMD	EET BUF	06/12/24 16:04
Total/NA	Prep	3580A			714668	VXF	EET BUF	06/06/24 10:13
Total/NA	Analysis	8081B		10	714777	JLS	EET BUF	06/07/24 13:26
Total/NA	Prep	3580A			714782	SMP	EET BUF	06/07/24 06:55
Total/NA	Analysis	8082A		5	714970	H9RU	EET BUF	06/10/24 23:39

Client Sample ID: SED-15

Date Collected: 06/04/24 00:00
Date Received: 06/04/24 16:00

Lab Sample ID: 480-220474-24

Matrix: Waste

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3580A			714779	SMP	EET BUF	06/07/24 06:49
Total/NA	Analysis	8270D		1	715000	EMD	EET BUF	06/10/24 21:40
Total/NA	Prep	3580A			714668	VXF	EET BUF	06/06/24 10:13
Total/NA	Analysis	8081B		10	714777	JLS	EET BUF	06/07/24 13:46
Total/NA	Prep	3580A			714782	SMP	EET BUF	06/07/24 06:55
Total/NA	Analysis	8082A		1	714970	H9RU	EET BUF	06/10/24 23:56

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220474-1

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Accreditation/Certification Summary

Client: Ashland LLC
Job ID: 480-220474-1
Project/Site: Tank 75 Analysis

Laboratory: Eurofins Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	06-25-24
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	06-30-24
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	06-16-24
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-24
California	State	2891	04-30-24 *
Connecticut	State	PH-0688	09-30-24
Florida	NELAP	E871008	06-30-24
Georgia	State	PA 02-00416	04-30-25
Illinois	NELAP	004375	07-31-25
Kansas	NELAP	E-10350	01-31-25
Kentucky (UST)	State	162013	04-30-23 *
Kentucky (WW)	State	KY98043	12-31-24
Louisiana	NELAP	04041	06-30-22 *
Louisiana (All)	NELAP	04041	06-30-24
Maine	State	PA00164	03-06-26
Minnesota	NELAP	042-999-482	12-31-24
New Hampshire	NELAP	2030	04-04-24 *
New Jersey	NELAP	PA005	06-30-24
New York	NELAP	11182	04-01-25
North Carolina (WW/SW)	State	434	12-31-24
North Dakota	State	R-227	04-30-24 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Buffalo

Accreditation/Certification Summary

Client: Ashland LLC
Job ID: 480-220474-1
Project/Site: Tank 75 Analysis

Laboratory: Eurofins Pittsburgh (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	PA-2151	02-06-25
Pennsylvania	NELAP	02-00416	04-30-25
Rhode Island	State	LAO00362	01-01-25
South Carolina	State	89014	04-30-25
Texas	NELAP	T104704528	03-31-25
US Fish & Wildlife	US Federal Programs	058448	04-30-25
USDA	US Federal Programs	P330-16-00211	04-11-26
Utah	NELAP	PA001462019-8	05-31-24 *
Virginia	NELAP	10043	07-14-24
West Virginia DEP	State	142	01-31-25
Wisconsin	State	998027800	08-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220474-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET BUF
8081B	Organochlorine Pesticides (GC)	SW846	EET BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET BUF
1633	Per- and Polyfluoroalkyl Substances by LC/MS/MS	EPA	EET CLE
6010C	Metals (ICP)	SW846	EET BUF
7471B	Mercury (CVAA)	SW846	EET BUF
9012B	Cyanide, Total andor Amenable	SW846	EET BUF
EPA-Lloyd Kahn	Organic Carbon, Total (TOC)	EPA	EET PIT
Moisture	Percent Moisture	EPA	EET BUF
1633 Shake	Shake Extraction with SPE	EPA	EET CLE
3050B	Preparation, Metals	SW846	EET BUF
3580A	Waste Dilution	SW846	EET BUF
5035A_H	Closed System Purge and Trap	SW846	EET BUF
7471B	Preparation, Mercury	SW846	EET BUF
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	EET BUF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Sample Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-220474-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-220474-1	SED-06	Solid	06/04/24 00:00	06/04/24 16:00
480-220474-2	SED-07	Solid	06/04/24 00:00	06/04/24 16:00
480-220474-3	SED-08	Solid	06/04/24 00:00	06/04/24 16:00
480-220474-4	SED-08-FD	Solid	06/04/24 00:00	06/04/24 16:00
480-220474-5	SED-09	Solid	06/04/24 00:00	06/04/24 16:00
480-220474-6	SED-10	Solid	06/04/24 00:00	06/04/24 16:00
480-220474-7	SED-11	Solid	06/04/24 00:00	06/04/24 16:00
480-220474-8	SED-11-FD	Solid	06/04/24 00:00	06/04/24 16:00
480-220474-9	SED-12	Solid	06/04/24 00:00	06/04/24 16:00
480-220474-10	SED-13	Solid	06/04/24 00:00	06/04/24 16:00
480-220474-11	SED-14	Solid	06/04/24 00:00	06/04/24 16:00
480-220474-12	SED-15	Solid	06/04/24 00:00	06/04/24 16:00
480-220474-13	SED-06	Waste	06/04/24 00:00	06/04/24 16:00
480-220474-14	SED-07	Waste	06/04/24 00:00	06/04/24 16:00
480-220474-15	SED-08	Waste	06/04/24 00:00	06/04/24 16:00
480-220474-16	SED-08-FD	Waste	06/04/24 00:00	06/04/24 16:00
480-220474-17	SED-09	Waste	06/04/24 00:00	06/04/24 16:00
480-220474-18	SED-10	Waste	06/04/24 00:00	06/04/24 16:00
480-220474-19	SED-11	Waste	06/04/24 00:00	06/04/24 16:00
480-220474-20	SED-11-FD	Waste	06/04/24 00:00	06/04/24 16:00
480-220474-21	SED-12	Waste	06/04/24 00:00	06/04/24 16:00
480-220474-22	SED-13	Waste	06/04/24 00:00	06/04/24 16:00
480-220474-23	SED-14	Waste	06/04/24 00:00	06/04/24 16:00
480-220474-24	SED-15	Waste	06/04/24 00:00	06/04/24 16:00

Eurofins Buffalo
10 Hazelwood Drive

Amherst, NY 14228-2223
phone 716.691.2600 fax 716.691.7991

Chain of Custody Record

eurofins | Environment Testing America

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Eurofins Environment Testing America

Client Contact	Project Manager: Colin Wasteneys	Site Contact: Ethan Smith	Date: 6/4/24	COC No:
AECOM	Email: colin.wasteneys@aecom.com	Lab Contact: John Beninati	Carrier:	1 of 1 COCs
50 LAKEFRONT BLVD SUITE 111	Tel/Fax: (716) 225-4396			TALS Project #:
BUFFALO, NY	Analysis Turnaround Time			Sampler: Ethan Smith
(716) 856-5636 Phone	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(xxx) xxx-xxxx FAX	TAT if different from Below STD			Walk-in Client:
Project Name: Ashland Tank 75 Site	☐ 2 weeks			Lab Sampling:
Site: Tank 75 Site, Tonawanda, NY	☐ 1 week			Job / SDG No.:
P O # 60730037	☐ 2 days			
	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	TOC - Lloyd Kahn	8260C TCL WCS	9012B Cyan. dlc	6010C Metals	7471B Mercury	8270D SVOCs	8082 PCBs	5035 Pesticides	1,4-Dioxane	1633 PFAS	Sample Specific Notes:
SED-06	6/4/24		G	sed	27	Y		X	X	X	X	X	X	X	X	X	X	
SED-07					9	N		X	X	X	X	X	X	X	X			
SED-08					9	N		X	X	X	X	X	X	X	X	X	X	
SED-08-FD					9	N		X	X	X	X	X	X	X	X	X	X	
SED-09					9	N		X	X	X	X	X	X	X	X			
SED-10					9	N		X	X	X	X	X	X	X	X	X	X	
SED-11					9	N		X	X	X	X	X	X	X	X			
SED-11-FD					9	N		X	X	X	X	X	X	X	X			
SED-12					9	N		X	X	X	X	X	X	X	X	X	X	
SED-13					9	N		X	X	X	X	X	X	X	X			
SED-14					9	N		X	X	X	X	X	X	X	X			
SED-15	↓		↓	↓	9	N		X	X	X	X	X	X	X	X			

480-220474 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☒ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
add ethan.smith@aecom.com and edyta.chorostkowska@aecom.com to all lab correspondance. 3.0 3.1 4.5 2.5 1.4 3.1 7.3 1.6 #1 IR

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd:	Corr'd:	Therm ID No.:
Relinquished by:	Company: AECOM	Date/Time: 6/4/24 1600	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TMB	Date/Time: 6/4/24 1600

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone 732-549-3900 Fax: 732-549-3679

5488

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler	Lab PM: Beninati, John	Carrier Tracking No(s)	COC No: 460-71444 1
Client Contact: Shipping/Receiving	Phone	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 2
Company: Eurofins Environment Testing Northeast,		Accreditations Required (See note): NELAP - New York		Job #: 480-220474-1
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested: 6/17/2024			Preservation Codes: -
City: Pittsburgh	TAT Requested (days):			
State, Zip: PA, 15238				
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			Other:
Site	SSOW#:			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Lloyd_Kahn_Mod/ Lloyd Kahn-Single Burn	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SED-06 (480-220474-1MSD)	6/4/24	Eastern	MSD	Solid			X	1	weigh 5 mg only
SED-07 (480-220474-2)	6/4/24	Eastern		Solid			X	1	
SED-08 (480-220474-3)	6/4/24	Eastern		Solid			X	1	
SED-08-FD (480-220474-4)	6/4/24	Eastern		Solid			X	1	
SED-09 (480-220474-5)	6/4/24	Eastern		Solid			X	1	
SED-10 (480-220474-6)	6/4/24	Eastern		Solid			X	1	
SED-11 (480-220474-7)	6/4/24	Eastern		Solid			X	1	
SED-11-FD (480-220474-8)	6/4/24	Eastern		Solid			X	1	
SED-12 (480-220474-9)	6/4/24	Eastern		Solid			X	1	

480-220474 Chain of Custody

Note. Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested. I, II, III, IV, Other (specify) Primary Deliverable Rank. 4	Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		6/11/24 1900	EET		6/12/24 1030	EurHMS
2	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
3	Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler	Lab PM: Beninati, John	Carrier Tracking No(s)	COC No: 460-71444 2
Client Contact: Shipping/Receiving	Phone	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 2 of 2
Company: Eurofins Environment Testing Northeast,		Accreditations Required (See note): NELAP - New York		Job #: 480-220474-1
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested: 6/17/2024			Preservation Codes: -
City: Pittsburgh	TAT Requested (days):			
State, Zip: PA, 15238				
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site:	SSOW#:			Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Lloyd_Kahn_Mod/ Lloyd Kahn-Single Burn	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SED-13 (480-220474-10)	6/4/24	Eastern		Solid			X	1	
SED-14 (480-220474-11)	6/4/24	Eastern		Solid			X	1	
SED-15 (480-220474-12)	6/4/24	Eastern		Solid			X	1	

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested. I, II, III, IV, Other (specify) Primary Deliverable Rank. 4	Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	6/11/24 1900			6/12/24 1030	
Relinquished by:	Date/Time	Company	Received by:	Date/Time.	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

3 4 3-6

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-87863.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note): NELAP New York		Job #: 480-220474-1
Address: 180 S. Van Buren Avenue,	Due Date Requested: 6/17/2024			Preservation Codes:
City: Barberton	TAT Requested (days):			
State, Zip: OH, 44203				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site:	SSOW#:			Other: PFAS 25

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633/1633_Shake 1633 Standard List	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SED-06 (480-220474-1)	6/4/24	Eastern		Solid			X	1	
SED-08 (480-220474-3)	6/4/24	Eastern		Solid			X	1	
SED-08-FD (480-220474-4)	6/4/24	Eastern		Solid			X	1	
SED-10 (480-220474-6)	6/4/24	Eastern		Solid			X	1	
SED-12 (480-220474-9)	6/4/24	Eastern		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[illegible]	6/5/24 1600	ET-A	TAMMY ROYER	6-6-24 930	ETNC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Eurofins = Cleveland Sample Receipt Form/Narrative Login#:
Barberton Facility

Client ETA Site Name

Cooler Received on 6-6-24 Opened on 6-6-24

Cooler unpacked by: TAMMY ROYER

FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 17 (CF 0+2 °C) Observed Cooler Temp. 3.4 °C Corrected Cooler Temp. 3.6 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	No
4 Did custody papers accompany the sample(s)?	Yes	No
5 Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6 Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7 Did all bottles arrive in good condition (Unbroken)?	Yes	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No TR-6-6-24
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	Yes	No
10 Were correct bottle(s) used for the test(s) indicated?	Yes	No
11 Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC339814
14. Were VOAs on the COC?	Yes	No
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes	No NA
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	No
17 Was a LL Hg or Me Hg trip blank present?	Yes	No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

received 2 Extra Jars - Sample - SED-06
(480-220474-1)

19 SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.

Sample(s) were received in a broken container

Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory

Time preserved. Preservative(s) added/Lot number(s)

VOA Sample Preservation - Date/Time VOAs Frozen.

SAMPLE CONTROL
EUROFINS ENVIRONMENT TESTING
10 HAZELWOOD DRIVE

BUFFALO, NY 142282223
UNITED STATES US

BILL SENDER

TO SAMPLE RECEIPT
EUROFINS CLEVELAND
180 S VAN BUREN AVE

BARBERTON OH 442033543
(330) 497-9396
REF. TA BARBERTON

FedEx Express

THU - 06 JUN 10:30A
PRIORITY OVERNIGHT

NX CAKA

44203
OH-US CLE

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-87872.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 2
Company: Eurofins Environment Testing Northeast,		Accreditations Required (See note): NELAP New York		Job #: 480-220474-1
Address: 777 New Durham Road,	Due Date Requested: 6/17/2024			Preservation Codes:
City: Edison	TAT Requested (days):			
State, Zip: NJ 08817				
Phone: 732-549-3900(Tel) 732-549-3679(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site:	SSOW#:			Other:

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Lloyd_Kahn_Mod/ Organic Carbon, Total (TOC)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SED-06 (480-220474-1)	6/4/24	Eastern		Solid			X	1	
SED-07 (480-220474-2)	6/4/24	Eastern		Solid			X	1	
SED-08 (480-220474-3)	6/4/24	Eastern		Solid			X	1	
SED-08-FD (480-220474-4)	6/4/24	Eastern		Solid			X	1	
SED-09 (480-220474-5)	6/4/24	Eastern		Solid			X	1	
SED-10 (480-220474-6)	6/4/24	Eastern		Solid			X	1	
SED-11 (480-220474-7)	6/4/24	Eastern		Solid			X	1	
SED-11-FD (480-220474-8)	6/4/24	Eastern		Solid			X	1	
SED-12 (480-220474-9)	6/4/24	Eastern		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested. I, II, III IV Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: Fedex

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	6/4/24 1700	NTB	[signature]	6/6/24 955	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:
		IR-9085 11.2c

Ver: 04/02/2024

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-87872.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 2 of 2
Company: Eurofins Environment Testing Northeast,		Accreditations Required (See note): NELAP - New York		Job #: 480-220474-1
Address: 777 New Durham Road	Due Date Requested: 6/17/2024			
City: Edison	TAT Requested (days):			
State, Zip: NJ, 08817				
Phone: 732-549-3900(Tel) 732-549-3679(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

Other

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Lloyd_Kahn_Mod/ Organic Carbon, Total (TOC)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SED-13 (480-220474-10)	6/4/24	Eastern		Solid			X	1	
SED-14 (480-220474-11)	6/4/24	Eastern		Solid			X	1	
SED-15 (480-220474-12)	6/4/24	Eastern		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I II III IV Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: FedEx

Relinquished by:	Date/Time:	Company	Received by: Blake	Date/Time: 6/6/24 955	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

IR-9 0.5C 1.2C

Ver: 04/02/2024

Login Sample Receipt Checklist

Client: Ashland LLC

Job Number: 480-220474-1

Login Number: 220474
List Number: 1
Creator: Kolb, Chris M

List Source: Eurofins Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	TIMES OF COLLECTION NOT LISTED
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	TCORES PUT IN FREEZER 6/5 @ 1200
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	False	TIMES OF COLLECTION NOT LISTED
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	AECOM
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: Ashland LLC

Job Number: 480-220474-1

Login Number: 220474
List Number: 4
Creator: Rucker, Keenyn J

List Source: Eurofins Pittsburgh
List Creation: 06/12/24 06:52 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Shannon Lloyd
Ashland LLC
PO BOX 2219
Columbus, Ohio 43216

Generated 7/24/2024 2:23:44 PM

JOB DESCRIPTION

Tank 75 Analysis

JOB NUMBER

480-221432-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

See page two for job notes and contact information.

Job Notes

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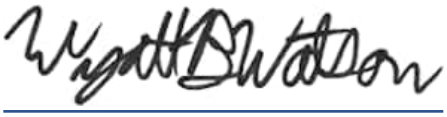

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Table of Contents

Definitions/Glossary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221432-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

LCMS

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
480-221432-1

Receipt
The samples were received on 7/9/2024 5:43 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.9º C.

GC/MS VOA
Method 8260C: The continuing calibration verification (CCV) associated with batch 480-718233 recovered above the upper control limit for Carbon tetrachloride, Chloromethane and Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: SB-10-39-42 (480-221432-2) and SB-10-48-49 (480-221432-3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method 8270D: The following samples were diluted due to color, appearance, and viscosity: SB-10-0-0.2 (480-221432-1), (480-221432-A-1-B MS) and (480-221432-A-1-C MSD). Elevated reporting limits (RL) are provided.

Method 8270D: The following samples were diluted due to the nature of the sample matrix: (480-221432-A-1-B MS) and (480-221432-A-1-C MSD). Because of this dilution, the surrogate spike and matrix spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8270D: The following sample required a dilution due to the nature of the sample matrix: SB-10-0-0.2 (480-221432-1). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8270D: The following compound have been spiked at a level above the upper range of the initial calibration: 3,3'-Dichlorobenzidine. The laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) associated with preparation batch 480-718100 and analytical batch 480-718272 recovered within acceptable limits for this analyte and has been qualified with an "E" flag.

Method 8270D: The following sample was diluted due to color, appearance, and viscosity: SB-01-0-0.2 (480-221432-4). Elevated reporting limits (RL) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method 8081B: The following sample was diluted due to the nature of the sample matrix: SB-01-0-0.2 (480-221432-4). As such, surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method 8081B: The following samples were diluted due to the nature of the sample matrix: (480-221432-C-1-A MS) and (480-221432-C-1-B MSD). As such, spike and surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method 8081B: The following sample was diluted due to the nature of the sample matrix: SB-10-0-0.2 (480-221432-1). As such, surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method 8081B: The method blank for preparation batch 480-718243 and analytical batch 480-718529 contained alpha-BHC and gamma-BHC (Lindane) above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method 6010C: The method blank for preparation batch 480-718006 and analytical batch 480-718188 contained Iron above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

LCMS
Method 1633: The low level continuing calibration verification (CCVL) associated with batch 240-619961 recovered above the upper control limit for 3-Perfluoropropylpropanoic acid (3:3 FTCA). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 1633: The continuing calibration verification (CCV) recovered outside of control limits for IDA compound(s) 13C8 FOSA. Section 14.3.3 of the finalized EPA 1633 states that the recovery of target analytes for the CCV(s) must be within 70 - 130%, unless the analyte is not of concern for a given project. Since target analytes associated with this IDA are within spec, data is reported. The following sample is impacted: SB-01-0-0.2 (480-221432-4).

Method 1633: The low level laboratory control sample (LLCS) for preparation batch 240-619820 and analytical batch 240-619961 recovered outside control limits for the following analytes: 3-Perfluoropropylpropanoic acid (3:3 FTCA). These analytes were biased high in the LLCS and were not detected in the associated samples; therefore, the data have been reported.

Method 1633: The laboratory control sample (LCS) for preparation batch 240-619820 and analytical batch 240-619961 recovered outside control limits for the following analytes: 3-Perfluoropropylpropanoic acid (3:3 FTCA). These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method 3550C: The following samples required a Florisil clean-up, via 3620C, to reduce matrix interferences: SB-10-0-0.2 (480-221432-1), SB-01-0-0.2 (480-221432-4), (480-221432-C-1 MS) and (480-221432-C-1 MSD).

Method 3550C: Elevated reporting limits are provided for the following sample due to insufficient sample provided for preparation: SB-10-0-0.2 (480-221432-1).

Method 3550C: The following sample(s) required a Florisil clean-up, via 3620C, to reduce matrix interferences:

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221432-1

Client Sample ID: SB-10-0-0.2 — Lab Sample ID: 480-221432-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDD	25	J	71	14	ug/Kg	20	☼	8081B	Total/NA
4,4'-DDT	68	J	71	17	ug/Kg	20	☼	8081B	Total/NA
alpha-BHC	15	J B	71	13	ug/Kg	20	☼	8081B	Total/NA
Endrin ketone	24	J	71	17	ug/Kg	20	☼	8081B	Total/NA
Aluminum	18800		11.9	10.2	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.88	J F1	17.8	0.63	mg/Kg	1	☼	6010C	Total/NA
Arsenic	5.8		2.4	1.0	mg/Kg	1	☼	6010C	Total/NA
Barium	139		0.59	0.17	mg/Kg	1	☼	6010C	Total/NA
Beryllium	1.1		0.24	0.048	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.31	F1	0.24	0.083	mg/Kg	1	☼	6010C	Total/NA
Calcium	38900		59.4	32.1	mg/Kg	1	☼	6010C	Total/NA
Chromium	36.1		0.59	0.43	mg/Kg	1	☼	6010C	Total/NA
Cobalt	10.8		0.59	0.12	mg/Kg	1	☼	6010C	Total/NA
Copper	54.2		1.2	0.68	mg/Kg	1	☼	6010C	Total/NA
Iron	22500	B	11.9	10.1	mg/Kg	1	☼	6010C	Total/NA
Lead	60.4		1.2	0.55	mg/Kg	1	☼	6010C	Total/NA
Magnesium	12400		23.8	10.1	mg/Kg	1	☼	6010C	Total/NA
Manganese	658		1.2	0.33	mg/Kg	1	☼	6010C	Total/NA
Nickel	27.4		5.9	0.30	mg/Kg	1	☼	6010C	Total/NA
Potassium	4640	F1	35.6	28.8	mg/Kg	1	☼	6010C	Total/NA
Selenium	1.2	J F1	4.8	0.95	mg/Kg	1	☼	6010C	Total/NA
Silver	0.25	J	0.71	0.24	mg/Kg	1	☼	6010C	Total/NA
Sodium	211		166	72.8	mg/Kg	1	☼	6010C	Total/NA
Vanadium	35.6		0.59	0.15	mg/Kg	1	☼	6010C	Total/NA
Zinc	114		2.4	1.2	mg/Kg	1	☼	6010C	Total/NA
Mercury	3.3		0.12	0.027	mg/Kg	5	☼	7471B	Total/NA

Client Sample ID: SB-10-39-42 — Lab Sample ID: 480-221432-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	8.9	J	28	4.7	ug/Kg	1	☼	8260C	Total/NA
Methoxychlor	0.96	J	2.3	0.46	ug/Kg	1	☼	8081B	Total/NA
Aluminum	32500		13.4	11.5	mg/Kg	1	☼	6010C	Total/NA
Arsenic	4.6		2.7	1.2	mg/Kg	1	☼	6010C	Total/NA
Barium	191		0.67	0.19	mg/Kg	1	☼	6010C	Total/NA
Beryllium	1.4		0.27	0.054	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.27		0.27	0.094	mg/Kg	1	☼	6010C	Total/NA
Calcium	46800		67.0	36.2	mg/Kg	1	☼	6010C	Total/NA
Chromium	38.3		0.67	0.48	mg/Kg	1	☼	6010C	Total/NA
Cobalt	17.0		0.67	0.13	mg/Kg	1	☼	6010C	Total/NA
Copper	24.2		1.3	0.76	mg/Kg	1	☼	6010C	Total/NA
Iron	28700	B	13.4	11.4	mg/Kg	1	☼	6010C	Total/NA
Lead	12.8		1.3	0.62	mg/Kg	1	☼	6010C	Total/NA
Magnesium	16300		26.8	11.4	mg/Kg	1	☼	6010C	Total/NA
Manganese	592		1.3	0.38	mg/Kg	1	☼	6010C	Total/NA
Nickel	33.1		6.7	0.33	mg/Kg	1	☼	6010C	Total/NA
Potassium	11300		40.2	32.5	mg/Kg	1	☼	6010C	Total/NA
Selenium	1.4	J	5.4	1.1	mg/Kg	1	☼	6010C	Total/NA
Silver	0.35	J	0.80	0.27	mg/Kg	1	☼	6010C	Total/NA
Sodium	728		188	82.1	mg/Kg	1	☼	6010C	Total/NA
Vanadium	58.3		0.67	0.17	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SB-10-39-42 (Continued) — Lab Sample ID: 480-221432-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	76.7		2.7	1.4	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.013	J	0.027	0.0062	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SB-10-48-49 — Lab Sample ID: 480-221432-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.4	J	22	3.7	ug/Kg	1	☼	8260C	Total/NA
Aluminum	22600		12.7	10.9	mg/Kg	1	☼	6010C	Total/NA
Arsenic	3.7		2.5	1.1	mg/Kg	1	☼	6010C	Total/NA
Barium	148		0.63	0.18	mg/Kg	1	☼	6010C	Total/NA
Beryllium	1.0		0.25	0.051	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.28		0.25	0.089	mg/Kg	1	☼	6010C	Total/NA
Calcium	47800		63.3	34.2	mg/Kg	1	☼	6010C	Total/NA
Chromium	26.1		0.63	0.46	mg/Kg	1	☼	6010C	Total/NA
Cobalt	13.2		0.63	0.13	mg/Kg	1	☼	6010C	Total/NA
Copper	22.1		1.3	0.72	mg/Kg	1	☼	6010C	Total/NA
Iron	23000	B	12.7	10.7	mg/Kg	1	☼	6010C	Total/NA
Lead	13.9		1.3	0.58	mg/Kg	1	☼	6010C	Total/NA
Magnesium	17200		25.3	10.7	mg/Kg	1	☼	6010C	Total/NA
Manganese	550		1.3	0.35	mg/Kg	1	☼	6010C	Total/NA
Nickel	26.1		6.3	0.32	mg/Kg	1	☼	6010C	Total/NA
Potassium	7750		38.0	30.7	mg/Kg	1	☼	6010C	Total/NA
Silver	0.35	J	0.76	0.25	mg/Kg	1	☼	6010C	Total/NA
Sodium	458		177	77.6	mg/Kg	1	☼	6010C	Total/NA
Vanadium	41.1		0.63	0.16	mg/Kg	1	☼	6010C	Total/NA
Zinc	62.6		2.5	1.3	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.011	J	0.027	0.0062	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SB-01-0-0.2 — Lab Sample ID: 480-221432-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	0.050	J	0.17	0.042	ug/Kg	1	☼	1633	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.16	J	0.17	0.042	ug/Kg	1	☼	1633	Total/NA
Aluminum	5290		10.4	9.0	mg/Kg	1	☼	6010C	Total/NA
Arsenic	59.2		2.1	0.92	mg/Kg	1	☼	6010C	Total/NA
Barium	111		0.52	0.15	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.93		0.21	0.042	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.63		0.21	0.073	mg/Kg	1	☼	6010C	Total/NA
Calcium	2950		52.2	28.2	mg/Kg	1	☼	6010C	Total/NA
Chromium	190		0.52	0.38	mg/Kg	1	☼	6010C	Total/NA
Cobalt	15.8		0.52	0.10	mg/Kg	1	☼	6010C	Total/NA
Copper	47.3		1.0	0.59	mg/Kg	1	☼	6010C	Total/NA
Iron	10600	B	10.4	8.9	mg/Kg	1	☼	6010C	Total/NA
Lead	577		1.0	0.48	mg/Kg	1	☼	6010C	Total/NA
Magnesium	1380		20.9	8.9	mg/Kg	1	☼	6010C	Total/NA
Manganese	90.8		1.0	0.29	mg/Kg	1	☼	6010C	Total/NA
Nickel	873		5.2	0.26	mg/Kg	1	☼	6010C	Total/NA
Potassium	425		31.3	25.3	mg/Kg	1	☼	6010C	Total/NA
Silver	1.0		0.63	0.21	mg/Kg	1	☼	6010C	Total/NA
Sodium	234		146	64.0	mg/Kg	1	☼	6010C	Total/NA
Thallium	0.95	J	6.3	0.79	mg/Kg	1	☼	6010C	Total/NA
Vanadium	107		2.6	0.68	mg/Kg	5	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SB-01-0-0.2 (Continued)

Lab Sample ID: 480-221432-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	65.1		2.1	1.1	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.37		0.020	0.0046	mg/Kg	1	☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221432-1

Client Sample ID: SB-10-0-0.2
Date Collected: 07/08/24 11:45
Date Received: 07/09/24 17:43

Lab Sample ID: 480-221432-1
Matrix: Solid
Percent Solids: 81.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		4100	1100	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
2,4,6-Trichlorophenol	ND		4100	820	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
2,4-Dichlorophenol	ND		4100	440	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
2,4-Dimethylphenol	ND		4100	990	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
2,4-Dinitrophenol	ND		40000	19000	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
2,4-Dinitrotoluene	ND		4100	850	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
2,6-Dinitrotoluene	ND		4100	480	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
2-Chloronaphthalene	ND		4100	680	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
2-Chlorophenol	ND		8000	750	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
2-Methylnaphthalene	ND		4100	820	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
2-Methylphenol	ND		4100	480	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
2-Nitroaniline	ND	F1	8000	600	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
2-Nitrophenol	ND		4100	1200	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
3,3'-Dichlorobenzidine	ND		8000	4800	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
3-Nitroaniline	ND		8000	1100	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
4,6-Dinitro-2-methylphenol	ND		8000	4100	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
4-Bromophenyl phenyl ether	ND		4100	580	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
4-Chloro-3-methylphenol	ND		4100	1000	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
4-Chloroaniline	ND		4100	1000	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
4-Chlorophenyl phenyl ether	ND		4100	510	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
4-Methylphenol	ND		8000	480	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
4-Nitroaniline	ND		8000	2200	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
4-Nitrophenol	ND	F1	8000	2900	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Acenaphthene	ND		4100	600	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Acenaphthylene	ND		4100	530	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Acetophenone	ND		4100	560	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Anthracene	ND		4100	1000	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Atrazine	ND		4100	1400	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Benzaldehyde	ND		4100	3300	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Benzo[a]anthracene	ND		4100	410	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Benzo[a]pyrene	ND		4100	600	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Benzo[b]fluoranthene	ND		4100	650	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Benzo[g,h,i]perylene	ND		4100	440	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Benzo[k]fluoranthene	ND		4100	530	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Biphenyl	ND		4100	600	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
bis (2-chloroisopropyl) ether	ND		4100	820	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Bis(2-chloroethoxy)methane	ND		4100	870	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Bis(2-chloroethyl)ether	ND		4100	530	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Bis(2-ethylhexyl) phthalate	ND		4100	1400	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Butyl benzyl phthalate	ND		4100	680	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Caprolactam	ND		4100	1200	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Carbazole	ND		4100	480	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Chrysene	ND		4100	920	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Dibenz(a,h)anthracene	ND		4100	730	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Dibenzofuran	ND		4100	480	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Diethyl phthalate	ND		4100	530	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Dimethyl phthalate	ND		4100	480	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Di-n-butyl phthalate	ND		4100	700	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Di-n-octyl phthalate	ND		4100	480	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20

Client Sample ID: SB-10-0-0.2
Date Collected: 07/08/24 11:45
Date Received: 07/09/24 17:43

Lab Sample ID: 480-221432-1
Matrix: Solid
Percent Solids: 81.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		4100	440	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Fluorene	ND		4100	480	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Hexachlorobenzene	ND		4100	560	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Hexachlorobutadiene	ND		4100	600	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Hexachlorocyclopentadiene	ND	F1	4100	560	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Hexachloroethane	ND		4100	530	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Indeno[1,2,3-cd]pyrene	ND		4100	510	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Isophorone	ND		4100	870	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Naphthalene	ND		4100	530	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Nitrobenzene	ND		4100	460	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
N-Nitrosodi-n-propylamine	ND		4100	700	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
N-Nitrosodiphenylamine	ND		4100	3300	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Pentachlorophenol	ND		8000	4100	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Phenanthrene	ND		4100	600	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Phenol	ND		4100	630	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20
Pyrene	ND		4100	480	ug/Kg	☼	07/11/24 07:25	07/12/24 21:42	20

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*7400*	*T J*	*ug/Kg*	☼	*12.88*	*N/A*	*07/11/24 07:25*	*07/12/24 21:42*	*20*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*100*		*26 - 143*	*07/11/24 07:25*	*07/12/24 21:42*	*20*
2-Fluorobiphenyl	*100*		*50 - 121*	*07/11/24 07:25*	*07/12/24 21:42*	*20*
2-Fluorophenol	*97*		*36 - 120*	*07/11/24 07:25*	*07/12/24 21:42*	*20*
Nitrobenzene-d5	*88*		*40 - 121*	*07/11/24 07:25*	*07/12/24 21:42*	*20*
Phenol-d5	*94*		*41 - 120*	*07/11/24 07:25*	*07/12/24 21:42*	*20*
p-Terphenyl-d14	*97*		*46 - 143*	*07/11/24 07:25*	*07/12/24 21:42*	*20*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	**25**	**J**	71	14	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
4,4'-DDE	ND		71	15	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
4,4'-DDT	**68**	**J**	71	17	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
Aldrin	ND		71	17	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
alpha-BHC	**15**	**J B**	71	13	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
cis-Chlordane	ND		71	35	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
beta-BHC	ND		71	13	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
delta-BHC	ND		71	13	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
Dieldrin	ND		71	17	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
Endosulfan I	ND		71	14	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
Endosulfan II	ND		71	13	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
Endosulfan sulfate	ND		71	13	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
Endrin	ND		71	14	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
Endrin aldehyde	ND		71	18	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
Endrin ketone	**24**	**J**	71	17	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
gamma-BHC (Lindane)	ND		71	13	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
trans-Chlordane	ND		71	23	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
Heptachlor	ND		71	15	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
Heptachlor epoxide	ND		71	18	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20
Methoxychlor	ND		71	14	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20

Client Sample ID: SB-10-0-0.2

Date Collected: 07/08/24 11:45
Date Received: 07/09/24 17:43

Lab Sample ID: 480-221432-1

Matrix: Solid
Percent Solids: 81.8

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	ND		710	410	ug/Kg	☼	07/12/24 08:32	07/16/24 16:31	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*193*	*S1+*	*45 - 120*	*07/12/24 08:32*	*07/16/24 16:31*	*20*
DCB Decachlorobiphenyl	*184*	*S1+*	*45 - 120*	*07/12/24 08:32*	*07/16/24 16:31*	*20*
Tetrachloro-m-xylene	*120*		*30 - 124*	*07/12/24 08:32*	*07/16/24 16:31*	*20*
Tetrachloro-m-xylene	*224*	*S1+*	*30 - 124*	*07/12/24 08:32*	*07/16/24 16:31*	*20*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.26	0.051	mg/Kg	☼	07/10/24 16:42	07/12/24 14:25	1
PCB-1221	ND		0.26	0.051	mg/Kg	☼	07/10/24 16:42	07/12/24 14:25	1
PCB-1232	ND		0.26	0.051	mg/Kg	☼	07/10/24 16:42	07/12/24 14:25	1
PCB-1242	ND		0.26	0.051	mg/Kg	☼	07/10/24 16:42	07/12/24 14:25	1
PCB-1248	ND		0.26	0.051	mg/Kg	☼	07/10/24 16:42	07/12/24 14:25	1
PCB-1254	ND		0.26	0.12	mg/Kg	☼	07/10/24 16:42	07/12/24 14:25	1
PCB-1260	ND		0.26	0.12	mg/Kg	☼	07/10/24 16:42	07/12/24 14:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*102*		*60 - 154*	*07/10/24 16:42*	*07/12/24 14:25*	*1*
Tetrachloro-m-xylene	*96*		*60 - 154*	*07/10/24 16:42*	*07/12/24 14:25*	*1*
DCB Decachlorobiphenyl	*98*		*65 - 174*	*07/10/24 16:42*	*07/12/24 14:25*	*1*
DCB Decachlorobiphenyl	*99*		*65 - 174*	*07/10/24 16:42*	*07/12/24 14:25*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**18800**		11.9	10.2	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Antimony	**0.88**	**J F1**	17.8	0.63	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Arsenic	**5.8**		2.4	1.0	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Barium	**139**		0.59	0.17	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Beryllium	**1.1**		0.24	0.048	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Cadmium	**0.31**	**F1**	0.24	0.083	mg/Kg	☼	07/10/24 14:41	07/11/24 19:21	1
Calcium	**38900**		59.4	32.1	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Chromium	**36.1**		0.59	0.43	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Cobalt	**10.8**		0.59	0.12	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Copper	**54.2**		1.2	0.68	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Iron	**22500**	**B**	11.9	10.1	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Lead	**60.4**		1.2	0.55	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Magnesium	**12400**		23.8	10.1	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Manganese	**658**		1.2	0.33	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Nickel	**27.4**		5.9	0.30	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Potassium	**4640**	**F1**	35.6	28.8	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Selenium	**1.2**	**J F1**	4.8	0.95	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Silver	**0.25**	**J**	0.71	0.24	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Sodium	**211**		166	72.8	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Thallium	ND		7.1	0.90	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Vanadium	**35.6**		0.59	0.15	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1
Zinc	**114**		2.4	1.2	mg/Kg	☼	07/10/24 14:41	07/11/24 12:39	1

Client Sample ID: SB-10-0-0.2

Lab Sample ID: 480-221432-1

Date Collected: 07/08/24 11:45
Matrix: Solid
Date Received: 07/09/24 17:43
Percent Solids: 81.8

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**3.3**		0.12	0.027	mg/Kg	☼	07/11/24 11:25	07/11/24 14:31	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.58	mg/Kg	☼	07/18/24 12:15	07/18/24 16:20	1

Client Sample ID: SB-10-39-42

Lab Sample ID: 480-221432-2

Date Collected: 07/09/24 13:15
Matrix: Solid
Date Received: 07/09/24 17:43
Percent Solids: 72.6

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.6	0.41	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
1,1,2,2-Tetrachloroethane	ND		5.6	0.91	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.6	1.3	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
1,1,2-Trichloroethane	ND		5.6	0.73	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
1,1-Dichloroethane	ND		5.6	0.69	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
1,1-Dichloroethene	ND		5.6	0.69	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
1,2,4-Trichlorobenzene	ND		5.6	0.34	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
1,2-Dibromo-3-Chloropropane	ND		5.6	2.8	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
1,2-Dibromoethane	ND		5.6	0.72	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
1,2-Dichlorobenzene	ND		5.6	0.44	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
1,2-Dichloroethane	ND		5.6	0.28	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
1,2-Dichloropropane	ND		5.6	2.8	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
1,3-Dichlorobenzene	ND		5.6	0.29	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
1,4-Dichlorobenzene	ND		5.6	0.79	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
2-Butanone (MEK)	ND		28	2.1	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
2-Hexanone	ND		28	2.8	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
4-Methyl-2-pentanone (MIBK)	ND		28	1.8	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Acetone	**8.9**	**J**	28	4.7	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Benzene	ND		5.6	0.28	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Bromodichloromethane	ND		5.6	0.75	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Bromoform	ND		5.6	2.8	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Bromomethane	ND		5.6	0.51	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Carbon disulfide	ND		5.6	2.8	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Carbon tetrachloride	ND		5.6	0.55	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Chlorobenzene	ND		5.6	0.74	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Chloroethane	ND		5.6	1.3	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Chloroform	ND		5.6	0.35	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Chloromethane	ND		5.6	0.34	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
cis-1,2-Dichloroethene	ND		5.6	0.72	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
cis-1,3-Dichloropropene	ND		5.6	0.81	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Cyclohexane	ND		5.6	0.79	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Dibromochloromethane	ND		5.6	0.72	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Dichlorodifluoromethane	ND		5.6	0.47	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Ethylbenzene	ND		5.6	0.39	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Isopropylbenzene	ND		5.6	0.85	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Methyl acetate	ND		28	3.4	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Methyl tert-butyl ether	ND		5.6	0.55	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Methylcyclohexane	ND		5.6	0.86	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1

Client Sample ID: SB-10-39-42
Date Collected: 07/09/24 13:15
Date Received: 07/09/24 17:43

Lab Sample ID: 480-221432-2
Matrix: Solid
Percent Solids: 72.6

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		5.6	2.6	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Styrene	ND		5.6	0.28	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Tetrachloroethene	ND		5.6	0.76	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Toluene	ND		5.6	0.43	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
trans-1,2-Dichloroethene	ND		5.6	0.58	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
trans-1,3-Dichloropropene	ND		5.6	2.5	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Trichloroethene	ND		5.6	1.2	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Trichlorofluoromethane	ND		5.6	0.53	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Vinyl chloride	ND		5.6	0.69	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1
Xylenes, Total	ND		11	0.95	ug/Kg	☼	07/10/24 10:30	07/11/24 22:37	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/10/24 10:30*	*07/11/24 22:37*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*64 - 126*	*07/10/24 10:30*	*07/11/24 22:37*	*1*
4-Bromofluorobenzene (Surr)	*102*		*72 - 126*	*07/10/24 10:30*	*07/11/24 22:37*	*1*
Dibromofluoromethane (Surr)	*104*		*60 - 140*	*07/10/24 10:30*	*07/11/24 22:37*	*1*
Toluene-d8 (Surr)	*102*		*71 - 125*	*07/10/24 10:30*	*07/11/24 22:37*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		230	62	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
2,4,6-Trichlorophenol	ND		230	46	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
2,4-Dichlorophenol	ND		230	24	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
2,4-Dimethylphenol	ND		230	55	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
2,4-Dinitrophenol	ND		2200	1100	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
2,4-Dinitrotoluene	ND		230	47	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
2,6-Dinitrotoluene	ND		230	27	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
2-Chloronaphthalene	ND		230	38	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
2-Chlorophenol	ND		450	42	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
2-Methylnaphthalene	ND		230	46	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
2-Methylphenol	ND		230	27	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
2-Nitroaniline	ND		450	34	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
2-Nitrophenol	ND		230	65	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
3,3'-Dichlorobenzidine	ND		450	270	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
3-Nitroaniline	ND		450	64	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
4,6-Dinitro-2-methylphenol	ND		450	230	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
4-Bromophenyl phenyl ether	ND		230	32	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
4-Chloro-3-methylphenol	ND		230	57	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
4-Chloroaniline	ND		230	57	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
4-Chlorophenyl phenyl ether	ND		230	28	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
4-Methylphenol	ND		450	27	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
4-Nitroaniline	ND		450	120	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
4-Nitrophenol	ND		450	160	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Acenaphthene	ND		230	34	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Acenaphthylene	ND		230	30	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Acetophenone	ND		230	31	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Anthracene	ND		230	57	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Atrazine	ND		230	80	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1

Client Sample ID: SB-10-39-42
Date Collected: 07/09/24 13:15
Date Received: 07/09/24 17:43

Lab Sample ID: 480-221432-2
Matrix: Solid
Percent Solids: 72.6

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzaldehyde	ND		230	180	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Benzo[a]anthracene	ND		230	23	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Benzo[a]pyrene	ND		230	34	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Benzo[b]fluoranthene	ND		230	37	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Benzo[g,h,i]perylene	ND		230	24	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Benzo[k]fluoranthene	ND		230	30	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Biphenyl	ND		230	34	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
bis (2-chloroisopropyl) ether	ND		230	46	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Bis(2-chloroethoxy)methane	ND		230	49	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Bis(2-chloroethyl)ether	ND		230	30	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Bis(2-ethylhexyl) phthalate	ND		230	78	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Butyl benzyl phthalate	ND		230	38	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Caprolactam	ND		230	69	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Carbazole	ND		230	27	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Chrysene	ND		230	51	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Dibenz(a,h)anthracene	ND		230	41	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Dibenzofuran	ND		230	27	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Diethyl phthalate	ND		230	30	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Dimethyl phthalate	ND		230	27	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Di-n-butyl phthalate	ND		230	39	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Di-n-octyl phthalate	ND		230	27	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Fluoranthene	ND		230	24	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Fluorene	ND		230	27	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Hexachlorobenzene	ND		230	31	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Hexachlorobutadiene	ND		230	34	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Hexachlorocyclopentadiene	ND		230	31	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Hexachloroethane	ND		230	30	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Indeno[1,2,3-cd]pyrene	ND		230	28	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Isophorone	ND		230	49	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Naphthalene	ND		230	30	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Nitrobenzene	ND		230	26	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
N-Nitrosodi-n-propylamine	ND		230	39	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
N-Nitrosodiphenylamine	ND		230	190	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Pentachlorophenol	ND		450	230	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Phenanthrene	ND		230	34	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Phenol	ND		230	35	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1
Pyrene	ND		230	27	ug/Kg	☼	07/11/24 07:25	07/12/24 22:10	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*840*	*T J*	*ug/Kg*	☼	*4.57*	*N/A*	*07/11/24 07:25*	*07/12/24 22:10*	*1*
Pentadecane	*220*	*T J N*	*ug/Kg*	☼	*9.99*	*629-62-9*	*07/11/24 07:25*	*07/12/24 22:10*	*1*
Hexadecane	*250*	*T J N*	*ug/Kg*	☼	*10.44*	*544-76-3*	*07/11/24 07:25*	*07/12/24 22:10*	*1*
Heptadecane	*370*	*T J N*	*ug/Kg*	☼	*10.87*	*629-78-7*	*07/11/24 07:25*	*07/12/24 22:10*	*1*
Octadecane	*220*	*T J N*	*ug/Kg*	☼	*11.25*	*593-45-3*	*07/11/24 07:25*	*07/12/24 22:10*	*1*
Nonadecane	*210*	*T J N*	*ug/Kg*	☼	*11.61*	*629-92-5*	*07/11/24 07:25*	*07/12/24 22:10*	*1*
Eicosane	*280*	*T J N*	*ug/Kg*	☼	*12.29*	*112-95-8*	*07/11/24 07:25*	*07/12/24 22:10*	*1*
Unknown	*490*	*T J*	*ug/Kg*	☼	*12.57*	*N/A*	*07/11/24 07:25*	*07/12/24 22:10*	*1*
Unknown	*250*	*T J*	*ug/Kg*	☼	*12.75*	*N/A*	*07/11/24 07:25*	*07/12/24 22:10*	*1*
Unknown	*310*	*T J*	*ug/Kg*	☼	*12.87*	*N/A*	*07/11/24 07:25*	*07/12/24 22:10*	*1*
Tetracosane	*180*	*T J N*	*ug/Kg*	☼	*13.60*	*646-31-1*	*07/11/24 07:25*	*07/12/24 22:10*	*1*

Client Sample ID: SB-10-39-42

Date Collected: 07/09/24 13:15
Date Received: 07/09/24 17:43

Lab Sample ID: 480-221432-2

Matrix: Solid
Percent Solids: 72.6

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*88*		*26 - 143*	*07/11/24 07:25*	*07/12/24 22:10*	*1*
2-Fluorobiphenyl	*81*		*50 - 121*	*07/11/24 07:25*	*07/12/24 22:10*	*1*
2-Fluorophenol	*78*		*36 - 120*	*07/11/24 07:25*	*07/12/24 22:10*	*1*
Nitrobenzene-d5	*74*		*40 - 121*	*07/11/24 07:25*	*07/12/24 22:10*	*1*
Phenol-d5	*83*		*41 - 120*	*07/11/24 07:25*	*07/12/24 22:10*	*1*
p-Terphenyl-d14	*93*		*46 - 143*	*07/11/24 07:25*	*07/12/24 22:10*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.3	0.44	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
4,4'-DDE	ND		2.3	0.48	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
4,4'-DDT	ND		2.3	0.53	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
Aldrin	ND		2.3	0.56	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
alpha-BHC	ND		2.3	0.41	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
cis-Chlordane	ND		2.3	1.1	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
beta-BHC	ND		2.3	0.41	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
delta-BHC	ND		2.3	0.42	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
Dieldrin	ND		2.3	0.55	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
Endosulfan I	ND		2.3	0.44	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
Endosulfan II	ND		2.3	0.41	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
Endosulfan sulfate	ND		2.3	0.42	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
Endrin	ND		2.3	0.45	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
Endrin aldehyde	ND		2.3	0.58	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
Endrin ketone	ND		2.3	0.56	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
gamma-BHC (Lindane)	ND		2.3	0.42	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
trans-Chlordane	ND		2.3	0.72	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
Heptachlor	ND		2.3	0.49	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
Heptachlor epoxide	ND		2.3	0.59	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
Methoxychlor	**0.96**	**J**	2.3	0.46	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1
Toxaphene	ND		23	13	ug/Kg	☼	07/11/24 07:14	07/11/24 15:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*74*		*45 - 120*	*07/11/24 07:14*	*07/11/24 15:39*	*1*
DCB Decachlorobiphenyl	*73*		*45 - 120*	*07/11/24 07:14*	*07/11/24 15:39*	*1*
Tetrachloro-m-xylene	*59*		*30 - 124*	*07/11/24 07:14*	*07/11/24 15:39*	*1*
Tetrachloro-m-xylene	*66*		*30 - 124*	*07/11/24 07:14*	*07/11/24 15:39*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.32	0.062	mg/Kg	☼	07/10/24 16:42	07/12/24 14:42	1
PCB-1221	ND		0.32	0.062	mg/Kg	☼	07/10/24 16:42	07/12/24 14:42	1
PCB-1232	ND		0.32	0.062	mg/Kg	☼	07/10/24 16:42	07/12/24 14:42	1
PCB-1242	ND		0.32	0.062	mg/Kg	☼	07/10/24 16:42	07/12/24 14:42	1
PCB-1248	ND		0.32	0.062	mg/Kg	☼	07/10/24 16:42	07/12/24 14:42	1
PCB-1254	ND		0.32	0.15	mg/Kg	☼	07/10/24 16:42	07/12/24 14:42	1
PCB-1260	ND		0.32	0.15	mg/Kg	☼	07/10/24 16:42	07/12/24 14:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*109*		*60 - 154*	*07/10/24 16:42*	*07/12/24 14:42*	*1*
Tetrachloro-m-xylene	*102*		*60 - 154*	*07/10/24 16:42*	*07/12/24 14:42*	*1*
DCB Decachlorobiphenyl	*101*		*65 - 174*	*07/10/24 16:42*	*07/12/24 14:42*	*1*

Client Sample ID: SB-10-39-42

Date Collected: 07/09/24 13:15
Date Received: 07/09/24 17:43

Lab Sample ID: 480-221432-2

Matrix: Solid
Percent Solids: 72.6

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	104		65 - 174	07/10/24 16:42	07/12/24 14:42	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	32500		13.4	11.5	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Antimony	ND		20.1	0.71	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Arsenic	4.6		2.7	1.2	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Barium	191		0.67	0.19	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Beryllium	1.4		0.27	0.054	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Cadmium	0.27		0.27	0.094	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Calcium	46800		67.0	36.2	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Chromium	38.3		0.67	0.48	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Cobalt	17.0		0.67	0.13	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Copper	24.2		1.3	0.76	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Iron	28700	B	13.4	11.4	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Lead	12.8		1.3	0.62	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Magnesium	16300		26.8	11.4	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Manganese	592		1.3	0.38	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Nickel	33.1		6.7	0.33	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Potassium	11300		40.2	32.5	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Selenium	1.4	J	5.4	1.1	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Silver	0.35	J	0.80	0.27	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Sodium	728		188	82.1	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Thallium	ND		8.0	1.0	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Vanadium	58.3		0.67	0.17	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1
Zinc	76.7		2.7	1.4	mg/Kg	☼	07/10/24 14:41	07/11/24 12:54	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.013	J	0.027	0.0062	mg/Kg	☼	07/11/24 11:25	07/11/24 14:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.4	0.65	mg/Kg	☼	07/18/24 12:15	07/18/24 16:22	1

Client Sample ID: SB-10-48-49

Date Collected: 07/09/24 14:25
Date Received: 07/09/24 17:43

Lab Sample ID: 480-221432-3

Matrix: Solid
Percent Solids: 76.6

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.4	0.32	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
1,1,2,2-Tetrachloroethane	ND		4.4	0.71	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.4	1.0	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
1,1,2-Trichloroethane	ND		4.4	0.57	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
1,1-Dichloroethane	ND		4.4	0.54	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
1,1-Dichloroethene	ND		4.4	0.54	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
1,2,4-Trichlorobenzene	ND		4.4	0.27	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
1,2-Dibromo-3-Chloropropane	ND		4.4	2.2	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
1,2-Dibromoethane	ND		4.4	0.56	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1

Client Sample ID: SB-10-48-49
Date Collected: 07/09/24 14:25
Date Received: 07/09/24 17:43

Lab Sample ID: 480-221432-3
Matrix: Solid
Percent Solids: 76.6

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		4.4	0.34	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
1,2-Dichloroethane	ND		4.4	0.22	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
1,2-Dichloropropane	ND		4.4	2.2	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
1,3-Dichlorobenzene	ND		4.4	0.23	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
1,4-Dichlorobenzene	ND		4.4	0.62	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
2-Butanone (MEK)	ND		22	1.6	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
2-Hexanone	ND		22	2.2	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
4-Methyl-2-pentanone (MIBK)	ND		22	1.4	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Acetone	**5.4**	**J**	22	3.7	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Benzene	ND		4.4	0.22	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Bromodichloromethane	ND		4.4	0.59	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Bromoform	ND		4.4	2.2	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Bromomethane	ND		4.4	0.40	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Carbon disulfide	ND		4.4	2.2	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Carbon tetrachloride	ND		4.4	0.43	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Chlorobenzene	ND		4.4	0.58	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Chloroethane	ND		4.4	0.99	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Chloroform	ND		4.4	0.27	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Chloromethane	ND		4.4	0.27	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
cis-1,2-Dichloroethene	ND		4.4	0.56	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
cis-1,3-Dichloropropene	ND		4.4	0.63	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Cyclohexane	ND		4.4	0.62	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Dibromochloromethane	ND		4.4	0.56	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Dichlorodifluoromethane	ND		4.4	0.36	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Ethylbenzene	ND		4.4	0.30	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Isopropylbenzene	ND		4.4	0.66	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Methyl acetate	ND		22	2.7	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Methyl tert-butyl ether	ND		4.4	0.43	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Methylcyclohexane	ND		4.4	0.67	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Methylene Chloride	ND		4.4	2.0	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Styrene	ND		4.4	0.22	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Tetrachloroethene	ND		4.4	0.59	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Toluene	ND		4.4	0.33	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
trans-1,2-Dichloroethene	ND		4.4	0.45	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
trans-1,3-Dichloropropene	ND		4.4	1.9	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Trichloroethene	ND		4.4	0.97	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Trichlorofluoromethane	ND		4.4	0.42	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Vinyl chloride	ND		4.4	0.54	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1
Xylenes, Total	ND		8.8	0.74	ug/Kg	☼	07/10/24 10:30	07/11/24 23:01	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/10/24 10:30*	*07/11/24 23:01*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*64 - 126*	*07/10/24 10:30*	*07/11/24 23:01*	*1*
4-Bromofluorobenzene (Surr)	*103*		*72 - 126*	*07/10/24 10:30*	*07/11/24 23:01*	*1*
Dibromofluoromethane (Surr)	*103*		*60 - 140*	*07/10/24 10:30*	*07/11/24 23:01*	*1*
Toluene-d8 (Surr)	*100*		*71 - 125*	*07/10/24 10:30*	*07/11/24 23:01*	*1*

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221432-1

Client Sample ID: SB-10-48-49
Date Collected: 07/09/24 14:25
Date Received: 07/09/24 17:43

Lab Sample ID: 480-221432-3
Matrix: Solid
Percent Solids: 76.6

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		220	60	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
2,4,6-Trichlorophenol	ND		220	44	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
2,4-Dichlorophenol	ND		220	23	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
2,4-Dimethylphenol	ND		220	53	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
2,4-Dinitrophenol	ND		2200	1000	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
2,4-Dinitrotoluene	ND		220	46	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
2,6-Dinitrotoluene	ND		220	26	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
2-Chloronaphthalene	ND		220	37	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
2-Chlorophenol	ND		430	40	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
2-Methylnaphthalene	ND		220	44	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
2-Methylphenol	ND		220	26	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
2-Nitroaniline	ND		430	33	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
2-Nitrophenol	ND		220	63	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
3,3'-Dichlorobenzidine	ND		430	260	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
3-Nitroaniline	ND		430	61	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
4,6-Dinitro-2-methylphenol	ND		430	220	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
4-Bromophenyl phenyl ether	ND		220	31	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
4-Chloro-3-methylphenol	ND		220	55	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
4-Chloroaniline	ND		220	55	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
4-Chlorophenyl phenyl ether	ND		220	27	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
4-Methylphenol	ND		430	26	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
4-Nitroaniline	ND		430	120	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
4-Nitrophenol	ND		430	160	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Acenaphthene	ND		220	33	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Acenaphthylene	ND		220	29	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Acetophenone	ND		220	30	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Anthracene	ND		220	55	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Atrazine	ND		220	77	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Benzaldehyde	ND		220	180	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Benzo[a]anthracene	ND		220	22	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Benzo[a]pyrene	ND		220	33	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Benzo[b]fluoranthene	ND		220	35	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Benzo[g,h,i]perylene	ND		220	23	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Benzo[k]fluoranthene	ND		220	29	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Biphenyl	ND		220	33	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
bis (2-chloroisopropyl) ether	ND		220	44	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Bis(2-chloroethoxy)methane	ND		220	47	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Bis(2-chloroethyl)ether	ND		220	29	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Bis(2-ethylhexyl) phthalate	ND		220	76	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Butyl benzyl phthalate	ND		220	37	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Caprolactam	ND		220	66	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Carbazole	ND		220	26	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Chrysene	ND		220	50	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Dibenz(a,h)anthracene	ND		220	39	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Dibenzofuran	ND		220	26	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Diethyl phthalate	ND		220	29	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Dimethyl phthalate	ND		220	26	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Di-n-butyl phthalate	ND		220	38	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Di-n-octyl phthalate	ND		220	26	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1

Client Sample ID: SB-10-48-49

Date Collected: 07/09/24 14:25
Date Received: 07/09/24 17:43

Lab Sample ID: 480-221432-3

Matrix: Solid
Percent Solids: 76.6

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		220	23	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Fluorene	ND		220	26	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Hexachlorobenzene	ND		220	30	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Hexachlorobutadiene	ND		220	33	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Hexachlorocyclopentadiene	ND		220	30	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Hexachloroethane	ND		220	29	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Indeno[1,2,3-cd]pyrene	ND		220	27	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Isophorone	ND		220	47	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Naphthalene	ND		220	29	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Nitrobenzene	ND		220	25	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
N-Nitrosodi-n-propylamine	ND		220	38	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
N-Nitrosodiphenylamine	ND		220	180	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Pentachlorophenol	ND		430	220	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Phenanthrene	ND		220	33	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Phenol	ND		220	34	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1
Pyrene	ND		220	26	ug/Kg	☼	07/11/24 07:25	07/15/24 14:23	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*760*	*T J*	*ug/Kg*	☼	*4.56*	*N/A*	*07/11/24 07:25*	*07/15/24 14:23*	*1*
Hexadecane	*190*	*T J N*	*ug/Kg*	☼	*10.44*	*544-76-3*	*07/11/24 07:25*	*07/15/24 14:23*	*1*
Heptadecane	*260*	*T J N*	*ug/Kg*	☼	*10.87*	*629-78-7*	*07/11/24 07:25*	*07/15/24 14:23*	*1*
Octadecane	*180*	*T J N*	*ug/Kg*	☼	*11.25*	*593-45-3*	*07/11/24 07:25*	*07/15/24 14:23*	*1*
Heneicosane	*270*	*T J N*	*ug/Kg*	☼	*12.29*	*629-94-7*	*07/11/24 07:25*	*07/15/24 14:23*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*76*		*26 - 143*	*07/11/24 07:25*	*07/15/24 14:23*	*1*
2-Fluorobiphenyl	*73*		*50 - 121*	*07/11/24 07:25*	*07/15/24 14:23*	*1*
2-Fluorophenol	*76*		*36 - 120*	*07/11/24 07:25*	*07/15/24 14:23*	*1*
Nitrobenzene-d5	*76*		*40 - 121*	*07/11/24 07:25*	*07/15/24 14:23*	*1*
Phenol-d5	*81*		*41 - 120*	*07/11/24 07:25*	*07/15/24 14:23*	*1*
p-Terphenyl-d14	*80*		*46 - 143*	*07/11/24 07:25*	*07/15/24 14:23*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.2	0.42	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
4,4'-DDE	ND		2.2	0.45	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
4,4'-DDT	ND		2.2	0.51	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
Aldrin	ND		2.2	0.53	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
alpha-BHC	ND		2.2	0.39	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
cis-Chlordane	ND		2.2	1.1	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
beta-BHC	ND		2.2	0.39	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
delta-BHC	ND		2.2	0.40	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
Dieldrin	ND		2.2	0.52	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
Endosulfan I	ND		2.2	0.42	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
Endosulfan II	ND		2.2	0.39	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
Endosulfan sulfate	ND		2.2	0.40	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
Endrin	ND		2.2	0.43	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
Endrin aldehyde	ND		2.2	0.55	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
Endrin ketone	ND		2.2	0.53	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
gamma-BHC (Lindane)	ND		2.2	0.40	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1

Client Sample ID: SB-10-48-49

Date Collected: 07/09/24 14:25
Date Received: 07/09/24 17:43

Lab Sample ID: 480-221432-3

Matrix: Solid
Percent Solids: 76.6

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-Chlordane	ND		2.2	0.69	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
Heptachlor	ND		2.2	0.47	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
Heptachlor epoxide	ND		2.2	0.56	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
Methoxychlor	ND		2.2	0.44	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1
Toxaphene	ND		22	13	ug/Kg	☼	07/11/24 07:14	07/11/24 15:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*81*		*45 - 120*	*07/11/24 07:14*	*07/11/24 15:59*	*1*
DCB Decachlorobiphenyl	*81*		*45 - 120*	*07/11/24 07:14*	*07/11/24 15:59*	*1*
Tetrachloro-m-xylene	*64*		*30 - 124*	*07/11/24 07:14*	*07/11/24 15:59*	*1*
Tetrachloro-m-xylene	*71*		*30 - 124*	*07/11/24 07:14*	*07/11/24 15:59*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.31	0.060	mg/Kg	☼	07/10/24 16:42	07/12/24 14:59	1
PCB-1221	ND		0.31	0.060	mg/Kg	☼	07/10/24 16:42	07/12/24 14:59	1
PCB-1232	ND		0.31	0.060	mg/Kg	☼	07/10/24 16:42	07/12/24 14:59	1
PCB-1242	ND		0.31	0.060	mg/Kg	☼	07/10/24 16:42	07/12/24 14:59	1
PCB-1248	ND		0.31	0.060	mg/Kg	☼	07/10/24 16:42	07/12/24 14:59	1
PCB-1254	ND		0.31	0.14	mg/Kg	☼	07/10/24 16:42	07/12/24 14:59	1
PCB-1260	ND		0.31	0.14	mg/Kg	☼	07/10/24 16:42	07/12/24 14:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*110*		*60 - 154*	*07/10/24 16:42*	*07/12/24 14:59*	*1*
Tetrachloro-m-xylene	*101*		*60 - 154*	*07/10/24 16:42*	*07/12/24 14:59*	*1*
DCB Decachlorobiphenyl	*104*		*65 - 174*	*07/10/24 16:42*	*07/12/24 14:59*	*1*
DCB Decachlorobiphenyl	*107*		*65 - 174*	*07/10/24 16:42*	*07/12/24 14:59*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**22600**		12.7	10.9	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Antimony	ND		19.0	0.67	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Arsenic	**3.7**		2.5	1.1	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Barium	**148**		0.63	0.18	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Beryllium	**1.0**		0.25	0.051	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Cadmium	**0.28**		0.25	0.089	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Calcium	**47800**		63.3	34.2	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Chromium	**26.1**		0.63	0.46	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Cobalt	**13.2**		0.63	0.13	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Copper	**22.1**		1.3	0.72	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Iron	**23000**	**B**	12.7	10.7	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Lead	**13.9**		1.3	0.58	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Magnesium	**17200**		25.3	10.7	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Manganese	**550**		1.3	0.35	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Nickel	**26.1**		6.3	0.32	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Potassium	**7750**		38.0	30.7	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Selenium	ND		5.1	1.0	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Silver	**0.35**	**J**	0.76	0.25	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Sodium	**458**		177	77.6	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Thallium	ND		7.6	0.96	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1

Client Sample ID: SB-10-48-49

Lab Sample ID: 480-221432-3
Date Collected: 07/09/24 14:25
Matrix: Solid
Date Received: 07/09/24 17:43
Percent Solids: 76.6

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	41.1		0.63	0.16	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1
Zinc	62.6		2.5	1.3	mg/Kg	☼	07/10/24 14:41	07/11/24 12:56	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.011	J	0.027	0.0062	mg/Kg	☼	07/11/24 11:25	07/11/24 14:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.58	mg/Kg	☼	07/18/24 12:15	07/18/24 16:26	1

Client Sample ID: SB-01-0-0.2

Lab Sample ID: 480-221432-4
Date Collected: 07/09/24 15:45
Matrix: Solid
Date Received: 07/09/24 17:43
Percent Solids: 98.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		1000	560	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
2,4,5-Trichlorophenol	ND		1700	470	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
2,4,6-Trichlorophenol	ND		1700	340	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
2,4-Dichlorophenol	ND		1700	180	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
2,4-Dimethylphenol	ND		1700	420	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
2,4-Dinitrophenol	ND		17000	8000	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
2,4-Dinitrotoluene	ND		1700	350	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
2,6-Dinitrotoluene	ND		1700	200	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
2-Chloronaphthalene	ND		1700	280	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
2-Chlorophenol	ND		3300	310	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
2-Methylnaphthalene	ND		1700	340	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
2-Methylphenol	ND		1700	200	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
2-Nitroaniline	ND		3300	250	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
2-Nitrophenol	ND		1700	490	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
3,3'-Dichlorobenzidine	ND		3300	2000	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
3-Nitroaniline	ND		3300	480	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
4,6-Dinitro-2-methylphenol	ND		3300	1700	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
4-Bromophenyl phenyl ether	ND		1700	240	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
4-Chloro-3-methylphenol	ND		1700	430	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
4-Chloroaniline	ND		1700	430	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
4-Chlorophenyl phenyl ether	ND		1700	210	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
4-Methylphenol	ND		3300	200	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
4-Nitroaniline	ND		3300	900	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
4-Nitrophenol	ND		3300	1200	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Acenaphthene	ND		1700	250	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Acenaphthylene	ND		1700	220	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Acetophenone	ND		1700	230	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Anthracene	ND		1700	430	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Atrazine	ND		1700	600	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Benzaldehyde	ND		1700	1400	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Benzo[a]anthracene	ND		1700	170	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Benzo[a]pyrene	ND		1700	250	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Benzo[b]fluoranthene	ND		1700	270	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10

Client Sample ID: SB-01-0-0.2
Date Collected: 07/09/24 15:45
Date Received: 07/09/24 17:43

Lab Sample ID: 480-221432-4
Matrix: Solid
Percent Solids: 98.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	ND		1700	180	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Benzo[k]fluoranthene	ND		1700	220	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Biphenyl	ND		1700	250	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
bis (2-chloroisopropyl) ether	ND		1700	340	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Bis(2-chloroethoxy)methane	ND		1700	370	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Bis(2-chloroethyl)ether	ND		1700	220	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Bis(2-ethylhexyl) phthalate	ND		1700	590	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Butyl benzyl phthalate	ND		1700	280	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Caprolactam	ND		1700	520	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Carbazole	ND		1700	200	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Chrysene	ND		1700	390	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Dibenz(a,h)anthracene	ND		1700	300	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Dibenzofuran	ND		1700	200	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Diethyl phthalate	ND		1700	220	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Dimethyl phthalate	ND		1700	200	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Di-n-butyl phthalate	ND		1700	290	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Di-n-octyl phthalate	ND		1700	200	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Fluoranthene	ND		1700	180	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Fluorene	ND		1700	200	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Hexachlorobenzene	ND		1700	230	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Hexachlorobutadiene	ND		1700	250	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Hexachlorocyclopentadiene	ND		1700	230	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Hexachloroethane	ND		1700	220	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Indeno[1,2,3-cd]pyrene	ND		1700	210	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Isophorone	ND		1700	370	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Naphthalene	ND		1700	220	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Nitrobenzene	ND		1700	190	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
N-Nitrosodi-n-propylamine	ND		1700	290	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
N-Nitrosodiphenylamine	ND		1700	1400	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Pentachlorophenol	ND		3300	1700	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Phenanthrene	ND		1700	250	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Phenol	ND		1700	260	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10
Pyrene	ND		1700	200	ug/Kg	☼	07/11/24 07:25	07/15/24 14:52	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/11/24 07:25*	*07/15/24 14:52*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*85*		*26 - 143*	*07/11/24 07:25*	*07/15/24 14:52*	*10*
2-Fluorobiphenyl	*81*		*50 - 121*	*07/11/24 07:25*	*07/15/24 14:52*	*10*
2-Fluorophenol	*77*		*36 - 120*	*07/11/24 07:25*	*07/15/24 14:52*	*10*
Nitrobenzene-d5	*79*		*40 - 121*	*07/11/24 07:25*	*07/15/24 14:52*	*10*
Phenol-d5	*84*		*41 - 120*	*07/11/24 07:25*	*07/15/24 14:52*	*10*
p-Terphenyl-d14	*80*		*46 - 143*	*07/11/24 07:25*	*07/15/24 14:52*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		34	6.5	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
4,4'-DDE	ND		34	7.0	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
4,4'-DDT	ND		34	7.8	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20

Client Sample ID: SB-01-0-0.2
Date Collected: 07/09/24 15:45
Date Received: 07/09/24 17:43

Lab Sample ID: 480-221432-4
Matrix: Solid
Percent Solids: 98.0

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		34	8.2	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
alpha-BHC	ND		34	6.0	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
cis-Chlordane	ND		34	17	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
beta-BHC	ND		34	6.0	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
delta-BHC	ND		34	6.2	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
Dieldrin	ND		34	8.0	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
Endosulfan I	ND		34	6.4	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
Endosulfan II	ND		34	6.0	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
Endosulfan sulfate	ND		34	6.2	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
Endrin	ND		34	6.6	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
Endrin aldehyde	ND		34	8.6	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
Endrin ketone	ND		34	8.2	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
gamma-BHC (Lindane)	ND		34	6.1	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
trans-Chlordane	ND		34	11	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
Heptachlor	ND		34	7.3	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
Heptachlor epoxide	ND		34	8.6	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
Methoxychlor	ND		34	6.8	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20
Toxaphene	ND		340	190	ug/Kg	☼	07/11/24 07:14	07/11/24 16:19	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/11/24 07:14*	*07/11/24 16:19*	*20*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/11/24 07:14*	*07/11/24 16:19*	*20*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/11/24 07:14*	*07/11/24 16:19*	*20*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/11/24 07:14*	*07/11/24 16:19*	*20*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.18	0.035	mg/Kg	☼	07/10/24 16:42	07/12/24 13:52	1
PCB-1221	ND		0.18	0.035	mg/Kg	☼	07/10/24 16:42	07/12/24 13:52	1
PCB-1232	ND		0.18	0.035	mg/Kg	☼	07/10/24 16:42	07/12/24 13:52	1
PCB-1242	ND		0.18	0.035	mg/Kg	☼	07/10/24 16:42	07/12/24 13:52	1
PCB-1248	ND		0.18	0.035	mg/Kg	☼	07/10/24 16:42	07/12/24 13:52	1
PCB-1254	ND		0.18	0.084	mg/Kg	☼	07/10/24 16:42	07/12/24 13:52	1
PCB-1260	ND		0.18	0.084	mg/Kg	☼	07/10/24 16:42	07/12/24 13:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*104*		*60 - 154*	*07/10/24 16:42*	*07/12/24 13:52*	*1*
Tetrachloro-m-xylene	*94*		*60 - 154*	*07/10/24 16:42*	*07/12/24 13:52*	*1*
DCB Decachlorobiphenyl	*98*		*65 - 174*	*07/10/24 16:42*	*07/12/24 13:52*	*1*
DCB Decachlorobiphenyl	*97*		*65 - 174*	*07/10/24 16:42*	*07/12/24 13:52*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.67	0.17	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluoropentanoic acid (PFPeA)	ND		0.34	0.084	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluorohexanoic acid (PFHxA)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluoroheptanoic acid (PFHpA)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluorooctanoic acid (PFOA)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluorononanoic acid (PFNA)	**0.050**	**J**	0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluorodecanoic acid (PFDA)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1

Client Sample ID: SB-01-0-0.2
Date Collected: 07/09/24 15:45
Date Received: 07/09/24 17:43

Lab Sample ID: 480-221432-4
Matrix: Solid
Percent Solids: 98.0

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid (PFUnA)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluorododecanoic acid (PFDoA)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluorooctanesulfonic acid (PFOS)	**0.16**	**J**	0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluorononanesulfonic acid (PFNS)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		0.67	0.17	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		0.67	0.17	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		0.67	0.17	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1.7	0.42	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1.7	0.42	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.67	0.17	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.67	0.17	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.34	0.084	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		0.67	0.17	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		0.67	0.17	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.34	0.084	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	*+	0.84	0.21	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		4.2	1.0	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		4.2	1.0	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.17	0.042	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.34	0.084	ug/Kg	☼	07/15/24 08:23	07/16/24 08:17	1

Client Sample ID: SB-01-0-0.2
Date Collected: 07/09/24 15:45
Date Received: 07/09/24 17:43

Lab Sample ID: 480-221432-4
Matrix: Solid
Percent Solids: 98.0

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	108		20 - 150	07/15/24 08:23	07/16/24 08:17	1
13C5 PFPeA	92.1		20 - 150	07/15/24 08:23	07/16/24 08:17	1
13C5 PFHxA	91.2		20 - 150	07/15/24 08:23	07/16/24 08:17	1
13C4 PFHpA	86.6		20 - 150	07/15/24 08:23	07/16/24 08:17	1
13C8 PFOA	85.9		20 - 150	07/15/24 08:23	07/16/24 08:17	1
13C9 PFNA	106		20 - 150	07/15/24 08:23	07/16/24 08:17	1
13C6 PFDA	111		20 - 150	07/15/24 08:23	07/16/24 08:17	1
13C7 PFUnA	102		20 - 150	07/15/24 08:23	07/16/24 08:17	1
13C2 PFTeDA	67.8		20 - 150	07/15/24 08:23	07/16/24 08:17	1
13C3 PFBS	90.3		20 - 150	07/15/24 08:23	07/16/24 08:17	1
13C3 PFHxS	89.4		20 - 150	07/15/24 08:23	07/16/24 08:17	1
13C8 PFOS	103		20 - 150	07/15/24 08:23	07/16/24 08:17	1
13C8 FOSA	99.5		20 - 150	07/15/24 08:23	07/16/24 08:17	1
d3-NMeFOSAA	105		20 - 150	07/15/24 08:23	07/16/24 08:17	1
d5-NEtFOSAA	136		20 - 150	07/15/24 08:23	07/16/24 08:17	1
M2-4:2 FTS	97.5		20 - 150	07/15/24 08:23	07/16/24 08:17	1
M2-6:2 FTS	100		20 - 150	07/15/24 08:23	07/16/24 08:17	1
M2-8:2 FTS	94.8		20 - 150	07/15/24 08:23	07/16/24 08:17	1
13C3 HFPO-DA	88.2		20 - 150	07/15/24 08:23	07/16/24 08:17	1
d7-N-MeFOSE-M	82.3		20 - 150	07/15/24 08:23	07/16/24 08:17	1
d9-N-EtFOSE-M	71.5		20 - 150	07/15/24 08:23	07/16/24 08:17	1
d5-NEtPFOSA	88.1		20 - 150	07/15/24 08:23	07/16/24 08:17	1
d3-NMePFOSA	87.2		20 - 150	07/15/24 08:23	07/16/24 08:17	1
13C2-PFDoDA	102		20 - 150	07/15/24 08:23	07/16/24 08:17	1

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.34	0.084	ug/Kg	☼	07/15/24 08:23	07/19/24 21:10	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	102		20 - 150	07/15/24 08:23	07/19/24 21:10	1
13C5 PFPeA	84.7		20 - 150	07/15/24 08:23	07/19/24 21:10	1
13C5 PFHxA	90.9		20 - 150	07/15/24 08:23	07/19/24 21:10	1
13C4 PFHpA	88.3		20 - 150	07/15/24 08:23	07/19/24 21:10	1
13C8 PFOA	89.4		20 - 150	07/15/24 08:23	07/19/24 21:10	1
13C9 PFNA	97.2		20 - 150	07/15/24 08:23	07/19/24 21:10	1
13C6 PFDA	85.1		20 - 150	07/15/24 08:23	07/19/24 21:10	1
13C7 PFUnA	99.2		20 - 150	07/15/24 08:23	07/19/24 21:10	1
13C2 PFTeDA	93.4		20 - 150	07/15/24 08:23	07/19/24 21:10	1
13C3 PFBS	90.7		20 - 150	07/15/24 08:23	07/19/24 21:10	1
13C3 PFHxS	91.0		20 - 150	07/15/24 08:23	07/19/24 21:10	1
13C8 PFOS	95.4		20 - 150	07/15/24 08:23	07/19/24 21:10	1
13C8 FOSA	108		20 - 150	07/15/24 08:23	07/19/24 21:10	1
d3-NMeFOSAA	95.7		20 - 150	07/15/24 08:23	07/19/24 21:10	1
d5-NEtFOSAA	127		20 - 150	07/15/24 08:23	07/19/24 21:10	1
M2-4:2 FTS	99.0		20 - 150	07/15/24 08:23	07/19/24 21:10	1
M2-6:2 FTS	123		20 - 150	07/15/24 08:23	07/19/24 21:10	1
M2-8:2 FTS	126		20 - 150	07/15/24 08:23	07/19/24 21:10	1
13C3 HFPO-DA	80.2		20 - 150	07/15/24 08:23	07/19/24 21:10	1
d7-N-MeFOSE-M	115		20 - 150	07/15/24 08:23	07/19/24 21:10	1
d9-N-EtFOSE-M	95.3		20 - 150	07/15/24 08:23	07/19/24 21:10	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221432-1

Client Sample ID: SB-01-0-0.2

Date Collected: 07/09/24 15:45
Date Received: 07/09/24 17:43

Lab Sample ID: 480-221432-4

Matrix: Solid
Percent Solids: 98.0

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS - RA (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtPFOSA	86.0		20 - 150	07/15/24 08:23	07/19/24 21:10	1
d3-NMePFOSA	89.7		20 - 150	07/15/24 08:23	07/19/24 21:10	1
13C2-PFDoDA	89.7		20 - 150	07/15/24 08:23	07/19/24 21:10	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**5290**		10.4	9.0	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Antimony	ND		15.7	0.55	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Arsenic	**59.2**		2.1	0.92	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Barium	**111**		0.52	0.15	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Beryllium	**0.93**		0.21	0.042	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Cadmium	**0.63**		0.21	0.073	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Calcium	**2950**		52.2	28.2	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Chromium	**190**		0.52	0.38	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Cobalt	**15.8**		0.52	0.10	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Copper	**47.3**		1.0	0.59	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Iron	**10600**	**B**	10.4	8.9	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Lead	**577**		1.0	0.48	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Magnesium	**1380**		20.9	8.9	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Manganese	**90.8**		1.0	0.29	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Nickel	**873**		5.2	0.26	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Potassium	**425**		31.3	25.3	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Selenium	ND		4.2	0.83	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Silver	**1.0**		0.63	0.21	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Sodium	**234**		146	64.0	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Thallium	**0.95**	**J**	6.3	0.79	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1
Vanadium	**107**		2.6	0.68	mg/Kg	☼	07/10/24 14:41	07/11/24 19:36	5
Zinc	**65.1**		2.1	1.1	mg/Kg	☼	07/10/24 14:41	07/11/24 12:58	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.37**		0.020	0.0046	mg/Kg	☼	07/11/24 11:25	07/11/24 14:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.99	0.48	mg/Kg	☼	07/18/24 12:15	07/18/24 16:27	1

Surrogate Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221432-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(64-126)	(72-126)	(60-140)	(71-125)
480-221432-2	SB-10-39-42	100	102	104	102
480-221432-3	SB-10-48-49	103	103	103	100
LCS 480-718232/1-A	Lab Control Sample	96	102	100	100
MB 480-718232/2-A	Method Blank	98	102	101	97

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPHd14
Lab Sample ID	Client Sample ID	(26-143)	(50-121)	(36-120)	(40-121)	(41-120)	(46-143)
480-221432-1	SB-10-0-0.2	100	100	97	88	94	97
480-221432-1 MS	SB-10-0-0.2	122	102	104	87	91	101
480-221432-1 MSD	SB-10-0-0.2	124	101	104	93	99	99
480-221432-2	SB-10-39-42	88	81	78	74	83	93
480-221432-3	SB-10-48-49	76	73	76	76	81	80
480-221432-4	SB-01-0-0.2	85	81	77	79	84	80
LCS 480-718100/2-A	Lab Control Sample	97	91	89	87	94	95
MB 480-718100/1-A	Method Blank	95	87	87	87	96	97

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHd14 = p-Terphenyl-d14

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1	DCBP2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(45-120)	(45-120)	(30-124)	(30-124)
480-221432-1	SB-10-0-0.2	193 S1+	184 S1+	120	224 S1+
480-221432-2	SB-10-39-42	74	73	59	66
480-221432-3	SB-10-48-49	81	81	64	71
480-221432-4	SB-01-0-0.2	0 S1-	0 S1-	0 S1-	0 S1-
LCS 480-718099/2-A	Lab Control Sample	96	92	78	78
LCS 480-718243/2-A	Lab Control Sample	89	82	69	61
MB 480-718099/1-A	Method Blank	98	92	71	73
MB 480-718243/1-A	Method Blank	102	100	81	77

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Surrogate Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221432-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCBP1	DCBP2
Lab Sample ID	Client Sample ID	(60-154)	(60-154)	(65-174)	(65-174)
480-221432-1	SB-10-0-0.2	96	102	99	98
480-221432-2	SB-10-39-42	102	109	104	101
480-221432-3	SB-10-48-49	101	110	107	104
480-221432-4	SB-01-0-0.2	94	104	97	98
480-221432-4 MS	SB-01-0-0.2	113	116	109	107
480-221432-4 MSD	SB-01-0-0.2	96	105	95	95
LCS 480-718077/2-A	Lab Control Sample	118	122	118	117
MB 480-718077/1-A	Method Blank	94	104	94	94

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCBP = DCB Decachlorobiphenyl

Isotope Dilution Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221432-1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (20-150)	PFPeA (20-150)	13C5PHA (20-150)	C4PFHA (20-150)	C8PFOA (20-150)	C9PFNA (20-150)	C6PFDA (20-150)	13C7PUA (20-150)
480-221432-4	SB-01-0-0.2	108	92.1	91.2	86.6	85.9	106	111	102
480-221432-4 - RA	SB-01-0-0.2	102	84.7	90.9	88.3	89.4	97.2	85.1	99.2
LCS 240-619820/3-A	Lab Control Sample	99.0	89.7	88.7	80.3	79.6	85.1	101	85.8
LLCS 240-619820/2-A	Lab Control Sample	104	99.5	101	90.3	92.5	94.4	109	102
MB 240-619820/1-A	Method Blank	97.7	85.7	86.7	79.7	81.3	89.6	102	100

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFTDA (20-150)	C3PFBS (20-150)	C3PFHS (20-150)	C8PFOS (20-150)	PFOSA (20-150)	d3NMFOS (20-150)	d5NEFOS (20-150)	M242FTS (20-150)
480-221432-4	SB-01-0-0.2	67.8	90.3	89.4	103	99.5	105	136	97.5
480-221432-4 - RA	SB-01-0-0.2	93.4	90.7	91.0	95.4	108	95.7	127	99.0
LCS 240-619820/3-A	Lab Control Sample	56.4	88.8	82.3	89.0	87.6	85.0	126	74.2
LLCS 240-619820/2-A	Lab Control Sample	64.0	87.9	87.9	92.7	91.6	87.9	133	87.3
MB 240-619820/1-A	Method Blank	56.7	86.9	80.6	91.7	84.3	84.3	143	81.6

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M262FTS (20-150)	M282FTS (20-150)	HFPODA (20-150)	NMFM (20-150)	NEFM (20-150)	d5NPFSA (20-150)	d3NMFSA (20-150)	PFDoDA (20-150)
480-221432-4	SB-01-0-0.2	100	94.8	88.2	82.3	71.5	88.1	87.2	102
480-221432-4 - RA	SB-01-0-0.2	123	126	80.2	115	95.3	86.0	89.7	89.7
LCS 240-619820/3-A	Lab Control Sample	77.7	62.9	80.4	76.5	65.1	65.8	65.5	90.0
LLCS 240-619820/2-A	Lab Control Sample	90.2	77.7	93.4	75.4	67.5	68.9	66.7	95.5
MB 240-619820/1-A	Method Blank	84.2	68.1	82.3	73.4	63.5	62.8	61.0	88.9

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoDA = 13C2-PFDoDA

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221432-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-718232/2-A
Matrix: Solid
Analysis Batch: 718233

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718232

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
2-Hexanone	ND		25	2.5	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Acetone	ND		25	4.2	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Benzene	ND		5.0	0.25	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Bromoform	ND		5.0	2.5	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Bromomethane	ND		5.0	0.45	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Carbon disulfide	ND		5.0	2.5	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Chlorobenzene	ND		5.0	0.66	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Chloroethane	ND		5.0	1.1	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Chloroform	0.322	J	5.0	0.31	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Chloromethane	ND		5.0	0.30	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Cyclohexane	ND		5.0	0.70	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Ethylbenzene	ND		5.0	0.35	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Methyl acetate	ND		25	3.0	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Methylene Chloride	ND		5.0	2.3	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Styrene	ND		5.0	0.25	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Tetrachloroethene	ND		5.0	0.67	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Toluene	ND		5.0	0.38	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
trans-1,2-Dichloroethene	ND		5.0	0.52	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Trichloroethene	ND		5.0	1.1	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Vinyl chloride	ND		5.0	0.61	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Xylenes, Total	ND		10	0.84	ug/Kg		07/11/24 18:20	07/11/24 22:05	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-718232/2-A
Matrix: Solid
Analysis Batch: 718233

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718232

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/Kg			N/A	07/11/24 18:20	07/11/24 22:05	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		64 - 126	07/11/24 18:20	07/11/24 22:05	1
4-Bromofluorobenzene (Surr)	102		72 - 126	07/11/24 18:20	07/11/24 22:05	1
Dibromofluoromethane (Surr)	101		60 - 140	07/11/24 18:20	07/11/24 22:05	1
Toluene-d8 (Surr)	97		71 - 125	07/11/24 18:20	07/11/24 22:05	1

Lab Sample ID: LCS 480-718232/1-A
Matrix: Solid
Analysis Batch: 718233

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718232

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	50.0	45.3		ug/Kg		91	77 - 121
1,1,2,2-Tetrachloroethane	50.0	48.0		ug/Kg		96	80 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	39.9		ug/Kg		80	60 - 140
1,1,2-Trichloroethane	50.0	47.8		ug/Kg		96	78 - 122
1,1-Dichloroethane	50.0	42.7		ug/Kg		85	73 - 126
1,1-Dichloroethene	50.0	40.1		ug/Kg		80	59 - 125
1,2,4-Trichlorobenzene	50.0	45.3		ug/Kg		91	64 - 120
1,2-Dibromo-3-Chloropropane	50.0	48.1		ug/Kg		96	63 - 124
1,2-Dibromoethane	50.0	54.3		ug/Kg		109	78 - 120
1,2-Dichlorobenzene	50.0	45.0		ug/Kg		90	75 - 120
1,2-Dichloroethane	50.0	45.7		ug/Kg		91	77 - 122
1,2-Dichloropropane	50.0	45.6		ug/Kg		91	75 - 124
1,3-Dichlorobenzene	50.0	44.7		ug/Kg		89	74 - 120
1,4-Dichlorobenzene	50.0	44.4		ug/Kg		89	73 - 120
2-Butanone (MEK)	250	258		ug/Kg		103	70 - 134
2-Hexanone	250	269		ug/Kg		108	59 - 130
4-Methyl-2-pentanone (MIBK)	250	252		ug/Kg		101	65 - 133
Acetone	250	251		ug/Kg		101	61 - 137
Benzene	50.0	43.9		ug/Kg		88	79 - 127
Bromodichloromethane	50.0	49.3		ug/Kg		99	80 - 122
Bromoform	50.0	60.5		ug/Kg		121	68 - 126
Bromomethane	50.0	47.3		ug/Kg		95	37 - 149
Carbon disulfide	50.0	37.9		ug/Kg		76	64 - 131
Carbon tetrachloride	50.0	50.9		ug/Kg		102	75 - 135
Chlorobenzene	50.0	45.9		ug/Kg		92	76 - 124
Chloroethane	50.0	46.5		ug/Kg		93	69 - 135
Chloroform	50.0	43.8		ug/Kg		88	80 - 120
Chloromethane	50.0	54.4		ug/Kg		109	63 - 127
cis-1,2-Dichloroethene	50.0	43.7		ug/Kg		87	81 - 120
cis-1,3-Dichloropropene	50.0	51.7		ug/Kg		103	80 - 120
Cyclohexane	50.0	41.0		ug/Kg		82	65 - 120
Dibromochloromethane	50.0	55.6		ug/Kg		111	76 - 125
Dichlorodifluoromethane	50.0	58.0		ug/Kg		116	57 - 142
Ethylbenzene	50.0	44.9		ug/Kg		90	80 - 120

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-718232/1-A
Matrix: Solid
Analysis Batch: 718233

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718232

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Isopropylbenzene	50.0	44.5		ug/Kg		89	72 - 120
Methyl acetate	100	99.9		ug/Kg		100	55 - 136
Methyl tert-butyl ether	50.0	46.0		ug/Kg		92	63 - 125
Methylcyclohexane	50.0	41.6		ug/Kg		83	60 - 140
Methylene Chloride	50.0	43.0		ug/Kg		86	61 - 127
Styrene	50.0	47.2		ug/Kg		94	80 - 120
Tetrachloroethene	50.0	45.1		ug/Kg		90	74 - 122
Toluene	50.0	44.1		ug/Kg		88	74 - 128
trans-1,2-Dichloroethene	50.0	41.6		ug/Kg		83	78 - 126
Trichloroethene	50.0	44.0		ug/Kg		88	77 - 129
Trichlorofluoromethane	50.0	49.1		ug/Kg		98	65 - 146
Vinyl chloride	50.0	47.5		ug/Kg		95	61 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*64 - 126*
4-Bromofluorobenzene (Surr)	*102*		*72 - 126*
Dibromofluoromethane (Surr)	*100*		*60 - 140*
Toluene-d8 (Surr)	*100*		*71 - 125*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-718100/1-A
Matrix: Solid
Analysis Batch: 718272

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718100

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		170	46	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
2,4,6-Trichlorophenol	ND		170	34	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
2,4-Dichlorophenol	ND		170	18	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
2,4-Dimethylphenol	ND		170	41	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
2,4-Dinitrophenol	ND		1700	780	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
2,4-Dinitrotoluene	ND		170	35	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
2,6-Dinitrotoluene	ND		170	20	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
2-Chloronaphthalene	ND		170	28	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
2-Chlorophenol	ND		330	31	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
2-Methylnaphthalene	ND		170	34	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
2-Methylphenol	ND		170	20	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
2-Nitroaniline	ND		330	25	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
2-Nitrophenol	ND		170	48	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
3,3'-Dichlorobenzidine	ND		330	200	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
3-Nitroaniline	ND		330	47	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
4,6-Dinitro-2-methylphenol	ND		330	170	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
4-Bromophenyl phenyl ether	ND		170	24	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
4-Chloro-3-methylphenol	ND		170	42	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
4-Chloroaniline	ND		170	42	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
4-Chlorophenyl phenyl ether	ND		170	21	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
4-Methylphenol	ND		330	20	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
4-Nitroaniline	ND		330	89	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
4-Nitrophenol	ND		330	120	ug/Kg		07/11/24 07:25	07/12/24 19:48	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-718100/1-A
Matrix: Solid
Analysis Batch: 718272

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718100

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		170	25	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Acenaphthylene	ND		170	22	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Acetophenone	ND		170	23	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Anthracene	ND		170	42	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Atrazine	ND		170	59	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Benzaldehyde	ND		170	140	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Benzo[a]anthracene	ND		170	17	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Benzo[a]pyrene	ND		170	25	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Benzo[b]fluoranthene	ND		170	27	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Benzo[g,h,i]perylene	ND		170	18	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Benzo[k]fluoranthene	ND		170	22	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Biphenyl	ND		170	25	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
bis (2-chloroisopropyl) ether	ND		170	34	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Bis(2-chloroethoxy)methane	ND		170	36	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Bis(2-chloroethyl)ether	ND		170	22	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Bis(2-ethylhexyl) phthalate	ND		170	58	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Butyl benzyl phthalate	ND		170	28	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Caprolactam	ND		170	51	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Carbazole	ND		170	20	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Chrysene	ND		170	38	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Dibenz(a,h)anthracene	ND		170	30	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Dibenzofuran	ND		170	20	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Diethyl phthalate	ND		170	22	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Dimethyl phthalate	ND		170	20	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Di-n-butyl phthalate	ND		170	29	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Di-n-octyl phthalate	ND		170	20	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Fluoranthene	ND		170	18	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Fluorene	ND		170	20	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Hexachlorobenzene	ND		170	23	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Hexachlorobutadiene	ND		170	25	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Hexachlorocyclopentadiene	ND		170	23	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Hexachloroethane	ND		170	22	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Indeno[1,2,3-cd]pyrene	ND		170	21	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Isophorone	ND		170	36	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Naphthalene	ND		170	22	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Nitrobenzene	ND		170	19	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
N-Nitrosodi-n-propylamine	ND		170	29	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
N-Nitrosodiphenylamine	ND		170	140	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Pentachlorophenol	ND		330	170	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Phenanthrene	ND		170	25	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Phenol	ND		170	26	ug/Kg		07/11/24 07:25	07/12/24 19:48	1
Pyrene	ND		170	20	ug/Kg		07/11/24 07:25	07/12/24 19:48	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*670*	*T J*	*ug/Kg*		*4.56*	*N/A*	*07/11/24 07:25*	*07/12/24 19:48*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*95*		*26 - 143*	*07/11/24 07:25*	*07/12/24 19:48*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-718100/1-A
Matrix: Solid
Analysis Batch: 718272

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718100

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	87		50 - 121	07/11/24 07:25	07/12/24 19:48	1
2-Fluorophenol	87		36 - 120	07/11/24 07:25	07/12/24 19:48	1
Nitrobenzene-d5	87		40 - 121	07/11/24 07:25	07/12/24 19:48	1
Phenol-d5	96		41 - 120	07/11/24 07:25	07/12/24 19:48	1
p-Terphenyl-d14	97		46 - 143	07/11/24 07:25	07/12/24 19:48	1

Lab Sample ID: LCS 480-718100/2-A
Matrix: Solid
Analysis Batch: 718272

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718100

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4,5-Trichlorophenol	1330	1300		ug/Kg		97	59 - 126
2,4,6-Trichlorophenol	1330	1310		ug/Kg		98	59 - 123
2,4-Dichlorophenol	1330	1300		ug/Kg		97	61 - 120
2,4-Dimethylphenol	1330	1310		ug/Kg		98	59 - 120
2,4-Dinitrophenol	2670	2150		ug/Kg		81	41 - 146
2,4-Dinitrotoluene	1330	1350		ug/Kg		101	63 - 120
2,6-Dinitrotoluene	1330	1280		ug/Kg		96	66 - 120
2-Chloronaphthalene	1330	1220		ug/Kg		91	57 - 120
2-Chlorophenol	1330	1170		ug/Kg		88	53 - 120
2-Methylnaphthalene	1330	1170		ug/Kg		88	59 - 120
2-Methylphenol	1330	1270		ug/Kg		95	54 - 120
2-Nitroaniline	1330	1360		ug/Kg		102	61 - 120
2-Nitrophenol	1330	1220		ug/Kg		92	56 - 120
3,3'-Dichlorobenzidine	2670	3090	E	ug/Kg		116	54 - 120
3-Nitroaniline	1330	1220		ug/Kg		92	48 - 120
4,6-Dinitro-2-methylphenol	2670	2280		ug/Kg		85	49 - 122
4-Bromophenyl phenyl ether	1330	1310		ug/Kg		98	58 - 120
4-Chloro-3-methylphenol	1330	1330		ug/Kg		100	61 - 120
4-Chloroaniline	1330	1140		ug/Kg		85	38 - 120
4-Chlorophenyl phenyl ether	1330	1270		ug/Kg		95	63 - 124
4-Methylphenol	1330	1270		ug/Kg		95	55 - 120
4-Nitroaniline	1330	1360		ug/Kg		102	56 - 120
4-Nitrophenol	2670	2990		ug/Kg		112	43 - 147
Acenaphthene	1330	1220		ug/Kg		92	62 - 120
Acenaphthylene	1330	1270		ug/Kg		96	58 - 121
Acetophenone	1330	1180		ug/Kg		89	54 - 120
Anthracene	1330	1300		ug/Kg		98	62 - 120
Atrazine	2670	2480		ug/Kg		93	60 - 127
Benzaldehyde	2670	2140		ug/Kg		80	10 - 150
Benzo[a]anthracene	1330	1330		ug/Kg		100	65 - 120
Benzo[a]pyrene	1330	1320		ug/Kg		99	64 - 120
Benzo[b]fluoranthene	1330	1430		ug/Kg		107	64 - 120
Benzo[g,h,i]perylene	1330	1400		ug/Kg		105	45 - 145
Benzo[k]fluoranthene	1330	1290		ug/Kg		97	65 - 120
Biphenyl	1330	1240		ug/Kg		93	59 - 120
bis (2-chloroisopropyl) ether	1330	1180		ug/Kg		88	44 - 120
Bis(2-chloroethoxy)methane	1330	1200		ug/Kg		90	55 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-718100/2-A
Matrix: Solid
Analysis Batch: 718272

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718100

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bis(2-chloroethyl)ether	1330	1140		ug/Kg		86	45 - 120
Bis(2-ethylhexyl) phthalate	1330	1320		ug/Kg		99	61 - 133
Butyl benzyl phthalate	1330	1340		ug/Kg		100	61 - 129
Caprolactam	2670	2640		ug/Kg		99	47 - 120
Carbazole	1330	1410		ug/Kg		106	65 - 120
Chrysene	1330	1300		ug/Kg		97	64 - 120
Dibenz(a,h)anthracene	1330	1440		ug/Kg		108	54 - 132
Dibenzofuran	1330	1260		ug/Kg		95	63 - 120
Diethyl phthalate	1330	1320		ug/Kg		99	66 - 120
Dimethyl phthalate	1330	1290		ug/Kg		97	65 - 124
Di-n-butyl phthalate	1330	1370		ug/Kg		102	58 - 130
Di-n-octyl phthalate	1330	1330		ug/Kg		100	57 - 133
Fluoranthene	1330	1290		ug/Kg		97	62 - 120
Fluorene	1330	1280		ug/Kg		96	63 - 120
Hexachlorobenzene	1330	1310		ug/Kg		98	60 - 120
Hexachlorobutadiene	1330	1090		ug/Kg		82	45 - 120
Hexachlorocyclopentadiene	1330	1040		ug/Kg		78	47 - 120
Hexachloroethane	1330	1040		ug/Kg		78	41 - 120
Indeno[1,2,3-cd]pyrene	1330	1400		ug/Kg		105	56 - 134
Isophorone	1330	1280		ug/Kg		96	56 - 120
Naphthalene	1330	1150		ug/Kg		86	55 - 120
Nitrobenzene	1330	1190		ug/Kg		90	54 - 120
N-Nitrosodi-n-propylamine	1330	1210		ug/Kg		91	52 - 120
Pentachlorophenol	2670	2110		ug/Kg		79	10 - 120
Phenanthrene	1330	1300		ug/Kg		98	60 - 120
Phenol	1330	1290		ug/Kg		97	53 - 120
Pyrene	1330	1290		ug/Kg		97	61 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*97*		*26 - 143*
2-Fluorobiphenyl	*91*		*50 - 121*
2-Fluorophenol	*89*		*36 - 120*
Nitrobenzene-d5	*87*		*40 - 121*
Phenol-d5	*94*		*41 - 120*
p-Terphenyl-d14	*95*		*46 - 143*

Lab Sample ID: 480-221432-1 MS
Matrix: Solid
Analysis Batch: 718272

Client Sample ID: SB-10-0-0.2
Prep Type: Total/NA
Prep Batch: 718100

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2,4,5-Trichlorophenol	ND		1610	1950	J	ug/Kg	☼	120	46 - 120
2,4,6-Trichlorophenol	ND		1610	1720	J	ug/Kg	☼	107	41 - 123
2,4-Dichlorophenol	ND		1610	1480	J	ug/Kg	☼	92	45 - 120
2,4-Dimethylphenol	ND		1610	1480	J	ug/Kg	☼	92	52 - 120
2,4-Dinitrophenol	ND		3230	ND		ug/Kg	☼	NC	41 - 146
2,4-Dinitrotoluene	ND		1610	1430	J	ug/Kg	☼	89	63 - 125
2,6-Dinitrotoluene	ND		1610	1610	J	ug/Kg	☼	100	66 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-221432-1 MS
Matrix: Solid
Analysis Batch: 718272

Client Sample ID: SB-10-0-0.2
Prep Type: Total/NA
Prep Batch: 718100

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloronaphthalene	ND		1610	1570	J	ug/Kg	☼	98	57 - 120
2-Chlorophenol	ND		1610	1320	J	ug/Kg	☼	82	43 - 120
2-Methylnaphthalene	ND		1610	1480	J	ug/Kg	☼	92	55 - 120
2-Methylphenol	ND		1610	1480	J	ug/Kg	☼	92	48 - 120
2-Nitroaniline	ND	F1	1610	2100	J F1	ug/Kg	☼	130	61 - 120
2-Nitrophenol	ND		1610	1360	J	ug/Kg	☼	84	37 - 120
3,3'-Dichlorobenzidine	ND		3230	ND		ug/Kg	☼	NC	37 - 126
3-Nitroaniline	ND		1610	1600	J	ug/Kg	☼	99	48 - 120
4,6-Dinitro-2-methylphenol	ND		3230	ND		ug/Kg	☼	NC	23 - 149
4-Bromophenyl phenyl ether	ND		1610	1750	J	ug/Kg	☼	108	58 - 120
4-Chloro-3-methylphenol	ND		1610	1760	J	ug/Kg	☼	109	49 - 125
4-Chloroaniline	ND		1610	1450	J	ug/Kg	☼	90	38 - 120
4-Chlorophenyl phenyl ether	ND		1610	1590	J	ug/Kg	☼	98	63 - 124
4-Methylphenol	ND		1610	1760	J	ug/Kg	☼	109	50 - 120
4-Nitroaniline	ND		1610	2410	J	ug/Kg	☼	NC	47 - 120
4-Nitrophenol	ND	F1	3230	8790	F1	ug/Kg	☼	272	31 - 147
Acenaphthene	ND		1610	1590	J	ug/Kg	☼	99	60 - 120
Acenaphthylene	ND		1610	1670	J	ug/Kg	☼	103	58 - 121
Acetophenone	ND		1610	1460	J	ug/Kg	☼	91	47 - 120
Anthracene	ND		1610	1660	J	ug/Kg	☼	103	62 - 120
Atrazine	ND		3230	3360	J	ug/Kg	☼	104	60 - 150
Benzaldehyde	ND		3230	ND		ug/Kg	☼	NC	10 - 150
Benzo[a]anthracene	ND		1610	1790	J	ug/Kg	☼	111	65 - 120
Benzo[a]pyrene	ND		1610	1820	J	ug/Kg	☼	112	64 - 120
Benzo[b]fluoranthene	ND		1610	1940	J	ug/Kg	☼	120	10 - 150
Benzo[g,h,i]perylene	ND		1610	2100	J	ug/Kg	☼	130	45 - 145
Benzo[k]fluoranthene	ND		1610	1630	J	ug/Kg	☼	101	23 - 150
Biphenyl	ND		1610	1590	J	ug/Kg	☼	98	58 - 120
bis (2-chloroisopropyl) ether	ND		1610	1480	J	ug/Kg	☼	92	31 - 120
Bis(2-chloroethoxy)methane	ND		1610	1490	J	ug/Kg	☼	92	52 - 120
Bis(2-chloroethyl)ether	ND		1610	1490	J	ug/Kg	☼	92	45 - 120
Bis(2-ethylhexyl) phthalate	ND		1610	1660	J	ug/Kg	☼	103	61 - 133
Butyl benzyl phthalate	ND		1610	1720	J	ug/Kg	☼	106	61 - 120
Caprolactam	ND		3230	3370	J	ug/Kg	☼	104	37 - 133
Carbazole	ND		1610	1370	J	ug/Kg	☼	85	59 - 120
Chrysene	ND		1610	1740	J	ug/Kg	☼	108	64 - 120
Dibenz(a,h)anthracene	ND		1610	1940	J	ug/Kg	☼	120	54 - 132
Dibenzofuran	ND		1610	1600	J	ug/Kg	☼	99	62 - 120
Diethyl phthalate	ND		1610	1620	J	ug/Kg	☼	100	66 - 120
Dimethyl phthalate	ND		1610	1590	J	ug/Kg	☼	98	65 - 124
Di-n-butyl phthalate	ND		1610	1660	J	ug/Kg	☼	103	58 - 130
Di-n-octyl phthalate	ND		1610	1620	J	ug/Kg	☼	100	57 - 133
Fluoranthene	ND		1610	1720	J	ug/Kg	☼	106	62 - 120
Fluorene	ND		1610	1650	J	ug/Kg	☼	102	63 - 120
Hexachlorobenzene	ND		1610	1650	J	ug/Kg	☼	102	60 - 120
Hexachlorobutadiene	ND		1610	1470	J	ug/Kg	☼	91	45 - 120
Hexachlorocyclopentadiene	ND	F1	1610	ND	F1	ug/Kg	☼	0	31 - 120
Hexachloroethane	ND		1610	1200	J	ug/Kg	☼	74	21 - 120
Indeno[1,2,3-cd]pyrene	ND		1610	1890	J	ug/Kg	☼	117	56 - 134

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-221432-1 MS
Matrix: Solid
Analysis Batch: 718272

Client Sample ID: SB-10-0-0.2
Prep Type: Total/NA
Prep Batch: 718100

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Isophorone	ND		1610	1490	J	ug/Kg	☼	93	56 - 120
Naphthalene	ND		1610	1490	J	ug/Kg	☼	92	46 - 120
Nitrobenzene	ND		1610	1520	J	ug/Kg	☼	94	49 - 120
N-Nitrosodi-n-propylamine	ND		1610	1740	J	ug/Kg	☼	108	46 - 120
Pentachlorophenol	ND		3230	ND		ug/Kg	☼	NC	10 - 136
Phenanthrene	ND		1610	1640	J	ug/Kg	☼	101	60 - 122
Phenol	ND		1610	1570	J	ug/Kg	☼	98	50 - 120
Pyrene	ND		1610	1800	J	ug/Kg	☼	112	61 - 133

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol	*122*		*26 - 143*
2-Fluorobiphenyl	*102*		*50 - 121*
2-Fluorophenol	*104*		*36 - 120*
Nitrobenzene-d5	*87*		*40 - 121*
Phenol-d5	*91*		*41 - 120*
p-Terphenyl-d14	*101*		*46 - 143*

Lab Sample ID: 480-221432-1 MSD
Matrix: Solid
Analysis Batch: 718272

Client Sample ID: SB-10-0-0.2
Prep Type: Total/NA
Prep Batch: 718100

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4,5-Trichlorophenol	ND		1630	1910	J	ug/Kg	☼	117	46 - 120	2	18
2,4,6-Trichlorophenol	ND		1630	1850	J	ug/Kg	☼	114	41 - 123	7	19
2,4-Dichlorophenol	ND		1630	1570	J	ug/Kg	☼	97	45 - 120	6	19
2,4-Dimethylphenol	ND		1630	1530	J	ug/Kg	☼	94	52 - 120	4	42
2,4-Dinitrophenol	ND		3260	ND		ug/Kg	☼	NC	41 - 146	NC	22
2,4-Dinitrotoluene	ND		1630	1470	J	ug/Kg	☼	91	63 - 125	3	20
2,6-Dinitrotoluene	ND		1630	1710	J	ug/Kg	☼	105	66 - 120	6	15
2-Chloronaphthalene	ND		1630	1530	J	ug/Kg	☼	94	57 - 120	3	21
2-Chlorophenol	ND		1630	1510	J	ug/Kg	☼	93	43 - 120	13	25
2-Methylnaphthalene	ND		1630	1550	J	ug/Kg	☼	95	55 - 120	5	21
2-Methylphenol	ND		1630	1610	J	ug/Kg	☼	99	48 - 120	8	27
2-Nitroaniline	ND	F1	1630	2240	J F1	ug/Kg	☼	138	61 - 120	7	15
2-Nitrophenol	ND		1630	1400	J	ug/Kg	☼	86	37 - 120	3	18
3,3'-Dichlorobenzidine	ND		3260	ND		ug/Kg	☼	NC	37 - 126	NC	25
3-Nitroaniline	ND		1630	1910	J	ug/Kg	☼	117	48 - 120	18	19
4,6-Dinitro-2-methylphenol	ND		3260	ND		ug/Kg	☼	NC	23 - 149	NC	15
4-Bromophenyl phenyl ether	ND		1630	1780	J	ug/Kg	☼	109	58 - 120	2	15
4-Chloro-3-methylphenol	ND		1630	1850	J	ug/Kg	☼	114	49 - 125	5	27
4-Chloroaniline	ND		1630	1410	J	ug/Kg	☼	87	38 - 120	3	22
4-Chlorophenyl phenyl ether	ND		1630	1580	J	ug/Kg	☼	97	63 - 124	1	16
4-Methylphenol	ND		1630	1900	J	ug/Kg	☼	117	50 - 120	8	24
4-Nitroaniline	ND		1630	2490	J	ug/Kg	☼	NC	47 - 120	3	24
4-Nitrophenol	ND	F1	3260	8910	F1	ug/Kg	☼	274	31 - 147	1	25
Acenaphthene	ND		1630	1560	J	ug/Kg	☼	96	60 - 120	2	35
Acenaphthylene	ND		1630	1740	J	ug/Kg	☼	107	58 - 121	4	18
Acetophenone	ND		1630	1520	J	ug/Kg	☼	93	47 - 120	4	20

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-221432-1 MSD
Matrix: Solid
Analysis Batch: 718272

Client Sample ID: SB-10-0-0.2
Prep Type: Total/NA
Prep Batch: 718100

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Anthracene	ND		1630	1740	J	ug/Kg	☼	107	62 - 120	5	15
Atrazine	ND		3260	3450	J	ug/Kg	☼	106	60 - 150	3	20
Benzaldehyde	ND		3260	ND		ug/Kg	☼	NC	10 - 150	NC	20
Benzo[a]anthracene	ND		1630	1770	J	ug/Kg	☼	109	65 - 120	1	15
Benzo[a]pyrene	ND		1630	1810	J	ug/Kg	☼	111	64 - 120	0	15
Benzo[b]fluoranthene	ND		1630	1850	J	ug/Kg	☼	113	10 - 150	5	15
Benzo[g,h,i]perylene	ND		1630	2140	J	ug/Kg	☼	131	45 - 145	2	15
Benzo[k]fluoranthene	ND		1630	1760	J	ug/Kg	☼	108	23 - 150	8	22
Biphenyl	ND		1630	1640	J	ug/Kg	☼	101	58 - 120	3	20
bis (2-chloroisopropyl) ether	ND		1630	1540	J	ug/Kg	☼	95	31 - 120	4	24
Bis(2-chloroethoxy)methane	ND		1630	1520	J	ug/Kg	☼	93	52 - 120	2	17
Bis(2-chloroethyl)ether	ND		1630	1740	J	ug/Kg	☼	107	45 - 120	16	21
Bis(2-ethylhexyl) phthalate	ND		1630	1700	J	ug/Kg	☼	105	61 - 133	3	15
Butyl benzyl phthalate	ND		1630	1850	J	ug/Kg	☼	114	61 - 120	8	16
Caprolactam	ND		3260	3500	J	ug/Kg	☼	107	37 - 133	4	20
Carbazole	ND		1630	1380	J	ug/Kg	☼	85	59 - 120	1	20
Chrysene	ND		1630	1830	J	ug/Kg	☼	113	64 - 120	5	15
Dibenz(a,h)anthracene	ND		1630	2020	J	ug/Kg	☼	124	54 - 132	4	15
Dibenzofuran	ND		1630	1580	J	ug/Kg	☼	97	62 - 120	1	15
Diethyl phthalate	ND		1630	1610	J	ug/Kg	☼	99	66 - 120	1	15
Dimethyl phthalate	ND		1630	1600	J	ug/Kg	☼	98	65 - 124	1	15
Di-n-butyl phthalate	ND		1630	1790	J	ug/Kg	☼	110	58 - 130	7	15
Di-n-octyl phthalate	ND		1630	1770	J	ug/Kg	☼	109	57 - 133	9	16
Fluoranthene	ND		1630	1850	J	ug/Kg	☼	113	62 - 120	7	15
Fluorene	ND		1630	1640	J	ug/Kg	☼	101	63 - 120	1	15
Hexachlorobenzene	ND		1630	1770	J	ug/Kg	☼	108	60 - 120	7	15
Hexachlorobutadiene	ND		1630	1410	J	ug/Kg	☼	87	45 - 120	4	44
Hexachlorocyclopentadiene	ND	F1	1630	ND	F1	ug/Kg	☼	0	31 - 120	NC	49
Hexachloroethane	ND		1630	1150	J	ug/Kg	☼	71	21 - 120	4	46
Indeno[1,2,3-cd]pyrene	ND		1630	2020	J	ug/Kg	☼	124	56 - 134	7	15
Isophorone	ND		1630	1600	J	ug/Kg	☼	98	56 - 120	7	17
Naphthalene	ND		1630	1540	J	ug/Kg	☼	95	46 - 120	3	29
Nitrobenzene	ND		1630	1470	J	ug/Kg	☼	90	49 - 120	4	24
N-Nitrosodi-n-propylamine	ND		1630	1650	J	ug/Kg	☼	101	46 - 120	5	31
Pentachlorophenol	ND		3260	ND		ug/Kg	☼	NC	10 - 136	NC	35
Phenanthrene	ND		1630	1770	J	ug/Kg	☼	109	60 - 122	8	15
Phenol	ND		1630	1740	J	ug/Kg	☼	107	50 - 120	10	35
Pyrene	ND		1630	1900	J	ug/Kg	☼	117	61 - 133	6	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*124*		*26 - 143*
2-Fluorobiphenyl	*101*		*50 - 121*
2-Fluorophenol	*104*		*36 - 120*
Nitrobenzene-d5	*93*		*40 - 121*
Phenol-d5	*99*		*41 - 120*
p-Terphenyl-d14	*99*		*46 - 143*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 480-718099/1-A
Matrix: Solid
Analysis Batch: 718095

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718099

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1.7	0.32	ug/Kg		07/11/24 07:14	07/11/24 14:01	1
4,4'-DDE	ND		1.7	0.35	ug/Kg		07/11/24 07:14	07/11/24 14:01	1
4,4'-DDT	ND		1.7	0.39	ug/Kg		07/11/24 07:14	07/11/24 14:01	1
Aldrin	ND		1.7	0.41	ug/Kg		07/11/24 07:14	07/11/24 14:01	1
alpha-BHC	ND		1.7	0.30	ug/Kg		07/11/24 07:14	07/11/24 14:01	1
cis-Chlordane	ND		1.7	0.83	ug/Kg		07/11/24 07:14	07/11/24 14:01	1
beta-BHC	ND		1.7	0.30	ug/Kg		07/11/24 07:14	07/11/24 14:01	1
delta-BHC	ND		1.7	0.31	ug/Kg		07/11/24 07:14	07/11/24 14:01	1
Dieldrin	ND		1.7	0.40	ug/Kg		07/11/24 07:14	07/11/24 14:01	1
Endosulfan I	ND		1.7	0.32	ug/Kg		07/11/24 07:14	07/11/24 14:01	1
Endosulfan II	ND		1.7	0.30	ug/Kg		07/11/24 07:14	07/11/24 14:01	1
Endosulfan sulfate	ND		1.7	0.31	ug/Kg		07/11/24 07:14	07/11/24 14:01	1
Endrin	ND		1.7	0.33	ug/Kg		07/11/24 07:14	07/11/24 14:01	1
Endrin aldehyde	ND		1.7	0.43	ug/Kg		07/11/24 07:14	07/11/24 14:01	1
Endrin ketone	ND		1.7	0.41	ug/Kg		07/11/24 07:14	07/11/24 14:01	1
gamma-BHC (Lindane)	ND		1.7	0.31	ug/Kg		07/11/24 07:14	07/11/24 14:01	1
trans-Chlordane	ND		1.7	0.53	ug/Kg		07/11/24 07:14	07/11/24 14:01	1
Heptachlor	ND		1.7	0.36	ug/Kg		07/11/24 07:14	07/11/24 14:01	1
Heptachlor epoxide	ND		1.7	0.43	ug/Kg		07/11/24 07:14	07/11/24 14:01	1
Methoxychlor	ND		1.7	0.34	ug/Kg		07/11/24 07:14	07/11/24 14:01	1
Toxaphene	ND		17	9.7	ug/Kg		07/11/24 07:14	07/11/24 14:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*98*		*45 - 120*	*07/11/24 07:14*	*07/11/24 14:01*	*1*
DCB Decachlorobiphenyl	*92*		*45 - 120*	*07/11/24 07:14*	*07/11/24 14:01*	*1*
Tetrachloro-m-xylene	*71*		*30 - 124*	*07/11/24 07:14*	*07/11/24 14:01*	*1*
Tetrachloro-m-xylene	*73*		*30 - 124*	*07/11/24 07:14*	*07/11/24 14:01*	*1*

Lab Sample ID: LCS 480-718099/2-A
Matrix: Solid
Analysis Batch: 718095

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718099

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	16.7	16.6		ug/Kg		99	56 - 120
4,4'-DDE	16.7	16.1		ug/Kg		97	44 - 120
4,4'-DDT	16.7	17.4		ug/Kg		104	38 - 120
Aldrin	16.7	15.7		ug/Kg		94	38 - 120
alpha-BHC	16.7	14.8		ug/Kg		89	39 - 120
cis-Chlordane	16.7	16.3		ug/Kg		98	47 - 120
beta-BHC	16.7	15.1		ug/Kg		90	40 - 120
delta-BHC	16.7	14.9		ug/Kg		90	45 - 120
Dieldrin	16.7	17.0		ug/Kg		102	58 - 120
Endosulfan I	16.7	16.1		ug/Kg		97	49 - 120
Endosulfan II	16.7	16.4		ug/Kg		99	55 - 120
Endosulfan sulfate	16.7	12.9		ug/Kg		77	49 - 124
Endrin	16.7	16.2		ug/Kg		97	58 - 120
Endrin aldehyde	16.7	15.4		ug/Kg		92	37 - 121
Endrin ketone	16.7	17.5		ug/Kg		105	46 - 123

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 480-718099/2-A
Matrix: Solid
Analysis Batch: 718095

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718099

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
gamma-BHC (Lindane)	16.7	15.9		ug/Kg		96	50 - 120
trans-Chlordane	16.7	15.9		ug/Kg		95	48 - 120
Heptachlor	16.7	17.1		ug/Kg		102	50 - 120
Heptachlor epoxide	16.7	15.7		ug/Kg		94	50 - 120
Methoxychlor	16.7	16.3		ug/Kg		98	58 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*96*		*45 - 120*
DCB Decachlorobiphenyl	*92*		*45 - 120*
Tetrachloro-m-xylene	*78*		*30 - 124*
Tetrachloro-m-xylene	*78*		*30 - 124*

Lab Sample ID: MB 480-718243/1-A
Matrix: Solid
Analysis Batch: 718529

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718243

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1.7	0.32	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
4,4'-DDE	ND		1.7	0.35	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
4,4'-DDT	ND		1.7	0.39	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
Aldrin	ND		1.7	0.41	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
alpha-BHC	0.360	J	1.7	0.30	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
cis-Chlordane	ND		1.7	0.83	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
beta-BHC	ND		1.7	0.30	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
delta-BHC	ND		1.7	0.31	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
Dieldrin	ND		1.7	0.40	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
Endosulfan I	ND		1.7	0.32	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
Endosulfan II	ND		1.7	0.30	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
Endosulfan sulfate	ND		1.7	0.31	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
Endrin	ND		1.7	0.33	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
Endrin aldehyde	ND		1.7	0.43	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
Endrin ketone	ND		1.7	0.41	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
gamma-BHC (Lindane)	0.433	J	1.7	0.31	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
trans-Chlordane	ND		1.7	0.53	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
Heptachlor	ND		1.7	0.36	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
Heptachlor epoxide	ND		1.7	0.43	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
Methoxychlor	ND		1.7	0.34	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
Toxaphene	ND		17	9.7	ug/Kg		07/12/24 06:39	07/16/24 12:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*102*		*45 - 120*	*07/12/24 06:39*	*07/16/24 12:56*	*1*
DCB Decachlorobiphenyl	*100*		*45 - 120*	*07/12/24 06:39*	*07/16/24 12:56*	*1*
Tetrachloro-m-xylene	*81*		*30 - 124*	*07/12/24 06:39*	*07/16/24 12:56*	*1*
Tetrachloro-m-xylene	*77*		*30 - 124*	*07/12/24 06:39*	*07/16/24 12:56*	*1*

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 480-718243/2-A
Matrix: Solid
Analysis Batch: 718529

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718243

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
4,4'-DDD			16.7	14.6		ug/Kg		88	56 - 120		
4,4'-DDE			16.7	12.6		ug/Kg		75	44 - 120		
4,4'-DDT			16.7	15.9		ug/Kg		95	38 - 120		
Aldrin			16.7	10.7		ug/Kg		64	38 - 120		
alpha-BHC			16.7	10.6		ug/Kg		64	39 - 120		
cis-Chlordane			16.7	11.3		ug/Kg		68	47 - 120		
beta-BHC			16.7	12.7		ug/Kg		76	40 - 120		
delta-BHC			16.7	12.3		ug/Kg		74	45 - 120		
Dieldrin			16.7	15.2		ug/Kg		91	58 - 120		
Endosulfan I			16.7	14.7		ug/Kg		88	49 - 120		
Endosulfan II			16.7	15.6		ug/Kg		93	55 - 120		
Endosulfan sulfate			16.7	14.0		ug/Kg		84	49 - 124		
Endrin			16.7	15.2		ug/Kg		91	58 - 120		
Endrin aldehyde			16.7	9.62		ug/Kg		58	37 - 121		
Endrin ketone			16.7	16.0		ug/Kg		96	46 - 123		
gamma-BHC (Lindane)			16.7	12.5		ug/Kg		75	50 - 120		
trans-Chlordane			16.7	9.89		ug/Kg		59	48 - 120		
Heptachlor			16.7	13.9		ug/Kg		84	50 - 120		
Heptachlor epoxide			16.7	14.7		ug/Kg		88	50 - 120		
Methoxychlor			16.7	18.7		ug/Kg		112	58 - 133		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*89*		*45 - 120*
DCB Decachlorobiphenyl	*82*		*45 - 120*
Tetrachloro-m-xylene	*69*		*30 - 124*
Tetrachloro-m-xylene	*61*		*30 - 124*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 480-718077/1-A
Matrix: Solid
Analysis Batch: 718248

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718077

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.25	0.049	mg/Kg		07/10/24 16:42	07/12/24 12:45	1
PCB-1221	ND		0.25	0.049	mg/Kg		07/10/24 16:42	07/12/24 12:45	1
PCB-1232	ND		0.25	0.049	mg/Kg		07/10/24 16:42	07/12/24 12:45	1
PCB-1242	ND		0.25	0.049	mg/Kg		07/10/24 16:42	07/12/24 12:45	1
PCB-1248	ND		0.25	0.049	mg/Kg		07/10/24 16:42	07/12/24 12:45	1
PCB-1254	ND		0.25	0.12	mg/Kg		07/10/24 16:42	07/12/24 12:45	1
PCB-1260	ND		0.25	0.12	mg/Kg		07/10/24 16:42	07/12/24 12:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*104*		*60 - 154*	*07/10/24 16:42*	*07/12/24 12:45*	*1*
Tetrachloro-m-xylene	*94*		*60 - 154*	*07/10/24 16:42*	*07/12/24 12:45*	*1*
DCB Decachlorobiphenyl	*94*		*65 - 174*	*07/10/24 16:42*	*07/12/24 12:45*	*1*
DCB Decachlorobiphenyl	*94*		*65 - 174*	*07/10/24 16:42*	*07/12/24 12:45*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 480-718077/2-A
Matrix: Solid
Analysis Batch: 718248

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718077

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
PCB-1016			2.50	2.69		mg/Kg		108	51 - 185		
PCB-1260			2.50	2.73		mg/Kg		109	61 - 184		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*122*		*60 - 154*
Tetrachloro-m-xylene	*118*		*60 - 154*
DCB Decachlorobiphenyl	*117*		*65 - 174*
DCB Decachlorobiphenyl	*118*		*65 - 174*

Lab Sample ID: 480-221432-4 MS
Matrix: Solid
Analysis Batch: 718248

Client Sample ID: SB-01-0-0.2
Prep Type: Total/NA
Prep Batch: 718077

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
PCB-1016	ND		1.88	1.53		mg/Kg	☼	82	50 - 177		
PCB-1260	ND		1.88	1.67		mg/Kg	☼	89	33 - 200		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*116*		*60 - 154*
Tetrachloro-m-xylene	*113*		*60 - 154*
DCB Decachlorobiphenyl	*107*		*65 - 174*
DCB Decachlorobiphenyl	*109*		*65 - 174*

Lab Sample ID: 480-221432-4 MSD
Matrix: Solid
Analysis Batch: 718248

Client Sample ID: SB-01-0-0.2
Prep Type: Total/NA
Prep Batch: 718077

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016	ND		1.80	1.47		mg/Kg	☼	81	50 - 177	4	50
PCB-1260	ND		1.80	1.59		mg/Kg	☼	88	33 - 200	5	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*105*		*60 - 154*
Tetrachloro-m-xylene	*96*		*60 - 154*
DCB Decachlorobiphenyl	*95*		*65 - 174*
DCB Decachlorobiphenyl	*95*		*65 - 174*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Lab Sample ID: MB 240-619820/1-A
Matrix: Solid
Analysis Batch: 619961

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 619820

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.0	0.25	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluoropentanoic acid (PFPeA)	ND		0.50	0.13	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorohexanoic acid (PFHxA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluoroheptanoic acid (PFHpA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 240-619820/1-A
Matrix: Solid
Analysis Batch: 619961

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 619820

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorononanoic acid (PFNA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorodecanoic acid (PFDA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluoroundecanoic acid (PFUnA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorododecanoic acid (PFDoA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorononanesulfonic acid (PFNS)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1.0	0.25	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1.0	0.25	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1.0	0.25	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		2.5	0.63	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		2.5	0.63	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.0	0.25	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.0	0.25	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.50	0.13	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.50	0.13	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		1.0	0.25	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		1.0	0.25	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.50	0.13	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1.3	0.31	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		6.3	1.6	ug/Kg		07/15/24 08:23	07/16/24 06:14	1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 240-619820/1-A
Matrix: Solid
Analysis Batch: 619961

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 619820

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		6.3	1.6	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.50	0.13	ug/Kg		07/15/24 08:23	07/16/24 06:14	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*97.7*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C5 PFPeA	*85.7*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C5 PFHxA	*86.7*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C4 PFHpA	*79.7*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C8 PFOA	*81.3*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C9 PFNA	*89.6*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C6 PFDA	*102*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C7 PFUnA	*100*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C2 PFTeDA	*56.7*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C3 PFBS	*86.9*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C3 PFHxS	*80.6*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C8 PFOS	*91.7*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C8 FOSA	*84.3*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
d3-NMeFOSAA	*84.3*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
d5-NEtFOSAA	*143*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
M2-4:2 FTS	*81.6*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
M2-6:2 FTS	*84.2*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
M2-8:2 FTS	*68.1*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C3 HFPO-DA	*82.3*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
d7-N-MeFOSE-M	*73.4*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
d9-N-EtFOSE-M	*63.5*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
d5-NEtPFOSA	*62.8*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
d3-NMePFOSA	*61.0*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C2-PFDoDA	*88.9*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*

Lab Sample ID: LCS 240-619820/3-A
Matrix: Solid
Analysis Batch: 619961

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 619820

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	12.5	13.4		ug/Kg		107	40 - 150
Perfluoropentanoic acid (PFPeA)	6.25	6.51		ug/Kg		104	40 - 150
Perfluorohexanoic acid (PFHxA)	3.13	3.04		ug/Kg		97	40 - 150
Perfluoroheptanoic acid (PFHpA)	3.13	3.17		ug/Kg		101	40 - 150
Perfluorooctanoic acid (PFOA)	3.13	2.86		ug/Kg		92	40 - 150
Perfluorononanoic acid (PFNA)	3.13	3.10		ug/Kg		99	40 - 150
Perfluorodecanoic acid (PFDA)	3.13	2.43		ug/Kg		78	40 - 150
Perfluoroundecanoic acid (PFUnA)	3.13	2.96		ug/Kg		95	40 - 150
Perfluorododecanoic acid (PFDoA)	3.13	2.46		ug/Kg		79	40 - 150
Perfluorotridecanoic acid (PFTrDA)	3.13	2.87		ug/Kg		92	40 - 150

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 240-619820/3-A
Matrix: Solid
Analysis Batch: 619961

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 619820

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorotetradecanoic acid (PFTeDA)	3.13	3.64		ug/Kg		117	40 - 150
Perfluorobutanesulfonic acid (PFBS)	2.76	2.70		ug/Kg		98	40 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.93	3.07		ug/Kg		105	40 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.84	2.58		ug/Kg		91	40 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.98	3.09		ug/Kg		104	40 - 150
Perfluorooctanesulfonic acid (PFOS)	2.90	3.00		ug/Kg		103	40 - 150
Perfluorononanesulfonic acid (PFNS)	3.00	3.01		ug/Kg		100	40 - 150
Perfluorododecanesulfonic acid (PFDoS)	3.03	2.58		ug/Kg		85	40 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	11.7	12.5		ug/Kg		107	40 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	11.9	13.6		ug/Kg		115	40 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	12.0	14.0		ug/Kg		117	40 - 150
Perfluorooctanesulfonamide (PFOSA)	3.13	3.38		ug/Kg		108	40 - 150
N-methylperfluorooctane sulfonamide (NMeFOSA)	3.13	3.58		ug/Kg		115	40 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	3.13	3.21		ug/Kg		103	40 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	3.13	3.27		ug/Kg		105	40 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	3.13	3.56		ug/Kg		114	40 - 150
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	31.3	28.3		ug/Kg		91	40 - 150
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	31.3	28.8		ug/Kg		92	40 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	12.5	13.5		ug/Kg		108	40 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	11.8	13.2		ug/Kg		112	40 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	6.25	6.73		ug/Kg		108	40 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6.25	4.27		ug/Kg		68	40 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	11.7	11.5		ug/Kg		98	40 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	11.8	11.5		ug/Kg		97	40 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	5.56	5.97		ug/Kg		107	40 - 150
3-Perfluoropropylpropanoic acid (3:3 FTCA)	15.6	29.2	I *+	ug/Kg		187	40 - 150
3-Perfluoropentylpropanoic acid (5:3 FTCA)	78.1	86.3		ug/Kg		110	40 - 150
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	78.1	74.1		ug/Kg		95	40 - 150

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 240-619820/3-A
Matrix: Solid
Analysis Batch: 619961

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 619820

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorodecanesulfonic acid (PFDS)	3.01	3.03		ug/Kg		101	40 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	6.25	6.58		ug/Kg		105	40 - 150

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*99.0*		*20 - 150*
13C5 PFPeA	*89.7*		*20 - 150*
13C5 PFHxA	*88.7*		*20 - 150*
13C4 PFHpA	*80.3*		*20 - 150*
13C8 PFOA	*79.6*		*20 - 150*
13C9 PFNA	*85.1*		*20 - 150*
13C6 PFDA	*101*		*20 - 150*
13C7 PFUnA	*85.8*		*20 - 150*
13C2 PFTeDA	*56.4*		*20 - 150*
13C3 PFBS	*88.8*		*20 - 150*
13C3 PFHxS	*82.3*		*20 - 150*
13C8 PFOS	*89.0*		*20 - 150*
13C8 FOSA	*87.6*		*20 - 150*
d3-NMeFOSAA	*85.0*		*20 - 150*
d5-NEtFOSAA	*126*		*20 - 150*
M2-4:2 FTS	*74.2*		*20 - 150*
M2-6:2 FTS	*77.7*		*20 - 150*
M2-8:2 FTS	*62.9*		*20 - 150*
13C3 HFPO-DA	*80.4*		*20 - 150*
d7-N-MeFOSE-M	*76.5*		*20 - 150*
d9-N-EtFOSE-M	*65.1*		*20 - 150*
d5-NEtPFOSA	*65.8*		*20 - 150*
d3-NMePFOSA	*65.5*		*20 - 150*
13C2-PFDoDA	*90.0*		*20 - 150*

Lab Sample ID: LLCS 240-619820/2-A
Matrix: Solid
Analysis Batch: 619961

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 619820

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	1.00	1.06		ug/Kg		106	40 - 150
Perfluoropentanoic acid (PFPeA)	0.500	0.528		ug/Kg		106	40 - 150
Perfluorohexanoic acid (PFHxA)	0.250	0.231	J	ug/Kg		93	40 - 150
Perfluoroheptanoic acid (PFHpA)	0.250	0.269		ug/Kg		108	40 - 150
Perfluorooctanoic acid (PFOA)	0.250	0.331		ug/Kg		133	40 - 150
Perfluorononanoic acid (PFNA)	0.250	0.274		ug/Kg		109	40 - 150
Perfluorodecanoic acid (PFDA)	0.250	0.215	J	ug/Kg		86	40 - 150
Perfluoroundecanoic acid (PFUnA)	0.250	0.207	J	ug/Kg		83	40 - 150
Perfluorododecanoic acid (PFDoA)	0.250	0.226	J	ug/Kg		90	40 - 150
Perfluorotridecanoic acid (PFTrDA)	0.250	0.229	J	ug/Kg		91	40 - 150

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 240-619820/2-A
Matrix: Solid
Analysis Batch: 619961

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 619820

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorotetradecanoic acid (PFTeDA)	0.250	0.343		ug/Kg		137	40 - 150
Perfluorobutanesulfonic acid (PFBS)	0.221	0.239	J	ug/Kg		108	40 - 150
Perfluoropentanesulfonic acid (PFPeS)	0.235	0.267		ug/Kg		114	40 - 150
Perfluorohexanesulfonic acid (PFHxS)	0.228	0.232	J	ug/Kg		102	40 - 150
Perfluoroheptanesulfonic acid (PFHpS)	0.238	0.245	J	ug/Kg		103	40 - 150
Perfluorooctanesulfonic acid (PFOS)	0.232	0.262		ug/Kg		113	40 - 150
Perfluorononanesulfonic acid (PFNS)	0.240	0.239	J	ug/Kg		100	40 - 150
Perfluorododecanesulfonic acid (PFDoS)	0.242	0.208	J	ug/Kg		86	40 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	0.934	1.04		ug/Kg		112	40 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	0.948	1.08		ug/Kg		114	40 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	0.958	0.992	J	ug/Kg		104	40 - 150
Perfluorooctanesulfonamide (PFOSA)	0.250	0.269		ug/Kg		108	40 - 150
N-methylperfluorooctane sulfonamide (NMeFOSA)	0.250	0.291		ug/Kg		117	40 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	0.250	0.285		ug/Kg		114	40 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.250	0.295		ug/Kg		118	40 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.250	0.305		ug/Kg		122	40 - 150
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	2.50	2.56		ug/Kg		103	40 - 150
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	2.50	2.21	J	ug/Kg		88	40 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	1.00	1.02		ug/Kg		102	40 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	0.942	0.998	J	ug/Kg		106	40 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	0.500	0.511		ug/Kg		102	40 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	0.500	0.308	J	ug/Kg		62	40 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	0.932	0.904	J	ug/Kg		97	40 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	0.942	0.888	J	ug/Kg		94	40 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	0.445	0.468	J	ug/Kg		105	40 - 150
3-Perfluoropropylpropanoic acid (3:3 FTCA)	1.25	2.24	I *+	ug/Kg		179	40 - 150
3-Perfluoropentylpropanoic acid (5:3 FTCA)	6.25	6.36		ug/Kg		102	40 - 150
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	6.25	5.76	J	ug/Kg		92	40 - 150

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 240-619820/2-A
Matrix: Solid
Analysis Batch: 619961

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 619820

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorodecanesulfonic acid (PFDS)	0.241	0.244	J	ug/Kg		101	40 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	0.500	0.511		ug/Kg		102	40 - 150

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*104*		*20 - 150*
13C5 PFPeA	*99.5*		*20 - 150*
13C5 PFHxA	*101*		*20 - 150*
13C4 PFHpA	*90.3*		*20 - 150*
13C8 PFOA	*92.5*		*20 - 150*
13C9 PFNA	*94.4*		*20 - 150*
13C6 PFDA	*109*		*20 - 150*
13C7 PFUnA	*102*		*20 - 150*
13C2 PFTeDA	*64.0*		*20 - 150*
13C3 PFBS	*87.9*		*20 - 150*
13C3 PFHxS	*87.9*		*20 - 150*
13C8 PFOS	*92.7*		*20 - 150*
13C8 FOSA	*91.6*		*20 - 150*
d3-NMeFOSAA	*87.9*		*20 - 150*
d5-NEtFOSAA	*133*		*20 - 150*
M2-4:2 FTS	*87.3*		*20 - 150*
M2-6:2 FTS	*90.2*		*20 - 150*
M2-8:2 FTS	*77.7*		*20 - 150*
13C3 HFPO-DA	*93.4*		*20 - 150*
d7-N-MeFOSE-M	*75.4*		*20 - 150*
d9-N-EtFOSE-M	*67.5*		*20 - 150*
d5-NEtPFOSA	*68.9*		*20 - 150*
d3-NMePFOSA	*66.7*		*20 - 150*
13C2-PFDoDA	*95.5*		*20 - 150*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-718006/1-A
Matrix: Solid
Analysis Batch: 718188

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718006

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		10.5	9.1	mg/Kg		07/10/24 14:41	07/11/24 12:35	1
Antimony	ND		15.8	0.56	mg/Kg		07/10/24 14:41	07/11/24 12:35	1
Arsenic	ND		2.1	0.93	mg/Kg		07/10/24 14:41	07/11/24 12:35	1
Barium	ND		0.53	0.15	mg/Kg		07/10/24 14:41	07/11/24 12:35	1
Beryllium	ND		0.21	0.042	mg/Kg		07/10/24 14:41	07/11/24 12:35	1
Calcium	ND		52.6	28.4	mg/Kg		07/10/24 14:41	07/11/24 12:35	1
Chromium	ND		0.53	0.38	mg/Kg		07/10/24 14:41	07/11/24 12:35	1
Cobalt	ND		0.53	0.11	mg/Kg		07/10/24 14:41	07/11/24 12:35	1
Copper	ND		1.1	0.60	mg/Kg		07/10/24 14:41	07/11/24 12:35	1
Iron	12.08		10.5	8.9	mg/Kg		07/10/24 14:41	07/11/24 12:35	1
Lead	ND		1.1	0.48	mg/Kg		07/10/24 14:41	07/11/24 12:35	1
Magnesium	ND		21.0	8.9	mg/Kg		07/10/24 14:41	07/11/24 12:35	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 480-718006/1-A
Matrix: Solid
Analysis Batch: 718188

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718006

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	ND		1.1	0.29	mg/Kg		07/10/24 14:41	07/11/24 12:35	1
Nickel	ND		5.3	0.26	mg/Kg		07/10/24 14:41	07/11/24 12:35	1
Potassium	ND		31.5	25.5	mg/Kg		07/10/24 14:41	07/11/24 12:35	1
Selenium	ND		4.2	0.84	mg/Kg		07/10/24 14:41	07/11/24 12:35	1
Silver	ND		0.63	0.21	mg/Kg		07/10/24 14:41	07/11/24 12:35	1
Sodium	ND		147	64.5	mg/Kg		07/10/24 14:41	07/11/24 12:35	1
Thallium	ND		6.3	0.80	mg/Kg		07/10/24 14:41	07/11/24 12:35	1
Vanadium	ND		0.53	0.14	mg/Kg		07/10/24 14:41	07/11/24 12:35	1
Zinc	ND		2.1	1.1	mg/Kg		07/10/24 14:41	07/11/24 12:35	1

Lab Sample ID: MB 480-718006/1-A
Matrix: Solid
Analysis Batch: 718276

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718006

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.21	0.074	mg/Kg		07/10/24 14:41	07/11/24 19:17	1

Lab Sample ID: LCSSRM 480-718006/2-A
Matrix: Solid
Analysis Batch: 718188

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718006

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	10600	11000		mg/Kg		103.7	52.7 - 148.1
Antimony	59.8	103.6		mg/Kg		173.3	46.2 - 633.8
Arsenic	180	164.8		mg/Kg		91.6	70.0 - 130.0
Barium	431	396.7		mg/Kg		92.0	74.9 - 125.1
Beryllium	121	114.1		mg/Kg		94.3	74.8 - 124.8
Calcium	5760	5329		mg/Kg		92.5	73.6 - 126.4
Chromium	210	192.2		mg/Kg		91.5	70.0 - 130.0
Cobalt	237	243.2		mg/Kg		102.6	75.1 - 124.9
Copper	229	204.5		mg/Kg		89.3	75.1 - 124.9
Iron	9280	8307		mg/Kg		89.5	18.4 - 181.0
Lead	261	258.7		mg/Kg		99.1	78.2 - 121.1
Magnesium	2520	2255		mg/Kg		89.5	63.5 - 136.5
Manganese	316	284.1		mg/Kg		89.9	74.7 - 125.0
Nickel	108	97.69		mg/Kg		90.5	69.8 - 129.6
Potassium	2100	2120		mg/Kg		101.0	70.0 - 130.0

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 480-718006/2-A
Matrix: Solid
Analysis Batch: 718188

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718006

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Selenium	117	101.7		mg/Kg		86.9	65.8 - 133.3
Silver	65.5	60.90		mg/Kg		93.0	70.5 - 129.3
Sodium	442	397.8		mg/Kg		90.0	58.6 - 141.4
Thallium	144	152.4		mg/Kg		105.8	70.1 - 129.9
Vanadium	183	153.9		mg/Kg		84.1	68.9 - 119.1
Zinc	264	244.9		mg/Kg		92.8	69.7 - 129.5

Lab Sample ID: LCSSRM 480-718006/2-A
Matrix: Solid
Analysis Batch: 718276

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718006

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Cadmium	199	181.8		mg/Kg		91.3	74.9 - 125.1

Lab Sample ID: 480-221432-1 MS
Matrix: Solid
Analysis Batch: 718188

Client Sample ID: SB-10-0-0.2
Prep Type: Total/NA
Prep Batch: 718006

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	18800		1250	26780	4	mg/Kg	☼	642	75 - 125
Antimony	0.88	J F1	122	55.70	F1	mg/Kg	☼	45	75 - 125
Arsenic	5.8		244	205.3		mg/Kg	☼	82	75 - 125
Barium	139		244	362.9		mg/Kg	☼	92	75 - 125
Beryllium	1.1		122	105.7		mg/Kg	☼	86	75 - 125
Calcium	38900		6110	43850	4	mg/Kg	☼	80	75 - 125
Chromium	36.1		122	141.0		mg/Kg	☼	86	75 - 125
Cobalt	10.8		122	134.4		mg/Kg	☼	101	75 - 125
Copper	54.2		122	164.6		mg/Kg	☼	90	75 - 125
Iron	22500	B	1250	22750	4	mg/Kg	☼	22	75 - 125
Lead	60.4		122	183.4		mg/Kg	☼	101	75 - 125
Magnesium	12400		6110	18130		mg/Kg	☼	93	75 - 125
Manganese	658		122	716.9	4	mg/Kg	☼	49	75 - 125
Nickel	27.4		122	128.7		mg/Kg	☼	83	75 - 125
Potassium	4640	F1	6110	12980	F1	mg/Kg	☼	137	75 - 125
Selenium	1.2	J F1	244	189.9		mg/Kg	☼	77	75 - 125
Silver	0.25	J	12.2	10.71		mg/Kg	☼	86	75 - 125
Sodium	211		6110	5516		mg/Kg	☼	87	75 - 125
Thallium	ND		244	244.8		mg/Kg	☼	100	75 - 125
Vanadium	35.6		122	149.9		mg/Kg	☼	94	75 - 125
Zinc	114		122	218.1		mg/Kg	☼	85	75 - 125

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-221432-1 MS
Matrix: Solid
Analysis Batch: 718276

Client Sample ID: SB-10-0-0.2
Prep Type: Total/NA
Prep Batch: 718006

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Cadmium	0.31	F1	122	107.6		mg/Kg	☼	88	75 - 125		

Lab Sample ID: 480-221432-1 MSD
Matrix: Solid
Analysis Batch: 718188

Client Sample ID: SB-10-0-0.2
Prep Type: Total/NA
Prep Batch: 718006

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	18800		1200	27410	4	mg/Kg	☼	716	75 - 125	2	20
Antimony	0.88	J F1	118	51.13	F1	mg/Kg	☼	43	75 - 125	9	20
Arsenic	5.8		236	194.0		mg/Kg	☼	80	75 - 125	6	20
Barium	139		236	354.5		mg/Kg	☼	91	75 - 125	2	20
Beryllium	1.1		118	101.4		mg/Kg	☼	85	75 - 125	4	20
Calcium	38900		5910	44510	4	mg/Kg	☼	94	75 - 125	1	20
Chromium	36.1		118	140.0		mg/Kg	☼	88	75 - 125	1	20
Cobalt	10.8		118	130.7		mg/Kg	☼	102	75 - 125	3	20
Copper	54.2		118	157.4		mg/Kg	☼	87	75 - 125	4	20
Iron	22500	B	1200	22830	4	mg/Kg	☼	30	75 - 125	0	20
Lead	60.4		118	183.6		mg/Kg	☼	104	75 - 125	0	20
Magnesium	12400		5910	18450		mg/Kg	☼	102	75 - 125	2	20
Manganese	658		118	728.3	4	mg/Kg	☼	60	75 - 125	2	20
Nickel	27.4		118	127.4		mg/Kg	☼	85	75 - 125	1	20
Potassium	4640	F1	5910	12830	F1	mg/Kg	☼	139	75 - 125	1	20
Selenium	1.2	J F1	236	176.7	F1	mg/Kg	☼	74	75 - 125	7	20
Silver	0.25	J	11.8	10.29		mg/Kg	☼	85	75 - 125	4	20
Sodium	211		5910	5369		mg/Kg	☼	87	75 - 125	3	20
Thallium	ND		236	235.1		mg/Kg	☼	100	75 - 125	4	20
Vanadium	35.6		118	146.1		mg/Kg	☼	94	75 - 125	3	20
Zinc	114		118	214.0		mg/Kg	☼	85	75 - 125	2	20

Lab Sample ID: 480-221432-1 MSD
Matrix: Solid
Analysis Batch: 718304

Client Sample ID: SB-10-0-0.2
Prep Type: Total/NA
Prep Batch: 718006

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cadmium	0.31	F1	118	93.70		mg/Kg	☼	79	75 - 125	14	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 480-718118/1-A
Matrix: Solid
Analysis Batch: 718193

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718118

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.0046	mg/Kg		07/11/24 11:25	07/11/24 13:54	1

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: LCDSRM 480-718118/3-A ^10
Matrix: Solid
Analysis Batch: 718193

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 718118

Analyte			Spike Added	LCDSRM Result	LCDSRM Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury			19.1	19.11		mg/Kg		100.0	59.7 - 139.8	2	20

Lab Sample ID: LCSSRM 480-718118/2-A ^10
Matrix: Solid
Analysis Batch: 718193

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718118

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			19.1	19.56		mg/Kg		102.4	59.7 - 139.8		

Lab Sample ID: 480-221432-1 MS
Matrix: Solid
Analysis Batch: 718193

Client Sample ID: SB-10-0-0.2
Prep Type: Total/NA
Prep Batch: 718118

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury	3.3		0.409	3.79	4	mg/Kg	☼	108	80 - 120		

Lab Sample ID: 480-221432-1 MSD
Matrix: Solid
Analysis Batch: 718193

Client Sample ID: SB-10-0-0.2
Prep Type: Total/NA
Prep Batch: 718118

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	3.3		0.400	3.84	4	mg/Kg	☼	123	80 - 120	1	20

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 480-718886/1-A
Matrix: Solid
Analysis Batch: 718934

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718886

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.92	0.45	mg/Kg		07/18/24 12:15	07/18/24 16:08	1

Lab Sample ID: LCS 480-718886/3-A
Matrix: Solid
Analysis Batch: 718934

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718886

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total			0.400	0.396		mg/Kg		99	29 - 122		

Lab Sample ID: LCS 480-718886/4-A
Matrix: Solid
Analysis Batch: 718934

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718886

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total			0.250	0.248		mg/Kg		99	29 - 122		

Method: 9012B - Cyanide, Total andor Amenable (Continued)

Lab Sample ID: LCSSRM 480-718886/2-A ^10
Matrix: Solid
Analysis Batch: 718934

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718886

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	154	40.79		mg/Kg		26.5	20.6 - 120.8

QC Association Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221432-1

GC/MS VOA

Prep Batch: 718232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221432-2	SB-10-39-42	Total/NA	Solid	5035A_L	
480-221432-3	SB-10-48-49	Total/NA	Solid	5035A_L	
MB 480-718232/2-A	Method Blank	Total/NA	Solid	5035A_L	
LCS 480-718232/1-A	Lab Control Sample	Total/NA	Solid	5035A_L	

Analysis Batch: 718233

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221432-2	SB-10-39-42	Total/NA	Solid	8260C	718232
480-221432-3	SB-10-48-49	Total/NA	Solid	8260C	718232
MB 480-718232/2-A	Method Blank	Total/NA	Solid	8260C	718232
LCS 480-718232/1-A	Lab Control Sample	Total/NA	Solid	8260C	718232

GC/MS Semi VOA

Prep Batch: 718100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221432-1	SB-10-0-0.2	Total/NA	Solid	3550C	
480-221432-2	SB-10-39-42	Total/NA	Solid	3550C	
480-221432-3	SB-10-48-49	Total/NA	Solid	3550C	
480-221432-4	SB-01-0-0.2	Total/NA	Solid	3550C	
MB 480-718100/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-718100/2-A	Lab Control Sample	Total/NA	Solid	3550C	
480-221432-1 MS	SB-10-0-0.2	Total/NA	Solid	3550C	
480-221432-1 MSD	SB-10-0-0.2	Total/NA	Solid	3550C	

Analysis Batch: 718272

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221432-1	SB-10-0-0.2	Total/NA	Solid	8270D	718100
480-221432-2	SB-10-39-42	Total/NA	Solid	8270D	718100
MB 480-718100/1-A	Method Blank	Total/NA	Solid	8270D	718100
LCS 480-718100/2-A	Lab Control Sample	Total/NA	Solid	8270D	718100
480-221432-1 MS	SB-10-0-0.2	Total/NA	Solid	8270D	718100
480-221432-1 MSD	SB-10-0-0.2	Total/NA	Solid	8270D	718100

Analysis Batch: 718421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221432-3	SB-10-48-49	Total/NA	Solid	8270D	718100
480-221432-4	SB-01-0-0.2	Total/NA	Solid	8270D	718100

GC Semi VOA

Prep Batch: 718077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221432-1	SB-10-0-0.2	Total/NA	Solid	3550C	
480-221432-2	SB-10-39-42	Total/NA	Solid	3550C	
480-221432-3	SB-10-48-49	Total/NA	Solid	3550C	
480-221432-4	SB-01-0-0.2	Total/NA	Solid	3550C	
MB 480-718077/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-718077/2-A	Lab Control Sample	Total/NA	Solid	3550C	
480-221432-4 MS	SB-01-0-0.2	Total/NA	Solid	3550C	
480-221432-4 MSD	SB-01-0-0.2	Total/NA	Solid	3550C	

GC Semi VOA

Analysis Batch: 718095

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221432-2	SB-10-39-42	Total/NA	Solid	8081B	718099
480-221432-3	SB-10-48-49	Total/NA	Solid	8081B	718099
480-221432-4	SB-01-0-0.2	Total/NA	Solid	8081B	718099
MB 480-718099/1-A	Method Blank	Total/NA	Solid	8081B	718099
LCS 480-718099/2-A	Lab Control Sample	Total/NA	Solid	8081B	718099

Prep Batch: 718099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221432-2	SB-10-39-42	Total/NA	Solid	3550C	
480-221432-3	SB-10-48-49	Total/NA	Solid	3550C	
480-221432-4	SB-01-0-0.2	Total/NA	Solid	3550C	
MB 480-718099/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-718099/2-A	Lab Control Sample	Total/NA	Solid	3550C	

Prep Batch: 718243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221432-1	SB-10-0-0.2	Total/NA	Solid	3550C	
MB 480-718243/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-718243/2-A	Lab Control Sample	Total/NA	Solid	3550C	

Analysis Batch: 718248

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221432-1	SB-10-0-0.2	Total/NA	Solid	8082A	718077
480-221432-2	SB-10-39-42	Total/NA	Solid	8082A	718077
480-221432-3	SB-10-48-49	Total/NA	Solid	8082A	718077
480-221432-4	SB-01-0-0.2	Total/NA	Solid	8082A	718077
MB 480-718077/1-A	Method Blank	Total/NA	Solid	8082A	718077
LCS 480-718077/2-A	Lab Control Sample	Total/NA	Solid	8082A	718077
480-221432-4 MS	SB-01-0-0.2	Total/NA	Solid	8082A	718077
480-221432-4 MSD	SB-01-0-0.2	Total/NA	Solid	8082A	718077

Analysis Batch: 718529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221432-1	SB-10-0-0.2	Total/NA	Solid	8081B	718243
MB 480-718243/1-A	Method Blank	Total/NA	Solid	8081B	718243
LCS 480-718243/2-A	Lab Control Sample	Total/NA	Solid	8081B	718243

LCMS

Prep Batch: 619820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221432-4 - RA	SB-01-0-0.2	Total/NA	Solid	1633 Shake	
480-221432-4	SB-01-0-0.2	Total/NA	Solid	1633 Shake	
MB 240-619820/1-A	Method Blank	Total/NA	Solid	1633 Shake	
LCS 240-619820/3-A	Lab Control Sample	Total/NA	Solid	1633 Shake	
LLCS 240-619820/2-A	Lab Control Sample	Total/NA	Solid	1633 Shake	

Analysis Batch: 619961

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221432-4	SB-01-0-0.2	Total/NA	Solid	1633	619820
MB 240-619820/1-A	Method Blank	Total/NA	Solid	1633	619820

LCMS (Continued)

Analysis Batch: 619961 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-619820/3-A	Lab Control Sample	Total/NA	Solid	1633	619820
LLCS 240-619820/2-A	Lab Control Sample	Total/NA	Solid	1633	619820

Analysis Batch: 620562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221432-4 - RA	SB-01-0-0.2	Total/NA	Solid	1633	619820

Metals

Prep Batch: 718006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221432-1	SB-10-0-0.2	Total/NA	Solid	3050B	
480-221432-2	SB-10-39-42	Total/NA	Solid	3050B	
480-221432-3	SB-10-48-49	Total/NA	Solid	3050B	
480-221432-4	SB-01-0-0.2	Total/NA	Solid	3050B	
MB 480-718006/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 480-718006/2-A	Lab Control Sample	Total/NA	Solid	3050B	
480-221432-1 MS	SB-10-0-0.2	Total/NA	Solid	3050B	
480-221432-1 MSD	SB-10-0-0.2	Total/NA	Solid	3050B	

Prep Batch: 718118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221432-1	SB-10-0-0.2	Total/NA	Solid	7471B	
480-221432-2	SB-10-39-42	Total/NA	Solid	7471B	
480-221432-3	SB-10-48-49	Total/NA	Solid	7471B	
480-221432-4	SB-01-0-0.2	Total/NA	Solid	7471B	
MB 480-718118/1-A	Method Blank	Total/NA	Solid	7471B	
LCDSRM 480-718118/3-A ^1	Lab Control Sample Dup	Total/NA	Solid	7471B	
LCSSRM 480-718118/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	
480-221432-1 MS	SB-10-0-0.2	Total/NA	Solid	7471B	
480-221432-1 MSD	SB-10-0-0.2	Total/NA	Solid	7471B	

Analysis Batch: 718188

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221432-1	SB-10-0-0.2	Total/NA	Solid	6010C	718006
480-221432-2	SB-10-39-42	Total/NA	Solid	6010C	718006
480-221432-3	SB-10-48-49	Total/NA	Solid	6010C	718006
480-221432-4	SB-01-0-0.2	Total/NA	Solid	6010C	718006
MB 480-718006/1-A	Method Blank	Total/NA	Solid	6010C	718006
LCSSRM 480-718006/2-A	Lab Control Sample	Total/NA	Solid	6010C	718006
480-221432-1 MS	SB-10-0-0.2	Total/NA	Solid	6010C	718006
480-221432-1 MSD	SB-10-0-0.2	Total/NA	Solid	6010C	718006

Analysis Batch: 718193

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221432-1	SB-10-0-0.2	Total/NA	Solid	7471B	718118
480-221432-2	SB-10-39-42	Total/NA	Solid	7471B	718118
480-221432-3	SB-10-48-49	Total/NA	Solid	7471B	718118
480-221432-4	SB-01-0-0.2	Total/NA	Solid	7471B	718118
MB 480-718118/1-A	Method Blank	Total/NA	Solid	7471B	718118
LCDSRM 480-718118/3-A ^1	Lab Control Sample Dup	Total/NA	Solid	7471B	718118

Metals (Continued)

Analysis Batch: 718193 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSSRM 480-718118/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	718118
480-221432-1 MS	SB-10-0-0.2	Total/NA	Solid	7471B	718118
480-221432-1 MSD	SB-10-0-0.2	Total/NA	Solid	7471B	718118

Analysis Batch: 718276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221432-1	SB-10-0-0.2	Total/NA	Solid	6010C	718006
480-221432-4	SB-01-0-0.2	Total/NA	Solid	6010C	718006
MB 480-718006/1-A	Method Blank	Total/NA	Solid	6010C	718006
LCSSRM 480-718006/2-A	Lab Control Sample	Total/NA	Solid	6010C	718006
480-221432-1 MS	SB-10-0-0.2	Total/NA	Solid	6010C	718006

Analysis Batch: 718304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221432-1 MSD	SB-10-0-0.2	Total/NA	Solid	6010C	718006

General Chemistry

Analysis Batch: 718047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221432-1	SB-10-0-0.2	Total/NA	Solid	Moisture	
480-221432-2	SB-10-39-42	Total/NA	Solid	Moisture	
480-221432-3	SB-10-48-49	Total/NA	Solid	Moisture	
480-221432-4	SB-01-0-0.2	Total/NA	Solid	Moisture	

Prep Batch: 718886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221432-1	SB-10-0-0.2	Total/NA	Solid	9012B	
480-221432-2	SB-10-39-42	Total/NA	Solid	9012B	
480-221432-3	SB-10-48-49	Total/NA	Solid	9012B	
480-221432-4	SB-01-0-0.2	Total/NA	Solid	9012B	
MB 480-718886/1-A	Method Blank	Total/NA	Solid	9012B	
LCS 480-718886/3-A	Lab Control Sample	Total/NA	Solid	9012B	
LCS 480-718886/4-A	Lab Control Sample	Total/NA	Solid	9012B	
LCSSRM 480-718886/2-A ^1	Lab Control Sample	Total/NA	Solid	9012B	

Analysis Batch: 718934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221432-1	SB-10-0-0.2	Total/NA	Solid	9012B	718886
480-221432-2	SB-10-39-42	Total/NA	Solid	9012B	718886
480-221432-3	SB-10-48-49	Total/NA	Solid	9012B	718886
480-221432-4	SB-01-0-0.2	Total/NA	Solid	9012B	718886
MB 480-718886/1-A	Method Blank	Total/NA	Solid	9012B	718886
LCS 480-718886/3-A	Lab Control Sample	Total/NA	Solid	9012B	718886
LCS 480-718886/4-A	Lab Control Sample	Total/NA	Solid	9012B	718886
LCSSRM 480-718886/2-A ^1	Lab Control Sample	Total/NA	Solid	9012B	718886

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221432-1

Client Sample ID: SB-10-0-0.2

Lab Sample ID: 480-221432-1
Date Collected: 07/08/24 11:45
Matrix: Solid
Date Received: 07/09/24 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	718047	EMD	EET BUF	07/10/24 14:47

Client Sample ID: SB-10-0-0.2

Lab Sample ID: 480-221432-1
Date Collected: 07/08/24 11:45
Matrix: Solid
Date Received: 07/09/24 17:43
Percent Solids: 81.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			718100	DP	EET BUF	07/11/24 07:25
Total/NA	Analysis	8270D		20	718272	JMM	EET BUF	07/12/24 21:42
Total/NA	Prep	3550C			718243	SMP	EET BUF	07/12/24 08:32
Total/NA	Analysis	8081B		20	718529	JLS	EET BUF	07/16/24 16:31
Total/NA	Prep	3550C			718077	SJM	EET BUF	07/10/24 16:42
Total/NA	Analysis	8082A		1	718248	H9RU	EET BUF	07/12/24 14:25
Total/NA	Prep	3050B			718006	ET	EET BUF	07/10/24 14:41
Total/NA	Analysis	6010C		1	718276	NZG	EET BUF	07/11/24 19:21
Total/NA	Prep	3050B			718006	ET	EET BUF	07/10/24 14:41
Total/NA	Analysis	6010C		1	718188	BMB	EET BUF	07/11/24 12:39
Total/NA	Prep	7471B			718118	ESB	EET BUF	07/11/24 11:25
Total/NA	Analysis	7471B		5	718193	ESB	EET BUF	07/11/24 14:31
Total/NA	Prep	9012B			718886	AM	EET BUF	07/18/24 12:15
Total/NA	Analysis	9012B		1	718934	AM	EET BUF	07/18/24 16:20

Client Sample ID: SB-10-39-42

Lab Sample ID: 480-221432-2
Date Collected: 07/09/24 13:15
Matrix: Solid
Date Received: 07/09/24 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	718047	EMD	EET BUF	07/10/24 14:47

Client Sample ID: SB-10-39-42

Lab Sample ID: 480-221432-2
Date Collected: 07/09/24 13:15
Matrix: Solid
Date Received: 07/09/24 17:43
Percent Solids: 72.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			718232	CDC	EET BUF	07/10/24 10:30
Total/NA	Analysis	8260C		1	718233	CDC	EET BUF	07/11/24 22:37
Total/NA	Prep	3550C			718100	DP	EET BUF	07/11/24 07:25
Total/NA	Analysis	8270D		1	718272	JMM	EET BUF	07/12/24 22:10
Total/NA	Prep	3550C			718099	DP	EET BUF	07/11/24 07:14
Total/NA	Analysis	8081B		1	718095	JLS	EET BUF	07/11/24 15:39
Total/NA	Prep	3550C			718077	SJM	EET BUF	07/10/24 16:42
Total/NA	Analysis	8082A		1	718248	H9RU	EET BUF	07/12/24 14:42
Total/NA	Prep	3050B			718006	ET	EET BUF	07/10/24 14:41
Total/NA	Analysis	6010C		1	718188	BMB	EET BUF	07/11/24 12:54

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221432-1

Client Sample ID: SB-10-39-42

Lab Sample ID: 480-221432-2
Date Collected: 07/09/24 13:15
Matrix: Solid
Date Received: 07/09/24 17:43
Percent Solids: 72.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7471B			718118	ESB	EET BUF	07/11/24 11:25
Total/NA	Analysis	7471B		1	718193	ESB	EET BUF	07/11/24 14:12
Total/NA	Prep	9012B			718886	AM	EET BUF	07/18/24 12:15
Total/NA	Analysis	9012B		1	718934	AM	EET BUF	07/18/24 16:22

Client Sample ID: SB-10-48-49

Lab Sample ID: 480-221432-3
Date Collected: 07/09/24 14:25
Matrix: Solid
Date Received: 07/09/24 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	718047	EMD	EET BUF	07/10/24 14:47

Client Sample ID: SB-10-48-49

Lab Sample ID: 480-221432-3
Date Collected: 07/09/24 14:25
Matrix: Solid
Date Received: 07/09/24 17:43
Percent Solids: 76.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			718232	CDC	EET BUF	07/10/24 10:30
Total/NA	Analysis	8260C		1	718233	CDC	EET BUF	07/11/24 23:01
Total/NA	Prep	3550C			718100	DP	EET BUF	07/11/24 07:25
Total/NA	Analysis	8270D		1	718421	JMM	EET BUF	07/15/24 14:23
Total/NA	Prep	3550C			718099	DP	EET BUF	07/11/24 07:14
Total/NA	Analysis	8081B		1	718095	JLS	EET BUF	07/11/24 15:59
Total/NA	Prep	3550C			718077	SJM	EET BUF	07/10/24 16:42
Total/NA	Analysis	8082A		1	718248	H9RU	EET BUF	07/12/24 14:59
Total/NA	Prep	3050B			718006	ET	EET BUF	07/10/24 14:41
Total/NA	Analysis	6010C		1	718188	BMB	EET BUF	07/11/24 12:56
Total/NA	Prep	7471B			718118	ESB	EET BUF	07/11/24 11:25
Total/NA	Analysis	7471B		1	718193	ESB	EET BUF	07/11/24 14:13
Total/NA	Prep	9012B			718886	AM	EET BUF	07/18/24 12:15
Total/NA	Analysis	9012B		1	718934	AM	EET BUF	07/18/24 16:26

Client Sample ID: SB-01-0-0.2

Lab Sample ID: 480-221432-4
Date Collected: 07/09/24 15:45
Matrix: Solid
Date Received: 07/09/24 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	718047	EMD	EET BUF	07/10/24 14:47

Client Sample ID: SB-01-0-0.2

Lab Sample ID: 480-221432-4
Date Collected: 07/09/24 15:45
Matrix: Solid
Date Received: 07/09/24 17:43
Percent Solids: 98.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			718100	DP	EET BUF	07/11/24 07:25
Total/NA	Analysis	8270D		10	718421	JMM	EET BUF	07/15/24 14:52

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221432-1

Client Sample ID: SB-01-0-0.2

Date Collected: 07/09/24 15:45
Date Received: 07/09/24 17:43

Lab Sample ID: 480-221432-4

Matrix: Solid
Percent Solids: 98.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			718099	DP	EET BUF	07/11/24 07:14
Total/NA	Analysis	8081B		20	718095	JLS	EET BUF	07/11/24 16:19
Total/NA	Prep	3550C			718077	SJM	EET BUF	07/10/24 16:42
Total/NA	Analysis	8082A		1	718248	H9RU	EET BUF	07/12/24 13:52
Total/NA	Prep	1633 Shake			619820	JVB4	EET CLE	07/15/24 08:23
Total/NA	Analysis	1633		1	619961	MRL	EET CLE	07/16/24 08:17
Total/NA	Prep	1633 Shake	RA		619820	JVB4	EET CLE	07/15/24 08:23
Total/NA	Analysis	1633	RA	1	620562	MRL	EET CLE	07/19/24 21:10
Total/NA	Prep	3050B			718006	ET	EET BUF	07/10/24 14:41
Total/NA	Analysis	6010C		5	718276	NZG	EET BUF	07/11/24 19:36
Total/NA	Prep	3050B			718006	ET	EET BUF	07/10/24 14:41
Total/NA	Analysis	6010C		1	718188	BMB	EET BUF	07/11/24 12:58
Total/NA	Prep	7471B			718118	ESB	EET BUF	07/11/24 11:25
Total/NA	Analysis	7471B		1	718193	ESB	EET BUF	07/11/24 14:15
Total/NA	Prep	9012B			718886	AM	EET BUF	07/18/24 12:15
Total/NA	Analysis	9012B		1	718934	AM	EET BUF	07/18/24 16:27

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Ashland LLC
Job ID: 480-221432-1
Project/Site: Tank 75 Analysis

Laboratory: Eurofins Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-28-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Method Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221432-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET BUF
8081B	Organochlorine Pesticides (GC)	SW846	EET BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET BUF
1633	Per- and Polyfluoroalkyl Substances by LC/MS/MS	EPA	EET CLE
6010C	Metals (ICP)	SW846	EET BUF
7471B	Mercury (CVAA)	SW846	EET BUF
9012B	Cyanide, Total andor Amenable	SW846	EET BUF
Moisture	Percent Moisture	EPA	EET BUF
1633 Shake	Shake Extraction with SPE	EPA	EET CLE
3050B	Preparation, Metals	SW846	EET BUF
3550C	Ultrasonic Extraction	SW846	EET BUF
5035A_L	Closed System Purge and Trap	SW846	EET BUF
7471B	Preparation, Mercury	SW846	EET BUF
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	EET BUF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221432-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-221432-1	SB-10-0-0.2	Solid	07/08/24 11:45	07/09/24 17:43
480-221432-2	SB-10-39-42	Solid	07/09/24 13:15	07/09/24 17:43
480-221432-3	SB-10-48-49	Solid	07/09/24 14:25	07/09/24 17:43
480-221432-4	SB-01-0-0.2	Solid	07/09/24 15:45	07/09/24 17:43

10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

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Client Information

Client Contact: Ethan Smith	Sampler: E. Smith / C. Horrocks	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-197590-40883.1
Company: AECOM	Phone: (716) 912-4456	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin:	Page: ~~Page 1 of 1~~ 1 of 1
Address: 50 Lakefront Boulevard Suite 111	PWSID:	Due Date Requested:		Job #: 60730037
City: Buffalo		TAT Requested (days): Standard		
State, Zip: NY, 14202		Compliance Project: Δ Yes Δ No		
Phone: 614-790-2274(Tel) / (716) 912-4456		PO #: 1120269 Task 300		
Email: ethan.smith@aecom.com / [redacted]		WO #: Ann.Marie.Kropovitch@aecom.com		
Project Name: Tank 75 - Soil Analysis		Project #: 48027595		
Site: Tank 75 Site - Tonawanda, NY		SSOW#:		

Analysis Requested

Preservation Codes:
N - None
A - HCL
D - HNO3
B - NaOH

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL VOCs + TICs	8081B, 8082A, 8270D	6010C, 7471B, 9012B	8270D - TCL SVOCs + 1,4 Dioxane, TICs	1633 - 1633 Standard List	8260C - TCL VOCs + TICs	8270D - TCL SVOCs +TICs	1633_DRAFT_TSS - Percent Suspend Solids PFAS	8082A - TCL PCBs	8081B - TCL Pesticides	6010C, 7470A	9012B_NP - Cyanide, Total	8270D_SIM_MS_ID - 1,4 Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N	N	A	N	N	N	N	D	B	N		
SB-10-0-0.2	7-8-24	1145	G	Solid				X	X											3	
SB-10-39-42	7-9-24	1315	G	Solid			X	X	X											7	
SB-10-48-49	7-9-24	1425	G	Solid			X	X	X											7	
SB-01-0-0.2	7-9-24	1545	G	Solid				X	X	X	X									5	
				Solid																	
				Solid																	
				Solid																	
				Solid																	
				Solid																	
				Solid																	
				Solid																	

480-221432 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:		
Relinquished by: [signature]	Date/Time: 7-9-24 1743	Company: AECOM	Received by: [signature]	Date/Time: 7/9/24 17:43	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 5.9 ICE

Ver: 04/02/2024

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691 7991

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-88374.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note): NELAP New York		Job #: 480-221432-1
Address: 180 S. Van Buren Avenue,	Due Date Requested: 7/22/2024			
City: Barberton	TAT Requested (days):			
State, Zip: OH, 44203				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site:	SSOW#:			

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633/1633_Shake 1633 Standard List	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SB-01-0-0.2 (480-221432-4)	7/9/24	15:45 Eastern		Solid			X	1	

Analysis Requested

Preservation Codes:

Other

PFAS 85-32

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested. I, II, III IV Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
KS	7/10/24 1600		JESSICA RIGDON	7-11-24 0930	EEINC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Eurofins - Cleveland Sample Receipt Form/Narrative Login # :
Barberton Facility

Client Eurofins - Buffalo Site Name

Cooler unpacked by: JESSICA RIGDON

Cooler Received on 7-11-24 Opened on 7-11-24

FedEx: 1st Grd (Exp) UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used. (Bubble Wrap) Foam Plastic Bag None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 19 (CF +1.0 °C) Observed Cooler Temp. 0.9 °C Corrected Cooler Temp 1.9 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes) No	**Tests that are not checked for pH by Receiving:** VOAs, Oil and Grease, TOC
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes) No NA	
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes (No)	
-Were tamper/custody seals intact and uncompromised?	(Yes) No NA	
3 Shippers' packing slip attached to the cooler(s)?	(Yes) No	
4. Did custody papers accompany the sample(s)?	(Yes) No	
5 Were the custody papers relinquished & signed in the appropriate place?	(Yes) No	
6 Was/were the person(s) who collected the samples clearly identified on the COC?	Yes (No)	
7 Did all bottles arrive in good condition (Unbroken)?	(Yes) No	
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes) No	
9 For each sample, does the COC specify preservatives (Y/N)? # of containers (Y/N), and sample type of grab/comp(Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	(Yes) No	
11 Sufficient quantity received to perform indicated analyses?	(Yes) No	
12. Are these work share samples and all listed on the COC?	(Yes) No	
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes No NA	pH Strip Lot# HC442471
14. Were VOAs on the COC?	Yes No	
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes No NA	
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes No	
17 Was a LL Hg or Me Hg trip blank present?	Yes No	

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired

Sample(s) were received in a broken container

Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory

Time preserved. Preservative(s) added/Lot number(s):

VOA Sample Preservation - Date/Time VOAs Frozen.

SAMPLE CONTROL
EUROFINS ENVIRONMENT TESTING
10 HAZELWOOD DRIVE

BUFFALO, NY 142282223
UNITED STATES US

ACTWGT: 27.60 LB
CAD 0759273/CAFE3608
DIMS: 18x15x13 IN

BILL SENDER

Part # 159969-434 MTN EXP 03/25

TO SAMPLE RECEIPT
EUROFINS CLEVELAND
180 S VAN BUREN AVE

BARBERTON OH 442033543
(330) 497-9396
REF: BARBERTON

FedEx Express

[redacted] 9321 6626

THU - 11 JUL 10:30A
PRIORITY OVERNIGHT

NX CAKA

44203
OH-US CLE

Login Sample Receipt Checklist

Client: Ashland LLC

Job Number: 480-221432-1

Login Number: 221432
List Number: 1
Creator: Yeager, Brian A

List Source: Eurofins Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	FREEZE 7-10-24 10:30
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	AECOM
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Shannon Lloyd
Ashland LLC
PO BOX 2219
Columbus, Ohio 43216

Generated 7/25/2024 1:27:00 PM

JOB DESCRIPTION

Tank 75 Analysis

JOB NUMBER

480-221523-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

See page two for job notes and contact information.

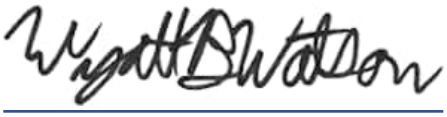
Eurofins Buffalo

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

Authorization



Generated
7/25/2024 1:27:00 PM

Authorized for release by
Wyatt Watson, Project Management Assistant I
Wyatt.Watson@et.eurofinsus.com
Designee for
John Beninati, Project Manager I
John.Beninati@et.eurofinsus.com
(716)504-9874

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

GC/MS Semi VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

LCMS

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
480-221523-1

Receipt
The samples were received on 7/11/2024 2:29 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 8.6º C.

GC/MS VOA
Method 8260C: The continuing calibration verification (CCV) associated with batch 480-718233 recovered above the upper control limit for Carbon tetrachloride, Chloromethane and Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: HA-01-2.5-3.5 (480-221523-2), HA-08-3.5-4.0 (480-221523-4) and HA-07-3.0-4.0 (480-221523-6).

Method 8260C: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 480-718232 and analytical batch 480-718233 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected.

Method 8260C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 480-718232 and analytical batch 480-718233 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method 8270D: The continuing calibration verification (CCV) associated with batch 480-718283 recovered above the upper control limit for Hexachlorocyclopentadiene and 2,4-Dimethylphenol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: HA-01-0-0.2 (480-221523-1), HA-01-2.5-3.5 (480-221523-2), HA-08-0-0.2 (480-221523-3) and HA-08-3.5-4.0 (480-221523-4).

Method 8270D: The following samples were diluted due to color, appearance and viscosity: HA-01-2.5-3.5 (480-221523-2), HA-01-2.5-3.5-MS (480-221523-2[MS]), HA-01-2.5-3.5-MSD (480-221523-2[MSD]) and HA-08-0-0.2 (480-221523-3). Elevated reporting limits (RL) are provided.

Method 8270D: Surrogate recovery for the following sample was outside control limits: HA-01-0-0.2 (480-221523-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8270D: The following sample was diluted due to color, appearance and viscosity: HA-07-0-0.2 (480-221523-5). Elevated reporting limits (RL) are provided.

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-718449 recovered above the upper control limit Hexachlorocyclopentadiene and 2,4-Dimethylphenol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: HA-07-0-0.2 (480-221523-5) and HA-07-3.0-4.0 (480-221523-6).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method 8082A: For method 8082A, the recovery of the one surrogate in samples HA-08-0-0.2 (480-221523-3) exceeds quality control limits due to the sample matrix. The recovery of the secondary surrogate is within quality control criteria; no corrective action is required.

Method 8081B: The following samples were diluted due to the nature of the sample matrix: HA-01-0-0.2 (480-221523-1), HA-01-2.5-3.5 (480-221523-2), HA-08-0-0.2 (480-221523-3) and HA-07-0-0.2 (480-221523-5). As such, surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method 8081B: The method blank for preparation batch 480-718243 and analytical batch 480-718529 contained alpha-BHC and gamma-BHC (Lindane) above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8081B: The following samples were diluted due to the nature of the sample matrix: HA-01-2.5-3.5-MS (480-221523-2[MS]) and HA-01-2.5-3.5-MSD (480-221523-2[MSD]). As such, spike and surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method 8081B: For method 8081 Pesticides, the majority of the peaks present in the sample extracts are biphenyls indicating the presence of Aroclors. The results of several confirmed positive peaks may be enhanced and due to the biphenyl peaks present, and may be considered estimated for: HA-07-0-0.2 (480-221523-5)

Method 8082A: The DCB Decachlorobiphenyl surrogate recovery for the following samples was outside acceptance limits (low biased) on the primary column: HA-01-0-0.2 (480-221523-1). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method 6010C: The low level continuing calibration verification (CCVL) associated with batch 480-718548 recovered above the upper control limit for Lead. The samples associated with this CCVL were 10x for the affected analytes; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

LCMS
Method 1633: The low level continuing calibration verification (CCVL) associated with batch 240-619961 recovered above the upper control limit for 3-Perfluoropropylpropanoic acid (3:3 FTCA). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 1633: The continuing calibration verification (CCV) recovered outside of control limits for IDA compound(s) 13C8 FOSA. Section 14.3.3 of the finalized EPA 1633 states that the recovery of target analytes for the CCV(s) must be within 70 - 130%, unless the analyte is not of concern for a given project. Since target analytes associated with this IDA are within spec, data is reported. The following sample is impacted: HA-01-0-0.2 (480-221523-1).

Method 1633: The low level laboratory control sample (LLCS) for preparation batch 240-619820 and analytical batch 240-619961 recovered outside control limits for the following analytes: 3-Perfluoropropylpropanoic acid (3:3 FTCA). These analytes were biased high in the LLCS and were not detected in the associated samples; therefore, the data have been reported.

Method 1633: The laboratory control sample (LCS) for preparation batch 240-619820 and analytical batch 240-619961 recovered outside control limits for the following analytes: 3-Perfluoropropylpropanoic acid (3:3 FTCA). These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method 3550C: Due to the matrix, the following sample could not be concentrated to the final method required volume: HA-01-0-0.2 (480-221523-1). The reporting limits (RLs) are elevated proportionately.

Method 3550C: The following sample(s) required a Florisil clean-up, via 3620C, to reduce matrix interferences:

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221523-1

Client Sample ID: HA-01-0-0.2 — Lab Sample ID: 480-221523-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDT	160	J	190	45	ug/Kg	50	☼	8081B	Total/NA
alpha-BHC	43	J B	190	35	ug/Kg	50	☼	8081B	Total/NA
PCB-1260	0.51	J	0.55	0.26	mg/Kg	1	☼	8082A	Total/NA
Perfluorohexanoic acid (PFHxA)	0.63	I	0.37	0.094	ug/Kg	1	☼	1633	Total/NA
Aluminum	9430		23.4	20.1	mg/Kg	1	☼	6010C	Total/NA
Antimony	2.3	J	35.0	1.2	mg/Kg	1	☼	6010C	Total/NA
Arsenic	5.2		4.7	2.1	mg/Kg	1	☼	6010C	Total/NA
Barium	76.1		1.2	0.33	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.76		0.47	0.093	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.59		0.47	0.16	mg/Kg	1	☼	6010C	Total/NA
Calcium	30800		117	63.0	mg/Kg	1	☼	6010C	Total/NA
Chromium	32.3		1.2	0.84	mg/Kg	1	☼	6010C	Total/NA
Cobalt	4.6		1.2	0.23	mg/Kg	1	☼	6010C	Total/NA
Copper	32.7		2.3	1.3	mg/Kg	1	☼	6010C	Total/NA
Iron	12700		23.4	19.8	mg/Kg	1	☼	6010C	Total/NA
Lead	113		2.3	1.1	mg/Kg	1	☼	6010C	Total/NA
Magnesium	9220		46.7	19.8	mg/Kg	1	☼	6010C	Total/NA
Manganese	410		2.3	0.65	mg/Kg	1	☼	6010C	Total/NA
Nickel	22.1		11.7	0.58	mg/Kg	1	☼	6010C	Total/NA
Potassium	2490		70.1	56.6	mg/Kg	1	☼	6010C	Total/NA
Sodium	169	J	327	143	mg/Kg	1	☼	6010C	Total/NA
Vanadium	30.0		1.2	0.30	mg/Kg	1	☼	6010C	Total/NA
Zinc	158		4.7	2.4	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.19		0.047	0.011	mg/Kg	1	☼	7471B	Total/NA
Cyanide, Total	1.7	J	2.1	1.0	mg/Kg	1	☼	9012B	Total/NA

Client Sample ID: HA-01-2.5-3.5 — Lab Sample ID: 480-221523-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.73	J	4.0	0.49	ug/Kg	1	☼	8260C	Total/NA
2-Butanone (MEK)	3.7	J F1 F2	20	1.5	ug/Kg	1	☼	8260C	Total/NA
Acetone	19	J F1 F2	20	3.4	ug/Kg	1	☼	8260C	Total/NA
Benzene	0.91	J F1	4.0	0.20	ug/Kg	1	☼	8260C	Total/NA
Cyclohexane	2.0	J F1 F2	4.0	0.56	ug/Kg	1	☼	8260C	Total/NA
Ethylbenzene	0.79	J F1	4.0	0.28	ug/Kg	1	☼	8260C	Total/NA
Isopropylbenzene	1.7	J F1	4.0	0.61	ug/Kg	1	☼	8260C	Total/NA
Methylcyclohexane	3.9	J F1	4.0	0.61	ug/Kg	1	☼	8260C	Total/NA
Tetrachloroethene	0.77	J F1 F2	4.0	0.54	ug/Kg	1	☼	8260C	Total/NA
Toluene	0.38	J F1	4.0	0.30	ug/Kg	1	☼	8260C	Total/NA
Xylenes, Total	1.2	J F1 F2	8.0	0.68	ug/Kg	1	☼	8260C	Total/NA
Benzo[a]pyrene	170	J	1100	160	ug/Kg	5	☼	8270D	Total/NA
Benzo[g,h,i]perylene	200	J	1100	110	ug/Kg	5	☼	8270D	Total/NA
Chrysene	250	J	1100	240	ug/Kg	5	☼	8270D	Total/NA
Pyrene	650	J	1100	130	ug/Kg	5	☼	8270D	Total/NA
4,4'-DDT	29	J	42	9.7	ug/Kg	20	☼	8081B	Total/NA
alpha-BHC	8.7	J B	42	7.5	ug/Kg	20	☼	8081B	Total/NA
Aluminum	19700		12.5	10.8	mg/Kg	1	☼	6010C	Total/NA
Arsenic	3.4	F1	2.5	1.1	mg/Kg	1	☼	6010C	Total/NA
Barium	114		0.62	0.17	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.84		0.25	0.050	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.27		0.25	0.087	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Client Sample ID: HA-01-2.5-3.5 (Continued)

Lab Sample ID: 480-221523-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	47500		62.4	33.7	mg/Kg	1	☼	6010C	Total/NA
Chromium	24.0		0.62	0.45	mg/Kg	1	☼	6010C	Total/NA
Cobalt	10.9		0.62	0.12	mg/Kg	1	☼	6010C	Total/NA
Copper	18.0		1.2	0.71	mg/Kg	1	☼	6010C	Total/NA
Iron	19300		12.5	10.6	mg/Kg	1	☼	6010C	Total/NA
Lead	12.7		1.2	0.57	mg/Kg	1	☼	6010C	Total/NA
Magnesium	14300	F1	25.0	10.6	mg/Kg	1	☼	6010C	Total/NA
Manganese	467		1.2	0.35	mg/Kg	1	☼	6010C	Total/NA
Nickel	22.0		6.2	0.31	mg/Kg	1	☼	6010C	Total/NA
Potassium	6070	F1	37.5	30.3	mg/Kg	1	☼	6010C	Total/NA
Silver	0.29	J	0.75	0.25	mg/Kg	1	☼	6010C	Total/NA
Sodium	239		175	76.6	mg/Kg	1	☼	6010C	Total/NA
Vanadium	37.0		0.62	0.16	mg/Kg	1	☼	6010C	Total/NA
Zinc	57.7		2.5	1.3	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.012	J	0.025	0.0057	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: HA-08-0-0.2

Lab Sample ID: 480-221523-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	440	J	2100	210	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]pyrene	380	J	2100	310	ug/Kg	10	☼	8270D	Total/NA
Benzo[b]fluoranthene	490	J	2100	340	ug/Kg	10	☼	8270D	Total/NA
Benzo[g,h,i]perylene	360	J	2100	230	ug/Kg	10	☼	8270D	Total/NA
Fluoranthene	500	J	2100	230	ug/Kg	10	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	280	J	2100	260	ug/Kg	10	☼	8270D	Total/NA
Pyrene	430	J	2100	250	ug/Kg	10	☼	8270D	Total/NA
4,4'-DDT	38	J	42	9.8	ug/Kg	20	☼	8081B	Total/NA
Endrin ketone	13	J	42	10	ug/Kg	20	☼	8081B	Total/NA
gamma-BHC (Lindane)	8.9	J B	42	7.7	ug/Kg	20	☼	8081B	Total/NA
Aluminum	19400		13.5	11.7	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.72	J	20.3	0.72	mg/Kg	1	☼	6010C	Total/NA
Arsenic	5.2		2.7	1.2	mg/Kg	1	☼	6010C	Total/NA
Barium	129		0.68	0.19	mg/Kg	1	☼	6010C	Total/NA
Beryllium	1.5		0.27	0.054	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.43		0.27	0.095	mg/Kg	1	☼	6010C	Total/NA
Calcium	47000		67.6	36.5	mg/Kg	1	☼	6010C	Total/NA
Chromium	27.0		0.68	0.49	mg/Kg	1	☼	6010C	Total/NA
Cobalt	14.1		0.68	0.14	mg/Kg	1	☼	6010C	Total/NA
Copper	40.3		1.4	0.77	mg/Kg	1	☼	6010C	Total/NA
Iron	21300		13.5	11.5	mg/Kg	1	☼	6010C	Total/NA
Lead	61.9	^+	1.4	0.62	mg/Kg	1	☼	6010C	Total/NA
Magnesium	14200		27.0	11.5	mg/Kg	1	☼	6010C	Total/NA
Manganese	784		1.4	0.38	mg/Kg	1	☼	6010C	Total/NA
Nickel	32.0		6.8	0.34	mg/Kg	1	☼	6010C	Total/NA
Potassium	4350		40.6	32.8	mg/Kg	1	☼	6010C	Total/NA
Sodium	247		189	82.9	mg/Kg	1	☼	6010C	Total/NA
Vanadium	36.1		0.68	0.18	mg/Kg	1	☼	6010C	Total/NA
Zinc	115		2.7	1.4	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.85		0.026	0.0059	mg/Kg	1	☼	7471B	Total/NA
Cyanide, Total	2.9		1.1	0.54	mg/Kg	1	☼	9012B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221523-1

Client Sample ID: HA-08-3.5-4.0 — Lab Sample ID: 480-221523-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	3.3	J	23	1.7	ug/Kg	1	☼	8260C	Total/NA
Acetone	21	J	23	3.8	ug/Kg	1	☼	8260C	Total/NA
4,4'-DDT	1.6	J	2.3	0.53	ug/Kg	1	☼	8081B	Total/NA
alpha-BHC	0.47	J B	2.3	0.41	ug/Kg	1	☼	8081B	Total/NA
gamma-BHC (Lindane)	0.49	J B	2.3	0.42	ug/Kg	1	☼	8081B	Total/NA
Methoxychlor	2.9		2.3	0.46	ug/Kg	1	☼	8081B	Total/NA
Aluminum	21500		14.6	12.6	mg/Kg	1	☼	6010C	Total/NA
Arsenic	4.9		2.9	1.3	mg/Kg	1	☼	6010C	Total/NA
Barium	109		0.73	0.20	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.79		0.29	0.058	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.56		0.29	0.10	mg/Kg	1	☼	6010C	Total/NA
Calcium	2900		72.8	39.3	mg/Kg	1	☼	6010C	Total/NA
Chromium	23.6		0.73	0.52	mg/Kg	1	☼	6010C	Total/NA
Cobalt	12.3		0.73	0.15	mg/Kg	1	☼	6010C	Total/NA
Copper	11.6		1.5	0.83	mg/Kg	1	☼	6010C	Total/NA
Iron	20100		14.6	12.4	mg/Kg	1	☼	6010C	Total/NA
Lead	26.5	^+	1.5	0.67	mg/Kg	1	☼	6010C	Total/NA
Magnesium	4260		29.1	12.4	mg/Kg	1	☼	6010C	Total/NA
Manganese	374		1.5	0.41	mg/Kg	1	☼	6010C	Total/NA
Nickel	20.1		7.3	0.36	mg/Kg	1	☼	6010C	Total/NA
Potassium	2700		43.7	35.3	mg/Kg	1	☼	6010C	Total/NA
Sodium	112	J	204	89.3	mg/Kg	1	☼	6010C	Total/NA
Vanadium	40.7		0.73	0.19	mg/Kg	1	☼	6010C	Total/NA
Zinc	107		2.9	1.5	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.20		0.029	0.0066	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: HA-07-0-0.2 — Lab Sample ID: 480-221523-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	300	J	2000	260	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]anthracene	200	J	2000	200	ug/Kg	10	☼	8270D	Total/NA
Benzo[b]fluoranthene	370	J	2000	320	ug/Kg	10	☼	8270D	Total/NA
Benzo[g,h,i]perylene	400	J	2000	210	ug/Kg	10	☼	8270D	Total/NA
Fluoranthene	220	J	2000	210	ug/Kg	10	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	250	J	2000	250	ug/Kg	10	☼	8270D	Total/NA
4,4'-DDT	94		41	9.5	ug/Kg	20	☼	8081B	Total/NA
alpha-BHC	8.7	J B	41	7.3	ug/Kg	20	☼	8081B	Total/NA
Dieldrin	25	J	41	9.7	ug/Kg	20	☼	8081B	Total/NA
Endrin ketone	30	J	41	10	ug/Kg	20	☼	8081B	Total/NA
PCB-1260	0.48		0.21	0.098	mg/Kg	1	☼	8082A	Total/NA
Aluminum	19300		11.7	10.1	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.79	J	17.6	0.62	mg/Kg	1	☼	6010C	Total/NA
Arsenic	3.9		2.3	1.0	mg/Kg	1	☼	6010C	Total/NA
Barium	125		0.59	0.16	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.90		0.23	0.047	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.34		0.23	0.082	mg/Kg	1	☼	6010C	Total/NA
Calcium	35800		58.5	31.6	mg/Kg	1	☼	6010C	Total/NA
Chromium	28.1		0.59	0.42	mg/Kg	1	☼	6010C	Total/NA
Cobalt	10.8		0.59	0.12	mg/Kg	1	☼	6010C	Total/NA
Copper	29.5		1.2	0.67	mg/Kg	1	☼	6010C	Total/NA
Iron	19600		11.7	9.9	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Client Sample ID: HA-07-0-0.2 (Continued)

Lab Sample ID: 480-221523-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	39.9	^+	1.2	0.54	mg/Kg	1	☼	6010C	Total/NA
Magnesium	11900		23.4	9.9	mg/Kg	1	☼	6010C	Total/NA
Manganese	492		1.2	0.33	mg/Kg	1	☼	6010C	Total/NA
Nickel	23.8		5.9	0.29	mg/Kg	1	☼	6010C	Total/NA
Potassium	5130		35.1	28.4	mg/Kg	1	☼	6010C	Total/NA
Silver	0.24	J	0.70	0.23	mg/Kg	1	☼	6010C	Total/NA
Sodium	198		164	71.7	mg/Kg	1	☼	6010C	Total/NA
Vanadium	37.7		0.59	0.15	mg/Kg	1	☼	6010C	Total/NA
Zinc	73.4		2.3	1.2	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.64		0.024	0.0054	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: HA-07-3.0-4.0

Lab Sample ID: 480-221523-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Endrin ketone	0.75	J	1.9	0.46	ug/Kg	1	☼	8081B	Total/NA
Methoxychlor	1.1	J	1.9	0.39	ug/Kg	1	☼	8081B	Total/NA
Aluminum	18700		11.8	10.2	mg/Kg	1	☼	6010C	Total/NA
Arsenic	3.8		2.4	1.0	mg/Kg	1	☼	6010C	Total/NA
Barium	112		0.59	0.16	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.82		0.24	0.047	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.27		0.24	0.082	mg/Kg	1	☼	6010C	Total/NA
Calcium	45900		58.9	31.8	mg/Kg	1	☼	6010C	Total/NA
Chromium	22.0		0.59	0.42	mg/Kg	1	☼	6010C	Total/NA
Cobalt	11.9		0.59	0.12	mg/Kg	1	☼	6010C	Total/NA
Copper	18.2		1.2	0.67	mg/Kg	1	☼	6010C	Total/NA
Iron	18900		11.8	10	mg/Kg	1	☼	6010C	Total/NA
Lead	12.5	^+	1.2	0.54	mg/Kg	1	☼	6010C	Total/NA
Magnesium	13300		23.6	10	mg/Kg	1	☼	6010C	Total/NA
Manganese	534		1.2	0.33	mg/Kg	1	☼	6010C	Total/NA
Nickel	21.8		5.9	0.29	mg/Kg	1	☼	6010C	Total/NA
Potassium	5130		35.3	28.6	mg/Kg	1	☼	6010C	Total/NA
Sodium	218		165	72.2	mg/Kg	1	☼	6010C	Total/NA
Vanadium	33.7		0.59	0.15	mg/Kg	1	☼	6010C	Total/NA
Zinc	57.3		2.4	1.2	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.015	J	0.022	0.0051	mg/Kg	1	☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221523-1

Client Sample ID: HA-01-0-0.2
Date Collected: 07/10/24 07:40
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-1
Matrix: Solid
Percent Solids: 43.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		23000	13000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
2,4,5-Trichlorophenol	ND		39000	11000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
2,4,6-Trichlorophenol	ND		39000	7800	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
2,4-Dichlorophenol	ND		39000	4100	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
2,4-Dimethylphenol	ND		39000	9400	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
2,4-Dinitrophenol	ND		380000	180000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
2,4-Dinitrotoluene	ND		39000	8000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
2,6-Dinitrotoluene	ND		39000	4600	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
2-Chloronaphthalene	ND		39000	6400	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
2-Chlorophenol	ND		75000	7100	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
2-Methylnaphthalene	ND		39000	7800	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
2-Methylphenol	ND		39000	4600	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
2-Nitroaniline	ND		75000	5700	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
2-Nitrophenol	ND		39000	11000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
3,3'-Dichlorobenzidine	ND		75000	46000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
3-Nitroaniline	ND		75000	11000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
4,6-Dinitro-2-methylphenol	ND		75000	39000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
4-Bromophenyl phenyl ether	ND		39000	5500	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
4-Chloro-3-methylphenol	ND		39000	9600	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
4-Chloroaniline	ND		39000	9600	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
4-Chlorophenyl phenyl ether	ND		39000	4800	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
4-Methylphenol	ND		75000	4600	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
4-Nitroaniline	ND		75000	20000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
4-Nitrophenol	ND		75000	27000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Acenaphthene	ND		39000	5700	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Acenaphthylene	ND		39000	5000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Acetophenone	ND		39000	5300	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Anthracene	ND		39000	9600	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Atrazine	ND		39000	13000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Benzaldehyde	ND		39000	31000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Benzo[a]anthracene	ND		39000	3900	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Benzo[a]pyrene	ND		39000	5700	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Benzo[b]fluoranthene	ND		39000	6200	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Benzo[g,h,i]perylene	ND		39000	4100	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Benzo[k]fluoranthene	ND		39000	5000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Biphenyl	ND		39000	5700	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
bis (2-chloroisopropyl) ether	ND		39000	7800	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Bis(2-chloroethoxy)methane	ND		39000	8200	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Bis(2-chloroethyl)ether	ND		39000	5000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Bis(2-ethylhexyl) phthalate	ND		39000	13000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Butyl benzyl phthalate	ND		39000	6400	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Caprolactam	ND		39000	12000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Carbazole	ND		39000	4600	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Chrysene	ND		39000	8700	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Dibenz(a,h)anthracene	ND		39000	6900	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Dibenzofuran	ND		39000	4600	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Diethyl phthalate	ND		39000	5000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Dimethyl phthalate	ND		39000	4600	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Di-n-butyl phthalate	ND		39000	6600	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10

Client Sample ID: HA-01-0-0.2
Date Collected: 07/10/24 07:40
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-1
Matrix: Solid
Percent Solids: 43.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate	ND		39000	4600	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Fluoranthene	ND		39000	4100	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Fluorene	ND		39000	4600	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Hexachlorobenzene	ND		39000	5300	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Hexachlorobutadiene	ND		39000	5700	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Hexachlorocyclopentadiene	ND		39000	5300	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Hexachloroethane	ND		39000	5000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Indeno[1,2,3-cd]pyrene	ND		39000	4800	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Isophorone	ND		39000	8200	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Naphthalene	ND		39000	5000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Nitrobenzene	ND		39000	4300	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
N-Nitrosodi-n-propylamine	ND		39000	6600	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
N-Nitrosodiphenylamine	ND		39000	32000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Pentachlorophenol	ND		75000	39000	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Phenanthrene	ND		39000	5700	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Phenol	ND		39000	5900	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10
Pyrene	ND		39000	4600	ug/Kg	☼	07/11/24 16:47	07/13/24 00:10	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Methylene Chloride	*710000*	*T J N*	*ug/Kg*	☼	*2.05*	*75-09-2*	*07/11/24 16:47*	*07/13/24 00:10*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*0*	*S1-*	*26 - 143*	*07/11/24 16:47*	*07/13/24 00:10*	*10*
2-Fluorobiphenyl	*61*		*50 - 121*	*07/11/24 16:47*	*07/13/24 00:10*	*10*
2-Fluorophenol	*58*		*36 - 120*	*07/11/24 16:47*	*07/13/24 00:10*	*10*
Nitrobenzene-d5	*65*		*40 - 121*	*07/11/24 16:47*	*07/13/24 00:10*	*10*
Phenol-d5	*132*	*S1+*	*41 - 120*	*07/11/24 16:47*	*07/13/24 00:10*	*10*
p-Terphenyl-d14	*74*		*46 - 143*	*07/11/24 16:47*	*07/13/24 00:10*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		190	38	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
4,4'-DDE	ND		190	41	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
4,4'-DDT	**160**	**J**	190	45	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
Aldrin	ND		190	48	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
alpha-BHC	**43**	**J B**	190	35	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
cis-Chlordane	ND		190	96	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
beta-BHC	ND		190	35	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
delta-BHC	ND		190	36	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
Dieldrin	ND		190	46	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
Endosulfan I	ND		190	37	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
Endosulfan II	ND		190	35	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
Endosulfan sulfate	ND		190	36	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
Endrin	ND		190	38	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
Endrin aldehyde	ND		190	49	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
Endrin ketone	ND		190	48	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
gamma-BHC (Lindane)	ND		190	35	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
trans-Chlordane	ND		190	61	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
Heptachlor	ND		190	42	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
Heptachlor epoxide	ND		190	50	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50

Client Sample ID: HA-01-0-0.2
Date Collected: 07/10/24 07:40
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-1
Matrix: Solid
Percent Solids: 43.0

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methoxychlor	ND		190	39	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50
Toxaphene	ND		1900	1100	ug/Kg	☼	07/12/24 06:39	07/16/24 14:34	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*1093*	*S1+*	*45 - 120*	*07/12/24 06:39*	*07/16/24 14:34*	*50*
DCB Decachlorobiphenyl	*1385*	*S1+*	*45 - 120*	*07/12/24 06:39*	*07/16/24 14:34*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/12/24 06:39*	*07/16/24 14:34*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/12/24 06:39*	*07/16/24 14:34*	*50*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.55	0.11	mg/Kg	☼	07/12/24 06:45	07/17/24 01:16	1
PCB-1221	ND		0.55	0.11	mg/Kg	☼	07/12/24 06:45	07/17/24 01:16	1
PCB-1232	ND		0.55	0.11	mg/Kg	☼	07/12/24 06:45	07/17/24 01:16	1
PCB-1242	ND		0.55	0.11	mg/Kg	☼	07/12/24 06:45	07/17/24 01:16	1
PCB-1248	ND		0.55	0.11	mg/Kg	☼	07/12/24 06:45	07/17/24 01:16	1
PCB-1254	ND		0.55	0.26	mg/Kg	☼	07/12/24 06:45	07/17/24 01:16	1
PCB-1260	**0.51**	**J**	0.55	0.26	mg/Kg	☼	07/12/24 06:45	07/17/24 01:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*64*		*60 - 154*	*07/12/24 06:45*	*07/17/24 01:16*	*1*
Tetrachloro-m-xylene	*61*		*60 - 154*	*07/12/24 06:45*	*07/17/24 01:16*	*1*
DCB Decachlorobiphenyl	*68*		*65 - 174*	*07/12/24 06:45*	*07/17/24 01:16*	*1*
DCB Decachlorobiphenyl	*55*	*S1-*	*65 - 174*	*07/12/24 06:45*	*07/17/24 01:16*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.5	0.37	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluoropentanoic acid (PFPeA)	ND		0.75	0.19	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluorohexanoic acid (PFHxA)	**0.63**	**I**	0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluoroheptanoic acid (PFHpA)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluorooctanoic acid (PFOA)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluorononanoic acid (PFNA)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluorodecanoic acid (PFDA)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluoroundecanoic acid (PFUnA)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluorododecanoic acid (PFDoA)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluorononanesulfonic acid (PFNS)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1.5	0.37	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1.5	0.37	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1

Client Sample ID: HA-01-0-0.2
Date Collected: 07/10/24 07:40
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-1
Matrix: Solid
Percent Solids: 43.0

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1.5	0.37	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		3.7	0.94	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		3.7	0.94	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.5	0.37	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.5	0.37	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.75	0.19	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		1.5	0.37	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		1.5	0.37	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.75	0.19	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	*+	1.9	0.47	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		9.4	2.3	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		9.4	2.3	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.37	0.094	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.75	0.19	ug/Kg	☼	07/15/24 08:23	07/16/24 08:57	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*106*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
13C5 PFPeA	*73.1*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
13C5 PFHxA	*78.9*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
13C4 PFHpA	*73.6*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
13C8 PFOA	*78.6*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
13C9 PFNA	*94.6*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
13C6 PFDA	*116*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
13C7 PFUnA	*105*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
13C2 PFTeDA	*70.3*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
13C3 PFBS	*94.0*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
13C3 PFHxS	*83.4*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
13C8 PFOS	*110*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
13C8 FOSA	*156*	*5+	*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
d3-NMeFOSAA	*115*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
d5-NEtFOSAA	*134*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*
M2-4:2 FTS	*122*		*20 - 150*	*07/15/24 08:23*	*07/16/24 08:57*	*1*

Client Sample ID: HA-01-0-0.2
Date Collected: 07/10/24 07:40
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-1
Matrix: Solid
Percent Solids: 43.0

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	150		20 - 150	07/15/24 08:23	07/16/24 08:57	1
M2-8:2 FTS	133		20 - 150	07/15/24 08:23	07/16/24 08:57	1
13C3 HFPO-DA	69.3		20 - 150	07/15/24 08:23	07/16/24 08:57	1
d7-N-MeFOSE-M	82.4		20 - 150	07/15/24 08:23	07/16/24 08:57	1
d9-N-EtFOSE-M	75.3		20 - 150	07/15/24 08:23	07/16/24 08:57	1
d5-NEtPFOSA	76.8		20 - 150	07/15/24 08:23	07/16/24 08:57	1
d3-NMePFOSA	82.8		20 - 150	07/15/24 08:23	07/16/24 08:57	1
13C2-PFDoDA	105		20 - 150	07/15/24 08:23	07/16/24 08:57	1

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.75	0.19	ug/Kg	☼	07/15/24 08:23	07/19/24 21:24	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	100		20 - 150	07/15/24 08:23	07/19/24 21:24	1
13C5 PFPeA	66.0		20 - 150	07/15/24 08:23	07/19/24 21:24	1
13C5 PFHxA	76.2		20 - 150	07/15/24 08:23	07/19/24 21:24	1
13C4 PFHpA	70.1		20 - 150	07/15/24 08:23	07/19/24 21:24	1
13C8 PFOA	78.6		20 - 150	07/15/24 08:23	07/19/24 21:24	1
13C9 PFNA	104		20 - 150	07/15/24 08:23	07/19/24 21:24	1
13C6 PFDA	86.5		20 - 150	07/15/24 08:23	07/19/24 21:24	1
13C7 PFUnA	98.7		20 - 150	07/15/24 08:23	07/19/24 21:24	1
13C2 PFTeDA	80.4		20 - 150	07/15/24 08:23	07/19/24 21:24	1
13C3 PFBS	88.8		20 - 150	07/15/24 08:23	07/19/24 21:24	1
13C3 PFHxS	89.2		20 - 150	07/15/24 08:23	07/19/24 21:24	1
13C8 PFOS	107		20 - 150	07/15/24 08:23	07/19/24 21:24	1
13C8 FOSA	143		20 - 150	07/15/24 08:23	07/19/24 21:24	1
d3-NMeFOSAA	110		20 - 150	07/15/24 08:23	07/19/24 21:24	1
d5-NEtFOSAA	129		20 - 150	07/15/24 08:23	07/19/24 21:24	1
M2-4:2 FTS	134		20 - 150	07/15/24 08:23	07/19/24 21:24	1
M2-6:2 FTS	179	*5+	20 - 150	07/15/24 08:23	07/19/24 21:24	1
M2-8:2 FTS	174	*5+	20 - 150	07/15/24 08:23	07/19/24 21:24	1
13C3 HFPO-DA	63.6		20 - 150	07/15/24 08:23	07/19/24 21:24	1
d7-N-MeFOSE-M	82.9		20 - 150	07/15/24 08:23	07/19/24 21:24	1
d9-N-EtFOSE-M	80.9		20 - 150	07/15/24 08:23	07/19/24 21:24	1
d5-NEtPFOSA	72.1		20 - 150	07/15/24 08:23	07/19/24 21:24	1
d3-NMePFOSA	82.0		20 - 150	07/15/24 08:23	07/19/24 21:24	1
13C2-PFDoDA	86.2		20 - 150	07/15/24 08:23	07/19/24 21:24	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**9430**		23.4	20.1	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Antimony	**2.3**	**J**	35.0	1.2	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Arsenic	**5.2**		4.7	2.1	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Barium	**76.1**		1.2	0.33	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Beryllium	**0.76**		0.47	0.093	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Cadmium	**0.59**		0.47	0.16	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Calcium	**30800**		117	63.0	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Chromium	**32.3**		1.2	0.84	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Cobalt	**4.6**		1.2	0.23	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1

Client Sample ID: HA-01-0-0.2

Lab Sample ID: 480-221523-1

Date Collected: 07/10/24 07:40
Matrix: Solid
Date Received: 07/11/24 14:29
Percent Solids: 43.0

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	**32.7**		2.3	1.3	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Iron	**12700**		23.4	19.8	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Lead	**113**		2.3	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Magnesium	**9220**		46.7	19.8	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Manganese	**410**		2.3	0.65	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Nickel	**22.1**		11.7	0.58	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Potassium	**2490**		70.1	56.6	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Selenium	ND		9.3	1.9	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Silver	ND		1.4	0.47	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Sodium	**169**	**J**	327	143	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Thallium	ND		14.0	1.8	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Vanadium	**30.0**		1.2	0.30	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1
Zinc	**158**		4.7	2.4	mg/Kg	☼	07/12/24 12:30	07/15/24 19:25	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.19**		0.047	0.011	mg/Kg	☼	07/15/24 09:13	07/15/24 11:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	**1.7**	**J**	2.1	1.0	mg/Kg	☼	07/18/24 12:15	07/18/24 16:29	1

Client Sample ID: HA-01-2.5-3.5

Lab Sample ID: 480-221523-2

Date Collected: 07/10/24 09:30
Matrix: Solid
Date Received: 07/11/24 14:29
Percent Solids: 78.0

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.0	0.29	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
1,1,2,2-Tetrachloroethane	ND	F1	4.0	0.65	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	F1 F2	4.0	0.92	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
1,1,2-Trichloroethane	ND	F1	4.0	0.52	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
1,1-Dichloroethane	**0.73**	**J**	4.0	0.49	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
1,1-Dichloroethene	ND		4.0	0.49	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
1,2,4-Trichlorobenzene	ND	F1 F2	4.0	0.24	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
1,2-Dibromo-3-Chloropropane	ND	F1	4.0	2.0	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
1,2-Dibromoethane	ND	F1	4.0	0.52	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
1,2-Dichlorobenzene	ND	F1 F2	4.0	0.31	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
1,2-Dichloroethane	ND		4.0	0.20	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
1,2-Dichloropropane	ND		4.0	2.0	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
1,3-Dichlorobenzene	ND	F1 F2	4.0	0.21	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
1,4-Dichlorobenzene	ND	F1 F2	4.0	0.56	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
2-Butanone (MEK)	**3.7**	**J F1 F2**	20	1.5	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
2-Hexanone	ND		20	2.0	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
4-Methyl-2-pentanone (MIBK)	ND		20	1.3	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Acetone	**19**	**J F1 F2**	20	3.4	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Benzene	**0.91**	**J F1**	4.0	0.20	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Bromodichloromethane	ND	F1	4.0	0.54	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Bromoform	ND	F1	4.0	2.0	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Bromomethane	ND		4.0	0.36	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1

Client Sample ID: HA-01-2.5-3.5
Date Collected: 07/10/24 09:30
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-2
Matrix: Solid
Percent Solids: 78.0

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	ND		4.0	2.0	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Carbon tetrachloride	ND	F1	4.0	0.39	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Chlorobenzene	ND	F1	4.0	0.53	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Chloroethane	ND		4.0	0.91	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Chloroform	ND		4.0	0.25	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Chloromethane	ND		4.0	0.24	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
cis-1,2-Dichloroethene	ND		4.0	0.51	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
cis-1,3-Dichloropropene	ND	F1	4.0	0.58	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Cyclohexane	**2.0**	**J F1 F2**	4.0	0.56	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Dibromochloromethane	ND		4.0	0.51	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Dichlorodifluoromethane	ND		4.0	0.33	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Ethylbenzene	**0.79**	**J F1**	4.0	0.28	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Isopropylbenzene	**1.7**	**J F1**	4.0	0.61	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Methyl acetate	ND	F2	20	2.4	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Methyl tert-butyl ether	ND		4.0	0.39	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Methylcyclohexane	**3.9**	**J F1**	4.0	0.61	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Methylene Chloride	ND		4.0	1.8	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Styrene	ND	F1 F2	4.0	0.20	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Tetrachloroethene	**0.77**	**J F1 F2**	4.0	0.54	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Toluene	**0.38**	**J F1**	4.0	0.30	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
trans-1,2-Dichloroethene	ND		4.0	0.41	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
trans-1,3-Dichloropropene	ND		4.0	1.8	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Trichloroethene	ND	F1	4.0	0.88	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Trichlorofluoromethane	ND		4.0	0.38	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Vinyl chloride	ND		4.0	0.49	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1
Xylenes, Total	**1.2**	**J F1 F2**	8.0	0.68	ug/Kg	☼	07/11/24 10:00	07/12/24 01:00	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*53*	*T J*	*ug/Kg*	☼	*9.54*	*N/A*	*07/11/24 10:00*	*07/12/24 01:00*	*1*
Unknown	*48*	*T J*	*ug/Kg*	☼	*9.85*	*N/A*	*07/11/24 10:00*	*07/12/24 01:00*	*1*
Naphthalene, decahydro-, trans-	*95*	*T J N*	*ug/Kg*	☼	*10.89*	*493-02-7*	*07/11/24 10:00*	*07/12/24 01:00*	*1*
Unknown	*49*	*T J*	*ug/Kg*	☼	*11.00*	*N/A*	*07/11/24 10:00*	*07/12/24 01:00*	*1*
Unknown	*46*	*T J*	*ug/Kg*	☼	*11.06*	*N/A*	*07/11/24 10:00*	*07/12/24 01:00*	*1*
Unknown	*60*	*T J*	*ug/Kg*	☼	*11.18*	*N/A*	*07/11/24 10:00*	*07/12/24 01:00*	*1*
trans-Decalin, 2-methyl-	*62*	*T J N*	*ug/Kg*	☼	*11.47*	*1000152-47-3*	*07/11/24 10:00*	*07/12/24 01:00*	*1*
Unknown	*57*	*T J*	*ug/Kg*	☼	*11.55*	*N/A*	*07/11/24 10:00*	*07/12/24 01:00*	*1*
Naphthalene, decahydro-2-methyl-	*67*	*T J N*	*ug/Kg*	☼	*11.66*	*2958-76-1*	*07/11/24 10:00*	*07/12/24 01:00*	*1*
Unknown	*49*	*T J*	*ug/Kg*	☼	*12.00*	*N/A*	*07/11/24 10:00*	*07/12/24 01:00*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*64 - 126*	*07/11/24 10:00*	*07/12/24 01:00*	*1*
4-Bromofluorobenzene (Surr)	*93*		*72 - 126*	*07/11/24 10:00*	*07/12/24 01:00*	*1*
Dibromofluoromethane (Surr)	*106*		*60 - 140*	*07/11/24 10:00*	*07/12/24 01:00*	*1*
Toluene-d8 (Surr)	*100*		*71 - 125*	*07/11/24 10:00*	*07/12/24 01:00*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		1100	290	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
2,4,6-Trichlorophenol	ND		1100	210	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5

Client Sample ID: HA-01-2.5-3.5
Date Collected: 07/10/24 09:30
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-2
Matrix: Solid
Percent Solids: 78.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		1100	110	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
2,4-Dimethylphenol	ND		1100	260	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
2,4-Dinitrophenol	ND		10000	4900	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
2,4-Dinitrotoluene	ND		1100	220	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
2,6-Dinitrotoluene	ND		1100	130	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
2-Chloronaphthalene	ND		1100	180	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
2-Chlorophenol	ND		2100	190	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
2-Methylnaphthalene	ND		1100	210	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
2-Methylphenol	ND		1100	130	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
2-Nitroaniline	ND		2100	160	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
2-Nitrophenol	ND		1100	300	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
3,3'-Dichlorobenzidine	ND		2100	1300	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
3-Nitroaniline	ND		2100	300	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
4,6-Dinitro-2-methylphenol	ND		2100	1100	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
4-Bromophenyl phenyl ether	ND		1100	150	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
4-Chloro-3-methylphenol	ND		1100	260	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
4-Chloroaniline	ND		1100	260	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
4-Chlorophenyl phenyl ether	ND		1100	130	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
4-Methylphenol	ND		2100	130	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
4-Nitroaniline	ND		2100	560	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
4-Nitrophenol	ND		2100	750	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Acenaphthene	ND		1100	160	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Acenaphthylene	ND		1100	140	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Acetophenone	ND		1100	140	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Anthracene	ND		1100	260	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Atrazine	ND		1100	370	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Benzaldehyde	ND		1100	850	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Benzo[a]anthracene	ND		1100	110	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Benzo[a]pyrene	**170**	**J**	1100	160	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Benzo[b]fluoranthene	ND		1100	170	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Benzo[g,h,i]perylene	**200**	**J**	1100	110	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Benzo[k]fluoranthene	ND		1100	140	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Biphenyl	ND		1100	160	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
bis (2-chloroisopropyl) ether	ND		1100	210	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Bis(2-chloroethoxy)methane	ND		1100	230	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Bis(2-chloroethyl)ether	ND		1100	140	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Bis(2-ethylhexyl) phthalate	ND		1100	360	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Butyl benzyl phthalate	ND		1100	180	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Caprolactam	ND		1100	320	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Carbazole	ND		1100	130	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Chrysene	**250**	**J**	1100	240	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Dibenz(a,h)anthracene	ND		1100	190	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Dibenzofuran	ND		1100	130	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Diethyl phthalate	ND		1100	140	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Dimethyl phthalate	ND		1100	130	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Di-n-butyl phthalate	ND		1100	180	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Di-n-octyl phthalate	ND		1100	130	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Fluoranthene	ND		1100	110	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Fluorene	ND		1100	130	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5

Client Sample ID: HA-01-2.5-3.5
Date Collected: 07/10/24 09:30
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-2
Matrix: Solid
Percent Solids: 78.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	ND		1100	140	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Hexachlorobutadiene	ND		1100	160	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Hexachlorocyclopentadiene	ND		1100	140	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Hexachloroethane	ND		1100	140	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Indeno[1,2,3-cd]pyrene	ND		1100	130	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Isophorone	ND		1100	230	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Naphthalene	ND		1100	140	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Nitrobenzene	ND		1100	120	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
N-Nitrosodi-n-propylamine	ND		1100	180	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
N-Nitrosodiphenylamine	ND	F2 F1	1100	870	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Pentachlorophenol	ND		2100	1100	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Phenanthrene	ND		1100	160	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Phenol	ND		1100	160	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5
Pyrene	**650**	**J**	1100	130	ug/Kg	☼	07/11/24 16:47	07/12/24 21:39	5

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*7700*	*T J*	*ug/Kg*	☼	*1.98*	*N/A*	*07/11/24 16:47*	*07/12/24 21:39*	*5*
Unknown	*1100*	*T J*	*ug/Kg*	☼	*3.44*	*N/A*	*07/11/24 16:47*	*07/12/24 21:39*	*5*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*87*		*26 - 143*	*07/11/24 16:47*	*07/12/24 21:39*	*5*
2-Fluorobiphenyl	*86*		*50 - 121*	*07/11/24 16:47*	*07/12/24 21:39*	*5*
2-Fluorophenol	*78*		*36 - 120*	*07/11/24 16:47*	*07/12/24 21:39*	*5*
Nitrobenzene-d5	*81*		*40 - 121*	*07/11/24 16:47*	*07/12/24 21:39*	*5*
Phenol-d5	*82*		*41 - 120*	*07/11/24 16:47*	*07/12/24 21:39*	*5*
p-Terphenyl-d14	*83*		*46 - 143*	*07/11/24 16:47*	*07/12/24 21:39*	*5*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		42	8.1	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
4,4'-DDE	ND	F2	42	8.7	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
4,4'-DDT	**29**	**J**	42	9.7	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
Aldrin	ND	F2	42	10	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
alpha-BHC	**8.7**	**J B**	42	7.5	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
cis-Chlordane	ND	F1	42	21	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
beta-BHC	ND	F2	42	7.5	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
delta-BHC	ND	F2	42	7.7	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
Dieldrin	ND	F1	42	10	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
Endosulfan I	ND	F1	42	8.0	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
Endosulfan II	ND	F2	42	7.5	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
Endosulfan sulfate	ND		42	7.8	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
Endrin	ND	F1	42	8.2	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
Endrin aldehyde	ND	F1	42	11	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
Endrin ketone	ND	F1	42	10	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
gamma-BHC (Lindane)	ND	F2	42	7.6	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
trans-Chlordane	ND	F2	42	13	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
Heptachlor	ND	F1	42	9.0	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
Heptachlor epoxide	ND	F1	42	11	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
Methoxychlor	ND	F1	42	8.5	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20
Toxaphene	ND		420	240	ug/Kg	☼	07/12/24 06:39	07/16/24 14:15	20

Client Sample ID: HA-01-2.5-3.5

Date Collected: 07/10/24 09:30
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-2

Matrix: Solid
Percent Solids: 78.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*189*	*S1+*	*45 - 120*	*07/12/24 06:39*	*07/16/24 14:15*	*20*
DCB Decachlorobiphenyl	*167*	*S1+*	*45 - 120*	*07/12/24 06:39*	*07/16/24 14:15*	*20*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/12/24 06:39*	*07/16/24 14:15*	*20*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/12/24 06:39*	*07/16/24 14:15*	*20*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.23	0.046	mg/Kg	☼	07/12/24 06:45	07/17/24 02:39	1
PCB-1221	ND		0.23	0.046	mg/Kg	☼	07/12/24 06:45	07/17/24 02:39	1
PCB-1232	ND		0.23	0.046	mg/Kg	☼	07/12/24 06:45	07/17/24 02:39	1
PCB-1242	ND		0.23	0.046	mg/Kg	☼	07/12/24 06:45	07/17/24 02:39	1
PCB-1248	ND		0.23	0.046	mg/Kg	☼	07/12/24 06:45	07/17/24 02:39	1
PCB-1254	ND		0.23	0.11	mg/Kg	☼	07/12/24 06:45	07/17/24 02:39	1
PCB-1260	ND		0.23	0.11	mg/Kg	☼	07/12/24 06:45	07/17/24 02:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*66*		*60 - 154*	*07/12/24 06:45*	*07/17/24 02:39*	*1*
Tetrachloro-m-xylene	*65*		*60 - 154*	*07/12/24 06:45*	*07/17/24 02:39*	*1*
DCB Decachlorobiphenyl	*89*		*65 - 174*	*07/12/24 06:45*	*07/17/24 02:39*	*1*
DCB Decachlorobiphenyl	*70*		*65 - 174*	*07/12/24 06:45*	*07/17/24 02:39*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**19700**		12.5	10.8	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Antimony	ND	F1	18.7	0.66	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Arsenic	**3.4**	**F1**	2.5	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Barium	**114**		0.62	0.17	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Beryllium	**0.84**		0.25	0.050	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Cadmium	**0.27**		0.25	0.087	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Calcium	**47500**		62.4	33.7	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Chromium	**24.0**		0.62	0.45	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Cobalt	**10.9**		0.62	0.12	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Copper	**18.0**		1.2	0.71	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Iron	**19300**		12.5	10.6	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Lead	**12.7**		1.2	0.57	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Magnesium	**14300**	**F1**	25.0	10.6	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Manganese	**467**		1.2	0.35	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Nickel	**22.0**		6.2	0.31	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Potassium	**6070**	**F1**	37.5	30.3	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Selenium	ND	F1	5.0	1.0	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Silver	**0.29**	**J**	0.75	0.25	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Sodium	**239**		175	76.6	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Thallium	ND		7.5	0.95	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Vanadium	**37.0**		0.62	0.16	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1
Zinc	**57.7**		2.5	1.3	mg/Kg	☼	07/12/24 12:30	07/15/24 19:27	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.012**	**J**	0.025	0.0057	mg/Kg	☼	07/15/24 09:13	07/15/24 11:55	1

Client Sample ID: HA-01-2.5-3.5

Date Collected: 07/10/24 09:30
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-2

Matrix: Solid
Percent Solids: 78.0

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND	F1	1.2	0.58	mg/Kg	☼	07/18/24 12:15	07/18/24 16:16	1

Client Sample ID: HA-08-0-0.2

Date Collected: 07/10/24 10:30
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-3

Matrix: Solid
Percent Solids: 78.5

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		2100	580	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
2,4,6-Trichlorophenol	ND		2100	430	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
2,4-Dichlorophenol	ND		2100	230	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
2,4-Dimethylphenol	ND		2100	520	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
2,4-Dinitrophenol	ND		21000	9900	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
2,4-Dinitrotoluene	ND		2100	440	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
2,6-Dinitrotoluene	ND		2100	250	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
2-Chloronaphthalene	ND		2100	350	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
2-Chlorophenol	ND		4200	390	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
2-Methylnaphthalene	ND		2100	430	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
2-Methylphenol	ND		2100	250	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
2-Nitroaniline	ND		4200	310	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
2-Nitrophenol	ND		2100	600	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
3,3'-Dichlorobenzidine	ND		4200	2500	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
3-Nitroaniline	ND		4200	590	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
4,6-Dinitro-2-methylphenol	ND		4200	2100	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
4-Bromophenyl phenyl ether	ND		2100	300	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
4-Chloro-3-methylphenol	ND		2100	530	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
4-Chloroaniline	ND		2100	530	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
4-Chlorophenyl phenyl ether	ND		2100	260	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
4-Methylphenol	ND		4200	250	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
4-Nitroaniline	ND		4200	1100	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
4-Nitrophenol	ND		4200	1500	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Acenaphthene	ND		2100	310	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Acenaphthylene	ND		2100	280	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Acetophenone	ND		2100	290	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Anthracene	ND		2100	530	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Atrazine	ND		2100	740	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Benzaldehyde	ND		2100	1700	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Benzo[a]anthracene	**440**	**J**	2100	210	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Benzo[a]pyrene	**380**	**J**	2100	310	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Benzo[b]fluoranthene	**490**	**J**	2100	340	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Benzo[g,h,i]perylene	**360**	**J**	2100	230	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Benzo[k]fluoranthene	ND		2100	280	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Biphenyl	ND		2100	310	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
bis (2-chloroisopropyl) ether	ND		2100	430	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Bis(2-chloroethoxy)methane	ND		2100	450	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Bis(2-chloroethyl)ether	ND		2100	280	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Bis(2-ethylhexyl) phthalate	ND		2100	730	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Butyl benzyl phthalate	ND		2100	350	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Caprolactam	ND		2100	640	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Carbazole	ND		2100	250	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10

Client Sample ID: HA-08-0-0.2
Date Collected: 07/10/24 10:30
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-3
Matrix: Solid
Percent Solids: 78.5

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	ND		2100	480	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Dibenz(a,h)anthracene	ND		2100	380	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Dibenzofuran	ND		2100	250	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Diethyl phthalate	ND		2100	280	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Dimethyl phthalate	ND		2100	250	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Di-n-butyl phthalate	ND		2100	370	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Di-n-octyl phthalate	ND		2100	250	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Fluoranthene	**500**	**J**	2100	230	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Fluorene	ND		2100	250	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Hexachlorobenzene	ND		2100	290	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Hexachlorobutadiene	ND		2100	310	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Hexachlorocyclopentadiene	ND		2100	290	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Hexachloroethane	ND		2100	280	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Indeno[1,2,3-cd]pyrene	**280**	**J**	2100	260	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Isophorone	ND		2100	450	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Naphthalene	ND		2100	280	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Nitrobenzene	ND		2100	240	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
N-Nitrosodi-n-propylamine	ND		2100	370	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
N-Nitrosodiphenylamine	ND		2100	1700	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Pentachlorophenol	ND		4200	2100	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Phenanthrene	ND		2100	310	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Phenol	ND		2100	330	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10
Pyrene	**430**	**J**	2100	250	ug/Kg	☼	07/11/24 16:47	07/13/24 00:39	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*8700*	*T J*	*ug/Kg*	☼	*1.97*	*N/A*	*07/11/24 16:47*	*07/13/24 00:39*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*88*		*26 - 143*	*07/11/24 16:47*	*07/13/24 00:39*	*10*
2-Fluorobiphenyl	*88*		*50 - 121*	*07/11/24 16:47*	*07/13/24 00:39*	*10*
2-Fluorophenol	*79*		*36 - 120*	*07/11/24 16:47*	*07/13/24 00:39*	*10*
Nitrobenzene-d5	*72*		*40 - 121*	*07/11/24 16:47*	*07/13/24 00:39*	*10*
Phenol-d5	*78*		*41 - 120*	*07/11/24 16:47*	*07/13/24 00:39*	*10*
p-Terphenyl-d14	*85*		*46 - 143*	*07/11/24 16:47*	*07/13/24 00:39*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		42	8.1	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
4,4'-DDE	ND		42	8.8	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
4,4'-DDT	**38**	**J**	42	9.8	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
Aldrin	ND		42	10	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
alpha-BHC	ND		42	7.5	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
cis-Chlordane	ND		42	21	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
beta-BHC	ND		42	7.5	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
delta-BHC	ND		42	7.8	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
Dieldrin	ND		42	10	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
Endosulfan I	ND		42	8.0	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
Endosulfan II	ND		42	7.5	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
Endosulfan sulfate	ND		42	7.8	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
Endrin	ND		42	8.3	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20

Client Sample ID: HA-08-0-0.2

Date Collected: 07/10/24 10:30
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-3

Matrix: Solid
Percent Solids: 78.5

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin aldehyde	ND		42	11	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
Endrin ketone	**13**	**J**	42	10	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
gamma-BHC (Lindane)	**8.9**	**J B**	42	7.7	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
trans-Chlordane	ND		42	13	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
Heptachlor	ND		42	9.1	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
Heptachlor epoxide	ND		42	11	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
Methoxychlor	ND		42	8.5	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20
Toxaphene	ND		420	240	ug/Kg	☼	07/12/24 06:39	07/16/24 14:54	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*178*	*S1+*	*45 - 120*	*07/12/24 06:39*	*07/16/24 14:54*	*20*
DCB Decachlorobiphenyl	*362*	*S1+*	*45 - 120*	*07/12/24 06:39*	*07/16/24 14:54*	*20*
Tetrachloro-m-xylene	*107*		*30 - 124*	*07/12/24 06:39*	*07/16/24 14:54*	*20*
Tetrachloro-m-xylene	*246*	*S1+*	*30 - 124*	*07/12/24 06:39*	*07/16/24 14:54*	*20*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.28	0.055	mg/Kg	☼	07/12/24 06:45	07/15/24 05:53	1
PCB-1221	ND		0.28	0.055	mg/Kg	☼	07/12/24 06:45	07/15/24 05:53	1
PCB-1232	ND		0.28	0.055	mg/Kg	☼	07/12/24 06:45	07/15/24 05:53	1
PCB-1242	ND		0.28	0.055	mg/Kg	☼	07/12/24 06:45	07/15/24 05:53	1
PCB-1248	ND		0.28	0.055	mg/Kg	☼	07/12/24 06:45	07/15/24 05:53	1
PCB-1254	ND		0.28	0.13	mg/Kg	☼	07/12/24 06:45	07/15/24 05:53	1
PCB-1260	ND		0.28	0.13	mg/Kg	☼	07/12/24 06:45	07/15/24 05:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*67*		*60 - 154*	*07/12/24 06:45*	*07/15/24 05:53*	*1*
Tetrachloro-m-xylene	*63*		*60 - 154*	*07/12/24 06:45*	*07/15/24 05:53*	*1*
DCB Decachlorobiphenyl	*55*	*S1-*	*65 - 174*	*07/12/24 06:45*	*07/15/24 05:53*	*1*
DCB Decachlorobiphenyl	*58*	*S1-*	*65 - 174*	*07/12/24 06:45*	*07/15/24 05:53*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**19400**		13.5	11.7	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Antimony	**0.72**	**J**	20.3	0.72	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Arsenic	**5.2**		2.7	1.2	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Barium	**129**		0.68	0.19	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Beryllium	**1.5**		0.27	0.054	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Cadmium	**0.43**		0.27	0.095	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Calcium	**47000**		67.6	36.5	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Chromium	**27.0**		0.68	0.49	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Cobalt	**14.1**		0.68	0.14	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Copper	**40.3**		1.4	0.77	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Iron	**21300**		13.5	11.5	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Lead	**61.9**	**^+**	1.4	0.62	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Magnesium	**14200**		27.0	11.5	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Manganese	**784**		1.4	0.38	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Nickel	**32.0**		6.8	0.34	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Potassium	**4350**		40.6	32.8	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Selenium	ND		5.4	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1

Client Sample ID: HA-08-0-0.2

Date Collected: 07/10/24 10:30
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-3

Matrix: Solid
Percent Solids: 78.5

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.81	0.27	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Sodium	**247**		189	82.9	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Thallium	ND		8.1	1.0	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Vanadium	**36.1**		0.68	0.18	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1
Zinc	**115**		2.7	1.4	mg/Kg	☼	07/12/24 12:30	07/15/24 19:42	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.85**		0.026	0.0059	mg/Kg	☼	07/15/24 09:13	07/15/24 12:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	**2.9**		1.1	0.54	mg/Kg	☼	07/18/24 12:15	07/18/24 16:30	1

Client Sample ID: HA-08-3.5-4.0

Date Collected: 07/10/24 10:50
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-4

Matrix: Solid
Percent Solids: 71.0

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.5	0.33	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
1,1,2,2-Tetrachloroethane	ND		4.5	0.73	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.5	1.0	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
1,1,2-Trichloroethane	ND		4.5	0.59	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
1,1-Dichloroethane	ND		4.5	0.55	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
1,1-Dichloroethene	ND		4.5	0.55	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
1,2,4-Trichlorobenzene	ND		4.5	0.27	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
1,2-Dibromo-3-Chloropropane	ND		4.5	2.3	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
1,2-Dibromoethane	ND		4.5	0.58	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
1,2-Dichlorobenzene	ND		4.5	0.35	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
1,2-Dichloroethane	ND		4.5	0.23	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
1,2-Dichloropropane	ND		4.5	2.3	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
1,3-Dichlorobenzene	ND		4.5	0.23	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
1,4-Dichlorobenzene	ND		4.5	0.63	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
2-Butanone (MEK)	**3.3**	**J**	23	1.7	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
2-Hexanone	ND		23	2.3	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
4-Methyl-2-pentanone (MIBK)	ND		23	1.5	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Acetone	**21**	**J**	23	3.8	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Benzene	ND		4.5	0.22	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Bromodichloromethane	ND		4.5	0.61	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Bromoform	ND		4.5	2.3	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Bromomethane	ND		4.5	0.41	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Carbon disulfide	ND		4.5	2.3	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Carbon tetrachloride	ND		4.5	0.44	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Chlorobenzene	ND		4.5	0.60	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Chloroethane	ND		4.5	1.0	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Chloroform	ND		4.5	0.28	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Chloromethane	ND		4.5	0.27	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
cis-1,2-Dichloroethene	ND		4.5	0.58	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
cis-1,3-Dichloropropene	ND		4.5	0.65	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1

Client Sample ID: HA-08-3.5-4.0
Date Collected: 07/10/24 10:50
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-4
Matrix: Solid
Percent Solids: 71.0

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	ND		4.5	0.63	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Dibromochloromethane	ND		4.5	0.58	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Dichlorodifluoromethane	ND		4.5	0.37	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Ethylbenzene	ND		4.5	0.31	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Isopropylbenzene	ND		4.5	0.68	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Methyl acetate	ND		23	2.7	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Methyl tert-butyl ether	ND		4.5	0.44	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Methylcyclohexane	ND		4.5	0.69	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Methylene Chloride	ND		4.5	2.1	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Styrene	ND		4.5	0.23	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Tetrachloroethene	ND		4.5	0.61	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Toluene	ND		4.5	0.34	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
trans-1,2-Dichloroethene	ND		4.5	0.47	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
trans-1,3-Dichloropropene	ND		4.5	2.0	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Trichloroethene	ND		4.5	0.99	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Trichlorofluoromethane	ND		4.5	0.43	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Vinyl chloride	ND		4.5	0.55	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1
Xylenes, Total	ND		9.0	0.76	ug/Kg	☼	07/11/24 10:00	07/12/24 01:23	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/11/24 10:00*	*07/12/24 01:23*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*64 - 126*	*07/11/24 10:00*	*07/12/24 01:23*	*1*
4-Bromofluorobenzene (Surr)	*105*		*72 - 126*	*07/11/24 10:00*	*07/12/24 01:23*	*1*
Dibromofluoromethane (Surr)	*106*		*60 - 140*	*07/11/24 10:00*	*07/12/24 01:23*	*1*
Toluene-d8 (Surr)	*99*		*71 - 125*	*07/11/24 10:00*	*07/12/24 01:23*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		240	64	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
2,4,6-Trichlorophenol	ND		240	47	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
2,4-Dichlorophenol	ND		240	25	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
2,4-Dimethylphenol	ND		240	57	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
2,4-Dinitrophenol	ND		2300	1100	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
2,4-Dinitrotoluene	ND		240	48	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
2,6-Dinitrotoluene	ND		240	28	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
2-Chloronaphthalene	ND		240	39	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
2-Chlorophenol	ND		460	43	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
2-Methylnaphthalene	ND		240	47	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
2-Methylphenol	ND		240	28	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
2-Nitroaniline	ND		460	35	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
2-Nitrophenol	ND		240	66	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
3,3'-Dichlorobenzidine	ND		460	280	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
3-Nitroaniline	ND		460	65	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
4,6-Dinitro-2-methylphenol	ND		460	240	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
4-Bromophenyl phenyl ether	ND		240	33	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
4-Chloro-3-methylphenol	ND		240	58	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
4-Chloroaniline	ND		240	58	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
4-Chlorophenyl phenyl ether	ND		240	29	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1

Client Sample ID: HA-08-3.5-4.0
Date Collected: 07/10/24 10:50
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-4
Matrix: Solid
Percent Solids: 71.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methylphenol	ND		460	28	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
4-Nitroaniline	ND		460	120	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
4-Nitrophenol	ND		460	160	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Acenaphthene	ND		240	35	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Acenaphthylene	ND		240	30	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Acetophenone	ND		240	32	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Anthracene	ND		240	58	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Atrazine	ND		240	82	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Benzaldehyde	ND		240	190	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Benzo[a]anthracene	ND		240	24	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Benzo[a]pyrene	ND		240	35	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Benzo[b]fluoranthene	ND		240	37	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Benzo[g,h,i]perylene	ND		240	25	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Benzo[k]fluoranthene	ND		240	30	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Biphenyl	ND		240	35	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
bis (2-chloroisopropyl) ether	ND		240	47	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Bis(2-chloroethoxy)methane	ND		240	50	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Bis(2-chloroethyl)ether	ND		240	30	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Bis(2-ethylhexyl) phthalate	ND		240	80	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Butyl benzyl phthalate	ND		240	39	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Caprolactam	ND		240	71	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Carbazole	ND		240	28	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Chrysene	ND		240	53	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Dibenz(a,h)anthracene	ND		240	42	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Dibenzofuran	ND		240	28	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Diethyl phthalate	ND		240	30	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Dimethyl phthalate	ND		240	28	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Di-n-butyl phthalate	ND		240	40	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Di-n-octyl phthalate	ND		240	28	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Fluoranthene	ND		240	25	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Fluorene	ND		240	28	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Hexachlorobenzene	ND		240	32	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Hexachlorobutadiene	ND		240	35	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Hexachlorocyclopentadiene	ND		240	32	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Hexachloroethane	ND		240	30	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Indeno[1,2,3-cd]pyrene	ND		240	29	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Isophorone	ND		240	50	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Naphthalene	ND		240	30	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Nitrobenzene	ND		240	26	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
N-Nitrosodi-n-propylamine	ND		240	40	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
N-Nitrosodiphenylamine	ND		240	190	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Pentachlorophenol	ND		460	240	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Phenanthrene	ND		240	35	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Phenol	ND		240	36	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1
Pyrene	ND		240	28	ug/Kg	☼	07/11/24 16:47	07/13/24 01:07	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*300*	*T J*	*ug/Kg*	☼	*1.84*	*N/A*	*07/11/24 16:47*	*07/13/24 01:07*	*1*
Unknown	*2700*	*T J*	*ug/Kg*	☼	*1.97*	*N/A*	*07/11/24 16:47*	*07/13/24 01:07*	*1*
Unknown	*1000*	*T J*	*ug/Kg*	☼	*3.43*	*N/A*	*07/11/24 16:47*	*07/13/24 01:07*	*1*

Client Sample ID: HA-08-3.5-4.0

Date Collected: 07/10/24 10:50
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-4

Matrix: Solid
Percent Solids: 71.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*87*		*26 - 143*	*07/11/24 16:47*	*07/13/24 01:07*	*1*
2-Fluorobiphenyl	*86*		*50 - 121*	*07/11/24 16:47*	*07/13/24 01:07*	*1*
2-Fluorophenol	*77*		*36 - 120*	*07/11/24 16:47*	*07/13/24 01:07*	*1*
Nitrobenzene-d5	*79*		*40 - 121*	*07/11/24 16:47*	*07/13/24 01:07*	*1*
Phenol-d5	*80*		*41 - 120*	*07/11/24 16:47*	*07/13/24 01:07*	*1*
p-Terphenyl-d14	*90*		*46 - 143*	*07/11/24 16:47*	*07/13/24 01:07*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.3	0.44	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
4,4'-DDE	ND		2.3	0.48	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
4,4'-DDT	**1.6**	**J**	2.3	0.53	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
Aldrin	ND		2.3	0.56	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
alpha-BHC	**0.47**	**J B**	2.3	0.41	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
cis-Chlordane	ND		2.3	1.1	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
beta-BHC	ND		2.3	0.41	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
delta-BHC	ND		2.3	0.42	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
Dieldrin	ND		2.3	0.55	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
Endosulfan I	ND		2.3	0.44	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
Endosulfan II	ND		2.3	0.41	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
Endosulfan sulfate	ND		2.3	0.42	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
Endrin	ND		2.3	0.45	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
Endrin aldehyde	ND		2.3	0.58	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
Endrin ketone	ND		2.3	0.56	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
gamma-BHC (Lindane)	**0.49**	**J B**	2.3	0.42	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
trans-Chlordane	ND		2.3	0.72	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
Heptachlor	ND		2.3	0.49	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
Heptachlor epoxide	ND		2.3	0.59	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
Methoxychlor	**2.9**		2.3	0.46	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1
Toxaphene	ND		23	13	ug/Kg	☼	07/12/24 06:39	07/16/24 15:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*78*		*45 - 120*	*07/12/24 06:39*	*07/16/24 15:13*	*1*
DCB Decachlorobiphenyl	*74*		*45 - 120*	*07/12/24 06:39*	*07/16/24 15:13*	*1*
Tetrachloro-m-xylene	*68*		*30 - 124*	*07/12/24 06:39*	*07/16/24 15:13*	*1*
Tetrachloro-m-xylene	*62*		*30 - 124*	*07/12/24 06:39*	*07/16/24 15:13*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.25	0.049	mg/Kg	☼	07/12/24 06:45	07/15/24 06:10	1
PCB-1221	ND		0.25	0.049	mg/Kg	☼	07/12/24 06:45	07/15/24 06:10	1
PCB-1232	ND		0.25	0.049	mg/Kg	☼	07/12/24 06:45	07/15/24 06:10	1
PCB-1242	ND		0.25	0.049	mg/Kg	☼	07/12/24 06:45	07/15/24 06:10	1
PCB-1248	ND		0.25	0.049	mg/Kg	☼	07/12/24 06:45	07/15/24 06:10	1
PCB-1254	ND		0.25	0.12	mg/Kg	☼	07/12/24 06:45	07/15/24 06:10	1
PCB-1260	ND		0.25	0.12	mg/Kg	☼	07/12/24 06:45	07/15/24 06:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*89*		*60 - 154*	*07/12/24 06:45*	*07/15/24 06:10*	*1*
Tetrachloro-m-xylene	*87*		*60 - 154*	*07/12/24 06:45*	*07/15/24 06:10*	*1*
DCB Decachlorobiphenyl	*77*		*65 - 174*	*07/12/24 06:45*	*07/15/24 06:10*	*1*

Client Sample ID: HA-08-3.5-4.0

Lab Sample ID: 480-221523-4

Date Collected: 07/10/24 10:50
Matrix: Solid
Date Received: 07/11/24 14:29
Percent Solids: 71.0

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	81		65 - 174	07/12/24 06:45	07/15/24 06:10	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**21500**		14.6	12.6	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Antimony	ND		21.9	0.77	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Arsenic	**4.9**		2.9	1.3	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Barium	**109**		0.73	0.20	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Beryllium	**0.79**		0.29	0.058	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Cadmium	**0.56**		0.29	0.10	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Calcium	**2900**		72.8	39.3	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Chromium	**23.6**		0.73	0.52	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Cobalt	**12.3**		0.73	0.15	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Copper	**11.6**		1.5	0.83	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Iron	**20100**		14.6	12.4	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Lead	**26.5**	**^+**	1.5	0.67	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Magnesium	**4260**		29.1	12.4	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Manganese	**374**		1.5	0.41	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Nickel	**20.1**		7.3	0.36	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Potassium	**2700**		43.7	35.3	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Selenium	ND		5.8	1.2	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Silver	ND		0.87	0.29	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Sodium	**112**	**J**	204	89.3	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Thallium	ND		8.7	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Vanadium	**40.7**		0.73	0.19	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1
Zinc	**107**		2.9	1.5	mg/Kg	☼	07/12/24 12:30	07/15/24 19:44	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.20**		0.029	0.0066	mg/Kg	☼	07/15/24 09:13	07/15/24 12:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.59	mg/Kg	☼	07/18/24 12:15	07/18/24 16:32	1

Client Sample ID: HA-07-0-0.2

Lab Sample ID: 480-221523-5

Date Collected: 07/10/24 12:00
Matrix: Solid
Date Received: 07/11/24 14:29
Percent Solids: 81.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		2000	550	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
2,4,6-Trichlorophenol	ND		2000	400	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
2,4-Dichlorophenol	ND		2000	210	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
2,4-Dimethylphenol	ND		2000	490	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
2,4-Dinitrophenol	ND		20000	9300	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
2,4-Dinitrotoluene	ND		2000	420	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
2,6-Dinitrotoluene	ND		2000	240	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
2-Chloronaphthalene	ND		2000	330	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
2-Chlorophenol	ND		3900	370	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10

Client Sample ID: HA-07-0-0.2
Date Collected: 07/10/24 12:00
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-5
Matrix: Solid
Percent Solids: 81.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		2000	400	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
2-Methylphenol	ND		2000	240	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
2-Nitroaniline	ND		3900	300	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
2-Nitrophenol	ND		2000	570	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
3,3'-Dichlorobenzidine	ND		3900	2400	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
3-Nitroaniline	ND		3900	560	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
4,6-Dinitro-2-methylphenol	ND		3900	2000	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
4-Bromophenyl phenyl ether	ND		2000	290	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
4-Chloro-3-methylphenol	ND		2000	500	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
4-Chloroaniline	ND		2000	500	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
4-Chlorophenyl phenyl ether	ND		2000	250	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
4-Methylphenol	ND		3900	240	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
4-Nitroaniline	ND		3900	1100	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
4-Nitrophenol	ND		3900	1400	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Acenaphthene	ND		2000	300	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Acenaphthylene	**300**	**J**	2000	260	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Acetophenone	ND		2000	270	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Anthracene	ND		2000	500	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Atrazine	ND		2000	700	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Benzaldehyde	ND		2000	1600	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Benzo[a]anthracene	**200**	**J**	2000	200	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Benzo[a]pyrene	ND		2000	300	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Benzo[b]fluoranthene	**370**	**J**	2000	320	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Benzo[g,h,i]perylene	**400**	**J**	2000	210	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Benzo[k]fluoranthene	ND		2000	260	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Biphenyl	ND		2000	300	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
bis (2-chloroisopropyl) ether	ND		2000	400	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Bis(2-chloroethoxy)methane	ND		2000	430	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Bis(2-chloroethyl)ether	ND		2000	260	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Bis(2-ethylhexyl) phthalate	ND		2000	690	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Butyl benzyl phthalate	ND		2000	330	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Caprolactam	ND		2000	610	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Carbazole	ND		2000	240	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Chrysene	ND		2000	450	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Dibenz(a,h)anthracene	ND		2000	360	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Dibenzofuran	ND		2000	240	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Diethyl phthalate	ND		2000	260	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Dimethyl phthalate	ND		2000	240	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Di-n-butyl phthalate	ND		2000	350	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Di-n-octyl phthalate	ND		2000	240	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Fluoranthene	**220**	**J**	2000	210	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Fluorene	ND		2000	240	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Hexachlorobenzene	ND		2000	270	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Hexachlorobutadiene	ND		2000	300	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Hexachlorocyclopentadiene	ND		2000	270	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Hexachloroethane	ND		2000	260	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Indeno[1,2,3-cd]pyrene	**250**	**J**	2000	250	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Isophorone	ND		2000	430	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Naphthalene	ND		2000	260	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10

Client Sample ID: HA-07-0-0.2
Date Collected: 07/10/24 12:00
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-5
Matrix: Solid
Percent Solids: 81.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		2000	230	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
N-Nitrosodi-n-propylamine	ND		2000	350	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
N-Nitrosodiphenylamine	ND		2000	1600	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Pentachlorophenol	ND		3900	2000	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Phenanthrene	ND		2000	300	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Phenol	ND		2000	310	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10
Pyrene	ND		2000	240	ug/Kg	☼	07/11/24 16:47	07/15/24 16:07	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*2500*	*T J*	*ug/Kg*	☼	*16.49*	*N/A*	*07/11/24 16:47*	*07/15/24 16:07*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*82*		*26 - 143*	*07/11/24 16:47*	*07/15/24 16:07*	*10*
2-Fluorobiphenyl	*73*		*50 - 121*	*07/11/24 16:47*	*07/15/24 16:07*	*10*
2-Fluorophenol	*61*		*36 - 120*	*07/11/24 16:47*	*07/15/24 16:07*	*10*
Nitrobenzene-d5	*62*		*40 - 121*	*07/11/24 16:47*	*07/15/24 16:07*	*10*
Phenol-d5	*66*		*41 - 120*	*07/11/24 16:47*	*07/15/24 16:07*	*10*
p-Terphenyl-d14	*81*		*46 - 143*	*07/11/24 16:47*	*07/15/24 16:07*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		41	7.9	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
4,4'-DDE	ND		41	8.5	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
4,4'-DDT	**94**		41	9.5	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
Aldrin	ND		41	10	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
alpha-BHC	**8.7**	**J B**	41	7.3	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
cis-Chlordane	ND		41	20	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
beta-BHC	ND		41	7.3	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
delta-BHC	ND		41	7.5	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
Dieldrin	**25**	**J**	41	9.7	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
Endosulfan I	ND		41	7.8	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
Endosulfan II	ND		41	7.3	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
Endosulfan sulfate	ND		41	7.6	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
Endrin	ND		41	8.0	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
Endrin aldehyde	ND		41	10	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
Endrin ketone	**30**	**J**	41	10	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
gamma-BHC (Lindane)	ND		41	7.4	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
trans-Chlordane	ND		41	13	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
Heptachlor	ND		41	8.8	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
Heptachlor epoxide	ND		41	10	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
Methoxychlor	ND		41	8.3	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20
Toxaphene	ND		410	240	ug/Kg	☼	07/12/24 06:39	07/16/24 15:33	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*190*	*S1+*	*45 - 120*	*07/12/24 06:39*	*07/16/24 15:33*	*20*
DCB Decachlorobiphenyl	*324*	*S1+*	*45 - 120*	*07/12/24 06:39*	*07/16/24 15:33*	*20*
Tetrachloro-m-xylene	*110*		*30 - 124*	*07/12/24 06:39*	*07/16/24 15:33*	*20*
Tetrachloro-m-xylene	*231*	*S1+*	*30 - 124*	*07/12/24 06:39*	*07/16/24 15:33*	*20*

Client Sample ID: HA-07-0-0.2

Date Collected: 07/10/24 12:00
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-5

Matrix: Solid
Percent Solids: 81.8

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.21	0.041	mg/Kg	☼	07/12/24 06:45	07/15/24 06:27	1
PCB-1221	ND		0.21	0.041	mg/Kg	☼	07/12/24 06:45	07/15/24 06:27	1
PCB-1232	ND		0.21	0.041	mg/Kg	☼	07/12/24 06:45	07/15/24 06:27	1
PCB-1242	ND		0.21	0.041	mg/Kg	☼	07/12/24 06:45	07/15/24 06:27	1
PCB-1248	ND		0.21	0.041	mg/Kg	☼	07/12/24 06:45	07/15/24 06:27	1
PCB-1254	ND		0.21	0.098	mg/Kg	☼	07/12/24 06:45	07/15/24 06:27	1
PCB-1260	**0.48**		0.21	0.098	mg/Kg	☼	07/12/24 06:45	07/15/24 06:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*90*		*60 - 154*	*07/12/24 06:45*	*07/15/24 06:27*	*1*
Tetrachloro-m-xylene	*81*		*60 - 154*	*07/12/24 06:45*	*07/15/24 06:27*	*1*
DCB Decachlorobiphenyl	*75*		*65 - 174*	*07/12/24 06:45*	*07/15/24 06:27*	*1*
DCB Decachlorobiphenyl	*80*		*65 - 174*	*07/12/24 06:45*	*07/15/24 06:27*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**19300**		11.7	10.1	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Antimony	**0.79**	**J**	17.6	0.62	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Arsenic	**3.9**		2.3	1.0	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Barium	**125**		0.59	0.16	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Beryllium	**0.90**		0.23	0.047	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Cadmium	**0.34**		0.23	0.082	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Calcium	**35800**		58.5	31.6	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Chromium	**28.1**		0.59	0.42	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Cobalt	**10.8**		0.59	0.12	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Copper	**29.5**		1.2	0.67	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Iron	**19600**		11.7	9.9	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Lead	**39.9**	**^+**	1.2	0.54	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Magnesium	**11900**		23.4	9.9	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Manganese	**492**		1.2	0.33	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Nickel	**23.8**		5.9	0.29	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Potassium	**5130**		35.1	28.4	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Selenium	ND		4.7	0.94	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Silver	**0.24**	**J**	0.70	0.23	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Sodium	**198**		164	71.7	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Thallium	ND		7.0	0.89	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Vanadium	**37.7**		0.59	0.15	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1
Zinc	**73.4**		2.3	1.2	mg/Kg	☼	07/12/24 12:30	07/15/24 19:46	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.64**		0.024	0.0054	mg/Kg	☼	07/15/24 09:13	07/15/24 12:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.57	mg/Kg	☼	07/18/24 12:15	07/18/24 16:33	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221523-1

Client Sample ID: HA-07-3.0-4.0
Date Collected: 07/10/24 12:20
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-6
Matrix: Solid
Percent Solids: 86.5

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.9	0.36	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
1,1,2,2-Tetrachloroethane	ND		4.9	0.80	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.9	1.1	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
1,1,2-Trichloroethane	ND		4.9	0.64	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
1,1-Dichloroethane	ND		4.9	0.60	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
1,1-Dichloroethene	ND		4.9	0.60	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
1,2,4-Trichlorobenzene	ND		4.9	0.30	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
1,2-Dibromo-3-Chloropropane	ND		4.9	2.5	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
1,2-Dibromoethane	ND		4.9	0.63	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
1,2-Dichlorobenzene	ND		4.9	0.39	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
1,2-Dichloroethane	ND		4.9	0.25	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
1,2-Dichloropropane	ND		4.9	2.5	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
1,3-Dichlorobenzene	ND		4.9	0.25	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
1,4-Dichlorobenzene	ND		4.9	0.69	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
2-Hexanone	ND		25	2.5	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Acetone	ND		25	4.2	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Benzene	ND		4.9	0.24	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Bromodichloromethane	ND		4.9	0.66	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Bromoform	ND		4.9	2.5	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Bromomethane	ND		4.9	0.44	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Carbon disulfide	ND		4.9	2.5	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Carbon tetrachloride	ND		4.9	0.48	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Chlorobenzene	ND		4.9	0.65	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Chloroethane	ND		4.9	1.1	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Chloroform	ND		4.9	0.31	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Chloromethane	ND		4.9	0.30	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
cis-1,2-Dichloroethene	ND		4.9	0.63	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
cis-1,3-Dichloropropene	ND		4.9	0.71	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Cyclohexane	ND		4.9	0.69	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Dibromochloromethane	ND		4.9	0.63	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Dichlorodifluoromethane	ND		4.9	0.41	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Ethylbenzene	ND		4.9	0.34	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Isopropylbenzene	ND		4.9	0.74	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Methyl acetate	ND		25	3.0	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Methyl tert-butyl ether	ND		4.9	0.48	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Methylcyclohexane	ND		4.9	0.75	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Methylene Chloride	ND		4.9	2.3	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Styrene	ND		4.9	0.25	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Tetrachloroethene	ND		4.9	0.66	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Toluene	ND		4.9	0.37	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
trans-1,2-Dichloroethene	ND		4.9	0.51	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
trans-1,3-Dichloropropene	ND		4.9	2.2	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Trichloroethene	ND		4.9	1.1	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Trichlorofluoromethane	ND		4.9	0.47	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Vinyl chloride	ND		4.9	0.60	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1
Xylenes, Total	ND		9.9	0.83	ug/Kg	☼	07/11/24 10:00	07/12/24 01:47	1

Client Sample ID: HA-07-3.0-4.0

Date Collected: 07/10/24 12:20
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-6

Matrix: Solid
Percent Solids: 86.5

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/Kg	☼		N/A	07/11/24 10:00	07/12/24 01:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	116		64 - 126	07/11/24 10:00	07/12/24 01:47	1
4-Bromofluorobenzene (Surr)	106		72 - 126	07/11/24 10:00	07/12/24 01:47	1
Dibromofluoromethane (Surr)	108		60 - 140	07/11/24 10:00	07/12/24 01:47	1
Toluene-d8 (Surr)	98		71 - 125	07/11/24 10:00	07/12/24 01:47	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		190	53	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
2,4,6-Trichlorophenol	ND		190	39	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
2,4-Dichlorophenol	ND		190	21	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
2,4-Dimethylphenol	ND		190	47	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
2,4-Dinitrophenol	ND		1900	900	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
2,4-Dinitrotoluene	ND		190	40	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
2,6-Dinitrotoluene	ND		190	23	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
2-Chloronaphthalene	ND		190	32	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
2-Chlorophenol	ND		380	35	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
2-Methylnaphthalene	ND		190	39	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
2-Methylphenol	ND		190	23	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
2-Nitroaniline	ND		380	29	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
2-Nitrophenol	ND		190	55	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
3,3'-Dichlorobenzidine	ND		380	230	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
3-Nitroaniline	ND		380	54	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
4,6-Dinitro-2-methylphenol	ND		380	190	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
4-Bromophenyl phenyl ether	ND		190	27	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
4-Chloro-3-methylphenol	ND		190	48	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
4-Chloroaniline	ND		190	48	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
4-Chlorophenyl phenyl ether	ND		190	24	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
4-Methylphenol	ND		380	23	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
4-Nitroaniline	ND		380	100	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
4-Nitrophenol	ND		380	140	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Acenaphthene	ND		190	29	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Acenaphthylene	ND		190	25	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Acetophenone	ND		190	26	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Anthracene	ND		190	48	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Atrazine	ND		190	67	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Benzaldehyde	ND		190	150	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Benzo[a]anthracene	ND		190	19	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Benzo[a]pyrene	ND		190	29	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Benzo[b]fluoranthene	ND		190	31	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Benzo[g,h,i]perylene	ND		190	21	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Benzo[k]fluoranthene	ND		190	25	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Biphenyl	ND		190	29	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
bis (2-chloroisopropyl) ether	ND		190	39	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Bis(2-chloroethoxy)methane	ND		190	41	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Bis(2-chloroethyl)ether	ND		190	25	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Bis(2-ethylhexyl) phthalate	ND		190	66	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Butyl benzyl phthalate	ND		190	32	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1

Client Sample ID: HA-07-3.0-4.0
Date Collected: 07/10/24 12:20
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-6
Matrix: Solid
Percent Solids: 86.5

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Caprolactam	ND		190	58	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Carbazole	ND		190	23	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Chrysene	ND		190	43	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Dibenz(a,h)anthracene	ND		190	34	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Dibenzofuran	ND		190	23	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Diethyl phthalate	ND		190	25	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Dimethyl phthalate	ND		190	23	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Di-n-butyl phthalate	ND		190	33	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Di-n-octyl phthalate	ND		190	23	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Fluoranthene	ND		190	21	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Fluorene	ND		190	23	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Hexachlorobenzene	ND		190	26	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Hexachlorobutadiene	ND		190	29	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Hexachlorocyclopentadiene	ND		190	26	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Hexachloroethane	ND		190	25	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Indeno[1,2,3-cd]pyrene	ND		190	24	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Isophorone	ND		190	41	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Naphthalene	ND		190	25	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Nitrobenzene	ND		190	22	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
N-Nitrosodi-n-propylamine	ND		190	33	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
N-Nitrosodiphenylamine	ND		190	160	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Pentachlorophenol	ND		380	190	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Phenanthrene	ND		190	29	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Phenol	ND		190	30	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1
Pyrene	ND		190	23	ug/Kg	☼	07/11/24 16:47	07/15/24 16:36	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*2500*	*T J*	*ug/Kg*	☼	*1.98*	*N/A*	*07/11/24 16:47*	*07/15/24 16:36*	*1*
Unknown	*600*	*T J*	*ug/Kg*	☼	*3.43*	*N/A*	*07/11/24 16:47*	*07/15/24 16:36*	*1*
Erucylamide	*380*	*T J N*	*ug/Kg*	☼	*13.97*	*112-84-5*	*07/11/24 16:47*	*07/15/24 16:36*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*80*		*26 - 143*	*07/11/24 16:47*	*07/15/24 16:36*	*1*
2-Fluorobiphenyl	*60*		*50 - 121*	*07/11/24 16:47*	*07/15/24 16:36*	*1*
2-Fluorophenol	*51*		*36 - 120*	*07/11/24 16:47*	*07/15/24 16:36*	*1*
Nitrobenzene-d5	*57*		*40 - 121*	*07/11/24 16:47*	*07/15/24 16:36*	*1*
Phenol-d5	*55*		*41 - 120*	*07/11/24 16:47*	*07/15/24 16:36*	*1*
p-Terphenyl-d14	*89*		*46 - 143*	*07/11/24 16:47*	*07/15/24 16:36*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1.9	0.37	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
4,4'-DDE	ND		1.9	0.40	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
4,4'-DDT	ND		1.9	0.44	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
Aldrin	ND		1.9	0.46	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
alpha-BHC	ND		1.9	0.34	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
cis-Chlordane	ND		1.9	0.94	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
beta-BHC	ND		1.9	0.34	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
delta-BHC	ND		1.9	0.35	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
Dieldrin	ND		1.9	0.45	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1

Client Sample ID: HA-07-3.0-4.0

Date Collected: 07/10/24 12:20
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-6

Matrix: Solid
Percent Solids: 86.5

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I	ND		1.9	0.36	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
Endosulfan II	ND		1.9	0.34	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
Endosulfan sulfate	ND		1.9	0.35	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
Endrin	ND		1.9	0.37	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
Endrin aldehyde	ND		1.9	0.48	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
Endrin ketone	**0.75**	**J**	1.9	0.46	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
gamma-BHC (Lindane)	ND		1.9	0.35	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
trans-Chlordane	ND		1.9	0.60	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
Heptachlor	ND		1.9	0.41	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
Heptachlor epoxide	ND		1.9	0.49	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
Methoxychlor	**1.1**	**J**	1.9	0.39	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1
Toxaphene	ND		19	11	ug/Kg	☼	07/12/24 06:39	07/16/24 15:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*80*		*45 - 120*	*07/12/24 06:39*	*07/16/24 15:52*	*1*
DCB Decachlorobiphenyl	*75*		*45 - 120*	*07/12/24 06:39*	*07/16/24 15:52*	*1*
Tetrachloro-m-xylene	*76*		*30 - 124*	*07/12/24 06:39*	*07/16/24 15:52*	*1*
Tetrachloro-m-xylene	*76*		*30 - 124*	*07/12/24 06:39*	*07/16/24 15:52*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.22	0.043	mg/Kg	☼	07/12/24 06:45	07/15/24 06:44	1
PCB-1221	ND		0.22	0.043	mg/Kg	☼	07/12/24 06:45	07/15/24 06:44	1
PCB-1232	ND		0.22	0.043	mg/Kg	☼	07/12/24 06:45	07/15/24 06:44	1
PCB-1242	ND		0.22	0.043	mg/Kg	☼	07/12/24 06:45	07/15/24 06:44	1
PCB-1248	ND		0.22	0.043	mg/Kg	☼	07/12/24 06:45	07/15/24 06:44	1
PCB-1254	ND		0.22	0.10	mg/Kg	☼	07/12/24 06:45	07/15/24 06:44	1
PCB-1260	ND		0.22	0.10	mg/Kg	☼	07/12/24 06:45	07/15/24 06:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*101*		*60 - 154*	*07/12/24 06:45*	*07/15/24 06:44*	*1*
Tetrachloro-m-xylene	*90*		*60 - 154*	*07/12/24 06:45*	*07/15/24 06:44*	*1*
DCB Decachlorobiphenyl	*88*		*65 - 174*	*07/12/24 06:45*	*07/15/24 06:44*	*1*
DCB Decachlorobiphenyl	*93*		*65 - 174*	*07/12/24 06:45*	*07/15/24 06:44*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**18700**		11.8	10.2	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Antimony	ND		17.7	0.62	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Arsenic	**3.8**		2.4	1.0	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Barium	**112**		0.59	0.16	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Beryllium	**0.82**		0.24	0.047	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Cadmium	**0.27**		0.24	0.082	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Calcium	**45900**		58.9	31.8	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Chromium	**22.0**		0.59	0.42	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Cobalt	**11.9**		0.59	0.12	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Copper	**18.2**		1.2	0.67	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Iron	**18900**		11.8	10	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Lead	**12.5**	**^+**	1.2	0.54	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Magnesium	**13300**		23.6	10	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221523-1

Client Sample ID: HA-07-3.0-4.0

Date Collected: 07/10/24 12:20
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-6

Matrix: Solid
Percent Solids: 86.5

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	534		1.2	0.33	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Nickel	21.8		5.9	0.29	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Potassium	5130		35.3	28.6	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Selenium	ND		4.7	0.94	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Silver	ND		0.71	0.24	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Sodium	218		165	72.2	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Thallium	ND		7.1	0.90	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Vanadium	33.7		0.59	0.15	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1
Zinc	57.3		2.4	1.2	mg/Kg	☼	07/12/24 12:30	07/15/24 19:48	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.015	J	0.022	0.0051	mg/Kg	☼	07/15/24 09:13	07/15/24 12:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.1	0.55	mg/Kg	☼	07/18/24 12:15	07/18/24 16:35	1

Surrogate Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221523-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(64-126)	(72-126)	(60-140)	(71-125)
480-221523-2	HA-01-2.5-3.5	110	93	106	100
480-221523-2 MS	HA-01-2.5-3.5-MS	92	99	100	100
480-221523-2 MSD	HA-01-2.5-3.5-MSD	94	90	102	104
480-221523-4	HA-08-3.5-4.0	103	105	106	99
480-221523-6	HA-07-3.0-4.0	116	106	108	98
LCS 480-718232/1-A	Lab Control Sample	96	102	100	100
MB 480-718232/2-A	Method Blank	98	102	101	97

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPHd14
Lab Sample ID	Client Sample ID	(26-143)	(50-121)	(36-120)	(40-121)	(41-120)	(46-143)
480-221523-1	HA-01-0-0.2	0 S1-	61	58	65	132 S1+	74
480-221523-2	HA-01-2.5-3.5	87	86	78	81	82	83
480-221523-2 MS	HA-01-2.5-3.5-MS	95	89	78	79	87	83
480-221523-2 MSD	HA-01-2.5-3.5-MSD	97	89	86	87	97	92
480-221523-3	HA-08-0-0.2	88	88	79	72	78	85
480-221523-4	HA-08-3.5-4.0	87	86	77	79	80	90
480-221523-5	HA-07-0-0.2	82	73	61	62	66	81
480-221523-6	HA-07-3.0-4.0	80	60	51	57	55	89
LCS 480-718223/2-A	Lab Control Sample	97	82	75	78	77	94
MB 480-718223/1-A	Method Blank	91	90	84	86	84	103

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHd14 = p-Terphenyl-d14

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1	DCBP2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(45-120)	(45-120)	(30-124)	(30-124)
480-221523-1	HA-01-0-0.2	1093 S1+	1385 S1+	0 S1-	0 S1-
480-221523-2	HA-01-2.5-3.5	189 S1+	167 S1+	0 S1-	0 S1-
480-221523-2 MS	HA-01-2.5-3.5-MS	206 S1+	257 S1+	130 S1+	126 S1+
480-221523-2 MSD	HA-01-2.5-3.5-MSD	181 S1+	199 S1+	0 S1-	0 S1-
480-221523-3	HA-08-0-0.2	178 S1+	362 S1+	107	246 S1+
480-221523-4	HA-08-3.5-4.0	78	74	68	62

Surrogate Summary

Client: Ashland LLC
Job ID: 480-221523-1
Project/Site: Tank 75 Analysis

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1	DCBP2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(45-120)	(45-120)	(30-124)	(30-124)
480-221523-5	HA-07-0-0.2	190 S1+	324 S1+	110	231 S1+
480-221523-6	HA-07-3.0-4.0	80	75	76	76
LCS 480-718243/2-A	Lab Control Sample	89	82	69	61
MB 480-718243/1-A	Method Blank	102	100	81	77

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCBP1	DCBP2
Lab Sample ID	Client Sample ID	(60-154)	(60-154)	(65-174)	(65-174)
480-221523-1	HA-01-0-0.2	61	64	55 S1-	68
480-221523-2	HA-01-2.5-3.5	65	66	70	89
480-221523-2 MS	HA-01-2.5-3.5-MS	94	99	120	151
480-221523-2 MSD	HA-01-2.5-3.5-MSD	100	101	124	152
480-221523-3	HA-08-0-0.2	63	67	58 S1-	55 S1-
480-221523-4	HA-08-3.5-4.0	87	89	81	77
480-221523-5	HA-07-0-0.2	81	90	80	75
480-221523-6	HA-07-3.0-4.0	90	101	93	88
LCS 480-718244/2-A	Lab Control Sample	133	151	150	134
MB 480-718244/1-A	Method Blank	104	116	113	97

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

Isotope Dilution Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221523-1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (20-150)	PFPeA (20-150)	13C5PHA (20-150)	C4PFHA (20-150)	C8PFOA (20-150)	C9PFNA (20-150)	C6PFDA (20-150)	13C7PUA (20-150)
480-221523-1	HA-01-0-0.2	106	73.1	78.9	73.6	78.6	94.6	116	105
480-221523-1 - RA	HA-01-0-0.2	100	66.0	76.2	70.1	78.6	104	86.5	98.7
LCS 240-619820/3-A	Lab Control Sample	99.0	89.7	88.7	80.3	79.6	85.1	101	85.8
LLCS 240-619820/2-A	Lab Control Sample	104	99.5	101	90.3	92.5	94.4	109	102
MB 240-619820/1-A	Method Blank	97.7	85.7	86.7	79.7	81.3	89.6	102	100

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFTDA (20-150)	C3PFBS (20-150)	C3PFHS (20-150)	C8PFOS (20-150)	PFOSA (20-150)	d3NMFOS (20-150)	d5NEFOS (20-150)	M242FTS (20-150)
480-221523-1	HA-01-0-0.2	70.3	94.0	83.4	110	156 *5+	115	134	122
480-221523-1 - RA	HA-01-0-0.2	80.4	88.8	89.2	107	143	110	129	134
LCS 240-619820/3-A	Lab Control Sample	56.4	88.8	82.3	89.0	87.6	85.0	126	74.2
LLCS 240-619820/2-A	Lab Control Sample	64.0	87.9	87.9	92.7	91.6	87.9	133	87.3
MB 240-619820/1-A	Method Blank	56.7	86.9	80.6	91.7	84.3	84.3	143	81.6

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M262FTS (20-150)	M282FTS (20-150)	HFPODA (20-150)	NMFM (20-150)	NEFM (20-150)	d5NPFSA (20-150)	d3NMFSA (20-150)	PFDoDA (20-150)
480-221523-1	HA-01-0-0.2	150	133	69.3	82.4	75.3	76.8	82.8	105
480-221523-1 - RA	HA-01-0-0.2	179 *5+	174 *5+	63.6	82.9	80.9	72.1	82.0	86.2
LCS 240-619820/3-A	Lab Control Sample	77.7	62.9	80.4	76.5	65.1	65.8	65.5	90.0
LLCS 240-619820/2-A	Lab Control Sample	90.2	77.7	93.4	75.4	67.5	68.9	66.7	95.5
MB 240-619820/1-A	Method Blank	84.2	68.1	82.3	73.4	63.5	62.8	61.0	88.9

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoDA = 13C2-PFDoDA

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221523-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-718232/2-A
Matrix: Solid
Analysis Batch: 718233

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718232

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
2-Hexanone	ND		25	2.5	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Acetone	ND		25	4.2	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Benzene	ND		5.0	0.25	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Bromoform	ND		5.0	2.5	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Bromomethane	ND		5.0	0.45	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Carbon disulfide	ND		5.0	2.5	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Chlorobenzene	ND		5.0	0.66	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Chloroethane	ND		5.0	1.1	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Chloroform	0.322	J	5.0	0.31	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Chloromethane	ND		5.0	0.30	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Cyclohexane	ND		5.0	0.70	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Ethylbenzene	ND		5.0	0.35	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Methyl acetate	ND		25	3.0	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Methylene Chloride	ND		5.0	2.3	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Styrene	ND		5.0	0.25	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Tetrachloroethene	ND		5.0	0.67	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Toluene	ND		5.0	0.38	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
trans-1,2-Dichloroethene	ND		5.0	0.52	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Trichloroethene	ND		5.0	1.1	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Vinyl chloride	ND		5.0	0.61	ug/Kg		07/11/24 18:20	07/11/24 22:05	1
Xylenes, Total	ND		10	0.84	ug/Kg		07/11/24 18:20	07/11/24 22:05	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-718232/2-A
Matrix: Solid
Analysis Batch: 718233

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718232

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/Kg			N/A	07/11/24 18:20	07/11/24 22:05	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		64 - 126	07/11/24 18:20	07/11/24 22:05	1
4-Bromofluorobenzene (Surr)	102		72 - 126	07/11/24 18:20	07/11/24 22:05	1
Dibromofluoromethane (Surr)	101		60 - 140	07/11/24 18:20	07/11/24 22:05	1
Toluene-d8 (Surr)	97		71 - 125	07/11/24 18:20	07/11/24 22:05	1

Lab Sample ID: LCS 480-718232/1-A
Matrix: Solid
Analysis Batch: 718233

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718232

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	50.0	45.3		ug/Kg		91	77 - 121
1,1,2,2-Tetrachloroethane	50.0	48.0		ug/Kg		96	80 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	39.9		ug/Kg		80	60 - 140
1,1,2-Trichloroethane	50.0	47.8		ug/Kg		96	78 - 122
1,1-Dichloroethane	50.0	42.7		ug/Kg		85	73 - 126
1,1-Dichloroethene	50.0	40.1		ug/Kg		80	59 - 125
1,2,4-Trichlorobenzene	50.0	45.3		ug/Kg		91	64 - 120
1,2-Dibromo-3-Chloropropane	50.0	48.1		ug/Kg		96	63 - 124
1,2-Dibromoethane	50.0	54.3		ug/Kg		109	78 - 120
1,2-Dichlorobenzene	50.0	45.0		ug/Kg		90	75 - 120
1,2-Dichloroethane	50.0	45.7		ug/Kg		91	77 - 122
1,2-Dichloropropane	50.0	45.6		ug/Kg		91	75 - 124
1,3-Dichlorobenzene	50.0	44.7		ug/Kg		89	74 - 120
1,4-Dichlorobenzene	50.0	44.4		ug/Kg		89	73 - 120
2-Butanone (MEK)	250	258		ug/Kg		103	70 - 134
2-Hexanone	250	269		ug/Kg		108	59 - 130
4-Methyl-2-pentanone (MIBK)	250	252		ug/Kg		101	65 - 133
Acetone	250	251		ug/Kg		101	61 - 137
Benzene	50.0	43.9		ug/Kg		88	79 - 127
Bromodichloromethane	50.0	49.3		ug/Kg		99	80 - 122
Bromoform	50.0	60.5		ug/Kg		121	68 - 126
Bromomethane	50.0	47.3		ug/Kg		95	37 - 149
Carbon disulfide	50.0	37.9		ug/Kg		76	64 - 131
Carbon tetrachloride	50.0	50.9		ug/Kg		102	75 - 135
Chlorobenzene	50.0	45.9		ug/Kg		92	76 - 124
Chloroethane	50.0	46.5		ug/Kg		93	69 - 135
Chloroform	50.0	43.8		ug/Kg		88	80 - 120
Chloromethane	50.0	54.4		ug/Kg		109	63 - 127
cis-1,2-Dichloroethene	50.0	43.7		ug/Kg		87	81 - 120
cis-1,3-Dichloropropene	50.0	51.7		ug/Kg		103	80 - 120
Cyclohexane	50.0	41.0		ug/Kg		82	65 - 120
Dibromochloromethane	50.0	55.6		ug/Kg		111	76 - 125
Dichlorodifluoromethane	50.0	58.0		ug/Kg		116	57 - 142
Ethylbenzene	50.0	44.9		ug/Kg		90	80 - 120

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-718232/1-A
Matrix: Solid
Analysis Batch: 718233

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718232

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Isopropylbenzene	50.0	44.5		ug/Kg		89	72 - 120
Methyl acetate	100	99.9		ug/Kg		100	55 - 136
Methyl tert-butyl ether	50.0	46.0		ug/Kg		92	63 - 125
Methylcyclohexane	50.0	41.6		ug/Kg		83	60 - 140
Methylene Chloride	50.0	43.0		ug/Kg		86	61 - 127
Styrene	50.0	47.2		ug/Kg		94	80 - 120
Tetrachloroethene	50.0	45.1		ug/Kg		90	74 - 122
Toluene	50.0	44.1		ug/Kg		88	74 - 128
trans-1,2-Dichloroethene	50.0	41.6		ug/Kg		83	78 - 126
Trichloroethene	50.0	44.0		ug/Kg		88	77 - 129
Trichlorofluoromethane	50.0	49.1		ug/Kg		98	65 - 146
Vinyl chloride	50.0	47.5		ug/Kg		95	61 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*64 - 126*
4-Bromofluorobenzene (Surr)	*102*		*72 - 126*
Dibromofluoromethane (Surr)	*100*		*60 - 140*
Toluene-d8 (Surr)	*100*		*71 - 125*

Lab Sample ID: 480-221523-2 MS
Matrix: Solid
Analysis Batch: 718233

Client Sample ID: HA-01-2.5-3.5-MS
Prep Type: Total/NA
Prep Batch: 718232

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	ND		48.0	39.4		ug/Kg	☼	82	77 - 121
1,1,2,2-Tetrachloroethane	ND	F1	48.0	35.3	F1	ug/Kg	☼	74	80 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	F1 F2	48.0	29.9		ug/Kg	☼	62	60 - 140
1,1,2-Trichloroethane	ND	F1	48.0	35.6	F1	ug/Kg	☼	74	78 - 122
1,1-Dichloroethane	0.73	J	48.0	43.1		ug/Kg	☼	88	73 - 126
1,1-Dichloroethene	ND		48.0	42.3		ug/Kg	☼	88	59 - 125
1,2,4-Trichlorobenzene	ND	F1 F2	48.0	6.78	F1	ug/Kg	☼	14	64 - 120
1,2-Dibromo-3-Chloropropane	ND	F1	48.0	27.2	F1	ug/Kg	☼	57	63 - 124
1,2-Dibromoethane	ND	F1	48.0	36.4	F1	ug/Kg	☼	76	78 - 120
1,2-Dichlorobenzene	ND	F1 F2	48.0	20.6	F1	ug/Kg	☼	43	75 - 120
1,2-Dichloroethane	ND		48.0	38.6		ug/Kg	☼	80	77 - 122
1,2-Dichloropropane	ND		48.0	37.6		ug/Kg	☼	78	75 - 124
1,3-Dichlorobenzene	ND	F1 F2	48.0	21.6	F1	ug/Kg	☼	45	74 - 120
1,4-Dichlorobenzene	ND	F1 F2	48.0	21.3	F1	ug/Kg	☼	44	73 - 120
2-Butanone (MEK)	3.7	J F1 F2	240	156	F1	ug/Kg	☼	63	70 - 134
2-Hexanone	ND		240	164		ug/Kg	☼	68	59 - 130
4-Methyl-2-pentanone (MIBK)	ND		240	168		ug/Kg	☼	70	65 - 133
Acetone	19	J F1 F2	240	173		ug/Kg	☼	64	61 - 137
Benzene	0.91	J F1	48.0	39.2		ug/Kg	☼	80	79 - 127
Bromodichloromethane	ND	F1	48.0	39.1		ug/Kg	☼	81	80 - 122
Bromoform	ND	F1	48.0	34.8		ug/Kg	☼	73	68 - 126
Bromomethane	ND		48.0	55.5		ug/Kg	☼	116	37 - 149
Carbon disulfide	ND		48.0	40.6		ug/Kg	☼	85	64 - 131
Carbon tetrachloride	ND	F1	48.0	38.1		ug/Kg	☼	79	75 - 135

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-221523-2 MS
Matrix: Solid
Analysis Batch: 718233

Client Sample ID: HA-01-2.5-3.5-MS
Prep Type: Total/NA
Prep Batch: 718232

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chlorobenzene	ND	F1	48.0	30.2	F1	ug/Kg	☼	63	76 - 124
Chloroethane	ND		48.0	59.5		ug/Kg	☼	124	69 - 135
Chloroform	ND		48.0	41.7		ug/Kg	☼	87	80 - 120
Chloromethane	ND		48.0	56.7		ug/Kg	☼	118	63 - 127
cis-1,2-Dichloroethene	ND		48.0	43.0		ug/Kg	☼	90	80 - 120
cis-1,3-Dichloropropene	ND	F1	48.0	38.0	F1	ug/Kg	☼	79	80 - 120
Cyclohexane	2.0	J F1 F2	48.0	21.6	F1	ug/Kg	☼	41	65 - 120
Dibromochloromethane	ND		48.0	38.8		ug/Kg	☼	81	76 - 125
Dichlorodifluoromethane	ND		48.0	59.4		ug/Kg	☼	124	57 - 142
Ethylbenzene	0.79	J F1	48.0	27.7	F1	ug/Kg	☼	56	80 - 120
Isopropylbenzene	1.7	J F1	48.0	25.8	F1	ug/Kg	☼	50	72 - 120
Methyl acetate	ND	F2	96.1	85.6		ug/Kg	☼	89	55 - 136
Methyl tert-butyl ether	ND		48.0	38.8		ug/Kg	☼	81	63 - 125
Methylcyclohexane	3.9	J F1	48.0	15.6	F1	ug/Kg	☼	24	60 - 140
Methylene Chloride	ND		48.0	43.4		ug/Kg	☼	90	61 - 127
Styrene	ND	F1 F2	48.0	27.6	F1	ug/Kg	☼	58	80 - 120
Tetrachloroethene	0.77	J F1 F2	48.0	27.8	F1	ug/Kg	☼	56	74 - 122
Toluene	0.38	J F1	48.0	33.2	F1	ug/Kg	☼	68	74 - 128
trans-1,2-Dichloroethene	ND		48.0	43.5		ug/Kg	☼	91	78 - 126
Trichloroethene	ND	F1	48.0	35.7	F1	ug/Kg	☼	74	77 - 129
Trichlorofluoromethane	ND		48.0	45.5		ug/Kg	☼	95	65 - 146
Vinyl chloride	ND		48.0	53.4		ug/Kg	☼	111	61 - 133

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*64 - 126*
4-Bromofluorobenzene (Surr)	*99*		*72 - 126*
Dibromofluoromethane (Surr)	*100*		*60 - 140*
Toluene-d8 (Surr)	*100*		*71 - 125*

Lab Sample ID: 480-221523-2 MSD
Matrix: Solid
Analysis Batch: 718233

Client Sample ID: HA-01-2.5-3.5-MSD
Prep Type: Total/NA
Prep Batch: 718232

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		39.6	30.4		ug/Kg	☼	77	77 - 121	26	30
1,1,2,2-Tetrachloroethane	ND	F1	39.6	45.2		ug/Kg	☼	114	80 - 120	25	30
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	F1 F2	39.6	21.6	F1 F2	ug/Kg	☼	55	60 - 140	32	30
1,1,2-Trichloroethane	ND	F1	39.6	29.1	F1	ug/Kg	☼	73	78 - 122	20	30
1,1-Dichloroethane	0.73	J	39.6	34.4		ug/Kg	☼	85	73 - 126	22	30
1,1-Dichloroethene	ND		39.6	32.6		ug/Kg	☼	82	59 - 125	26	30
1,2,4-Trichlorobenzene	ND	F1 F2	39.6	2.71	J F1 F2	ug/Kg	☼	7	64 - 120	86	30
1,2-Dibromo-3-Chloropropane	ND	F1	39.6	23.0	F1	ug/Kg	☼	58	63 - 124	17	30
1,2-Dibromoethane	ND	F1	39.6	29.9	F1	ug/Kg	☼	75	78 - 120	20	30
1,2-Dichlorobenzene	ND	F1 F2	39.6	14.5	F1 F2	ug/Kg	☼	36	75 - 120	35	30
1,2-Dichloroethane	ND		39.6	32.0		ug/Kg	☼	81	77 - 122	19	30
1,2-Dichloropropane	ND		39.6	29.8		ug/Kg	☼	75	75 - 124	23	30
1,3-Dichlorobenzene	ND	F1 F2	39.6	15.6	F1 F2	ug/Kg	☼	39	74 - 120	32	30
1,4-Dichlorobenzene	ND	F1 F2	39.6	14.6	F1 F2	ug/Kg	☼	37	73 - 120	37	30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-221523-2 MSD
Matrix: Solid
Analysis Batch: 718233

Client Sample ID: HA-01-2.5-3.5-MSD
Prep Type: Total/NA
Prep Batch: 718232

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Butanone (MEK)	3.7	J F1 F2	198	98.7	F1 F2	ug/Kg	☼	48	70 - 134	45	30
2-Hexanone	ND		198	134		ug/Kg	☼	68	59 - 130	20	30
4-Methyl-2-pentanone (MIBK)	ND		198	145		ug/Kg	☼	73	65 - 133	15	30
Acetone	19	J F1 F2	198	88.0	F1 F2	ug/Kg	☼	35	61 - 137	65	30
Benzene	0.91	J F1	39.6	30.7	F1	ug/Kg	☼	75	79 - 127	24	30
Bromodichloromethane	ND	F1	39.6	31.2	F1	ug/Kg	☼	79	80 - 122	23	30
Bromoform	ND	F1	39.6	25.9	F1	ug/Kg	☼	65	68 - 126	29	30
Bromomethane	ND		39.6	51.1		ug/Kg	☼	129	37 - 149	8	30
Carbon disulfide	ND		39.6	30.6		ug/Kg	☼	77	64 - 131	28	30
Carbon tetrachloride	ND	F1	39.6	28.4	F1	ug/Kg	☼	72	75 - 135	29	30
Chlorobenzene	ND	F1	39.6	22.6	F1	ug/Kg	☼	57	76 - 124	29	30
Chloroethane	ND		39.6	49.4		ug/Kg	☼	125	69 - 135	18	30
Chloroform	ND		39.6	33.0		ug/Kg	☼	83	80 - 120	23	30
Chloromethane	ND		39.6	46.3		ug/Kg	☼	117	63 - 127	20	30
cis-1,2-Dichloroethene	ND		39.6	35.0		ug/Kg	☼	88	80 - 120	20	30
cis-1,3-Dichloropropene	ND	F1	39.6	30.4	F1	ug/Kg	☼	77	80 - 120	22	30
Cyclohexane	2.0	J F1 F2	39.6	14.8	F1 F2	ug/Kg	☼	32	65 - 120	37	30
Dibromochloromethane	ND		39.6	31.0		ug/Kg	☼	78	76 - 125	22	30
Dichlorodifluoromethane	ND		39.6	45.5		ug/Kg	☼	115	57 - 142	26	30
Ethylbenzene	0.79	J F1	39.6	20.5	F1	ug/Kg	☼	50	80 - 120	30	30
Isopropylbenzene	1.7	J F1	39.6	24.7	F1	ug/Kg	☼	58	72 - 120	4	30
Methyl acetate	ND	F2	79.3	59.1	F2	ug/Kg	☼	74	55 - 136	37	30
Methyl tert-butyl ether	ND		39.6	31.0		ug/Kg	☼	78	63 - 125	22	30
Methylcyclohexane	3.9	J F1	39.6	11.8	F1	ug/Kg	☼	20	60 - 140	28	30
Methylene Chloride	ND		39.6	36.3		ug/Kg	☼	92	61 - 127	18	30
Styrene	ND	F1 F2	39.6	19.6	F1 F2	ug/Kg	☼	49	80 - 120	34	30
Tetrachloroethene	0.77	J F1 F2	39.6	19.9	F1 F2	ug/Kg	☼	48	74 - 122	33	30
Toluene	0.38	J F1	39.6	25.9	F1	ug/Kg	☼	64	74 - 128	25	30
trans-1,2-Dichloroethene	ND		39.6	34.1		ug/Kg	☼	86	78 - 126	24	30
Trichloroethene	ND	F1	39.6	27.3	F1	ug/Kg	☼	69	77 - 129	27	30
Trichlorofluoromethane	ND		39.6	34.9		ug/Kg	☼	88	65 - 146	26	30
Vinyl chloride	ND		39.6	42.4		ug/Kg	☼	107	61 - 133	23	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*94*		*64 - 126*
4-Bromofluorobenzene (Surr)	*90*		*72 - 126*
Dibromofluoromethane (Surr)	*102*		*60 - 140*
Toluene-d8 (Surr)	*104*		*71 - 125*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-718223/1-A
Matrix: Solid
Analysis Batch: 718283

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718223

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		100	55	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
2,4,5-Trichlorophenol	ND		170	46	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
2,4,6-Trichlorophenol	ND		170	34	ug/Kg		07/11/24 16:47	07/12/24 19:44	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-718223/1-A
Matrix: Solid
Analysis Batch: 718283

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718223

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		170	18	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
2,4-Dimethylphenol	ND		170	41	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
2,4-Dinitrophenol	ND		1700	780	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
2,4-Dinitrotoluene	ND		170	35	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
2,6-Dinitrotoluene	ND		170	20	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
2-Chloronaphthalene	ND		170	28	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
2-Chlorophenol	ND		330	31	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
2-Methylnaphthalene	ND		170	34	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
2-Methylphenol	ND		170	20	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
2-Nitroaniline	ND		330	25	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
2-Nitrophenol	ND		170	48	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
3,3'-Dichlorobenzidine	ND		330	200	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
3-Nitroaniline	ND		330	47	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
4,6-Dinitro-2-methylphenol	ND		330	170	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
4-Bromophenyl phenyl ether	ND		170	24	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
4-Chloro-3-methylphenol	ND		170	42	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
4-Chloroaniline	ND		170	42	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
4-Chlorophenyl phenyl ether	ND		170	21	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
4-Methylphenol	ND		330	20	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
4-Nitroaniline	ND		330	89	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
4-Nitrophenol	ND		330	120	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Acenaphthene	ND		170	25	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Acenaphthylene	ND		170	22	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Acetophenone	ND		170	23	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Anthracene	ND		170	42	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Atrazine	ND		170	59	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Benzaldehyde	ND		170	140	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Benzo[a]anthracene	ND		170	17	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Benzo[a]pyrene	ND		170	25	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Benzo[b]fluoranthene	ND		170	27	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Benzo[g,h,i]perylene	ND		170	18	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Benzo[k]fluoranthene	ND		170	22	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Biphenyl	ND		170	25	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
bis (2-chloroisopropyl) ether	ND		170	34	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Bis(2-chloroethoxy)methane	ND		170	36	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Bis(2-chloroethyl)ether	ND		170	22	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Bis(2-ethylhexyl) phthalate	ND		170	58	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Butyl benzyl phthalate	ND		170	28	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Caprolactam	ND		170	51	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Carbazole	ND		170	20	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Chrysene	ND		170	38	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Dibenz(a,h)anthracene	ND		170	30	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Dibenzofuran	ND		170	20	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Diethyl phthalate	ND		170	22	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Dimethyl phthalate	ND		170	20	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Di-n-butyl phthalate	ND		170	29	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Di-n-octyl phthalate	ND		170	20	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Fluoranthene	ND		170	18	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Fluorene	ND		170	20	ug/Kg		07/11/24 16:47	07/12/24 19:44	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-718223/1-A
Matrix: Solid
Analysis Batch: 718283

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718223

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	ND		170	23	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Hexachlorobutadiene	ND		170	25	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Hexachlorocyclopentadiene	ND		170	23	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Hexachloroethane	ND		170	22	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Indeno[1,2,3-cd]pyrene	ND		170	21	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Isophorone	ND		170	36	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Naphthalene	ND		170	22	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Nitrobenzene	ND		170	19	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
N-Nitrosodi-n-propylamine	ND		170	29	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
N-Nitrosodiphenylamine	ND		170	140	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Pentachlorophenol	ND		330	170	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Phenanthrene	ND		170	25	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Phenol	ND		170	26	ug/Kg		07/11/24 16:47	07/12/24 19:44	1
Pyrene	ND		170	20	ug/Kg		07/11/24 16:47	07/12/24 19:44	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*2250*	*T J*	*ug/Kg*		*1.97*	*N/A*	*07/11/24 16:47*	*07/12/24 19:44*	*1*
Unknown	*832*	*T J*	*ug/Kg*		*3.43*	*N/A*	*07/11/24 16:47*	*07/12/24 19:44*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*91*		*26 - 143*	*07/11/24 16:47*	*07/12/24 19:44*	*1*
2-Fluorobiphenyl	*90*		*50 - 121*	*07/11/24 16:47*	*07/12/24 19:44*	*1*
2-Fluorophenol	*84*		*36 - 120*	*07/11/24 16:47*	*07/12/24 19:44*	*1*
Nitrobenzene-d5	*86*		*40 - 121*	*07/11/24 16:47*	*07/12/24 19:44*	*1*
Phenol-d5	*84*		*41 - 120*	*07/11/24 16:47*	*07/12/24 19:44*	*1*
p-Terphenyl-d14	*103*		*46 - 143*	*07/11/24 16:47*	*07/12/24 19:44*	*1*

Lab Sample ID: LCS 480-718223/2-A
Matrix: Solid
Analysis Batch: 718283

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718223

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	1330	566		ug/Kg		42	23 - 120
2,4,5-Trichlorophenol	1330	1190		ug/Kg		89	59 - 126
2,4,6-Trichlorophenol	1330	1220		ug/Kg		92	59 - 123
2,4-Dichlorophenol	1330	1090		ug/Kg		82	61 - 120
2,4-Dimethylphenol	1330	1420		ug/Kg		107	59 - 120
2,4-Dinitrophenol	2670	2320		ug/Kg		87	41 - 146
2,4-Dinitrotoluene	1330	1190		ug/Kg		90	63 - 120
2,6-Dinitrotoluene	1330	1210		ug/Kg		91	66 - 120
2-Chloronaphthalene	1330	1080		ug/Kg		81	57 - 120
2-Chlorophenol	1330	979		ug/Kg		73	53 - 120
2-Methylnaphthalene	1330	955		ug/Kg		72	59 - 120
2-Methylphenol	1330	1040		ug/Kg		78	54 - 120
2-Nitroaniline	1330	1210		ug/Kg		91	61 - 120
2-Nitrophenol	1330	1000		ug/Kg		75	56 - 120
3,3'-Dichlorobenzidine	2670	2400		ug/Kg		90	54 - 120
3-Nitroaniline	1330	1110		ug/Kg		83	48 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-718223/2-A
Matrix: Solid
Analysis Batch: 718283

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718223

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,6-Dinitro-2-methylphenol	2670	2550		ug/Kg		96	49 - 122
4-Bromophenyl phenyl ether	1330	1290		ug/Kg		97	58 - 120
4-Chloro-3-methylphenol	1330	1140		ug/Kg		86	61 - 120
4-Chloroaniline	1330	1090		ug/Kg		82	38 - 120
4-Chlorophenyl phenyl ether	1330	1120		ug/Kg		84	63 - 124
4-Methylphenol	1330	1110		ug/Kg		83	55 - 120
4-Nitroaniline	1330	1110		ug/Kg		84	56 - 120
4-Nitrophenol	2670	2540		ug/Kg		95	43 - 147
Acenaphthene	1330	1120		ug/Kg		84	62 - 120
Acenaphthylene	1330	1190		ug/Kg		89	58 - 121
Acetophenone	1330	993		ug/Kg		75	54 - 120
Anthracene	1330	1220		ug/Kg		92	62 - 120
Atrazine	2670	2110		ug/Kg		79	60 - 127
Benzaldehyde	2670	1950		ug/Kg		73	10 - 150
Benzo[a]anthracene	1330	1240		ug/Kg		93	65 - 120
Benzo[a]pyrene	1330	1300		ug/Kg		98	64 - 120
Benzo[b]fluoranthene	1330	1310		ug/Kg		98	64 - 120
Benzo[g,h,i]perylene	1330	1260		ug/Kg		95	45 - 145
Benzo[k]fluoranthene	1330	1300		ug/Kg		98	65 - 120
Biphenyl	1330	1070		ug/Kg		80	59 - 120
bis (2-chloroisopropyl) ether	1330	1060		ug/Kg		80	44 - 120
Bis(2-chloroethoxy)methane	1330	1080		ug/Kg		81	55 - 120
Bis(2-chloroethyl)ether	1330	990		ug/Kg		74	45 - 120
Bis(2-ethylhexyl) phthalate	1330	1270		ug/Kg		95	61 - 133
Butyl benzyl phthalate	1330	1280		ug/Kg		96	61 - 129
Caprolactam	2670	2170		ug/Kg		81	47 - 120
Carbazole	1330	1230		ug/Kg		92	65 - 120
Chrysene	1330	1180		ug/Kg		88	64 - 120
Dibenz(a,h)anthracene	1330	1240		ug/Kg		93	54 - 132
Dibenzofuran	1330	1110		ug/Kg		83	63 - 120
Diethyl phthalate	1330	1200		ug/Kg		90	66 - 120
Dimethyl phthalate	1330	1240		ug/Kg		93	65 - 124
Di-n-butyl phthalate	1330	1250		ug/Kg		94	58 - 130
Di-n-octyl phthalate	1330	1220		ug/Kg		92	57 - 133
Fluoranthene	1330	1240		ug/Kg		93	62 - 120
Fluorene	1330	1130		ug/Kg		85	63 - 120
Hexachlorobenzene	1330	1190		ug/Kg		90	60 - 120
Hexachlorobutadiene	1330	1010		ug/Kg		76	45 - 120
Hexachlorocyclopentadiene	1330	1210		ug/Kg		91	47 - 120
Hexachloroethane	1330	926		ug/Kg		69	41 - 120
Indeno[1,2,3-cd]pyrene	1330	1230		ug/Kg		92	56 - 134
Isophorone	1330	1100		ug/Kg		82	56 - 120
Naphthalene	1330	1030		ug/Kg		77	55 - 120
Nitrobenzene	1330	1050		ug/Kg		79	54 - 120
N-Nitrosodi-n-propylamine	1330	1020		ug/Kg		77	52 - 120
Pentachlorophenol	2670	2650		ug/Kg		99	10 - 120
Phenanthrene	1330	1260		ug/Kg		95	60 - 120
Phenol	1330	987		ug/Kg		74	53 - 120
Pyrene	1330	1280		ug/Kg		96	61 - 133

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol	97		26 - 143
2-Fluorobiphenyl	82		50 - 121
2-Fluorophenol	75		36 - 120
Nitrobenzene-d5	78		40 - 121
Phenol-d5	77		41 - 120
p-Terphenyl-d14	94		46 - 143

Lab Sample ID: 480-221523-2 MS
Matrix: Solid
Analysis Batch: 718283

Client Sample ID: HA-01-2.5-3.5-MS
Prep Type: Total/NA
Prep Batch: 718223

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2,4,5-Trichlorophenol	ND		1690	1510		ug/Kg	☼	89	46 - 120
2,4,6-Trichlorophenol	ND		1690	1640		ug/Kg	☼	97	41 - 123
2,4-Dichlorophenol	ND		1690	1470		ug/Kg	☼	87	45 - 120
2,4-Dimethylphenol	ND		1690	1900		ug/Kg	☼	113	52 - 120
2,4-Dinitrophenol	ND		3380	ND		ug/Kg	☼	NC	41 - 146
2,4-Dinitrotoluene	ND		1690	1600		ug/Kg	☼	95	63 - 125
2,6-Dinitrotoluene	ND		1690	1520		ug/Kg	☼	90	66 - 120
2-Chloronaphthalene	ND		1690	1460		ug/Kg	☼	86	57 - 120
2-Chlorophenol	ND		1690	1360	J	ug/Kg	☼	80	43 - 120
2-Methylnaphthalene	ND		1690	1280		ug/Kg	☼	76	55 - 120
2-Methylphenol	ND		1690	1390		ug/Kg	☼	82	48 - 120
2-Nitroaniline	ND		1690	1520	J	ug/Kg	☼	90	61 - 120
2-Nitrophenol	ND		1690	1400		ug/Kg	☼	83	37 - 120
3,3'-Dichlorobenzidine	ND		3380	3060		ug/Kg	☼	90	37 - 126
3-Nitroaniline	ND		1690	1620	J	ug/Kg	☼	96	48 - 120
4,6-Dinitro-2-methylphenol	ND		3380	3030		ug/Kg	☼	90	23 - 149
4-Bromophenyl phenyl ether	ND		1690	1580		ug/Kg	☼	94	58 - 120
4-Chloro-3-methylphenol	ND		1690	1450		ug/Kg	☼	86	49 - 125
4-Chloroaniline	ND		1690	1410		ug/Kg	☼	83	38 - 120
4-Chlorophenyl phenyl ether	ND		1690	1500		ug/Kg	☼	88	63 - 124
4-Methylphenol	ND		1690	1510	J	ug/Kg	☼	89	50 - 120
4-Nitroaniline	ND		1690	1370	J	ug/Kg	☼	81	47 - 120
4-Nitrophenol	ND		3380	3190		ug/Kg	☼	94	31 - 147
Acenaphthene	ND		1690	1520		ug/Kg	☼	90	60 - 120
Acenaphthylene	ND		1690	1640		ug/Kg	☼	97	58 - 121
Acetophenone	ND		1690	1380		ug/Kg	☼	82	47 - 120
Anthracene	ND		1690	1630		ug/Kg	☼	96	62 - 120
Atrazine	ND		3380	2870		ug/Kg	☼	85	60 - 150
Benzaldehyde	ND		3380	2610		ug/Kg	☼	77	10 - 150
Benzo[a]anthracene	ND		1690	1730		ug/Kg	☼	102	65 - 120
Benzo[a]pyrene	170	J	1690	1750		ug/Kg	☼	93	64 - 120
Benzo[b]fluoranthene	ND		1690	1560		ug/Kg	☼	92	10 - 150
Benzo[g,h,i]perylene	200	J	1690	2000		ug/Kg	☼	106	45 - 145
Benzo[k]fluoranthene	ND		1690	1520		ug/Kg	☼	90	23 - 150
Biphenyl	ND		1690	1500		ug/Kg	☼	89	58 - 120
bis (2-chloroisopropyl) ether	ND		1690	1440		ug/Kg	☼	85	31 - 120
Bis(2-chloroethoxy)methane	ND		1690	1420		ug/Kg	☼	84	52 - 120
Bis(2-chloroethyl)ether	ND		1690	1420		ug/Kg	☼	84	45 - 120
Bis(2-ethylhexyl) phthalate	ND		1690	1510		ug/Kg	☼	89	61 - 133

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-221523-2 MS
Matrix: Solid
Analysis Batch: 718283

Client Sample ID: HA-01-2.5-3.5-MS
Prep Type: Total/NA
Prep Batch: 718223

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Butyl benzyl phthalate	ND		1690	1510		ug/Kg	☼	89	61 - 120
Caprolactam	ND		3380	2630		ug/Kg	☼	78	37 - 133
Carbazole	ND		1690	1540		ug/Kg	☼	91	59 - 120
Chrysene	250	J	1690	1780		ug/Kg	☼	91	64 - 120
Dibenz(a,h)anthracene	ND		1690	1680		ug/Kg	☼	100	54 - 132
Dibenzofuran	ND		1690	1500		ug/Kg	☼	89	62 - 120
Diethyl phthalate	ND		1690	1490		ug/Kg	☼	88	66 - 120
Dimethyl phthalate	ND		1690	1600		ug/Kg	☼	95	65 - 124
Di-n-butyl phthalate	ND		1690	1510		ug/Kg	☼	89	58 - 130
Di-n-octyl phthalate	ND		1690	1530		ug/Kg	☼	91	57 - 133
Fluoranthene	ND		1690	1540		ug/Kg	☼	91	62 - 120
Fluorene	ND		1690	1600		ug/Kg	☼	95	63 - 120
Hexachlorobenzene	ND		1690	1470		ug/Kg	☼	87	60 - 120
Hexachlorobutadiene	ND		1690	1480		ug/Kg	☼	87	45 - 120
Hexachlorocyclopentadiene	ND		1690	1340		ug/Kg	☼	80	31 - 120
Hexachloroethane	ND		1690	1340		ug/Kg	☼	79	21 - 120
Indeno[1,2,3-cd]pyrene	ND		1690	1650		ug/Kg	☼	97	56 - 134
Isophorone	ND		1690	1460		ug/Kg	☼	86	56 - 120
Naphthalene	ND		1690	1420		ug/Kg	☼	84	46 - 120
Nitrobenzene	ND		1690	1370		ug/Kg	☼	81	49 - 120
N-Nitrosodi-n-propylamine	ND		1690	1420		ug/Kg	☼	84	46 - 120
Pentachlorophenol	ND		3380	3080		ug/Kg	☼	91	10 - 136
Phenanthrene	ND		1690	1520		ug/Kg	☼	90	60 - 122
Phenol	ND		1690	1410		ug/Kg	☼	83	50 - 120
Pyrene	650	J	1690	2230		ug/Kg	☼	94	61 - 133

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol	*95*		*26 - 143*
2-Fluorobiphenyl	*89*		*50 - 121*
2-Fluorophenol	*78*		*36 - 120*
Nitrobenzene-d5	*79*		*40 - 121*
Phenol-d5	*87*		*41 - 120*
p-Terphenyl-d14	*83*		*46 - 143*

Lab Sample ID: 480-221523-2 MSD
Matrix: Solid
Analysis Batch: 718283

Client Sample ID: HA-01-2.5-3.5-MSD
Prep Type: Total/NA
Prep Batch: 718223

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4,5-Trichlorophenol	ND		1670	1700		ug/Kg	☼	102	46 - 120	12	18
2,4,6-Trichlorophenol	ND		1670	1640		ug/Kg	☼	98	41 - 123	0	19
2,4-Dichlorophenol	ND		1670	1600		ug/Kg	☼	96	45 - 120	8	19
2,4-Dimethylphenol	ND		1670	1910		ug/Kg	☼	115	52 - 120	0	42
2,4-Dinitrophenol	ND		3340	ND		ug/Kg	☼	NC	41 - 146	NC	22
2,4-Dinitrotoluene	ND		1670	1640		ug/Kg	☼	98	63 - 125	2	20
2,6-Dinitrotoluene	ND		1670	1610		ug/Kg	☼	96	66 - 120	6	15
2-Chloronaphthalene	ND		1670	1520		ug/Kg	☼	91	57 - 120	4	21
2-Chlorophenol	ND		1670	1490	J	ug/Kg	☼	89	43 - 120	9	25

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-221523-2 MSD
Matrix: Solid
Analysis Batch: 718283

Client Sample ID: HA-01-2.5-3.5-MSD
Prep Type: Total/NA
Prep Batch: 718223

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Methylnaphthalene	ND		1670	1340		ug/Kg	☼	80	55 - 120	4	21
2-Methylphenol	ND		1670	1570		ug/Kg	☼	94	48 - 120	12	27
2-Nitroaniline	ND		1670	1590	J	ug/Kg	☼	95	61 - 120	4	15
2-Nitrophenol	ND		1670	1440		ug/Kg	☼	86	37 - 120	3	18
3,3'-Dichlorobenzidine	ND		3340	3160		ug/Kg	☼	95	37 - 126	3	25
3-Nitroaniline	ND		1670	1530	J	ug/Kg	☼	92	48 - 120	6	19
4,6-Dinitro-2-methylphenol	ND		3340	2970		ug/Kg	☼	89	23 - 149	2	15
4-Bromophenyl phenyl ether	ND		1670	1580		ug/Kg	☼	95	58 - 120	0	15
4-Chloro-3-methylphenol	ND		1670	1580		ug/Kg	☼	94	49 - 125	9	27
4-Chloroaniline	ND		1670	1460		ug/Kg	☼	87	38 - 120	3	22
4-Chlorophenyl phenyl ether	ND		1670	1590		ug/Kg	☼	95	63 - 124	6	16
4-Methylphenol	ND		1670	1650	J	ug/Kg	☼	99	50 - 120	9	24
4-Nitroaniline	ND		1670	1630	J	ug/Kg	☼	98	47 - 120	18	24
4-Nitrophenol	ND		3340	3170		ug/Kg	☼	95	31 - 147	1	25
Acenaphthene	ND		1670	1590		ug/Kg	☼	95	60 - 120	4	35
Acenaphthylene	ND		1670	1690		ug/Kg	☼	101	58 - 121	2	18
Acetophenone	ND		1670	1510		ug/Kg	☼	90	47 - 120	9	20
Anthracene	ND		1670	1690		ug/Kg	☼	101	62 - 120	4	15
Atrazine	ND		3340	2870		ug/Kg	☼	86	60 - 150	0	20
Benzaldehyde	ND		3340	2910		ug/Kg	☼	87	10 - 150	11	20
Benzo[a]anthracene	ND		1670	1830		ug/Kg	☼	110	65 - 120	6	15
Benzo[a]pyrene	170	J	1670	1940		ug/Kg	☼	106	64 - 120	11	15
Benzo[b]fluoranthene	ND		1670	1760		ug/Kg	☼	105	10 - 150	12	15
Benzo[g,h,i]perylene	200	J	1670	2220		ug/Kg	☼	121	45 - 145	11	15
Benzo[k]fluoranthene	ND		1670	1440		ug/Kg	☼	86	23 - 150	5	22
Biphenyl	ND		1670	1560		ug/Kg	☼	93	58 - 120	4	20
bis (2-chloroisopropyl) ether	ND		1670	1600		ug/Kg	☼	96	31 - 120	11	24
Bis(2-chloroethoxy)methane	ND		1670	1500		ug/Kg	☼	90	52 - 120	5	17
Bis(2-chloroethyl)ether	ND		1670	1490		ug/Kg	☼	89	45 - 120	5	21
Bis(2-ethylhexyl) phthalate	ND		1670	1640		ug/Kg	☼	98	61 - 133	8	15
Butyl benzyl phthalate	ND		1670	1700		ug/Kg	☼	102	61 - 120	12	16
Caprolactam	ND		3340	2990		ug/Kg	☼	90	37 - 133	13	20
Carbazole	ND		1670	1640		ug/Kg	☼	98	59 - 120	6	20
Chrysene	250	J	1670	1980		ug/Kg	☼	104	64 - 120	11	15
Dibenz(a,h)anthracene	ND		1670	1880		ug/Kg	☼	113	54 - 132	11	15
Dibenzofuran	ND		1670	1530		ug/Kg	☼	92	62 - 120	2	15
Diethyl phthalate	ND		1670	1580		ug/Kg	☼	94	66 - 120	5	15
Dimethyl phthalate	ND		1670	1670		ug/Kg	☼	100	65 - 124	4	15
Di-n-butyl phthalate	ND		1670	1610		ug/Kg	☼	96	58 - 130	7	15
Di-n-octyl phthalate	ND		1670	1750		ug/Kg	☼	105	57 - 133	13	16
Fluoranthene	ND		1670	1640		ug/Kg	☼	98	62 - 120	6	15
Fluorene	ND		1670	1610		ug/Kg	☼	96	63 - 120	0	15
Hexachlorobenzene	ND		1670	1510		ug/Kg	☼	90	60 - 120	2	15
Hexachlorobutadiene	ND		1670	1350		ug/Kg	☼	81	45 - 120	9	44
Hexachlorocyclopentadiene	ND		1670	1200		ug/Kg	☼	72	31 - 120	11	49
Hexachloroethane	ND		1670	1400		ug/Kg	☼	84	21 - 120	4	46
Indeno[1,2,3-cd]pyrene	ND		1670	1740		ug/Kg	☼	104	56 - 134	6	15
Isophorone	ND		1670	1540		ug/Kg	☼	93	56 - 120	6	17
Naphthalene	ND		1670	1400		ug/Kg	☼	84	46 - 120	1	29

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-221523-2 MSD
Matrix: Solid
Analysis Batch: 718283

Client Sample ID: HA-01-2.5-3.5-MSD
Prep Type: Total/NA
Prep Batch: 718223

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrobenzene	ND		1670	1440		ug/Kg	☼	86	49 - 120	5	24
N-Nitrosodi-n-propylamine	ND		1670	1640		ug/Kg	☼	98	46 - 120	14	31
Pentachlorophenol	ND		3340	3340		ug/Kg	☼	100	10 - 136	8	35
Phenanthrene	ND		1670	1560		ug/Kg	☼	94	60 - 122	3	15
Phenol	ND		1670	1460		ug/Kg	☼	87	50 - 120	4	35
Pyrene	650	J	1670	2810		ug/Kg	☼	130	61 - 133	23	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*97*		*26 - 143*
2-Fluorobiphenyl	*89*		*50 - 121*
2-Fluorophenol	*86*		*36 - 120*
Nitrobenzene-d5	*87*		*40 - 121*
Phenol-d5	*97*		*41 - 120*
p-Terphenyl-d14	*92*		*46 - 143*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 480-718243/1-A
Matrix: Solid
Analysis Batch: 718529

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718243

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1.7	0.32	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
4,4'-DDE	ND		1.7	0.35	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
4,4'-DDT	ND		1.7	0.39	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
Aldrin	ND		1.7	0.41	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
alpha-BHC	0.360	J	1.7	0.30	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
cis-Chlordane	ND		1.7	0.83	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
beta-BHC	ND		1.7	0.30	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
delta-BHC	ND		1.7	0.31	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
Dieldrin	ND		1.7	0.40	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
Endosulfan I	ND		1.7	0.32	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
Endosulfan II	ND		1.7	0.30	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
Endosulfan sulfate	ND		1.7	0.31	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
Endrin	ND		1.7	0.33	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
Endrin aldehyde	ND		1.7	0.43	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
Endrin ketone	ND		1.7	0.41	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
gamma-BHC (Lindane)	0.433	J	1.7	0.31	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
trans-Chlordane	ND		1.7	0.53	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
Heptachlor	ND		1.7	0.36	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
Heptachlor epoxide	ND		1.7	0.43	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
Methoxychlor	ND		1.7	0.34	ug/Kg		07/12/24 06:39	07/16/24 12:56	1
Toxaphene	ND		17	9.7	ug/Kg		07/12/24 06:39	07/16/24 12:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*102*		*45 - 120*	*07/12/24 06:39*	*07/16/24 12:56*	*1*
DCB Decachlorobiphenyl	*100*		*45 - 120*	*07/12/24 06:39*	*07/16/24 12:56*	*1*
Tetrachloro-m-xylene	*81*		*30 - 124*	*07/12/24 06:39*	*07/16/24 12:56*	*1*

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 480-718243/1-A
Matrix: Solid
Analysis Batch: 718529

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718243

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	77		30 - 124	07/12/24 06:39	07/16/24 12:56	1

Lab Sample ID: LCS 480-718243/2-A
Matrix: Solid
Analysis Batch: 718529

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718243

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	16.7	14.6		ug/Kg		88	56 - 120
4,4'-DDE	16.7	12.6		ug/Kg		75	44 - 120
4,4'-DDT	16.7	15.9		ug/Kg		95	38 - 120
Aldrin	16.7	10.7		ug/Kg		64	38 - 120
alpha-BHC	16.7	10.6		ug/Kg		64	39 - 120
cis-Chlordane	16.7	11.3		ug/Kg		68	47 - 120
beta-BHC	16.7	12.7		ug/Kg		76	40 - 120
delta-BHC	16.7	12.3		ug/Kg		74	45 - 120
Dieldrin	16.7	15.2		ug/Kg		91	58 - 120
Endosulfan I	16.7	14.7		ug/Kg		88	49 - 120
Endosulfan II	16.7	15.6		ug/Kg		93	55 - 120
Endosulfan sulfate	16.7	14.0		ug/Kg		84	49 - 124
Endrin	16.7	15.2		ug/Kg		91	58 - 120
Endrin aldehyde	16.7	9.62		ug/Kg		58	37 - 121
Endrin ketone	16.7	16.0		ug/Kg		96	46 - 123
gamma-BHC (Lindane)	16.7	12.5		ug/Kg		75	50 - 120
trans-Chlordane	16.7	9.89		ug/Kg		59	48 - 120
Heptachlor	16.7	13.9		ug/Kg		84	50 - 120
Heptachlor epoxide	16.7	14.7		ug/Kg		88	50 - 120
Methoxychlor	16.7	18.7		ug/Kg		112	58 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	89		45 - 120
DCB Decachlorobiphenyl	82		45 - 120
Tetrachloro-m-xylene	69		30 - 124
Tetrachloro-m-xylene	61		30 - 124

Lab Sample ID: 480-221523-2 MS
Matrix: Solid
Analysis Batch: 718529

Client Sample ID: HA-01-2.5-3.5-MS
Prep Type: Total/NA
Prep Batch: 718243

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	ND		21.2	20.7	J	ug/Kg	☼	98	37 - 126
4,4'-DDE	ND	F2	21.2	17.7	J	ug/Kg	☼	83	34 - 120
4,4'-DDT	29	J	21.2	42.2	J	ug/Kg	☼	64	43 - 123
Aldrin	ND	F2	21.2	17.1	J	ug/Kg	☼	81	37 - 125
alpha-BHC	8.7	J B	21.2	21.9	J	ug/Kg	☼	62	39 - 120
cis-Chlordane	ND	F1	21.2	ND	F1	ug/Kg	☼	0	35 - 120
beta-BHC	ND	F2	21.2	20.2	J	ug/Kg	☼	95	36 - 120
delta-BHC	ND	F2	21.2	21.6	J	ug/Kg	☼	102	34 - 120
Dieldrin	ND	F1	21.2	15.1	J	ug/Kg	☼	71	45 - 120

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 480-221523-2 MS
Matrix: Solid
Analysis Batch: 718529

Client Sample ID: HA-01-2.5-3.5-MS
Prep Type: Total/NA
Prep Batch: 718243

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Endosulfan I	ND	F1	21.2	12.5	J	ug/Kg	☼	59	39 - 120
Endosulfan II	ND	F2	21.2	23.2	J	ug/Kg	☼	109	34 - 126
Endosulfan sulfate	ND		21.2	18.2	J	ug/Kg	☼	86	27 - 130
Endrin	ND	F1	21.2	13.0	J	ug/Kg	☼	61	47 - 121
Endrin aldehyde	ND	F1	21.2	ND	F1	ug/Kg	☼	0	33 - 123
Endrin ketone	ND	F1	21.2	29.5	J F1	ug/Kg	☼	139	43 - 126
gamma-BHC (Lindane)	ND	F2	21.2	21.6	J	ug/Kg	☼	102	50 - 120
trans-Chlordane	ND	F2	21.2	21.4	J	ug/Kg	☼	101	31 - 120
Heptachlor	ND	F1	21.2	ND	F1	ug/Kg	☼	0	42 - 120
Heptachlor epoxide	ND	F1	21.2	13.0	J	ug/Kg	☼	61	40 - 120
Methoxychlor	ND	F1	21.2	60.8	F1	ug/Kg	☼	287	44 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*206*	*S1+*	*45 - 120*
DCB Decachlorobiphenyl	*257*	*S1+*	*45 - 120*
Tetrachloro-m-xylene	*130*	*S1+*	*30 - 124*
Tetrachloro-m-xylene	*126*	*S1+*	*30 - 124*

Lab Sample ID: 480-221523-2 MSD
Matrix: Solid
Analysis Batch: 718529

Client Sample ID: HA-01-2.5-3.5-MSD
Prep Type: Total/NA
Prep Batch: 718243

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	ND		21.2	17.4	J	ug/Kg	☼	82	37 - 126	17	21
4,4'-DDE	ND	F2	21.2	14.5	J F2	ug/Kg	☼	68	34 - 120	20	18
4,4'-DDT	29	J	21.2	40.3	J	ug/Kg	☼	55	43 - 123	5	25
Aldrin	ND	F2	21.2	13.2	J F2	ug/Kg	☼	62	37 - 125	26	12
alpha-BHC	8.7	J B	21.2	19.7	J	ug/Kg	☼	52	39 - 120	11	15
cis-Chlordane	ND	F1	21.2	ND	F1	ug/Kg	☼	0	35 - 120	NC	23
beta-BHC	ND	F2	21.2	16.1	J F2	ug/Kg	☼	76	36 - 120	22	19
delta-BHC	ND	F2	21.2	18.4	J F2	ug/Kg	☼	87	34 - 120	16	14
Dieldrin	ND	F1	21.2	ND	F1	ug/Kg	☼	0	45 - 120	NC	12
Endosulfan I	ND	F1	21.2	ND	F1	ug/Kg	☼	0	39 - 120	NC	18
Endosulfan II	ND	F2	21.2	17.3	J F2	ug/Kg	☼	82	34 - 126	29	26
Endosulfan sulfate	ND		21.2	13.7	J	ug/Kg	☼	65	27 - 130	28	35
Endrin	ND	F1	21.2	ND	F1	ug/Kg	☼	0	47 - 121	NC	20
Endrin aldehyde	ND	F1	21.2	ND	F1	ug/Kg	☼	0	33 - 123	NC	47
Endrin ketone	ND	F1	21.2	25.2	J	ug/Kg	☼	119	43 - 126	16	37
gamma-BHC (Lindane)	ND	F2	21.2	18.2	J F2	ug/Kg	☼	86	50 - 120	17	12
trans-Chlordane	ND	F2	21.2	16.8	J F2	ug/Kg	☼	79	31 - 120	24	15
Heptachlor	ND	F1	21.2	ND	F1	ug/Kg	☼	0	42 - 120	NC	22
Heptachlor epoxide	ND	F1	21.2	ND	F1	ug/Kg	☼	0	40 - 120	NC	15
Methoxychlor	ND	F1	21.2	57.4	F1	ug/Kg	☼	271	44 - 150	6	24

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*181*	*S1+*	*45 - 120*
DCB Decachlorobiphenyl	*199*	*S1+*	*45 - 120*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 480-221523-2 MSD
Matrix: Solid
Analysis Batch: 718529

Client Sample ID: HA-01-2.5-3.5-MSD
Prep Type: Total/NA
Prep Batch: 718243

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Tetrachloro-m-xylene	0	S1-	30 - 124

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 480-718244/1-A
Matrix: Solid
Analysis Batch: 718396

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718244

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.25	0.049	mg/Kg		07/12/24 06:45	07/15/24 04:13	1
PCB-1221	ND		0.25	0.049	mg/Kg		07/12/24 06:45	07/15/24 04:13	1
PCB-1232	ND		0.25	0.049	mg/Kg		07/12/24 06:45	07/15/24 04:13	1
PCB-1242	ND		0.25	0.049	mg/Kg		07/12/24 06:45	07/15/24 04:13	1
PCB-1248	ND		0.25	0.049	mg/Kg		07/12/24 06:45	07/15/24 04:13	1
PCB-1254	ND		0.25	0.12	mg/Kg		07/12/24 06:45	07/15/24 04:13	1
PCB-1260	ND		0.25	0.12	mg/Kg		07/12/24 06:45	07/15/24 04:13	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	116		60 - 154	07/12/24 06:45	07/15/24 04:13	1
Tetrachloro-m-xylene	104		60 - 154	07/12/24 06:45	07/15/24 04:13	1
DCB Decachlorobiphenyl	97		65 - 174	07/12/24 06:45	07/15/24 04:13	1
DCB Decachlorobiphenyl	113		65 - 174	07/12/24 06:45	07/15/24 04:13	1

Lab Sample ID: LCS 480-718244/2-A
Matrix: Solid
Analysis Batch: 718396

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718244

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
PCB-1016			2.50	3.11		mg/Kg		125	51 - 185		
PCB-1260			2.50	3.29		mg/Kg		131	61 - 184		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	151		60 - 154
Tetrachloro-m-xylene	133		60 - 154
DCB Decachlorobiphenyl	134		65 - 174
DCB Decachlorobiphenyl	150		65 - 174

Lab Sample ID: 480-221523-2 MS
Matrix: Solid
Analysis Batch: 718599

Client Sample ID: HA-01-2.5-3.5-MS
Prep Type: Total/NA
Prep Batch: 718244

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
PCB-1016	ND		2.43	1.84		mg/Kg	☼	76	50 - 177		
PCB-1260	ND		2.43	2.06		mg/Kg	☼	85	33 - 200		

Surrogate	MS %Recovery	MS Qualifier	Limits
Tetrachloro-m-xylene	99		60 - 154
Tetrachloro-m-xylene	94		60 - 154

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 480-221523-2 MS
Matrix: Solid
Analysis Batch: 718599

Client Sample ID: HA-01-2.5-3.5-MS
Prep Type: Total/NA
Prep Batch: 718244

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	151		65 - 174
DCB Decachlorobiphenyl	120		65 - 174

Lab Sample ID: 480-221523-2 MSD
Matrix: Solid
Analysis Batch: 718599

Client Sample ID: HA-01-2.5-3.5-MSD
Prep Type: Total/NA
Prep Batch: 718244

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016	ND		2.38	1.53		mg/Kg	☼	64	50 - 177	18	50
PCB-1260	ND		2.38	1.60		mg/Kg	☼	67	33 - 200	25	50

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Tetrachloro-m-xylene	101		60 - 154
Tetrachloro-m-xylene	100		60 - 154
DCB Decachlorobiphenyl	152		65 - 174
DCB Decachlorobiphenyl	124		65 - 174

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Lab Sample ID: MB 240-619820/1-A
Matrix: Solid
Analysis Batch: 619961

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 619820

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.0	0.25	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluoropentanoic acid (PFPeA)	ND		0.50	0.13	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorohexanoic acid (PFHxA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluoroheptanoic acid (PFHpA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorooctanoic acid (PFOA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorononanoic acid (PFNA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorodecanoic acid (PFDA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluoroundecanoic acid (PFUnA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorododecanoic acid (PFDoA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorononanesulfonic acid (PFNS)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1.0	0.25	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1.0	0.25	ug/Kg		07/15/24 08:23	07/16/24 06:14	1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 240-619820/1-A
Matrix: Solid
Analysis Batch: 619961

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 619820

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1.0	0.25	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		2.5	0.63	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		2.5	0.63	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.0	0.25	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.0	0.25	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.50	0.13	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.50	0.13	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		1.0	0.25	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		1.0	0.25	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.50	0.13	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1.3	0.31	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		6.3	1.6	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		6.3	1.6	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.50	0.13	ug/Kg		07/15/24 08:23	07/16/24 06:14	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*97.7*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C5 PFPeA	*85.7*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C5 PFHxA	*86.7*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C4 PFHpA	*79.7*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C8 PFOA	*81.3*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C9 PFNA	*89.6*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C6 PFDA	*102*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C7 PFUnA	*100*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C2 PFTeDA	*56.7*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C3 PFBS	*86.9*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C3 PFHxS	*80.6*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C8 PFOS	*91.7*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C8 FOSA	*84.3*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 240-619820/1-A
Matrix: Solid
Analysis Batch: 619961

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 619820

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
d3-NMeFOSAA	84.3		20 - 150	07/15/24 08:23	07/16/24 06:14	1
d5-NEtFOSAA	143		20 - 150	07/15/24 08:23	07/16/24 06:14	1
M2-4:2 FTS	81.6		20 - 150	07/15/24 08:23	07/16/24 06:14	1
M2-6:2 FTS	84.2		20 - 150	07/15/24 08:23	07/16/24 06:14	1
M2-8:2 FTS	68.1		20 - 150	07/15/24 08:23	07/16/24 06:14	1
13C3 HFPO-DA	82.3		20 - 150	07/15/24 08:23	07/16/24 06:14	1
d7-N-MeFOSE-M	73.4		20 - 150	07/15/24 08:23	07/16/24 06:14	1
d9-N-EtFOSE-M	63.5		20 - 150	07/15/24 08:23	07/16/24 06:14	1
d5-NEtPFOSA	62.8		20 - 150	07/15/24 08:23	07/16/24 06:14	1
d3-NMePFOSA	61.0		20 - 150	07/15/24 08:23	07/16/24 06:14	1
13C2-PFDoDA	88.9		20 - 150	07/15/24 08:23	07/16/24 06:14	1

Lab Sample ID: LCS 240-619820/3-A
Matrix: Solid
Analysis Batch: 619961

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 619820

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	12.5	13.4		ug/Kg		107	40 - 150
Perfluoropentanoic acid (PFPeA)	6.25	6.51		ug/Kg		104	40 - 150
Perfluorohexanoic acid (PFHxA)	3.13	3.04		ug/Kg		97	40 - 150
Perfluoroheptanoic acid (PFHpA)	3.13	3.17		ug/Kg		101	40 - 150
Perfluorooctanoic acid (PFOA)	3.13	2.86		ug/Kg		92	40 - 150
Perfluorononanoic acid (PFNA)	3.13	3.10		ug/Kg		99	40 - 150
Perfluorodecanoic acid (PFDA)	3.13	2.43		ug/Kg		78	40 - 150
Perfluoroundecanoic acid (PFUnA)	3.13	2.96		ug/Kg		95	40 - 150
Perfluorododecanoic acid (PFDoA)	3.13	2.46		ug/Kg		79	40 - 150
Perfluorotridecanoic acid (PFTrDA)	3.13	2.87		ug/Kg		92	40 - 150
Perfluorotetradecanoic acid (PFTeDA)	3.13	3.64		ug/Kg		117	40 - 150
Perfluorobutanesulfonic acid (PFBS)	2.76	2.70		ug/Kg		98	40 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.93	3.07		ug/Kg		105	40 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.84	2.58		ug/Kg		91	40 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.98	3.09		ug/Kg		104	40 - 150
Perfluorooctanesulfonic acid (PFOS)	2.90	3.00		ug/Kg		103	40 - 150
Perfluorononanesulfonic acid (PFNS)	3.00	3.01		ug/Kg		100	40 - 150
Perfluorododecanesulfonic acid (PFDoS)	3.03	2.58		ug/Kg		85	40 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	11.7	12.5		ug/Kg		107	40 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	11.9	13.6		ug/Kg		115	40 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	12.0	14.0		ug/Kg		117	40 - 150

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 240-619820/3-A
Matrix: Solid
Analysis Batch: 619961

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 619820

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorooctanesulfonamide (PFOSA)	3.13	3.38		ug/Kg		108	40 - 150
N-methylperfluorooctane sulfonamide (NMeFOSA)	3.13	3.58		ug/Kg		115	40 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	3.13	3.21		ug/Kg		103	40 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	3.13	3.27		ug/Kg		105	40 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	3.13	3.56		ug/Kg		114	40 - 150
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	31.3	28.3		ug/Kg		91	40 - 150
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	31.3	28.8		ug/Kg		92	40 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	12.5	13.5		ug/Kg		108	40 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	11.8	13.2		ug/Kg		112	40 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	6.25	6.73		ug/Kg		108	40 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6.25	4.27		ug/Kg		68	40 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	11.7	11.5		ug/Kg		98	40 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	11.8	11.5		ug/Kg		97	40 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	5.56	5.97		ug/Kg		107	40 - 150
3-Perfluoropropylpropanoic acid (3:3 FTCA)	15.6	29.2	I *+	ug/Kg		187	40 - 150
3-Perfluoropentylpropanoic acid (5:3 FTCA)	78.1	86.3		ug/Kg		110	40 - 150
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	78.1	74.1		ug/Kg		95	40 - 150
Perfluorodecanesulfonic acid (PFDS)	3.01	3.03		ug/Kg		101	40 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	6.25	6.58		ug/Kg		105	40 - 150

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*99.0*		*20 - 150*
13C5 PFPeA	*89.7*		*20 - 150*
13C5 PFHxA	*88.7*		*20 - 150*
13C4 PFHpA	*80.3*		*20 - 150*
13C8 PFOA	*79.6*		*20 - 150*
13C9 PFNA	*85.1*		*20 - 150*
13C6 PFDA	*101*		*20 - 150*
13C7 PFUnA	*85.8*		*20 - 150*
13C2 PFTeDA	*56.4*		*20 - 150*
13C3 PFBS	*88.8*		*20 - 150*
13C3 PFHxS	*82.3*		*20 - 150*
13C8 PFOS	*89.0*		*20 - 150*
13C8 FOSA	*87.6*		*20 - 150*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 240-619820/3-A
Matrix: Solid
Analysis Batch: 619961

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 619820

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
d3-NMeFOSAA	*85.0*		*20 - 150*
d5-NEtFOSAA	*126*		*20 - 150*
M2-4:2 FTS	*74.2*		*20 - 150*
M2-6:2 FTS	*77.7*		*20 - 150*
M2-8:2 FTS	*62.9*		*20 - 150*
13C3 HFPO-DA	*80.4*		*20 - 150*
d7-N-MeFOSE-M	*76.5*		*20 - 150*
d9-N-EtFOSE-M	*65.1*		*20 - 150*
d5-NEtPFOSA	*65.8*		*20 - 150*
d3-NMePFOSA	*65.5*		*20 - 150*
13C2-PFDoDA	*90.0*		*20 - 150*

Lab Sample ID: LLCS 240-619820/2-A
Matrix: Solid
Analysis Batch: 619961

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 619820

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	1.00	1.06		ug/Kg		106	40 - 150
Perfluoropentanoic acid (PFPeA)	0.500	0.528		ug/Kg		106	40 - 150
Perfluorohexanoic acid (PFHxA)	0.250	0.231	J	ug/Kg		93	40 - 150
Perfluoroheptanoic acid (PFHpA)	0.250	0.269		ug/Kg		108	40 - 150
Perfluorooctanoic acid (PFOA)	0.250	0.331		ug/Kg		133	40 - 150
Perfluorononanoic acid (PFNA)	0.250	0.274		ug/Kg		109	40 - 150
Perfluorodecanoic acid (PFDA)	0.250	0.215	J	ug/Kg		86	40 - 150
Perfluoroundecanoic acid (PFUnA)	0.250	0.207	J	ug/Kg		83	40 - 150
Perfluorododecanoic acid (PFDoA)	0.250	0.226	J	ug/Kg		90	40 - 150
Perfluorotridecanoic acid (PFTrDA)	0.250	0.229	J	ug/Kg		91	40 - 150
Perfluorotetradecanoic acid (PFTeDA)	0.250	0.343		ug/Kg		137	40 - 150
Perfluorobutanesulfonic acid (PFBS)	0.221	0.239	J	ug/Kg		108	40 - 150
Perfluoropentanesulfonic acid (PFPeS)	0.235	0.267		ug/Kg		114	40 - 150
Perfluorohexanesulfonic acid (PFHxS)	0.228	0.232	J	ug/Kg		102	40 - 150
Perfluoroheptanesulfonic acid (PFHpS)	0.238	0.245	J	ug/Kg		103	40 - 150
Perfluorooctanesulfonic acid (PFOS)	0.232	0.262		ug/Kg		113	40 - 150
Perfluorononanesulfonic acid (PFNS)	0.240	0.239	J	ug/Kg		100	40 - 150
Perfluorododecanesulfonic acid (PFDoS)	0.242	0.208	J	ug/Kg		86	40 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	0.934	1.04		ug/Kg		112	40 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	0.948	1.08		ug/Kg		114	40 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	0.958	0.992	J	ug/Kg		104	40 - 150

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 240-619820/2-A
Matrix: Solid
Analysis Batch: 619961

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 619820

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorooctanesulfonamide (PFOSA)	0.250	0.269		ug/Kg		108	40 - 150
N-methylperfluorooctane sulfonamide (NMeFOSA)	0.250	0.291		ug/Kg		117	40 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	0.250	0.285		ug/Kg		114	40 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.250	0.295		ug/Kg		118	40 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.250	0.305		ug/Kg		122	40 - 150
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	2.50	2.56		ug/Kg		103	40 - 150
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	2.50	2.21	J	ug/Kg		88	40 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	1.00	1.02		ug/Kg		102	40 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	0.942	0.998	J	ug/Kg		106	40 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	0.500	0.511		ug/Kg		102	40 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	0.500	0.308	J	ug/Kg		62	40 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	0.932	0.904	J	ug/Kg		97	40 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	0.942	0.888	J	ug/Kg		94	40 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	0.445	0.468	J	ug/Kg		105	40 - 150
3-Perfluoropropylpropanoic acid (3:3 FTCA)	1.25	2.24	I *+	ug/Kg		179	40 - 150
3-Perfluoropentylpropanoic acid (5:3 FTCA)	6.25	6.36		ug/Kg		102	40 - 150
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	6.25	5.76	J	ug/Kg		92	40 - 150
Perfluorodecanesulfonic acid (PFDS)	0.241	0.244	J	ug/Kg		101	40 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	0.500	0.511		ug/Kg		102	40 - 150

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*104*		*20 - 150*
13C5 PFPeA	*99.5*		*20 - 150*
13C5 PFHxA	*101*		*20 - 150*
13C4 PFHpA	*90.3*		*20 - 150*
13C8 PFOA	*92.5*		*20 - 150*
13C9 PFNA	*94.4*		*20 - 150*
13C6 PFDA	*109*		*20 - 150*
13C7 PFUnA	*102*		*20 - 150*
13C2 PFTeDA	*64.0*		*20 - 150*
13C3 PFBS	*87.9*		*20 - 150*
13C3 PFHxS	*87.9*		*20 - 150*
13C8 PFOS	*92.7*		*20 - 150*
13C8 FOSA	*91.6*		*20 - 150*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 240-619820/2-A
Matrix: Solid
Analysis Batch: 619961

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 619820

Isotope Dilution	LLCS %Recovery	LLCS Qualifier	Limits
d3-NMeFOSAA	87.9		20 - 150
d5-NEtFOSAA	133		20 - 150
M2-4:2 FTS	87.3		20 - 150
M2-6:2 FTS	90.2		20 - 150
M2-8:2 FTS	77.7		20 - 150
13C3 HFPO-DA	93.4		20 - 150
d7-N-MeFOSE-M	75.4		20 - 150
d9-N-EtFOSE-M	67.5		20 - 150
d5-NEtPFOSA	68.9		20 - 150
d3-NMePFOSA	66.7		20 - 150
13C2-PFDoDA	95.5		20 - 150

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-718279/1-A
Matrix: Solid
Analysis Batch: 718548

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718279

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		10.5	9.0	mg/Kg		07/12/24 12:30	07/15/24 19:21	1
Antimony	ND		15.7	0.55	mg/Kg		07/12/24 12:30	07/15/24 19:21	1
Arsenic	ND		2.1	0.92	mg/Kg		07/12/24 12:30	07/15/24 19:21	1
Barium	ND		0.52	0.15	mg/Kg		07/12/24 12:30	07/15/24 19:21	1
Beryllium	ND		0.21	0.042	mg/Kg		07/12/24 12:30	07/15/24 19:21	1
Cadmium	ND		0.21	0.073	mg/Kg		07/12/24 12:30	07/15/24 19:21	1
Calcium	ND		52.3	28.2	mg/Kg		07/12/24 12:30	07/15/24 19:21	1
Chromium	ND		0.52	0.38	mg/Kg		07/12/24 12:30	07/15/24 19:21	1
Cobalt	ND		0.52	0.10	mg/Kg		07/12/24 12:30	07/15/24 19:21	1
Copper	ND		1.0	0.60	mg/Kg		07/12/24 12:30	07/15/24 19:21	1
Iron	ND		10.5	8.9	mg/Kg		07/12/24 12:30	07/15/24 19:21	1
Lead	ND		1.0	0.48	mg/Kg		07/12/24 12:30	07/15/24 19:21	1
Magnesium	ND		20.9	8.9	mg/Kg		07/12/24 12:30	07/15/24 19:21	1
Manganese	ND		1.0	0.29	mg/Kg		07/12/24 12:30	07/15/24 19:21	1
Nickel	ND		5.2	0.26	mg/Kg		07/12/24 12:30	07/15/24 19:21	1
Potassium	ND		31.4	25.4	mg/Kg		07/12/24 12:30	07/15/24 19:21	1
Selenium	ND		4.2	0.84	mg/Kg		07/12/24 12:30	07/15/24 19:21	1
Silver	ND		0.63	0.21	mg/Kg		07/12/24 12:30	07/15/24 19:21	1
Sodium	ND		146	64.1	mg/Kg		07/12/24 12:30	07/15/24 19:21	1
Thallium	ND		6.3	0.79	mg/Kg		07/12/24 12:30	07/15/24 19:21	1
Vanadium	ND		0.52	0.14	mg/Kg		07/12/24 12:30	07/15/24 19:21	1
Zinc	ND		2.1	1.1	mg/Kg		07/12/24 12:30	07/15/24 19:21	1

Lab Sample ID: LCSSRM 480-718279/2-A
Matrix: Solid
Analysis Batch: 718548

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718279

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
Aluminum			10600	10380		mg/Kg		97.9	52.7 - 148.1		

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 480-718279/2-A
Matrix: Solid
Analysis Batch: 718548

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718279

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	59.8	89.08		mg/Kg		149.0	46.2 - 633.8
Arsenic	180	146.0		mg/Kg		81.1	70.0 - 130.0
Barium	431	354.4		mg/Kg		82.2	74.9 - 125.1
Beryllium	121	103.6		mg/Kg		85.6	74.8 - 124.8
Cadmium	199	172.4		mg/Kg		86.6	74.9 - 125.1
Calcium	5760	5043		mg/Kg		87.5	73.6 - 126.4
Chromium	210	185.1		mg/Kg		88.1	70.0 - 130.0
Cobalt	237	232.4		mg/Kg		98.1	75.1 - 124.9
Copper	229	191.1		mg/Kg		83.4	75.1 - 124.9
Iron	9280	7654		mg/Kg		82.5	18.4 - 181.0
Lead	261	245.6		mg/Kg		94.1	78.2 - 121.1
Magnesium	2520	2137		mg/Kg		84.8	63.5 - 136.5
Manganese	316	258.1		mg/Kg		81.7	74.7 - 125.0
Nickel	108	96.30		mg/Kg		89.2	69.8 - 129.6
Potassium	2100	2029		mg/Kg		96.6	70.0 - 130.0
Selenium	117	89.52		mg/Kg		76.5	65.8 - 133.3
Silver	65.5	59.10		mg/Kg		90.2	70.5 - 129.3
Sodium	442	392.2		mg/Kg		88.7	58.6 - 141.4
Thallium	144	131.9		mg/Kg		91.6	70.1 - 129.9
Vanadium	183	148.6		mg/Kg		81.2	68.9 - 119.1
Zinc	264	226.8		mg/Kg		85.9	69.7 - 129.5

Lab Sample ID: 480-221523-2 MS
Matrix: Solid
Analysis Batch: 718548

Client Sample ID: HA-01-2.5-3.5-MS
Prep Type: Total/NA
Prep Batch: 718279

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	19700		1300	27760	4	mg/Kg	☼	618	75 - 125
Antimony	ND	F1	127	47.77	F1	mg/Kg	☼	38	75 - 125
Arsenic	3.4	F1	254	194.8		mg/Kg	☼	75	75 - 125
Barium	114		254	362.4		mg/Kg	☼	98	75 - 125
Beryllium	0.84		127	107.4		mg/Kg	☼	84	75 - 125
Cadmium	0.27		127	109.5		mg/Kg	☼	86	75 - 125

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-221523-2 MS
Matrix: Solid
Analysis Batch: 718548

Client Sample ID: HA-01-2.5-3.5-MS
Prep Type: Total/NA
Prep Batch: 718279

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	47500		6360	54620	4	mg/Kg	☼	111	75 - 125
Chromium	24.0		127	134.9		mg/Kg	☼	87	75 - 125
Cobalt	10.9		127	137.4		mg/Kg	☼	100	75 - 125
Copper	18.0		127	131.7		mg/Kg	☼	89	75 - 125
Iron	19300		1300	20950	4	mg/Kg	☼	123	75 - 125
Lead	12.7		127	135.9	^+	mg/Kg	☼	97	75 - 125
Magnesium	14300	F1	6360	22590	F1	mg/Kg	☼	131	75 - 125
Manganese	467		127	597.2		mg/Kg	☼	103	75 - 125
Nickel	22.0		127	128.4		mg/Kg	☼	84	75 - 125
Potassium	6070	F1	6360	14370	F1	mg/Kg	☼	131	75 - 125
Selenium	ND	F1	254	179.2	F1	mg/Kg	☼	70	75 - 125
Silver	0.29	J	12.7	11.14		mg/Kg	☼	85	75 - 125
Sodium	239		6360	5793		mg/Kg	☼	87	75 - 125
Thallium	ND		254	231.6		mg/Kg	☼	91	75 - 125
Vanadium	37.0		127	153.4		mg/Kg	☼	92	75 - 125
Zinc	57.7		127	160.8		mg/Kg	☼	81	75 - 125

Lab Sample ID: 480-221523-2 MSD
Matrix: Solid
Analysis Batch: 718548

Client Sample ID: HA-01-2.5-3.5-MSD
Prep Type: Total/NA
Prep Batch: 718279

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	19700		1340	26280	4	mg/Kg	☼	487	75 - 125	5	20
Antimony	ND	F1	131	49.08	F1	mg/Kg	☼	37	75 - 125	3	20
Arsenic	3.4	F1	263	198.1	F1	mg/Kg	☼	74	75 - 125	2	20
Barium	114		263	351.2		mg/Kg	☼	90	75 - 125	3	20
Beryllium	0.84		131	109.9		mg/Kg	☼	83	75 - 125	2	20
Cadmium	0.27		131	111.7		mg/Kg	☼	85	75 - 125	2	20
Calcium	47500		6570	57180	4	mg/Kg	☼	147	75 - 125	5	20
Chromium	24.0		131	135.6		mg/Kg	☼	85	75 - 125	1	20
Cobalt	10.9		131	139.5		mg/Kg	☼	98	75 - 125	1	20
Copper	18.0		131	133.2		mg/Kg	☼	88	75 - 125	1	20
Iron	19300		1340	20020	4	mg/Kg	☼	50	75 - 125	5	20
Lead	12.7		131	138.9	^+	mg/Kg	☼	96	75 - 125	2	20
Magnesium	14300	F1	6570	20040		mg/Kg	☼	88	75 - 125	12	20
Manganese	467		131	567.8		mg/Kg	☼	77	75 - 125	5	20
Nickel	22.0		131	129.0		mg/Kg	☼	81	75 - 125	0	20
Potassium	6070	F1	6570	13810		mg/Kg	☼	118	75 - 125	4	20
Selenium	ND	F1	263	183.8	F1	mg/Kg	☼	70	75 - 125	3	20
Silver	0.29	J	13.1	11.38		mg/Kg	☼	84	75 - 125	2	20
Sodium	239		6570	5912		mg/Kg	☼	86	75 - 125	2	20
Thallium	ND		263	235.6		mg/Kg	☼	90	75 - 125	2	20
Vanadium	37.0		131	152.8		mg/Kg	☼	88	75 - 125	0	20
Zinc	57.7		131	159.2		mg/Kg	☼	77	75 - 125	1	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 480-718352/1-A
Matrix: Solid
Analysis Batch: 718456

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718352

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.0046	mg/Kg		07/15/24 09:13	07/15/24 11:51	1

Lab Sample ID: LCSSRM 480-718352/2-A ^10
Matrix: Solid
Analysis Batch: 718456

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718352

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	19.1	19.60		mg/Kg		102.6	59.7 - 139.8

Lab Sample ID: 480-221523-2 MS
Matrix: Solid
Analysis Batch: 718456

Client Sample ID: HA-01-2.5-3.5-MS
Prep Type: Total/NA
Prep Batch: 718352

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.012	J	0.419	0.416		mg/Kg	☼	96	80 - 120

Lab Sample ID: 480-221523-2 MSD
Matrix: Solid
Analysis Batch: 718456

Client Sample ID: HA-01-2.5-3.5-MSD
Prep Type: Total/NA
Prep Batch: 718352

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.012	J	0.426	0.424		mg/Kg	☼	97	80 - 120	2	20

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 480-718886/1-A
Matrix: Solid
Analysis Batch: 718934

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718886

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.92	0.45	mg/Kg		07/18/24 12:15	07/18/24 16:08	1

Lab Sample ID: LCS 480-718886/3-A
Matrix: Solid
Analysis Batch: 718934

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718886

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.400	0.396		mg/Kg		99	29 - 122

Lab Sample ID: LCS 480-718886/4-A
Matrix: Solid
Analysis Batch: 718934

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718886

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.250	0.248		mg/Kg		99	29 - 122

Method: 9012B - Cyanide, Total andor Amenable (Continued)

Lab Sample ID: LCSSRM 480-718886/2-A ^10
Matrix: Solid
Analysis Batch: 718934

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718886

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total			154	40.79		mg/Kg		26.5	20.6 - 120.8		

Lab Sample ID: 480-221523-2 MS
Matrix: Solid
Analysis Batch: 718934

Client Sample ID: HA-01-2.5-3.5-MS
Prep Type: Total/NA
Prep Batch: 718886

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total	ND	F1	1.44	0.988	J F1	mg/Kg	☼	69	85 - 115		

Lab Sample ID: 480-221523-2 MSD
Matrix: Solid
Analysis Batch: 718934

Client Sample ID: HA-01-2.5-3.5-MSD
Prep Type: Total/NA
Prep Batch: 718886

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyanide, Total	ND	F1	1.50	1.06	J F1	mg/Kg	☼	70	85 - 115	7	15

GC/MS VOA

Prep Batch: 718232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221523-2	HA-01-2.5-3.5	Total/NA	Solid	5035A_L	
480-221523-4	HA-08-3.5-4.0	Total/NA	Solid	5035A_L	
480-221523-6	HA-07-3.0-4.0	Total/NA	Solid	5035A_L	
MB 480-718232/2-A	Method Blank	Total/NA	Solid	5035A_L	
LCS 480-718232/1-A	Lab Control Sample	Total/NA	Solid	5035A_L	
480-221523-2 MS	HA-01-2.5-3.5-MS	Total/NA	Solid	5035A_L	
480-221523-2 MSD	HA-01-2.5-3.5-MSD	Total/NA	Solid	5035A_L	

Analysis Batch: 718233

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221523-2	HA-01-2.5-3.5	Total/NA	Solid	8260C	718232
480-221523-4	HA-08-3.5-4.0	Total/NA	Solid	8260C	718232
480-221523-6	HA-07-3.0-4.0	Total/NA	Solid	8260C	718232
MB 480-718232/2-A	Method Blank	Total/NA	Solid	8260C	718232
LCS 480-718232/1-A	Lab Control Sample	Total/NA	Solid	8260C	718232
480-221523-2 MS	HA-01-2.5-3.5-MS	Total/NA	Solid	8260C	718232
480-221523-2 MSD	HA-01-2.5-3.5-MSD	Total/NA	Solid	8260C	718232

GC/MS Semi VOA

Prep Batch: 718223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221523-1	HA-01-0-0.2	Total/NA	Solid	3550C	
480-221523-2	HA-01-2.5-3.5	Total/NA	Solid	3550C	
480-221523-3	HA-08-0-0.2	Total/NA	Solid	3550C	
480-221523-4	HA-08-3.5-4.0	Total/NA	Solid	3550C	
480-221523-5	HA-07-0-0.2	Total/NA	Solid	3550C	
480-221523-6	HA-07-3.0-4.0	Total/NA	Solid	3550C	
MB 480-718223/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-718223/2-A	Lab Control Sample	Total/NA	Solid	3550C	
480-221523-2 MS	HA-01-2.5-3.5-MS	Total/NA	Solid	3550C	
480-221523-2 MSD	HA-01-2.5-3.5-MSD	Total/NA	Solid	3550C	

Analysis Batch: 718283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221523-1	HA-01-0-0.2	Total/NA	Solid	8270D	718223
480-221523-2	HA-01-2.5-3.5	Total/NA	Solid	8270D	718223
480-221523-3	HA-08-0-0.2	Total/NA	Solid	8270D	718223
480-221523-4	HA-08-3.5-4.0	Total/NA	Solid	8270D	718223
MB 480-718223/1-A	Method Blank	Total/NA	Solid	8270D	718223
LCS 480-718223/2-A	Lab Control Sample	Total/NA	Solid	8270D	718223
480-221523-2 MS	HA-01-2.5-3.5-MS	Total/NA	Solid	8270D	718223
480-221523-2 MSD	HA-01-2.5-3.5-MSD	Total/NA	Solid	8270D	718223

Analysis Batch: 718449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221523-5	HA-07-0-0.2	Total/NA	Solid	8270D	718223
480-221523-6	HA-07-3.0-4.0	Total/NA	Solid	8270D	718223

GC Semi VOA

Prep Batch: 718243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221523-1	HA-01-0-0.2	Total/NA	Solid	3550C	
480-221523-2	HA-01-2.5-3.5	Total/NA	Solid	3550C	
480-221523-3	HA-08-0-0.2	Total/NA	Solid	3550C	
480-221523-4	HA-08-3.5-4.0	Total/NA	Solid	3550C	
480-221523-5	HA-07-0-0.2	Total/NA	Solid	3550C	
480-221523-6	HA-07-3.0-4.0	Total/NA	Solid	3550C	
MB 480-718243/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-718243/2-A	Lab Control Sample	Total/NA	Solid	3550C	
480-221523-2 MS	HA-01-2.5-3.5-MS	Total/NA	Solid	3550C	
480-221523-2 MSD	HA-01-2.5-3.5-MSD	Total/NA	Solid	3550C	

Prep Batch: 718244

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221523-1	HA-01-0-0.2	Total/NA	Solid	3550C	
480-221523-2	HA-01-2.5-3.5	Total/NA	Solid	3550C	
480-221523-3	HA-08-0-0.2	Total/NA	Solid	3550C	
480-221523-4	HA-08-3.5-4.0	Total/NA	Solid	3550C	
480-221523-5	HA-07-0-0.2	Total/NA	Solid	3550C	
480-221523-6	HA-07-3.0-4.0	Total/NA	Solid	3550C	
MB 480-718244/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-718244/2-A	Lab Control Sample	Total/NA	Solid	3550C	
480-221523-2 MS	HA-01-2.5-3.5-MS	Total/NA	Solid	3550C	
480-221523-2 MSD	HA-01-2.5-3.5-MSD	Total/NA	Solid	3550C	

Analysis Batch: 718396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221523-3	HA-08-0-0.2	Total/NA	Solid	8082A	718244
480-221523-4	HA-08-3.5-4.0	Total/NA	Solid	8082A	718244
480-221523-5	HA-07-0-0.2	Total/NA	Solid	8082A	718244
480-221523-6	HA-07-3.0-4.0	Total/NA	Solid	8082A	718244
MB 480-718244/1-A	Method Blank	Total/NA	Solid	8082A	718244
LCS 480-718244/2-A	Lab Control Sample	Total/NA	Solid	8082A	718244

Analysis Batch: 718529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221523-1	HA-01-0-0.2	Total/NA	Solid	8081B	718243
480-221523-2	HA-01-2.5-3.5	Total/NA	Solid	8081B	718243
480-221523-3	HA-08-0-0.2	Total/NA	Solid	8081B	718243
480-221523-4	HA-08-3.5-4.0	Total/NA	Solid	8081B	718243
480-221523-5	HA-07-0-0.2	Total/NA	Solid	8081B	718243
480-221523-6	HA-07-3.0-4.0	Total/NA	Solid	8081B	718243
MB 480-718243/1-A	Method Blank	Total/NA	Solid	8081B	718243
LCS 480-718243/2-A	Lab Control Sample	Total/NA	Solid	8081B	718243
480-221523-2 MS	HA-01-2.5-3.5-MS	Total/NA	Solid	8081B	718243
480-221523-2 MSD	HA-01-2.5-3.5-MSD	Total/NA	Solid	8081B	718243

Analysis Batch: 718599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221523-1	HA-01-0-0.2	Total/NA	Solid	8082A	718244
480-221523-2	HA-01-2.5-3.5	Total/NA	Solid	8082A	718244
480-221523-2 MS	HA-01-2.5-3.5-MS	Total/NA	Solid	8082A	718244

GC Semi VOA (Continued)

Analysis Batch: 718599 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221523-2 MSD	HA-01-2.5-3.5-MSD	Total/NA	Solid	8082A	718244

LCMS

Prep Batch: 619820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221523-1 - RA	HA-01-0-0.2	Total/NA	Solid	1633 Shake	
480-221523-1	HA-01-0-0.2	Total/NA	Solid	1633 Shake	
MB 240-619820/1-A	Method Blank	Total/NA	Solid	1633 Shake	
LCS 240-619820/3-A	Lab Control Sample	Total/NA	Solid	1633 Shake	
LLCS 240-619820/2-A	Lab Control Sample	Total/NA	Solid	1633 Shake	

Analysis Batch: 619961

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221523-1	HA-01-0-0.2	Total/NA	Solid	1633	619820
MB 240-619820/1-A	Method Blank	Total/NA	Solid	1633	619820
LCS 240-619820/3-A	Lab Control Sample	Total/NA	Solid	1633	619820
LLCS 240-619820/2-A	Lab Control Sample	Total/NA	Solid	1633	619820

Analysis Batch: 620562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221523-1 - RA	HA-01-0-0.2	Total/NA	Solid	1633	619820

Metals

Prep Batch: 718279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221523-1	HA-01-0-0.2	Total/NA	Solid	3050B	
480-221523-2	HA-01-2.5-3.5	Total/NA	Solid	3050B	
480-221523-3	HA-08-0-0.2	Total/NA	Solid	3050B	
480-221523-4	HA-08-3.5-4.0	Total/NA	Solid	3050B	
480-221523-5	HA-07-0-0.2	Total/NA	Solid	3050B	
480-221523-6	HA-07-3.0-4.0	Total/NA	Solid	3050B	
MB 480-718279/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 480-718279/2-A	Lab Control Sample	Total/NA	Solid	3050B	
480-221523-2 MS	HA-01-2.5-3.5-MS	Total/NA	Solid	3050B	
480-221523-2 MSD	HA-01-2.5-3.5-MSD	Total/NA	Solid	3050B	

Prep Batch: 718352

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221523-1	HA-01-0-0.2	Total/NA	Solid	7471B	
480-221523-2	HA-01-2.5-3.5	Total/NA	Solid	7471B	
480-221523-3	HA-08-0-0.2	Total/NA	Solid	7471B	
480-221523-4	HA-08-3.5-4.0	Total/NA	Solid	7471B	
480-221523-5	HA-07-0-0.2	Total/NA	Solid	7471B	
480-221523-6	HA-07-3.0-4.0	Total/NA	Solid	7471B	
MB 480-718352/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 480-718352/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	
480-221523-2 MS	HA-01-2.5-3.5-MS	Total/NA	Solid	7471B	
480-221523-2 MSD	HA-01-2.5-3.5-MSD	Total/NA	Solid	7471B	

QC Association Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221523-1

Metals

Analysis Batch: 718456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221523-1	HA-01-0-0.2	Total/NA	Solid	7471B	718352
480-221523-2	HA-01-2.5-3.5	Total/NA	Solid	7471B	718352
480-221523-3	HA-08-0-0.2	Total/NA	Solid	7471B	718352
480-221523-4	HA-08-3.5-4.0	Total/NA	Solid	7471B	718352
480-221523-5	HA-07-0-0.2	Total/NA	Solid	7471B	718352
480-221523-6	HA-07-3.0-4.0	Total/NA	Solid	7471B	718352
MB 480-718352/1-A	Method Blank	Total/NA	Solid	7471B	718352
LCSSRM 480-718352/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	718352
480-221523-2 MS	HA-01-2.5-3.5-MS	Total/NA	Solid	7471B	718352
480-221523-2 MSD	HA-01-2.5-3.5-MSD	Total/NA	Solid	7471B	718352

Analysis Batch: 718548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221523-1	HA-01-0-0.2	Total/NA	Solid	6010C	718279
480-221523-2	HA-01-2.5-3.5	Total/NA	Solid	6010C	718279
480-221523-3	HA-08-0-0.2	Total/NA	Solid	6010C	718279
480-221523-4	HA-08-3.5-4.0	Total/NA	Solid	6010C	718279
480-221523-5	HA-07-0-0.2	Total/NA	Solid	6010C	718279
480-221523-6	HA-07-3.0-4.0	Total/NA	Solid	6010C	718279
MB 480-718279/1-A	Method Blank	Total/NA	Solid	6010C	718279
LCSSRM 480-718279/2-A	Lab Control Sample	Total/NA	Solid	6010C	718279
480-221523-2 MS	HA-01-2.5-3.5-MS	Total/NA	Solid	6010C	718279
480-221523-2 MSD	HA-01-2.5-3.5-MSD	Total/NA	Solid	6010C	718279

General Chemistry

Analysis Batch: 718331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221523-1	HA-01-0-0.2	Total/NA	Solid	Moisture	
480-221523-2	HA-01-2.5-3.5	Total/NA	Solid	Moisture	
480-221523-3	HA-08-0-0.2	Total/NA	Solid	Moisture	
480-221523-4	HA-08-3.5-4.0	Total/NA	Solid	Moisture	
480-221523-5	HA-07-0-0.2	Total/NA	Solid	Moisture	
480-221523-6	HA-07-3.0-4.0	Total/NA	Solid	Moisture	
480-221523-2 MS	HA-01-2.5-3.5-MS	Total/NA	Solid	Moisture	
480-221523-2 MSD	HA-01-2.5-3.5-MSD	Total/NA	Solid	Moisture	

Prep Batch: 718886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221523-1	HA-01-0-0.2	Total/NA	Solid	9012B	
480-221523-2	HA-01-2.5-3.5	Total/NA	Solid	9012B	
480-221523-3	HA-08-0-0.2	Total/NA	Solid	9012B	
480-221523-4	HA-08-3.5-4.0	Total/NA	Solid	9012B	
480-221523-5	HA-07-0-0.2	Total/NA	Solid	9012B	
480-221523-6	HA-07-3.0-4.0	Total/NA	Solid	9012B	
MB 480-718886/1-A	Method Blank	Total/NA	Solid	9012B	
LCS 480-718886/3-A	Lab Control Sample	Total/NA	Solid	9012B	
LCS 480-718886/4-A	Lab Control Sample	Total/NA	Solid	9012B	
LCSSRM 480-718886/2-A ^1	Lab Control Sample	Total/NA	Solid	9012B	
480-221523-2 MS	HA-01-2.5-3.5-MS	Total/NA	Solid	9012B	
480-221523-2 MSD	HA-01-2.5-3.5-MSD	Total/NA	Solid	9012B	

QC Association Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221523-1

General Chemistry

Analysis Batch: 718934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221523-1	HA-01-0-0.2	Total/NA	Solid	9012B	718886
480-221523-2	HA-01-2.5-3.5	Total/NA	Solid	9012B	718886
480-221523-3	HA-08-0-0.2	Total/NA	Solid	9012B	718886
480-221523-4	HA-08-3.5-4.0	Total/NA	Solid	9012B	718886
480-221523-5	HA-07-0-0.2	Total/NA	Solid	9012B	718886
480-221523-6	HA-07-3.0-4.0	Total/NA	Solid	9012B	718886
MB 480-718886/1-A	Method Blank	Total/NA	Solid	9012B	718886
LCS 480-718886/3-A	Lab Control Sample	Total/NA	Solid	9012B	718886
LCS 480-718886/4-A	Lab Control Sample	Total/NA	Solid	9012B	718886
LCSSRM 480-718886/2-A ^1	Lab Control Sample	Total/NA	Solid	9012B	718886
480-221523-2 MS	HA-01-2.5-3.5-MS	Total/NA	Solid	9012B	718886
480-221523-2 MSD	HA-01-2.5-3.5-MSD	Total/NA	Solid	9012B	718886

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221523-1

Client Sample ID: HA-01-0-0.2

Lab Sample ID: 480-221523-1
Date Collected: 07/10/24 07:40
Matrix: Solid
Date Received: 07/11/24 14:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	718331	AF	EET BUF	07/12/24 14:44

Client Sample ID: HA-01-0-0.2

Lab Sample ID: 480-221523-1
Date Collected: 07/10/24 07:40
Matrix: Solid
Date Received: 07/11/24 14:29
Percent Solids: 43.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			718223	SJM	EET BUF	07/11/24 16:47
Total/NA	Analysis	8270D		10	718283	EMD	EET BUF	07/13/24 00:10
Total/NA	Prep	3550C			718243	SMP	EET BUF	07/12/24 06:39
Total/NA	Analysis	8081B		50	718529	JLS	EET BUF	07/16/24 14:34
Total/NA	Prep	3550C			718244	SMP	EET BUF	07/12/24 06:45
Total/NA	Analysis	8082A		1	718599	H9RU	EET BUF	07/17/24 01:16
Total/NA	Prep	1633 Shake			619820	JVB4	EET CLE	07/15/24 08:23
Total/NA	Analysis	1633		1	619961	MRL	EET CLE	07/16/24 08:57
Total/NA	Prep	1633 Shake	RA		619820	JVB4	EET CLE	07/15/24 08:23
Total/NA	Analysis	1633	RA	1	620562	MRL	EET CLE	07/19/24 21:24
Total/NA	Prep	3050B			718279	ET	EET BUF	07/12/24 12:30
Total/NA	Analysis	6010C		1	718548	NZG	EET BUF	07/15/24 19:25
Total/NA	Prep	7471B			718352	ESB	EET BUF	07/15/24 09:13
Total/NA	Analysis	7471B		1	718456	ESB	EET BUF	07/15/24 11:54
Total/NA	Prep	9012B			718886	AM	EET BUF	07/18/24 12:15
Total/NA	Analysis	9012B		1	718934	AM	EET BUF	07/18/24 16:29

Client Sample ID: HA-01-2.5-3.5

Lab Sample ID: 480-221523-2
Date Collected: 07/10/24 09:30
Matrix: Solid
Date Received: 07/11/24 14:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	718331	AF	EET BUF	07/12/24 14:44

Client Sample ID: HA-01-2.5-3.5

Lab Sample ID: 480-221523-2
Date Collected: 07/10/24 09:30
Matrix: Solid
Date Received: 07/11/24 14:29
Percent Solids: 78.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			718232	CDC	EET BUF	07/11/24 10:00
Total/NA	Analysis	8260C		1	718233	CDC	EET BUF	07/12/24 01:00
Total/NA	Prep	3550C			718223	SJM	EET BUF	07/11/24 16:47
Total/NA	Analysis	8270D		5	718283	EMD	EET BUF	07/12/24 21:39
Total/NA	Prep	3550C			718243	SMP	EET BUF	07/12/24 06:39
Total/NA	Analysis	8081B		20	718529	JLS	EET BUF	07/16/24 14:15
Total/NA	Prep	3550C			718244	SMP	EET BUF	07/12/24 06:45
Total/NA	Analysis	8082A		1	718599	H9RU	EET BUF	07/17/24 02:39

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221523-1

Client Sample ID: HA-01-2.5-3.5

Lab Sample ID: 480-221523-2
Date Collected: 07/10/24 09:30
Matrix: Solid
Date Received: 07/11/24 14:29
Percent Solids: 78.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			718279	ET	EET BUF	07/12/24 12:30
Total/NA	Analysis	6010C		1	718548	NZG	EET BUF	07/15/24 19:27
Total/NA	Prep	7471B			718352	ESB	EET BUF	07/15/24 09:13
Total/NA	Analysis	7471B		1	718456	ESB	EET BUF	07/15/24 11:55
Total/NA	Prep	9012B			718886	AM	EET BUF	07/18/24 12:15
Total/NA	Analysis	9012B		1	718934	AM	EET BUF	07/18/24 16:16

Client Sample ID: HA-08-0-0.2

Lab Sample ID: 480-221523-3
Date Collected: 07/10/24 10:30
Matrix: Solid
Date Received: 07/11/24 14:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	718331	AF	EET BUF	07/12/24 14:44

Client Sample ID: HA-08-0-0.2

Lab Sample ID: 480-221523-3
Date Collected: 07/10/24 10:30
Matrix: Solid
Date Received: 07/11/24 14:29
Percent Solids: 78.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			718223	SJM	EET BUF	07/11/24 16:47
Total/NA	Analysis	8270D		10	718283	EMD	EET BUF	07/13/24 00:39
Total/NA	Prep	3550C			718243	SMP	EET BUF	07/12/24 06:39
Total/NA	Analysis	8081B		20	718529	JLS	EET BUF	07/16/24 14:54
Total/NA	Prep	3550C			718244	SMP	EET BUF	07/12/24 06:45
Total/NA	Analysis	8082A		1	718396	W1T	EET BUF	07/15/24 05:53
Total/NA	Prep	3050B			718279	ET	EET BUF	07/12/24 12:30
Total/NA	Analysis	6010C		1	718548	NZG	EET BUF	07/15/24 19:42
Total/NA	Prep	7471B			718352	ESB	EET BUF	07/15/24 09:13
Total/NA	Analysis	7471B		1	718456	ESB	EET BUF	07/15/24 12:03
Total/NA	Prep	9012B			718886	AM	EET BUF	07/18/24 12:15
Total/NA	Analysis	9012B		1	718934	AM	EET BUF	07/18/24 16:30

Client Sample ID: HA-08-3.5-4.0

Lab Sample ID: 480-221523-4
Date Collected: 07/10/24 10:50
Matrix: Solid
Date Received: 07/11/24 14:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	718331	AF	EET BUF	07/12/24 14:44

Client Sample ID: HA-08-3.5-4.0

Lab Sample ID: 480-221523-4
Date Collected: 07/10/24 10:50
Matrix: Solid
Date Received: 07/11/24 14:29
Percent Solids: 71.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			718232	CDC	EET BUF	07/11/24 10:00
Total/NA	Analysis	8260C		1	718233	CDC	EET BUF	07/12/24 01:23

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221523-1

Client Sample ID: HA-08-3.5-4.0

Lab Sample ID: 480-221523-4

Date Collected: 07/10/24 10:50
Matrix: Solid
Date Received: 07/11/24 14:29
Percent Solids: 71.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			718223	SJM	EET BUF	07/11/24 16:47
Total/NA	Analysis	8270D		1	718283	EMD	EET BUF	07/13/24 01:07
Total/NA	Prep	3550C			718243	SMP	EET BUF	07/12/24 06:39
Total/NA	Analysis	8081B		1	718529	JLS	EET BUF	07/16/24 15:13
Total/NA	Prep	3550C			718244	SMP	EET BUF	07/12/24 06:45
Total/NA	Analysis	8082A		1	718396	W1T	EET BUF	07/15/24 06:10
Total/NA	Prep	3050B			718279	ET	EET BUF	07/12/24 12:30
Total/NA	Analysis	6010C		1	718548	NZG	EET BUF	07/15/24 19:44
Total/NA	Prep	7471B			718352	ESB	EET BUF	07/15/24 09:13
Total/NA	Analysis	7471B		1	718456	ESB	EET BUF	07/15/24 12:04
Total/NA	Prep	9012B			718886	AM	EET BUF	07/18/24 12:15
Total/NA	Analysis	9012B		1	718934	AM	EET BUF	07/18/24 16:32

Client Sample ID: HA-07-0-0.2

Lab Sample ID: 480-221523-5

Date Collected: 07/10/24 12:00
Matrix: Solid
Date Received: 07/11/24 14:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	718331	AF	EET BUF	07/12/24 14:44

Client Sample ID: HA-07-0-0.2

Lab Sample ID: 480-221523-5

Date Collected: 07/10/24 12:00
Matrix: Solid
Date Received: 07/11/24 14:29
Percent Solids: 81.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			718223	SJM	EET BUF	07/11/24 16:47
Total/NA	Analysis	8270D		10	718449	EMD	EET BUF	07/15/24 16:07
Total/NA	Prep	3550C			718243	SMP	EET BUF	07/12/24 06:39
Total/NA	Analysis	8081B		20	718529	JLS	EET BUF	07/16/24 15:33
Total/NA	Prep	3550C			718244	SMP	EET BUF	07/12/24 06:45
Total/NA	Analysis	8082A		1	718396	W1T	EET BUF	07/15/24 06:27
Total/NA	Prep	3050B			718279	ET	EET BUF	07/12/24 12:30
Total/NA	Analysis	6010C		1	718548	NZG	EET BUF	07/15/24 19:46
Total/NA	Prep	7471B			718352	ESB	EET BUF	07/15/24 09:13
Total/NA	Analysis	7471B		1	718456	ESB	EET BUF	07/15/24 12:05
Total/NA	Prep	9012B			718886	AM	EET BUF	07/18/24 12:15
Total/NA	Analysis	9012B		1	718934	AM	EET BUF	07/18/24 16:33

Client Sample ID: HA-07-3.0-4.0

Lab Sample ID: 480-221523-6

Date Collected: 07/10/24 12:20
Matrix: Solid
Date Received: 07/11/24 14:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	718331	AF	EET BUF	07/12/24 14:44

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221523-1

Client Sample ID: HA-07-3.0-4.0

Date Collected: 07/10/24 12:20
Date Received: 07/11/24 14:29

Lab Sample ID: 480-221523-6

Matrix: Solid
Percent Solids: 86.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			718232	CDC	EET BUF	07/11/24 10:00
Total/NA	Analysis	8260C		1	718233	CDC	EET BUF	07/12/24 01:47
Total/NA	Prep	3550C			718223	SJM	EET BUF	07/11/24 16:47
Total/NA	Analysis	8270D		1	718449	EMD	EET BUF	07/15/24 16:36
Total/NA	Prep	3550C			718243	SMP	EET BUF	07/12/24 06:39
Total/NA	Analysis	8081B		1	718529	JLS	EET BUF	07/16/24 15:52
Total/NA	Prep	3550C			718244	SMP	EET BUF	07/12/24 06:45
Total/NA	Analysis	8082A		1	718396	W1T	EET BUF	07/15/24 06:44
Total/NA	Prep	3050B			718279	ET	EET BUF	07/12/24 12:30
Total/NA	Analysis	6010C		1	718548	NZG	EET BUF	07/15/24 19:48
Total/NA	Prep	7471B			718352	ESB	EET BUF	07/15/24 09:13
Total/NA	Analysis	7471B		1	718456	ESB	EET BUF	07/15/24 12:07
Total/NA	Prep	9012B			718886	AM	EET BUF	07/18/24 12:15
Total/NA	Analysis	9012B		1	718934	AM	EET BUF	07/18/24 16:35

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Ashland LLC
Job ID: 480-221523-1
Project/Site: Tank 75 Analysis

Laboratory: Eurofins Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-28-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Method Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221523-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET BUF
8081B	Organochlorine Pesticides (GC)	SW846	EET BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET BUF
1633	Per- and Polyfluoroalkyl Substances by LC/MS/MS	EPA	EET CLE
6010C	Metals (ICP)	SW846	EET BUF
7471B	Mercury (CVAA)	SW846	EET BUF
9012B	Cyanide, Total andor Amenable	SW846	EET BUF
Moisture	Percent Moisture	EPA	EET BUF
1633 Shake	Shake Extraction with SPE	EPA	EET CLE
3050B	Preparation, Metals	SW846	EET BUF
3550C	Ultrasonic Extraction	SW846	EET BUF
5035A_L	Closed System Purge and Trap	SW846	EET BUF
7471B	Preparation, Mercury	SW846	EET BUF
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	EET BUF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221523-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-221523-1	HA-01-0-0.2	Solid	07/10/24 07:40	07/11/24 14:29
480-221523-2	HA-01-2.5-3.5	Solid	07/10/24 09:30	07/11/24 14:29
480-221523-3	HA-08-0-0.2	Solid	07/10/24 10:30	07/11/24 14:29
480-221523-4	HA-08-3.5-4.0	Solid	07/10/24 10:50	07/11/24 14:29
480-221523-5	HA-07-0-0.2	Solid	07/10/24 12:00	07/11/24 14:29
480-221523-6	HA-07-3.0-4.0	Solid	07/10/24 12:20	07/11/24 14:29

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins Environment Testing

Client Information

Client Contact: Ethan Smith	Sampler: E.Smith / C.Hawks / D.Vanmaster	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-197590-40883.2
Company: AECOM	Phone: (716)912-4456	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin:	Page: ~~Page 2 of 11~~ 1 of 1
Address: 50 Lakefront Boulevard Suite 111	PWSID:	Due Date Requested:		Job #: 60730037
City: Buffalo		TAT Requested (days): Standard		
State, Zip: NY, 14202		Compliance Project: Δ Yes Δ No		
Phone: 614-790-2274(Tel) / (716) 912-4456		PO #: 1120269 Task 300		
Email: ethan.smith@aecom.com / edyta.dorantkowska@aecom.com		WO #: Ann.Marie.Kropovitch@aecom.com		
Project Name: Tank 75 - Soil Analysis		Project #: 48027595		
Site: Tank 75 Site - Tonawanda, NY		SSOW#:		

Analysis Requested

Preservation Codes: N - None; A - HCL; D - HNO3; B - NaOH

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL VOCs + TICs	8081B, 8082A, 8270D	6010C, 7471B, 9012B	8270D - TCL SVOCs + 1,4 Dioxane, TICs	1633 - 1633 Standard List	8260C - TCL VOCs + TICs	8270D - TCL SVOCs +TICs	1633_DRAFT_TSS - Percent Suspend Solids PFAS	8082A - TCL PCBs	8081B - TCL Pesticides	6010C, 7470A	9012B_NP - Cyanide, Total	8270D_SIM_MS_ID - 1,4 Dioxane	Total Number of containers	Spec
			Preservation Code:				N	N	N	N	N	A	N	N	N	N	D	B	N		
HA-01-0-0.2	7-10-24	0740	G	Solid				X	X	X	X									5	
HA-01-2.5-3.5	7-10-24	0930	G	Solid			X	X	X											7	
HA-01-2.5-3.5-MS	7-10-24	0930	G	Solid		Y	X	X	X											7	
HA-01-2.5-3.5-MSD	7-10-24	0930	G	Solid		Y	X	X	X											7	
HA-08-0-0.2	7-10-24	1030	G	Solid				X	X											3	
HA-08-3.5-4.0	7-10-24	1050	G	Solid			X	X	X											7	
HA-07-0-0.2	7-10-24	1200	G	Solid				X	X											3	
HA-07-3.0-4.0	7-10-24	1220	G	Solid			X	X	X											7	
				Solid																	
				Solid																	
				Solid																	

480-221523 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 7-10-24 1429	Company: AECOM	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 7/10/24 1429	Company	

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 8.16 #1 ICE

Ver: 04/02/2024

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691 7991

Chain of Custody Record

eurofins Environment Testing

Client Information (Sub Contract Lab)	Sampler	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-88408.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note): NELAP New York		Job #: 480-221523-1
Address: 180 S. Van Buren Avenue,	Due Date Requested: 7/24/2024			
City: Barberton	TAT Requested (days):			
State, Zip: OH, 44203				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

Other

85-35

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633/1633_Shake 1633 Standard List	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
HA-01-0-0.2 (480-221523-1)	7/10/24	07:40 Eastern		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested. I, II, III IV Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Matthew Lwolb	7/12/24 1600	TA	MALISSA LOAR	7-13 24 9:15	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :**
Barberton Facility

Client EDR Buffalo Site Name

Cooler unpacked by: MALISSA LOAR

Cooler Received on 7-13-24 Opened on 7-13-24

FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # 7C Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☒ See Multiple Cooler Form

IR GUN # (CF °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

2	Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity	Yes No
	-Were the seals on the outside of the cooler(s) signed & dated?	Yes No NA
	-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes No
	-Were tamper/custody seals intact and uncompromised?	Yes No NA
3	Shippers' packing slip attached to the cooler(s)?	Yes No
4	Did custody papers accompany the sample(s)?	Yes No
5	Were the custody papers relinquished & signed in the appropriate place?	Yes No
6.	Was/were the person(s) who collected the samples clearly identified on the COC?	Yes No
7	*Did all bottles arrive in good condition (Unbroken)?*	Yes No
8	Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes No
9	For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp(Y/N)?	
10	Were correct bottle(s) used for the test(s) indicated?	Yes No
11	Sufficient quantity received to perform indicated analyses?	Yes No
12	Are these work share samples and all listed on the COC?	Yes No
	If yes, Questions 13-17 have been checked at the originating laboratory	
13	Were all preserved sample(s) at the correct pH upon receipt?	Yes No NA *pH Strip Lot# HC442471*
14	Were VOAs on the COC?	Yes No
15	Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes No NA
16	Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes No
17	Was a LL Hg or Me Hg trip blank present?	Yes No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19 SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.

Sample(s) were received in a broken container

Sample(s) *were received with bubble >6 mm in diameter (Notify PM)*

20 SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory

Time preserved Preservative(s) added/Lot number(s).

VOA Sample Preservation - Date/Time VOAs Frozen.

Login # . ____________

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
[✓ EC] Client Box Other	IR GUN #: 22	2.4	2.3	[✓ Wet Ice] Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______	2.6	2.5	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None

☐ See Temperature Excursion Form

WI-NC-099 Cooler Receipt Form Page 2 – Multiple Coolers

SAMPLE CONTROL
EUROFINS ENVIRONMENT TESTING
10 HAZELWOOD DRIVE

BUFFALO, NY 142282223
UNITED STATES US

ACTWGT 45.25 LB
CAD 0759273/CAFE3808
DIMS 26x15x14 IN

BILL SENDER

TO SAMPLE RECEIPT
EUROFINS CLEVELAND
180 S VAN BUREN AVE

BARBERTON OH 442033543
(330) 497-9396
REF: BARBERTON

FedEx Express

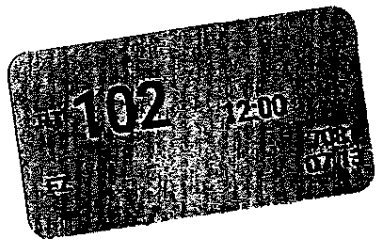
2 of 2
MPS# 0263 7117 9321 7081
Mstr# 7117 9321 7070

SATURDAY 12:00P
PRIORITY OVERNIGHT

0201

XO CAKA

44203
OH-US CLE



Login Sample Receipt Checklist

Client: Ashland LLC

Job Number: 480-221523-1

Login Number: 221523
List Number: 1
Creator: Wallace, Cameron

List Source: Eurofins Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	FREEZE TIME 7/11/24 10:00
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Shannon Lloyd
Ashland LLC
PO BOX 2219
Columbus, Ohio 43216

Generated 7/29/2024 12:35:24 PM

JOB DESCRIPTION

Tank 75 Analysis

JOB NUMBER

480-221553-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

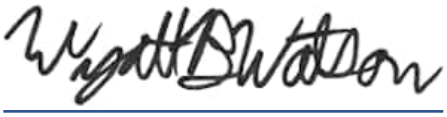
See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

Authorization



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7/29/2024 12:35:24 PM

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Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS VOA TICs

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
J	Indicates an Estimated Value for TICs
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
E	Result exceeded calibration range.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

GC/MS Semi VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

LCMS

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Qualifiers (Continued)

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
480-221553-1

Receipt
The samples were received on 7/12/2024 5:50 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 3.9º C, 4.3º C, 4.7º C, 5.1º C and 5.2º C.

GC/MS VOA
Method 8260C: Due to the coelution of Ethyl Acetate with 2-Butanone in the full spike solution, these analytes exceeded control limits in the laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) associated with batch 480-718296 . The following sample was affected : RB-07112024 (480-221553-17).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-718389 recovered above the upper control limit for 1,1,1-Trichloroethane, Carbon tetrachloride, Dibromochloromethane, Chloromethane, Dichlorodifluoromethane, Trichlorofluoromethane and Vinyl chloride. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: SB-01-26.0-31.7 (480-221553-1), HA-06-3.0-4.0 (480-221553-3), HA-06-3.0-4.0-FD (480-221553-4), HA-05-3.0-4.0 (480-221553-6) and HA-04-1.3-1.5 (480-221553-9).

Method 8260C: The following samples were analyzed using medium level soil analysis and diluted due to the abundance of non-target analytes: HA-03-2.3-2.5 (480-221553-11) and HA-02-3.0-4.0 (480-221553-13). Elevated reporting limits (RLs) are provided.

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-718408 recovered outside acceptance criteria, low biased, for 1,1,2,2-Tetrachloroethane, Methyl tert-butyl ether, and 1,2,4-Trichlorobenzene. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported. The associated samples are impacted: HA-03-2.3-2.5 (480-221553-11) and HA-02-3.0-4.0 (480-221553-13).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-718659 recovered above the upper control limit for Carbon tetrachloride. The sample(s) associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The associated sample is impacted: HA-02-3.0-4.0-FD (480-221553-14).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-718794 recovered above the upper control limit for Carbon tetrachloride. The sample(s) associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: SB-01-43.0-45.0 (480-221553-15).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method 8270D: The continuing calibration verification (CCV) associated with batch 480-718502 recovered above the upper control limit for 2,4-Dimethylphenol and Hexachlorocyclopentadiene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: RB-07112024 (480-221553-17).

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-718502 recovered outside acceptance criteria, low biased, for 3-Nitroaniline. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D: Surrogate recovery for the following samples were outside control limits: HA-04-0.0-0.2 (480-221553-7), HA-04-0.0-0.2-FD (480-221553-8), HA-04-1.3-1.5 (480-221553-9), HA-03-0.0-0.2 (480-221553-10), HA-03-2.3-2.5 (480-221553-11), HA-02-0.0-0.2 (480-221553-12) and SB-04-0.0-0.2 (480-221553-16). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8270D: The following samples were diluted due to color, appearance and viscosity: HA-06-0.0-0.2 (480-221553-2), HA-05-0.0-0.2 (480-221553-5), HA-04-0.0-0.2 (480-221553-7), HA-04-0.0-0.2-FD (480-221553-8), HA-04-1.3-1.5 (480-221553-9), HA-03-0.0-0.2 (480-221553-10), HA-03-2.3-2.5 (480-221553-11), HA-02-0.0-0.2 (480-221553-12) and SB-04-0.0-0.2 (480-221553-16). Elevated reporting limits (RL) are provided.

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-718990 recovered above the upper control limit for multiple analytes. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: SB-01-26.0-31.7 (480-221553-1), HA-06-0.0-0.2 (480-221553-2), HA-06-3.0-4.0 (480-221553-3), HA-06-3.0-4.0-FD (480-221553-4), HA-05-0.0-0.2 (480-221553-5), HA-05-3.0-4.0 (480-221553-6), HA-04-0.0-0.2 (480-221553-7), HA-04-0.0-0.2-FD (480-221553-8), HA-04-1.3-1.5 (480-221553-9), HA-03-0.0-0.2 (480-221553-10), HA-03-2.3-2.5 (480-221553-11), HA-02-0.0-0.2 (480-221553-12), HA-02-3.0-4.0 (480-221553-13), HA-02-3.0-4.0-FD

(480-221553-14) and SB-04-0.0-0.2 (480-221553-16).

Method 8270D: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 480-718403 and analytical batch 480-718990 recovered outside control limits for the following analytes: 2,4-Dimethylphenol, Diethyl phthalate and Fluorene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The following compounds have been spiked at level above the upper range of the initial calibration: Atrazine. The laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) recovered within acceptable limits for these analytes and have been qualified with an "E" flag. (LCS 480-718403/2-A) .

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-718990 recovered above the upper control limit for multiple analytes. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: SB-01-43.0-45.0 (480-221553-15).

Method 8270D: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 480-718403 and analytical batch 480-718990 recovered outside control limits for the following analytes: 2,4-Dimethylphenol, Diethyl phthalate and Fluorene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method 8081B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 480-718399 and analytical batch 480-718531 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits. HA-05-3.0-4.0 (480-221553-6)

Method 8081B: The following samples were diluted due to the nature of the sample matrix: HA-06-0.0-0.2 (480-221553-2), HA-05-0.0-0.2 (480-221553-5), HA-04-0.0-0.2 (480-221553-7), HA-04-0.0-0.2-FD (480-221553-8), HA-04-1.3-1.5 (480-221553-9), HA-03-0.0-0.2 (480-221553-10), HA-03-2.3-2.5 (480-221553-11), HA-02-0.0-0.2 (480-221553-12) and SB-04-0.0-0.2 (480-221553-16). As such, surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method 8081B: The laboratory control sample duplicate (LCSD) for preparation batch 480-718568 and analytical batch 480-718688 recovered outside control limits for the following analytes: 4,4'-DDT. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

Method 8081B: The method blank for preparation batch 480-718568 and analytical batch 480-718688 contained alpha-BHC and gamma-BHC (Lindane) above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8082A: For method 8082, the recovery of the one surrogate in samples SB-04-0.0-0.2 (480-221553-16) exceeds quality control limits due to the sample matrix. The recovery of the secondary surrogate is within quality control criteria; no corrective action is required.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method 6010C: The low level continuing calibration verification (CCVL) associated with batch 480-718597 recovered above the upper control limit for potassium. The samples associated with this CCVL were non-detects for the affected analytes; therefore, the data have been reported.

Method 6010C: The low level continuing calibration verification (CCVL) associated with batch 480-718597 recovered above the upper control limit for Potassium. The samples associated with this CCVL were 10x for the affected analytes; therefore, the data have been reported.

Method 6010C: The method blank for preparation batch 480-718289 and analytical batch 480-718597 contained Aluminum and Iron above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method 6010C: The low level continuing calibration verification (CCVL) associated with batch 480-718597 recovered above the upper control limit for lead. The samples associated with this CCVL were 10x for the affected analytes; therefore, the data have been reported.

Method 6010C: The low level continuing calibration verification (CCVL) associated with batch 480-718628 recovered above the upper control limit for Zinc. The samples associated with this CCVL were 10x for the affected analytes; therefore, the data have been reported.

Method 6010C: The low level continuing calibration verification (CCVL) associated with batch 480-718628 recovered above the upper control limit for Zinc. The samples associated with this CCVL were non-detects for the affected analytes; therefore, the data have been reported.

Method 6010C: The low level continuing calibration verification (CCVL) associated with batch 480-718734 recovered above the upper control limit for Lead.The samples associated with this CCVL were non-detects for the affected analytes; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

LCMS

Method 1633: The low level continuing calibration verification (CCVL) associated with batch 240-619841 recovered above the upper control limit for 3-Perfluoropropylpropanoic acid (3:3 FTCA). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 1633: The low level continuing calibration verification (CCVL) associated with batch 240-619841 recovered outside of control limits for IDA compound(s) d9-N-EtFOSE-M. Section 14.3.3 of the finalized EPA 1633 states that the recovery of target analytes for the CCV(s) must be within 70 - 130%, unless the analyte is not of concern for a given project. Since target analytes associated with this IDA are within spec, data is reported.

Method 1633: The continuing calibration verification (CCV) associated with batch 240-619841 recovered above the upper control limit for 3-Perfluoropropylpropanoic acid (3:3 FTCA). The samples associated with this CCV were below the reporting limit for the affected analytes; therefore, the data have been reported.

Method 1633: The laboratory control sample (LCS) for preparation batch 240-619819 and analytical batch 240-619841 recovered outside control limits for the following analytes: 3-Perfluoropropylpropanoic acid (3:3 FTCA). These analytes were biased high in the LCS and were below the reporting limit in the associated samples; therefore, the data have been reported.

Method 1633: The continuing calibration verification (CCV) associated with batch 240-619841 recovered above the upper control limit for Perfluorotridecanoic acid (PFTrDA) and 3-Perfluoropropylpropanoic acid (3:3 FTCA). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 1633: The continuing calibration verification (CCV) recovered outside of control limits for IDA compound(s) 13C2 PFTeDA. Section 14.3.3 of the finalized EPA 1633 states that the recovery of target analytes for the CCV(s) must be within 70 - 130%, unless the analyte is not of concern for a given project. Since target analytes associated with this IDA are within spec, data is reported. The following sample is impacted: RB-07112024 (480-221553-17).

Method 1633: The low level continuing calibration verification (CCVL) associated with batch 240-619961 recovered above the upper control limit for 3-Perfluoropropylpropanoic acid (3:3 FTCA). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 1633: The continuing calibration verification (CCV) recovered outside of control limits for IDA compound(s) 13C8 FOSA. Section 14.3.3 of the finalized EPA 1633 states that the recovery of target analytes for the CCV(s) must be within 70 - 130%, unless the analyte is not of concern for a given project. Since target analytes associated with this IDA are within spec, data is reported. The following samples are impacted: SB-01-26.0-31.7 (480-221553-1) and HA-05-3.0-4.0 (480-221553-6).

Method 1633: The low level laboratory control sample (LLCS) for preparation batch 240-619820 and analytical batch 240-619961 recovered outside control limits for the following analytes: 3-Perfluoropropylpropanoic acid (3:3 FTCA). These analytes were biased high in the LLCS and were not detected in the associated samples; therefore, the data have been reported.

Method 1633: The laboratory control sample (LCS) for preparation batch 240-619820 and analytical batch 240-619961 recovered outside control limits for the following analytes: 3-Perfluoropropylpropanoic acid (3:3 FTCA). These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 1633: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 240-619820 and analytical batch 240-619961 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample duplicate (LCS) precision was within acceptance limits.

Method 1633: The following sample was collected in an improper container: RB-07112024 (480-221553-17). Laboratory proceed with analysis.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method 3550C: Due to the matrix, the initial volume(s) used for the following sample deviated from the standard procedure: HA-03-2.3-2.5 (480-221553-11). The reporting limits (RLs) have been adjusted proportionately.

Method 3550C: Due to the matrix, the initial volume(s) used for the following samples deviated from the standard procedure: HA-04-1.3-1.5 (480-221553-9), HA-03-0.0-0.2 (480-221553-10) and HA-03-2.3-2.5 (480-221553-11). The reporting limits (RLs) have been adjusted proportionately.

Method 3550C: The following samples required a Florisil clean-up, via EPA Method3620C, to reduce matrix interferences: HA-06-0.0-0.2 (480-221553-2), HA-05-0.0-0.2 (480-221553-5), HA-05-3.0-4.0 (480-221553-6), HA-05-3.0-4.0-MS (480-221553-6[MS]), HA-05-3.0-4.0-MSD (480-221553-6[MSD]), HA-04-0.0-0.2 (480-221553-7), HA-04-0.0-0.2-FD (480-221553-8), HA-04-1.3-1.5 (480-221553-9), HA-03-0.0-0.2 (480-221553-10), HA-03-2.3-2.5 (480-221553-11), HA-02-0.0-0.2 (480-221553-12) and SB-04-0.0-0.2 (480-221553-16).

Method 3550C: Due to the matrix, the following samples could not be concentrated to the final method required volume: HA-04-0.0-0.2 (480-221553-7), HA-04-0.0-0.2-FD (480-221553-8), HA-04-1.3-1.5 (480-221553-9), HA-03-0.0-0.2 (480-221553-10), HA-03-2.3-2.5 (480-221553-11), HA-02-0.0-0.2 (480-221553-12) and SB-04-0.0-0.2 (480-221553-16). The reporting limits (RLs) are elevated proportionately.

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-718568.

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-718610.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221553-1

Client Sample ID: SB-01-26.0-31.7 — Lab Sample ID: 480-221553-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	10	J	19	3.2	ug/Kg	1	☼	8260C	Total/NA
Aluminum	19700	B	12.4	10.7	mg/Kg	1	☼	6010C	Total/NA
Arsenic	3.7		2.5	1.1	mg/Kg	1	☼	6010C	Total/NA
Barium	120		0.62	0.17	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.88		0.25	0.050	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.18	J	0.25	0.087	mg/Kg	1	☼	6010C	Total/NA
Calcium	44400	B	61.9	33.4	mg/Kg	1	☼	6010C	Total/NA
Chromium	27.6		0.62	0.45	mg/Kg	1	☼	6010C	Total/NA
Cobalt	11.9		0.62	0.12	mg/Kg	1	☼	6010C	Total/NA
Copper	18.4	B	1.2	0.71	mg/Kg	1	☼	6010C	Total/NA
Iron	20900	B	12.4	10.5	mg/Kg	1	☼	6010C	Total/NA
Lead	10.0	B	1.2	0.57	mg/Kg	1	☼	6010C	Total/NA
Magnesium	14800	B	24.8	10.5	mg/Kg	1	☼	6010C	Total/NA
Manganese	515	B	1.2	0.35	mg/Kg	1	☼	6010C	Total/NA
Nickel	28.4		6.2	0.31	mg/Kg	1	☼	6010C	Total/NA
Potassium	6530	^+	37.2	30.0	mg/Kg	1	☼	6010C	Total/NA
Silver	0.37	J	0.74	0.25	mg/Kg	1	☼	6010C	Total/NA
Sodium	340		173	75.9	mg/Kg	1	☼	6010C	Total/NA
Vanadium	38.3		0.62	0.16	mg/Kg	1	☼	6010C	Total/NA
Zinc	54.1		2.5	1.3	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.020	J	0.026	0.0061	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: HA-06-0.0-0.2 — Lab Sample ID: 480-221553-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[g,h,i]perylene	130	J	1100	110	ug/Kg	5	☼	8270D	Total/NA
Aluminum	19600	B	13.3	11.5	mg/Kg	1	☼	6010C	Total/NA
Arsenic	4.1		2.7	1.2	mg/Kg	1	☼	6010C	Total/NA
Barium	122		0.66	0.19	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.88		0.27	0.053	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.27		0.27	0.093	mg/Kg	1	☼	6010C	Total/NA
Calcium	52100	B	66.4	35.9	mg/Kg	1	☼	6010C	Total/NA
Chromium	27.4		0.66	0.48	mg/Kg	1	☼	6010C	Total/NA
Cobalt	11.8		0.66	0.13	mg/Kg	1	☼	6010C	Total/NA
Copper	23.0	B	1.3	0.76	mg/Kg	1	☼	6010C	Total/NA
Iron	21000	B	13.3	11.3	mg/Kg	1	☼	6010C	Total/NA
Lead	39.7	B	1.3	0.61	mg/Kg	1	☼	6010C	Total/NA
Magnesium	16100	B	26.6	11.3	mg/Kg	1	☼	6010C	Total/NA
Manganese	552	B	1.3	0.37	mg/Kg	1	☼	6010C	Total/NA
Nickel	30.3		6.6	0.33	mg/Kg	1	☼	6010C	Total/NA
Potassium	6080		39.9	32.2	mg/Kg	1	☼	6010C	Total/NA
Silver	0.38	J	0.80	0.27	mg/Kg	1	☼	6010C	Total/NA
Sodium	274		186	81.4	mg/Kg	1	☼	6010C	Total/NA
Vanadium	44.1		0.66	0.17	mg/Kg	1	☼	6010C	Total/NA
Zinc	75.3		2.7	1.4	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.024	J	0.026	0.0060	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: HA-06-3.0-4.0 — Lab Sample ID: 480-221553-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	15500	B	12.4	10.7	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.79	J	18.7	0.66	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Client Sample ID: HA-06-3.0-4.0 (Continued) — Lab Sample ID: 480-221553-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.8		2.5	1.1	mg/Kg	1	☼	6010C	Total/NA
Barium	90.1		0.62	0.17	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.70		0.25	0.050	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.14	J	0.25	0.087	mg/Kg	1	☼	6010C	Total/NA
Calcium	38100	B	62.2	33.6	mg/Kg	1	☼	6010C	Total/NA
Chromium	18.9		0.62	0.45	mg/Kg	1	☼	6010C	Total/NA
Cobalt	7.2		0.62	0.12	mg/Kg	1	☼	6010C	Total/NA
Copper	16.8	B	1.2	0.71	mg/Kg	1	☼	6010C	Total/NA
Iron	17500	B	12.4	10.6	mg/Kg	1	☼	6010C	Total/NA
Lead	14.3	B	1.2	0.57	mg/Kg	1	☼	6010C	Total/NA
Magnesium	12400	B	24.9	10.6	mg/Kg	1	☼	6010C	Total/NA
Manganese	360	B	1.2	0.35	mg/Kg	1	☼	6010C	Total/NA
Nickel	19.4		6.2	0.31	mg/Kg	1	☼	6010C	Total/NA
Potassium	4450		37.3	30.2	mg/Kg	1	☼	6010C	Total/NA
Silver	0.34	J	0.75	0.25	mg/Kg	1	☼	6010C	Total/NA
Sodium	276		174	76.3	mg/Kg	1	☼	6010C	Total/NA
Vanadium	32.1		0.62	0.16	mg/Kg	1	☼	6010C	Total/NA
Zinc	44.8		2.5	1.3	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.010	J	0.026	0.0059	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: HA-06-3.0-4.0-FD — Lab Sample ID: 480-221553-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.2	J	17	2.9	ug/Kg	1	☼	8260C	Total/NA
Aluminum	16700	B	12.5	10.8	mg/Kg	1	☼	6010C	Total/NA
Arsenic	2.4	J	2.5	1.1	mg/Kg	1	☼	6010C	Total/NA
Barium	133		0.62	0.17	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.73		0.25	0.050	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.16	J	0.25	0.087	mg/Kg	1	☼	6010C	Total/NA
Calcium	42900	B	62.5	33.7	mg/Kg	1	☼	6010C	Total/NA
Chromium	20.6		0.62	0.45	mg/Kg	1	☼	6010C	Total/NA
Cobalt	9.8		0.62	0.12	mg/Kg	1	☼	6010C	Total/NA
Copper	16.3	B	1.2	0.71	mg/Kg	1	☼	6010C	Total/NA
Iron	18000	B	12.5	10.6	mg/Kg	1	☼	6010C	Total/NA
Lead	11.8	B	1.2	0.57	mg/Kg	1	☼	6010C	Total/NA
Magnesium	13200	B	25.0	10.6	mg/Kg	1	☼	6010C	Total/NA
Manganese	511	B	1.2	0.35	mg/Kg	1	☼	6010C	Total/NA
Nickel	23.3		6.2	0.31	mg/Kg	1	☼	6010C	Total/NA
Potassium	4840		37.5	30.3	mg/Kg	1	☼	6010C	Total/NA
Silver	0.34	J	0.75	0.25	mg/Kg	1	☼	6010C	Total/NA
Sodium	277		175	76.6	mg/Kg	1	☼	6010C	Total/NA
Vanadium	32.6		0.62	0.16	mg/Kg	1	☼	6010C	Total/NA
Zinc	48.5		2.5	1.3	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.011	J	0.024	0.0055	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: HA-05-0.0-0.2 — Lab Sample ID: 480-221553-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	180	J	1100	110	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]pyrene	220	J	1100	160	ug/Kg	5	☼	8270D	Total/NA
Benzo[b]fluoranthene	300	J	1100	180	ug/Kg	5	☼	8270D	Total/NA
Benzo[g,h,i]perylene	210	J	1100	120	ug/Kg	5	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HA-05-0.0-0.2 (Continued)

Lab Sample ID: 480-221553-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[k]fluoranthene	160	J	1100	140	ug/Kg	5	☼	8270D	Total/NA
Fluoranthene	690	J	1100	120	ug/Kg	5	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	160	J	1100	140	ug/Kg	5	☼	8270D	Total/NA
Phenanthrene	170	J	1100	160	ug/Kg	5	☼	8270D	Total/NA
Pyrene	450	J	1100	130	ug/Kg	5	☼	8270D	Total/NA
Aluminum	14500	B	13.3	11.5	mg/Kg	1	☼	6010C	Total/NA
Arsenic	4.4		2.7	1.2	mg/Kg	1	☼	6010C	Total/NA
Barium	115		0.67	0.19	mg/Kg	1	☼	6010C	Total/NA
Beryllium	2.4		0.27	0.053	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.24	J	0.27	0.093	mg/Kg	1	☼	6010C	Total/NA
Calcium	61700	B	66.7	36.0	mg/Kg	1	☼	6010C	Total/NA
Chromium	13.5		0.67	0.48	mg/Kg	1	☼	6010C	Total/NA
Cobalt	6.7		0.67	0.13	mg/Kg	1	☼	6010C	Total/NA
Copper	14.0	B	1.3	0.76	mg/Kg	1	☼	6010C	Total/NA
Iron	11700	B	13.3	11.3	mg/Kg	1	☼	6010C	Total/NA
Lead	41.1	B	1.3	0.61	mg/Kg	1	☼	6010C	Total/NA
Magnesium	19700	B	26.7	11.3	mg/Kg	1	☼	6010C	Total/NA
Manganese	769	B	1.3	0.37	mg/Kg	1	☼	6010C	Total/NA
Nickel	17.6		6.7	0.33	mg/Kg	1	☼	6010C	Total/NA
Potassium	2370		40.0	32.3	mg/Kg	1	☼	6010C	Total/NA
Sodium	471		187	81.7	mg/Kg	1	☼	6010C	Total/NA
Vanadium	15.8		0.67	0.17	mg/Kg	1	☼	6010C	Total/NA
Zinc	75.1		2.7	1.4	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.069		0.025	0.0059	mg/Kg	1	☼	7471B	Total/NA
Cyanide, Total	4.7		1.1	0.54	mg/Kg	1	☼	9012B	Total/NA

Client Sample ID: HA-05-3.0-4.0

Lab Sample ID: 480-221553-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDT	0.61	J	2.0	0.47	ug/Kg	1	☼	8081B	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.089	J	0.20	0.050	ug/Kg	1	☼	1633	Total/NA
Aluminum	26900	B	12.1	10.4	mg/Kg	1	☼	6010C	Total/NA
Arsenic	4.1	F1	2.4	1.1	mg/Kg	1	☼	6010C	Total/NA
Barium	162		0.60	0.17	mg/Kg	1	☼	6010C	Total/NA
Beryllium	2.0		0.24	0.048	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.20	J	0.24	0.085	mg/Kg	1	☼	6010C	Total/NA
Calcium	27500	B F2	60.4	32.6	mg/Kg	1	☼	6010C	Total/NA
Chromium	28.3		0.60	0.44	mg/Kg	1	☼	6010C	Total/NA
Cobalt	14.9		0.60	0.12	mg/Kg	1	☼	6010C	Total/NA
Copper	14.9	B	1.2	0.69	mg/Kg	1	☼	6010C	Total/NA
Iron	20500	B	12.1	10.3	mg/Kg	1	☼	6010C	Total/NA
Lead	15.1	B	1.2	0.56	mg/Kg	1	☼	6010C	Total/NA
Magnesium	9980	B	24.2	10.3	mg/Kg	1	☼	6010C	Total/NA
Manganese	512	B	1.2	0.34	mg/Kg	1	☼	6010C	Total/NA
Nickel	32.1		6.0	0.30	mg/Kg	1	☼	6010C	Total/NA
Potassium	4880	F1	36.3	29.3	mg/Kg	1	☼	6010C	Total/NA
Silver	0.34	J	0.73	0.24	mg/Kg	1	☼	6010C	Total/NA
Sodium	277		169	74.1	mg/Kg	1	☼	6010C	Total/NA
Vanadium	41.0		0.60	0.16	mg/Kg	1	☼	6010C	Total/NA
Zinc	59.6		2.4	1.2	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.010	J	0.023	0.0053	mg/Kg	1	☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221553-1

Client Sample ID: HA-04-0.0-0.2 — Lab Sample ID: 480-221553-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	0.38		0.27	0.13	mg/Kg	1	☼	8082A	Total/NA
Aluminum	24700	B	12.8	11.1	mg/Kg	1	☼	6010C	Total/NA
Antimony	1.3	J	19.3	0.68	mg/Kg	1	☼	6010C	Total/NA
Arsenic	7.1		2.6	1.1	mg/Kg	1	☼	6010C	Total/NA
Barium	154		0.64	0.18	mg/Kg	1	☼	6010C	Total/NA
Beryllium	1.3		0.26	0.051	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.94		0.26	0.090	mg/Kg	1	☼	6010C	Total/NA
Calcium	33300	B	64.2	34.7	mg/Kg	1	☼	6010C	Total/NA
Chromium	38.3		0.64	0.46	mg/Kg	1	☼	6010C	Total/NA
Cobalt	14.6		0.64	0.13	mg/Kg	1	☼	6010C	Total/NA
Copper	39.9	B	1.3	0.73	mg/Kg	1	☼	6010C	Total/NA
Iron	27500	B	12.8	10.9	mg/Kg	1	☼	6010C	Total/NA
Lead	61.7	B	1.3	0.59	mg/Kg	1	☼	6010C	Total/NA
Magnesium	10900	B	25.7	10.9	mg/Kg	1	☼	6010C	Total/NA
Manganese	832	B	1.3	0.36	mg/Kg	1	☼	6010C	Total/NA
Nickel	38.6		6.4	0.32	mg/Kg	1	☼	6010C	Total/NA
Potassium	5330		38.5	31.1	mg/Kg	1	☼	6010C	Total/NA
Silver	0.28	J	0.77	0.26	mg/Kg	1	☼	6010C	Total/NA
Sodium	266		180	78.8	mg/Kg	1	☼	6010C	Total/NA
Vanadium	55.6		0.64	0.17	mg/Kg	1	☼	6010C	Total/NA
Zinc	166		2.6	1.3	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.10		0.025	0.0058	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: HA-04-0.0-0.2-FD — Lab Sample ID: 480-221553-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	0.25	J	0.27	0.13	mg/Kg	1	☼	8082A	Total/NA
Aluminum	19900	B	12.9	11.1	mg/Kg	1	☼	6010C	Total/NA
Antimony	1.9	J	19.4	0.69	mg/Kg	1	☼	6010C	Total/NA
Arsenic	7.6		2.6	1.1	mg/Kg	1	☼	6010C	Total/NA
Barium	132		0.65	0.18	mg/Kg	1	☼	6010C	Total/NA
Beryllium	1.3		0.26	0.052	mg/Kg	1	☼	6010C	Total/NA
Cadmium	1.1		0.26	0.091	mg/Kg	1	☼	6010C	Total/NA
Calcium	19100	B	64.6	34.9	mg/Kg	1	☼	6010C	Total/NA
Chromium	41.1		0.65	0.47	mg/Kg	1	☼	6010C	Total/NA
Cobalt	12.6		0.65	0.13	mg/Kg	1	☼	6010C	Total/NA
Copper	43.9	B	1.3	0.74	mg/Kg	1	☼	6010C	Total/NA
Iron	26400	B	12.9	11.0	mg/Kg	1	☼	6010C	Total/NA
Lead	72.1	B	1.3	0.59	mg/Kg	1	☼	6010C	Total/NA
Magnesium	10800	B	25.9	11.0	mg/Kg	1	☼	6010C	Total/NA
Manganese	567	B	1.3	0.36	mg/Kg	1	☼	6010C	Total/NA
Nickel	36.9		6.5	0.32	mg/Kg	1	☼	6010C	Total/NA
Potassium	4150		38.8	31.3	mg/Kg	1	☼	6010C	Total/NA
Sodium	280		181	79.3	mg/Kg	1	☼	6010C	Total/NA
Vanadium	50.9		0.65	0.17	mg/Kg	1	☼	6010C	Total/NA
Zinc	190		2.6	1.3	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.079		0.025	0.0058	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: HA-04-1.3-1.5 — Lab Sample ID: 480-221553-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	12	J	24	1.8	ug/Kg	1	☼	8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Client Sample ID: HA-04-1.3-1.5 (Continued)

Lab Sample ID: 480-221553-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	61		24	4.0	ug/Kg	1	☼	8260C	Total/NA
Benzene	2.2	J	4.8	0.24	ug/Kg	1	☼	8260C	Total/NA
Cyclohexane	1.2	J	4.8	0.67	ug/Kg	1	☼	8260C	Total/NA
Ethylbenzene	0.73	J	4.8	0.33	ug/Kg	1	☼	8260C	Total/NA
Methylcyclohexane	2.1	J	4.8	0.73	ug/Kg	1	☼	8260C	Total/NA
Toluene	1.5	J	4.8	0.36	ug/Kg	1	☼	8260C	Total/NA
Xylenes, Total	8.6	J	9.6	0.81	ug/Kg	1	☼	8260C	Total/NA
Pyrene	6100	J	41000	4800	ug/Kg	10	☼	8270D	Total/NA
4,4'-DDT	33	J	100	24	ug/Kg	50	☼	8081B	Total/NA
Endrin aldehyde	30	J	100	26	ug/Kg	50	☼	8081B	Total/NA
Aluminum	21400	B	11.7	10.1	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.82	J	17.6	0.62	mg/Kg	1	☼	6010C	Total/NA
Arsenic	3.3		2.3	1.0	mg/Kg	1	☼	6010C	Total/NA
Barium	138		0.59	0.16	mg/Kg	1	☼	6010C	Total/NA
Beryllium	1.2		0.23	0.047	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.71		0.23	0.082	mg/Kg	1	☼	6010C	Total/NA
Calcium	16900	B	58.5	31.6	mg/Kg	1	☼	6010C	Total/NA
Chromium	25.8		0.59	0.42	mg/Kg	1	☼	6010C	Total/NA
Cobalt	12.9		0.59	0.12	mg/Kg	1	☼	6010C	Total/NA
Copper	26.2	B	1.2	0.67	mg/Kg	1	☼	6010C	Total/NA
Iron	21000	B	11.7	9.9	mg/Kg	1	☼	6010C	Total/NA
Lead	27.9	B	1.2	0.54	mg/Kg	1	☼	6010C	Total/NA
Magnesium	7720	B	23.4	9.9	mg/Kg	1	☼	6010C	Total/NA
Manganese	617	B	1.2	0.33	mg/Kg	1	☼	6010C	Total/NA
Nickel	30.3		5.9	0.29	mg/Kg	1	☼	6010C	Total/NA
Potassium	3840		35.1	28.4	mg/Kg	1	☼	6010C	Total/NA
Silver	0.36	J	0.70	0.23	mg/Kg	1	☼	6010C	Total/NA
Sodium	127	J	164	71.7	mg/Kg	1	☼	6010C	Total/NA
Vanadium	39.0		0.59	0.15	mg/Kg	1	☼	6010C	Total/NA
Zinc	105		2.3	1.2	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.053		0.025	0.0057	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: HA-03-0.0-0.2

Lab Sample ID: 480-221553-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	16700	B	11.0	9.5	mg/Kg	1	☼	6010C	Total/NA
Antimony	2.6	J	16.5	0.58	mg/Kg	1	☼	6010C	Total/NA
Arsenic	14.0		2.2	0.97	mg/Kg	1	☼	6010C	Total/NA
Barium	118		0.55	0.15	mg/Kg	1	☼	6010C	Total/NA
Beryllium	2.2		0.22	0.044	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.74		0.22	0.077	mg/Kg	1	☼	6010C	Total/NA
Calcium	29400	B	54.8	29.6	mg/Kg	1	☼	6010C	Total/NA
Chromium	35.0		0.55	0.39	mg/Kg	1	☼	6010C	Total/NA
Cobalt	11.6		0.55	0.11	mg/Kg	1	☼	6010C	Total/NA
Copper	46.4	B	1.1	0.63	mg/Kg	1	☼	6010C	Total/NA
Iron	25400	B	11.0	9.3	mg/Kg	1	☼	6010C	Total/NA
Lead	54.9	B	1.1	0.50	mg/Kg	1	☼	6010C	Total/NA
Magnesium	11400	B	21.9	9.3	mg/Kg	1	☼	6010C	Total/NA
Manganese	387	B	1.1	0.31	mg/Kg	1	☼	6010C	Total/NA
Nickel	40.1		5.5	0.27	mg/Kg	1	☼	6010C	Total/NA
Potassium	2960		32.9	26.6	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HA-03-0.0-0.2 (Continued)

Lab Sample ID: 480-221553-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Silver	0.23	J	0.66	0.22	mg/Kg	1	☼	6010C	Total/NA
Sodium	326		154	67.2	mg/Kg	1	☼	6010C	Total/NA
Vanadium	47.1		0.55	0.14	mg/Kg	1	☼	6010C	Total/NA
Zinc	159		2.2	1.1	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.062		0.022	0.0051	mg/Kg	1	☼	7471B	Total/NA
Cyanide, Total	0.60	J	1.1	0.53	mg/Kg	1	☼	9012B	Total/NA

Client Sample ID: HA-03-2.3-2.5

Lab Sample ID: 480-221553-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	13000		480	91	ug/Kg	10	☼	8260C	Total/NA
Ethylbenzene	5400		480	140	ug/Kg	10	☼	8260C	Total/NA
Isopropylbenzene	740		480	72	ug/Kg	10	☼	8260C	Total/NA
Methyl acetate	1900	J	2400	230	ug/Kg	10	☼	8260C	Total/NA
Methylcyclohexane	1900		480	220	ug/Kg	10	☼	8260C	Total/NA
Toluene	940		480	130	ug/Kg	10	☼	8260C	Total/NA
Xylenes, Total	15000		950	260	ug/Kg	10	☼	8260C	Total/NA
2-Methylnaphthalene	470000		110000	21000	ug/Kg	10	☼	8270D	Total/NA
Acenaphthene	47000	J	110000	16000	ug/Kg	10	☼	8270D	Total/NA
Anthracene	61000	J	110000	26000	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]anthracene	90000	J	110000	11000	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]pyrene	46000	J	110000	16000	ug/Kg	10	☼	8270D	Total/NA
Benzo[b]fluoranthene	24000	J	110000	17000	ug/Kg	10	☼	8270D	Total/NA
Benzo[g,h,i]perylene	20000	J	110000	11000	ug/Kg	10	☼	8270D	Total/NA
Biphenyl	23000	J	110000	16000	ug/Kg	10	☼	8270D	Total/NA
Carbazole	27000	J	110000	13000	ug/Kg	10	☼	8270D	Total/NA
Chrysene	170000		110000	24000	ug/Kg	10	☼	8270D	Total/NA
Dibenzofuran	31000	J	110000	13000	ug/Kg	10	☼	8270D	Total/NA
Fluoranthene	36000	J	110000	11000	ug/Kg	10	☼	8270D	Total/NA
Fluorene	89000	J *+	110000	13000	ug/Kg	10	☼	8270D	Total/NA
Naphthalene	170000		110000	14000	ug/Kg	10	☼	8270D	Total/NA
N-Nitrosodiphenylamine	180000		110000	87000	ug/Kg	10	☼	8270D	Total/NA
Phenanthrene	570000		110000	16000	ug/Kg	10	☼	8270D	Total/NA
Pyrene	170000		110000	13000	ug/Kg	10	☼	8270D	Total/NA
4,4'-DDT	140	J	510	120	ug/Kg	50	☼	8081B	Total/NA
Endrin aldehyde	170	J	510	130	ug/Kg	50	☼	8081B	Total/NA
Aluminum	43500	B	11.0	9.5	mg/Kg	1	☼	6010C	Total/NA
Arsenic	64.3		2.2	0.97	mg/Kg	1	☼	6010C	Total/NA
Barium	55.3		0.55	0.15	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.49		0.22	0.044	mg/Kg	1	☼	6010C	Total/NA
Calcium	7880	B	54.9	29.6	mg/Kg	1	☼	6010C	Total/NA
Chromium	54.4		0.55	0.40	mg/Kg	1	☼	6010C	Total/NA
Cobalt	7.6		0.55	0.11	mg/Kg	1	☼	6010C	Total/NA
Copper	32.2	B	1.1	0.63	mg/Kg	1	☼	6010C	Total/NA
Iron	19800	B	11.0	9.3	mg/Kg	1	☼	6010C	Total/NA
Lead	74.0	B	1.1	0.50	mg/Kg	1	☼	6010C	Total/NA
Magnesium	2750	B	21.9	9.3	mg/Kg	1	☼	6010C	Total/NA
Manganese	208	B	1.1	0.31	mg/Kg	1	☼	6010C	Total/NA
Nickel	113		5.5	0.27	mg/Kg	1	☼	6010C	Total/NA
Potassium	705		32.9	26.6	mg/Kg	1	☼	6010C	Total/NA
Sodium	840		154	67.3	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HA-03-2.3-2.5 (Continued) — Lab Sample ID: 480-221553-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	106		0.55	0.14	mg/Kg	1	☼	6010C	Total/NA
Zinc	46.9		2.2	1.1	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.034		0.020	0.0047	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: HA-02-0.0-0.2 — Lab Sample ID: 480-221553-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	13900	B	12.9	11.1	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.89	J	19.4	0.68	mg/Kg	1	☼	6010C	Total/NA
Arsenic	8.2		2.6	1.1	mg/Kg	1	☼	6010C	Total/NA
Barium	127		0.65	0.18	mg/Kg	1	☼	6010C	Total/NA
Beryllium	1.0		0.26	0.052	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.88		0.26	0.090	mg/Kg	1	☼	6010C	Total/NA
Calcium	32500	B	64.5	34.8	mg/Kg	1	☼	6010C	Total/NA
Chromium	35.7		0.65	0.46	mg/Kg	1	☼	6010C	Total/NA
Cobalt	9.4		0.65	0.13	mg/Kg	1	☼	6010C	Total/NA
Copper	38.2	B	1.3	0.74	mg/Kg	1	☼	6010C	Total/NA
Iron	19100	B	12.9	10.9	mg/Kg	1	☼	6010C	Total/NA
Lead	98.8	B	1.3	0.59	mg/Kg	1	☼	6010C	Total/NA
Magnesium	12300	B	25.8	10.9	mg/Kg	1	☼	6010C	Total/NA
Manganese	639	B	1.3	0.36	mg/Kg	1	☼	6010C	Total/NA
Nickel	43.0		6.5	0.32	mg/Kg	1	☼	6010C	Total/NA
Potassium	3530		38.7	31.3	mg/Kg	1	☼	6010C	Total/NA
Silver	0.35	J	0.77	0.26	mg/Kg	1	☼	6010C	Total/NA
Sodium	227		181	79.1	mg/Kg	1	☼	6010C	Total/NA
Vanadium	41.7		0.65	0.17	mg/Kg	1	☼	6010C	Total/NA
Zinc	301		2.6	1.3	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.42		0.026	0.0061	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: HA-02-3.0-4.0 — Lab Sample ID: 480-221553-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	17900	B	11.6	10.0	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.76	J	17.4	0.62	mg/Kg	1	☼	6010C	Total/NA
Arsenic	4.2		2.3	1.0	mg/Kg	1	☼	6010C	Total/NA
Barium	107		0.58	0.16	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.83		0.23	0.046	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.18	J	0.23	0.081	mg/Kg	1	☼	6010C	Total/NA
Calcium	53400	B	58.0	31.3	mg/Kg	1	☼	6010C	Total/NA
Chromium	22.3		0.58	0.42	mg/Kg	1	☼	6010C	Total/NA
Cobalt	10.7		0.58	0.12	mg/Kg	1	☼	6010C	Total/NA
Copper	19.3	B	1.2	0.66	mg/Kg	1	☼	6010C	Total/NA
Iron	19000	B	11.6	9.8	mg/Kg	1	☼	6010C	Total/NA
Lead	17.2	B	1.2	0.53	mg/Kg	1	☼	6010C	Total/NA
Magnesium	15200	B	23.2	9.8	mg/Kg	1	☼	6010C	Total/NA
Manganese	522	B	1.2	0.32	mg/Kg	1	☼	6010C	Total/NA
Nickel	26.9		5.8	0.29	mg/Kg	1	☼	6010C	Total/NA
Potassium	5750		34.8	28.1	mg/Kg	1	☼	6010C	Total/NA
Sodium	288		162	71.1	mg/Kg	1	☼	6010C	Total/NA
Vanadium	35.1		0.58	0.15	mg/Kg	1	☼	6010C	Total/NA
Zinc	69.8		2.3	1.2	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.043		0.025	0.0057	mg/Kg	1	☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221553-1

Client Sample ID: HA-02-3.0-4.0-FD — Lab Sample ID: 480-221553-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	19500	B	12.0	10.4	mg/Kg	1	☼	6010C	Total/NA
Arsenic	3.6		2.4	1.1	mg/Kg	1	☼	6010C	Total/NA
Barium	122		0.60	0.17	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.87		0.24	0.048	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.18	J	0.24	0.084	mg/Kg	1	☼	6010C	Total/NA
Calcium	53600	B	60.2	32.5	mg/Kg	1	☼	6010C	Total/NA
Chromium	23.5		0.60	0.43	mg/Kg	1	☼	6010C	Total/NA
Cobalt	10.6		0.60	0.12	mg/Kg	1	☼	6010C	Total/NA
Copper	17.9	B	1.2	0.69	mg/Kg	1	☼	6010C	Total/NA
Iron	20100	B	12.0	10.2	mg/Kg	1	☼	6010C	Total/NA
Lead	11.7	B	1.2	0.55	mg/Kg	1	☼	6010C	Total/NA
Magnesium	17400	B	24.1	10.2	mg/Kg	1	☼	6010C	Total/NA
Manganese	434	B	1.2	0.34	mg/Kg	1	☼	6010C	Total/NA
Nickel	26.6		6.0	0.30	mg/Kg	1	☼	6010C	Total/NA
Potassium	6330		36.1	29.2	mg/Kg	1	☼	6010C	Total/NA
Silver	0.32	J	0.72	0.24	mg/Kg	1	☼	6010C	Total/NA
Sodium	296		169	73.8	mg/Kg	1	☼	6010C	Total/NA
Vanadium	37.0		0.60	0.16	mg/Kg	1	☼	6010C	Total/NA
Zinc	58.8		2.4	1.2	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.020	J	0.024	0.0055	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SB-01-43.0-45.0 — Lab Sample ID: 480-221553-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	11	J	25	4.2	ug/Kg	1	☼	8260C	Total/NA
Aluminum	22700	B	14.1	12.1	mg/Kg	1	☼	6010C	Total/NA
Arsenic	3.5		2.8	1.2	mg/Kg	1	☼	6010C	Total/NA
Barium	143		0.70	0.20	mg/Kg	1	☼	6010C	Total/NA
Beryllium	1.0		0.28	0.056	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.13	J	0.28	0.099	mg/Kg	1	☼	6010C	Total/NA
Calcium	49900	B	70.4	38.0	mg/Kg	1	☼	6010C	Total/NA
Chromium	29.6		0.70	0.51	mg/Kg	1	☼	6010C	Total/NA
Cobalt	15.3		0.70	0.14	mg/Kg	1	☼	6010C	Total/NA
Copper	23.0	B	1.4	0.80	mg/Kg	1	☼	6010C	Total/NA
Iron	25000	B	14.1	11.9	mg/Kg	1	☼	6010C	Total/NA
Lead	9.5	B	1.4	0.65	mg/Kg	1	☼	6010C	Total/NA
Magnesium	13500	B	28.2	11.9	mg/Kg	1	☼	6010C	Total/NA
Manganese	591	B	1.4	0.39	mg/Kg	1	☼	6010C	Total/NA
Nickel	35.1		7.0	0.35	mg/Kg	1	☼	6010C	Total/NA
Potassium	6860		42.2	34.1	mg/Kg	1	☼	6010C	Total/NA
Silver	0.37	J	0.84	0.28	mg/Kg	1	☼	6010C	Total/NA
Sodium	390		197	86.3	mg/Kg	1	☼	6010C	Total/NA
Vanadium	43.5		0.70	0.18	mg/Kg	1	☼	6010C	Total/NA
Zinc	58.4		2.8	1.4	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.0091	J	0.028	0.0064	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SB-04-0.0-0.2 — Lab Sample ID: 480-221553-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	14400	B	13.4	11.5	mg/Kg	1	☼	6010C	Total/NA
Antimony	2.5	J	20.0	0.71	mg/Kg	1	☼	6010C	Total/NA
Arsenic	11.4		2.7	1.2	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Client Sample ID: SB-04-0.0-0.2 (Continued)

Lab Sample ID: 480-221553-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	94.2		0.67	0.19	mg/Kg	1	☼	6010C	Total/NA
Beryllium	2.1		0.27	0.053	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.80		0.27	0.094	mg/Kg	1	☼	6010C	Total/NA
Calcium	54600	B	66.8	36.1	mg/Kg	1	☼	6010C	Total/NA
Chromium	32.0		0.67	0.48	mg/Kg	1	☼	6010C	Total/NA
Cobalt	9.6		0.67	0.13	mg/Kg	1	☼	6010C	Total/NA
Copper	41.1	B	1.3	0.76	mg/Kg	1	☼	6010C	Total/NA
Iron	22100	B	13.4	11.3	mg/Kg	1	☼	6010C	Total/NA
Lead	80.5	B ^+	1.3	0.61	mg/Kg	1	☼	6010C	Total/NA
Magnesium	31400	B	26.7	11.3	mg/Kg	1	☼	6010C	Total/NA
Manganese	527	B	1.3	0.37	mg/Kg	1	☼	6010C	Total/NA
Nickel	34.0		6.7	0.33	mg/Kg	1	☼	6010C	Total/NA
Potassium	2660		40.1	32.4	mg/Kg	1	☼	6010C	Total/NA
Sodium	325		187	81.9	mg/Kg	1	☼	6010C	Total/NA
Vanadium	45.7		0.67	0.17	mg/Kg	1	☼	6010C	Total/NA
Zinc	185		2.7	1.4	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.041		0.026	0.0060	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: RB-07112024

Lab Sample ID: 480-221553-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
alpha-BHC	0.010	J B	0.052	0.0080	ug/L	1		8081B	Total/NA
gamma-BHC (Lindane)	0.013	J B	0.052	0.0083	ug/L	1		8081B	Total/NA
Perfluorobutanoic acid (PFBA)	3.6	J	7.8	2.1	ng/L	1		1633	Total/NA
Barium	0.0023		0.0020	0.00070	mg/L	1		6010C	Total/NA
Calcium	0.34	J	0.50	0.10	mg/L	1		6010C	Total/NA
Copper	0.0028	J B	0.010	0.0016	mg/L	1		6010C	Total/NA
Iron	0.028	J	0.050	0.019	mg/L	1		6010C	Total/NA
Lead	0.010	^+	0.010	0.0030	mg/L	1		6010C	Total/NA
Manganese	0.0022	J B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Sodium	0.81	J	1.0	0.32	mg/L	1		6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221553-1

Client Sample ID: SB-01-26.0-31.7
Date Collected: 07/11/24 08:35
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-1
Matrix: Solid
Percent Solids: 77.7

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		3.8	0.28	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
1,1,2,2-Tetrachloroethane	ND		3.8	0.62	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.8	0.88	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
1,1,2-Trichloroethane	ND		3.8	0.50	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
1,1-Dichloroethane	ND		3.8	0.47	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
1,1-Dichloroethene	ND		3.8	0.47	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
1,2,4-Trichlorobenzene	ND		3.8	0.23	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
1,2-Dibromo-3-Chloropropane	ND		3.8	1.9	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
1,2-Dibromoethane	ND		3.8	0.49	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
1,2-Dichlorobenzene	ND		3.8	0.30	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
1,2-Dichloroethane	ND		3.8	0.19	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
1,2-Dichloropropane	ND		3.8	1.9	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
1,3-Dichlorobenzene	ND		3.8	0.20	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
1,4-Dichlorobenzene	ND		3.8	0.54	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
2-Butanone (MEK)	ND		19	1.4	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
2-Hexanone	ND		19	1.9	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
4-Methyl-2-pentanone (MIBK)	ND		19	1.3	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
Acetone	**10**	**J**	19	3.2	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
Benzene	ND		3.8	0.19	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
Bromodichloromethane	ND		3.8	0.51	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
Bromoform	ND		3.8	1.9	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
Bromomethane	ND		3.8	0.35	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
Carbon disulfide	ND		3.8	1.9	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
Carbon tetrachloride	ND		3.8	0.37	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
Chlorobenzene	ND		3.8	0.51	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
Chloroethane	ND		3.8	0.87	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
Chloroform	ND		3.8	0.24	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
Chloromethane	ND		3.8	0.23	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
cis-1,2-Dichloroethene	ND		3.8	0.49	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
cis-1,3-Dichloropropene	ND		3.8	0.55	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
Cyclohexane	ND		3.8	0.54	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
Dibromochloromethane	ND		3.8	0.49	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
Dichlorodifluoromethane	ND		3.8	0.32	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
Ethylbenzene	ND		3.8	0.27	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
Isopropylbenzene	ND		3.8	0.58	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
Methyl acetate	ND		19	2.3	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
Methyl tert-butyl ether	ND		3.8	0.38	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
Methylcyclohexane	ND		3.8	0.58	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
Methylene Chloride	ND		3.8	1.8	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
Styrene	ND		3.8	0.19	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
Tetrachloroethene	ND		3.8	0.52	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
Toluene	ND		3.8	0.29	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
trans-1,2-Dichloroethene	ND		3.8	0.40	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
trans-1,3-Dichloropropene	ND		3.8	1.7	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
Trichloroethene	ND		3.8	0.85	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
Trichlorofluoromethane	ND		3.8	0.36	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
Vinyl chloride	ND		3.8	0.47	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1
Xylenes, Total	ND		7.7	0.65	ug/Kg	☼	07/12/24 10:00	07/14/24 16:59	1

Client Sample ID: SB-01-26.0-31.7

Date Collected: 07/11/24 08:35
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-1

Matrix: Solid
Percent Solids: 77.7

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/Kg	☼		N/A	07/12/24 10:00	07/14/24 16:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		64 - 126	07/12/24 10:00	07/14/24 16:59	1
4-Bromofluorobenzene (Surr)	106		72 - 126	07/12/24 10:00	07/14/24 16:59	1
Dibromofluoromethane (Surr)	103		60 - 140	07/12/24 10:00	07/14/24 16:59	1
Toluene-d8 (Surr)	97		71 - 125	07/12/24 10:00	07/14/24 16:59	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		130	70	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
2,4,5-Trichlorophenol	ND		220	59	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
2,4,6-Trichlorophenol	ND		220	43	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
2,4-Dichlorophenol	ND		220	23	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
2,4-Dimethylphenol	ND	*+	220	52	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
2,4-Dinitrophenol	ND		2100	1000	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
2,4-Dinitrotoluene	ND		220	45	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
2,6-Dinitrotoluene	ND		220	26	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
2-Chloronaphthalene	ND		220	36	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
2-Chlorophenol	ND		420	40	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
2-Methylnaphthalene	ND		220	43	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
2-Methylphenol	ND		220	26	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
2-Nitroaniline	ND		420	32	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
2-Nitrophenol	ND		220	61	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
3,3'-Dichlorobenzidine	ND		420	260	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
3-Nitroaniline	ND		420	60	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
4,6-Dinitro-2-methylphenol	ND		420	220	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
4-Bromophenyl phenyl ether	ND		220	31	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
4-Chloro-3-methylphenol	ND		220	54	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
4-Chloroaniline	ND		220	54	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
4-Chlorophenyl phenyl ether	ND		220	27	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
4-Methylphenol	ND		420	26	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
4-Nitroaniline	ND		420	110	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
4-Nitrophenol	ND		420	150	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Acenaphthene	ND		220	32	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Acenaphthylene	ND		220	28	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Acetophenone	ND		220	29	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Anthracene	ND		220	54	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Atrazine	ND		220	75	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Benzaldehyde	ND		220	170	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Benzo[a]anthracene	ND		220	22	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Benzo[a]pyrene	ND		220	32	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Benzo[b]fluoranthene	ND		220	35	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Benzo[g,h,i]perylene	ND		220	23	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Benzo[k]fluoranthene	ND		220	28	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Biphenyl	ND		220	32	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
bis (2-chloroisopropyl) ether	ND		220	43	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Bis(2-chloroethoxy)methane	ND		220	46	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Bis(2-chloroethyl)ether	ND		220	28	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Bis(2-ethylhexyl) phthalate	ND		220	74	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1

Client Sample ID: SB-01-26.0-31.7
Date Collected: 07/11/24 08:35
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-1
Matrix: Solid
Percent Solids: 77.7

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Butyl benzyl phthalate	ND		220	36	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Caprolactam	ND		220	65	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Carbazole	ND		220	26	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Chrysene	ND		220	49	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Dibenz(a,h)anthracene	ND		220	38	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Dibenzofuran	ND		220	26	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Diethyl phthalate	ND	*+	220	28	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Dimethyl phthalate	ND		220	26	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Di-n-butyl phthalate	ND		220	37	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Di-n-octyl phthalate	ND		220	26	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Fluoranthene	ND		220	23	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Fluorene	ND	*+	220	26	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Hexachlorobenzene	ND		220	29	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Hexachlorobutadiene	ND		220	32	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Hexachlorocyclopentadiene	ND		220	29	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Hexachloroethane	ND		220	28	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Indeno[1,2,3-cd]pyrene	ND		220	27	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Isophorone	ND		220	46	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Naphthalene	ND		220	28	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Nitrobenzene	ND		220	24	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
N-Nitrosodi-n-propylamine	ND		220	37	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
N-Nitrosodiphenylamine	ND		220	180	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Pentachlorophenol	ND		420	220	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Phenanthrene	ND		220	32	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Phenol	ND		220	33	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1
Pyrene	ND		220	26	ug/Kg	☼	07/15/24 07:53	07/19/24 14:40	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*2200*	*T J*	*ug/Kg*	☼	*1.94*	*N/A*	*07/15/24 07:53*	*07/19/24 14:40*	*1*
Unknown	*1000*	*T J*	*ug/Kg*	☼	*3.35*	*N/A*	*07/15/24 07:53*	*07/19/24 14:40*	*1*
Heptadecane	*200*	*T J N*	*ug/Kg*	☼	*10.34*	*629-78-7*	*07/15/24 07:53*	*07/19/24 14:40*	*1*
Heptacosane	*180*	*T J N*	*ug/Kg*	☼	*10.81*	*593-49-7*	*07/15/24 07:53*	*07/19/24 14:40*	*1*
Octacosane	*250*	*T J N*	*ug/Kg*	☼	*13.16*	*630-02-4*	*07/15/24 07:53*	*07/19/24 14:40*	*1*
Docosane	*200*	*T J N*	*ug/Kg*	☼	*13.43*	*629-97-0*	*07/15/24 07:53*	*07/19/24 14:40*	*1*
Hexacosane	*190*	*T J N*	*ug/Kg*	☼	*13.68*	*630-01-3*	*07/15/24 07:53*	*07/19/24 14:40*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*97*		*26 - 143*	*07/15/24 07:53*	*07/19/24 14:40*	*1*
2-Fluorobiphenyl	*86*		*50 - 121*	*07/15/24 07:53*	*07/19/24 14:40*	*1*
2-Fluorophenol	*66*		*36 - 120*	*07/15/24 07:53*	*07/19/24 14:40*	*1*
Nitrobenzene-d5	*84*		*40 - 121*	*07/15/24 07:53*	*07/19/24 14:40*	*1*
Phenol-d5	*86*		*41 - 120*	*07/15/24 07:53*	*07/19/24 14:40*	*1*
p-Terphenyl-d14	*109*		*46 - 143*	*07/15/24 07:53*	*07/19/24 14:40*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.1	0.42	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
4,4'-DDE	ND		2.1	0.45	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
4,4'-DDT	ND		2.1	0.50	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
Aldrin	ND		2.1	0.53	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1

Client Sample ID: SB-01-26.0-31.7
Date Collected: 07/11/24 08:35
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-1
Matrix: Solid
Percent Solids: 77.7

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
alpha-BHC	ND		2.1	0.39	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
cis-Chlordane	ND		2.1	1.1	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
beta-BHC	ND		2.1	0.39	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
delta-BHC	ND		2.1	0.40	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
Dieldrin	ND		2.1	0.51	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
Endosulfan I	ND		2.1	0.41	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
Endosulfan II	ND		2.1	0.39	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
Endosulfan sulfate	ND		2.1	0.40	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
Endrin	ND		2.1	0.42	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
Endrin aldehyde	ND		2.1	0.55	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
Endrin ketone	ND		2.1	0.53	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
gamma-BHC (Lindane)	ND		2.1	0.39	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
trans-Chlordane	ND		2.1	0.68	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
Heptachlor	ND		2.1	0.46	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
Heptachlor epoxide	ND		2.1	0.55	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
Methoxychlor	ND		2.1	0.44	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1
Toxaphene	ND		21	12	ug/Kg	☼	07/15/24 07:45	07/16/24 11:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*74*		*45 - 120*	*07/15/24 07:45*	*07/16/24 11:19*	*1*
DCB Decachlorobiphenyl	*75*		*45 - 120*	*07/15/24 07:45*	*07/16/24 11:19*	*1*
Tetrachloro-m-xylene	*61*		*30 - 124*	*07/15/24 07:45*	*07/16/24 11:19*	*1*
Tetrachloro-m-xylene	*68*		*30 - 124*	*07/15/24 07:45*	*07/16/24 11:19*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.28	0.054	mg/Kg	☼	07/15/24 08:01	07/18/24 05:49	1
PCB-1221	ND		0.28	0.054	mg/Kg	☼	07/15/24 08:01	07/18/24 05:49	1
PCB-1232	ND		0.28	0.054	mg/Kg	☼	07/15/24 08:01	07/18/24 05:49	1
PCB-1242	ND		0.28	0.054	mg/Kg	☼	07/15/24 08:01	07/18/24 05:49	1
PCB-1248	ND		0.28	0.054	mg/Kg	☼	07/15/24 08:01	07/18/24 05:49	1
PCB-1254	ND		0.28	0.13	mg/Kg	☼	07/15/24 08:01	07/18/24 05:49	1
PCB-1260	ND		0.28	0.13	mg/Kg	☼	07/15/24 08:01	07/18/24 05:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*135*		*60 - 154*	*07/15/24 08:01*	*07/18/24 05:49*	*1*
Tetrachloro-m-xylene	*114*		*60 - 154*	*07/15/24 08:01*	*07/18/24 05:49*	*1*
DCB Decachlorobiphenyl	*119*		*65 - 174*	*07/15/24 08:01*	*07/18/24 05:49*	*1*
DCB Decachlorobiphenyl	*132*		*65 - 174*	*07/15/24 08:01*	*07/18/24 05:49*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.82	0.21	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluoropentanoic acid (PFPeA)	ND		0.41	0.10	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluorohexanoic acid (PFHxA)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluoroheptanoic acid (PFHpA)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluorooctanoic acid (PFOA)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluorononanoic acid (PFNA)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluorodecanoic acid (PFDA)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluoroundecanoic acid (PFUnA)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1

Client Sample ID: SB-01-26.0-31.7
Date Collected: 07/11/24 08:35
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-1
Matrix: Solid
Percent Solids: 77.7

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorododecanoic acid (PFDoA)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluorononanesulfonic acid (PFNS)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		0.82	0.21	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		0.82	0.21	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		0.82	0.21	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		2.1	0.52	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		2.1	0.52	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.82	0.21	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.82	0.21	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.41	0.10	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		0.82	0.21	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		0.82	0.21	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.41	0.10	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	*+	1.0	0.26	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		5.2	1.3	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		5.2	1.3	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.21	0.052	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.41	0.10	ug/Kg	☼	07/15/24 08:23	07/16/24 09:11	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*102*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:11*	*1*

Client Sample ID: SB-01-26.0-31.7
Date Collected: 07/11/24 08:35
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-1
Matrix: Solid
Percent Solids: 77.7

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFPeA	89.3		20 - 150	07/15/24 08:23	07/16/24 09:11	1
13C5 PFHxA	90.7		20 - 150	07/15/24 08:23	07/16/24 09:11	1
13C4 PFHpA	83.8		20 - 150	07/15/24 08:23	07/16/24 09:11	1
13C8 PFOA	84.1		20 - 150	07/15/24 08:23	07/16/24 09:11	1
13C9 PFNA	89.9		20 - 150	07/15/24 08:23	07/16/24 09:11	1
13C6 PFDA	94.6		20 - 150	07/15/24 08:23	07/16/24 09:11	1
13C7 PFUnA	99.9		20 - 150	07/15/24 08:23	07/16/24 09:11	1
13C2 PFTeDA	65.2		20 - 150	07/15/24 08:23	07/16/24 09:11	1
13C3 PFBS	90.6		20 - 150	07/15/24 08:23	07/16/24 09:11	1
13C3 PFHxS	82.6		20 - 150	07/15/24 08:23	07/16/24 09:11	1
13C8 PFOS	92.4		20 - 150	07/15/24 08:23	07/16/24 09:11	1
13C8 FOSA	94.6		20 - 150	07/15/24 08:23	07/16/24 09:11	1
d3-NMeFOSAA	90.3		20 - 150	07/15/24 08:23	07/16/24 09:11	1
d5-NEtFOSAA	138		20 - 150	07/15/24 08:23	07/16/24 09:11	1
M2-4:2 FTS	91.8		20 - 150	07/15/24 08:23	07/16/24 09:11	1
M2-6:2 FTS	86.2		20 - 150	07/15/24 08:23	07/16/24 09:11	1
M2-8:2 FTS	81.0		20 - 150	07/15/24 08:23	07/16/24 09:11	1
13C3 HFPO-DA	82.7		20 - 150	07/15/24 08:23	07/16/24 09:11	1
d7-N-MeFOSE-M	75.5		20 - 150	07/15/24 08:23	07/16/24 09:11	1
d9-N-EtFOSE-M	69.4		20 - 150	07/15/24 08:23	07/16/24 09:11	1
d5-NEtPFOSA	78.5		20 - 150	07/15/24 08:23	07/16/24 09:11	1
d3-NMePFOSA	81.2		20 - 150	07/15/24 08:23	07/16/24 09:11	1
13C2-PFDoDA	91.4		20 - 150	07/15/24 08:23	07/16/24 09:11	1

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.41	0.10	ug/Kg	☼	07/15/24 08:23	07/19/24 21:38	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	100		20 - 150	07/15/24 08:23	07/19/24 21:38	1
13C5 PFPeA	87.9		20 - 150	07/15/24 08:23	07/19/24 21:38	1
13C5 PFHxA	96.1		20 - 150	07/15/24 08:23	07/19/24 21:38	1
13C4 PFHpA	86.7		20 - 150	07/15/24 08:23	07/19/24 21:38	1
13C8 PFOA	82.9		20 - 150	07/15/24 08:23	07/19/24 21:38	1
13C9 PFNA	94.6		20 - 150	07/15/24 08:23	07/19/24 21:38	1
13C6 PFDA	81.5		20 - 150	07/15/24 08:23	07/19/24 21:38	1
13C7 PFUnA	96.2		20 - 150	07/15/24 08:23	07/19/24 21:38	1
13C2 PFTeDA	86.7		20 - 150	07/15/24 08:23	07/19/24 21:38	1
13C3 PFBS	87.4		20 - 150	07/15/24 08:23	07/19/24 21:38	1
13C3 PFHxS	89.3		20 - 150	07/15/24 08:23	07/19/24 21:38	1
13C8 PFOS	92.3		20 - 150	07/15/24 08:23	07/19/24 21:38	1
13C8 FOSA	90.5		20 - 150	07/15/24 08:23	07/19/24 21:38	1
d3-NMeFOSAA	87.3		20 - 150	07/15/24 08:23	07/19/24 21:38	1
d5-NEtFOSAA	119		20 - 150	07/15/24 08:23	07/19/24 21:38	1
M2-4:2 FTS	105		20 - 150	07/15/24 08:23	07/19/24 21:38	1
M2-6:2 FTS	113		20 - 150	07/15/24 08:23	07/19/24 21:38	1
M2-8:2 FTS	120		20 - 150	07/15/24 08:23	07/19/24 21:38	1
13C3 HFPO-DA	87.5		20 - 150	07/15/24 08:23	07/19/24 21:38	1
d7-N-MeFOSE-M	86.4		20 - 150	07/15/24 08:23	07/19/24 21:38	1
d9-N-EtFOSE-M	96.6		20 - 150	07/15/24 08:23	07/19/24 21:38	1

Client Sample ID: SB-01-26.0-31.7

Lab Sample ID: 480-221553-1
Date Collected: 07/11/24 08:35
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 77.7

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS - RA (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtPFOSA	79.4		20 - 150	07/15/24 08:23	07/19/24 21:38	1
d3-NMePFOSA	82.9		20 - 150	07/15/24 08:23	07/19/24 21:38	1
13C2-PFDoDA	87.7		20 - 150	07/15/24 08:23	07/19/24 21:38	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**19700**	**B**	12.4	10.7	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Antimony	ND		18.6	0.66	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Arsenic	**3.7**		2.5	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Barium	**120**		0.62	0.17	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Beryllium	**0.88**		0.25	0.050	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Cadmium	**0.18**	**J**	0.25	0.087	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Calcium	**44400**	**B**	61.9	33.4	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Chromium	**27.6**		0.62	0.45	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Cobalt	**11.9**		0.62	0.12	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Copper	**18.4**	**B**	1.2	0.71	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Iron	**20900**	**B**	12.4	10.5	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Lead	**10.0**	**B**	1.2	0.57	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Magnesium	**14800**	**B**	24.8	10.5	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Manganese	**515**	**B**	1.2	0.35	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Nickel	**28.4**		6.2	0.31	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Potassium	**6530**	**^+**	37.2	30.0	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Selenium	ND		5.0	0.99	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Silver	**0.37**	**J**	0.74	0.25	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Sodium	**340**		173	75.9	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Thallium	ND		7.4	0.94	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Vanadium	**38.3**		0.62	0.16	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1
Zinc	**54.1**		2.5	1.3	mg/Kg	☼	07/12/24 12:30	07/15/24 17:33	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.020**	**J**	0.026	0.0061	mg/Kg	☼	07/15/24 09:13	07/15/24 11:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.1	0.54	mg/Kg	☼	07/18/24 12:15	07/18/24 16:37	1

Client Sample ID: HA-06-0.0-0.2

Lab Sample ID: 480-221553-2
Date Collected: 07/11/24 09:30
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 78.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		1100	290	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
2,4,6-Trichlorophenol	ND		1100	210	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
2,4-Dichlorophenol	ND		1100	110	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
2,4-Dimethylphenol	ND	*+	1100	260	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
2,4-Dinitrophenol	ND		10000	4900	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
2,4-Dinitrotoluene	ND		1100	220	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
2,6-Dinitrotoluene	ND		1100	120	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
2-Chloronaphthalene	ND		1100	170	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5

Client Sample ID: HA-06-0.0-0.2
Date Collected: 07/11/24 09:30
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-2
Matrix: Solid
Percent Solids: 78.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorophenol	ND		2100	190	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
2-Methylnaphthalene	ND		1100	210	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
2-Methylphenol	ND		1100	120	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
2-Nitroaniline	ND		2100	160	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
2-Nitrophenol	ND		1100	300	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
3,3'-Dichlorobenzidine	ND		2100	1200	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
3-Nitroaniline	ND		2100	290	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
4,6-Dinitro-2-methylphenol	ND		2100	1100	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
4-Bromophenyl phenyl ether	ND		1100	150	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
4-Chloro-3-methylphenol	ND		1100	260	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
4-Chloroaniline	ND		1100	260	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
4-Chlorophenyl phenyl ether	ND		1100	130	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
4-Methylphenol	ND		2100	120	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
4-Nitroaniline	ND		2100	550	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
4-Nitrophenol	ND		2100	740	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Acenaphthene	ND		1100	160	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Acenaphthylene	ND		1100	140	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Acetophenone	ND		1100	140	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Anthracene	ND		1100	260	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Atrazine	ND		1100	370	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Benzaldehyde	ND		1100	840	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Benzo[a]anthracene	ND		1100	110	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Benzo[a]pyrene	ND		1100	160	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Benzo[b]fluoranthene	ND		1100	170	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Benzo[g,h,i]perylene	**130**	**J**	1100	110	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Benzo[k]fluoranthene	ND		1100	140	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Biphenyl	ND		1100	160	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
bis (2-chloroisopropyl) ether	ND		1100	210	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Bis(2-chloroethoxy)methane	ND		1100	220	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Bis(2-chloroethyl)ether	ND		1100	140	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Bis(2-ethylhexyl) phthalate	ND		1100	360	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Butyl benzyl phthalate	ND		1100	170	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Caprolactam	ND		1100	320	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Carbazole	ND		1100	120	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Chrysene	ND		1100	240	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Dibenz(a,h)anthracene	ND		1100	190	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Dibenzofuran	ND		1100	120	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Diethyl phthalate	ND	*+	1100	140	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Dimethyl phthalate	ND		1100	120	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Di-n-butyl phthalate	ND		1100	180	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Di-n-octyl phthalate	ND		1100	120	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Fluoranthene	ND		1100	110	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Fluorene	ND	*+	1100	120	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Hexachlorobenzene	ND		1100	140	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Hexachlorobutadiene	ND		1100	160	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Hexachlorocyclopentadiene	ND		1100	140	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Hexachloroethane	ND		1100	140	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Indeno[1,2,3-cd]pyrene	ND		1100	130	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Isophorone	ND		1100	220	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5

Client Sample ID: HA-06-0.0-0.2

Date Collected: 07/11/24 09:30
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-2

Matrix: Solid
Percent Solids: 78.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1100	140	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Nitrobenzene	ND		1100	120	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
N-Nitrosodi-n-propylamine	ND		1100	180	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
N-Nitrosodiphenylamine	ND		1100	860	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Pentachlorophenol	ND		2100	1100	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Phenanthrene	ND		1100	160	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Phenol	ND		1100	160	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5
Pyrene	ND		1100	120	ug/Kg	☼	07/15/24 07:53	07/19/24 15:12	5

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*3300*	*T J*	*ug/Kg*	☼	*1.94*	*N/A*	*07/15/24 07:53*	*07/19/24 15:12*	*5*
Unknown	*1200*	*T J*	*ug/Kg*	☼	*3.37*	*N/A*	*07/15/24 07:53*	*07/19/24 15:12*	*5*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*103*		*26 - 143*	*07/15/24 07:53*	*07/19/24 15:12*	*5*
2-Fluorobiphenyl	*90*		*50 - 121*	*07/15/24 07:53*	*07/19/24 15:12*	*5*
2-Fluorophenol	*90*		*36 - 120*	*07/15/24 07:53*	*07/19/24 15:12*	*5*
Nitrobenzene-d5	*99*		*40 - 121*	*07/15/24 07:53*	*07/19/24 15:12*	*5*
Phenol-d5	*99*		*41 - 120*	*07/15/24 07:53*	*07/19/24 15:12*	*5*
p-Terphenyl-d14	*102*		*46 - 143*	*07/15/24 07:53*	*07/19/24 15:12*	*5*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		21	4.1	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
4,4'-DDE	ND		21	4.5	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
4,4'-DDT	ND		21	5.0	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
Aldrin	ND		21	5.2	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
alpha-BHC	ND		21	3.8	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
cis-Chlordane	ND		21	11	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
beta-BHC	ND		21	3.8	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
delta-BHC	ND		21	3.9	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
Dieldrin	ND		21	5.1	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
Endosulfan I	ND		21	4.1	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
Endosulfan II	ND		21	3.8	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
Endosulfan sulfate	ND		21	4.0	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
Endrin	ND		21	4.2	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
Endrin aldehyde	ND		21	5.4	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
Endrin ketone	ND		21	5.2	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
gamma-BHC (Lindane)	ND		21	3.9	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
trans-Chlordane	ND		21	6.7	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
Heptachlor	ND		21	4.6	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
Heptachlor epoxide	ND		21	5.5	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
Methoxychlor	ND		21	4.3	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10
Toxaphene	ND		210	120	ug/Kg	☼	07/15/24 07:45	07/16/24 11:38	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*130*	*S1+*	*45 - 120*	*07/15/24 07:45*	*07/16/24 11:38*	*10*
DCB Decachlorobiphenyl	*109*		*45 - 120*	*07/15/24 07:45*	*07/16/24 11:38*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 11:38*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 11:38*	*10*

Client Sample ID: HA-06-0.0-0.2

Date Collected: 07/11/24 09:30
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-2

Matrix: Solid
Percent Solids: 78.2

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.25	0.050	mg/Kg	☼	07/15/24 08:01	07/18/24 06:06	1
PCB-1221	ND		0.25	0.050	mg/Kg	☼	07/15/24 08:01	07/18/24 06:06	1
PCB-1232	ND		0.25	0.050	mg/Kg	☼	07/15/24 08:01	07/18/24 06:06	1
PCB-1242	ND		0.25	0.050	mg/Kg	☼	07/15/24 08:01	07/18/24 06:06	1
PCB-1248	ND		0.25	0.050	mg/Kg	☼	07/15/24 08:01	07/18/24 06:06	1
PCB-1254	ND		0.25	0.12	mg/Kg	☼	07/15/24 08:01	07/18/24 06:06	1
PCB-1260	ND		0.25	0.12	mg/Kg	☼	07/15/24 08:01	07/18/24 06:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*123*		*60 - 154*	*07/15/24 08:01*	*07/18/24 06:06*	*1*
Tetrachloro-m-xylene	*109*		*60 - 154*	*07/15/24 08:01*	*07/18/24 06:06*	*1*
DCB Decachlorobiphenyl	*109*		*65 - 174*	*07/15/24 08:01*	*07/18/24 06:06*	*1*
DCB Decachlorobiphenyl	*123*		*65 - 174*	*07/15/24 08:01*	*07/18/24 06:06*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**19600**	**B**	13.3	11.5	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Antimony	ND		19.9	0.70	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Arsenic	**4.1**		2.7	1.2	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Barium	**122**		0.66	0.19	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Beryllium	**0.88**		0.27	0.053	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Cadmium	**0.27**		0.27	0.093	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Calcium	**52100**	**B**	66.4	35.9	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Chromium	**27.4**		0.66	0.48	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Cobalt	**11.8**		0.66	0.13	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Copper	**23.0**	**B**	1.3	0.76	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Iron	**21000**	**B**	13.3	11.3	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Lead	**39.7**	**B**	1.3	0.61	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Magnesium	**16100**	**B**	26.6	11.3	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Manganese	**552**	**B**	1.3	0.37	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Nickel	**30.3**		6.6	0.33	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Potassium	**6080**		39.9	32.2	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Selenium	ND		5.3	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Silver	**0.38**	**J**	0.80	0.27	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Sodium	**274**		186	81.4	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Thallium	ND		8.0	1.0	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Vanadium	**44.1**		0.66	0.17	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1
Zinc	**75.3**		2.7	1.4	mg/Kg	☼	07/12/24 12:30	07/15/24 17:40	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.024**	**J**	0.026	0.0060	mg/Kg	☼	07/15/24 09:13	07/15/24 11:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.3	0.61	mg/Kg	☼	07/18/24 12:15	07/18/24 16:39	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221553-1

Client Sample ID: HA-06-3.0-4.0
Date Collected: 07/11/24 09:50
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-3
Matrix: Solid
Percent Solids: 79.8

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		3.1	0.22	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
1,1,2,2-Tetrachloroethane	ND		3.1	0.50	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.1	0.70	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
1,1,2-Trichloroethane	ND		3.1	0.40	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
1,1-Dichloroethane	ND		3.1	0.37	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
1,1-Dichloroethene	ND		3.1	0.37	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
1,2,4-Trichlorobenzene	ND		3.1	0.19	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
1,2-Dibromo-3-Chloropropane	ND		3.1	1.5	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
1,2-Dibromoethane	ND		3.1	0.39	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
1,2-Dichlorobenzene	ND		3.1	0.24	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
1,2-Dichloroethane	ND		3.1	0.15	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
1,2-Dichloropropane	ND		3.1	1.5	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
1,3-Dichlorobenzene	ND		3.1	0.16	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
1,4-Dichlorobenzene	ND		3.1	0.43	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
2-Butanone (MEK)	ND		15	1.1	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
2-Hexanone	ND		15	1.5	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
4-Methyl-2-pentanone (MIBK)	ND		15	1.0	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Acetone	ND		15	2.6	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Benzene	ND		3.1	0.15	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Bromodichloromethane	ND		3.1	0.41	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Bromoform	ND		3.1	1.5	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Bromomethane	ND		3.1	0.28	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Carbon disulfide	ND		3.1	1.5	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Carbon tetrachloride	ND		3.1	0.30	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Chlorobenzene	ND		3.1	0.40	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Chloroethane	ND		3.1	0.69	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Chloroform	ND		3.1	0.19	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Chloromethane	ND		3.1	0.18	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
cis-1,2-Dichloroethene	ND		3.1	0.39	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
cis-1,3-Dichloropropene	ND		3.1	0.44	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Cyclohexane	ND		3.1	0.43	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Dibromochloromethane	ND		3.1	0.39	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Dichlorodifluoromethane	ND		3.1	0.25	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Ethylbenzene	ND		3.1	0.21	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Isopropylbenzene	ND		3.1	0.46	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Methyl acetate	ND		15	1.8	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Methyl tert-butyl ether	ND		3.1	0.30	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Methylcyclohexane	ND		3.1	0.46	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Methylene Chloride	ND		3.1	1.4	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Styrene	ND		3.1	0.15	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Tetrachloroethene	ND		3.1	0.41	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Toluene	ND		3.1	0.23	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
trans-1,2-Dichloroethene	ND		3.1	0.32	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
trans-1,3-Dichloropropene	ND		3.1	1.3	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Trichloroethene	ND		3.1	0.67	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Trichlorofluoromethane	ND		3.1	0.29	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Vinyl chloride	ND		3.1	0.37	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1
Xylenes, Total	ND		6.1	0.51	ug/Kg	☼	07/12/24 10:00	07/14/24 17:23	1

Client Sample ID: HA-06-3.0-4.0

Date Collected: 07/11/24 09:50
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-3

Matrix: Solid
Percent Solids: 79.8

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/Kg	☼		N/A	07/12/24 10:00	07/14/24 17:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		64 - 126	07/12/24 10:00	07/14/24 17:23	1
4-Bromofluorobenzene (Surr)	109		72 - 126	07/12/24 10:00	07/14/24 17:23	1
Dibromofluoromethane (Surr)	107		60 - 140	07/12/24 10:00	07/14/24 17:23	1
Toluene-d8 (Surr)	97		71 - 125	07/12/24 10:00	07/14/24 17:23	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		210	56	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
2,4,6-Trichlorophenol	ND		210	41	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
2,4-Dichlorophenol	ND		210	22	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
2,4-Dimethylphenol	ND	*+	210	50	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
2,4-Dinitrophenol	ND		2000	950	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
2,4-Dinitrotoluene	ND		210	43	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
2,6-Dinitrotoluene	ND		210	24	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
2-Chloronaphthalene	ND		210	34	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
2-Chlorophenol	ND		400	38	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
2-Methylnaphthalene	ND		210	41	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
2-Methylphenol	ND		210	24	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
2-Nitroaniline	ND		400	30	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
2-Nitrophenol	ND		210	58	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
3,3'-Dichlorobenzidine	ND		400	240	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
3-Nitroaniline	ND		400	57	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
4,6-Dinitro-2-methylphenol	ND		400	210	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
4-Bromophenyl phenyl ether	ND		210	29	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
4-Chloro-3-methylphenol	ND		210	51	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
4-Chloroaniline	ND		210	51	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
4-Chlorophenyl phenyl ether	ND		210	26	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
4-Methylphenol	ND		400	24	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
4-Nitroaniline	ND		400	110	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
4-Nitrophenol	ND		400	140	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Acenaphthene	ND		210	30	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Acenaphthylene	ND		210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Acetophenone	ND		210	28	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Anthracene	ND		210	51	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Atrazine	ND		210	72	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Benzaldehyde	ND		210	160	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Benzo[a]anthracene	ND		210	21	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Benzo[a]pyrene	ND		210	30	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Benzo[b]fluoranthene	ND		210	33	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Benzo[g,h,i]perylene	ND		210	22	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Benzo[k]fluoranthene	ND		210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Biphenyl	ND		210	30	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
bis (2-chloroisopropyl) ether	ND		210	41	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Bis(2-chloroethoxy)methane	ND		210	44	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Bis(2-chloroethyl)ether	ND		210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Bis(2-ethylhexyl) phthalate	ND		210	71	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Butyl benzyl phthalate	ND		210	34	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1

Client Sample ID: HA-06-3.0-4.0
Date Collected: 07/11/24 09:50
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-3
Matrix: Solid
Percent Solids: 79.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Caprolactam	ND		210	62	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Carbazole	ND		210	24	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Chrysene	ND		210	46	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Dibenz(a,h)anthracene	ND		210	37	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Dibenzofuran	ND		210	24	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Diethyl phthalate	ND	*+	210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Dimethyl phthalate	ND		210	24	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Di-n-butyl phthalate	ND		210	35	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Di-n-octyl phthalate	ND		210	24	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Fluoranthene	ND		210	22	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Fluorene	ND	*+	210	24	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Hexachlorobenzene	ND		210	28	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Hexachlorobutadiene	ND		210	30	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Hexachlorocyclopentadiene	ND		210	28	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Hexachloroethane	ND		210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Indeno[1,2,3-cd]pyrene	ND		210	26	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Isophorone	ND		210	44	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Naphthalene	ND		210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Nitrobenzene	ND		210	23	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
N-Nitrosodi-n-propylamine	ND		210	35	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
N-Nitrosodiphenylamine	ND		210	170	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Pentachlorophenol	ND		400	210	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Phenanthrene	ND		210	30	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Phenol	ND		210	32	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1
Pyrene	ND		210	24	ug/Kg	☼	07/15/24 07:53	07/19/24 15:59	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*390*	*T J*	*ug/Kg*	☼	*1.81*	*N/A*	*07/15/24 07:53*	*07/19/24 15:59*	*1*
Unknown	*1800*	*T J*	*ug/Kg*	☼	*1.93*	*N/A*	*07/15/24 07:53*	*07/19/24 15:59*	*1*
Unknown	*970*	*T J*	*ug/Kg*	☼	*3.35*	*N/A*	*07/15/24 07:53*	*07/19/24 15:59*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*100*		*26 - 143*	*07/15/24 07:53*	*07/19/24 15:59*	*1*
2-Fluorobiphenyl	*93*		*50 - 121*	*07/15/24 07:53*	*07/19/24 15:59*	*1*
2-Fluorophenol	*90*		*36 - 120*	*07/15/24 07:53*	*07/19/24 15:59*	*1*
Nitrobenzene-d5	*91*		*40 - 121*	*07/15/24 07:53*	*07/19/24 15:59*	*1*
Phenol-d5	*98*		*41 - 120*	*07/15/24 07:53*	*07/19/24 15:59*	*1*
p-Terphenyl-d14	*111*		*46 - 143*	*07/15/24 07:53*	*07/19/24 15:59*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.1	0.41	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
4,4'-DDE	ND		2.1	0.44	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
4,4'-DDT	ND		2.1	0.49	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
Aldrin	ND		2.1	0.51	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
alpha-BHC	ND		2.1	0.38	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
cis-Chlordane	ND		2.1	1.0	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
beta-BHC	ND		2.1	0.38	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
delta-BHC	ND		2.1	0.39	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
Dieldrin	ND		2.1	0.50	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1

Client Sample ID: HA-06-3.0-4.0
Date Collected: 07/11/24 09:50
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-3
Matrix: Solid
Percent Solids: 79.8

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I	ND		2.1	0.40	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
Endosulfan II	ND		2.1	0.38	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
Endosulfan sulfate	ND		2.1	0.39	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
Endrin	ND		2.1	0.41	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
Endrin aldehyde	ND		2.1	0.53	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
Endrin ketone	ND		2.1	0.51	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
gamma-BHC (Lindane)	ND		2.1	0.38	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
trans-Chlordane	ND		2.1	0.66	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
Heptachlor	ND		2.1	0.45	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
Heptachlor epoxide	ND		2.1	0.54	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
Methoxychlor	ND		2.1	0.43	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1
Toxaphene	ND		21	12	ug/Kg	☼	07/15/24 07:45	07/16/24 11:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*82*		*45 - 120*	*07/15/24 07:45*	*07/16/24 11:58*	*1*
DCB Decachlorobiphenyl	*89*		*45 - 120*	*07/15/24 07:45*	*07/16/24 11:58*	*1*
Tetrachloro-m-xylene	*76*		*30 - 124*	*07/15/24 07:45*	*07/16/24 11:58*	*1*
Tetrachloro-m-xylene	*82*		*30 - 124*	*07/15/24 07:45*	*07/16/24 11:58*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.23	0.046	mg/Kg	☼	07/15/24 08:01	07/18/24 06:23	1
PCB-1221	ND		0.23	0.046	mg/Kg	☼	07/15/24 08:01	07/18/24 06:23	1
PCB-1232	ND		0.23	0.046	mg/Kg	☼	07/15/24 08:01	07/18/24 06:23	1
PCB-1242	ND		0.23	0.046	mg/Kg	☼	07/15/24 08:01	07/18/24 06:23	1
PCB-1248	ND		0.23	0.046	mg/Kg	☼	07/15/24 08:01	07/18/24 06:23	1
PCB-1254	ND		0.23	0.11	mg/Kg	☼	07/15/24 08:01	07/18/24 06:23	1
PCB-1260	ND		0.23	0.11	mg/Kg	☼	07/15/24 08:01	07/18/24 06:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*141*		*60 - 154*	*07/15/24 08:01*	*07/18/24 06:23*	*1*
Tetrachloro-m-xylene	*125*		*60 - 154*	*07/15/24 08:01*	*07/18/24 06:23*	*1*
DCB Decachlorobiphenyl	*126*		*65 - 174*	*07/15/24 08:01*	*07/18/24 06:23*	*1*
DCB Decachlorobiphenyl	*140*		*65 - 174*	*07/15/24 08:01*	*07/18/24 06:23*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**15500**	**B**	12.4	10.7	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Antimony	**0.79**	**J**	18.7	0.66	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Arsenic	**2.8**		2.5	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Barium	**90.1**		0.62	0.17	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Beryllium	**0.70**		0.25	0.050	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Cadmium	**0.14**	**J**	0.25	0.087	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Calcium	**38100**	**B**	62.2	33.6	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Chromium	**18.9**		0.62	0.45	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Cobalt	**7.2**		0.62	0.12	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Copper	**16.8**	**B**	1.2	0.71	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Iron	**17500**	**B**	12.4	10.6	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Lead	**14.3**	**B**	1.2	0.57	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Magnesium	**12400**	**B**	24.9	10.6	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1

Client Sample ID: HA-06-3.0-4.0

Date Collected: 07/11/24 09:50
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-3

Matrix: Solid
Percent Solids: 79.8

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**360**	**B**	1.2	0.35	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Nickel	**19.4**		6.2	0.31	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Potassium	**4450**		37.3	30.2	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Selenium	ND		5.0	1.0	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Silver	**0.34**	**J**	0.75	0.25	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Sodium	**276**		174	76.3	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Thallium	ND		7.5	0.95	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Vanadium	**32.1**		0.62	0.16	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1
Zinc	**44.8**		2.5	1.3	mg/Kg	☼	07/12/24 12:30	07/15/24 17:42	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.010**	**J**	0.026	0.0059	mg/Kg	☼	07/15/24 09:13	07/15/24 11:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.60	mg/Kg	☼	07/18/24 12:15	07/18/24 16:43	1

Client Sample ID: HA-06-3.0-4.0-FD

Date Collected: 07/11/24 09:50
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-4

Matrix: Solid
Percent Solids: 80.3

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		3.5	0.25	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
1,1,2,2-Tetrachloroethane	ND		3.5	0.56	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.5	0.79	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
1,1,2-Trichloroethane	ND		3.5	0.45	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
1,1-Dichloroethane	ND		3.5	0.42	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
1,1-Dichloroethene	ND		3.5	0.42	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
1,2,4-Trichlorobenzene	ND		3.5	0.21	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
1,2-Dibromo-3-Chloropropane	ND		3.5	1.7	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
1,2-Dibromoethane	ND		3.5	0.45	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
1,2-Dichlorobenzene	ND		3.5	0.27	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
1,2-Dichloroethane	ND		3.5	0.17	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
1,2-Dichloropropane	ND		3.5	1.7	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
1,3-Dichlorobenzene	ND		3.5	0.18	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
1,4-Dichlorobenzene	ND		3.5	0.49	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
2-Butanone (MEK)	ND		17	1.3	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
2-Hexanone	ND		17	1.7	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
4-Methyl-2-pentanone (MIBK)	ND		17	1.1	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Acetone	**5.2**	**J**	17	2.9	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Benzene	ND		3.5	0.17	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Bromodichloromethane	ND		3.5	0.47	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Bromoform	ND		3.5	1.7	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Bromomethane	ND		3.5	0.31	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Carbon disulfide	ND		3.5	1.7	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Carbon tetrachloride	ND		3.5	0.34	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Chlorobenzene	ND		3.5	0.46	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Chloroethane	ND		3.5	0.78	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221553-1

Client Sample ID: HA-06-3.0-4.0-FD
Date Collected: 07/11/24 09:50
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-4
Matrix: Solid
Percent Solids: 80.3

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		3.5	0.21	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Chloromethane	ND		3.5	0.21	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
cis-1,2-Dichloroethene	ND		3.5	0.44	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
cis-1,3-Dichloropropene	ND		3.5	0.50	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Cyclohexane	ND		3.5	0.49	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Dibromochloromethane	ND		3.5	0.44	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Dichlorodifluoromethane	ND		3.5	0.29	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Ethylbenzene	ND		3.5	0.24	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Isopropylbenzene	ND		3.5	0.52	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Methyl acetate	ND		17	2.1	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Methyl tert-butyl ether	ND		3.5	0.34	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Methylcyclohexane	ND		3.5	0.53	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Methylene Chloride	ND		3.5	1.6	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Styrene	ND		3.5	0.17	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Tetrachloroethene	ND		3.5	0.47	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Toluene	ND		3.5	0.26	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
trans-1,2-Dichloroethene	ND		3.5	0.36	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
trans-1,3-Dichloropropene	ND		3.5	1.5	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Trichloroethene	ND		3.5	0.76	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Trichlorofluoromethane	ND		3.5	0.33	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Vinyl chloride	ND		3.5	0.42	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1
Xylenes, Total	ND		6.9	0.58	ug/Kg	☼	07/12/24 10:00	07/14/24 17:47	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/12/24 10:00*	*07/14/24 17:47*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*64 - 126*	*07/12/24 10:00*	*07/14/24 17:47*	*1*
4-Bromofluorobenzene (Surr)	*107*		*72 - 126*	*07/12/24 10:00*	*07/14/24 17:47*	*1*
Dibromofluoromethane (Surr)	*101*		*60 - 140*	*07/12/24 10:00*	*07/14/24 17:47*	*1*
Toluene-d8 (Surr)	*97*		*71 - 125*	*07/12/24 10:00*	*07/14/24 17:47*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		210	57	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
2,4,6-Trichlorophenol	ND		210	42	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
2,4-Dichlorophenol	ND		210	22	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
2,4-Dimethylphenol	ND	*+	210	51	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
2,4-Dinitrophenol	ND		2100	970	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
2,4-Dinitrotoluene	ND		210	43	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
2,6-Dinitrotoluene	ND		210	25	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
2-Chloronaphthalene	ND		210	35	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
2-Chlorophenol	ND		410	38	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
2-Methylnaphthalene	ND		210	42	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
2-Methylphenol	ND		210	25	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
2-Nitroaniline	ND		410	31	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
2-Nitrophenol	ND		210	60	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
3,3'-Dichlorobenzidine	ND		410	250	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
3-Nitroaniline	ND		410	58	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
4,6-Dinitro-2-methylphenol	ND		410	210	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1

Client Sample ID: HA-06-3.0-4.0-FD
Date Collected: 07/11/24 09:50
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-4
Matrix: Solid
Percent Solids: 80.3

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Bromophenyl phenyl ether	ND		210	30	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
4-Chloro-3-methylphenol	ND		210	52	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
4-Chloroaniline	ND		210	52	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
4-Chlorophenyl phenyl ether	ND		210	26	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
4-Methylphenol	ND		410	25	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
4-Nitroaniline	ND		410	110	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
4-Nitrophenol	ND		410	150	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Acenaphthene	ND		210	31	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Acenaphthylene	ND		210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Acetophenone	ND		210	29	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Anthracene	ND		210	52	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Atrazine	ND		210	73	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Benzaldehyde	ND		210	170	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Benzo[a]anthracene	ND		210	21	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Benzo[a]pyrene	ND		210	31	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Benzo[b]fluoranthene	ND		210	33	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Benzo[g,h,i]perylene	ND		210	22	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Benzo[k]fluoranthene	ND		210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Biphenyl	ND		210	31	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
bis (2-chloroisopropyl) ether	ND		210	42	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Bis(2-chloroethoxy)methane	ND		210	45	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Bis(2-chloroethyl)ether	ND		210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Bis(2-ethylhexyl) phthalate	ND		210	72	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Butyl benzyl phthalate	ND		210	35	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Caprolactam	ND		210	63	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Carbazole	ND		210	25	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Chrysene	ND		210	47	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Dibenz(a,h)anthracene	ND		210	37	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Dibenzofuran	ND		210	25	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Diethyl phthalate	ND	*+	210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Dimethyl phthalate	ND		210	25	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Di-n-butyl phthalate	ND		210	36	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Di-n-octyl phthalate	ND		210	25	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Fluoranthene	ND		210	22	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Fluorene	ND	*+	210	25	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Hexachlorobenzene	ND		210	29	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Hexachlorobutadiene	ND		210	31	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Hexachlorocyclopentadiene	ND		210	29	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Hexachloroethane	ND		210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Indeno[1,2,3-cd]pyrene	ND		210	26	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Isophorone	ND		210	45	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Naphthalene	ND		210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Nitrobenzene	ND		210	24	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
N-Nitrosodi-n-propylamine	ND		210	36	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
N-Nitrosodiphenylamine	ND		210	170	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Pentachlorophenol	ND		410	210	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Phenanthrene	ND		210	31	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Phenol	ND		210	32	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1
Pyrene	ND		210	25	ug/Kg	☼	07/15/24 07:53	07/19/24 16:27	1

Client Sample ID: HA-06-3.0-4.0-FD

Date Collected: 07/11/24 09:50
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-4

Matrix: Solid
Percent Solids: 80.3

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	610	T J	ug/Kg	☼	1.75	N/A	07/15/24 07:53	07/19/24 16:27	1
Unknown	2700	T J	ug/Kg	☼	1.94	N/A	07/15/24 07:53	07/19/24 16:27	1
Methylene Chloride	2700	T J N	ug/Kg	☼	2.00	75-09-2	07/15/24 07:53	07/19/24 16:27	1
Unknown	970	T J	ug/Kg	☼	3.35	N/A	07/15/24 07:53	07/19/24 16:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	116		26 - 143	07/15/24 07:53	07/19/24 16:27	1
2-Fluorobiphenyl	82		50 - 121	07/15/24 07:53	07/19/24 16:27	1
2-Fluorophenol	72		36 - 120	07/15/24 07:53	07/19/24 16:27	1
Nitrobenzene-d5	82		40 - 121	07/15/24 07:53	07/19/24 16:27	1
Phenol-d5	77		41 - 120	07/15/24 07:53	07/19/24 16:27	1
p-Terphenyl-d14	92		46 - 143	07/15/24 07:53	07/19/24 16:27	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.1	0.40	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
4,4'-DDE	ND		2.1	0.43	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
4,4'-DDT	ND		2.1	0.48	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
Aldrin	ND		2.1	0.51	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
alpha-BHC	ND		2.1	0.37	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
cis-Chlordane	ND		2.1	1.0	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
beta-BHC	ND		2.1	0.37	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
delta-BHC	ND		2.1	0.38	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
Dieldrin	ND		2.1	0.50	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
Endosulfan I	ND		2.1	0.40	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
Endosulfan II	ND		2.1	0.37	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
Endosulfan sulfate	ND		2.1	0.39	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
Endrin	ND		2.1	0.41	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
Endrin aldehyde	ND		2.1	0.53	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
Endrin ketone	ND		2.1	0.51	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
gamma-BHC (Lindane)	ND		2.1	0.38	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
trans-Chlordane	ND		2.1	0.66	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
Heptachlor	ND		2.1	0.45	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
Heptachlor epoxide	ND		2.1	0.53	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
Methoxychlor	ND		2.1	0.42	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1
Toxaphene	ND		21	12	ug/Kg	☼	07/15/24 07:45	07/16/24 12:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	78		45 - 120	07/15/24 07:45	07/16/24 12:18	1
DCB Decachlorobiphenyl	80		45 - 120	07/15/24 07:45	07/16/24 12:18	1
Tetrachloro-m-xylene	70		30 - 124	07/15/24 07:45	07/16/24 12:18	1
Tetrachloro-m-xylene	74		30 - 124	07/15/24 07:45	07/16/24 12:18	1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.22	0.043	mg/Kg	☼	07/15/24 08:01	07/18/24 06:40	1
PCB-1221	ND		0.22	0.043	mg/Kg	☼	07/15/24 08:01	07/18/24 06:40	1
PCB-1232	ND		0.22	0.043	mg/Kg	☼	07/15/24 08:01	07/18/24 06:40	1
PCB-1242	ND		0.22	0.043	mg/Kg	☼	07/15/24 08:01	07/18/24 06:40	1
PCB-1248	ND		0.22	0.043	mg/Kg	☼	07/15/24 08:01	07/18/24 06:40	1
PCB-1254	ND		0.22	0.10	mg/Kg	☼	07/15/24 08:01	07/18/24 06:40	1

Client Sample ID: HA-06-3.0-4.0-FD

Lab Sample ID: 480-221553-4

Date Collected: 07/11/24 09:50
Date Received: 07/12/24 17:50

Matrix: Solid
Percent Solids: 80.3

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1260	ND		0.22	0.10	mg/Kg	☼	07/15/24 08:01	07/18/24 06:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*124*		*60 - 154*	*07/15/24 08:01*	*07/18/24 06:40*	*1*
Tetrachloro-m-xylene	*108*		*60 - 154*	*07/15/24 08:01*	*07/18/24 06:40*	*1*
DCB Decachlorobiphenyl	*105*		*65 - 174*	*07/15/24 08:01*	*07/18/24 06:40*	*1*
DCB Decachlorobiphenyl	*117*		*65 - 174*	*07/15/24 08:01*	*07/18/24 06:40*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**16700**	**B**	12.5	10.8	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Antimony	ND		18.7	0.66	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Arsenic	**2.4**	**J**	2.5	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Barium	**133**		0.62	0.17	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Beryllium	**0.73**		0.25	0.050	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Cadmium	**0.16**	**J**	0.25	0.087	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Calcium	**42900**	**B**	62.5	33.7	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Chromium	**20.6**		0.62	0.45	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Cobalt	**9.8**		0.62	0.12	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Copper	**16.3**	**B**	1.2	0.71	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Iron	**18000**	**B**	12.5	10.6	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Lead	**11.8**	**B**	1.2	0.57	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Magnesium	**13200**	**B**	25.0	10.6	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Manganese	**511**	**B**	1.2	0.35	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Nickel	**23.3**		6.2	0.31	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Potassium	**4840**		37.5	30.3	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Selenium	ND		5.0	1.0	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Silver	**0.34**	**J**	0.75	0.25	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Sodium	**277**		175	76.6	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Thallium	ND		7.5	0.95	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Vanadium	**32.6**		0.62	0.16	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1
Zinc	**48.5**		2.5	1.3	mg/Kg	☼	07/12/24 12:30	07/15/24 17:44	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.011**	**J**	0.024	0.0055	mg/Kg	☼	07/15/24 09:13	07/15/24 11:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.60	mg/Kg	☼	07/18/24 13:15	07/18/24 16:53	1

Client Sample ID: HA-05-0.0-0.2

Lab Sample ID: 480-221553-5

Date Collected: 07/11/24 10:25
Date Received: 07/12/24 17:50

Matrix: Solid
Percent Solids: 75.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		1100	300	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
2,4,6-Trichlorophenol	ND		1100	220	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
2,4-Dichlorophenol	ND		1100	120	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
2,4-Dimethylphenol	ND	*+	1100	270	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5

Client Sample ID: HA-05-0.0-0.2

Date Collected: 07/11/24 10:25
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-5

Matrix: Solid
Percent Solids: 75.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	ND		11000	5100	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
2,4-Dinitrotoluene	ND		1100	230	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
2,6-Dinitrotoluene	ND		1100	130	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
2-Chloronaphthalene	ND		1100	180	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
2-Chlorophenol	ND		2200	200	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
2-Methylnaphthalene	ND		1100	220	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
2-Methylphenol	ND		1100	130	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
2-Nitroaniline	ND		2200	160	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
2-Nitrophenol	ND		1100	310	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
3,3'-Dichlorobenzidine	ND		2200	1300	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
3-Nitroaniline	ND		2200	310	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
4,6-Dinitro-2-methylphenol	ND		2200	1100	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
4-Bromophenyl phenyl ether	ND		1100	160	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
4-Chloro-3-methylphenol	ND		1100	270	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
4-Chloroaniline	ND		1100	270	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
4-Chlorophenyl phenyl ether	ND		1100	140	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
4-Methylphenol	ND		2200	130	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
4-Nitroaniline	ND		2200	580	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
4-Nitrophenol	ND		2200	780	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Acenaphthene	ND		1100	160	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Acenaphthylene	ND		1100	140	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Acetophenone	ND		1100	150	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Anthracene	ND		1100	270	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Atrazine	ND		1100	390	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Benzaldehyde	ND		1100	880	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Benzo[a]anthracene	**180**	**J**	1100	110	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Benzo[a]pyrene	**220**	**J**	1100	160	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Benzo[b]fluoranthene	**300**	**J**	1100	180	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Benzo[g,h,i]perylene	**210**	**J**	1100	120	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Benzo[k]fluoranthene	**160**	**J**	1100	140	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Biphenyl	ND		1100	160	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
bis (2-chloroisopropyl) ether	ND		1100	220	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Bis(2-chloroethoxy)methane	ND		1100	240	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Bis(2-chloroethyl)ether	ND		1100	140	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Bis(2-ethylhexyl) phthalate	ND		1100	380	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Butyl benzyl phthalate	ND		1100	180	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Caprolactam	ND		1100	330	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Carbazole	ND		1100	130	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Chrysene	ND		1100	250	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Dibenz(a,h)anthracene	ND		1100	200	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Dibenzofuran	ND		1100	130	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Diethyl phthalate	ND	*+	1100	140	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Dimethyl phthalate	ND		1100	130	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Di-n-butyl phthalate	ND		1100	190	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Di-n-octyl phthalate	ND		1100	130	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Fluoranthene	**690**	**J**	1100	120	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Fluorene	ND	*+	1100	130	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Hexachlorobenzene	ND		1100	150	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Hexachlorobutadiene	ND		1100	160	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5

Client Sample ID: HA-05-0.0-0.2
Date Collected: 07/11/24 10:25
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-5
Matrix: Solid
Percent Solids: 75.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorocyclopentadiene	ND		1100	150	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Hexachloroethane	ND		1100	140	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Indeno[1,2,3-cd]pyrene	**160**	**J**	1100	140	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Isophorone	ND		1100	240	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Naphthalene	ND		1100	140	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Nitrobenzene	ND		1100	120	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
N-Nitrosodi-n-propylamine	ND		1100	190	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
N-Nitrosodiphenylamine	ND		1100	900	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Pentachlorophenol	ND		2200	1100	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Phenanthrene	**170**	**J**	1100	160	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Phenol	ND		1100	170	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5
Pyrene	**450**	**J**	1100	130	ug/Kg	☼	07/15/24 07:53	07/19/24 16:54	5

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tetracosane	*1700*	*T J N*	*ug/Kg*	☼	*14.19*	*646-31-1*	*07/15/24 07:53*	*07/19/24 16:54*	*5*
Unknown	*900*	*T J*	*ug/Kg*	☼	*15.61*	*N/A*	*07/15/24 07:53*	*07/19/24 16:54*	*5*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*86*		*26 - 143*	*07/15/24 07:53*	*07/19/24 16:54*	*5*
2-Fluorobiphenyl	*73*		*50 - 121*	*07/15/24 07:53*	*07/19/24 16:54*	*5*
2-Fluorophenol	*68*		*36 - 120*	*07/15/24 07:53*	*07/19/24 16:54*	*5*
Nitrobenzene-d5	*78*		*40 - 121*	*07/15/24 07:53*	*07/19/24 16:54*	*5*
Phenol-d5	*78*		*41 - 120*	*07/15/24 07:53*	*07/19/24 16:54*	*5*
p-Terphenyl-d14	*78*		*46 - 143*	*07/15/24 07:53*	*07/19/24 16:54*	*5*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		22	4.3	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
4,4'-DDE	ND		22	4.6	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
4,4'-DDT	ND		22	5.1	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
Aldrin	ND		22	5.4	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
alpha-BHC	ND		22	3.9	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
cis-Chlordane	ND		22	11	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
beta-BHC	ND		22	3.9	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
delta-BHC	ND		22	4.1	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
Dieldrin	ND		22	5.3	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
Endosulfan I	ND		22	4.2	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
Endosulfan II	ND		22	3.9	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
Endosulfan sulfate	ND		22	4.1	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
Endrin	ND		22	4.3	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
Endrin aldehyde	ND		22	5.6	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
Endrin ketone	ND		22	5.4	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
gamma-BHC (Lindane)	ND		22	4.0	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
trans-Chlordane	ND		22	7.0	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
Heptachlor	ND		22	4.7	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
Heptachlor epoxide	ND		22	5.7	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
Methoxychlor	ND		22	4.5	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10
Toxaphene	ND		220	130	ug/Kg	☼	07/15/24 07:45	07/16/24 12:37	10

Client Sample ID: HA-05-0.0-0.2

Date Collected: 07/11/24 10:25
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-5

Matrix: Solid
Percent Solids: 75.2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*109*		*45 - 120*	*07/15/24 07:45*	*07/16/24 12:37*	*10*
DCB Decachlorobiphenyl	*100*		*45 - 120*	*07/15/24 07:45*	*07/16/24 12:37*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 12:37*	*10*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 12:37*	*10*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.32	0.063	mg/Kg	☼	07/15/24 08:01	07/18/24 06:56	1
PCB-1221	ND		0.32	0.063	mg/Kg	☼	07/15/24 08:01	07/18/24 06:56	1
PCB-1232	ND		0.32	0.063	mg/Kg	☼	07/15/24 08:01	07/18/24 06:56	1
PCB-1242	ND		0.32	0.063	mg/Kg	☼	07/15/24 08:01	07/18/24 06:56	1
PCB-1248	ND		0.32	0.063	mg/Kg	☼	07/15/24 08:01	07/18/24 06:56	1
PCB-1254	ND		0.32	0.15	mg/Kg	☼	07/15/24 08:01	07/18/24 06:56	1
PCB-1260	ND		0.32	0.15	mg/Kg	☼	07/15/24 08:01	07/18/24 06:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*116*		*60 - 154*	*07/15/24 08:01*	*07/18/24 06:56*	*1*
Tetrachloro-m-xylene	*106*		*60 - 154*	*07/15/24 08:01*	*07/18/24 06:56*	*1*
DCB Decachlorobiphenyl	*102*		*65 - 174*	*07/15/24 08:01*	*07/18/24 06:56*	*1*
DCB Decachlorobiphenyl	*114*		*65 - 174*	*07/15/24 08:01*	*07/18/24 06:56*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**14500**	**B**	13.3	11.5	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Antimony	ND		20.0	0.71	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Arsenic	**4.4**		2.7	1.2	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Barium	**115**		0.67	0.19	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Beryllium	**2.4**		0.27	0.053	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Cadmium	**0.24**	**J**	0.27	0.093	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Calcium	**61700**	**B**	66.7	36.0	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Chromium	**13.5**		0.67	0.48	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Cobalt	**6.7**		0.67	0.13	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Copper	**14.0**	**B**	1.3	0.76	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Iron	**11700**	**B**	13.3	11.3	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Lead	**41.1**	**B**	1.3	0.61	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Magnesium	**19700**	**B**	26.7	11.3	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Manganese	**769**	**B**	1.3	0.37	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Nickel	**17.6**		6.7	0.33	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Potassium	**2370**		40.0	32.3	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Selenium	ND		5.3	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Silver	ND		0.80	0.27	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Sodium	**471**		187	81.7	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Thallium	ND		8.0	1.0	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Vanadium	**15.8**		0.67	0.17	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1
Zinc	**75.1**		2.7	1.4	mg/Kg	☼	07/12/24 12:30	07/15/24 17:46	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.069**		0.025	0.0059	mg/Kg	☼	07/15/24 09:13	07/15/24 11:21	1

Client Sample ID: HA-05-0.0-0.2

Date Collected: 07/11/24 10:25
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-5

Matrix: Solid
Percent Solids: 75.2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	4.7		1.1	0.54	mg/Kg	☼	07/18/24 13:15	07/18/24 16:55	1

Client Sample ID: HA-05-3.0-4.0

Date Collected: 07/11/24 10:50
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-6

Matrix: Solid
Percent Solids: 82.2

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.1	0.29	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
1,1,2,2-Tetrachloroethane	ND	F1	4.1	0.66	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.1	0.92	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
1,1,2-Trichloroethane	ND	F1	4.1	0.53	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
1,1-Dichloroethane	ND		4.1	0.49	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
1,1-Dichloroethene	ND		4.1	0.50	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
1,2,4-Trichlorobenzene	ND	F2 F1	4.1	0.25	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
1,2-Dibromo-3-Chloropropane	ND	F1	4.1	2.0	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
1,2-Dibromoethane	ND	F1	4.1	0.52	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
1,2-Dichlorobenzene	ND	F2 F1	4.1	0.32	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
1,2-Dichloroethane	ND		4.1	0.20	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
1,2-Dichloropropane	ND		4.1	2.0	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
1,3-Dichlorobenzene	ND	F2 F1	4.1	0.21	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
1,4-Dichlorobenzene	ND	F1	4.1	0.57	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
2-Butanone (MEK)	ND	F1	20	1.5	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
2-Hexanone	ND	F1	20	2.0	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
4-Methyl-2-pentanone (MIBK)	ND	F1	20	1.3	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Acetone	ND	F1	20	3.4	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Benzene	ND		4.1	0.20	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Bromodichloromethane	ND		4.1	0.54	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Bromoform	ND		4.1	2.0	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Bromomethane	ND		4.1	0.36	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Carbon disulfide	ND		4.1	2.0	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Carbon tetrachloride	ND		4.1	0.39	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Chlorobenzene	ND	F1	4.1	0.54	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Chloroethane	ND		4.1	0.92	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Chloroform	ND		4.1	0.25	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Chloromethane	ND		4.1	0.24	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
cis-1,2-Dichloroethene	ND	F1	4.1	0.52	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
cis-1,3-Dichloropropene	ND		4.1	0.58	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Cyclohexane	ND	F1	4.1	0.57	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Dibromochloromethane	ND		4.1	0.52	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Dichlorodifluoromethane	ND		4.1	0.33	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Ethylbenzene	ND	F1	4.1	0.28	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Isopropylbenzene	ND	F1	4.1	0.61	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Methyl acetate	ND		20	2.4	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Methyl tert-butyl ether	ND		4.1	0.40	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Methylcyclohexane	ND	F1	4.1	0.62	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Methylene Chloride	ND		4.1	1.9	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Styrene	ND	F1	4.1	0.20	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Tetrachloroethene	ND	F1	4.1	0.54	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Toluene	ND	F1	4.1	0.31	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1

Client Sample ID: HA-05-3.0-4.0
Date Collected: 07/11/24 10:50
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-6
Matrix: Solid
Percent Solids: 82.2

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND	F1	4.1	0.42	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
trans-1,3-Dichloropropene	ND		4.1	1.8	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Trichloroethene	ND		4.1	0.89	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Trichlorofluoromethane	ND		4.1	0.38	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Vinyl chloride	ND		4.1	0.49	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1
Xylenes, Total	ND		8.1	0.68	ug/Kg	☼	07/12/24 10:00	07/14/24 18:10	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/12/24 10:00*	*07/14/24 18:10*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*64 - 126*	*07/12/24 10:00*	*07/14/24 18:10*	*1*
4-Bromofluorobenzene (Surr)	*106*		*72 - 126*	*07/12/24 10:00*	*07/14/24 18:10*	*1*
Dibromofluoromethane (Surr)	*104*		*60 - 140*	*07/12/24 10:00*	*07/14/24 18:10*	*1*
Toluene-d8 (Surr)	*97*		*71 - 125*	*07/12/24 10:00*	*07/14/24 18:10*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		120	66	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
2,4,5-Trichlorophenol	ND		210	55	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
2,4,6-Trichlorophenol	ND		210	41	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
2,4-Dichlorophenol	ND		210	22	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
2,4-Dimethylphenol	ND	F1 *+	210	49	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
2,4-Dinitrophenol	ND		2000	950	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
2,4-Dinitrotoluene	ND		210	42	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
2,6-Dinitrotoluene	ND		210	24	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
2-Chloronaphthalene	ND		210	34	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
2-Chlorophenol	ND		400	37	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
2-Methylnaphthalene	ND		210	41	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
2-Methylphenol	ND		210	24	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
2-Nitroaniline	ND		400	30	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
2-Nitrophenol	ND		210	58	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
3,3'-Dichlorobenzidine	ND		400	240	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
3-Nitroaniline	ND		400	57	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
4,6-Dinitro-2-methylphenol	ND		400	210	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
4-Bromophenyl phenyl ether	ND		210	29	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
4-Chloro-3-methylphenol	ND		210	51	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
4-Chloroaniline	ND		210	51	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
4-Chlorophenyl phenyl ether	ND		210	25	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
4-Methylphenol	ND		400	24	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
4-Nitroaniline	ND		400	110	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
4-Nitrophenol	ND		400	140	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Acenaphthene	ND		210	30	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Acenaphthylene	ND		210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Acetophenone	ND		210	28	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Anthracene	ND		210	51	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Atrazine	ND		210	71	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Benzaldehyde	ND	F2	210	160	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Benzo[a]anthracene	ND		210	21	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Benzo[a]pyrene	ND		210	30	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221553-1

Client Sample ID: HA-05-3.0-4.0
Date Collected: 07/11/24 10:50
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-6
Matrix: Solid
Percent Solids: 82.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	ND		210	33	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Benzo[g,h,i]perylene	ND		210	22	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Benzo[k]fluoranthene	ND	F2	210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Biphenyl	ND		210	30	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
bis (2-chloroisopropyl) ether	ND		210	41	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Bis(2-chloroethoxy)methane	ND		210	43	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Bis(2-chloroethyl)ether	ND		210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Bis(2-ethylhexyl) phthalate	ND		210	70	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Butyl benzyl phthalate	ND		210	34	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Caprolactam	ND		210	62	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Carbazole	ND		210	24	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Chrysene	ND		210	46	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Dibenz(a,h)anthracene	ND		210	36	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Dibenzofuran	ND		210	24	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Diethyl phthalate	ND	*+	210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Dimethyl phthalate	ND		210	24	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Di-n-butyl phthalate	ND		210	35	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Di-n-octyl phthalate	ND		210	24	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Fluoranthene	ND	F2	210	22	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Fluorene	ND	*+	210	24	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Hexachlorobenzene	ND		210	28	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Hexachlorobutadiene	ND		210	30	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Hexachlorocyclopentadiene	ND	F1	210	28	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Hexachloroethane	ND		210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Indeno[1,2,3-cd]pyrene	ND		210	25	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Isophorone	ND		210	43	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Naphthalene	ND		210	27	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Nitrobenzene	ND		210	23	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
N-Nitrosodi-n-propylamine	ND		210	35	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
N-Nitrosodiphenylamine	ND		210	170	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Pentachlorophenol	ND		400	210	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Phenanthrene	ND		210	30	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Phenol	ND		210	31	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1
Pyrene	ND		210	24	ug/Kg	☼	07/15/24 07:53	07/19/24 14:10	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*230*	*T J*	*ug/Kg*	☼	*1.72*	*N/A*	*07/15/24 07:53*	*07/19/24 14:10*	*1*
Unknown	*2000*	*T J*	*ug/Kg*	☼	*1.93*	*N/A*	*07/15/24 07:53*	*07/19/24 14:10*	*1*
Methylene Chloride	*1900*	*T J N*	*ug/Kg*	☼	*2.00*	*75-09-2*	*07/15/24 07:53*	*07/19/24 14:10*	*1*
Unknown	*980*	*T J*	*ug/Kg*	☼	*3.35*	*N/A*	*07/15/24 07:53*	*07/19/24 14:10*	*1*
Ethanol, 2-(octadecyloxy)-	*170*	*T J N*	*ug/Kg*	☼	*13.16*	*2136-72-3*	*07/15/24 07:53*	*07/19/24 14:10*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*87*		*26 - 143*	*07/15/24 07:53*	*07/19/24 14:10*	*1*
2-Fluorobiphenyl	*79*		*50 - 121*	*07/15/24 07:53*	*07/19/24 14:10*	*1*
2-Fluorophenol	*71*		*36 - 120*	*07/15/24 07:53*	*07/19/24 14:10*	*1*
Nitrobenzene-d5	*100*		*40 - 121*	*07/15/24 07:53*	*07/19/24 14:10*	*1*
Phenol-d5	*86*		*41 - 120*	*07/15/24 07:53*	*07/19/24 14:10*	*1*
p-Terphenyl-d14	*99*		*46 - 143*	*07/15/24 07:53*	*07/19/24 14:10*	*1*

Client Sample ID: HA-05-3.0-4.0
Date Collected: 07/11/24 10:50
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-6
Matrix: Solid
Percent Solids: 82.2

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.0	0.39	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
4,4'-DDE	ND		2.0	0.42	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
4,4'-DDT	**0.61**	**J**	2.0	0.47	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
Aldrin	ND		2.0	0.49	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
alpha-BHC	ND		2.0	0.36	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
cis-Chlordane	ND		2.0	0.99	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
beta-BHC	ND		2.0	0.36	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
delta-BHC	ND		2.0	0.37	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
Dieldrin	ND		2.0	0.48	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
Endosulfan I	ND		2.0	0.38	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
Endosulfan II	ND		2.0	0.36	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
Endosulfan sulfate	ND		2.0	0.37	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
Endrin	ND		2.0	0.39	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
Endrin aldehyde	ND		2.0	0.51	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
Endrin ketone	ND		2.0	0.49	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
gamma-BHC (Lindane)	ND		2.0	0.37	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
trans-Chlordane	ND	F1	2.0	0.63	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
Heptachlor	ND		2.0	0.43	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
Heptachlor epoxide	ND		2.0	0.51	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
Methoxychlor	ND		2.0	0.41	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1
Toxaphene	ND		20	12	ug/Kg	☼	07/15/24 07:45	07/16/24 10:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*83*		*45 - 120*	*07/15/24 07:45*	*07/16/24 10:59*	*1*
DCB Decachlorobiphenyl	*99*		*45 - 120*	*07/15/24 07:45*	*07/16/24 10:59*	*1*
Tetrachloro-m-xylene	*93*		*30 - 124*	*07/15/24 07:45*	*07/16/24 10:59*	*1*
Tetrachloro-m-xylene	*89*		*30 - 124*	*07/15/24 07:45*	*07/16/24 10:59*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.22	0.043	mg/Kg	☼	07/15/24 08:01	07/18/24 05:32	1
PCB-1221	ND		0.22	0.043	mg/Kg	☼	07/15/24 08:01	07/18/24 05:32	1
PCB-1232	ND		0.22	0.043	mg/Kg	☼	07/15/24 08:01	07/18/24 05:32	1
PCB-1242	ND		0.22	0.043	mg/Kg	☼	07/15/24 08:01	07/18/24 05:32	1
PCB-1248	ND		0.22	0.043	mg/Kg	☼	07/15/24 08:01	07/18/24 05:32	1
PCB-1254	ND		0.22	0.10	mg/Kg	☼	07/15/24 08:01	07/18/24 05:32	1
PCB-1260	ND		0.22	0.10	mg/Kg	☼	07/15/24 08:01	07/18/24 05:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*134*		*60 - 154*	*07/15/24 08:01*	*07/18/24 05:32*	*1*
Tetrachloro-m-xylene	*117*		*60 - 154*	*07/15/24 08:01*	*07/18/24 05:32*	*1*
DCB Decachlorobiphenyl	*115*		*65 - 174*	*07/15/24 08:01*	*07/18/24 05:32*	*1*
DCB Decachlorobiphenyl	*128*		*65 - 174*	*07/15/24 08:01*	*07/18/24 05:32*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.80	0.20	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluoropentanoic acid (PFPeA)	ND		0.40	0.099	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluorohexanoic acid (PFHxA)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluoroheptanoic acid (PFHpA)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221553-1

Client Sample ID: HA-05-3.0-4.0
Date Collected: 07/11/24 10:50
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-6
Matrix: Solid
Percent Solids: 82.2

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluorononanoic acid (PFNA)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluorodecanoic acid (PFDA)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluoroundecanoic acid (PFUnA)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluorododecanoic acid (PFDoA)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluorooctanesulfonic acid (PFOS)	**0.089**	**J**	0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluorononanesulfonic acid (PFNS)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		0.80	0.20	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		0.80	0.20	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		0.80	0.20	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		2.0	0.50	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		2.0	0.50	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.80	0.20	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.80	0.20	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.40	0.099	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		0.80	0.20	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		0.80	0.20	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.40	0.099	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	*+	0.99	0.25	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		5.0	1.2	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		5.0	1.2	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1

Client Sample ID: HA-05-3.0-4.0
Date Collected: 07/11/24 10:50
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-6
Matrix: Solid
Percent Solids: 82.2

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorodecanesulfonic acid (PFDS)	ND		0.20	0.050	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.40	0.099	ug/Kg	☼	07/15/24 08:23	07/16/24 09:25	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*94.6*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
13C5 PFPeA	*85.3*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
13C5 PFHxA	*86.3*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
13C4 PFHpA	*75.3*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
13C8 PFOA	*72.7*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
13C9 PFNA	*85.4*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
13C6 PFDA	*96.4*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
13C7 PFUnA	*87.9*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
13C2 PFTeDA	*63.5*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
13C3 PFBS	*84.8*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
13C3 PFHxS	*78.5*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
13C8 PFOS	*92.8*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
13C8 FOSA	*85.8*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
d3-NMeFOSAA	*85.7*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
d5-NEtFOSAA	*122*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
M2-4:2 FTS	*81.8*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
M2-6:2 FTS	*84.7*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
M2-8:2 FTS	*75.0*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
13C3 HFPO-DA	*78.0*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
d7-N-MeFOSE-M	*75.4*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
d9-N-EtFOSE-M	*62.1*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
d5-NEtPFOSA	*69.5*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
d3-NMePFOSA	*67.6*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*
13C2-PFDoDA	*87.6*		*20 - 150*	*07/15/24 08:23*	*07/16/24 09:25*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.40	0.099	ug/Kg	☼	07/15/24 08:23	07/25/24 22:39	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*98.8*		*20 - 150*	*07/15/24 08:23*	*07/25/24 22:39*	*1*
13C5 PFPeA	*95.5*		*20 - 150*	*07/15/24 08:23*	*07/25/24 22:39*	*1*
13C5 PFHxA	*94.3*		*20 - 150*	*07/15/24 08:23*	*07/25/24 22:39*	*1*
13C4 PFHpA	*91.8*		*20 - 150*	*07/15/24 08:23*	*07/25/24 22:39*	*1*
13C8 PFOA	*91.6*		*20 - 150*	*07/15/24 08:23*	*07/25/24 22:39*	*1*
13C9 PFNA	*94.2*		*20 - 150*	*07/15/24 08:23*	*07/25/24 22:39*	*1*
13C6 PFDA	*106*		*20 - 150*	*07/15/24 08:23*	*07/25/24 22:39*	*1*
13C7 PFUnA	*91.1*		*20 - 150*	*07/15/24 08:23*	*07/25/24 22:39*	*1*
13C2 PFTeDA	*68.8*		*20 - 150*	*07/15/24 08:23*	*07/25/24 22:39*	*1*
13C3 PFBS	*89.5*		*20 - 150*	*07/15/24 08:23*	*07/25/24 22:39*	*1*
13C3 PFHxS	*92.0*		*20 - 150*	*07/15/24 08:23*	*07/25/24 22:39*	*1*
13C8 PFOS	*90.0*		*20 - 150*	*07/15/24 08:23*	*07/25/24 22:39*	*1*
13C8 FOSA	*72.2*		*20 - 150*	*07/15/24 08:23*	*07/25/24 22:39*	*1*
d3-NMeFOSAA	*85.3*		*20 - 150*	*07/15/24 08:23*	*07/25/24 22:39*	*1*
d5-NEtFOSAA	*80.7*		*20 - 150*	*07/15/24 08:23*	*07/25/24 22:39*	*1*
M2-4:2 FTS	*131*		*20 - 150*	*07/15/24 08:23*	*07/25/24 22:39*	*1*

Client Sample ID: HA-05-3.0-4.0

Date Collected: 07/11/24 10:50
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-6

Matrix: Solid
Percent Solids: 82.2

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS - RA (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	134		20 - 150	07/15/24 08:23	07/25/24 22:39	1
M2-8:2 FTS	130		20 - 150	07/15/24 08:23	07/25/24 22:39	1
13C3 HFPO-DA	89.4		20 - 150	07/15/24 08:23	07/25/24 22:39	1
d7-N-MeFOSE-M	65.5		20 - 150	07/15/24 08:23	07/25/24 22:39	1
d9-N-EtFOSE-M	64.1		20 - 150	07/15/24 08:23	07/25/24 22:39	1
d5-NEtPFOSA	60.7		20 - 150	07/15/24 08:23	07/25/24 22:39	1
d3-NMePFOSA	59.3		20 - 150	07/15/24 08:23	07/25/24 22:39	1
13C2-PFDoDA	80.0		20 - 150	07/15/24 08:23	07/25/24 22:39	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**26900**	**B**	12.1	10.4	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Antimony	ND	F1 F2	18.1	0.64	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Arsenic	**4.1**	**F1**	2.4	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Barium	**162**		0.60	0.17	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Beryllium	**2.0**		0.24	0.048	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Cadmium	**0.20**	**J**	0.24	0.085	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Calcium	**27500**	**B F2**	60.4	32.6	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Chromium	**28.3**		0.60	0.44	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Cobalt	**14.9**		0.60	0.12	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Copper	**14.9**	**B**	1.2	0.69	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Iron	**20500**	**B**	12.1	10.3	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Lead	**15.1**	**B**	1.2	0.56	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Magnesium	**9980**	**B**	24.2	10.3	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Manganese	**512**	**B**	1.2	0.34	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Nickel	**32.1**		6.0	0.30	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Potassium	**4880**	**F1**	36.3	29.3	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Selenium	ND	F1	4.8	0.97	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Silver	**0.34**	**J**	0.73	0.24	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Sodium	**277**		169	74.1	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Thallium	ND		7.3	0.92	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Vanadium	**41.0**		0.60	0.16	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1
Zinc	**59.6**		2.4	1.2	mg/Kg	☼	07/12/24 12:30	07/15/24 17:48	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.010**	**J**	0.023	0.0053	mg/Kg	☼	07/15/24 09:13	07/15/24 11:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND	F1	1.2	0.58	mg/Kg	☼	07/18/24 13:15	07/18/24 16:49	1

Client Sample ID: HA-04-0.0-0.2

Date Collected: 07/11/24 11:30
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-7

Matrix: Solid
Percent Solids: 78.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		21000	5800	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
2,4,6-Trichlorophenol	ND		21000	4300	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
2,4-Dichlorophenol	ND		21000	2300	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10

Client Sample ID: HA-04-0.0-0.2
Date Collected: 07/11/24 11:30
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-7
Matrix: Solid
Percent Solids: 78.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	ND	*+	21000	5200	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
2,4-Dinitrophenol	ND		210000	99000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
2,4-Dinitrotoluene	ND		21000	4400	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
2,6-Dinitrotoluene	ND		21000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
2-Chloronaphthalene	ND		21000	3500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
2-Chlorophenol	ND		42000	3900	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
2-Methylnaphthalene	ND		21000	4300	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
2-Methylphenol	ND		21000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
2-Nitroaniline	ND		42000	3100	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
2-Nitrophenol	ND		21000	6000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
3,3'-Dichlorobenzidine	ND		42000	25000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
3-Nitroaniline	ND		42000	5900	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
4,6-Dinitro-2-methylphenol	ND		42000	21000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
4-Bromophenyl phenyl ether	ND		21000	3000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
4-Chloro-3-methylphenol	ND		21000	5300	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
4-Chloroaniline	ND		21000	5300	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
4-Chlorophenyl phenyl ether	ND		21000	2600	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
4-Methylphenol	ND		42000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
4-Nitroaniline	ND		42000	11000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
4-Nitrophenol	ND		42000	15000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Acenaphthene	ND		21000	3100	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Acenaphthylene	ND		21000	2800	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Acetophenone	ND		21000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Anthracene	ND		21000	5300	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Atrazine	ND		21000	7400	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Benzaldehyde	ND		21000	17000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Benzo[a]anthracene	ND		21000	2100	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Benzo[a]pyrene	ND		21000	3100	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Benzo[b]fluoranthene	ND		21000	3400	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Benzo[g,h,i]perylene	ND		21000	2300	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Benzo[k]fluoranthene	ND		21000	2800	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Biphenyl	ND		21000	3100	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
bis (2-chloroisopropyl) ether	ND		21000	4300	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Bis(2-chloroethoxy)methane	ND		21000	4500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Bis(2-chloroethyl)ether	ND		21000	2800	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Bis(2-ethylhexyl) phthalate	ND		21000	7300	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Butyl benzyl phthalate	ND		21000	3500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Caprolactam	ND		21000	6400	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Carbazole	ND		21000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Chrysene	ND		21000	4800	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Dibenz(a,h)anthracene	ND		21000	3800	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Dibenzofuran	ND		21000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Diethyl phthalate	ND	*+	21000	2800	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Dimethyl phthalate	ND		21000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Di-n-butyl phthalate	ND		21000	3600	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Di-n-octyl phthalate	ND		21000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Fluoranthene	ND		21000	2300	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Fluorene	ND	*+	21000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Hexachlorobenzene	ND		21000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10

Client Sample ID: HA-04-0.0-0.2
Date Collected: 07/11/24 11:30
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-7
Matrix: Solid
Percent Solids: 78.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND		21000	3100	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Hexachlorocyclopentadiene	ND		21000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Hexachloroethane	ND		21000	2800	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Indeno[1,2,3-cd]pyrene	ND		21000	2600	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Isophorone	ND		21000	4500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Naphthalene	ND		21000	2800	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Nitrobenzene	ND		21000	2400	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
N-Nitrosodi-n-propylamine	ND		21000	3600	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
N-Nitrosodiphenylamine	ND		21000	17000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Pentachlorophenol	ND		42000	21000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Phenanthrene	ND		21000	3100	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Phenol	ND		21000	3300	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10
Pyrene	ND		21000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:25	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/15/24 07:53*	*07/19/24 17:25*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*254*	*S1+*	*26 - 143*	*07/15/24 07:53*	*07/19/24 17:25*	*10*
2-Fluorobiphenyl	*118*		*50 - 121*	*07/15/24 07:53*	*07/19/24 17:25*	*10*
2-Fluorophenol	*72*		*36 - 120*	*07/15/24 07:53*	*07/19/24 17:25*	*10*
Nitrobenzene-d5	*117*		*40 - 121*	*07/15/24 07:53*	*07/19/24 17:25*	*10*
Phenol-d5	*171*	*S1+*	*41 - 120*	*07/15/24 07:53*	*07/19/24 17:25*	*10*
p-Terphenyl-d14	*102*		*46 - 143*	*07/15/24 07:53*	*07/19/24 17:25*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		110	21	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
4,4'-DDE	ND		110	22	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
4,4'-DDT	ND		110	25	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
Aldrin	ND		110	26	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
alpha-BHC	ND		110	19	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
cis-Chlordane	ND		110	53	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
beta-BHC	ND		110	19	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
delta-BHC	ND		110	20	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
Dieldrin	ND		110	25	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
Endosulfan I	ND		110	20	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
Endosulfan II	ND		110	19	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
Endosulfan sulfate	ND		110	20	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
Endrin	ND		110	21	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
Endrin aldehyde	ND		110	27	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
Endrin ketone	ND		110	26	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
gamma-BHC (Lindane)	ND		110	19	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
trans-Chlordane	ND		110	34	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
Heptachlor	ND		110	23	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
Heptachlor epoxide	ND		110	27	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
Methoxychlor	ND		110	22	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50
Toxaphene	ND		1100	620	ug/Kg	☼	07/15/24 07:45	07/16/24 12:57	50

Client Sample ID: HA-04-0.0-0.2

Date Collected: 07/11/24 11:30
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-7

Matrix: Solid
Percent Solids: 78.4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*688*	*S1+*	*45 - 120*	*07/15/24 07:45*	*07/16/24 12:57*	*50*
DCB Decachlorobiphenyl	*560*	*S1+*	*45 - 120*	*07/15/24 07:45*	*07/16/24 12:57*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 12:57*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 12:57*	*50*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.27	0.054	mg/Kg	☼	07/15/24 08:01	07/18/24 07:13	1
PCB-1221	ND		0.27	0.054	mg/Kg	☼	07/15/24 08:01	07/18/24 07:13	1
PCB-1232	ND		0.27	0.054	mg/Kg	☼	07/15/24 08:01	07/18/24 07:13	1
PCB-1242	ND		0.27	0.054	mg/Kg	☼	07/15/24 08:01	07/18/24 07:13	1
PCB-1248	ND		0.27	0.054	mg/Kg	☼	07/15/24 08:01	07/18/24 07:13	1
PCB-1254	ND		0.27	0.13	mg/Kg	☼	07/15/24 08:01	07/18/24 07:13	1
PCB-1260	**0.38**		0.27	0.13	mg/Kg	☼	07/15/24 08:01	07/18/24 07:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*102*		*60 - 154*	*07/15/24 08:01*	*07/18/24 07:13*	*1*
Tetrachloro-m-xylene	*93*		*60 - 154*	*07/15/24 08:01*	*07/18/24 07:13*	*1*
DCB Decachlorobiphenyl	*78*		*65 - 174*	*07/15/24 08:01*	*07/18/24 07:13*	*1*
DCB Decachlorobiphenyl	*80*		*65 - 174*	*07/15/24 08:01*	*07/18/24 07:13*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**24700**	**B**	12.8	11.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Antimony	**1.3**	**J**	19.3	0.68	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Arsenic	**7.1**		2.6	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Barium	**154**		0.64	0.18	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Beryllium	**1.3**		0.26	0.051	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Cadmium	**0.94**		0.26	0.090	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Calcium	**33300**	**B**	64.2	34.7	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Chromium	**38.3**		0.64	0.46	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Cobalt	**14.6**		0.64	0.13	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Copper	**39.9**	**B**	1.3	0.73	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Iron	**27500**	**B**	12.8	10.9	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Lead	**61.7**	**B**	1.3	0.59	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Magnesium	**10900**	**B**	25.7	10.9	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Manganese	**832**	**B**	1.3	0.36	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Nickel	**38.6**		6.4	0.32	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Potassium	**5330**		38.5	31.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Selenium	ND		5.1	1.0	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Silver	**0.28**	**J**	0.77	0.26	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Sodium	**266**		180	78.8	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Thallium	ND		7.7	0.98	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Vanadium	**55.6**		0.64	0.17	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1
Zinc	**166**		2.6	1.3	mg/Kg	☼	07/12/24 12:30	07/15/24 18:03	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.10**		0.025	0.0058	mg/Kg	☼	07/15/24 09:13	07/15/24 11:30	1

Client Sample ID: HA-04-0.0-0.2

Date Collected: 07/11/24 11:30
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-7
Matrix: Solid
Percent Solids: 78.4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.1	0.52	mg/Kg	☼	07/18/24 13:15	07/18/24 16:56	1

Client Sample ID: HA-04-0.0-0.2-FD

Date Collected: 07/11/24 11:30
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-8
Matrix: Solid
Percent Solids: 79.9

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		21000	5700	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
2,4,6-Trichlorophenol	ND		21000	4200	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
2,4-Dichlorophenol	ND		21000	2200	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
2,4-Dimethylphenol	ND	*+	21000	5100	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
2,4-Dinitrophenol	ND		210000	97000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
2,4-Dinitrotoluene	ND		21000	4300	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
2,6-Dinitrotoluene	ND		21000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
2-Chloronaphthalene	ND		21000	3500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
2-Chlorophenol	ND		41000	3900	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
2-Methylnaphthalene	ND		21000	4200	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
2-Methylphenol	ND		21000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
2-Nitroaniline	ND		41000	3100	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
2-Nitrophenol	ND		21000	6000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
3,3'-Dichlorobenzidine	ND		41000	25000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
3-Nitroaniline	ND		41000	5800	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
4,6-Dinitro-2-methylphenol	ND		41000	21000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
4-Bromophenyl phenyl ether	ND		21000	3000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
4-Chloro-3-methylphenol	ND		21000	5200	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
4-Chloroaniline	ND		21000	5200	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
4-Chlorophenyl phenyl ether	ND		21000	2600	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
4-Methylphenol	ND		41000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
4-Nitroaniline	ND		41000	11000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
4-Nitrophenol	ND		41000	15000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Acenaphthene	ND		21000	3100	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Acenaphthylene	ND		21000	2700	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Acetophenone	ND		21000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Anthracene	ND		21000	5200	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Atrazine	ND		21000	7300	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Benzaldehyde	ND		21000	17000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Benzo[a]anthracene	ND		21000	2100	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Benzo[a]pyrene	ND		21000	3100	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Benzo[b]fluoranthene	ND		21000	3400	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Benzo[g,h,i]perylene	ND		21000	2200	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Benzo[k]fluoranthene	ND		21000	2700	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Biphenyl	ND		21000	3100	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
bis (2-chloroisopropyl) ether	ND		21000	4200	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Bis(2-chloroethoxy)methane	ND		21000	4500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Bis(2-chloroethyl)ether	ND		21000	2700	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Bis(2-ethylhexyl) phthalate	ND		21000	7200	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Butyl benzyl phthalate	ND		21000	3500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Caprolactam	ND		21000	6300	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Carbazole	ND		21000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10

Client Sample ID: HA-04-0.0-0.2-FD

Date Collected: 07/11/24 11:30
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-8

Matrix: Solid
Percent Solids: 79.9

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	ND		21000	4700	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Dibenz(a,h)anthracene	ND		21000	3700	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Dibenzofuran	ND		21000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Diethyl phthalate	ND	*+	21000	2700	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Dimethyl phthalate	ND		21000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Di-n-butyl phthalate	ND		21000	3600	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Di-n-octyl phthalate	ND		21000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Fluoranthene	ND		21000	2200	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Fluorene	ND	*+	21000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Hexachlorobenzene	ND		21000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Hexachlorobutadiene	ND		21000	3100	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Hexachlorocyclopentadiene	ND		21000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Hexachloroethane	ND		21000	2700	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Indeno[1,2,3-cd]pyrene	ND		21000	2600	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Isophorone	ND		21000	4500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Naphthalene	ND		21000	2700	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Nitrobenzene	ND		21000	2400	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
N-Nitrosodi-n-propylamine	ND		21000	3600	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
N-Nitrosodiphenylamine	ND		21000	17000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Pentachlorophenol	ND		41000	21000	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Phenanthrene	ND		21000	3100	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Phenol	ND		21000	3200	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10
Pyrene	ND		21000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 17:51	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/15/24 07:53*	*07/19/24 17:51*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*198*	*S1+*	*26 - 143*	*07/15/24 07:53*	*07/19/24 17:51*	*10*
2-Fluorobiphenyl	*86*		*50 - 121*	*07/15/24 07:53*	*07/19/24 17:51*	*10*
2-Fluorophenol	*99*		*36 - 120*	*07/15/24 07:53*	*07/19/24 17:51*	*10*
Nitrobenzene-d5	*83*		*40 - 121*	*07/15/24 07:53*	*07/19/24 17:51*	*10*
Phenol-d5	*191*	*S1+*	*41 - 120*	*07/15/24 07:53*	*07/19/24 17:51*	*10*
p-Terphenyl-d14	*104*		*46 - 143*	*07/15/24 07:53*	*07/19/24 17:51*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		100	20	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
4,4'-DDE	ND		100	22	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
4,4'-DDT	ND		100	24	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
Aldrin	ND		100	25	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
alpha-BHC	ND		100	19	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
cis-Chlordane	ND		100	51	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
beta-BHC	ND		100	19	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
delta-BHC	ND		100	19	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
Dieldrin	ND		100	25	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
Endosulfan I	ND		100	20	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
Endosulfan II	ND		100	19	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
Endosulfan sulfate	ND		100	19	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
Endrin	ND		100	20	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50

Client Sample ID: HA-04-0.0-0.2-FD

Date Collected: 07/11/24 11:30
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-8

Matrix: Solid
Percent Solids: 79.9

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin aldehyde	ND		100	26	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
Endrin ketone	ND		100	25	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
gamma-BHC (Lindane)	ND		100	19	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
trans-Chlordane	ND		100	33	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
Heptachlor	ND		100	22	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
Heptachlor epoxide	ND		100	27	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
Methoxychlor	ND		100	21	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50
Toxaphene	ND		1000	600	ug/Kg	☼	07/15/24 07:45	07/16/24 13:17	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/15/24 07:45*	*07/16/24 13:17*	*50*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/15/24 07:45*	*07/16/24 13:17*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 13:17*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 13:17*	*50*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.27	0.052	mg/Kg	☼	07/15/24 08:01	07/18/24 07:30	1
PCB-1221	ND		0.27	0.052	mg/Kg	☼	07/15/24 08:01	07/18/24 07:30	1
PCB-1232	ND		0.27	0.052	mg/Kg	☼	07/15/24 08:01	07/18/24 07:30	1
PCB-1242	ND		0.27	0.052	mg/Kg	☼	07/15/24 08:01	07/18/24 07:30	1
PCB-1248	ND		0.27	0.052	mg/Kg	☼	07/15/24 08:01	07/18/24 07:30	1
PCB-1254	ND		0.27	0.13	mg/Kg	☼	07/15/24 08:01	07/18/24 07:30	1
PCB-1260	**0.25**	**J**	0.27	0.13	mg/Kg	☼	07/15/24 08:01	07/18/24 07:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*111*		*60 - 154*	*07/15/24 08:01*	*07/18/24 07:30*	*1*
Tetrachloro-m-xylene	*96*		*60 - 154*	*07/15/24 08:01*	*07/18/24 07:30*	*1*
DCB Decachlorobiphenyl	*84*		*65 - 174*	*07/15/24 08:01*	*07/18/24 07:30*	*1*
DCB Decachlorobiphenyl	*87*		*65 - 174*	*07/15/24 08:01*	*07/18/24 07:30*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**19900**	**B**	12.9	11.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Antimony	**1.9**	**J**	19.4	0.69	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Arsenic	**7.6**		2.6	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Barium	**132**		0.65	0.18	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Beryllium	**1.3**		0.26	0.052	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Cadmium	**1.1**		0.26	0.091	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Calcium	**19100**	**B**	64.6	34.9	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Chromium	**41.1**		0.65	0.47	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Cobalt	**12.6**		0.65	0.13	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Copper	**43.9**	**B**	1.3	0.74	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Iron	**26400**	**B**	12.9	11.0	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Lead	**72.1**	**B**	1.3	0.59	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Magnesium	**10800**	**B**	25.9	11.0	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Manganese	**567**	**B**	1.3	0.36	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Nickel	**36.9**		6.5	0.32	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Potassium	**4150**		38.8	31.3	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Selenium	ND		5.2	1.0	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1

Client Sample ID: HA-04-0.0-0.2-FD

Lab Sample ID: 480-221553-8

Date Collected: 07/11/24 11:30
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 79.9

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.78	0.26	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Sodium	**280**		181	79.3	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Thallium	ND		7.8	0.98	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Vanadium	**50.9**		0.65	0.17	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1
Zinc	**190**		2.6	1.3	mg/Kg	☼	07/12/24 12:30	07/15/24 18:05	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.079**		0.025	0.0058	mg/Kg	☼	07/15/24 09:13	07/15/24 11:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.57	mg/Kg	☼	07/18/24 13:15	07/18/24 17:01	1

Client Sample ID: HA-04-1.3-1.5

Lab Sample ID: 480-221553-9

Date Collected: 07/11/24 11:50
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 80.9

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.8	0.35	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
1,1,2,2-Tetrachloroethane	ND		4.8	0.78	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.8	1.1	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
1,1,2-Trichloroethane	ND		4.8	0.62	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
1,1-Dichloroethane	ND		4.8	0.59	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
1,1-Dichloroethene	ND		4.8	0.59	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
1,2,4-Trichlorobenzene	ND		4.8	0.29	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
1,2-Dibromo-3-Chloropropane	ND		4.8	2.4	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
1,2-Dibromoethane	ND		4.8	0.62	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
1,2-Dichlorobenzene	ND		4.8	0.38	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
1,2-Dichloroethane	ND		4.8	0.24	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
1,2-Dichloropropane	ND		4.8	2.4	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
1,3-Dichlorobenzene	ND		4.8	0.25	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
1,4-Dichlorobenzene	ND		4.8	0.67	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
2-Butanone (MEK)	**12**	**J**	24	1.8	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
2-Hexanone	ND		24	2.4	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
4-Methyl-2-pentanone (MIBK)	ND		24	1.6	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Acetone	**61**		24	4.0	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Benzene	**2.2**	**J**	4.8	0.24	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Bromodichloromethane	ND		4.8	0.64	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Bromoform	ND		4.8	2.4	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Bromomethane	ND		4.8	0.43	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Carbon disulfide	ND		4.8	2.4	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Carbon tetrachloride	ND		4.8	0.46	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Chlorobenzene	ND		4.8	0.63	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Chloroethane	ND		4.8	1.1	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Chloroform	ND		4.8	0.30	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Chloromethane	ND		4.8	0.29	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
cis-1,2-Dichloroethene	ND		4.8	0.61	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
cis-1,3-Dichloropropene	ND		4.8	0.69	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1

Client Sample ID: HA-04-1.3-1.5
Date Collected: 07/11/24 11:50
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-9
Matrix: Solid
Percent Solids: 80.9

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	**1.2**	**J**	4.8	0.67	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Dibromochloromethane	ND		4.8	0.61	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Dichlorodifluoromethane	ND		4.8	0.40	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Ethylbenzene	**0.73**	**J**	4.8	0.33	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Isopropylbenzene	ND		4.8	0.72	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Methyl acetate	ND		24	2.9	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Methyl tert-butyl ether	ND		4.8	0.47	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Methylcyclohexane	**2.1**	**J**	4.8	0.73	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Methylene Chloride	ND		4.8	2.2	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Styrene	ND		4.8	0.24	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Tetrachloroethene	ND		4.8	0.64	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Toluene	**1.5**	**J**	4.8	0.36	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
trans-1,2-Dichloroethene	ND		4.8	0.50	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
trans-1,3-Dichloropropene	ND		4.8	2.1	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Trichloroethene	ND		4.8	1.1	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Trichlorofluoromethane	ND		4.8	0.45	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Vinyl chloride	ND		4.8	0.59	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1
Xylenes, Total	**8.6**	**J**	9.6	0.81	ug/Kg	☼	07/12/24 10:00	07/14/24 18:34	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
.beta.-Phellandrene	*34*	*T J N*	*ug/Kg*	☼	*9.84*	*555-10-2*	*07/12/24 10:00*	*07/14/24 18:34*	*1*
Benzene, 1,2,3,4-tetramethyl-	*42*	*T J N*	*ug/Kg*	☼	*12.05*	*488-23-3*	*07/12/24 10:00*	*07/14/24 18:34*	*1*
Unknown	*26*	*T J*	*ug/Kg*	☼	*12.45*	*N/A*	*07/12/24 10:00*	*07/14/24 18:34*	*1*
Unknown	*42*	*T J*	*ug/Kg*	☼	*12.59*	*N/A*	*07/12/24 10:00*	*07/14/24 18:34*	*1*
1H-Indene, 2,3-dihydro-4,6-dimethyl-	*30*	*T J N*	*ug/Kg*	☼	*12.91*	*1685-82-1*	*07/12/24 10:00*	*07/14/24 18:34*	*1*
Nonane, 3,7-dimethyl-	*35*	*T J N*	*ug/Kg*	☼	*13.41*	*17302-32-8*	*07/12/24 10:00*	*07/14/24 18:34*	*1*
Unknown	*30*	*T J*	*ug/Kg*	☼	*14.00*	*N/A*	*07/12/24 10:00*	*07/14/24 18:34*	*1*
Naphthalene, 2,7-dimethyl-	*33*	*T J N*	*ug/Kg*	☼	*14.34*	*582-16-1*	*07/12/24 10:00*	*07/14/24 18:34*	*1*
Naphthalene, 2,3-dimethyl-	*47*	*T J N*	*ug/Kg*	☼	*14.47*	*581-40-8*	*07/12/24 10:00*	*07/14/24 18:34*	*1*
Naphthalene, 2,6-dimethyl-	*39*	*T J N*	*ug/Kg*	☼	*14.50*	*581-42-0*	*07/12/24 10:00*	*07/14/24 18:34*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*64 - 126*	*07/12/24 10:00*	*07/14/24 18:34*	*1*
4-Bromofluorobenzene (Surr)	*105*		*72 - 126*	*07/12/24 10:00*	*07/14/24 18:34*	*1*
Dibromofluoromethane (Surr)	*109*		*60 - 140*	*07/12/24 10:00*	*07/14/24 18:34*	*1*
Toluene-d8 (Surr)	*99*		*71 - 125*	*07/12/24 10:00*	*07/14/24 18:34*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		41000	11000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
2,4,6-Trichlorophenol	ND		41000	8200	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
2,4-Dichlorophenol	ND		41000	4300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
2,4-Dimethylphenol	ND	*+	41000	9900	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
2,4-Dinitrophenol	ND		400000	190000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
2,4-Dinitrotoluene	ND		41000	8400	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
2,6-Dinitrotoluene	ND		41000	4800	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
2-Chloronaphthalene	ND		41000	6800	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
2-Chlorophenol	ND		80000	7500	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
2-Methylnaphthalene	ND		41000	8200	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
2-Methylphenol	ND		41000	4800	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221553-1

Client Sample ID: HA-04-1.3-1.5
Date Collected: 07/11/24 11:50
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-9
Matrix: Solid
Percent Solids: 80.9

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		80000	6000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
2-Nitrophenol	ND		41000	12000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
3,3'-Dichlorobenzidine	ND		80000	48000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
3-Nitroaniline	ND		80000	11000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
4,6-Dinitro-2-methylphenol	ND		80000	41000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
4-Bromophenyl phenyl ether	ND		41000	5800	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
4-Chloro-3-methylphenol	ND		41000	10000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
4-Chloroaniline	ND		41000	10000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
4-Chlorophenyl phenyl ether	ND		41000	5100	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
4-Methylphenol	ND		80000	4800	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
4-Nitroaniline	ND		80000	21000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
4-Nitrophenol	ND		80000	29000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Acenaphthene	ND		41000	6000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Acenaphthylene	ND		41000	5300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Acetophenone	ND		41000	5500	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Anthracene	ND		41000	10000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Atrazine	ND		41000	14000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Benzaldehyde	ND		41000	33000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Benzo[a]anthracene	ND		41000	4100	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Benzo[a]pyrene	ND		41000	6000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Benzo[b]fluoranthene	ND		41000	6500	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Benzo[g,h,i]perylene	ND		41000	4300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Benzo[k]fluoranthene	ND		41000	5300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Biphenyl	ND		41000	6000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
bis (2-chloroisopropyl) ether	ND		41000	8200	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Bis(2-chloroethoxy)methane	ND		41000	8700	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Bis(2-chloroethyl)ether	ND		41000	5300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Bis(2-ethylhexyl) phthalate	ND		41000	14000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Butyl benzyl phthalate	ND		41000	6800	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Caprolactam	ND		41000	12000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Carbazole	ND		41000	4800	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Chrysene	ND		41000	9200	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Dibenz(a,h)anthracene	ND		41000	7200	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Dibenzofuran	ND		41000	4800	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Diethyl phthalate	ND	*+	41000	5300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Dimethyl phthalate	ND		41000	4800	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Di-n-butyl phthalate	ND		41000	7000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Di-n-octyl phthalate	ND		41000	4800	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Fluoranthene	ND		41000	4300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Fluorene	ND	*+	41000	4800	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Hexachlorobenzene	ND		41000	5500	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Hexachlorobutadiene	ND		41000	6000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Hexachlorocyclopentadiene	ND		41000	5500	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Hexachloroethane	ND		41000	5300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Indeno[1,2,3-cd]pyrene	ND		41000	5100	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Isophorone	ND		41000	8700	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Naphthalene	ND		41000	5300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Nitrobenzene	ND		41000	4600	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
N-Nitrosodi-n-propylamine	ND		41000	7000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10

Client Sample ID: HA-04-1.3-1.5
Date Collected: 07/11/24 11:50
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-9
Matrix: Solid
Percent Solids: 80.9

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodiphenylamine	ND		41000	33000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Pentachlorophenol	ND		80000	41000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Phenanthrene	ND		41000	6000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Phenol	ND		41000	6300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10
Pyrene	**6100**	**J**	41000	4800	ug/Kg	☼	07/15/24 07:53	07/19/24 18:19	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/15/24 07:53*	*07/19/24 18:19*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*218*	*S1+*	*26 - 143*	*07/15/24 07:53*	*07/19/24 18:19*	*10*
2-Fluorobiphenyl	*90*		*50 - 121*	*07/15/24 07:53*	*07/19/24 18:19*	*10*
2-Fluorophenol	*82*		*36 - 120*	*07/15/24 07:53*	*07/19/24 18:19*	*10*
Nitrobenzene-d5	*73*		*40 - 121*	*07/15/24 07:53*	*07/19/24 18:19*	*10*
Phenol-d5	*168*	*S1+*	*41 - 120*	*07/15/24 07:53*	*07/19/24 18:19*	*10*
p-Terphenyl-d14	*103*		*46 - 143*	*07/15/24 07:53*	*07/19/24 18:19*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		100	20	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
4,4'-DDE	ND		100	21	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
4,4'-DDT	**33**	**J**	100	24	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
Aldrin	ND		100	25	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
alpha-BHC	ND		100	18	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
cis-Chlordane	ND		100	51	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
beta-BHC	ND		100	18	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
delta-BHC	ND		100	19	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
Dieldrin	ND		100	24	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
Endosulfan I	ND		100	20	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
Endosulfan II	ND		100	18	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
Endosulfan sulfate	ND		100	19	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
Endrin	ND		100	20	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
Endrin aldehyde	**30**	**J**	100	26	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
Endrin ketone	ND		100	25	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
gamma-BHC (Lindane)	ND		100	19	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
trans-Chlordane	ND		100	32	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
Heptachlor	ND		100	22	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
Heptachlor epoxide	ND		100	26	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
Methoxychlor	ND		100	21	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50
Toxaphene	ND		1000	590	ug/Kg	☼	07/15/24 07:45	07/16/24 13:36	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*1450*	*S1+*	*45 - 120*	*07/15/24 07:45*	*07/16/24 13:36*	*50*
DCB Decachlorobiphenyl	*3489*	*S1+*	*45 - 120*	*07/15/24 07:45*	*07/16/24 13:36*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 13:36*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 13:36*	*50*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.26	0.051	mg/Kg	☼	07/15/24 08:01	07/18/24 07:47	1
PCB-1221	ND		0.26	0.051	mg/Kg	☼	07/15/24 08:01	07/18/24 07:47	1

Client Sample ID: HA-04-1.3-1.5
Date Collected: 07/11/24 11:50
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-9
Matrix: Solid
Percent Solids: 80.9

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1232	ND		0.26	0.051	mg/Kg	☼	07/15/24 08:01	07/18/24 07:47	1
PCB-1242	ND		0.26	0.051	mg/Kg	☼	07/15/24 08:01	07/18/24 07:47	1
PCB-1248	ND		0.26	0.051	mg/Kg	☼	07/15/24 08:01	07/18/24 07:47	1
PCB-1254	ND		0.26	0.12	mg/Kg	☼	07/15/24 08:01	07/18/24 07:47	1
PCB-1260	ND		0.26	0.12	mg/Kg	☼	07/15/24 08:01	07/18/24 07:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*92*		*60 - 154*	*07/15/24 08:01*	*07/18/24 07:47*	*1*
Tetrachloro-m-xylene	*78*		*60 - 154*	*07/15/24 08:01*	*07/18/24 07:47*	*1*
DCB Decachlorobiphenyl	*93*		*65 - 174*	*07/15/24 08:01*	*07/18/24 07:47*	*1*
DCB Decachlorobiphenyl	*95*		*65 - 174*	*07/15/24 08:01*	*07/18/24 07:47*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**21400**	**B**	11.7	10.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Antimony	**0.82**	**J**	17.6	0.62	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Arsenic	**3.3**		2.3	1.0	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Barium	**138**		0.59	0.16	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Beryllium	**1.2**		0.23	0.047	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Cadmium	**0.71**		0.23	0.082	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Calcium	**16900**	**B**	58.5	31.6	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Chromium	**25.8**		0.59	0.42	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Cobalt	**12.9**		0.59	0.12	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Copper	**26.2**	**B**	1.2	0.67	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Iron	**21000**	**B**	11.7	9.9	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Lead	**27.9**	**B**	1.2	0.54	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Magnesium	**7720**	**B**	23.4	9.9	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Manganese	**617**	**B**	1.2	0.33	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Nickel	**30.3**		5.9	0.29	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Potassium	**3840**		35.1	28.4	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Selenium	ND		4.7	0.94	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Silver	**0.36**	**J**	0.70	0.23	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Sodium	**127**	**J**	164	71.7	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Thallium	ND		7.0	0.89	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Vanadium	**39.0**		0.59	0.15	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1
Zinc	**105**		2.3	1.2	mg/Kg	☼	07/12/24 12:30	07/15/24 18:07	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.053**		0.025	0.0057	mg/Kg	☼	07/15/24 09:13	07/15/24 11:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.57	mg/Kg	☼	07/18/24 13:15	07/18/24 17:02	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221553-1

Client Sample ID: HA-03-0.0-0.2
Date Collected: 07/11/24 12:15
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-10
Matrix: Solid
Percent Solids: 88.9

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		37000	9900	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
2,4,6-Trichlorophenol	ND		37000	7300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
2,4-Dichlorophenol	ND		37000	3900	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
2,4-Dimethylphenol	ND	*+	37000	8800	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
2,4-Dinitrophenol	ND		360000	170000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
2,4-Dinitrotoluene	ND		37000	7500	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
2,6-Dinitrotoluene	ND		37000	4300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
2-Chloronaphthalene	ND		37000	6000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
2-Chlorophenol	ND		71000	6700	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
2-Methylnaphthalene	ND		37000	7300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
2-Methylphenol	ND		37000	4300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
2-Nitroaniline	ND		71000	5400	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
2-Nitrophenol	ND		37000	10000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
3,3'-Dichlorobenzidine	ND		71000	43000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
3-Nitroaniline	ND		71000	10000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
4,6-Dinitro-2-methylphenol	ND		71000	37000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
4-Bromophenyl phenyl ether	ND		37000	5200	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
4-Chloro-3-methylphenol	ND		37000	9000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
4-Chloroaniline	ND		37000	9000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
4-Chlorophenyl phenyl ether	ND		37000	4500	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
4-Methylphenol	ND		71000	4300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
4-Nitroaniline	ND		71000	19000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
4-Nitrophenol	ND		71000	26000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Acenaphthene	ND		37000	5400	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Acenaphthylene	ND		37000	4700	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Acetophenone	ND		37000	5000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Anthracene	ND		37000	9000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Atrazine	ND		37000	13000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Benzaldehyde	ND		37000	29000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Benzo[a]anthracene	ND		37000	3700	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Benzo[a]pyrene	ND		37000	5400	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Benzo[b]fluoranthene	ND		37000	5800	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Benzo[g,h,i]perylene	ND		37000	3900	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Benzo[k]fluoranthene	ND		37000	4700	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Biphenyl	ND		37000	5400	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
bis (2-chloroisopropyl) ether	ND		37000	7300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Bis(2-chloroethoxy)methane	ND		37000	7700	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Bis(2-chloroethyl)ether	ND		37000	4700	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Bis(2-ethylhexyl) phthalate	ND		37000	12000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Butyl benzyl phthalate	ND		37000	6000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Caprolactam	ND		37000	11000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Carbazole	ND		37000	4300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Chrysene	ND		37000	8200	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Dibenz(a,h)anthracene	ND		37000	6500	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Dibenzofuran	ND		37000	4300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Diethyl phthalate	ND	*+	37000	4700	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Dimethyl phthalate	ND		37000	4300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Di-n-butyl phthalate	ND		37000	6200	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Di-n-octyl phthalate	ND		37000	4300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10

Client Sample ID: HA-03-0.0-0.2
Date Collected: 07/11/24 12:15
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-10
Matrix: Solid
Percent Solids: 88.9

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		37000	3900	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Fluorene	ND	*+	37000	4300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Hexachlorobenzene	ND		37000	5000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Hexachlorobutadiene	ND		37000	5400	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Hexachlorocyclopentadiene	ND		37000	5000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Hexachloroethane	ND		37000	4700	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Indeno[1,2,3-cd]pyrene	ND		37000	4500	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Isophorone	ND		37000	7700	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Naphthalene	ND		37000	4700	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Nitrobenzene	ND		37000	4100	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
N-Nitrosodi-n-propylamine	ND		37000	6200	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
N-Nitrosodiphenylamine	ND		37000	30000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Pentachlorophenol	ND		71000	37000	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Phenanthrene	ND		37000	5400	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Phenol	ND		37000	5600	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10
Pyrene	ND		37000	4300	ug/Kg	☼	07/15/24 07:53	07/19/24 18:45	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/15/24 07:53*	*07/19/24 18:45*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*197*	*S1+*	*26 - 143*	*07/15/24 07:53*	*07/19/24 18:45*	*10*
2-Fluorobiphenyl	*87*		*50 - 121*	*07/15/24 07:53*	*07/19/24 18:45*	*10*
2-Fluorophenol	*56*		*36 - 120*	*07/15/24 07:53*	*07/19/24 18:45*	*10*
Nitrobenzene-d5	*83*		*40 - 121*	*07/15/24 07:53*	*07/19/24 18:45*	*10*
Phenol-d5	*175*	*S1+*	*41 - 120*	*07/15/24 07:53*	*07/19/24 18:45*	*10*
p-Terphenyl-d14	*0*	*S1-*	*46 - 143*	*07/15/24 07:53*	*07/19/24 18:45*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		93	18	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
4,4'-DDE	ND		93	19	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
4,4'-DDT	ND		93	22	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
Aldrin	ND		93	23	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
alpha-BHC	ND		93	17	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
cis-Chlordane	ND		93	46	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
beta-BHC	ND		93	17	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
delta-BHC	ND		93	17	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
Dieldrin	ND		93	22	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
Endosulfan I	ND		93	18	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
Endosulfan II	ND		93	17	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
Endosulfan sulfate	ND		93	17	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
Endrin	ND		93	18	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
Endrin aldehyde	ND		93	24	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
Endrin ketone	ND		93	23	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
gamma-BHC (Lindane)	ND		93	17	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
trans-Chlordane	ND		93	29	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
Heptachlor	ND		93	20	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
Heptachlor epoxide	ND		93	24	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50
Methoxychlor	ND		93	19	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50

Client Sample ID: HA-03-0.0-0.2

Date Collected: 07/11/24 12:15
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-10

Matrix: Solid
Percent Solids: 88.9

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	ND		930	540	ug/Kg	☼	07/15/24 07:45	07/16/24 13:56	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/15/24 07:45*	*07/16/24 13:56*	*50*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/15/24 07:45*	*07/16/24 13:56*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 13:56*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 13:56*	*50*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.24	0.047	mg/Kg	☼	07/15/24 08:01	07/18/24 08:03	1
PCB-1221	ND		0.24	0.047	mg/Kg	☼	07/15/24 08:01	07/18/24 08:03	1
PCB-1232	ND		0.24	0.047	mg/Kg	☼	07/15/24 08:01	07/18/24 08:03	1
PCB-1242	ND		0.24	0.047	mg/Kg	☼	07/15/24 08:01	07/18/24 08:03	1
PCB-1248	ND		0.24	0.047	mg/Kg	☼	07/15/24 08:01	07/18/24 08:03	1
PCB-1254	ND		0.24	0.11	mg/Kg	☼	07/15/24 08:01	07/18/24 08:03	1
PCB-1260	ND		0.24	0.11	mg/Kg	☼	07/15/24 08:01	07/18/24 08:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*105*		*60 - 154*	*07/15/24 08:01*	*07/18/24 08:03*	*1*
Tetrachloro-m-xylene	*93*		*60 - 154*	*07/15/24 08:01*	*07/18/24 08:03*	*1*
DCB Decachlorobiphenyl	*79*		*65 - 174*	*07/15/24 08:01*	*07/18/24 08:03*	*1*
DCB Decachlorobiphenyl	*77*		*65 - 174*	*07/15/24 08:01*	*07/18/24 08:03*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**16700**	**B**	11.0	9.5	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Antimony	**2.6**	**J**	16.5	0.58	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Arsenic	**14.0**		2.2	0.97	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Barium	**118**		0.55	0.15	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Beryllium	**2.2**		0.22	0.044	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Cadmium	**0.74**		0.22	0.077	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Calcium	**29400**	**B**	54.8	29.6	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Chromium	**35.0**		0.55	0.39	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Cobalt	**11.6**		0.55	0.11	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Copper	**46.4**	**B**	1.1	0.63	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Iron	**25400**	**B**	11.0	9.3	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Lead	**54.9**	**B**	1.1	0.50	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Magnesium	**11400**	**B**	21.9	9.3	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Manganese	**387**	**B**	1.1	0.31	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Nickel	**40.1**		5.5	0.27	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Potassium	**2960**		32.9	26.6	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Selenium	ND		4.4	0.88	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Silver	**0.23**	**J**	0.66	0.22	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Sodium	**326**		154	67.2	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Thallium	ND		6.6	0.83	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Vanadium	**47.1**		0.55	0.14	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1
Zinc	**159**		2.2	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:09	1

Client Sample ID: HA-03-0.0-0.2

Lab Sample ID: 480-221553-10

Date Collected: 07/11/24 12:15
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 88.9

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.062**		0.022	0.0051	mg/Kg	☼	07/15/24 09:13	07/15/24 11:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	**0.60**	**J**	1.1	0.53	mg/Kg	☼	07/18/24 13:15	07/18/24 17:04	1

Client Sample ID: HA-03-2.3-2.5

Lab Sample ID: 480-221553-11

Date Collected: 07/11/24 13:00
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 94.7

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		480	130	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
1,1,2,2-Tetrachloroethane	ND		480	77	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		480	240	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
1,1,2-Trichloroethane	ND		480	100	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
1,1-Dichloroethane	ND		480	150	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
1,1-Dichloroethene	ND		480	170	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
1,2,4-Trichlorobenzene	ND		480	180	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
1,2-Dibromo-3-Chloropropane	ND		480	240	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
1,2-Dichlorobenzene	ND		480	120	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
1,2-Dichloroethane	ND		480	200	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
1,2-Dichloropropane	ND		480	77	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
1,3-Dichlorobenzene	ND		480	130	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
1,4-Dichlorobenzene	ND		480	67	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
2-Butanone (MEK)	ND		2400	1400	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
2-Hexanone	ND		2400	980	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
4-Methyl-2-pentanone (MIBK)	ND		2400	150	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Acetone	ND		2400	2000	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Benzene	**13000**		480	91	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Bromoform	ND		480	240	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Bromomethane	ND		480	100	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Carbon disulfide	ND		480	220	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Carbon tetrachloride	ND		480	120	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Chlorobenzene	ND		480	63	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Dibromochloromethane	ND		480	230	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Chloroethane	ND		480	99	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Chloroform	ND		480	330	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Chloromethane	ND		480	110	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
cis-1,2-Dichloroethene	ND		480	130	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Cyclohexane	ND		480	110	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Bromodichloromethane	ND		480	95	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Dichlorodifluoromethane	ND		480	210	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Ethylbenzene	**5400**		480	140	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
1,2-Dibromoethane	ND		480	84	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Isopropylbenzene	**740**		480	72	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Methyl acetate	**1900**	**J**	2400	230	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Methyl tert-butyl ether	ND		480	180	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Methylcyclohexane	**1900**		480	220	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Methylene Chloride	ND		480	94	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10

Client Sample ID: HA-03-2.3-2.5

Date Collected: 07/11/24 13:00
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-11

Matrix: Solid
Percent Solids: 94.7

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		480	64	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Toluene	**940**		480	130	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
trans-1,2-Dichloroethene	ND		480	110	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
trans-1,3-Dichloropropene	ND		480	47	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Trichloroethene	ND		480	130	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Trichlorofluoromethane	ND		480	220	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Vinyl chloride	ND		480	160	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Xylenes, Total	**15000**		950	260	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
cis-1,3-Dichloropropene	ND		480	110	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10
Styrene	ND		480	120	ug/Kg	☼	07/15/24 09:29	07/15/24 16:16	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
m-Xylene & p-Xylene	*12000*	*H*	*ug/Kg*	☼	*7.96*	*179601-23-1*	*07/15/24 09:29*	*07/15/24 16:16*	*10*
Benzene, cyclopropyl-	*36000*	*T H J N*	*ug/Kg*	☼	*10.40*	*873-49-4*	*07/15/24 09:29*	*07/15/24 16:16*	*10*
1-Phenyl-1-butene	*47000*	*T H J N*	*ug/Kg*	☼	*11.63*	*824-90-8*	*07/15/24 09:29*	*07/15/24 16:16*	*10*
Naphthalene	*84000*	*T H J N*	*ug/Kg*	☼	*12.19*	*91-20-3*	*07/15/24 09:29*	*07/15/24 16:16*	*10*
Benzocycloheptatriene	*190000*	*T H J N*	*ug/Kg*	☼	*13.10*	*264-09-5*	*07/15/24 09:29*	*07/15/24 16:16*	*10*
Naphthalene, 2-methyl-	*100000*	*T H J N*	*ug/Kg*	☼	*13.26*	*91-57-6*	*07/15/24 09:29*	*07/15/24 16:16*	*10*
Naphthalene, 1-ethyl-	*49000*	*T H J N*	*ug/Kg*	☼	*13.83*	*1127-76-0*	*07/15/24 09:29*	*07/15/24 16:16*	*10*
Naphthalene, 2,7-dimethyl-	*120000*	*T H J N*	*ug/Kg*	☼	*13.91*	*582-16-1*	*07/15/24 09:29*	*07/15/24 16:16*	*10*
Naphthalene, 2,3-dimethyl-	*160000*	*T H J N*	*ug/Kg*	☼	*14.04*	*581-40-8*	*07/15/24 09:29*	*07/15/24 16:16*	*10*
Naphthalene, 1,3-dimethyl-	*39000*	*T H J N*	*ug/Kg*	☼	*14.21*	*575-41-7*	*07/15/24 09:29*	*07/15/24 16:16*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*53 - 146*	*07/15/24 09:29*	*07/15/24 16:16*	*10*
4-Bromofluorobenzene (Surr)	*95*		*49 - 148*	*07/15/24 09:29*	*07/15/24 16:16*	*10*
Toluene-d8 (Surr)	*96*		*50 - 149*	*07/15/24 09:29*	*07/15/24 16:16*	*10*
Dibromofluoromethane (Surr)	*94*		*60 - 140*	*07/15/24 09:29*	*07/15/24 16:16*	*10*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		110000	29000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
2,4,6-Trichlorophenol	ND		110000	21000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
2,4-Dichlorophenol	ND		110000	11000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
2,4-Dimethylphenol	ND	*+	110000	26000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
2,4-Dinitrophenol	ND		1000000	490000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
2,4-Dinitrotoluene	ND		110000	22000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
2,6-Dinitrotoluene	ND		110000	13000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
2-Chloronaphthalene	ND		110000	18000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
2-Chlorophenol	ND		210000	20000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
2-Methylnaphthalene	**470000**		110000	21000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
2-Methylphenol	ND		110000	13000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
2-Nitroaniline	ND		210000	16000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
2-Nitrophenol	ND		110000	30000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
3,3'-Dichlorobenzidine	ND		210000	130000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
3-Nitroaniline	ND		210000	30000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
4,6-Dinitro-2-methylphenol	ND		210000	110000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
4-Bromophenyl phenyl ether	ND		110000	15000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
4-Chloro-3-methylphenol	ND		110000	26000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
4-Chloroaniline	ND		110000	26000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10

Client Sample ID: HA-03-2.3-2.5

Date Collected: 07/11/24 13:00
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-11

Matrix: Solid
Percent Solids: 94.7

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	ND		110000	13000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
4-Methylphenol	ND		210000	13000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
4-Nitroaniline	ND		210000	56000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
4-Nitrophenol	ND		210000	75000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Acenaphthene	**47000**	**J**	110000	16000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Acenaphthylene	ND		110000	14000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Acetophenone	ND		110000	14000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Anthracene	**61000**	**J**	110000	26000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Atrazine	ND		110000	37000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Benzaldehyde	ND		110000	85000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Benzo[a]anthracene	**90000**	**J**	110000	11000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Benzo[a]pyrene	**46000**	**J**	110000	16000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Benzo[b]fluoranthene	**24000**	**J**	110000	17000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Benzo[g,h,i]perylene	**20000**	**J**	110000	11000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Benzo[k]fluoranthene	ND		110000	14000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Biphenyl	**23000**	**J**	110000	16000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
bis (2-chloroisopropyl) ether	ND		110000	21000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Bis(2-chloroethoxy)methane	ND		110000	23000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Bis(2-chloroethyl)ether	ND		110000	14000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Bis(2-ethylhexyl) phthalate	ND		110000	37000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Butyl benzyl phthalate	ND		110000	18000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Caprolactam	ND		110000	32000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Carbazole	**27000**	**J**	110000	13000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Chrysene	**170000**		110000	24000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Dibenz(a,h)anthracene	ND		110000	19000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Dibenzofuran	**31000**	**J**	110000	13000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Diethyl phthalate	ND	*+	110000	14000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Dimethyl phthalate	ND		110000	13000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Di-n-butyl phthalate	ND		110000	18000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Di-n-octyl phthalate	ND		110000	13000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Fluoranthene	**36000**	**J**	110000	11000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Fluorene	**89000**	**J *+**	110000	13000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Hexachlorobenzene	ND		110000	14000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Hexachlorobutadiene	ND		110000	16000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Hexachlorocyclopentadiene	ND		110000	14000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Hexachloroethane	ND		110000	14000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Indeno[1,2,3-cd]pyrene	ND		110000	13000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Isophorone	ND		110000	23000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Naphthalene	**170000**		110000	14000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Nitrobenzene	ND		110000	12000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
N-Nitrosodi-n-propylamine	ND		110000	18000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
N-Nitrosodiphenylamine	**180000**		110000	87000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Pentachlorophenol	ND		210000	110000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Phenanthrene	**570000**		110000	16000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Phenol	ND		110000	16000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10
Pyrene	**170000**		110000	13000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:14	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Methylene Chloride	*2400000*	*T J N*	*ug/Kg*	☼	*2.01*	*75-09-2*	*07/15/24 07:53*	*07/19/24 19:14*	*10*
Naphthalene, 1,7-dimethyl-	*650000*	*T J N*	*ug/Kg*	☼	*8.76*	*575-37-1*	*07/15/24 07:53*	*07/19/24 19:14*	*10*

Client Sample ID: HA-03-2.3-2.5
Date Collected: 07/11/24 13:00
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-11
Matrix: Solid
Percent Solids: 94.7

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Naphthalene, 1,6-dimethyl-	720000	T J N	ug/Kg	☼	8.85	575-43-9	07/15/24 07:53	07/19/24 19:14	10
Naphthalene, 2,3-dimethyl-	510000	T J N	ug/Kg	☼	8.99	581-40-8	07/15/24 07:53	07/19/24 19:14	10
Naphthalene, 2-(1-methylethyl)-	500000	T J N	ug/Kg	☼	9.38	2027-17-0	07/15/24 07:53	07/19/24 19:14	10
Pentadecane, 2,6,10-trimethyl-	540000	T J N	ug/Kg	☼	10.07	3892-00-0	07/15/24 07:53	07/19/24 19:14	10
Dibenzothiophene, 3-methyl-	640000	T J N	ug/Kg	☼	11.20	16587-52-3	07/15/24 07:53	07/19/24 19:14	10
Phenanthrene, 2-methyl-	890000	T J N	ug/Kg	☼	11.37	2531-84-2	07/15/24 07:53	07/19/24 19:14	10
Phenanthrene, 1-methyl-	1200000	T J N	ug/Kg	☼	11.39	832-69-9	07/15/24 07:53	07/19/24 19:14	10
Anthracene, 2-methyl-	820000	T J N	ug/Kg	☼	11.47	613-12-7	07/15/24 07:53	07/19/24 19:14	10
1H-Cyclopropa[l]phenanthrene,1a,9b -dihydro-	620000	T J N	ug/Kg	☼	11.49	949-41-7	07/15/24 07:53	07/19/24 19:14	10
2,8-Dimethyldibenzo(B,D)thiophene	630000	T J N	ug/Kg	☼	11.68	1207-15-4	07/15/24 07:53	07/19/24 19:14	10
Phenanthrene, 3,6-dimethyl-	540000	T J N	ug/Kg	☼	11.79	1576-67-6	07/15/24 07:53	07/19/24 19:14	10
Phenanthrene, 2,5-dimethyl-	780000	T J N	ug/Kg	☼	11.81	3674-66-6	07/15/24 07:53	07/19/24 19:14	10
Phenanthrene, 2,7-dimethyl-	630000	T J N	ug/Kg	☼	11.84	1576-69-8	07/15/24 07:53	07/19/24 19:14	10
Phenanthrene, 2,3-dimethyl-	1800000	T J N	ug/Kg	☼	11.88	3674-65-5	07/15/24 07:53	07/19/24 19:14	10
9,10-Dimethylanthracene	770000	T J N	ug/Kg	☼	11.91	781-43-1	07/15/24 07:53	07/19/24 19:14	10
Anthracene, 1,4-dimethyl-	640000	T J N	ug/Kg	☼	11.96	781-92-0	07/15/24 07:53	07/19/24 19:14	10
Phenanthrene, 2,3,5-trimethyl-	580000	T J N	ug/Kg	☼	12.26	3674-73-5	07/15/24 07:53	07/19/24 19:14	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	188	S1+	26 - 143	07/15/24 07:53	07/19/24 19:14	10
2-Fluorobiphenyl	106		50 - 121	07/15/24 07:53	07/19/24 19:14	10
2-Fluorophenol	86		36 - 120	07/15/24 07:53	07/19/24 19:14	10
Nitrobenzene-d5	81		40 - 121	07/15/24 07:53	07/19/24 19:14	10
Phenol-d5	174	S1+	41 - 120	07/15/24 07:53	07/19/24 19:14	10
p-Terphenyl-d14	116		46 - 143	07/15/24 07:53	07/19/24 19:14	10

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		510	99	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
4,4'-DDE	ND		510	110	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
4,4'-DDT	**140**	**J**	510	120	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
Aldrin	ND		510	130	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
alpha-BHC	ND		510	92	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
cis-Chlordane	ND		510	250	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
beta-BHC	ND		510	92	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
delta-BHC	ND		510	95	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
Dieldrin	ND		510	120	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
Endosulfan I	ND		510	98	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
Endosulfan II	ND		510	92	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
Endosulfan sulfate	ND		510	95	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
Endrin	ND		510	100	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
Endrin aldehyde	**170**	**J**	510	130	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
Endrin ketone	ND		510	130	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
gamma-BHC (Lindane)	ND		510	94	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
trans-Chlordane	ND		510	160	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
Heptachlor	ND		510	110	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
Heptachlor epoxide	ND		510	130	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
Methoxychlor	ND		510	100	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50
Toxaphene	ND		5100	3000	ug/Kg	☼	07/15/24 07:45	07/16/24 14:16	50

Client Sample ID: HA-03-2.3-2.5

Date Collected: 07/11/24 13:00
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-11

Matrix: Solid
Percent Solids: 94.7

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*2371*	*S1+*	*45 - 120*	*07/15/24 07:45*	*07/16/24 14:16*	*50*
DCB Decachlorobiphenyl	*7310*	*S1+*	*45 - 120*	*07/15/24 07:45*	*07/16/24 14:16*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 14:16*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 14:16*	*50*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		1.1	0.21	mg/Kg	☼	07/15/24 08:01	07/19/24 16:20	1
PCB-1221	ND		1.1	0.21	mg/Kg	☼	07/15/24 08:01	07/19/24 16:20	1
PCB-1232	ND		1.1	0.21	mg/Kg	☼	07/15/24 08:01	07/19/24 16:20	1
PCB-1242	ND		1.1	0.21	mg/Kg	☼	07/15/24 08:01	07/19/24 16:20	1
PCB-1248	ND		1.1	0.21	mg/Kg	☼	07/15/24 08:01	07/19/24 16:20	1
PCB-1254	ND		1.1	0.49	mg/Kg	☼	07/15/24 08:01	07/19/24 16:20	1
PCB-1260	ND		1.1	0.49	mg/Kg	☼	07/15/24 08:01	07/19/24 16:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*83*		*60 - 154*	*07/15/24 08:01*	*07/19/24 16:20*	*1*
Tetrachloro-m-xylene	*67*		*60 - 154*	*07/15/24 08:01*	*07/19/24 16:20*	*1*
DCB Decachlorobiphenyl	*80*		*65 - 174*	*07/15/24 08:01*	*07/19/24 16:20*	*1*
DCB Decachlorobiphenyl	*81*		*65 - 174*	*07/15/24 08:01*	*07/19/24 16:20*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**43500**	**B**	11.0	9.5	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Antimony	ND		16.5	0.58	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Arsenic	**64.3**		2.2	0.97	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Barium	**55.3**		0.55	0.15	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Beryllium	**0.49**		0.22	0.044	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Cadmium	ND		0.22	0.077	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Calcium	**7880**	**B**	54.9	29.6	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Chromium	**54.4**		0.55	0.40	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Cobalt	**7.6**		0.55	0.11	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Copper	**32.2**	**B**	1.1	0.63	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Iron	**19800**	**B**	11.0	9.3	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Lead	**74.0**	**B**	1.1	0.50	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Magnesium	**2750**	**B**	21.9	9.3	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Manganese	**208**	**B**	1.1	0.31	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Nickel	**113**		5.5	0.27	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Potassium	**705**		32.9	26.6	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Selenium	ND		4.4	0.88	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Silver	ND		0.66	0.22	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Sodium	**840**		154	67.3	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Thallium	ND		6.6	0.83	mg/Kg	☼	07/12/24 12:30	07/16/24 14:06	1
Vanadium	**106**		0.55	0.14	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1
Zinc	**46.9**		2.2	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:11	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.034**		0.020	0.0047	mg/Kg	☼	07/15/24 09:13	07/15/24 11:35	1

Client Sample ID: HA-03-2.3-2.5

Lab Sample ID: 480-221553-11
Date Collected: 07/11/24 13:00
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 94.7

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.0	0.49	mg/Kg	☼	07/18/24 13:15	07/18/24 17:05	1

Client Sample ID: HA-02-0.0-0.2

Lab Sample ID: 480-221553-12
Date Collected: 07/11/24 13:30
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 77.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		22000	6000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
2,4,6-Trichlorophenol	ND		22000	4400	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
2,4-Dichlorophenol	ND		22000	2300	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
2,4-Dimethylphenol	ND	*+	22000	5300	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
2,4-Dinitrophenol	ND		220000	100000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
2,4-Dinitrotoluene	ND		22000	4500	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
2,6-Dinitrotoluene	ND		22000	2600	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
2-Chloronaphthalene	ND		22000	3600	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
2-Chlorophenol	ND		43000	4000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
2-Methylnaphthalene	ND		22000	4400	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
2-Methylphenol	ND		22000	2600	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
2-Nitroaniline	ND		43000	3200	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
2-Nitrophenol	ND		22000	6200	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
3,3'-Dichlorobenzidine	ND		43000	26000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
3-Nitroaniline	ND		43000	6100	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
4,6-Dinitro-2-methylphenol	ND		43000	22000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
4-Bromophenyl phenyl ether	ND		22000	3100	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
4-Chloro-3-methylphenol	ND		22000	5400	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
4-Chloroaniline	ND		22000	5400	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
4-Chlorophenyl phenyl ether	ND		22000	2700	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
4-Methylphenol	ND		43000	2600	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
4-Nitroaniline	ND		43000	12000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
4-Nitrophenol	ND		43000	15000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Acenaphthene	ND		22000	3200	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Acenaphthylene	ND		22000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Acetophenone	ND		22000	3000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Anthracene	ND		22000	5400	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Atrazine	ND		22000	7600	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Benzaldehyde	ND		22000	17000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Benzo[a]anthracene	ND		22000	2200	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Benzo[a]pyrene	ND		22000	3200	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Benzo[b]fluoranthene	ND		22000	3500	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Benzo[g,h,i]perylene	ND		22000	2300	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Benzo[k]fluoranthene	ND		22000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Biphenyl	ND		22000	3200	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
bis (2-chloroisopropyl) ether	ND		22000	4400	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Bis(2-chloroethoxy)methane	ND		22000	4700	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Bis(2-chloroethyl)ether	ND		22000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Bis(2-ethylhexyl) phthalate	ND		22000	7500	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Butyl benzyl phthalate	ND		22000	3600	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Caprolactam	ND		22000	6600	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Carbazole	ND		22000	2600	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10

Client Sample ID: HA-02-0.0-0.2

Date Collected: 07/11/24 13:30
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-12

Matrix: Solid
Percent Solids: 77.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	ND		22000	4900	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Dibenz(a,h)anthracene	ND		22000	3900	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Dibenzofuran	ND		22000	2600	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Diethyl phthalate	ND	*+	22000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Dimethyl phthalate	ND		22000	2600	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Di-n-butyl phthalate	ND		22000	3800	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Di-n-octyl phthalate	ND		22000	2600	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Fluoranthene	ND		22000	2300	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Fluorene	ND	*+	22000	2600	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Hexachlorobenzene	ND		22000	3000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Hexachlorobutadiene	ND		22000	3200	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Hexachlorocyclopentadiene	ND		22000	3000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Hexachloroethane	ND		22000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Indeno[1,2,3-cd]pyrene	ND		22000	2700	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Isophorone	ND		22000	4700	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Naphthalene	ND		22000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Nitrobenzene	ND		22000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
N-Nitrosodi-n-propylamine	ND		22000	3800	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
N-Nitrosodiphenylamine	ND		22000	18000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Pentachlorophenol	ND		43000	22000	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Phenanthrene	ND		22000	3200	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Phenol	ND		22000	3400	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10
Pyrene	ND		22000	2600	ug/Kg	☼	07/15/24 07:53	07/19/24 19:42	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/15/24 07:53*	*07/19/24 19:42*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*236*	*S1+*	*26 - 143*	*07/15/24 07:53*	*07/19/24 19:42*	*10*
2-Fluorobiphenyl	*112*		*50 - 121*	*07/15/24 07:53*	*07/19/24 19:42*	*10*
2-Fluorophenol	*71*		*36 - 120*	*07/15/24 07:53*	*07/19/24 19:42*	*10*
Nitrobenzene-d5	*94*		*40 - 121*	*07/15/24 07:53*	*07/19/24 19:42*	*10*
Phenol-d5	*182*	*S1+*	*41 - 120*	*07/15/24 07:53*	*07/19/24 19:42*	*10*
p-Terphenyl-d14	*107*		*46 - 143*	*07/15/24 07:53*	*07/19/24 19:42*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		43	8.3	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
4,4'-DDE	ND		43	8.9	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
4,4'-DDT	ND		43	10	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
Aldrin	ND		43	10	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
alpha-BHC	ND		43	7.7	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
cis-Chlordane	ND		43	21	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
beta-BHC	ND		43	7.7	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
delta-BHC	ND		43	7.9	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
Dieldrin	ND		43	10	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
Endosulfan I	ND		43	8.2	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
Endosulfan II	ND		43	7.7	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
Endosulfan sulfate	ND		43	7.9	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
Endrin	ND		43	8.4	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20

Client Sample ID: HA-02-0.0-0.2

Date Collected: 07/11/24 13:30
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-12

Matrix: Solid
Percent Solids: 77.0

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin aldehyde	ND		43	11	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
Endrin ketone	ND		43	10	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
gamma-BHC (Lindane)	ND		43	7.8	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
trans-Chlordane	ND		43	14	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
Heptachlor	ND		43	9.2	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
Heptachlor epoxide	ND		43	11	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
Methoxychlor	ND		43	8.7	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20
Toxaphene	ND		430	250	ug/Kg	☼	07/15/24 07:45	07/16/24 14:35	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/15/24 07:45*	*07/16/24 14:35*	*20*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/15/24 07:45*	*07/16/24 14:35*	*20*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 14:35*	*20*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 14:35*	*20*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.28	0.054	mg/Kg	☼	07/15/24 08:01	07/18/24 08:37	1
PCB-1221	ND		0.28	0.054	mg/Kg	☼	07/15/24 08:01	07/18/24 08:37	1
PCB-1232	ND		0.28	0.054	mg/Kg	☼	07/15/24 08:01	07/18/24 08:37	1
PCB-1242	ND		0.28	0.054	mg/Kg	☼	07/15/24 08:01	07/18/24 08:37	1
PCB-1248	ND		0.28	0.054	mg/Kg	☼	07/15/24 08:01	07/18/24 08:37	1
PCB-1254	ND		0.28	0.13	mg/Kg	☼	07/15/24 08:01	07/18/24 08:37	1
PCB-1260	ND		0.28	0.13	mg/Kg	☼	07/15/24 08:01	07/18/24 08:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*113*		*60 - 154*	*07/15/24 08:01*	*07/18/24 08:37*	*1*
Tetrachloro-m-xylene	*101*		*60 - 154*	*07/15/24 08:01*	*07/18/24 08:37*	*1*
DCB Decachlorobiphenyl	*88*		*65 - 174*	*07/15/24 08:01*	*07/18/24 08:37*	*1*
DCB Decachlorobiphenyl	*94*		*65 - 174*	*07/15/24 08:01*	*07/18/24 08:37*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**13900**	**B**	12.9	11.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Antimony	**0.89**	**J**	19.4	0.68	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Arsenic	**8.2**		2.6	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Barium	**127**		0.65	0.18	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Beryllium	**1.0**		0.26	0.052	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Cadmium	**0.88**		0.26	0.090	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Calcium	**32500**	**B**	64.5	34.8	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Chromium	**35.7**		0.65	0.46	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Cobalt	**9.4**		0.65	0.13	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Copper	**38.2**	**B**	1.3	0.74	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Iron	**19100**	**B**	12.9	10.9	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Lead	**98.8**	**B**	1.3	0.59	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Magnesium	**12300**	**B**	25.8	10.9	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Manganese	**639**	**B**	1.3	0.36	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Nickel	**43.0**		6.5	0.32	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Potassium	**3530**		38.7	31.3	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Selenium	ND		5.2	1.0	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1

Client Sample ID: HA-02-0.0-0.2

Date Collected: 07/11/24 13:30
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-12
Matrix: Solid
Percent Solids: 77.0

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.35	J	0.77	0.26	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Sodium	227		181	79.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Thallium	ND		7.7	0.98	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Vanadium	41.7		0.65	0.17	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1
Zinc	301		2.6	1.3	mg/Kg	☼	07/12/24 12:30	07/15/24 18:12	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.42		0.026	0.0061	mg/Kg	☼	07/15/24 09:13	07/15/24 11:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.60	mg/Kg	☼	07/18/24 13:15	07/18/24 17:06	1

Client Sample ID: HA-02-3.0-4.0

Date Collected: 07/11/24 13:40
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-13
Matrix: Solid
Percent Solids: 82.6

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1100	290	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
1,1,2,2-Tetrachloroethane	ND		1100	170	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1100	530	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
1,1,2-Trichloroethane	ND		1100	220	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
1,1-Dichloroethane	ND		1100	330	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
1,1-Dichloroethene	ND		1100	360	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
1,2,4-Trichlorobenzene	ND		1100	400	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
1,2-Dibromo-3-Chloropropane	ND		1100	530	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
1,2-Dichlorobenzene	ND		1100	270	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
1,2-Dichloroethane	ND		1100	430	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
1,2-Dichloropropane	ND		1100	170	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
1,3-Dichlorobenzene	ND		1100	280	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
1,4-Dichlorobenzene	ND		1100	150	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
2-Butanone (MEK)	ND		5300	3100	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
2-Hexanone	ND		5300	2200	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
4-Methyl-2-pentanone (MIBK)	ND		5300	340	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Acetone	ND		5300	4300	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Benzene	ND		1100	200	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Bromoform	ND		1100	530	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Bromomethane	ND		1100	230	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Carbon disulfide	ND		1100	480	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Carbon tetrachloride	ND		1100	270	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Chlorobenzene	ND		1100	140	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Dibromochloromethane	ND		1100	510	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Chloroethane	ND		1100	220	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Chloroform	ND		1100	720	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Chloromethane	ND		1100	250	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
cis-1,2-Dichloroethene	ND		1100	290	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Cyclohexane	ND		1100	230	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Bromodichloromethane	ND		1100	210	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20

Client Sample ID: HA-02-3.0-4.0
Date Collected: 07/11/24 13:40
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-13
Matrix: Solid
Percent Solids: 82.6

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1100	460	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Ethylbenzene	ND		1100	310	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
1,2-Dibromoethane	ND		1100	180	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Isopropylbenzene	ND		1100	160	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Methyl acetate	ND		5300	500	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Methyl tert-butyl ether	ND		1100	400	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Methylcyclohexane	ND		1100	490	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Methylene Chloride	ND		1100	210	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Tetrachloroethene	ND		1100	140	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Toluene	ND		1100	280	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
trans-1,2-Dichloroethene	ND		1100	250	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
trans-1,3-Dichloropropene	ND		1100	100	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Trichloroethene	ND		1100	290	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Trichlorofluoromethane	ND		1100	490	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Vinyl chloride	ND		1100	350	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Xylenes, Total	ND		2100	580	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
cis-1,3-Dichloropropene	ND		1100	250	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20
Styrene	ND		1100	250	ug/Kg	☼	07/15/24 09:29	07/15/24 16:40	20

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Benzocycloheptatriene	*11000*	*T H J N*	*ug/Kg*	☼	*13.10*	*264-09-5*	*07/15/24 09:29*	*07/15/24 16:40*	*20*
Naphthalene, 1-ethyl-	*13000*	*T H J N*	*ug/Kg*	☼	*13.83*	*1127-76-0*	*07/15/24 09:29*	*07/15/24 16:40*	*20*
Naphthalene, 2,6-dimethyl-	*31000*	*T H J N*	*ug/Kg*	☼	*13.91*	*581-42-0*	*07/15/24 09:29*	*07/15/24 16:40*	*20*
Unknown	*48000*	*T H J*	*ug/Kg*	☼	*14.03*	*N/A*	*07/15/24 09:29*	*07/15/24 16:40*	*20*
Naphthalene, 2,3-dimethyl-	*23000*	*T H J N*	*ug/Kg*	☼	*14.21*	*581-40-8*	*07/15/24 09:29*	*07/15/24 16:40*	*20*
Naphthalene, 1,3-dimethyl-	*13000*	*T H J N*	*ug/Kg*	☼	*14.33*	*575-41-7*	*07/15/24 09:29*	*07/15/24 16:40*	*20*
Unknown	*28000*	*T H J*	*ug/Kg*	☼	*14.58*	*N/A*	*07/15/24 09:29*	*07/15/24 16:40*	*20*
Unknown	*41000*	*T H J*	*ug/Kg*	☼	*14.75*	*N/A*	*07/15/24 09:29*	*07/15/24 16:40*	*20*
Naphthalene, 1,4,6-trimethyl-	*41000*	*T H J N*	*ug/Kg*	☼	*14.80*	*2131-42-2*	*07/15/24 09:29*	*07/15/24 16:40*	*20*
Naphthalene, 2,3,6-trimethyl-	*28000*	*T H J N*	*ug/Kg*	☼	*14.94*	*829-26-5*	*07/15/24 09:29*	*07/15/24 16:40*	*20*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*53 - 146*	*07/15/24 09:29*	*07/15/24 16:40*	*20*
4-Bromofluorobenzene (Surr)	*93*		*49 - 148*	*07/15/24 09:29*	*07/15/24 16:40*	*20*
Toluene-d8 (Surr)	*95*		*50 - 149*	*07/15/24 09:29*	*07/15/24 16:40*	*20*
Dibromofluoromethane (Surr)	*90*		*60 - 140*	*07/15/24 09:29*	*07/15/24 16:40*	*20*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		200	55	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
2,4,6-Trichlorophenol	ND		200	41	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
2,4-Dichlorophenol	ND		200	21	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
2,4-Dimethylphenol	ND	*+	200	49	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
2,4-Dinitrophenol	ND		2000	940	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
2,4-Dinitrotoluene	ND		200	42	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
2,6-Dinitrotoluene	ND		200	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
2-Chloronaphthalene	ND		200	33	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
2-Chlorophenol	ND		390	37	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
2-Methylnaphthalene	ND		200	41	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
2-Methylphenol	ND		200	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221553-1

Client Sample ID: HA-02-3.0-4.0
Date Collected: 07/11/24 13:40
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-13
Matrix: Solid
Percent Solids: 82.6

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		390	30	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
2-Nitrophenol	ND		200	57	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
3,3'-Dichlorobenzidine	ND		390	240	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
3-Nitroaniline	ND		390	56	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
4,6-Dinitro-2-methylphenol	ND		390	200	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
4-Bromophenyl phenyl ether	ND		200	29	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
4-Chloro-3-methylphenol	ND		200	50	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
4-Chloroaniline	ND		200	50	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
4-Chlorophenyl phenyl ether	ND		200	25	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
4-Methylphenol	ND		390	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
4-Nitroaniline	ND		390	110	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
4-Nitrophenol	ND		390	140	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Acenaphthene	ND		200	30	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Acenaphthylene	ND		200	26	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Acetophenone	ND		200	27	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Anthracene	ND		200	50	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Atrazine	ND		200	70	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Benzaldehyde	ND		200	160	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Benzo[a]anthracene	ND		200	20	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Benzo[a]pyrene	ND		200	30	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Benzo[b]fluoranthene	ND		200	32	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Benzo[g,h,i]perylene	ND		200	21	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Benzo[k]fluoranthene	ND		200	26	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Biphenyl	ND		200	30	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
bis (2-chloroisopropyl) ether	ND		200	41	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Bis(2-chloroethoxy)methane	ND		200	43	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Bis(2-chloroethyl)ether	ND		200	26	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Bis(2-ethylhexyl) phthalate	ND		200	69	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Butyl benzyl phthalate	ND		200	33	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Caprolactam	ND		200	61	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Carbazole	ND		200	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Chrysene	ND		200	45	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Dibenz(a,h)anthracene	ND		200	36	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Dibenzofuran	ND		200	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Diethyl phthalate	ND	*+	200	26	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Dimethyl phthalate	ND		200	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Di-n-butyl phthalate	ND		200	35	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Di-n-octyl phthalate	ND		200	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Fluoranthene	ND		200	21	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Fluorene	ND	*+	200	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Hexachlorobenzene	ND		200	27	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Hexachlorobutadiene	ND		200	30	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Hexachlorocyclopentadiene	ND		200	27	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Hexachloroethane	ND		200	26	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Indeno[1,2,3-cd]pyrene	ND		200	25	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Isophorone	ND		200	43	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Naphthalene	ND		200	26	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Nitrobenzene	ND		200	23	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
N-Nitrosodi-n-propylamine	ND		200	35	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1

Client Sample ID: HA-02-3.0-4.0
Date Collected: 07/11/24 13:40
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-13
Matrix: Solid
Percent Solids: 82.6

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodiphenylamine	ND		200	160	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Pentachlorophenol	ND		390	200	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Phenanthrene	ND		200	30	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Phenol	ND		200	31	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1
Pyrene	ND		200	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:08	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*2400*	*T J*	*ug/Kg*	☼	*1.94*	*N/A*	*07/15/24 07:53*	*07/19/24 20:08*	*1*
Unknown	*1100*	*T J*	*ug/Kg*	☼	*3.35*	*N/A*	*07/15/24 07:53*	*07/19/24 20:08*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*97*		*26 - 143*	*07/15/24 07:53*	*07/19/24 20:08*	*1*
2-Fluorobiphenyl	*72*		*50 - 121*	*07/15/24 07:53*	*07/19/24 20:08*	*1*
2-Fluorophenol	*96*		*36 - 120*	*07/15/24 07:53*	*07/19/24 20:08*	*1*
Nitrobenzene-d5	*86*		*40 - 121*	*07/15/24 07:53*	*07/19/24 20:08*	*1*
Phenol-d5	*93*		*41 - 120*	*07/15/24 07:53*	*07/19/24 20:08*	*1*
p-Terphenyl-d14	*96*		*46 - 143*	*07/15/24 07:53*	*07/19/24 20:08*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.0	0.39	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
4,4'-DDE	ND		2.0	0.42	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
4,4'-DDT	ND		2.0	0.47	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
Aldrin	ND		2.0	0.50	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
alpha-BHC	ND		2.0	0.36	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
cis-Chlordane	ND		2.0	1.0	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
beta-BHC	ND		2.0	0.36	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
delta-BHC	ND		2.0	0.37	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
Dieldrin	ND		2.0	0.48	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
Endosulfan I	ND		2.0	0.39	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
Endosulfan II	ND		2.0	0.36	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
Endosulfan sulfate	ND		2.0	0.38	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
Endrin	ND		2.0	0.40	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
Endrin aldehyde	ND		2.0	0.51	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
Endrin ketone	ND		2.0	0.50	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
gamma-BHC (Lindane)	ND		2.0	0.37	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
trans-Chlordane	ND		2.0	0.64	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
Heptachlor	ND		2.0	0.44	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
Heptachlor epoxide	ND		2.0	0.52	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
Methoxychlor	ND		2.0	0.41	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1
Toxaphene	ND		20	12	ug/Kg	☼	07/15/24 07:45	07/16/24 14:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*63*		*45 - 120*	*07/15/24 07:45*	*07/16/24 14:55*	*1*
DCB Decachlorobiphenyl	*66*		*45 - 120*	*07/15/24 07:45*	*07/16/24 14:55*	*1*
Tetrachloro-m-xylene	*69*		*30 - 124*	*07/15/24 07:45*	*07/16/24 14:55*	*1*
Tetrachloro-m-xylene	*75*		*30 - 124*	*07/15/24 07:45*	*07/16/24 14:55*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.25	0.050	mg/Kg	☼	07/15/24 08:01	07/18/24 08:54	1

Client Sample ID: HA-02-3.0-4.0
Date Collected: 07/11/24 13:40
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-13
Matrix: Solid
Percent Solids: 82.6

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1221	ND		0.25	0.050	mg/Kg	☼	07/15/24 08:01	07/18/24 08:54	1
PCB-1232	ND		0.25	0.050	mg/Kg	☼	07/15/24 08:01	07/18/24 08:54	1
PCB-1242	ND		0.25	0.050	mg/Kg	☼	07/15/24 08:01	07/18/24 08:54	1
PCB-1248	ND		0.25	0.050	mg/Kg	☼	07/15/24 08:01	07/18/24 08:54	1
PCB-1254	ND		0.25	0.12	mg/Kg	☼	07/15/24 08:01	07/18/24 08:54	1
PCB-1260	ND		0.25	0.12	mg/Kg	☼	07/15/24 08:01	07/18/24 08:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*139*		*60 - 154*	*07/15/24 08:01*	*07/18/24 08:54*	*1*
Tetrachloro-m-xylene	*127*		*60 - 154*	*07/15/24 08:01*	*07/18/24 08:54*	*1*
DCB Decachlorobiphenyl	*124*		*65 - 174*	*07/15/24 08:01*	*07/18/24 08:54*	*1*
DCB Decachlorobiphenyl	*126*		*65 - 174*	*07/15/24 08:01*	*07/18/24 08:54*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**17900**	**B**	11.6	10.0	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Antimony	**0.76**	**J**	17.4	0.62	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Arsenic	**4.2**		2.3	1.0	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Barium	**107**		0.58	0.16	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Beryllium	**0.83**		0.23	0.046	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Cadmium	**0.18**	**J**	0.23	0.081	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Calcium	**53400**	**B**	58.0	31.3	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Chromium	**22.3**		0.58	0.42	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Cobalt	**10.7**		0.58	0.12	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Copper	**19.3**	**B**	1.2	0.66	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Iron	**19000**	**B**	11.6	9.8	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Lead	**17.2**	**B**	1.2	0.53	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Magnesium	**15200**	**B**	23.2	9.8	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Manganese	**522**	**B**	1.2	0.32	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Nickel	**26.9**		5.8	0.29	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Potassium	**5750**		34.8	28.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Selenium	ND		4.6	0.93	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Silver	ND		0.70	0.23	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Sodium	**288**		162	71.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Thallium	ND		7.0	0.88	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Vanadium	**35.1**		0.58	0.15	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1
Zinc	**69.8**		2.3	1.2	mg/Kg	☼	07/12/24 12:30	07/15/24 18:14	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.043**		0.025	0.0057	mg/Kg	☼	07/15/24 09:13	07/15/24 11:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.56	mg/Kg	☼	07/18/24 13:15	07/18/24 17:08	1

Client Sample ID: HA-02-3.0-4.0-FD
Date Collected: 07/11/24 13:40
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-14
Matrix: Solid
Percent Solids: 83.4

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		3.3	0.24	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
1,1,2,2-Tetrachloroethane	ND		3.3	0.54	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.3	0.75	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
1,1,2-Trichloroethane	ND		3.3	0.43	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
1,1-Dichloroethane	ND		3.3	0.40	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
1,1-Dichloroethene	ND		3.3	0.40	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
1,2,4-Trichlorobenzene	ND		3.3	0.20	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
1,2-Dibromo-3-Chloropropane	ND		3.3	1.6	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
1,2-Dibromoethane	ND		3.3	0.42	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
1,2-Dichlorobenzene	ND		3.3	0.26	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
1,2-Dichloroethane	ND		3.3	0.17	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
1,2-Dichloropropane	ND		3.3	1.6	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
1,3-Dichlorobenzene	ND		3.3	0.17	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
1,4-Dichlorobenzene	ND		3.3	0.46	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
2-Butanone (MEK)	ND		16	1.2	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
2-Hexanone	ND		16	1.6	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
4-Methyl-2-pentanone (MIBK)	ND		16	1.1	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Acetone	ND		16	2.8	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Benzene	ND		3.3	0.16	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Bromodichloromethane	ND		3.3	0.44	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Bromoform	ND		3.3	1.6	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Bromomethane	ND		3.3	0.30	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Carbon disulfide	ND		3.3	1.6	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Carbon tetrachloride	ND		3.3	0.32	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Chlorobenzene	ND		3.3	0.44	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Chloroethane	ND		3.3	0.75	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Chloroform	ND		3.3	0.20	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Chloromethane	ND		3.3	0.20	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
cis-1,2-Dichloroethene	ND		3.3	0.42	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
cis-1,3-Dichloropropene	ND		3.3	0.48	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Cyclohexane	ND		3.3	0.46	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Dibromochloromethane	ND		3.3	0.42	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Dichlorodifluoromethane	ND		3.3	0.27	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Ethylbenzene	ND		3.3	0.23	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Isopropylbenzene	ND		3.3	0.50	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Methyl acetate	ND		16	2.0	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Methyl tert-butyl ether	ND		3.3	0.32	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Methylcyclohexane	ND		3.3	0.50	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Methylene Chloride	ND		3.3	1.5	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Styrene	ND		3.3	0.16	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Tetrachloroethene	ND		3.3	0.44	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Toluene	ND		3.3	0.25	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
trans-1,2-Dichloroethene	ND		3.3	0.34	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
trans-1,3-Dichloropropene	ND		3.3	1.5	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Trichloroethene	ND		3.3	0.73	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Trichlorofluoromethane	ND		3.3	0.31	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Vinyl chloride	ND		3.3	0.40	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1
Xylenes, Total	ND		6.6	0.55	ug/Kg	☼	07/12/24 10:00	07/17/24 00:07	1

Client Sample ID: HA-02-3.0-4.0-FD

Date Collected: 07/11/24 13:40
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-14

Matrix: Solid
Percent Solids: 83.4

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/Kg	☼		N/A	07/12/24 10:00	07/17/24 00:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		64 - 126	07/12/24 10:00	07/17/24 00:07	1
4-Bromofluorobenzene (Surr)	108		72 - 126	07/12/24 10:00	07/17/24 00:07	1
Dibromofluoromethane (Surr)	104		60 - 140	07/12/24 10:00	07/17/24 00:07	1
Toluene-d8 (Surr)	96		71 - 125	07/12/24 10:00	07/17/24 00:07	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		200	54	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
2,4,6-Trichlorophenol	ND		200	40	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
2,4-Dichlorophenol	ND		200	21	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
2,4-Dimethylphenol	ND	*+	200	48	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
2,4-Dinitrophenol	ND		2000	920	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
2,4-Dinitrotoluene	ND		200	41	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
2,6-Dinitrotoluene	ND		200	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
2-Chloronaphthalene	ND		200	33	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
2-Chlorophenol	ND		390	36	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
2-Methylnaphthalene	ND		200	40	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
2-Methylphenol	ND		200	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
2-Nitroaniline	ND		390	29	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
2-Nitrophenol	ND		200	56	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
3,3'-Dichlorobenzidine	ND		390	240	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
3-Nitroaniline	ND		390	55	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
4,6-Dinitro-2-methylphenol	ND		390	200	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
4-Bromophenyl phenyl ether	ND		200	28	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
4-Chloro-3-methylphenol	ND		200	49	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
4-Chloroaniline	ND		200	49	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
4-Chlorophenyl phenyl ether	ND		200	25	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
4-Methylphenol	ND		390	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
4-Nitroaniline	ND		390	100	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
4-Nitrophenol	ND		390	140	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Acenaphthene	ND		200	29	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Acenaphthylene	ND		200	26	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Acetophenone	ND		200	27	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Anthracene	ND		200	49	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Atrazine	ND		200	69	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Benzaldehyde	ND		200	160	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Benzo[a]anthracene	ND		200	20	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Benzo[a]pyrene	ND		200	29	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Benzo[b]fluoranthene	ND		200	32	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Benzo[g,h,i]perylene	ND		200	21	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Benzo[k]fluoranthene	ND		200	26	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Biphenyl	ND		200	29	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
bis (2-chloroisopropyl) ether	ND		200	40	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Bis(2-chloroethoxy)methane	ND		200	42	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Bis(2-chloroethyl)ether	ND		200	26	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Bis(2-ethylhexyl) phthalate	ND		200	68	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Butyl benzyl phthalate	ND		200	33	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1

Client Sample ID: HA-02-3.0-4.0-FD
Date Collected: 07/11/24 13:40
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-14
Matrix: Solid
Percent Solids: 83.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Caprolactam	ND		200	60	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Carbazole	ND		200	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Chrysene	ND		200	45	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Dibenz(a,h)anthracene	ND		200	35	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Dibenzofuran	ND		200	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Diethyl phthalate	ND	*+	200	26	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Dimethyl phthalate	ND		200	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Di-n-butyl phthalate	ND		200	34	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Di-n-octyl phthalate	ND		200	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Fluoranthene	ND		200	21	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Fluorene	ND	*+	200	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Hexachlorobenzene	ND		200	27	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Hexachlorobutadiene	ND		200	29	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Hexachlorocyclopentadiene	ND		200	27	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Hexachloroethane	ND		200	26	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Indeno[1,2,3-cd]pyrene	ND		200	25	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Isophorone	ND		200	42	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Naphthalene	ND		200	26	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Nitrobenzene	ND		200	22	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
N-Nitrosodi-n-propylamine	ND		200	34	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
N-Nitrosodiphenylamine	ND		200	160	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Pentachlorophenol	ND		390	200	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Phenanthrene	ND		200	29	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Phenol	ND		200	31	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1
Pyrene	ND		200	24	ug/Kg	☼	07/15/24 07:53	07/19/24 20:38	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*1700*	*T J*	*ug/Kg*	☼	*1.94*	*N/A*	*07/15/24 07:53*	*07/19/24 20:38*	*1*
Unknown	*650*	*T J*	*ug/Kg*	☼	*3.35*	*N/A*	*07/15/24 07:53*	*07/19/24 20:38*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*95*		*26 - 143*	*07/15/24 07:53*	*07/19/24 20:38*	*1*
2-Fluorobiphenyl	*67*		*50 - 121*	*07/15/24 07:53*	*07/19/24 20:38*	*1*
2-Fluorophenol	*53*		*36 - 120*	*07/15/24 07:53*	*07/19/24 20:38*	*1*
Nitrobenzene-d5	*60*		*40 - 121*	*07/15/24 07:53*	*07/19/24 20:38*	*1*
Phenol-d5	*70*		*41 - 120*	*07/15/24 07:53*	*07/19/24 20:38*	*1*
p-Terphenyl-d14	*93*		*46 - 143*	*07/15/24 07:53*	*07/19/24 20:38*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.0	0.38	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
4,4'-DDE	ND		2.0	0.41	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
4,4'-DDT	ND		2.0	0.46	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
Aldrin	ND		2.0	0.48	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
alpha-BHC	ND		2.0	0.35	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
cis-Chlordane	ND		2.0	0.97	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
beta-BHC	ND		2.0	0.35	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
delta-BHC	ND		2.0	0.36	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
Dieldrin	ND		2.0	0.47	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
Endosulfan I	ND		2.0	0.37	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221553-1

Client Sample ID: HA-02-3.0-4.0-FD

Date Collected: 07/11/24 13:40
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-14

Matrix: Solid
Percent Solids: 83.4

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan II	ND		2.0	0.35	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
Endosulfan sulfate	ND		2.0	0.36	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
Endrin	ND		2.0	0.39	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
Endrin aldehyde	ND		2.0	0.50	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
Endrin ketone	ND		2.0	0.48	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
gamma-BHC (Lindane)	ND		2.0	0.36	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
trans-Chlordane	ND		2.0	0.62	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
Heptachlor	ND		2.0	0.42	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
Heptachlor epoxide	ND		2.0	0.50	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
Methoxychlor	ND		2.0	0.40	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1
Toxaphene	ND		20	11	ug/Kg	☼	07/15/24 07:45	07/16/24 15:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*63*		*45 - 120*	*07/15/24 07:45*	*07/16/24 15:15*	*1*
DCB Decachlorobiphenyl	*66*		*45 - 120*	*07/15/24 07:45*	*07/16/24 15:15*	*1*
Tetrachloro-m-xylene	*69*		*30 - 124*	*07/15/24 07:45*	*07/16/24 15:15*	*1*
Tetrachloro-m-xylene	*75*		*30 - 124*	*07/15/24 07:45*	*07/16/24 15:15*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.25	0.049	mg/Kg	☼	07/15/24 08:01	07/18/24 09:10	1
PCB-1221	ND		0.25	0.049	mg/Kg	☼	07/15/24 08:01	07/18/24 09:10	1
PCB-1232	ND		0.25	0.049	mg/Kg	☼	07/15/24 08:01	07/18/24 09:10	1
PCB-1242	ND		0.25	0.049	mg/Kg	☼	07/15/24 08:01	07/18/24 09:10	1
PCB-1248	ND		0.25	0.049	mg/Kg	☼	07/15/24 08:01	07/18/24 09:10	1
PCB-1254	ND		0.25	0.12	mg/Kg	☼	07/15/24 08:01	07/18/24 09:10	1
PCB-1260	ND		0.25	0.12	mg/Kg	☼	07/15/24 08:01	07/18/24 09:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*149*		*60 - 154*	*07/15/24 08:01*	*07/18/24 09:10*	*1*
Tetrachloro-m-xylene	*132*		*60 - 154*	*07/15/24 08:01*	*07/18/24 09:10*	*1*
DCB Decachlorobiphenyl	*130*		*65 - 174*	*07/15/24 08:01*	*07/18/24 09:10*	*1*
DCB Decachlorobiphenyl	*134*		*65 - 174*	*07/15/24 08:01*	*07/18/24 09:10*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**19500**	**B**	12.0	10.4	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Antimony	ND		18.1	0.64	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Arsenic	**3.6**		2.4	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Barium	**122**		0.60	0.17	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Beryllium	**0.87**		0.24	0.048	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Cadmium	**0.18**	**J**	0.24	0.084	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Calcium	**53600**	**B**	60.2	32.5	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Chromium	**23.5**		0.60	0.43	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Cobalt	**10.6**		0.60	0.12	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Copper	**17.9**	**B**	1.2	0.69	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Iron	**20100**	**B**	12.0	10.2	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Lead	**11.7**	**B**	1.2	0.55	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Magnesium	**17400**	**B**	24.1	10.2	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Manganese	**434**	**B**	1.2	0.34	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1

Client Sample ID: HA-02-3.0-4.0-FD
Lab Sample ID: 480-221553-14
Date Collected: 07/11/24 13:40
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 83.4

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	**26.6**		6.0	0.30	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Potassium	**6330**		36.1	29.2	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Selenium	ND		4.8	0.96	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Silver	**0.32**	**J**	0.72	0.24	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Sodium	**296**		169	73.8	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Thallium	ND		7.2	0.91	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Vanadium	**37.0**		0.60	0.16	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1
Zinc	**58.8**		2.4	1.2	mg/Kg	☼	07/12/24 12:30	07/15/24 18:16	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.020**	**J**	0.024	0.0055	mg/Kg	☼	07/15/24 09:13	07/15/24 11:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.57	mg/Kg	☼	07/18/24 13:15	07/18/24 17:09	1

Client Sample ID: SB-01-43.0-45.0
Lab Sample ID: 480-221553-15
Date Collected: 07/11/24 13:46
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 73.1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.9	0.36	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
1,1,2,2-Tetrachloroethane	ND		4.9	0.80	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.9	1.1	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
1,1,2-Trichloroethane	ND		4.9	0.64	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
1,1-Dichloroethane	ND		4.9	0.60	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
1,1-Dichloroethene	ND		4.9	0.61	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
1,2,4-Trichlorobenzene	ND		4.9	0.30	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
1,2-Dibromo-3-Chloropropane	ND		4.9	2.5	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
1,2-Dibromoethane	ND		4.9	0.63	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
1,2-Dichlorobenzene	ND		4.9	0.39	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
1,2-Dichloroethane	ND		4.9	0.25	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
1,2-Dichloropropane	ND		4.9	2.5	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
1,3-Dichlorobenzene	ND		4.9	0.25	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
1,4-Dichlorobenzene	ND		4.9	0.69	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
2-Hexanone	ND		25	2.5	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Acetone	**11**	**J**	25	4.2	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Benzene	ND		4.9	0.24	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Bromodichloromethane	ND		4.9	0.66	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Bromoform	ND		4.9	2.5	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Bromomethane	ND		4.9	0.44	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Carbon disulfide	ND		4.9	2.5	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Carbon tetrachloride	ND		4.9	0.48	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Chlorobenzene	ND		4.9	0.65	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Chloroethane	ND		4.9	1.1	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Chloroform	ND		4.9	0.31	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1

Client Sample ID: SB-01-43.0-45.0
Date Collected: 07/11/24 13:46
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-15
Matrix: Solid
Percent Solids: 73.1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		4.9	0.30	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
cis-1,2-Dichloroethene	ND		4.9	0.63	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
cis-1,3-Dichloropropene	ND		4.9	0.71	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Cyclohexane	ND		4.9	0.69	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Dibromochloromethane	ND		4.9	0.63	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Dichlorodifluoromethane	ND		4.9	0.41	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Ethylbenzene	ND		4.9	0.34	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Isopropylbenzene	ND		4.9	0.75	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Methyl acetate	ND		25	3.0	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Methyl tert-butyl ether	ND		4.9	0.49	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Methylcyclohexane	ND		4.9	0.75	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Methylene Chloride	ND		4.9	2.3	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Styrene	ND		4.9	0.25	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Tetrachloroethene	ND		4.9	0.66	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Toluene	ND		4.9	0.37	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
trans-1,2-Dichloroethene	ND		4.9	0.51	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
trans-1,3-Dichloropropene	ND		4.9	2.2	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Trichloroethene	ND		4.9	1.1	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Trichlorofluoromethane	ND		4.9	0.47	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Vinyl chloride	ND		4.9	0.60	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1
Xylenes, Total	ND		9.9	0.83	ug/Kg	☼	07/12/24 10:00	07/17/24 23:05	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/12/24 10:00*	*07/17/24 23:05*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*64 - 126*	*07/12/24 10:00*	*07/17/24 23:05*	*1*
4-Bromofluorobenzene (Surr)	*103*		*72 - 126*	*07/12/24 10:00*	*07/17/24 23:05*	*1*
Dibromofluoromethane (Surr)	*106*		*60 - 140*	*07/12/24 10:00*	*07/17/24 23:05*	*1*
Toluene-d8 (Surr)	*99*		*71 - 125*	*07/12/24 10:00*	*07/17/24 23:05*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		230	62	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
2,4,6-Trichlorophenol	ND		230	46	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
2,4-Dichlorophenol	ND		230	24	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
2,4-Dimethylphenol	ND	*+	230	55	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
2,4-Dinitrophenol	ND		2200	1100	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
2,4-Dinitrotoluene	ND		230	47	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
2,6-Dinitrotoluene	ND		230	27	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
2-Chloronaphthalene	ND		230	38	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
2-Chlorophenol	ND		440	42	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
2-Methylnaphthalene	ND		230	46	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
2-Methylphenol	ND		230	27	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
2-Nitroaniline	ND		440	34	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
2-Nitrophenol	ND		230	64	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
3,3'-Dichlorobenzidine	ND		440	270	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
3-Nitroaniline	ND		440	63	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
4,6-Dinitro-2-methylphenol	ND		440	230	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
4-Bromophenyl phenyl ether	ND		230	32	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1

Client Sample ID: SB-01-43.0-45.0
Date Collected: 07/11/24 13:46
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-15
Matrix: Solid
Percent Solids: 73.1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chloro-3-methylphenol	ND		230	56	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
4-Chloroaniline	ND		230	56	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
4-Chlorophenyl phenyl ether	ND		230	28	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
4-Methylphenol	ND		440	27	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
4-Nitroaniline	ND		440	120	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
4-Nitrophenol	ND		440	160	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Acenaphthene	ND		230	34	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Acenaphthylene	ND		230	30	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Acetophenone	ND		230	31	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Anthracene	ND		230	56	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Atrazine	ND		230	79	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Benzaldehyde	ND		230	180	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Benzo[a]anthracene	ND		230	23	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Benzo[a]pyrene	ND		230	34	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Benzo[b]fluoranthene	ND		230	36	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Benzo[g,h,i]perylene	ND		230	24	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Benzo[k]fluoranthene	ND		230	30	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Biphenyl	ND		230	34	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
bis (2-chloroisopropyl) ether	ND		230	46	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Bis(2-chloroethoxy)methane	ND		230	48	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Bis(2-chloroethyl)ether	ND		230	30	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Bis(2-ethylhexyl) phthalate	ND		230	78	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Butyl benzyl phthalate	ND		230	38	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Caprolactam	ND		230	68	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Carbazole	ND		230	27	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Chrysene	ND		230	51	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Dibenz(a,h)anthracene	ND		230	40	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Dibenzofuran	ND		230	27	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Diethyl phthalate	ND	*+	230	30	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Dimethyl phthalate	ND		230	27	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Di-n-butyl phthalate	ND		230	39	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Di-n-octyl phthalate	ND		230	27	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Fluoranthene	ND		230	24	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Fluorene	ND	*+	230	27	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Hexachlorobenzene	ND		230	31	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Hexachlorobutadiene	ND		230	34	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Hexachlorocyclopentadiene	ND		230	31	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Hexachloroethane	ND		230	30	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Indeno[1,2,3-cd]pyrene	ND		230	28	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Isophorone	ND		230	48	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Naphthalene	ND		230	30	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Nitrobenzene	ND		230	26	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
N-Nitrosodi-n-propylamine	ND		230	39	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
N-Nitrosodiphenylamine	ND		230	190	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Pentachlorophenol	ND		440	230	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Phenanthrene	ND		230	34	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Phenol	ND		230	35	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1
Pyrene	ND		230	27	ug/Kg	☼	07/15/24 07:53	07/19/24 21:07	1

Client Sample ID: SB-01-43.0-45.0

Date Collected: 07/11/24 13:46
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-15

Matrix: Solid
Percent Solids: 73.1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Methylene Chloride	520	T J N	ug/Kg	☼	1.74	75-09-2	07/15/24 07:53	07/19/24 21:07	1
Unknown	2100	T J	ug/Kg	☼	1.93	N/A	07/15/24 07:53	07/19/24 21:07	1
Unknown	1000	T J	ug/Kg	☼	3.35	N/A	07/15/24 07:53	07/19/24 21:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	92		26 - 143	07/15/24 07:53	07/19/24 21:07	1
2-Fluorobiphenyl	85		50 - 121	07/15/24 07:53	07/19/24 21:07	1
2-Fluorophenol	82		36 - 120	07/15/24 07:53	07/19/24 21:07	1
Nitrobenzene-d5	80		40 - 121	07/15/24 07:53	07/19/24 21:07	1
Phenol-d5	81		41 - 120	07/15/24 07:53	07/19/24 21:07	1
p-Terphenyl-d14	123		46 - 143	07/15/24 07:53	07/19/24 21:07	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.3	0.44	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
4,4'-DDE	ND		2.3	0.48	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
4,4'-DDT	ND		2.3	0.53	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
Aldrin	ND		2.3	0.56	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
alpha-BHC	ND		2.3	0.41	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
cis-Chlordane	ND		2.3	1.1	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
beta-BHC	ND		2.3	0.41	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
delta-BHC	ND		2.3	0.42	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
Dieldrin	ND		2.3	0.55	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
Endosulfan I	ND		2.3	0.44	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
Endosulfan II	ND		2.3	0.41	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
Endosulfan sulfate	ND		2.3	0.42	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
Endrin	ND		2.3	0.45	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
Endrin aldehyde	ND		2.3	0.58	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
Endrin ketone	ND		2.3	0.56	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
gamma-BHC (Lindane)	ND		2.3	0.42	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
trans-Chlordane	ND		2.3	0.72	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
Heptachlor	ND		2.3	0.49	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
Heptachlor epoxide	ND		2.3	0.59	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
Methoxychlor	ND		2.3	0.46	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1
Toxaphene	ND		23	13	ug/Kg	☼	07/15/24 07:45	07/16/24 15:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	73		45 - 120	07/15/24 07:45	07/16/24 15:35	1
DCB Decachlorobiphenyl	75		45 - 120	07/15/24 07:45	07/16/24 15:35	1
Tetrachloro-m-xylene	67		30 - 124	07/15/24 07:45	07/16/24 15:35	1
Tetrachloro-m-xylene	77		30 - 124	07/15/24 07:45	07/16/24 15:35	1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.28	0.054	mg/Kg	☼	07/15/24 08:01	07/19/24 15:13	1
PCB-1221	ND		0.28	0.054	mg/Kg	☼	07/15/24 08:01	07/19/24 15:13	1
PCB-1232	ND		0.28	0.054	mg/Kg	☼	07/15/24 08:01	07/19/24 15:13	1
PCB-1242	ND		0.28	0.054	mg/Kg	☼	07/15/24 08:01	07/19/24 15:13	1
PCB-1248	ND		0.28	0.054	mg/Kg	☼	07/15/24 08:01	07/19/24 15:13	1
PCB-1254	ND		0.28	0.13	mg/Kg	☼	07/15/24 08:01	07/19/24 15:13	1
PCB-1260	ND		0.28	0.13	mg/Kg	☼	07/15/24 08:01	07/19/24 15:13	1

Client Sample ID: SB-01-43.0-45.0

Date Collected: 07/11/24 13:46
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-15

Matrix: Solid
Percent Solids: 73.1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	111		60 - 154	07/15/24 08:01	07/19/24 15:13	1
Tetrachloro-m-xylene	96		60 - 154	07/15/24 08:01	07/19/24 15:13	1
DCB Decachlorobiphenyl	93		65 - 174	07/15/24 08:01	07/19/24 15:13	1
DCB Decachlorobiphenyl	99		65 - 174	07/15/24 08:01	07/19/24 15:13	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**22700**	**B**	14.1	12.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Antimony	ND		21.1	0.75	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Arsenic	**3.5**		2.8	1.2	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Barium	**143**		0.70	0.20	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Beryllium	**1.0**		0.28	0.056	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Cadmium	**0.13**	**J**	0.28	0.099	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Calcium	**49900**	**B**	70.4	38.0	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Chromium	**29.6**		0.70	0.51	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Cobalt	**15.3**		0.70	0.14	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Copper	**23.0**	**B**	1.4	0.80	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Iron	**25000**	**B**	14.1	11.9	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Lead	**9.5**	**B**	1.4	0.65	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Magnesium	**13500**	**B**	28.2	11.9	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Manganese	**591**	**B**	1.4	0.39	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Nickel	**35.1**		7.0	0.35	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Potassium	**6860**		42.2	34.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Selenium	ND		5.6	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Silver	**0.37**	**J**	0.84	0.28	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Sodium	**390**		197	86.3	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Thallium	ND		8.4	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Vanadium	**43.5**		0.70	0.18	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1
Zinc	**58.4**		2.8	1.4	mg/Kg	☼	07/12/24 12:30	07/15/24 18:18	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0091**	**J**	0.028	0.0064	mg/Kg	☼	07/15/24 09:13	07/15/24 11:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.60	mg/Kg	☼	07/18/24 13:15	07/18/24 17:11	1

Client Sample ID: SB-04-0.0-0.2

Date Collected: 07/11/24 14:55
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-16

Matrix: Solid
Percent Solids: 74.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		23000	6200	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
2,4,6-Trichlorophenol	ND		23000	4500	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
2,4-Dichlorophenol	ND		23000	2400	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
2,4-Dimethylphenol	ND	*+	23000	5500	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
2,4-Dinitrophenol	ND		220000	100000	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
2,4-Dinitrotoluene	ND		23000	4700	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
2,6-Dinitrotoluene	ND		23000	2700	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10

Client Sample ID: SB-04-0.0-0.2
Date Collected: 07/11/24 14:55
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-16
Matrix: Solid
Percent Solids: 74.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	ND		23000	3700	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
2-Chlorophenol	ND		44000	4100	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
2-Methylnaphthalene	ND		23000	4500	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
2-Methylphenol	ND		23000	2700	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
2-Nitroaniline	ND		44000	3300	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
2-Nitrophenol	ND		23000	6400	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
3,3'-Dichlorobenzidine	ND		44000	27000	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
3-Nitroaniline	ND		44000	6300	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
4,6-Dinitro-2-methylphenol	ND		44000	23000	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
4-Bromophenyl phenyl ether	ND		23000	3200	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
4-Chloro-3-methylphenol	ND		23000	5600	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
4-Chloroaniline	ND		23000	5600	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
4-Chlorophenyl phenyl ether	ND		23000	2800	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
4-Methylphenol	ND		44000	2700	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
4-Nitroaniline	ND		44000	12000	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
4-Nitrophenol	ND		44000	16000	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Acenaphthene	ND		23000	3300	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Acenaphthylene	ND		23000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Acetophenone	ND		23000	3100	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Anthracene	ND		23000	5600	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Atrazine	ND		23000	7900	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Benzaldehyde	ND		23000	18000	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Benzo[a]anthracene	ND		23000	2300	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Benzo[a]pyrene	ND		23000	3300	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Benzo[b]fluoranthene	ND		23000	3600	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Benzo[g,h,i]perylene	ND		23000	2400	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Benzo[k]fluoranthene	ND		23000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Biphenyl	ND		23000	3300	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
bis (2-chloroisopropyl) ether	ND		23000	4500	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Bis(2-chloroethoxy)methane	ND		23000	4800	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Bis(2-chloroethyl)ether	ND		23000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Bis(2-ethylhexyl) phthalate	ND		23000	7800	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Butyl benzyl phthalate	ND		23000	3700	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Caprolactam	ND		23000	6800	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Carbazole	ND		23000	2700	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Chrysene	ND		23000	5100	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Dibenz(a,h)anthracene	ND		23000	4000	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Dibenzofuran	ND		23000	2700	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Diethyl phthalate	ND	*+	23000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Dimethyl phthalate	ND		23000	2700	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Di-n-butyl phthalate	ND		23000	3900	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Di-n-octyl phthalate	ND		23000	2700	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Fluoranthene	ND		23000	2400	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Fluorene	ND	*+	23000	2700	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Hexachlorobenzene	ND		23000	3100	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Hexachlorobutadiene	ND		23000	3300	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Hexachlorocyclopentadiene	ND		23000	3100	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Hexachloroethane	ND		23000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Indeno[1,2,3-cd]pyrene	ND		23000	2800	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10

Client Sample ID: SB-04-0.0-0.2

Date Collected: 07/11/24 14:55
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-16

Matrix: Solid
Percent Solids: 74.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isophorone	ND		23000	4800	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Naphthalene	ND		23000	2900	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Nitrobenzene	ND		23000	2500	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
N-Nitrosodi-n-propylamine	ND		23000	3900	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
N-Nitrosodiphenylamine	ND		23000	18000	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Pentachlorophenol	ND		44000	23000	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Phenanthrene	ND		23000	3300	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Phenol	ND		23000	3500	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10
Pyrene	ND		23000	2700	ug/Kg	☼	07/15/24 07:53	07/19/24 21:37	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/15/24 07:53*	*07/19/24 21:37*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*190*	*S1+*	*26 - 143*	*07/15/24 07:53*	*07/19/24 21:37*	*10*
2-Fluorobiphenyl	*104*		*50 - 121*	*07/15/24 07:53*	*07/19/24 21:37*	*10*
2-Fluorophenol	*86*		*36 - 120*	*07/15/24 07:53*	*07/19/24 21:37*	*10*
Nitrobenzene-d5	*109*		*40 - 121*	*07/15/24 07:53*	*07/19/24 21:37*	*10*
Phenol-d5	*185*	*S1+*	*41 - 120*	*07/15/24 07:53*	*07/19/24 21:37*	*10*
p-Terphenyl-d14	*100*		*46 - 143*	*07/15/24 07:53*	*07/19/24 21:37*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		110	22	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
4,4'-DDE	ND		110	24	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
4,4'-DDT	ND		110	26	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
Aldrin	ND		110	28	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
alpha-BHC	ND		110	20	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
cis-Chlordane	ND		110	56	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
beta-BHC	ND		110	20	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
delta-BHC	ND		110	21	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
Dieldrin	ND		110	27	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
Endosulfan I	ND		110	21	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
Endosulfan II	ND		110	20	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
Endosulfan sulfate	ND		110	21	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
Endrin	ND		110	22	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
Endrin aldehyde	ND		110	29	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
Endrin ketone	ND		110	28	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
gamma-BHC (Lindane)	ND		110	21	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
trans-Chlordane	ND		110	36	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
Heptachlor	ND		110	24	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
Heptachlor epoxide	ND		110	29	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
Methoxychlor	ND		110	23	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50
Toxaphene	ND		1100	650	ug/Kg	☼	07/15/24 07:45	07/16/24 15:54	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/15/24 07:45*	*07/16/24 15:54*	*50*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/15/24 07:45*	*07/16/24 15:54*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 15:54*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/15/24 07:45*	*07/16/24 15:54*	*50*

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221553-1

Client Sample ID: SB-04-0.0-0.2

Date Collected: 07/11/24 14:55
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-16

Matrix: Solid
Percent Solids: 74.0

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.31	0.061	mg/Kg	☼	07/15/24 08:01	07/19/24 16:03	1
PCB-1221	ND		0.31	0.061	mg/Kg	☼	07/15/24 08:01	07/19/24 16:03	1
PCB-1232	ND		0.31	0.061	mg/Kg	☼	07/15/24 08:01	07/19/24 16:03	1
PCB-1242	ND		0.31	0.061	mg/Kg	☼	07/15/24 08:01	07/19/24 16:03	1
PCB-1248	ND		0.31	0.061	mg/Kg	☼	07/15/24 08:01	07/19/24 16:03	1
PCB-1254	ND		0.31	0.15	mg/Kg	☼	07/15/24 08:01	07/19/24 16:03	1
PCB-1260	ND		0.31	0.15	mg/Kg	☼	07/15/24 08:01	07/19/24 16:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*80*		*60 - 154*	*07/15/24 08:01*	*07/19/24 16:03*	*1*
Tetrachloro-m-xylene	*72*		*60 - 154*	*07/15/24 08:01*	*07/19/24 16:03*	*1*
DCB Decachlorobiphenyl	*58*	*S1-*	*65 - 174*	*07/15/24 08:01*	*07/19/24 16:03*	*1*
DCB Decachlorobiphenyl	*58*	*S1-*	*65 - 174*	*07/15/24 08:01*	*07/19/24 16:03*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**14400**	**B**	13.4	11.5	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Antimony	**2.5**	**J**	20.0	0.71	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Arsenic	**11.4**		2.7	1.2	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Barium	**94.2**		0.67	0.19	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Beryllium	**2.1**		0.27	0.053	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Cadmium	**0.80**		0.27	0.094	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Calcium	**54600**	**B**	66.8	36.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Chromium	**32.0**		0.67	0.48	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Cobalt	**9.6**		0.67	0.13	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Copper	**41.1**	**B**	1.3	0.76	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Iron	**22100**	**B**	13.4	11.3	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Lead	**80.5**	**B ^+**	1.3	0.61	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Magnesium	**31400**	**B**	26.7	11.3	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Manganese	**527**	**B**	1.3	0.37	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Nickel	**34.0**		6.7	0.33	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Potassium	**2660**		40.1	32.4	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Selenium	ND		5.3	1.1	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Silver	ND		0.80	0.27	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Sodium	**325**		187	81.9	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Thallium	ND		8.0	1.0	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Vanadium	**45.7**		0.67	0.17	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1
Zinc	**185**		2.7	1.4	mg/Kg	☼	07/12/24 12:30	07/15/24 18:26	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.041**		0.026	0.0060	mg/Kg	☼	07/15/24 09:13	07/15/24 11:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.3	0.62	mg/Kg	☼	07/18/24 13:15	07/18/24 17:12	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221553-1

Client Sample ID: RB-07112024
Date Collected: 07/11/24 16:10
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-17
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/12/24 22:57	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/12/24 22:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/12/24 22:57	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/12/24 22:57	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/12/24 22:57	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/12/24 22:57	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/12/24 22:57	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/12/24 22:57	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/12/24 22:57	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/12/24 22:57	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/12/24 22:57	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/12/24 22:57	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/12/24 22:57	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/12/24 22:57	1
2-Butanone (MEK)	ND	*+	10	1.3	ug/L			07/12/24 22:57	1
2-Hexanone	ND		5.0	1.2	ug/L			07/12/24 22:57	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/12/24 22:57	1
Acetone	ND		10	3.0	ug/L			07/12/24 22:57	1
Benzene	ND		1.0	0.41	ug/L			07/12/24 22:57	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/12/24 22:57	1
Bromoform	ND		1.0	0.26	ug/L			07/12/24 22:57	1
Bromomethane	ND		1.0	0.69	ug/L			07/12/24 22:57	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/12/24 22:57	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/12/24 22:57	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/12/24 22:57	1
Chloroethane	ND		1.0	0.32	ug/L			07/12/24 22:57	1
Chloroform	ND		1.0	0.34	ug/L			07/12/24 22:57	1
Chloromethane	ND		1.0	0.35	ug/L			07/12/24 22:57	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			07/12/24 22:57	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/12/24 22:57	1
Cyclohexane	ND		1.0	0.18	ug/L			07/12/24 22:57	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/12/24 22:57	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/12/24 22:57	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/12/24 22:57	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/12/24 22:57	1
Methyl acetate	ND		2.5	1.3	ug/L			07/12/24 22:57	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/12/24 22:57	1
Methylcyclohexane	ND		1.0	0.16	ug/L			07/12/24 22:57	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/12/24 22:57	1
Styrene	ND		1.0	0.73	ug/L			07/12/24 22:57	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/12/24 22:57	1
Toluene	ND		1.0	0.51	ug/L			07/12/24 22:57	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/12/24 22:57	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			07/12/24 22:57	1
Trichloroethene	ND		1.0	0.46	ug/L			07/12/24 22:57	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/12/24 22:57	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/12/24 22:57	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/12/24 22:57	1

Client Sample ID: RB-07112024

Date Collected: 07/11/24 16:10
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-17

Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A		07/12/24 22:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		77 - 120		07/12/24 22:57	1
4-Bromofluorobenzene (Surr)	91		73 - 120		07/12/24 22:57	1
Dibromofluoromethane (Surr)	91		75 - 123		07/12/24 22:57	1
Toluene-d8 (Surr)	95		80 - 120		07/12/24 22:57	1

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		07/14/24 09:20	07/15/24 19:05	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	28		15 - 110	07/14/24 09:20	07/15/24 19:05	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.2	0.50	ug/L		07/12/24 13:42	07/15/24 20:43	1
2,4,6-Trichlorophenol	ND		5.2	0.64	ug/L		07/12/24 13:42	07/15/24 20:43	1
2,4-Dichlorophenol	ND		5.2	0.53	ug/L		07/12/24 13:42	07/15/24 20:43	1
2,4-Dimethylphenol	ND		5.2	0.52	ug/L		07/12/24 13:42	07/15/24 20:43	1
2,4-Dinitrophenol	ND		10	2.3	ug/L		07/12/24 13:42	07/15/24 20:43	1
2,4-Dinitrotoluene	ND		5.2	0.47	ug/L		07/12/24 13:42	07/15/24 20:43	1
2,6-Dinitrotoluene	ND		5.2	0.42	ug/L		07/12/24 13:42	07/15/24 20:43	1
2-Chloronaphthalene	ND		5.2	0.48	ug/L		07/12/24 13:42	07/15/24 20:43	1
2-Chlorophenol	ND		5.2	0.55	ug/L		07/12/24 13:42	07/15/24 20:43	1
2-Methylnaphthalene	ND		5.2	0.63	ug/L		07/12/24 13:42	07/15/24 20:43	1
2-Methylphenol	ND		5.2	0.42	ug/L		07/12/24 13:42	07/15/24 20:43	1
2-Nitroaniline	ND		10	0.44	ug/L		07/12/24 13:42	07/15/24 20:43	1
2-Nitrophenol	ND		5.2	0.50	ug/L		07/12/24 13:42	07/15/24 20:43	1
3,3'-Dichlorobenzidine	ND		5.2	0.42	ug/L		07/12/24 13:42	07/15/24 20:43	1
3-Nitroaniline	ND		10	0.50	ug/L		07/12/24 13:42	07/15/24 20:43	1
4,6-Dinitro-2-methylphenol	ND		10	2.3	ug/L		07/12/24 13:42	07/15/24 20:43	1
4-Bromophenyl phenyl ether	ND		5.2	0.47	ug/L		07/12/24 13:42	07/15/24 20:43	1
4-Chloro-3-methylphenol	ND		5.2	0.47	ug/L		07/12/24 13:42	07/15/24 20:43	1
4-Chloroaniline	ND		5.2	0.61	ug/L		07/12/24 13:42	07/15/24 20:43	1
4-Chlorophenyl phenyl ether	ND		5.2	0.36	ug/L		07/12/24 13:42	07/15/24 20:43	1
4-Methylphenol	ND		10	0.38	ug/L		07/12/24 13:42	07/15/24 20:43	1
4-Nitroaniline	ND		10	0.26	ug/L		07/12/24 13:42	07/15/24 20:43	1
4-Nitrophenol	ND		10	1.6	ug/L		07/12/24 13:42	07/15/24 20:43	1
Acenaphthene	ND		5.2	0.43	ug/L		07/12/24 13:42	07/15/24 20:43	1
Acenaphthylene	ND		5.2	0.40	ug/L		07/12/24 13:42	07/15/24 20:43	1
Acetophenone	ND		5.2	0.56	ug/L		07/12/24 13:42	07/15/24 20:43	1
Anthracene	ND		5.2	0.29	ug/L		07/12/24 13:42	07/15/24 20:43	1
Atrazine	ND		5.2	0.48	ug/L		07/12/24 13:42	07/15/24 20:43	1
Benzaldehyde	ND		5.2	0.28	ug/L		07/12/24 13:42	07/15/24 20:43	1
Benzo(a)anthracene	ND		5.2	0.38	ug/L		07/12/24 13:42	07/15/24 20:43	1
Benzo(a)pyrene	ND		5.2	0.49	ug/L		07/12/24 13:42	07/15/24 20:43	1
Benzo(b)fluoranthene	ND		5.2	0.35	ug/L		07/12/24 13:42	07/15/24 20:43	1
Benzo(g,h,i)perylene	ND		5.2	0.36	ug/L		07/12/24 13:42	07/15/24 20:43	1
Benzo(k)fluoranthene	ND		5.2	0.76	ug/L		07/12/24 13:42	07/15/24 20:43	1

Client Sample ID: RB-07112024
Date Collected: 07/11/24 16:10
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-17
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.2	0.68	ug/L		07/12/24 13:42	07/15/24 20:43	1
bis (2-chloroisopropyl) ether	ND		5.2	0.54	ug/L		07/12/24 13:42	07/15/24 20:43	1
Bis(2-chloroethoxy)methane	ND		5.2	0.36	ug/L		07/12/24 13:42	07/15/24 20:43	1
Bis(2-chloroethyl)ether	ND		5.2	0.42	ug/L		07/12/24 13:42	07/15/24 20:43	1
Bis(2-ethylhexyl) phthalate	ND		5.2	2.3	ug/L		07/12/24 13:42	07/15/24 20:43	1
Butyl benzyl phthalate	ND		5.2	1.0	ug/L		07/12/24 13:42	07/15/24 20:43	1
Caprolactam	ND		5.2	2.3	ug/L		07/12/24 13:42	07/15/24 20:43	1
Carbazole	ND		5.2	0.31	ug/L		07/12/24 13:42	07/15/24 20:43	1
Chrysene	ND		5.2	0.34	ug/L		07/12/24 13:42	07/15/24 20:43	1
Dibenz(a,h)anthracene	ND		5.2	0.44	ug/L		07/12/24 13:42	07/15/24 20:43	1
Dibenzofuran	ND		10	0.53	ug/L		07/12/24 13:42	07/15/24 20:43	1
Diethyl phthalate	ND		5.2	0.23	ug/L		07/12/24 13:42	07/15/24 20:43	1
Dimethyl phthalate	ND		5.2	0.38	ug/L		07/12/24 13:42	07/15/24 20:43	1
Di-n-butyl phthalate	ND		5.2	0.32	ug/L		07/12/24 13:42	07/15/24 20:43	1
Di-n-octyl phthalate	ND		5.2	0.49	ug/L		07/12/24 13:42	07/15/24 20:43	1
Fluoranthene	ND		5.2	0.42	ug/L		07/12/24 13:42	07/15/24 20:43	1
Fluorene	ND		5.2	0.38	ug/L		07/12/24 13:42	07/15/24 20:43	1
Hexachlorobenzene	ND		5.2	0.53	ug/L		07/12/24 13:42	07/15/24 20:43	1
Hexachlorobutadiene	ND		5.2	0.71	ug/L		07/12/24 13:42	07/15/24 20:43	1
Hexachlorocyclopentadiene	ND		5.2	0.61	ug/L		07/12/24 13:42	07/15/24 20:43	1
Hexachloroethane	ND		5.2	0.61	ug/L		07/12/24 13:42	07/15/24 20:43	1
Indeno(1,2,3-cd)pyrene	ND		5.2	0.49	ug/L		07/12/24 13:42	07/15/24 20:43	1
Isophorone	ND		5.2	0.45	ug/L		07/12/24 13:42	07/15/24 20:43	1
Naphthalene	ND		5.2	0.79	ug/L		07/12/24 13:42	07/15/24 20:43	1
Nitrobenzene	ND		5.2	0.30	ug/L		07/12/24 13:42	07/15/24 20:43	1
N-Nitrosodi-n-propylamine	ND		5.2	0.56	ug/L		07/12/24 13:42	07/15/24 20:43	1
N-Nitrosodiphenylamine	ND		5.2	0.53	ug/L		07/12/24 13:42	07/15/24 20:43	1
Pentachlorophenol	ND		10	2.3	ug/L		07/12/24 13:42	07/15/24 20:43	1
Phenanthrene	ND		5.2	0.46	ug/L		07/12/24 13:42	07/15/24 20:43	1
Phenol	ND		5.2	0.41	ug/L		07/12/24 13:42	07/15/24 20:43	1
Pyrene	ND		5.2	0.35	ug/L		07/12/24 13:42	07/15/24 20:43	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Furan, tetrahydro-	*4.1*	*T J N*	*ug/L*		*3.20*	*109-99-9*	*07/12/24 13:42*	*07/15/24 20:43*	*1*
Unknown	*3.3*	*T J*	*ug/L*		*3.27*	*N/A*	*07/12/24 13:42*	*07/15/24 20:43*	*1*
Unknown	*17*	*T J*	*ug/L*		*4.94*	*N/A*	*07/12/24 13:42*	*07/15/24 20:43*	*1*
Unknown	*2.4*	*T J*	*ug/L*		*5.38*	*N/A*	*07/12/24 13:42*	*07/15/24 20:43*	*1*
Unknown	*2.1*	*T J*	*ug/L*		*5.71*	*N/A*	*07/12/24 13:42*	*07/15/24 20:43*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*86*		*25 - 144*	*07/12/24 13:42*	*07/15/24 20:43*	*1*
2-Fluorobiphenyl	*80*		*53 - 126*	*07/12/24 13:42*	*07/15/24 20:43*	*1*
2-Fluorophenol	*63*		*24 - 120*	*07/12/24 13:42*	*07/15/24 20:43*	*1*
Nitrobenzene-d5	*71*		*29 - 129*	*07/12/24 13:42*	*07/15/24 20:43*	*1*
Phenol-d5	*45*		*10 - 120*	*07/12/24 13:42*	*07/15/24 20:43*	*1*
p-Terphenyl-d14	*84*		*33 - 132*	*07/12/24 13:42*	*07/15/24 20:43*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.052	0.0096	ug/L		07/16/24 09:36	07/17/24 11:15	1

Client Sample ID: RB-07112024

Date Collected: 07/11/24 16:10
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-17

Matrix: Water

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDE	ND		0.052	0.012	ug/L		07/16/24 09:36	07/17/24 11:15	1
4,4'-DDT	ND	*+	0.052	0.011	ug/L		07/16/24 09:36	07/17/24 11:15	1
Aldrin	ND		0.052	0.0084	ug/L		07/16/24 09:36	07/17/24 11:15	1
alpha-BHC	**0.010**	**J B**	0.052	0.0080	ug/L		07/16/24 09:36	07/17/24 11:15	1
cis-Chlordane	ND		0.052	0.015	ug/L		07/16/24 09:36	07/17/24 11:15	1
beta-BHC	ND		0.052	0.026	ug/L		07/16/24 09:36	07/17/24 11:15	1
delta-BHC	ND		0.052	0.010	ug/L		07/16/24 09:36	07/17/24 11:15	1
Dieldrin	ND		0.052	0.010	ug/L		07/16/24 09:36	07/17/24 11:15	1
Endosulfan I	ND		0.052	0.011	ug/L		07/16/24 09:36	07/17/24 11:15	1
Endosulfan II	ND		0.052	0.013	ug/L		07/16/24 09:36	07/17/24 11:15	1
Endosulfan sulfate	ND		0.052	0.016	ug/L		07/16/24 09:36	07/17/24 11:15	1
Endrin	ND		0.052	0.014	ug/L		07/16/24 09:36	07/17/24 11:15	1
Endrin aldehyde	ND		0.052	0.017	ug/L		07/16/24 09:36	07/17/24 11:15	1
Endrin ketone	ND		0.052	0.013	ug/L		07/16/24 09:36	07/17/24 11:15	1
gamma-BHC (Lindane)	**0.013**	**J B**	0.052	0.0083	ug/L		07/16/24 09:36	07/17/24 11:15	1
trans-Chlordane	ND		0.052	0.011	ug/L		07/16/24 09:36	07/17/24 11:15	1
Heptachlor	ND		0.052	0.0089	ug/L		07/16/24 09:36	07/17/24 11:15	1
Heptachlor epoxide	ND		0.052	0.0077	ug/L		07/16/24 09:36	07/17/24 11:15	1
Methoxychlor	ND		0.052	0.015	ug/L		07/16/24 09:36	07/17/24 11:15	1
Toxaphene	ND		0.52	0.13	ug/L		07/16/24 09:36	07/17/24 11:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*21*		*10 - 120*	*07/16/24 09:36*	*07/17/24 11:15*	*1*
DCB Decachlorobiphenyl	*21*		*10 - 120*	*07/16/24 09:36*	*07/17/24 11:15*	*1*
Tetrachloro-m-xylene	*77*		*10 - 120*	*07/16/24 09:36*	*07/17/24 11:15*	*1*
Tetrachloro-m-xylene	*64*		*10 - 120*	*07/16/24 09:36*	*07/17/24 11:15*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		07/16/24 13:19	07/17/24 00:25	1
PCB-1221	ND		0.50	0.18	ug/L		07/16/24 13:19	07/17/24 00:25	1
PCB-1232	ND		0.50	0.18	ug/L		07/16/24 13:19	07/17/24 00:25	1
PCB-1242	ND		0.50	0.18	ug/L		07/16/24 13:19	07/17/24 00:25	1
PCB-1248	ND		0.50	0.18	ug/L		07/16/24 13:19	07/17/24 00:25	1
PCB-1254	ND		0.50	0.25	ug/L		07/16/24 13:19	07/17/24 00:25	1
PCB-1260	ND		0.50	0.25	ug/L		07/16/24 13:19	07/17/24 00:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*49*		*10 - 123*	*07/16/24 13:19*	*07/17/24 00:25*	*1*
DCB Decachlorobiphenyl	*42*		*10 - 123*	*07/16/24 13:19*	*07/17/24 00:25*	*1*
Tetrachloro-m-xylene	*61*		*10 - 145*	*07/16/24 13:19*	*07/17/24 00:25*	*1*
Tetrachloro-m-xylene	*63*		*10 - 145*	*07/16/24 13:19*	*07/17/24 00:25*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**3.6**	**J**	7.8	2.1	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluoropentanoic acid (PFPeA)	ND		3.9	0.98	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221553-1

Client Sample ID: RB-07112024
Date Collected: 07/11/24 16:10
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-17
Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanoic acid (PFNA)	ND		2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.51	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		7.8	2.0	ng/L		07/15/24 08:20	07/15/24 18:00	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		7.8	2.0	ng/L		07/15/24 08:20	07/15/24 18:00	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		7.8	2.0	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	0.61	ng/L		07/15/24 08:20	07/15/24 18:00	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	0.51	ng/L		07/15/24 08:20	07/15/24 18:00	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		20	4.9	ng/L		07/15/24 08:20	07/15/24 18:00	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		20	4.9	ng/L		07/15/24 08:20	07/15/24 18:00	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		7.8	2.0	ng/L		07/15/24 08:20	07/15/24 18:00	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		7.8	2.0	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		3.9	0.98	ng/L		07/15/24 08:20	07/15/24 18:00	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		3.9	1.2	ng/L		07/15/24 08:20	07/15/24 18:00	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		7.8	2.0	ng/L		07/15/24 08:20	07/15/24 18:00	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		7.8	2.0	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		3.9	0.98	ng/L		07/15/24 08:20	07/15/24 18:00	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	*+	9.8	2.4	ng/L		07/15/24 08:20	07/15/24 18:00	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		49	12	ng/L		07/15/24 08:20	07/15/24 18:00	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		49	15	ng/L		07/15/24 08:20	07/15/24 18:00	1

Client Sample ID: RB-07112024
Date Collected: 07/11/24 16:10
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-17
Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.49	ng/L		07/15/24 08:20	07/15/24 18:00	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		3.9	0.98	ng/L		07/15/24 08:20	07/15/24 18:00	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*101*		*10 - 130*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
13C5 PFPeA	*95.1*		*35 - 150*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
13C5 PFHxA	*99.8*		*55 - 150*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
13C4 PFHpA	*86.6*		*55 - 150*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
13C8 PFOA	*82.6*		*60 - 140*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
13C9 PFNA	*89.5*		*55 - 140*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
13C6 PFDA	*94.6*		*50 - 140*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
13C7 PFUnA	*97.4*		*30 - 140*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
13C2 PFTeDA	*62.0*		*10 - 130*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
13C3 PFBS	*94.5*		*55 - 150*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
13C3 PFHxS	*86.8*		*55 - 150*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
13C8 PFOS	*86.8*		*45 - 140*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
13C8 FOSA	*77.3*		*30 - 130*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
d3-NMeFOSAA	*48.5*		*45 - 200*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
d5-NEtFOSAA	*101*		*10 - 200*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
M2-4:2 FTS	*85.9*		*60 - 200*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
M2-6:2 FTS	*85.3*		*60 - 200*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
M2-8:2 FTS	*77.9*		*50 - 200*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
13C3 HFPO-DA	*92.9*		*25 - 160*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
d7-N-MeFOSE-M	*59.5*		*10 - 150*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
d9-N-EtFOSE-M	*50.6*		*10 - 150*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
d5-NEtPFOSA	*57.2*		*10 - 130*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
d3-NMePFOSA	*56.8*		*15 - 130*	*07/15/24 08:20*	*07/15/24 18:00*	*1*
13C2-PFDoDA	*98.7*		*10 - 150*	*07/15/24 08:20*	*07/15/24 18:00*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		07/15/24 09:17	07/16/24 12:57	1
Antimony	ND		0.020	0.0068	mg/L		07/15/24 09:17	07/16/24 12:57	1
Arsenic	ND		0.015	0.0056	mg/L		07/15/24 09:17	07/16/24 12:57	1
Barium	**0.0023**		0.0020	0.00070	mg/L		07/15/24 09:17	07/16/24 12:57	1
Beryllium	ND		0.0020	0.00030	mg/L		07/15/24 09:17	07/16/24 12:57	1
Cadmium	ND		0.0020	0.00050	mg/L		07/15/24 09:17	07/16/24 12:57	1
Calcium	**0.34**	**J**	0.50	0.10	mg/L		07/15/24 09:17	07/16/24 12:57	1
Chromium	ND		0.0040	0.0010	mg/L		07/15/24 09:17	07/16/24 12:57	1
Cobalt	ND		0.0040	0.00063	mg/L		07/15/24 09:17	07/16/24 12:57	1
Copper	**0.0028**	**J B**	0.010	0.0016	mg/L		07/15/24 09:17	07/16/24 12:57	1
Iron	**0.028**	**J**	0.050	0.019	mg/L		07/15/24 09:17	07/16/24 12:57	1
Lead	**0.010**	**^+**	0.010	0.0030	mg/L		07/15/24 09:17	07/17/24 10:20	1
Magnesium	ND		0.20	0.043	mg/L		07/15/24 09:17	07/16/24 12:57	1
Manganese	**0.0022**	**J B**	0.0030	0.00040	mg/L		07/15/24 09:17	07/16/24 12:57	1
Nickel	ND		0.010	0.0013	mg/L		07/15/24 09:17	07/16/24 12:57	1
Potassium	ND		0.50	0.10	mg/L		07/15/24 09:17	07/16/24 12:57	1
Selenium	ND		0.025	0.0087	mg/L		07/15/24 09:17	07/16/24 12:57	1
Silver	ND		0.0060	0.0017	mg/L		07/15/24 09:17	07/16/24 12:57	1
Sodium	**0.81**	**J**	1.0	0.32	mg/L		07/15/24 09:17	07/16/24 12:57	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221553-1

Client Sample ID: RB-07112024
Date Collected: 07/11/24 16:10
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-17
Matrix: Water

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	ND		0.020	0.010	mg/L		07/15/24 09:17	07/16/24 12:57	1
Vanadium	ND		0.0050	0.0015	mg/L		07/15/24 09:17	07/16/24 12:57	1
Zinc	ND	^+	0.010	0.0015	mg/L		07/15/24 09:17	07/16/24 12:57	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		07/18/24 10:07	07/18/24 16:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			07/12/24 23:47	1

Surrogate Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221553-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(64-126)	(72-126)	(60-140)	(71-125)
480-221553-1	SB-01-26.0-31.7	104	106	103	97
480-221553-3	HA-06-3.0-4.0	105	109	107	97
480-221553-4	HA-06-3.0-4.0-FD	105	107	101	97
480-221553-6	HA-05-3.0-4.0	106	106	104	97
480-221553-6 MS	HA-05-3.0-4.0-MS	95	106	103	98
480-221553-6 MSD	HA-05-3.0-4.0-MSD	92	108	100	98
480-221553-9	HA-04-1.3-1.5	108	105	109	99
480-221553-14	HA-02-3.0-4.0-FD	106	108	104	96
480-221553-15	SB-01-43.0-45.0	105	103	106	99
LCS 480-718388/1-A	Lab Control Sample	96	106	100	96
LCS 480-718658/1-A	Lab Control Sample	97	107	101	98
LCS 480-718793/1-A	Lab Control Sample	97	106	101	99
MB 480-718388/2-A	Method Blank	102	111	105	99
MB 480-718658/2-A	Method Blank	99	107	100	96
MB 480-718793/2-A	Method Blank	96	107	99	98

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(53-146)	(49-148)	(60-140)	(50-149)
480-221553-11	HA-03-2.3-2.5	101	95	94	96
480-221553-13	HA-02-3.0-4.0	97	93	90	95
LCS 480-718435/1-A	Lab Control Sample	95	92	93	93
MB 480-718435/3-A	Method Blank	101	95	93	100

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(77-120)	(73-120)	(75-123)	(80-120)
480-221553-17	RB-07112024	93	91	91	95
LCS 480-718296/7	Lab Control Sample	95	97	93	96
LCSD 480-718296/8	Lab Control Sample Dup	93	96	92	95
MB 480-718296/10	Method Blank	91	91	91	94

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

Surrogate Summary

Client: Ashland LLC
Job ID: 480-221553-1
Project/Site: Tank 75 Analysis

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPHd14
Lab Sample ID	Client Sample ID	(26-143)	(50-121)	(36-120)	(40-121)	(41-120)	(46-143)
480-221553-1	SB-01-26.0-31.7	97	86	66	84	86	109
480-221553-2	HA-06-0.0-0.2	103	90	90	99	99	102
480-221553-3	HA-06-3.0-4.0	100	93	90	91	98	111
480-221553-4	HA-06-3.0-4.0-FD	116	82	72	82	77	92
480-221553-5	HA-05-0.0-0.2	86	73	68	78	78	78
480-221553-6	HA-05-3.0-4.0	87	79	71	100	86	99
480-221553-6 MS	HA-05-3.0-4.0-MS	105	97	112	101	97	114
480-221553-6 MSD	HA-05-3.0-4.0-MSD	109	85	92	97	94	111
480-221553-7	HA-04-0.0-0.2	254 S1+	118	72	117	171 S1+	102
480-221553-8	HA-04-0.0-0.2-FD	198 S1+	86	99	83	191 S1+	104
480-221553-9	HA-04-1.3-1.5	218 S1+	90	82	73	168 S1+	103
480-221553-10	HA-03-0.0-0.2	197 S1+	87	56	83	175 S1+	0 S1-
480-221553-11	HA-03-2.3-2.5	188 S1+	106	86	81	174 S1+	116
480-221553-12	HA-02-0.0-0.2	236 S1+	112	71	94	182 S1+	107
480-221553-13	HA-02-3.0-4.0	97	72	96	86	93	96
480-221553-14	HA-02-3.0-4.0-FD	95	67	53	60	70	93
480-221553-15	SB-01-43.0-45.0	92	85	82	80	81	123
480-221553-16	SB-04-0.0-0.2	190 S1+	104	86	109	185 S1+	100
LCS 480-718403/2-A	Lab Control Sample	101	94	68	117	90	103
MB 480-718403/1-A	Method Blank	113	92	94	101	101	114

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHd14 = p-Terphenyl-d14

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPHd14
Lab Sample ID	Client Sample ID	(25-144)	(53-126)	(24-120)	(29-129)	(10-120)	(33-132)
480-221553-17	RB-07112024	86	80	63	71	45	84
LCS 480-718325/2-A	Lab Control Sample	94	77	59	74	47	85
MB 480-718325/1-A	Method Blank	82	79	60	70	42	91

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHd14 = p-Terphenyl-d14

Surrogate Summary

Client: Ashland LLC
Job ID: 480-221553-1
Project/Site: Tank 75 Analysis

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1	DCBP2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(45-120)	(45-120)	(30-124)	(30-124)
480-221553-1	SB-01-26.0-31.7	74	75	61	68
480-221553-2	HA-06-0.0-0.2	130 S1+	109	0 S1-	0 S1-
480-221553-3	HA-06-3.0-4.0	82	89	76	82
480-221553-4	HA-06-3.0-4.0-FD	78	80	70	74
480-221553-5	HA-05-0.0-0.2	109	100	0 S1-	0 S1-
480-221553-6	HA-05-3.0-4.0	83	99	93	89
480-221553-6 MS	HA-05-3.0-4.0-MS	90	94	89	91
480-221553-6 MSD	HA-05-3.0-4.0-MSD	80	101	87	93
480-221553-7	HA-04-0.0-0.2	688 S1+	560 S1+	0 S1-	0 S1-
480-221553-8	HA-04-0.0-0.2-FD	0 S1-	0 S1-	0 S1-	0 S1-
480-221553-9	HA-04-1.3-1.5	1450 S1+	3489 S1+	0 S1-	0 S1-
480-221553-10	HA-03-0.0-0.2	0 S1-	0 S1-	0 S1-	0 S1-
480-221553-11	HA-03-2.3-2.5	2371 S1+	7310 S1+	0 S1-	0 S1-
480-221553-12	HA-02-0.0-0.2	0 S1-	0 S1-	0 S1-	0 S1-
480-221553-13	HA-02-3.0-4.0	63	66	69	75
480-221553-14	HA-02-3.0-4.0-FD	63	66	69	75
480-221553-15	SB-01-43.0-45.0	73	75	67	77
480-221553-16	SB-04-0.0-0.2	0 S1-	0 S1-	0 S1-	0 S1-
LCS 480-718399/2-A	Lab Control Sample	94	94	89	83
MB 480-718399/1-A	Method Blank	114	104	95	94

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1	DCBP2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(10-120)	(10-120)	(10-120)	(10-120)
480-221553-17	RB-07112024	21	21	77	64
LCS 480-718568/2-A	Lab Control Sample	51	46	77	64
LCSD 480-718568/3-A	Lab Control Sample Dup	55	57	75	69
MB 480-718568/1-A	Method Blank	51	46	76	63

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCBP1	DCBP2
Lab Sample ID	Client Sample ID	(60-154)	(60-154)	(65-174)	(65-174)
480-221553-1	SB-01-26.0-31.7	114	135	132	119
480-221553-2	HA-06-0.0-0.2	109	123	123	109
480-221553-3	HA-06-3.0-4.0	125	141	140	126
480-221553-4	HA-06-3.0-4.0-FD	108	124	117	105
480-221553-5	HA-05-0.0-0.2	106	116	114	102
480-221553-6	HA-05-3.0-4.0	117	134	128	115

Surrogate Summary

Client: Ashland LLC
Job ID: 480-221553-1
Project/Site: Tank 75 Analysis

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCBP1	DCBP2
Lab Sample ID	Client Sample ID	(60-154)	(60-154)	(65-174)	(65-174)
480-221553-6 MS	HA-05-3.0-4.0-MS	137	160 S1+	161	148
480-221553-6 MSD	HA-05-3.0-4.0-MSD	154	169 S1+	169	154
480-221553-7	HA-04-0.0-0.2	93	102	80	78
480-221553-8	HA-04-0.0-0.2-FD	96	111	87	84
480-221553-9	HA-04-1.3-1.5	78	92	95	93
480-221553-10	HA-03-0.0-0.2	93	105	77	79
480-221553-11	HA-03-2.3-2.5	67	83	81	80
480-221553-12	HA-02-0.0-0.2	101	113	94	88
480-221553-13	HA-02-3.0-4.0	127	139	126	124
480-221553-14	HA-02-3.0-4.0-FD	132	149	134	130
480-221553-15	SB-01-43.0-45.0	96	111	99	93
480-221553-16	SB-04-0.0-0.2	72	80	58 S1-	58 S1-
LCS 480-718405/2-A	Lab Control Sample	124	151	152	136
MB 480-718405/1-A	Method Blank	117	128	131	120

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1	DCBP2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(10-123)	(10-123)	(10-145)	(10-145)
480-221553-17	RB-07112024	42	49	63	61
LCS 480-718610/2-A	Lab Control Sample	60	69	63	60
LCSD 480-718610/3-A	Lab Control Sample Dup	56	65	67	63
MB 480-718610/1-A	Method Blank	63	60	63	71

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Isotope Dilution Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221553-1

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	DXE (15-110)
480-221553-17	RB-07112024	28
LCS 480-718393/2-A	Lab Control Sample	21
MB 480-718393/1-A	Method Blank	20

Surrogate Legend

DXE = 1,4-Dioxane-d8

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (20-150)	PFPeA (20-150)	13C5PHA (20-150)	C4PFHA (20-150)	C8PFOA (20-150)	C9PFNA (20-150)	C6PFDA (20-150)	13C7PUA (20-150)
480-221553-1	SB-01-26.0-31.7	102	89.3	90.7	83.8	84.1	89.9	94.6	99.9
480-221553-1 - RA	SB-01-26.0-31.7	100	87.9	96.1	86.7	82.9	94.6	81.5	96.2
480-221553-6	HA-05-3.0-4.0	94.6	85.3	86.3	75.3	72.7	85.4	96.4	87.9
480-221553-6 - RA	HA-05-3.0-4.0	98.8	95.5	94.3	91.8	91.6	94.2	106	91.1
480-221553-6 MS	HA-05-3.0-4.0-MS	117	105	106	96.9	104	92.0	118	111
480-221553-6 MS - RA	HA-05-3.0-4.0-MS	98.2	86.2	93.0	91.1	82.6	101	90.3	87.3
480-221553-6 MSD	HA-05-3.0-4.0-MSD	102	98.5	98.4	91.4	84.6	90.2	96.9	109
480-221553-6 MSD - RA	HA-05-3.0-4.0-MSD	100	89.4	91.7	92.3	82.9	99.9	87.8	89.1
LCS 240-619820/3-A	Lab Control Sample	99.0	89.7	88.7	80.3	79.6	85.1	101	85.8
LLCS 240-619820/2-A	Lab Control Sample	104	99.5	101	90.3	92.5	94.4	109	102
MB 240-619820/1-A	Method Blank	97.7	85.7	86.7	79.7	81.3	89.6	102	100

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFTDA (20-150)	C3PFBS (20-150)	C3PFHS (20-150)	C8PFOS (20-150)	PFOSA (20-150)	d3NMFOS (20-150)	d5NEFOS (20-150)	M242FTS (20-150)
480-221553-1	SB-01-26.0-31.7	65.2	90.6	82.6	92.4	94.6	90.3	138	91.8
480-221553-1 - RA	SB-01-26.0-31.7	86.7	87.4	89.3	92.3	90.5	87.3	119	105
480-221553-6	HA-05-3.0-4.0	63.5	84.8	78.5	92.8	85.8	85.7	122	81.8
480-221553-6 - RA	HA-05-3.0-4.0	68.8	89.5	92.0	90.0	72.2	85.3	80.7	131
480-221553-6 MS	HA-05-3.0-4.0-MS	76.8	105	95.0	109	95.1	98.5	158 *5+	95.3
480-221553-6 MS - RA	HA-05-3.0-4.0-MS	77.2	91.3	91.2	95.2	76.8	76.0	121	94.6
480-221553-6 MSD	HA-05-3.0-4.0-MSD	64.5	89.7	82.3	93.4	85.7	83.4	125	77.7
480-221553-6 MSD - RA	HA-05-3.0-4.0-MSD	84.2	95.5	90.2	87.2	76.0	77.2	107	101
LCS 240-619820/3-A	Lab Control Sample	56.4	88.8	82.3	89.0	87.6	85.0	126	74.2
LLCS 240-619820/2-A	Lab Control Sample	64.0	87.9	87.9	92.7	91.6	87.9	133	87.3
MB 240-619820/1-A	Method Blank	56.7	86.9	80.6	91.7	84.3	84.3	143	81.6

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M262FTS (20-150)	M282FTS (20-150)	HFPODA (20-150)	NMFM (20-150)	NEFM (20-150)	d5NPFSA (20-150)	d3NMFSA (20-150)	PFDoDA (20-150)
480-221553-1	SB-01-26.0-31.7	86.2	81.0	82.7	75.5	69.4	78.5	81.2	91.4
480-221553-1 - RA	SB-01-26.0-31.7	113	120	87.5	86.4	96.6	79.4	82.9	87.7
480-221553-6	HA-05-3.0-4.0	84.7	75.0	78.0	75.4	62.1	69.5	67.6	87.6
480-221553-6 - RA	HA-05-3.0-4.0	134	130	89.4	65.5	64.1	60.7	59.3	80.0
480-221553-6 MS	HA-05-3.0-4.0-MS	99.8	85.7	101	88.7	79.5	75.4	77.7	96.3
480-221553-6 MS - RA	HA-05-3.0-4.0-MS	93.6	96.1	88.5	85.4	84.7	72.4	71.5	78.0
480-221553-6 MSD	HA-05-3.0-4.0-MSD	85.3	69.7	91.5	77.8	68.8	63.9	65.8	98.4
480-221553-6 MSD - RA	HA-05-3.0-4.0-MSD	102	91.7	90.0	79.8	77.6	64.6	65.6	80.7
LCS 240-619820/3-A	Lab Control Sample	77.7	62.9	80.4	76.5	65.1	65.8	65.5	90.0

Isotope Dilution Summary

Client: Ashland LLC
Job ID: 480-221553-1
Project/Site: Tank 75 Analysis

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M262FTS	M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	PFDoDA
Lab Sample ID	Client Sample ID	(20-150)	(20-150)	(20-150)	(20-150)	(20-150)	(20-150)	(20-150)	(20-150)
LLCS 240-619820/2-A	Lab Control Sample	90.2	77.7	93.4	75.4	67.5	68.9	66.7	95.5
MB 240-619820/1-A	Method Blank	84.2	68.1	82.3	73.4	63.5	62.8	61.0	88.9

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoDA = 13C2-PFDoDA

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(10-130)	(35-150)	(55-150)	(55-150)	(60-140)	(55-140)	(50-140)	(30-140)
480-221553-17	RB-07112024	101	95.1	99.8	86.6	82.6	89.5	94.6	97.4
MB 240-619819/1-A	Method Blank	102	103	105	92.5	84.1	87.4	101	76.8

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFTDA	C3PFBS	C3PFHS	C8PFOS	PFOSA	d3NMFOS	d5NEFOS	M242FTS
Lab Sample ID	Client Sample ID	(10-130)	(55-150)	(55-150)	(45-140)	(30-130)	(45-200)	(10-200)	(60-200)
480-221553-17	RB-07112024	62.0	94.5	86.8	86.8	77.3	48.5	101	85.9
MB 240-619819/1-A	Method Blank	54.4	90.9	87.0	94.6	90.6	88.2	158	92.5

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M262FTS	M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	PFDoDA
Lab Sample ID	Client Sample ID	(60-200)	(50-200)	(25-160)	(10-150)	(10-150)	(10-130)	(15-130)	(10-150)
480-221553-17	RB-07112024	85.3	77.9	92.9	59.5	50.6	57.2	56.8	98.7
MB 240-619819/1-A	Method Blank	90.9	84.1	97.8	68.0	64.8	66.9	65.6	91.2

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA

Isotope Dilution Summary

Client: Ashland LLC
Job ID: 480-221553-1
Project/Site: Tank 75 Analysis

13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoDA = 13C2-PFDoDA

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(10-130)	(40-150)	(40-150)	(40-150)	(30-140)	(30-140)	(20-140)	(20-140)
LCS 240-619819/3-A	Lab Control Sample	104	93.4	97.0	86.8	84.7	89.1	106	74.1
LLCS 240-619819/2-A	Lab Control Sample	103	95.4	97.6	83.8	87.8	92.3	107	79.6

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFTDA	C3PFBS	C3PFHS	C8PFOS	PFOSA	d3NMFOS	d5NEFOS	M242FTS
Lab Sample ID	Client Sample ID	(10-130)	(25-150)	(25-150)	(20-140)	(10-130)	(10-200)	(10-200)	(25-200)
LCS 240-619819/3-A	Lab Control Sample	52.0	94.5	91.0	96.4	93.4	86.1	150	90.4
LLCS 240-619819/2-A	Lab Control Sample	49.8	110	101	91.9	89.2	91.4	143	105

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M262FTS	M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	PFDoDA
Lab Sample ID	Client Sample ID	(25-200)	(25-200)	(25-160)	(10-150)	(10-150)	(10-130)	(10-130)	(10-150)
LCS 240-619819/3-A	Lab Control Sample	92.7	82.0	85.5	63.4	59.6	66.7	64.6	89.6
LLCS 240-619819/2-A	Lab Control Sample	106	98.7	88.1	70.2	57.2	62.3	64.5	86.3

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA

Isotope Dilution Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221553-1

d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoDA = 13C2-PFDoDA

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-718296/10
Matrix: Water
Analysis Batch: 718296

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/12/24 14:36	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/12/24 14:36	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/12/24 14:36	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/12/24 14:36	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/12/24 14:36	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/12/24 14:36	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/12/24 14:36	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/12/24 14:36	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/12/24 14:36	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/12/24 14:36	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/12/24 14:36	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/12/24 14:36	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/12/24 14:36	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/12/24 14:36	1
2-Hexanone	ND		5.0	1.2	ug/L			07/12/24 14:36	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/12/24 14:36	1
Acetone	ND		10	3.0	ug/L			07/12/24 14:36	1
Benzene	ND		1.0	0.41	ug/L			07/12/24 14:36	1
Bromoform	ND		1.0	0.26	ug/L			07/12/24 14:36	1
Bromomethane	ND		1.0	0.69	ug/L			07/12/24 14:36	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/12/24 14:36	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/12/24 14:36	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/12/24 14:36	1
Chloroethane	ND		1.0	0.32	ug/L			07/12/24 14:36	1
Chloroform	ND		1.0	0.34	ug/L			07/12/24 14:36	1
Chloromethane	ND		1.0	0.35	ug/L			07/12/24 14:36	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			07/12/24 14:36	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/12/24 14:36	1
Cyclohexane	ND		1.0	0.18	ug/L			07/12/24 14:36	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/12/24 14:36	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/12/24 14:36	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/12/24 14:36	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/12/24 14:36	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/12/24 14:36	1
Methyl acetate	ND		2.5	1.3	ug/L			07/12/24 14:36	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/12/24 14:36	1
Methylcyclohexane	ND		1.0	0.16	ug/L			07/12/24 14:36	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/12/24 14:36	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/12/24 14:36	1
Toluene	ND		1.0	0.51	ug/L			07/12/24 14:36	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/12/24 14:36	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			07/12/24 14:36	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/12/24 14:36	1
Trichloroethene	ND		1.0	0.46	ug/L			07/12/24 14:36	1
Styrene	ND		1.0	0.73	ug/L			07/12/24 14:36	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/12/24 14:36	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/12/24 14:36	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/12/24 14:36	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-718296/10
Matrix: Water
Analysis Batch: 718296

Client Sample ID: Method Blank
Prep Type: Total/NA

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
1,4-Dioxane	31.5	J	ug/L		6.10	123-91-1		07/12/24 14:36	1
Tentatively Identified Compound	None		ug/L			N/A		07/12/24 14:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		77 - 120		07/12/24 14:36	1
4-Bromofluorobenzene (Surr)	91		73 - 120		07/12/24 14:36	1
Toluene-d8 (Surr)	94		80 - 120		07/12/24 14:36	1
Dibromofluoromethane (Surr)	91		75 - 123		07/12/24 14:36	1

Lab Sample ID: LCS 480-718296/7
Matrix: Water
Analysis Batch: 718296

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	25.0	25.6		ug/L		103	73 - 126
1,1,2,2-Tetrachloroethane	25.0	26.2		ug/L		105	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	25.1		ug/L		100	61 - 148
1,1,2-Trichloroethane	25.0	25.0		ug/L		100	76 - 122
1,1-Dichloroethane	25.0	25.6		ug/L		102	77 - 120
1,1-Dichloroethene	25.0	26.3		ug/L		105	66 - 127
1,2,4-Trichlorobenzene	25.0	25.9		ug/L		104	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	30.1		ug/L		120	56 - 134
1,2-Dichlorobenzene	25.0	25.6		ug/L		102	80 - 124
1,2-Dichloroethane	25.0	23.6		ug/L		94	75 - 120
1,2-Dichloropropane	25.0	24.5		ug/L		98	76 - 120
1,3-Dichlorobenzene	25.0	26.0		ug/L		104	77 - 120
1,4-Dichlorobenzene	25.0	25.1		ug/L		100	80 - 120
2-Butanone (MEK)	125	213	*+	ug/L		171	57 - 140
2-Hexanone	125	124		ug/L		99	65 - 127
4-Methyl-2-pentanone (MIBK)	125	123		ug/L		98	71 - 125
Acetone	125	124		ug/L		99	56 - 142
Benzene	25.0	24.0		ug/L		96	71 - 124
Bromoform	25.0	28.5		ug/L		114	61 - 132
Bromomethane	25.0	23.5		ug/L		94	55 - 144
Carbon disulfide	25.0	25.0		ug/L		100	59 - 134
Carbon tetrachloride	25.0	28.0		ug/L		112	72 - 134
Chlorobenzene	25.0	24.8		ug/L		99	80 - 120
Chloroethane	25.0	24.7		ug/L		99	69 - 136
Chloroform	25.0	22.8		ug/L		91	73 - 127
Chloromethane	25.0	23.7		ug/L		95	68 - 124
cis-1,2-Dichloroethene	25.0	25.3		ug/L		101	74 - 124
Bromodichloromethane	25.0	25.2		ug/L		101	80 - 122
Cyclohexane	25.0	27.6		ug/L		110	59 - 135
Dibromochloromethane	25.0	27.2		ug/L		109	75 - 125
1,2-Dibromoethane	25.0	25.9		ug/L		103	77 - 120
Dichlorodifluoromethane	25.0	26.2		ug/L		105	59 - 135
Ethylbenzene	25.0	25.3		ug/L		101	77 - 123

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-718296/7
Matrix: Water
Analysis Batch: 718296

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Isopropylbenzene			25.0	27.3		ug/L		109	77 - 122		
Methyl acetate			50.0	49.3		ug/L		99	74 - 133		
Methyl tert-butyl ether			25.0	23.9		ug/L		96	77 - 120		
Methylcyclohexane			25.0	27.5		ug/L		110	68 - 134		
Methylene Chloride			25.0	24.7		ug/L		99	75 - 124		
Tetrachloroethene			25.0	26.8		ug/L		107	74 - 122		
Toluene			25.0	24.4		ug/L		98	80 - 122		
trans-1,2-Dichloroethene			25.0	25.2		ug/L		101	73 - 127		
cis-1,3-Dichloropropene			25.0	26.1		ug/L		105	74 - 124		
Trichloroethene			25.0	25.0		ug/L		100	74 - 123		
Styrene			25.0	25.5		ug/L		102	80 - 120		
Trichlorofluoromethane			25.0	25.5		ug/L		102	62 - 150		
Vinyl chloride			25.0	26.1		ug/L		104	65 - 133		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*77 - 120*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*
Toluene-d8 (Surr)	*96*		*80 - 120*
Dibromofluoromethane (Surr)	*93*		*75 - 123*

Lab Sample ID: LCSD 480-718296/8
Matrix: Water
Analysis Batch: 718296

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane			25.0	26.6		ug/L		106	73 - 126	4	15
1,1,2,2-Tetrachloroethane			25.0	26.3		ug/L		105	76 - 120	0	15
1,1,2-Trichloro-1,2,2-trifluoroethane			25.0	25.4		ug/L		101	61 - 148	1	20
1,1,2-Trichloroethane			25.0	25.1		ug/L		100	76 - 122	0	15
1,1-Dichloroethane			25.0	26.2		ug/L		105	77 - 120	2	20
1,1-Dichloroethene			25.0	26.5		ug/L		106	66 - 127	1	16
1,2,4-Trichlorobenzene			25.0	26.6		ug/L		106	79 - 122	2	20
1,2-Dibromo-3-Chloropropane			25.0	30.0		ug/L		120	56 - 134	0	15
1,2-Dichlorobenzene			25.0	26.1		ug/L		104	80 - 124	2	20
1,2-Dichloroethane			25.0	23.8		ug/L		95	75 - 120	1	20
1,2-Dichloropropane			25.0	24.7		ug/L		99	76 - 120	1	20
1,3-Dichlorobenzene			25.0	26.1		ug/L		104	77 - 120	0	20
1,4-Dichlorobenzene			25.0	25.3		ug/L		101	80 - 120	1	20
2-Butanone (MEK)			125	212	*+	ug/L		170	57 - 140	1	20
2-Hexanone			125	126		ug/L		101	65 - 127	2	15
4-Methyl-2-pentanone (MIBK)			125	125		ug/L		100	71 - 125	1	35
Acetone			125	117		ug/L		94	56 - 142	6	15
Benzene			25.0	24.1		ug/L		97	71 - 124	1	13
Bromoform			25.0	29.1		ug/L		117	61 - 132	2	15
Bromomethane			25.0	23.8		ug/L		95	55 - 144	1	15
Carbon disulfide			25.0	25.4		ug/L		102	59 - 134	2	15
Carbon tetrachloride			25.0	28.8		ug/L		115	72 - 134	3	15
Chlorobenzene			25.0	25.5		ug/L		102	80 - 120	3	25

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 480-718296/8
Matrix: Water
Analysis Batch: 718296

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloroethane			25.0	25.1		ug/L		100	69 - 136	2	15
Chloroform			25.0	22.7		ug/L		91	73 - 127	1	20
Chloromethane			25.0	24.6		ug/L		99	68 - 124	4	15
cis-1,2-Dichloroethene			25.0	25.0		ug/L		100	74 - 124	1	15
Bromodichloromethane			25.0	25.1		ug/L		101	80 - 122	0	15
Cyclohexane			25.0	28.1		ug/L		113	59 - 135	2	20
Dibromochloromethane			25.0	28.0		ug/L		112	75 - 125	3	15
1,2-Dibromoethane			25.0	26.3		ug/L		105	77 - 120	2	15
Dichlorodifluoromethane			25.0	26.9		ug/L		108	59 - 135	3	20
Ethylbenzene			25.0	25.9		ug/L		104	77 - 123	3	15
Isopropylbenzene			25.0	27.8		ug/L		111	77 - 122	2	20
Methyl acetate			50.0	49.5		ug/L		99	74 - 133	0	20
Methyl tert-butyl ether			25.0	24.7		ug/L		99	77 - 120	3	37
Methylcyclohexane			25.0	27.8		ug/L		111	68 - 134	1	20
Methylene Chloride			25.0	25.1		ug/L		100	75 - 124	2	15
Tetrachloroethene			25.0	27.6		ug/L		110	74 - 122	3	20
Toluene			25.0	24.8		ug/L		99	80 - 122	2	15
trans-1,2-Dichloroethene			25.0	25.2		ug/L		101	73 - 127	0	20
cis-1,3-Dichloropropene			25.0	26.1		ug/L		104	74 - 124	0	15
Trichloroethene			25.0	25.1		ug/L		101	74 - 123	1	16
Styrene			25.0	26.0		ug/L		104	80 - 120	2	20
Trichlorofluoromethane			25.0	26.0		ug/L		104	62 - 150	2	20
Vinyl chloride			25.0	26.4		ug/L		106	65 - 133	1	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*77 - 120*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*
Toluene-d8 (Surr)	*95*		*80 - 120*
Dibromofluoromethane (Surr)	*92*		*75 - 123*

Lab Sample ID: MB 480-718388/2-A
Matrix: Solid
Analysis Batch: 718389

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718388

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg		07/14/24 06:56	07/14/24 10:25	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-718388/2-A
Matrix: Solid
Analysis Batch: 718389

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718388

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	ND		25	1.8	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
2-Hexanone	ND		25	2.5	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
Acetone	ND		25	4.2	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
Benzene	ND		5.0	0.25	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
Bromoform	ND		5.0	2.5	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
Bromomethane	ND		5.0	0.45	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
Carbon disulfide	ND		5.0	2.5	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
Chlorobenzene	ND		5.0	0.66	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
Chloroethane	ND		5.0	1.1	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
Chloroform	ND		5.0	0.31	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
Chloromethane	ND		5.0	0.30	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
Cyclohexane	ND		5.0	0.70	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
Ethylbenzene	ND		5.0	0.35	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
Methyl acetate	ND		25	3.0	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
Methylene Chloride	ND		5.0	2.3	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
Tetrachloroethene	ND		5.0	0.67	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
Toluene	ND		5.0	0.38	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
trans-1,2-Dichloroethene	ND		5.0	0.52	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
Trichloroethene	ND		5.0	1.1	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
Styrene	ND		5.0	0.25	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
Vinyl chloride	ND		5.0	0.61	ug/Kg		07/14/24 06:56	07/14/24 10:25	1
Xylenes, Total	ND		10	0.84	ug/Kg		07/14/24 06:56	07/14/24 10:25	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*			*N/A*	*07/14/24 06:56*	*07/14/24 10:25*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*64 - 126*	*07/14/24 06:56*	*07/14/24 10:25*	*1*
4-Bromofluorobenzene (Surr)	*111*		*72 - 126*	*07/14/24 06:56*	*07/14/24 10:25*	*1*
Toluene-d8 (Surr)	*99*		*71 - 125*	*07/14/24 06:56*	*07/14/24 10:25*	*1*
Dibromofluoromethane (Surr)	*105*		*60 - 140*	*07/14/24 06:56*	*07/14/24 10:25*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-718388/1-A
Matrix: Solid
Analysis Batch: 718389

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718388

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	50.0	47.1		ug/Kg		94	77 - 121
1,1,2,2-Tetrachloroethane	50.0	44.1		ug/Kg		88	80 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	40.1		ug/Kg		80	60 - 140
1,1,2-Trichloroethane	50.0	46.2		ug/Kg		92	78 - 122
1,1-Dichloroethane	50.0	40.6		ug/Kg		81	73 - 126
1,1-Dichloroethene	50.0	39.9		ug/Kg		80	59 - 125
1,2,4-Trichlorobenzene	50.0	43.1		ug/Kg		86	64 - 120
1,2-Dibromo-3-Chloropropane	50.0	45.6		ug/Kg		91	63 - 124
1,2-Dichlorobenzene	50.0	42.3		ug/Kg		85	75 - 120
1,2-Dichloroethane	50.0	46.5		ug/Kg		93	77 - 122
1,2-Dichloropropane	50.0	44.2		ug/Kg		88	75 - 124
1,3-Dichlorobenzene	50.0	43.4		ug/Kg		87	74 - 120
1,4-Dichlorobenzene	50.0	43.0		ug/Kg		86	73 - 120
2-Butanone (MEK)	250	250		ug/Kg		100	70 - 134
2-Hexanone	250	257		ug/Kg		103	59 - 130
4-Methyl-2-pentanone (MIBK)	250	228		ug/Kg		91	65 - 133
Acetone	250	242		ug/Kg		97	61 - 137
Benzene	50.0	42.8		ug/Kg		86	79 - 127
Bromoform	50.0	61.1		ug/Kg		122	68 - 126
Bromomethane	50.0	51.7		ug/Kg		103	37 - 149
Carbon disulfide	50.0	36.2		ug/Kg		72	64 - 131
Carbon tetrachloride	50.0	53.7		ug/Kg		107	75 - 135
Chlorobenzene	50.0	45.0		ug/Kg		90	76 - 124
Chloroethane	50.0	51.9		ug/Kg		104	69 - 135
Chloroform	50.0	43.4		ug/Kg		87	80 - 120
Chloromethane	50.0	50.9		ug/Kg		102	63 - 127
cis-1,2-Dichloroethene	50.0	42.9		ug/Kg		86	81 - 120
Bromodichloromethane	50.0	50.8		ug/Kg		102	80 - 122
Cyclohexane	50.0	38.4		ug/Kg		77	65 - 120
Dibromochloromethane	50.0	56.7		ug/Kg		113	76 - 125
1,2-Dibromoethane	50.0	54.3		ug/Kg		109	78 - 120
Dichlorodifluoromethane	50.0	57.1		ug/Kg		114	57 - 142
Ethylbenzene	50.0	43.3		ug/Kg		87	80 - 120
Isopropylbenzene	50.0	43.1		ug/Kg		86	72 - 120
Methyl acetate	100	92.8		ug/Kg		93	55 - 136
Methyl tert-butyl ether	50.0	44.4		ug/Kg		89	63 - 125
Methylcyclohexane	50.0	41.0		ug/Kg		82	60 - 140
Methylene Chloride	50.0	40.4		ug/Kg		81	61 - 127
Tetrachloroethene	50.0	47.3		ug/Kg		95	74 - 122
Toluene	50.0	42.5		ug/Kg		85	74 - 128
trans-1,2-Dichloroethene	50.0	40.4		ug/Kg		81	78 - 126
cis-1,3-Dichloropropene	50.0	53.6		ug/Kg		107	80 - 120
Trichloroethene	50.0	45.6		ug/Kg		91	77 - 129
Styrene	50.0	45.8		ug/Kg		92	80 - 120
Trichlorofluoromethane	50.0	55.4		ug/Kg		111	65 - 146
Vinyl chloride	50.0	48.6		ug/Kg		97	61 - 133

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-718388/1-A
Matrix: Solid
Analysis Batch: 718389

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718388

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*96*		*64 - 126*
4-Bromofluorobenzene (Surr)	*106*		*72 - 126*
Toluene-d8 (Surr)	*96*		*71 - 125*
Dibromofluoromethane (Surr)	*100*		*60 - 140*

Lab Sample ID: 480-221553-6 MS
Matrix: Solid
Analysis Batch: 718389

Client Sample ID: HA-05-3.0-4.0-MS
Prep Type: Total/NA
Prep Batch: 718388

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	ND		41.5	33.3		ug/Kg	☼	80	77 - 121
1,1,2,2-Tetrachloroethane	ND	F1	41.5	24.9	F1	ug/Kg	☼	60	80 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		41.5	30.2		ug/Kg	☼	73	60 - 140
1,1,2-Trichloroethane	ND	F1	41.5	29.7	F1	ug/Kg	☼	72	78 - 122
1,1-Dichloroethane	ND		41.5	32.2		ug/Kg	☼	78	73 - 126
1,1-Dichloroethene	ND		41.5	31.0		ug/Kg	☼	75	59 - 125
1,2,4-Trichlorobenzene	ND	F2 F1	41.5	16.5	F1	ug/Kg	☼	40	64 - 120
1,2-Dibromo-3-Chloropropane	ND	F1	41.5	21.9	F1	ug/Kg	☼	53	63 - 124
1,2-Dibromoethane	ND	F1	41.5	31.7	F1	ug/Kg	☼	76	78 - 120
1,2-Dichlorobenzene	ND	F2 F1	41.5	23.1	F1	ug/Kg	☼	56	75 - 120
1,2-Dichloroethane	ND		41.5	32.2		ug/Kg	☼	78	77 - 122
1,2-Dichloropropane	ND		41.5	32.9		ug/Kg	☼	79	75 - 124
1,3-Dichlorobenzene	ND	F2 F1	41.5	23.7	F1	ug/Kg	☼	57	74 - 120
1,4-Dichlorobenzene	ND	F1	41.5	23.5	F1	ug/Kg	☼	57	73 - 120
2-Butanone (MEK)	ND	F1	207	119	F1	ug/Kg	☼	57	70 - 134
2-Hexanone	ND	F1	207	106	F1	ug/Kg	☼	51	59 - 130
4-Methyl-2-pentanone (MIBK)	ND	F1	207	117	F1	ug/Kg	☼	56	65 - 133
Acetone	ND	F1	207	117	F1	ug/Kg	☼	57	61 - 137
Benzene	ND		41.5	32.8		ug/Kg	☼	79	79 - 127
Bromodichloromethane	ND		41.5	35.3		ug/Kg	☼	85	80 - 122
Bromoform	ND		41.5	32.8		ug/Kg	☼	79	68 - 126
Bromomethane	ND		41.5	40.6		ug/Kg	☼	98	37 - 149
Carbon disulfide	ND		41.5	28.0		ug/Kg	☼	68	64 - 131
Carbon tetrachloride	ND		41.5	35.6		ug/Kg	☼	86	75 - 135
Chlorobenzene	ND	F1	41.5	30.4	F1	ug/Kg	☼	73	76 - 124
Chloroethane	ND		41.5	42.3		ug/Kg	☼	102	69 - 135
Chloroform	ND		41.5	33.0		ug/Kg	☼	80	80 - 120
Chloromethane	ND		41.5	37.6		ug/Kg	☼	91	63 - 127
cis-1,2-Dichloroethene	ND	F1	41.5	32.7	F1	ug/Kg	☼	79	80 - 120
cis-1,3-Dichloropropene	ND		41.5	34.5		ug/Kg	☼	83	80 - 120
Cyclohexane	ND	F1	41.5	26.0	F1	ug/Kg	☼	63	65 - 120
Dibromochloromethane	ND		41.5	33.9		ug/Kg	☼	82	76 - 125
Dichlorodifluoromethane	ND		41.5	39.6		ug/Kg	☼	95	57 - 142
Ethylbenzene	ND	F1	41.5	28.9	F1	ug/Kg	☼	70	80 - 120
Isopropylbenzene	ND	F1	41.5	27.0	F1	ug/Kg	☼	65	72 - 120
Methyl acetate	ND		83.0	70.6		ug/Kg	☼	85	55 - 136
Methyl tert-butyl ether	ND		41.5	30.6		ug/Kg	☼	74	63 - 125
Methylcyclohexane	ND	F1	41.5	23.1	F1	ug/Kg	☼	56	60 - 140

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-221553-6 MS
Matrix: Solid
Analysis Batch: 718389

Client Sample ID: HA-05-3.0-4.0-MS
Prep Type: Total/NA
Prep Batch: 718388

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Methylene Chloride	ND		41.5	32.8		ug/Kg	☼	79	61 - 127
Styrene	ND	F1	41.5	29.6	F1	ug/Kg	☼	71	80 - 120
Tetrachloroethene	ND	F1	41.5	29.7	F1	ug/Kg	☼	72	74 - 122
Toluene	ND	F1	41.5	30.3	F1	ug/Kg	☼	73	74 - 128
trans-1,2-Dichloroethene	ND	F1	41.5	31.3	F1	ug/Kg	☼	75	78 - 126
Trichloroethene	ND		41.5	32.6		ug/Kg	☼	78	77 - 129
Trichlorofluoromethane	ND		41.5	35.9		ug/Kg	☼	87	65 - 146
Vinyl chloride	ND		41.5	35.3		ug/Kg	☼	85	61 - 133

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*64 - 126*
4-Bromofluorobenzene (Surr)	*106*		*72 - 126*
Dibromofluoromethane (Surr)	*103*		*60 - 140*
Toluene-d8 (Surr)	*98*		*71 - 125*

Lab Sample ID: 480-221553-6 MSD
Matrix: Solid
Analysis Batch: 718389

Client Sample ID: HA-05-3.0-4.0-MSD
Prep Type: Total/NA
Prep Batch: 718388

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		51.4	42.2		ug/Kg	☼	82	77 - 121	24	30
1,1,2,2-Tetrachloroethane	ND	F1	51.4	32.0	F1	ug/Kg	☼	62	80 - 120	25	30
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		51.4	36.8		ug/Kg	☼	72	60 - 140	20	30
1,1,2-Trichloroethane	ND	F1	51.4	38.6	F1	ug/Kg	☼	75	78 - 122	26	30
1,1-Dichloroethane	ND		51.4	40.7		ug/Kg	☼	79	73 - 126	23	30
1,1-Dichloroethene	ND		51.4	38.3		ug/Kg	☼	74	59 - 125	21	30
1,2,4-Trichlorobenzene	ND	F2 F1	51.4	22.7	F2 F1	ug/Kg	☼	44	64 - 120	32	30
1,2-Dibromo-3-Chloropropane	ND	F1	51.4	28.4	F1	ug/Kg	☼	55	63 - 124	26	30
1,2-Dibromoethane	ND	F1	51.4	40.6		ug/Kg	☼	79	78 - 120	25	30
1,2-Dichlorobenzene	ND	F2 F1	51.4	31.6	F2 F1	ug/Kg	☼	62	75 - 120	31	30
1,2-Dichloroethane	ND		51.4	41.1		ug/Kg	☼	80	77 - 122	24	30
1,2-Dichloropropane	ND		51.4	42.0		ug/Kg	☼	82	75 - 124	24	30
1,3-Dichlorobenzene	ND	F2 F1	51.4	32.3	F2 F1	ug/Kg	☼	63	74 - 120	31	30
1,4-Dichlorobenzene	ND	F1	51.4	31.5	F1	ug/Kg	☼	61	73 - 120	29	30
2-Butanone (MEK)	ND	F1	257	146	F1	ug/Kg	☼	57	70 - 134	20	30
2-Hexanone	ND	F1	257	143	F1	ug/Kg	☼	56	59 - 130	30	30
4-Methyl-2-pentanone (MIBK)	ND	F1	257	154	F1	ug/Kg	☼	60	65 - 133	27	30
Acetone	ND	F1	257	149	F1	ug/Kg	☼	58	61 - 137	24	30
Benzene	ND		51.4	41.5		ug/Kg	☼	81	79 - 127	24	30
Bromodichloromethane	ND		51.4	46.1		ug/Kg	☼	90	80 - 122	26	30
Bromoform	ND		51.4	44.3		ug/Kg	☼	86	68 - 126	30	30
Bromomethane	ND		51.4	48.8		ug/Kg	☼	95	37 - 149	18	30
Carbon disulfide	ND		51.4	34.5		ug/Kg	☼	67	64 - 131	21	30
Carbon tetrachloride	ND		51.4	45.7		ug/Kg	☼	89	75 - 135	25	30
Chlorobenzene	ND	F1	51.4	39.3		ug/Kg	☼	76	76 - 124	26	30
Chloroethane	ND		51.4	52.5		ug/Kg	☼	102	69 - 135	21	30
Chloroform	ND		51.4	42.4		ug/Kg	☼	83	80 - 120	25	30
Chloromethane	ND		51.4	46.6		ug/Kg	☼	91	63 - 127	21	30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-221553-6 MSD
Matrix: Solid
Analysis Batch: 718389

Client Sample ID: HA-05-3.0-4.0-MSD
Prep Type: Total/NA
Prep Batch: 718388

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	ND	F1	51.4	41.9		ug/Kg	☼	81	80 - 120	25	30
cis-1,3-Dichloropropene	ND		51.4	42.9		ug/Kg	☼	83	80 - 120	22	30
Cyclohexane	ND	F1	51.4	32.5	F1	ug/Kg	☼	63	65 - 120	22	30
Dibromochloromethane	ND		51.4	45.7		ug/Kg	☼	89	76 - 125	30	30
Dichlorodifluoromethane	ND		51.4	47.6		ug/Kg	☼	93	57 - 142	18	30
Ethylbenzene	ND	F1	51.4	37.8	F1	ug/Kg	☼	73	80 - 120	27	30
Isopropylbenzene	ND	F1	51.4	35.1	F1	ug/Kg	☼	68	72 - 120	26	30
Methyl acetate	ND		103	86.6		ug/Kg	☼	84	55 - 136	20	30
Methyl tert-butyl ether	ND		51.4	39.6		ug/Kg	☼	77	63 - 125	26	30
Methylcyclohexane	ND	F1	51.4	30.1	F1	ug/Kg	☼	58	60 - 140	26	30
Methylene Chloride	ND		51.4	42.4		ug/Kg	☼	82	61 - 127	25	30
Styrene	ND	F1	51.4	38.0	F1	ug/Kg	☼	74	80 - 120	25	30
Tetrachloroethene	ND	F1	51.4	38.2		ug/Kg	☼	74	74 - 122	25	30
Toluene	ND	F1	51.4	38.7		ug/Kg	☼	75	74 - 128	24	30
trans-1,2-Dichloroethene	ND	F1	51.4	39.2	F1	ug/Kg	☼	76	78 - 126	22	30
Trichloroethene	ND		51.4	40.1		ug/Kg	☼	78	77 - 129	21	30
Trichlorofluoromethane	ND		51.4	43.7		ug/Kg	☼	85	65 - 146	19	30
Vinyl chloride	ND		51.4	41.7		ug/Kg	☼	81	61 - 133	17	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*64 - 126*
4-Bromofluorobenzene (Surr)	*108*		*72 - 126*
Dibromofluoromethane (Surr)	*100*		*60 - 140*
Toluene-d8 (Surr)	*98*		*71 - 125*

Lab Sample ID: MB 480-718435/3-A
Matrix: Solid
Analysis Batch: 718408

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718435

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		100	28	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
1,1,2,2-Tetrachloroethane	ND		100	16	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		100	50	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
1,1,2-Trichloroethane	ND		100	21	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
1,1-Dichloroethane	ND		100	31	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
1,1-Dichloroethene	ND		100	35	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
1,2,4-Trichlorobenzene	ND		100	38	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
1,2-Dibromo-3-Chloropropane	ND		100	50	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
1,2-Dichlorobenzene	ND		100	26	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
1,2-Dichloroethane	ND		100	41	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
1,2-Dichloropropane	ND		100	16	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
1,3-Dichlorobenzene	ND		100	27	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
1,4-Dichlorobenzene	ND		100	14	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
2-Butanone (MEK)	ND		500	300	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
2-Hexanone	ND		500	210	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
4-Methyl-2-pentanone (MIBK)	ND		500	32	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
Acetone	ND		500	410	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
Benzene	ND		100	19	ug/Kg		07/15/24 09:29	07/15/24 15:38	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-718435/3-A
Matrix: Solid
Analysis Batch: 718408

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718435

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	ND		100	50	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
Bromomethane	ND		100	22	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
Carbon disulfide	ND		100	46	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
Carbon tetrachloride	ND		100	26	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
Chlorobenzene	ND		100	13	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
Chloroethane	ND		100	21	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
Chloroform	ND		100	69	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
Chloromethane	ND		100	24	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
cis-1,2-Dichloroethene	ND		100	28	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
Bromodichloromethane	ND		100	20	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
Cyclohexane	ND		100	22	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
Dibromochloromethane	ND		100	48	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
1,2-Dibromoethane	ND		100	18	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
Dichlorodifluoromethane	ND		100	44	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
Ethylbenzene	ND		100	29	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
Isopropylbenzene	ND		100	15	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
Methyl acetate	ND		500	48	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
Methyl tert-butyl ether	ND		100	38	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
Methylcyclohexane	ND		100	47	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
Methylene Chloride	ND		100	20	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
Tetrachloroethene	ND		100	13	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
Toluene	ND		100	27	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
trans-1,2-Dichloroethene	ND		100	24	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
trans-1,3-Dichloropropene	ND		100	9.8	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
cis-1,3-Dichloropropene	ND		100	24	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
Trichloroethene	ND		100	28	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
Styrene	ND		100	24	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
Trichlorofluoromethane	ND		100	47	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
Vinyl chloride	ND		100	34	ug/Kg		07/15/24 09:29	07/15/24 15:38	1
Xylenes, Total	ND		200	55	ug/Kg		07/15/24 09:29	07/15/24 15:38	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Hexane	*54.7*	*J*	*ug/Kg*		*2.98*	*110-54-3*	*07/15/24 09:29*	*07/15/24 15:38*	*1*
Hexachlorobutadiene	*53.6*	*J*	*ug/Kg*		*12.10*	*87-68-3*	*07/15/24 09:29*	*07/15/24 15:38*	*1*
Tentatively Identified Compound	*None*		*ug/Kg*			*N/A*	*07/15/24 09:29*	*07/15/24 15:38*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*53 - 146*	*07/15/24 09:29*	*07/15/24 15:38*	*1*
4-Bromofluorobenzene (Surr)	*95*		*49 - 148*	*07/15/24 09:29*	*07/15/24 15:38*	*1*
Toluene-d8 (Surr)	*100*		*50 - 149*	*07/15/24 09:29*	*07/15/24 15:38*	*1*
Dibromofluoromethane (Surr)	*93*		*60 - 140*	*07/15/24 09:29*	*07/15/24 15:38*	*1*

Lab Sample ID: LCS 480-718435/1-A
Matrix: Solid
Analysis Batch: 718408

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718435

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,1-Trichloroethane			2500	2370		ug/Kg		95	68 - 130		

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-718435/1-A
Matrix: Solid
Analysis Batch: 718408

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718435

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,2,2-Tetrachloroethane	2500	2260		ug/Kg		90	73 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	2500	2340		ug/Kg		94	10 - 179
1,1,2-Trichloroethane	2500	2260		ug/Kg		90	80 - 120
1,1-Dichloroethane	2500	2390		ug/Kg		96	78 - 121
1,1-Dichloroethene	2500	2540		ug/Kg		102	48 - 133
1,2,4-Trichlorobenzene	2500	2140		ug/Kg		86	70 - 140
1,2-Dibromo-3-Chloropropane	2500	2180		ug/Kg		87	56 - 122
1,2-Dichlorobenzene	2500	2250		ug/Kg		90	78 - 125
1,2-Dichloroethane	2500	2160		ug/Kg		86	74 - 127
1,2-Dichloropropane	2500	2450		ug/Kg		98	80 - 120
1,3-Dichlorobenzene	2500	2370		ug/Kg		95	80 - 120
1,4-Dichlorobenzene	2500	2280		ug/Kg		91	80 - 120
2-Butanone (MEK)	12500	14800		ug/Kg		118	54 - 149
2-Hexanone	12500	12600		ug/Kg		101	59 - 127
4-Methyl-2-pentanone (MIBK)	12500	11000		ug/Kg		88	74 - 120
Acetone	12500	12700		ug/Kg		101	47 - 141
Benzene	2500	2480		ug/Kg		99	77 - 125
Bromoform	2500	2110		ug/Kg		85	48 - 125
Bromomethane	2500	2340		ug/Kg		94	39 - 149
Carbon disulfide	2500	2630		ug/Kg		105	40 - 136
Carbon tetrachloride	2500	2280		ug/Kg		91	54 - 135
Chlorobenzene	2500	2310		ug/Kg		93	76 - 126
Chloroethane	2500	2730		ug/Kg		109	23 - 150
Chloroform	2500	2080		ug/Kg		83	78 - 120
Chloromethane	2500	2610		ug/Kg		104	61 - 124
cis-1,2-Dichloroethene	2500	2270		ug/Kg		91	79 - 124
Bromodichloromethane	2500	2480		ug/Kg		99	71 - 121
Cyclohexane	2500	2320		ug/Kg		93	49 - 129
Dibromochloromethane	2500	2230		ug/Kg		89	64 - 120
1,2-Dibromoethane	2500	2320		ug/Kg		93	80 - 120
Dichlorodifluoromethane	2500	1690		ug/Kg		67	10 - 150
Ethylbenzene	2500	2440		ug/Kg		98	78 - 124
Isopropylbenzene	2500	2530		ug/Kg		101	76 - 120
Methyl acetate	5000	5230		ug/Kg		105	71 - 123
Methyl tert-butyl ether	2500	2130		ug/Kg		85	67 - 137
Methylcyclohexane	2500	2100		ug/Kg		84	50 - 130
Methylene Chloride	2500	2190		ug/Kg		88	75 - 118
Tetrachloroethene	2500	2550		ug/Kg		102	73 - 133
Toluene	2500	2240		ug/Kg		90	75 - 124
trans-1,2-Dichloroethene	2500	2430		ug/Kg		97	74 - 129
cis-1,3-Dichloropropene	2500	2820		ug/Kg		113	75 - 121
Trichloroethene	2500	2560		ug/Kg		102	75 - 131
Styrene	2500	2420		ug/Kg		97	80 - 120
Trichlorofluoromethane	2500	2590		ug/Kg		104	29 - 158
Vinyl chloride	2500	2600		ug/Kg		104	59 - 124

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-718435/1-A
Matrix: Solid
Analysis Batch: 718408

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718435

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*53 - 146*
4-Bromofluorobenzene (Surr)	*92*		*49 - 148*
Toluene-d8 (Surr)	*93*		*50 - 149*
Dibromofluoromethane (Surr)	*93*		*60 - 140*

Lab Sample ID: MB 480-718658/2-A
Matrix: Solid
Analysis Batch: 718659

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718658

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
2-Hexanone	ND		25	2.5	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Acetone	ND		25	4.2	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Benzene	ND		5.0	0.25	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Bromoform	ND		5.0	2.5	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Bromomethane	ND		5.0	0.45	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Carbon disulfide	ND		5.0	2.5	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Chlorobenzene	ND		5.0	0.66	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Chloroethane	ND		5.0	1.1	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Chloroform	ND		5.0	0.31	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Chloromethane	ND		5.0	0.30	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Cyclohexane	ND		5.0	0.70	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Ethylbenzene	ND		5.0	0.35	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Methyl acetate	ND		25	3.0	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Methylene Chloride	ND		5.0	2.3	ug/Kg		07/16/24 17:08	07/16/24 20:31	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-718658/2-A
Matrix: Solid
Analysis Batch: 718659

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718658

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		5.0	0.67	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Toluene	ND		5.0	0.38	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
trans-1,2-Dichloroethene	ND		5.0	0.52	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Trichloroethene	ND		5.0	1.1	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Styrene	ND		5.0	0.25	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Vinyl chloride	ND		5.0	0.61	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Xylenes, Total	ND		10	0.84	ug/Kg		07/16/24 17:08	07/16/24 20:31	1

Tentatively Identified Compound	*Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*			*N/A*	*07/16/24 17:08*	*07/16/24 20:31*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*64 - 126*	*07/16/24 17:08*	*07/16/24 20:31*	*1*
4-Bromofluorobenzene (Surr)	*107*		*72 - 126*	*07/16/24 17:08*	*07/16/24 20:31*	*1*
Toluene-d8 (Surr)	*96*		*71 - 125*	*07/16/24 17:08*	*07/16/24 20:31*	*1*
Dibromofluoromethane (Surr)	*100*		*60 - 140*	*07/16/24 17:08*	*07/16/24 20:31*	*1*

Lab Sample ID: LCS 480-718658/1-A
Matrix: Solid
Analysis Batch: 718659

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718658

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	50.0	46.4		ug/Kg		93	77 - 121
1,1,2,2-Tetrachloroethane	50.0	43.0		ug/Kg		86	80 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	42.2		ug/Kg		84	60 - 140
1,1,2-Trichloroethane	50.0	46.2		ug/Kg		92	78 - 122
1,1-Dichloroethane	50.0	42.2		ug/Kg		84	73 - 126
1,1-Dichloroethene	50.0	41.9		ug/Kg		84	59 - 125
1,2,4-Trichlorobenzene	50.0	43.4		ug/Kg		87	64 - 120
1,2-Dibromo-3-Chloropropane	50.0	44.8		ug/Kg		90	63 - 124
1,2-Dichlorobenzene	50.0	42.7		ug/Kg		85	75 - 120
1,2-Dichloroethane	50.0	47.0		ug/Kg		94	77 - 122
1,2-Dichloropropane	50.0	44.1		ug/Kg		88	75 - 124
1,3-Dichlorobenzene	50.0	42.1		ug/Kg		84	74 - 120
1,4-Dichlorobenzene	50.0	41.7		ug/Kg		83	73 - 120
2-Butanone (MEK)	250	243		ug/Kg		97	70 - 134
2-Hexanone	250	246		ug/Kg		98	59 - 130
4-Methyl-2-pentanone (MIBK)	250	230		ug/Kg		92	65 - 133
Acetone	250	244		ug/Kg		98	61 - 137
Benzene	50.0	43.6		ug/Kg		87	79 - 127
Bromoform	50.0	59.9		ug/Kg		120	68 - 126
Bromomethane	50.0	44.7		ug/Kg		89	37 - 149
Carbon disulfide	50.0	40.1		ug/Kg		80	64 - 131
Carbon tetrachloride	50.0	52.8		ug/Kg		106	75 - 135

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-718658/1-A
Matrix: Solid
Analysis Batch: 718659

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718658

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chlorobenzene	50.0	44.3		ug/Kg		89	76 - 124
Chloroethane	50.0	40.5		ug/Kg		81	69 - 135
Chloroform	50.0	44.2		ug/Kg		88	80 - 120
Chloromethane	50.0	47.6		ug/Kg		95	63 - 127
cis-1,2-Dichloroethene	50.0	44.6		ug/Kg		89	81 - 120
Bromodichloromethane	50.0	50.4		ug/Kg		101	80 - 122
Cyclohexane	50.0	40.1		ug/Kg		80	65 - 120
Dibromochloromethane	50.0	55.3		ug/Kg		111	76 - 125
1,2-Dibromoethane	50.0	52.9		ug/Kg		106	78 - 120
Dichlorodifluoromethane	50.0	49.4		ug/Kg		99	57 - 142
Ethylbenzene	50.0	42.7		ug/Kg		85	80 - 120
Isopropylbenzene	50.0	41.3		ug/Kg		83	72 - 120
Methyl acetate	100	96.6		ug/Kg		97	55 - 136
Methyl tert-butyl ether	50.0	46.7		ug/Kg		93	63 - 125
Methylcyclohexane	50.0	42.0		ug/Kg		84	60 - 140
Methylene Chloride	50.0	46.7		ug/Kg		93	61 - 127
Tetrachloroethene	50.0	45.6		ug/Kg		91	74 - 122
Toluene	50.0	42.1		ug/Kg		84	74 - 128
trans-1,2-Dichloroethene	50.0	43.0		ug/Kg		86	78 - 126
cis-1,3-Dichloropropene	50.0	51.1		ug/Kg		102	80 - 120
Trichloroethene	50.0	44.8		ug/Kg		90	77 - 129
Styrene	50.0	45.8		ug/Kg		92	80 - 120
Trichlorofluoromethane	50.0	48.8		ug/Kg		98	65 - 146
Vinyl chloride	50.0	43.6		ug/Kg		87	61 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*64 - 126*
4-Bromofluorobenzene (Surr)	*107*		*72 - 126*
Toluene-d8 (Surr)	*98*		*71 - 125*
Dibromofluoromethane (Surr)	*101*		*60 - 140*

Lab Sample ID: MB 480-718793/2-A
Matrix: Solid
Analysis Batch: 718794

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718793

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg		07/17/24 17:42	07/17/24 21:53	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-718793/2-A
Matrix: Solid
Analysis Batch: 718794

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718793

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
2-Hexanone	ND		25	2.5	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
Acetone	ND		25	4.2	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
Benzene	ND		5.0	0.25	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
Bromoform	ND		5.0	2.5	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
Bromomethane	ND		5.0	0.45	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
Carbon disulfide	ND		5.0	2.5	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
Chlorobenzene	ND		5.0	0.66	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
Chloroethane	ND		5.0	1.1	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
Chloroform	ND		5.0	0.31	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
Chloromethane	ND		5.0	0.30	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
Cyclohexane	ND		5.0	0.70	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
Ethylbenzene	ND		5.0	0.35	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
Methyl acetate	ND		25	3.0	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
Methylene Chloride	ND		5.0	2.3	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
Tetrachloroethene	ND		5.0	0.67	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
Toluene	ND		5.0	0.38	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
trans-1,2-Dichloroethene	ND		5.0	0.52	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
Trichloroethene	ND		5.0	1.1	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
Styrene	ND		5.0	0.25	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
Vinyl chloride	ND		5.0	0.61	ug/Kg		07/17/24 17:42	07/17/24 21:53	1
Xylenes, Total	ND		10	0.84	ug/Kg		07/17/24 17:42	07/17/24 21:53	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*			*N/A*	*07/17/24 17:42*	*07/17/24 21:53*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*64 - 126*	*07/17/24 17:42*	*07/17/24 21:53*	*1*
4-Bromofluorobenzene (Surr)	*107*		*72 - 126*	*07/17/24 17:42*	*07/17/24 21:53*	*1*
Toluene-d8 (Surr)	*98*		*71 - 125*	*07/17/24 17:42*	*07/17/24 21:53*	*1*
Dibromofluoromethane (Surr)	*99*		*60 - 140*	*07/17/24 17:42*	*07/17/24 21:53*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-718793/1-A
Matrix: Solid
Analysis Batch: 718794

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718793

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	50.0	52.7		ug/Kg		105	77 - 121
1,1,2,2-Tetrachloroethane	50.0	47.6		ug/Kg		95	80 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	49.1		ug/Kg		98	60 - 140
1,1,2-Trichloroethane	50.0	49.8		ug/Kg		100	78 - 122
1,1-Dichloroethane	50.0	47.7		ug/Kg		95	73 - 126
1,1-Dichloroethene	50.0	48.1		ug/Kg		96	59 - 125
1,2,4-Trichlorobenzene	50.0	46.8		ug/Kg		94	64 - 120
1,2-Dibromo-3-Chloropropane	50.0	48.0		ug/Kg		96	63 - 124
1,2-Dichlorobenzene	50.0	45.7		ug/Kg		91	75 - 120
1,2-Dichloroethane	50.0	50.5		ug/Kg		101	77 - 122
1,2-Dichloropropane	50.0	48.3		ug/Kg		97	75 - 124
1,3-Dichlorobenzene	50.0	45.4		ug/Kg		91	74 - 120
1,4-Dichlorobenzene	50.0	44.6		ug/Kg		89	73 - 120
2-Butanone (MEK)	250	268		ug/Kg		107	70 - 134
2-Hexanone	250	264		ug/Kg		105	59 - 130
4-Methyl-2-pentanone (MIBK)	250	253		ug/Kg		101	65 - 133
Acetone	250	271		ug/Kg		108	61 - 137
Benzene	50.0	48.5		ug/Kg		97	79 - 127
Bromoform	50.0	61.3		ug/Kg		123	68 - 126
Bromomethane	50.0	49.5		ug/Kg		99	37 - 149
Carbon disulfide	50.0	46.3		ug/Kg		93	64 - 131
Carbon tetrachloride	50.0	59.6		ug/Kg		119	75 - 135
Chlorobenzene	50.0	47.9		ug/Kg		96	76 - 124
Chloroethane	50.0	45.8		ug/Kg		92	69 - 135
Chloroform	50.0	49.0		ug/Kg		98	80 - 120
Chloromethane	50.0	55.2		ug/Kg		110	63 - 127
cis-1,2-Dichloroethene	50.0	49.7		ug/Kg		99	81 - 120
Bromodichloromethane	50.0	53.4		ug/Kg		107	80 - 122
Cyclohexane	50.0	47.2		ug/Kg		94	65 - 120
Dibromochloromethane	50.0	57.7		ug/Kg		115	76 - 125
1,2-Dibromoethane	50.0	55.2		ug/Kg		110	78 - 120
Dichlorodifluoromethane	50.0	57.5		ug/Kg		115	57 - 142
Ethylbenzene	50.0	47.7		ug/Kg		95	80 - 120
Isopropylbenzene	50.0	46.4		ug/Kg		93	72 - 120
Methyl acetate	100	107		ug/Kg		107	55 - 136
Methyl tert-butyl ether	50.0	50.7		ug/Kg		101	63 - 125
Methylcyclohexane	50.0	48.1		ug/Kg		96	60 - 140
Methylene Chloride	50.0	49.5		ug/Kg		99	61 - 127
Tetrachloroethene	50.0	49.3		ug/Kg		99	74 - 122
Toluene	50.0	46.5		ug/Kg		93	74 - 128
trans-1,2-Dichloroethene	50.0	48.5		ug/Kg		97	78 - 126
cis-1,3-Dichloropropene	50.0	54.4		ug/Kg		109	80 - 120
Trichloroethene	50.0	49.0		ug/Kg		98	77 - 129
Styrene	50.0	49.2		ug/Kg		98	80 - 120
Trichlorofluoromethane	50.0	53.7		ug/Kg		107	65 - 146
Vinyl chloride	50.0	49.8		ug/Kg		100	61 - 133

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-718793/1-A
Matrix: Solid
Analysis Batch: 718794

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718793

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*97*		*64 - 126*
4-Bromofluorobenzene (Surr)	*106*		*72 - 126*
Toluene-d8 (Surr)	*99*		*71 - 125*
Dibromofluoromethane (Surr)	*101*		*60 - 140*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-718325/1-A
Matrix: Water
Analysis Batch: 718502

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718325

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		07/12/24 13:42	07/15/24 18:29	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		07/12/24 13:42	07/15/24 18:29	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		07/12/24 13:42	07/15/24 18:29	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		07/12/24 13:42	07/15/24 18:29	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		07/12/24 13:42	07/15/24 18:29	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		07/12/24 13:42	07/15/24 18:29	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		07/12/24 13:42	07/15/24 18:29	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		07/12/24 13:42	07/15/24 18:29	1
2-Chlorophenol	ND		5.0	0.53	ug/L		07/12/24 13:42	07/15/24 18:29	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		07/12/24 13:42	07/15/24 18:29	1
2-Methylphenol	ND		5.0	0.40	ug/L		07/12/24 13:42	07/15/24 18:29	1
2-Nitroaniline	ND		10	0.42	ug/L		07/12/24 13:42	07/15/24 18:29	1
2-Nitrophenol	ND		5.0	0.48	ug/L		07/12/24 13:42	07/15/24 18:29	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		07/12/24 13:42	07/15/24 18:29	1
3-Nitroaniline	ND		10	0.48	ug/L		07/12/24 13:42	07/15/24 18:29	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		07/12/24 13:42	07/15/24 18:29	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		07/12/24 13:42	07/15/24 18:29	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		07/12/24 13:42	07/15/24 18:29	1
4-Chloroaniline	ND		5.0	0.59	ug/L		07/12/24 13:42	07/15/24 18:29	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		07/12/24 13:42	07/15/24 18:29	1
4-Methylphenol	ND		10	0.36	ug/L		07/12/24 13:42	07/15/24 18:29	1
4-Nitroaniline	ND		10	0.25	ug/L		07/12/24 13:42	07/15/24 18:29	1
4-Nitrophenol	ND		10	1.5	ug/L		07/12/24 13:42	07/15/24 18:29	1
Acenaphthene	ND		5.0	0.41	ug/L		07/12/24 13:42	07/15/24 18:29	1
Acenaphthylene	ND		5.0	0.38	ug/L		07/12/24 13:42	07/15/24 18:29	1
Acetophenone	ND		5.0	0.54	ug/L		07/12/24 13:42	07/15/24 18:29	1
Anthracene	ND		5.0	0.28	ug/L		07/12/24 13:42	07/15/24 18:29	1
Atrazine	ND		5.0	0.46	ug/L		07/12/24 13:42	07/15/24 18:29	1
Benzaldehyde	ND		5.0	0.27	ug/L		07/12/24 13:42	07/15/24 18:29	1
Benzo(a)anthracene	ND		5.0	0.36	ug/L		07/12/24 13:42	07/15/24 18:29	1
Benzo(a)pyrene	ND		5.0	0.47	ug/L		07/12/24 13:42	07/15/24 18:29	1
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L		07/12/24 13:42	07/15/24 18:29	1
Benzo(g,h,i)perylene	ND		5.0	0.35	ug/L		07/12/24 13:42	07/15/24 18:29	1
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L		07/12/24 13:42	07/15/24 18:29	1
Biphenyl	ND		5.0	0.65	ug/L		07/12/24 13:42	07/15/24 18:29	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		07/12/24 13:42	07/15/24 18:29	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		07/12/24 13:42	07/15/24 18:29	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-718325/1-A
Matrix: Water
Analysis Batch: 718502

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718325

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		07/12/24 13:42	07/15/24 18:29	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		07/12/24 13:42	07/15/24 18:29	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		07/12/24 13:42	07/15/24 18:29	1
Caprolactam	ND		5.0	2.2	ug/L		07/12/24 13:42	07/15/24 18:29	1
Carbazole	ND		5.0	0.30	ug/L		07/12/24 13:42	07/15/24 18:29	1
Chrysene	ND		5.0	0.33	ug/L		07/12/24 13:42	07/15/24 18:29	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		07/12/24 13:42	07/15/24 18:29	1
Dibenzofuran	ND		10	0.51	ug/L		07/12/24 13:42	07/15/24 18:29	1
Diethyl phthalate	ND		5.0	0.22	ug/L		07/12/24 13:42	07/15/24 18:29	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		07/12/24 13:42	07/15/24 18:29	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		07/12/24 13:42	07/15/24 18:29	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		07/12/24 13:42	07/15/24 18:29	1
Fluoranthene	ND		5.0	0.40	ug/L		07/12/24 13:42	07/15/24 18:29	1
Fluorene	ND		5.0	0.36	ug/L		07/12/24 13:42	07/15/24 18:29	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		07/12/24 13:42	07/15/24 18:29	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		07/12/24 13:42	07/15/24 18:29	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		07/12/24 13:42	07/15/24 18:29	1
Hexachloroethane	ND		5.0	0.59	ug/L		07/12/24 13:42	07/15/24 18:29	1
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L		07/12/24 13:42	07/15/24 18:29	1
Isophorone	ND		5.0	0.43	ug/L		07/12/24 13:42	07/15/24 18:29	1
Naphthalene	ND		5.0	0.76	ug/L		07/12/24 13:42	07/15/24 18:29	1
Nitrobenzene	ND		5.0	0.29	ug/L		07/12/24 13:42	07/15/24 18:29	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		07/12/24 13:42	07/15/24 18:29	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		07/12/24 13:42	07/15/24 18:29	1
Pentachlorophenol	ND		10	2.2	ug/L		07/12/24 13:42	07/15/24 18:29	1
Phenanthrene	ND		5.0	0.44	ug/L		07/12/24 13:42	07/15/24 18:29	1
Phenol	ND		5.0	0.39	ug/L		07/12/24 13:42	07/15/24 18:29	1
Pyrene	ND		5.0	0.34	ug/L		07/12/24 13:42	07/15/24 18:29	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Furan, tetrahydro-	*3.95*	*T J N*	*ug/L*		*3.19*	*109-99-9*	*07/12/24 13:42*	*07/15/24 18:29*	*1*
Unknown	*3.18*	*T J*	*ug/L*		*3.27*	*N/A*	*07/12/24 13:42*	*07/15/24 18:29*	*1*
Unknown	*8.82*	*T J*	*ug/L*		*4.94*	*N/A*	*07/12/24 13:42*	*07/15/24 18:29*	*1*
Unknown	*2.49*	*T J*	*ug/L*		*5.37*	*N/A*	*07/12/24 13:42*	*07/15/24 18:29*	*1*
Unknown	*2.15*	*T J*	*ug/L*		*5.71*	*N/A*	*07/12/24 13:42*	*07/15/24 18:29*	*1*
1-Heptadecanol	*2.69*	*T J N*	*ug/L*		*11.90*	*1454-85-9*	*07/12/24 13:42*	*07/15/24 18:29*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*82*		*25 - 144*	*07/12/24 13:42*	*07/15/24 18:29*	*1*
2-Fluorobiphenyl	*79*		*53 - 126*	*07/12/24 13:42*	*07/15/24 18:29*	*1*
2-Fluorophenol	*60*		*24 - 120*	*07/12/24 13:42*	*07/15/24 18:29*	*1*
Nitrobenzene-d5	*70*		*29 - 129*	*07/12/24 13:42*	*07/15/24 18:29*	*1*
Phenol-d5	*42*		*10 - 120*	*07/12/24 13:42*	*07/15/24 18:29*	*1*
p-Terphenyl-d14	*91*		*33 - 132*	*07/12/24 13:42*	*07/15/24 18:29*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-718325/2-A
Matrix: Water
Analysis Batch: 718502

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718325

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4,5-Trichlorophenol	32.0	27.2		ug/L		85	65 - 126
2,4,6-Trichlorophenol	32.0	25.3		ug/L		79	64 - 120
2,4-Dichlorophenol	32.0	24.1		ug/L		75	63 - 120
2,4-Dimethylphenol	32.0	31.9		ug/L		100	47 - 120
2,4-Dinitrophenol	64.0	55.5		ug/L		87	31 - 137
2,4-Dinitrotoluene	32.0	28.6		ug/L		89	69 - 120
2,6-Dinitrotoluene	32.0	27.5		ug/L		86	68 - 120
2-Chloronaphthalene	32.0	22.7		ug/L		71	58 - 120
2-Chlorophenol	32.0	22.6		ug/L		71	48 - 120
2-Methylnaphthalene	32.0	20.5		ug/L		64	59 - 120
2-Methylphenol	32.0	22.3		ug/L		70	39 - 120
2-Nitroaniline	32.0	26.0		ug/L		81	54 - 127
2-Nitrophenol	32.0	25.1		ug/L		79	52 - 125
3,3'-Dichlorobenzidine	64.0	62.4		ug/L		98	49 - 135
3-Nitroaniline	32.0	22.2		ug/L		69	51 - 120
4,6-Dinitro-2-methylphenol	64.0	61.4		ug/L		96	46 - 136
4-Bromophenyl phenyl ether	32.0	27.2		ug/L		85	65 - 120
4-Chloro-3-methylphenol	32.0	25.9		ug/L		81	61 - 123
4-Chloroaniline	32.0	19.0		ug/L		60	30 - 120
4-Chlorophenyl phenyl ether	32.0	25.6		ug/L		80	62 - 120
4-Methylphenol	32.0	21.6		ug/L		68	29 - 131
4-Nitroaniline	32.0	29.5		ug/L		92	65 - 120
4-Nitrophenol	64.0	38.7		ug/L		60	45 - 120
Acenaphthene	32.0	24.3		ug/L		76	60 - 120
Acenaphthylene	32.0	26.5		ug/L		83	63 - 120
Acetophenone	32.0	24.6		ug/L		77	45 - 120
Anthracene	32.0	28.5		ug/L		89	67 - 120
Atrazine	64.0	57.1		ug/L		89	71 - 130
Benzaldehyde	64.0	45.1		ug/L		70	10 - 140
Benzo(a)anthracene	32.0	28.3		ug/L		88	70 - 121
Benzo(a)pyrene	32.0	29.4		ug/L		92	60 - 123
Benzo(b)fluoranthene	32.0	32.3		ug/L		101	66 - 126
Benzo(g,h,i)perylene	32.0	27.6		ug/L		86	66 - 150
Benzo(k)fluoranthene	32.0	31.9		ug/L		100	65 - 124
Biphenyl	32.0	23.2		ug/L		72	59 - 120
bis (2-chloroisopropyl) ether	32.0	24.2		ug/L		75	21 - 136
Bis(2-chloroethoxy)methane	32.0	25.0		ug/L		78	50 - 128
Bis(2-chloroethyl)ether	32.0	28.2		ug/L		88	44 - 120
Bis(2-ethylhexyl) phthalate	32.0	28.5		ug/L		89	63 - 139
Butyl benzyl phthalate	32.0	28.2		ug/L		88	70 - 129
Caprolactam	64.0	18.8		ug/L		29	22 - 120
Carbazole	32.0	32.3		ug/L		101	66 - 123
Chrysene	32.0	28.2		ug/L		88	69 - 120
Dibenz(a,h)anthracene	32.0	27.3		ug/L		85	65 - 135
Dibenzofuran	32.0	24.7		ug/L		77	66 - 120
Diethyl phthalate	32.0	28.6		ug/L		89	59 - 127
Dimethyl phthalate	32.0	29.1		ug/L		91	68 - 120
Di-n-butyl phthalate	32.0	30.0		ug/L		94	69 - 131

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-718325/2-A
Matrix: Water
Analysis Batch: 718502

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718325

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Di-n-octyl phthalate	32.0	29.5		ug/L		92	63 - 140
Fluoranthene	32.0	29.4		ug/L		92	69 - 126
Fluorene	32.0	25.7		ug/L		80	66 - 120
Hexachlorobenzene	32.0	28.4		ug/L		89	61 - 120
Hexachlorobutadiene	32.0	17.3		ug/L		54	35 - 120
Hexachlorocyclopentadiene	32.0	21.9		ug/L		68	31 - 120
Hexachloroethane	32.0	17.7		ug/L		55	33 - 120
Indeno(1,2,3-cd)pyrene	32.0	26.6		ug/L		83	69 - 146
Isophorone	32.0	25.7		ug/L		80	55 - 120
Naphthalene	32.0	22.8		ug/L		71	57 - 120
Nitrobenzene	32.0	24.1		ug/L		75	53 - 123
N-Nitrosodi-n-propylamine	32.0	25.0		ug/L		78	32 - 140
Pentachlorophenol	64.0	49.1		ug/L		77	10 - 136
Phenanthrene	32.0	28.4		ug/L		89	68 - 120
Phenol	32.0	15.2		ug/L		47	17 - 120
Pyrene	32.0	27.5		ug/L		86	70 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*94*		*25 - 144*
2-Fluorobiphenyl	*77*		*53 - 126*
2-Fluorophenol	*59*		*24 - 120*
Nitrobenzene-d5	*74*		*29 - 129*
Phenol-d5	*47*		*10 - 120*
p-Terphenyl-d14	*85*		*33 - 132*

Lab Sample ID: MB 480-718403/1-A
Matrix: Solid
Analysis Batch: 718990

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718403

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		100	55	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
2,4,5-Trichlorophenol	ND		170	46	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
2,4,6-Trichlorophenol	ND		170	34	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
2,4-Dichlorophenol	ND		170	18	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
2,4-Dimethylphenol	ND		170	41	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
2,4-Dinitrophenol	ND		1700	780	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
2,4-Dinitrotoluene	ND		170	35	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
2,6-Dinitrotoluene	ND		170	20	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
2-Chloronaphthalene	ND		170	28	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
2-Chlorophenol	ND		330	31	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
2-Methylnaphthalene	ND		170	34	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
2-Methylphenol	ND		170	20	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
2-Nitroaniline	ND		330	25	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
2-Nitrophenol	ND		170	48	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
3,3'-Dichlorobenzidine	ND		330	200	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
3-Nitroaniline	ND		330	47	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
4,6-Dinitro-2-methylphenol	ND		330	170	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
4-Bromophenyl phenyl ether	ND		170	24	ug/Kg		07/15/24 07:53	07/19/24 12:11	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-718403/1-A
Matrix: Solid
Analysis Batch: 718990

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718403

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chloro-3-methylphenol	ND		170	42	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
4-Chloroaniline	ND		170	42	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
4-Chlorophenyl phenyl ether	ND		170	21	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
4-Methylphenol	ND		330	20	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
4-Nitroaniline	ND		330	89	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
4-Nitrophenol	ND		330	120	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Acenaphthene	ND		170	25	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Acenaphthylene	ND		170	22	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Acetophenone	ND		170	23	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Anthracene	ND		170	42	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Atrazine	ND		170	59	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Benzaldehyde	ND		170	140	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Benzo[a]anthracene	ND		170	17	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Benzo[a]pyrene	ND		170	25	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Benzo[b]fluoranthene	ND		170	27	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Benzo[g,h,i]perylene	ND		170	18	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Benzo[k]fluoranthene	ND		170	22	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Biphenyl	ND		170	25	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
bis (2-chloroisopropyl) ether	ND		170	34	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Bis(2-chloroethoxy)methane	ND		170	36	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Bis(2-chloroethyl)ether	ND		170	22	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Bis(2-ethylhexyl) phthalate	ND		170	58	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Butyl benzyl phthalate	ND		170	28	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Caprolactam	ND		170	51	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Carbazole	ND		170	20	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Chrysene	ND		170	38	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Dibenz(a,h)anthracene	ND		170	30	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Dibenzofuran	ND		170	20	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Diethyl phthalate	ND		170	22	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Dimethyl phthalate	ND		170	20	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Di-n-butyl phthalate	ND		170	29	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Di-n-octyl phthalate	ND		170	20	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Fluoranthene	ND		170	18	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Fluorene	ND		170	20	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Hexachlorobenzene	ND		170	23	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Hexachlorobutadiene	ND		170	25	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Hexachlorocyclopentadiene	ND		170	23	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Hexachloroethane	ND		170	22	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Indeno[1,2,3-cd]pyrene	ND		170	21	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Isophorone	ND		170	36	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Naphthalene	ND		170	22	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Nitrobenzene	ND		170	19	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
N-Nitrosodi-n-propylamine	ND		170	29	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
N-Nitrosodiphenylamine	ND		170	140	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Pentachlorophenol	ND		330	170	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Phenanthrene	ND		170	25	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Phenol	ND		170	26	ug/Kg		07/15/24 07:53	07/19/24 12:11	1
Pyrene	ND		170	20	ug/Kg		07/15/24 07:53	07/19/24 12:11	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-718403/1-A
Matrix: Solid
Analysis Batch: 718990

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718403

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	151	T J	ug/Kg		1.71	N/A	07/15/24 07:53	07/19/24 12:11	1
Unknown	2480	T J	ug/Kg		1.93	N/A	07/15/24 07:53	07/19/24 12:11	1
Unknown	1020	T J	ug/Kg		3.35	N/A	07/15/24 07:53	07/19/24 12:11	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	113		26 - 143	07/15/24 07:53	07/19/24 12:11	1
2-Fluorobiphenyl	92		50 - 121	07/15/24 07:53	07/19/24 12:11	1
2-Fluorophenol	94		36 - 120	07/15/24 07:53	07/19/24 12:11	1
Nitrobenzene-d5	101		40 - 121	07/15/24 07:53	07/19/24 12:11	1
Phenol-d5	101		41 - 120	07/15/24 07:53	07/19/24 12:11	1
p-Terphenyl-d14	114		46 - 143	07/15/24 07:53	07/19/24 12:11	1

Lab Sample ID: LCS 480-718403/2-A
Matrix: Solid
Analysis Batch: 718990

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718403

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	1330	785		ug/Kg		59	23 - 120
2,4,5-Trichlorophenol	1330	1290		ug/Kg		97	59 - 126
2,4,6-Trichlorophenol	1330	1280		ug/Kg		96	59 - 123
2,4-Dichlorophenol	1330	1510		ug/Kg		113	61 - 120
2,4-Dimethylphenol	1330	1980	*+	ug/Kg		148	59 - 120
2,4-Dinitrophenol	2670	2650		ug/Kg		99	41 - 146
2,4-Dinitrotoluene	1330	1440		ug/Kg		108	63 - 120
2,6-Dinitrotoluene	1330	1440		ug/Kg		108	66 - 120
2-Chloronaphthalene	1330	1280		ug/Kg		96	57 - 120
2-Chlorophenol	1330	1110		ug/Kg		83	53 - 120
2-Methylnaphthalene	1330	1060		ug/Kg		80	59 - 120
2-Methylphenol	1330	1220		ug/Kg		92	54 - 120
2-Nitroaniline	1330	1540		ug/Kg		115	61 - 120
2-Nitrophenol	1330	1440		ug/Kg		108	56 - 120
3,3'-Dichlorobenzidine	2670	2400		ug/Kg		90	54 - 120
3-Nitroaniline	1330	1170		ug/Kg		88	48 - 120
4,6-Dinitro-2-methylphenol	2670	2590		ug/Kg		97	49 - 122
4-Bromophenyl phenyl ether	1330	1330		ug/Kg		100	58 - 120
4-Chloro-3-methylphenol	1330	1290		ug/Kg		96	61 - 120
4-Chloroaniline	1330	1120		ug/Kg		84	38 - 120
4-Chlorophenyl phenyl ether	1330	1600		ug/Kg		120	63 - 124
4-Methylphenol	1330	1270		ug/Kg		96	55 - 120
4-Nitroaniline	1330	1540		ug/Kg		115	56 - 120
4-Nitrophenol	2670	2980		ug/Kg		112	43 - 147
Acenaphthene	1330	1380		ug/Kg		103	62 - 120
Acenaphthylene	1330	1540		ug/Kg		115	58 - 121
Acetophenone	1330	1190		ug/Kg		90	54 - 120
Anthracene	1330	1310		ug/Kg		99	62 - 120
Atrazine	2670	2970	E	ug/Kg		112	60 - 127
Benzaldehyde	2670	2160		ug/Kg		81	10 - 150
Benzo[a]anthracene	1330	1300		ug/Kg		97	65 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-718403/2-A
Matrix: Solid
Analysis Batch: 718990

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718403

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzo[a]pyrene	1330	1370		ug/Kg		103	64 - 120
Benzo[b]fluoranthene	1330	1360		ug/Kg		102	64 - 120
Benzo[g,h,i]perylene	1330	1020		ug/Kg		76	45 - 145
Benzo[k]fluoranthene	1330	1540		ug/Kg		116	65 - 120
Biphenyl	1330	1270		ug/Kg		95	59 - 120
bis (2-chloroisopropyl) ether	1330	1310		ug/Kg		98	44 - 120
Bis(2-chloroethoxy)methane	1330	1570		ug/Kg		118	55 - 120
Bis(2-chloroethyl)ether	1330	1220		ug/Kg		92	45 - 120
Bis(2-ethylhexyl) phthalate	1330	1380		ug/Kg		103	61 - 133
Butyl benzyl phthalate	1330	1390		ug/Kg		104	61 - 129
Caprolactam	2670	2330		ug/Kg		87	47 - 120
Carbazole	1330	1280		ug/Kg		96	65 - 120
Chrysene	1330	1220		ug/Kg		92	64 - 120
Dibenz(a,h)anthracene	1330	932		ug/Kg		70	54 - 132
Dibenzofuran	1330	1370		ug/Kg		103	63 - 120
Diethyl phthalate	1330	1710	*+	ug/Kg		128	66 - 120
Dimethyl phthalate	1330	1510		ug/Kg		113	65 - 124
Di-n-butyl phthalate	1330	1330		ug/Kg		100	58 - 130
Di-n-octyl phthalate	1330	1300		ug/Kg		97	57 - 133
Fluoranthene	1330	1250		ug/Kg		94	62 - 120
Fluorene	1330	1660	*+	ug/Kg		124	63 - 120
Hexachlorobenzene	1330	1340		ug/Kg		101	60 - 120
Hexachlorobutadiene	1330	1060		ug/Kg		80	45 - 120
Hexachlorocyclopentadiene	1330	1600		ug/Kg		120	47 - 120
Hexachloroethane	1330	1100		ug/Kg		82	41 - 120
Indeno[1,2,3-cd]pyrene	1330	934		ug/Kg		70	56 - 134
Isophorone	1330	1600		ug/Kg		120	56 - 120
Naphthalene	1330	1140		ug/Kg		85	55 - 120
Nitrobenzene	1330	1430		ug/Kg		107	54 - 120
N-Nitrosodi-n-propylamine	1330	1240		ug/Kg		93	52 - 120
Pentachlorophenol	2670	2640		ug/Kg		99	10 - 120
Phenanthrene	1330	1350		ug/Kg		101	60 - 120
Phenol	1330	1160		ug/Kg		87	53 - 120
Pyrene	1330	1400		ug/Kg		105	61 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*101*		*26 - 143*
2-Fluorobiphenyl	*94*		*50 - 121*
2-Fluorophenol	*68*		*36 - 120*
Nitrobenzene-d5	*117*		*40 - 121*
Phenol-d5	*90*		*41 - 120*
p-Terphenyl-d14	*103*		*46 - 143*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-221553-6 MS
Matrix: Solid
Analysis Batch: 718990

Client Sample ID: HA-05-3.0-4.0-MS
Prep Type: Total/NA
Prep Batch: 718403

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	ND		1580	1170		ug/Kg	☼	74	13 - 120
2,4,5-Trichlorophenol	ND		1580	1490		ug/Kg	☼	94	46 - 120
2,4,6-Trichlorophenol	ND		1580	1540		ug/Kg	☼	97	41 - 123
2,4-Dichlorophenol	ND		1580	1370		ug/Kg	☼	87	45 - 120
2,4-Dimethylphenol	ND	F1 *+	1580	1910	F1	ug/Kg	☼	121	52 - 120
2,4-Dinitrophenol	ND		3170	2510		ug/Kg	☼	79	41 - 146
2,4-Dinitrotoluene	ND		1580	1530		ug/Kg	☼	96	63 - 125
2,6-Dinitrotoluene	ND		1580	1510		ug/Kg	☼	95	66 - 120
2-Chloronaphthalene	ND		1580	1520		ug/Kg	☼	96	57 - 120
2-Chlorophenol	ND		1580	1450		ug/Kg	☼	91	43 - 120
2-Methylnaphthalene	ND		1580	1400		ug/Kg	☼	88	55 - 120
2-Methylphenol	ND		1580	1610		ug/Kg	☼	102	48 - 120
2-Nitroaniline	ND		1580	1570		ug/Kg	☼	99	61 - 120
2-Nitrophenol	ND		1580	1420		ug/Kg	☼	90	37 - 120
3,3'-Dichlorobenzidine	ND		3170	2770		ug/Kg	☼	87	37 - 126
3-Nitroaniline	ND		1580	1320		ug/Kg	☼	83	48 - 120
4,6-Dinitro-2-methylphenol	ND		3170	3180		ug/Kg	☼	100	23 - 149
4-Bromophenyl phenyl ether	ND		1580	1650		ug/Kg	☼	104	58 - 120
4-Chloro-3-methylphenol	ND		1580	1610		ug/Kg	☼	102	49 - 125
4-Chloroaniline	ND		1580	1400		ug/Kg	☼	88	38 - 120
4-Chlorophenyl phenyl ether	ND		1580	1480		ug/Kg	☼	94	63 - 124
4-Methylphenol	ND		1580	1690		ug/Kg	☼	107	50 - 120
4-Nitroaniline	ND		1580	1250		ug/Kg	☼	79	47 - 120
4-Nitrophenol	ND		3170	3080		ug/Kg	☼	97	31 - 147
Acenaphthene	ND		1580	1510		ug/Kg	☼	96	60 - 120
Acenaphthylene	ND		1580	1620		ug/Kg	☼	102	58 - 121
Acetophenone	ND		1580	1640		ug/Kg	☼	104	47 - 120
Anthracene	ND		1580	1540		ug/Kg	☼	97	62 - 120
Atrazine	ND		3170	2550		ug/Kg	☼	80	60 - 150
Benzaldehyde	ND	F2	3170	3270	E	ug/Kg	☼	103	10 - 150
Benzo[a]anthracene	ND		1580	1490		ug/Kg	☼	94	65 - 120
Benzo[a]pyrene	ND		1580	1580		ug/Kg	☼	100	64 - 120
Benzo[b]fluoranthene	ND		1580	1910		ug/Kg	☼	121	10 - 150
Benzo[g,h,i]perylene	ND		1580	1840		ug/Kg	☼	116	45 - 145
Benzo[k]fluoranthene	ND	F2	1580	1930		ug/Kg	☼	122	23 - 150
Biphenyl	ND		1580	1510		ug/Kg	☼	96	58 - 120
bis (2-chloroisopropyl) ether	ND		1580	1830		ug/Kg	☼	116	31 - 120
Bis(2-chloroethoxy)methane	ND		1580	1530		ug/Kg	☼	97	52 - 120
Bis(2-chloroethyl)ether	ND		1580	1690		ug/Kg	☼	106	45 - 120
Bis(2-ethylhexyl) phthalate	ND		1580	1740		ug/Kg	☼	110	61 - 133
Butyl benzyl phthalate	ND		1580	1720		ug/Kg	☼	109	61 - 120
Caprolactam	ND		3170	2730		ug/Kg	☼	86	37 - 133
Carbazole	ND		1580	1440		ug/Kg	☼	91	59 - 120
Chrysene	ND		1580	1470		ug/Kg	☼	93	64 - 120
Dibenz(a,h)anthracene	ND		1580	1820		ug/Kg	☼	115	54 - 132
Dibenzofuran	ND		1580	1460		ug/Kg	☼	92	62 - 120
Diethyl phthalate	ND	*+	1580	1500		ug/Kg	☼	95	66 - 120
Dimethyl phthalate	ND		1580	1590		ug/Kg	☼	100	65 - 124

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-221553-6 MS
Matrix: Solid
Analysis Batch: 718990

Client Sample ID: HA-05-3.0-4.0-MS
Prep Type: Total/NA
Prep Batch: 718403

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Di-n-butyl phthalate	ND		1580	1570		ug/Kg	☼	99	58 - 130
Di-n-octyl phthalate	ND		1580	1580		ug/Kg	☼	100	57 - 133
Fluoranthene	ND	F2	1580	1320		ug/Kg	☼	83	62 - 120
Fluorene	ND	*+	1580	1450		ug/Kg	☼	92	63 - 120
Hexachlorobenzene	ND		1580	1590		ug/Kg	☼	101	60 - 120
Hexachlorobutadiene	ND		1580	1520		ug/Kg	☼	96	45 - 120
Hexachlorocyclopentadiene	ND	F1	1580	1990	F1	ug/Kg	☼	126	31 - 120
Hexachloroethane	ND		1580	1590		ug/Kg	☼	100	21 - 120
Indeno[1,2,3-cd]pyrene	ND		1580	1800		ug/Kg	☼	113	56 - 134
Isophorone	ND		1580	1460		ug/Kg	☼	92	56 - 120
Naphthalene	ND		1580	1440		ug/Kg	☼	91	46 - 120
Nitrobenzene	ND		1580	1590		ug/Kg	☼	100	49 - 120
N-Nitrosodi-n-propylamine	ND		1580	1800		ug/Kg	☼	114	46 - 120
Pentachlorophenol	ND		3170	3130		ug/Kg	☼	99	10 - 136
Phenanthrene	ND		1580	1600		ug/Kg	☼	101	60 - 122
Phenol	ND		1580	1520		ug/Kg	☼	96	50 - 120
Pyrene	ND		1580	1960		ug/Kg	☼	124	61 - 133

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol	*105*		*26 - 143*
2-Fluorobiphenyl	*97*		*50 - 121*
2-Fluorophenol	*112*		*36 - 120*
Nitrobenzene-d5	*101*		*40 - 121*
Phenol-d5	*97*		*41 - 120*
p-Terphenyl-d14	*114*		*46 - 143*

Lab Sample ID: 480-221553-6 MSD
Matrix: Solid
Analysis Batch: 718990

Client Sample ID: HA-05-3.0-4.0-MSD
Prep Type: Total/NA
Prep Batch: 718403

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane	ND		1620	877		ug/Kg	☼	54	13 - 120	29	50
2,4,5-Trichlorophenol	ND		1620	1310		ug/Kg	☼	81	46 - 120	13	18
2,4,6-Trichlorophenol	ND		1620	1440		ug/Kg	☼	89	41 - 123	7	19
2,4-Dichlorophenol	ND		1620	1610		ug/Kg	☼	99	45 - 120	16	19
2,4-Dimethylphenol	ND	F1 *+	1620	1970	F1	ug/Kg	☼	122	52 - 120	3	42
2,4-Dinitrophenol	ND		3250	2840		ug/Kg	☼	87	41 - 146	12	22
2,4-Dinitrotoluene	ND		1620	1650		ug/Kg	☼	102	63 - 125	8	20
2,6-Dinitrotoluene	ND		1620	1450		ug/Kg	☼	90	66 - 120	4	15
2-Chloronaphthalene	ND		1620	1430		ug/Kg	☼	88	57 - 120	6	21
2-Chlorophenol	ND		1620	1450		ug/Kg	☼	89	43 - 120	0	25
2-Methylnaphthalene	ND		1620	1210		ug/Kg	☼	74	55 - 120	15	21
2-Methylphenol	ND		1620	1540		ug/Kg	☼	95	48 - 120	5	27
2-Nitroaniline	ND		1620	1590		ug/Kg	☼	98	61 - 120	2	15
2-Nitrophenol	ND		1620	1510		ug/Kg	☼	93	37 - 120	6	18
3,3'-Dichlorobenzidine	ND		3250	3050		ug/Kg	☼	94	37 - 126	10	25
3-Nitroaniline	ND		1620	1360		ug/Kg	☼	84	48 - 120	3	19
4,6-Dinitro-2-methylphenol	ND		3250	3430		ug/Kg	☼	106	23 - 149	8	15

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-221553-6 MSD
Matrix: Solid
Analysis Batch: 718990

Client Sample ID: HA-05-3.0-4.0-MSD
Prep Type: Total/NA
Prep Batch: 718403

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4-Bromophenyl phenyl ether	ND		1620	1690		ug/Kg	☼	104	58 - 120	3	15
4-Chloro-3-methylphenol	ND		1620	1470		ug/Kg	☼	91	49 - 125	9	27
4-Chloroaniline	ND		1620	1460		ug/Kg	☼	90	38 - 120	4	22
4-Chlorophenyl phenyl ether	ND		1620	1600		ug/Kg	☼	99	63 - 124	8	16
4-Methylphenol	ND		1620	1640		ug/Kg	☼	101	50 - 120	3	24
4-Nitroaniline	ND		1620	1410		ug/Kg	☼	87	47 - 120	12	24
4-Nitrophenol	ND		3250	3430		ug/Kg	☼	106	31 - 147	11	25
Acenaphthene	ND		1620	1600		ug/Kg	☼	99	60 - 120	6	35
Acenaphthylene	ND		1620	1500		ug/Kg	☼	92	58 - 121	8	18
Acetophenone	ND		1620	1480		ug/Kg	☼	91	47 - 120	10	20
Anthracene	ND		1620	1640		ug/Kg	☼	101	62 - 120	6	15
Atrazine	ND		3250	2870		ug/Kg	☼	88	60 - 150	12	20
Benzaldehyde	ND	F2	3250	2650	F2	ug/Kg	☼	82	10 - 150	21	20
Benzo[a]anthracene	ND		1620	1650		ug/Kg	☼	101	65 - 120	10	15
Benzo[a]pyrene	ND		1620	1680		ug/Kg	☼	104	64 - 120	6	15
Benzo[b]fluoranthene	ND		1620	1880		ug/Kg	☼	116	10 - 150	2	15
Benzo[g,h,i]perylene	ND		1620	1740		ug/Kg	☼	107	45 - 145	6	15
Benzo[k]fluoranthene	ND	F2	1620	1500	F2	ug/Kg	☼	93	23 - 150	25	22
Biphenyl	ND		1620	1370		ug/Kg	☼	85	58 - 120	10	20
bis (2-chloroisopropyl) ether	ND		1620	1610		ug/Kg	☼	99	31 - 120	13	24
Bis(2-chloroethoxy)methane	ND		1620	1590		ug/Kg	☼	98	52 - 120	4	17
Bis(2-chloroethyl)ether	ND		1620	1490		ug/Kg	☼	92	45 - 120	12	21
Bis(2-ethylhexyl) phthalate	ND		1620	1710		ug/Kg	☼	106	61 - 133	1	15
Butyl benzyl phthalate	ND		1620	1760		ug/Kg	☼	108	61 - 120	2	16
Caprolactam	ND		3250	2720		ug/Kg	☼	84	37 - 133	0	20
Carbazole	ND		1620	1590		ug/Kg	☼	98	59 - 120	10	20
Chrysene	ND		1620	1520		ug/Kg	☼	94	64 - 120	4	15
Dibenz(a,h)anthracene	ND		1620	1680		ug/Kg	☼	104	54 - 132	8	15
Dibenzofuran	ND		1620	1580		ug/Kg	☼	97	62 - 120	8	15
Diethyl phthalate	ND	*+	1620	1640		ug/Kg	☼	101	66 - 120	9	15
Dimethyl phthalate	ND		1620	1460		ug/Kg	☼	90	65 - 124	8	15
Di-n-butyl phthalate	ND		1620	1680		ug/Kg	☼	104	58 - 130	7	15
Di-n-octyl phthalate	ND		1620	1630		ug/Kg	☼	100	57 - 133	3	16
Fluoranthene	ND	F2	1620	1600	F2	ug/Kg	☼	99	62 - 120	20	15
Fluorene	ND	*+	1620	1560		ug/Kg	☼	96	63 - 120	7	15
Hexachlorobenzene	ND		1620	1640		ug/Kg	☼	101	60 - 120	3	15
Hexachlorobutadiene	ND		1620	1430		ug/Kg	☼	88	45 - 120	7	44
Hexachlorocyclopentadiene	ND	F1	1620	1710		ug/Kg	☼	105	31 - 120	15	49
Hexachloroethane	ND		1620	1360		ug/Kg	☼	84	21 - 120	16	46
Indeno[1,2,3-cd]pyrene	ND		1620	1640		ug/Kg	☼	101	56 - 134	9	15
Isophorone	ND		1620	1590		ug/Kg	☼	98	56 - 120	9	17
Naphthalene	ND		1620	1460		ug/Kg	☼	90	46 - 120	1	29
Nitrobenzene	ND		1620	1550		ug/Kg	☼	95	49 - 120	2	24
N-Nitrosodi-n-propylamine	ND		1620	1560		ug/Kg	☼	96	46 - 120	14	31
Pentachlorophenol	ND		3250	3350		ug/Kg	☼	103	10 - 136	7	35
Phenanthrene	ND		1620	1680		ug/Kg	☼	104	60 - 122	5	15
Phenol	ND		1620	1460		ug/Kg	☼	90	50 - 120	4	35
Pyrene	ND		1620	1790		ug/Kg	☼	110	61 - 133	9	35

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-221553-6 MSD
Matrix: Solid
Analysis Batch: 718990

Client Sample ID: HA-05-3.0-4.0-MSD
Prep Type: Total/NA
Prep Batch: 718403

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*109*		*26 - 143*
2-Fluorobiphenyl	*85*		*50 - 121*
2-Fluorophenol	*92*		*36 - 120*
Nitrobenzene-d5	*97*		*40 - 121*
Phenol-d5	*94*		*41 - 120*
p-Terphenyl-d14	*111*		*46 - 143*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 480-718393/1-A
Matrix: Water
Analysis Batch: 718419

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718393

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		07/14/24 09:20	07/15/24 10:55	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*20*		*15 - 110*	*07/14/24 09:20*	*07/15/24 10:55*	*1*

Lab Sample ID: LCS 480-718393/2-A
Matrix: Water
Analysis Batch: 718419

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718393

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,4-Dioxane			2.00	2.24		ug/L		112	40 - 140		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*21*		*15 - 110*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 480-718399/1-A
Matrix: Solid
Analysis Batch: 718531

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718399

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1.7	0.32	ug/Kg		07/15/24 07:45	07/16/24 09:40	1
4,4'-DDE	ND		1.7	0.35	ug/Kg		07/15/24 07:45	07/16/24 09:40	1
4,4'-DDT	ND		1.7	0.39	ug/Kg		07/15/24 07:45	07/16/24 09:40	1
Aldrin	ND		1.7	0.41	ug/Kg		07/15/24 07:45	07/16/24 09:40	1
alpha-BHC	ND		1.7	0.30	ug/Kg		07/15/24 07:45	07/16/24 09:40	1
cis-Chlordane	ND		1.7	0.83	ug/Kg		07/15/24 07:45	07/16/24 09:40	1
beta-BHC	ND		1.7	0.30	ug/Kg		07/15/24 07:45	07/16/24 09:40	1
delta-BHC	ND		1.7	0.31	ug/Kg		07/15/24 07:45	07/16/24 09:40	1
Dieldrin	ND		1.7	0.40	ug/Kg		07/15/24 07:45	07/16/24 09:40	1
Endosulfan I	ND		1.7	0.32	ug/Kg		07/15/24 07:45	07/16/24 09:40	1
Endosulfan II	ND		1.7	0.30	ug/Kg		07/15/24 07:45	07/16/24 09:40	1
Endosulfan sulfate	ND		1.7	0.31	ug/Kg		07/15/24 07:45	07/16/24 09:40	1
Endrin	ND		1.7	0.33	ug/Kg		07/15/24 07:45	07/16/24 09:40	1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 480-718399/1-A
Matrix: Solid
Analysis Batch: 718531

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718399

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin aldehyde	ND		1.7	0.43	ug/Kg		07/15/24 07:45	07/16/24 09:40	1
Endrin ketone	ND		1.7	0.41	ug/Kg		07/15/24 07:45	07/16/24 09:40	1
gamma-BHC (Lindane)	ND		1.7	0.31	ug/Kg		07/15/24 07:45	07/16/24 09:40	1
trans-Chlordane	ND		1.7	0.53	ug/Kg		07/15/24 07:45	07/16/24 09:40	1
Heptachlor	ND		1.7	0.36	ug/Kg		07/15/24 07:45	07/16/24 09:40	1
Heptachlor epoxide	ND		1.7	0.43	ug/Kg		07/15/24 07:45	07/16/24 09:40	1
Methoxychlor	ND		1.7	0.34	ug/Kg		07/15/24 07:45	07/16/24 09:40	1
Toxaphene	ND		17	9.7	ug/Kg		07/15/24 07:45	07/16/24 09:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*114*		*45 - 120*	*07/15/24 07:45*	*07/16/24 09:40*	*1*
DCB Decachlorobiphenyl	*104*		*45 - 120*	*07/15/24 07:45*	*07/16/24 09:40*	*1*
Tetrachloro-m-xylene	*95*		*30 - 124*	*07/15/24 07:45*	*07/16/24 09:40*	*1*
Tetrachloro-m-xylene	*94*		*30 - 124*	*07/15/24 07:45*	*07/16/24 09:40*	*1*

Lab Sample ID: LCS 480-718399/2-A
Matrix: Solid
Analysis Batch: 718531

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718399

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	16.7	18.0		ug/Kg		108	56 - 120
4,4'-DDE	16.7	16.9		ug/Kg		101	44 - 120
4,4'-DDT	16.7	18.5		ug/Kg		111	38 - 120
Aldrin	16.7	16.3		ug/Kg		98	38 - 120
alpha-BHC	16.7	15.6		ug/Kg		93	39 - 120
cis-Chlordane	16.7	17.2		ug/Kg		103	47 - 120
beta-BHC	16.7	15.4		ug/Kg		92	40 - 120
delta-BHC	16.7	15.3		ug/Kg		92	45 - 120
Dieldrin	16.7	18.1		ug/Kg		109	58 - 120
Endosulfan I	16.7	16.9		ug/Kg		101	49 - 120
Endosulfan II	16.7	17.8		ug/Kg		107	55 - 120
Endosulfan sulfate	16.7	12.8		ug/Kg		77	49 - 124
Endrin	16.7	17.4		ug/Kg		104	58 - 120
Endrin aldehyde	16.7	15.0		ug/Kg		90	37 - 121
Endrin ketone	16.7	18.5		ug/Kg		111	46 - 123
gamma-BHC (Lindane)	16.7	16.9		ug/Kg		101	50 - 120
trans-Chlordane	16.7	16.7		ug/Kg		100	48 - 120
Heptachlor	16.7	17.9		ug/Kg		108	50 - 120
Heptachlor epoxide	16.7	16.0		ug/Kg		96	50 - 120
Methoxychlor	16.7	19.4		ug/Kg		116	58 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*94*		*45 - 120*
DCB Decachlorobiphenyl	*94*		*45 - 120*
Tetrachloro-m-xylene	*89*		*30 - 124*
Tetrachloro-m-xylene	*83*		*30 - 124*

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 480-221553-6 MS
Matrix: Solid
Analysis Batch: 718531

Client Sample ID: HA-05-3.0-4.0-MS
Prep Type: Total/NA
Prep Batch: 718399

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	ND		20.0	21.4		ug/Kg	☼	107	37 - 126
4,4'-DDE	ND		20.0	20.0		ug/Kg	☼	100	34 - 120
4,4'-DDT	0.61	J	20.0	22.3		ug/Kg	☼	108	43 - 123
Aldrin	ND		20.0	20.4		ug/Kg	☼	102	37 - 125
alpha-BHC	ND		20.0	19.1		ug/Kg	☼	95	39 - 120
cis-Chlordane	ND		20.0	20.3		ug/Kg	☼	101	35 - 120
beta-BHC	ND		20.0	18.2		ug/Kg	☼	91	36 - 120
delta-BHC	ND		20.0	18.5		ug/Kg	☼	93	34 - 120
Dieldrin	ND		20.0	21.7		ug/Kg	☼	109	45 - 120
Endosulfan I	ND		20.0	20.0		ug/Kg	☼	100	39 - 120
Endosulfan II	ND		20.0	21.6		ug/Kg	☼	108	34 - 126
Endosulfan sulfate	ND		20.0	15.7		ug/Kg	☼	78	27 - 130
Endrin	ND		20.0	21.5		ug/Kg	☼	108	47 - 121
Endrin aldehyde	ND		20.0	19.5		ug/Kg	☼	98	33 - 123
Endrin ketone	ND		20.0	23.7		ug/Kg	☼	119	43 - 126
gamma-BHC (Lindane)	ND		20.0	20.2		ug/Kg	☼	101	50 - 120
trans-Chlordane	ND	F1	20.0	42.8	F1	ug/Kg	☼	214	31 - 120
Heptachlor	ND		20.0	22.1		ug/Kg	☼	111	42 - 120
Heptachlor epoxide	ND		20.0	20.3		ug/Kg	☼	102	40 - 120
Methoxychlor	ND		20.0	22.4		ug/Kg	☼	112	44 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*90*		*45 - 120*
DCB Decachlorobiphenyl	*94*		*45 - 120*
Tetrachloro-m-xylene	*89*		*30 - 124*
Tetrachloro-m-xylene	*91*		*30 - 124*

Lab Sample ID: 480-221553-6 MSD
Matrix: Solid
Analysis Batch: 718531

Client Sample ID: HA-05-3.0-4.0-MSD
Prep Type: Total/NA
Prep Batch: 718399

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	ND		20.0	21.6		ug/Kg	☼	108	37 - 126	1	21
4,4'-DDE	ND		20.0	20.3		ug/Kg	☼	101	34 - 120	1	18
4,4'-DDT	0.61	J	20.0	22.7		ug/Kg	☼	110	43 - 123	2	25
Aldrin	ND		20.0	21.4		ug/Kg	☼	107	37 - 125	5	12
alpha-BHC	ND		20.0	19.6		ug/Kg	☼	98	39 - 120	3	15
cis-Chlordane	ND		20.0	20.7		ug/Kg	☼	103	35 - 120	2	23
beta-BHC	ND		20.0	18.9		ug/Kg	☼	94	36 - 120	4	19
delta-BHC	ND		20.0	18.6		ug/Kg	☼	93	34 - 120	1	14
Dieldrin	ND		20.0	22.2		ug/Kg	☼	111	45 - 120	2	12
Endosulfan I	ND		20.0	20.6		ug/Kg	☼	103	39 - 120	3	18
Endosulfan II	ND		20.0	22.0		ug/Kg	☼	110	34 - 126	2	26
Endosulfan sulfate	ND		20.0	15.0		ug/Kg	☼	75	27 - 130	4	35
Endrin	ND		20.0	21.8		ug/Kg	☼	109	47 - 121	1	20
Endrin aldehyde	ND		20.0	19.6		ug/Kg	☼	98	33 - 123	1	47
Endrin ketone	ND		20.0	24.0		ug/Kg	☼	120	43 - 126	1	37
gamma-BHC (Lindane)	ND		20.0	20.8		ug/Kg	☼	104	50 - 120	3	12

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 480-221553-6 MSD
Matrix: Solid
Analysis Batch: 718531

Client Sample ID: HA-05-3.0-4.0-MSD
Prep Type: Total/NA
Prep Batch: 718399

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
trans-Chlordane	ND	F1	20.0	41.1	F1	ug/Kg	☼	205	31 - 120	4	15
Heptachlor	ND		20.0	22.7		ug/Kg	☼	113	42 - 120	3	22
Heptachlor epoxide	ND		20.0	19.7		ug/Kg	☼	98	40 - 120	3	15
Methoxychlor	ND		20.0	23.6		ug/Kg	☼	118	44 - 150	5	24

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*80*		*45 - 120*
DCB Decachlorobiphenyl	*101*		*45 - 120*
Tetrachloro-m-xylene	*87*		*30 - 124*
Tetrachloro-m-xylene	*93*		*30 - 124*

Lab Sample ID: MB 480-718568/1-A
Matrix: Water
Analysis Batch: 718688

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718568

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.050	0.0092	ug/L		07/16/24 09:36	07/17/24 09:57	1
4,4'-DDE	ND		0.050	0.012	ug/L		07/16/24 09:36	07/17/24 09:57	1
4,4'-DDT	ND		0.050	0.011	ug/L		07/16/24 09:36	07/17/24 09:57	1
Aldrin	ND		0.050	0.0081	ug/L		07/16/24 09:36	07/17/24 09:57	1
alpha-BHC	0.00864	J	0.050	0.0077	ug/L		07/16/24 09:36	07/17/24 09:57	1
cis-Chlordane	ND		0.050	0.015	ug/L		07/16/24 09:36	07/17/24 09:57	1
beta-BHC	ND		0.050	0.025	ug/L		07/16/24 09:36	07/17/24 09:57	1
delta-BHC	ND		0.050	0.010	ug/L		07/16/24 09:36	07/17/24 09:57	1
Dieldrin	ND		0.050	0.0098	ug/L		07/16/24 09:36	07/17/24 09:57	1
Endosulfan I	ND		0.050	0.011	ug/L		07/16/24 09:36	07/17/24 09:57	1
Endosulfan II	ND		0.050	0.012	ug/L		07/16/24 09:36	07/17/24 09:57	1
Endosulfan sulfate	ND		0.050	0.016	ug/L		07/16/24 09:36	07/17/24 09:57	1
Endrin	ND		0.050	0.014	ug/L		07/16/24 09:36	07/17/24 09:57	1
Endrin aldehyde	ND		0.050	0.016	ug/L		07/16/24 09:36	07/17/24 09:57	1
Endrin ketone	ND		0.050	0.012	ug/L		07/16/24 09:36	07/17/24 09:57	1
gamma-BHC (Lindane)	0.0108	J	0.050	0.0080	ug/L		07/16/24 09:36	07/17/24 09:57	1
trans-Chlordane	ND		0.050	0.011	ug/L		07/16/24 09:36	07/17/24 09:57	1
Heptachlor	ND		0.050	0.0085	ug/L		07/16/24 09:36	07/17/24 09:57	1
Heptachlor epoxide	ND		0.050	0.0074	ug/L		07/16/24 09:36	07/17/24 09:57	1
Methoxychlor	ND		0.050	0.014	ug/L		07/16/24 09:36	07/17/24 09:57	1
Toxaphene	ND		0.50	0.12	ug/L		07/16/24 09:36	07/17/24 09:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*51*		*10 - 120*	*07/16/24 09:36*	*07/17/24 09:57*	*1*
DCB Decachlorobiphenyl	*46*		*10 - 120*	*07/16/24 09:36*	*07/17/24 09:57*	*1*
Tetrachloro-m-xylene	*76*		*10 - 120*	*07/16/24 09:36*	*07/17/24 09:57*	*1*
Tetrachloro-m-xylene	*63*		*10 - 120*	*07/16/24 09:36*	*07/17/24 09:57*	*1*

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 480-718568/2-A
Matrix: Water
Analysis Batch: 718688

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718568

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
4,4'-DDD			0.400	0.428		ug/L		107	64 - 129		
4,4'-DDE			0.400	0.355		ug/L		89	50 - 120		
4,4'-DDT			0.400	0.463		ug/L		116	59 - 120		
Aldrin			0.400	0.224		ug/L		56	40 - 125		
alpha-BHC			0.400	0.306		ug/L		77	52 - 125		
cis-Chlordane			0.400	0.351		ug/L		88	52 - 120		
beta-BHC			0.400	0.383		ug/L		96	51 - 120		
delta-BHC			0.400	0.373		ug/L		93	51 - 120		
Dieldrin			0.400	0.445		ug/L		111	66 - 128		
Endosulfan I			0.400	0.418		ug/L		104	57 - 120		
Endosulfan II			0.400	0.454		ug/L		113	66 - 131		
Endosulfan sulfate			0.400	0.414		ug/L		104	66 - 136		
Endrin			0.400	0.440		ug/L		110	65 - 135		
Endrin aldehyde			0.400	0.399		ug/L		100	61 - 134		
Endrin ketone			0.400	0.471		ug/L		118	71 - 133		
gamma-BHC (Lindane)			0.400	0.366		ug/L		91	56 - 120		
trans-Chlordane			0.400	0.372		ug/L		93	54 - 120		
Heptachlor			0.400	0.377		ug/L		94	58 - 120		
Heptachlor epoxide			0.400	0.432		ug/L		108	65 - 125		
Methoxychlor			0.400	0.518		ug/L		129	50 - 150		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*51*		*10 - 120*
DCB Decachlorobiphenyl	*46*		*10 - 120*
Tetrachloro-m-xylene	*77*		*10 - 120*
Tetrachloro-m-xylene	*64*		*10 - 120*

Lab Sample ID: LCSD 480-718568/3-A
Matrix: Water
Analysis Batch: 718688

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 718568

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD			0.400	0.450		ug/L		112	64 - 129	5	23
4,4'-DDE			0.400	0.368		ug/L		92	50 - 120	3	22
4,4'-DDT			0.400	0.501	*+	ug/L		125	59 - 120	8	24
Aldrin			0.400	0.285		ug/L		71	40 - 125	24	25
alpha-BHC			0.400	0.334		ug/L		83	52 - 125	9	24
cis-Chlordane			0.400	0.356		ug/L		89	52 - 120	1	23
beta-BHC			0.400	0.390		ug/L		98	51 - 120	2	24
delta-BHC			0.400	0.391		ug/L		98	51 - 120	5	24
Dieldrin			0.400	0.467		ug/L		117	66 - 128	5	24
Endosulfan I			0.400	0.444		ug/L		111	57 - 120	6	30
Endosulfan II			0.400	0.474		ug/L		119	66 - 131	4	40
Endosulfan sulfate			0.400	0.436		ug/L		109	66 - 136	5	24
Endrin			0.400	0.465		ug/L		116	65 - 135	5	24
Endrin aldehyde			0.400	0.414		ug/L		104	61 - 134	4	28
Endrin ketone			0.400	0.487		ug/L		122	71 - 133	3	26
gamma-BHC (Lindane)			0.400	0.389		ug/L		97	56 - 120	6	24

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 480-718568/3-A
Matrix: Water
Analysis Batch: 718688

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 718568

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
trans-Chlordane			0.400	0.379		ug/L		95	54 - 120	2	24
Heptachlor			0.400	0.409		ug/L		102	58 - 120	8	25
Heptachlor epoxide			0.400	0.457		ug/L		114	65 - 125	6	23
Methoxychlor			0.400	0.542		ug/L		135	50 - 150	5	26

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*55*		*10 - 120*
DCB Decachlorobiphenyl	*57*		*10 - 120*
Tetrachloro-m-xylene	*75*		*10 - 120*
Tetrachloro-m-xylene	*69*		*10 - 120*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 480-718405/1-A
Matrix: Solid
Analysis Batch: 718748

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718405

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.25	0.049	mg/Kg		07/15/24 08:01	07/18/24 04:25	1
PCB-1221	ND		0.25	0.049	mg/Kg		07/15/24 08:01	07/18/24 04:25	1
PCB-1232	ND		0.25	0.049	mg/Kg		07/15/24 08:01	07/18/24 04:25	1
PCB-1242	ND		0.25	0.049	mg/Kg		07/15/24 08:01	07/18/24 04:25	1
PCB-1248	ND		0.25	0.049	mg/Kg		07/15/24 08:01	07/18/24 04:25	1
PCB-1254	ND		0.25	0.12	mg/Kg		07/15/24 08:01	07/18/24 04:25	1
PCB-1260	ND		0.25	0.12	mg/Kg		07/15/24 08:01	07/18/24 04:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*120*		*65 - 174*	*07/15/24 08:01*	*07/18/24 04:25*	*1*
DCB Decachlorobiphenyl	*131*		*65 - 174*	*07/15/24 08:01*	*07/18/24 04:25*	*1*
Tetrachloro-m-xylene	*128*		*60 - 154*	*07/15/24 08:01*	*07/18/24 04:25*	*1*
Tetrachloro-m-xylene	*117*		*60 - 154*	*07/15/24 08:01*	*07/18/24 04:25*	*1*

Lab Sample ID: LCS 480-718405/2-A
Matrix: Solid
Analysis Batch: 718748

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718405

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016			2.50	3.11		mg/Kg		124	51 - 185
PCB-1260			2.50	3.39		mg/Kg		136	61 - 184

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*136*		*65 - 174*
DCB Decachlorobiphenyl	*152*		*65 - 174*
Tetrachloro-m-xylene	*151*		*60 - 154*
Tetrachloro-m-xylene	*124*		*60 - 154*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 480-221553-6 MS
Matrix: Solid
Analysis Batch: 718748

Client Sample ID: HA-05-3.0-4.0-MS
Prep Type: Total/NA
Prep Batch: 718405

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016	ND		2.90	3.69		mg/Kg	☼	127	50 - 177
PCB-1260	ND		2.90	4.06		mg/Kg	☼	140	33 - 200

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*160*	*S1+*	*60 - 154*
Tetrachloro-m-xylene	*137*		*60 - 154*
DCB Decachlorobiphenyl	*148*		*65 - 174*
DCB Decachlorobiphenyl	*161*		*65 - 174*

Lab Sample ID: 480-221553-6 MSD
Matrix: Solid
Analysis Batch: 718748

Client Sample ID: HA-05-3.0-4.0-MSD
Prep Type: Total/NA
Prep Batch: 718405

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016	ND		2.15	2.99		mg/Kg	☼	139	50 - 177	21	50
PCB-1260	ND		2.15	3.16		mg/Kg	☼	147	33 - 200	25	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*169*	*S1+*	*60 - 154*
Tetrachloro-m-xylene	*154*		*60 - 154*
DCB Decachlorobiphenyl	*154*		*65 - 174*
DCB Decachlorobiphenyl	*169*		*65 - 174*

Lab Sample ID: MB 480-718610/1-A
Matrix: Water
Analysis Batch: 718599

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718610

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		07/16/24 13:19	07/16/24 23:35	1
PCB-1221	ND		0.50	0.18	ug/L		07/16/24 13:19	07/16/24 23:35	1
PCB-1232	ND		0.50	0.18	ug/L		07/16/24 13:19	07/16/24 23:35	1
PCB-1242	ND		0.50	0.18	ug/L		07/16/24 13:19	07/16/24 23:35	1
PCB-1248	ND		0.50	0.18	ug/L		07/16/24 13:19	07/16/24 23:35	1
PCB-1254	ND		0.50	0.25	ug/L		07/16/24 13:19	07/16/24 23:35	1
PCB-1260	ND		0.50	0.25	ug/L		07/16/24 13:19	07/16/24 23:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*60*		*10 - 123*	*07/16/24 13:19*	*07/16/24 23:35*	*1*
DCB Decachlorobiphenyl	*63*		*10 - 123*	*07/16/24 13:19*	*07/16/24 23:35*	*1*
Tetrachloro-m-xylene	*71*		*10 - 145*	*07/16/24 13:19*	*07/16/24 23:35*	*1*
Tetrachloro-m-xylene	*63*		*10 - 145*	*07/16/24 13:19*	*07/16/24 23:35*	*1*

Lab Sample ID: LCS 480-718610/2-A
Matrix: Water
Analysis Batch: 718599

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718610

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016	4.00	3.23		ug/L		81	62 - 130

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 480-718610/2-A
Matrix: Water
Analysis Batch: 718599

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718610

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
PCB-1260			4.00	3.36		ug/L		84	56 - 123		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*69*		*10 - 123*
DCB Decachlorobiphenyl	*60*		*10 - 123*
Tetrachloro-m-xylene	*60*		*10 - 145*
Tetrachloro-m-xylene	*63*		*10 - 145*

Lab Sample ID: LCSD 480-718610/3-A
Matrix: Water
Analysis Batch: 718599

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 718610

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016			4.00	3.39		ug/L		85	62 - 130	5	50
PCB-1260			4.00	3.52		ug/L		88	56 - 123	5	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*65*		*10 - 123*
DCB Decachlorobiphenyl	*56*		*10 - 123*
Tetrachloro-m-xylene	*63*		*10 - 145*
Tetrachloro-m-xylene	*67*		*10 - 145*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Lab Sample ID: MB 240-619819/1-A
Matrix: Water
Analysis Batch: 619841

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 619819

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		8.0	2.1	ng/L		07/15/24 08:20	07/15/24 11:53	1
Perfluoropentanoic acid (PFPeA)	ND		4.0	1.0	ng/L		07/15/24 08:20	07/15/24 11:53	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.50	ng/L		07/15/24 08:20	07/15/24 11:53	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.50	ng/L		07/15/24 08:20	07/15/24 11:53	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.50	ng/L		07/15/24 08:20	07/15/24 11:53	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.50	ng/L		07/15/24 08:20	07/15/24 11:53	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.50	ng/L		07/15/24 08:20	07/15/24 11:53	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.50	ng/L		07/15/24 08:20	07/15/24 11:53	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.50	ng/L		07/15/24 08:20	07/15/24 11:53	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0	0.50	ng/L		07/15/24 08:20	07/15/24 11:53	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	0.50	ng/L		07/15/24 08:20	07/15/24 11:53	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.50	ng/L		07/15/24 08:20	07/15/24 11:53	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	0.50	ng/L		07/15/24 08:20	07/15/24 11:53	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.52	ng/L		07/15/24 08:20	07/15/24 11:53	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0	0.50	ng/L		07/15/24 08:20	07/15/24 11:53	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.50	ng/L		07/15/24 08:20	07/15/24 11:53	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0	0.50	ng/L		07/15/24 08:20	07/15/24 11:53	1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 240-619819/1-A
Matrix: Water
Analysis Batch: 619841

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 619819

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	0.50	ng/L		07/15/24 08:20	07/15/24 11:53	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		8.0	2.0	ng/L		07/15/24 08:20	07/15/24 11:53	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		8.0	2.0	ng/L		07/15/24 08:20	07/15/24 11:53	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		8.0	2.0	ng/L		07/15/24 08:20	07/15/24 11:53	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	0.50	ng/L		07/15/24 08:20	07/15/24 11:53	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	0.50	ng/L		07/15/24 08:20	07/15/24 11:53	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0	0.50	ng/L		07/15/24 08:20	07/15/24 11:53	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	0.62	ng/L		07/15/24 08:20	07/15/24 11:53	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	0.52	ng/L		07/15/24 08:20	07/15/24 11:53	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		20	5.0	ng/L		07/15/24 08:20	07/15/24 11:53	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		20	5.0	ng/L		07/15/24 08:20	07/15/24 11:53	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		8.0	2.0	ng/L		07/15/24 08:20	07/15/24 11:53	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		8.0	2.0	ng/L		07/15/24 08:20	07/15/24 11:53	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		4.0	1.0	ng/L		07/15/24 08:20	07/15/24 11:53	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		4.0	1.2	ng/L		07/15/24 08:20	07/15/24 11:53	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		8.0	2.0	ng/L		07/15/24 08:20	07/15/24 11:53	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		8.0	2.0	ng/L		07/15/24 08:20	07/15/24 11:53	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		4.0	1.0	ng/L		07/15/24 08:20	07/15/24 11:53	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		10	2.5	ng/L		07/15/24 08:20	07/15/24 11:53	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		50	13	ng/L		07/15/24 08:20	07/15/24 11:53	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		50	15	ng/L		07/15/24 08:20	07/15/24 11:53	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.50	ng/L		07/15/24 08:20	07/15/24 11:53	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		4.0	1.0	ng/L		07/15/24 08:20	07/15/24 11:53	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*102*		*10 - 130*	*07/15/24 08:20*	*07/15/24 11:53*	*1*
13C5 PFPeA	*103*		*35 - 150*	*07/15/24 08:20*	*07/15/24 11:53*	*1*
13C5 PFHxA	*105*		*55 - 150*	*07/15/24 08:20*	*07/15/24 11:53*	*1*
13C4 PFHpA	*92.5*		*55 - 150*	*07/15/24 08:20*	*07/15/24 11:53*	*1*
13C8 PFOA	*84.1*		*60 - 140*	*07/15/24 08:20*	*07/15/24 11:53*	*1*
13C9 PFNA	*87.4*		*55 - 140*	*07/15/24 08:20*	*07/15/24 11:53*	*1*
13C6 PFDA	*101*		*50 - 140*	*07/15/24 08:20*	*07/15/24 11:53*	*1*
13C7 PFUnA	*76.8*		*30 - 140*	*07/15/24 08:20*	*07/15/24 11:53*	*1*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 240-619819/1-A
Matrix: Water
Analysis Batch: 619841

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 619819

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFTeDA	54.4		10 - 130	07/15/24 08:20	07/15/24 11:53	1
13C3 PFBS	90.9		55 - 150	07/15/24 08:20	07/15/24 11:53	1
13C3 PFHxS	87.0		55 - 150	07/15/24 08:20	07/15/24 11:53	1
13C8 PFOS	94.6		45 - 140	07/15/24 08:20	07/15/24 11:53	1
13C8 FOSA	90.6		30 - 130	07/15/24 08:20	07/15/24 11:53	1
d3-NMeFOSAA	88.2		45 - 200	07/15/24 08:20	07/15/24 11:53	1
d5-NEtFOSAA	158		10 - 200	07/15/24 08:20	07/15/24 11:53	1
M2-4:2 FTS	92.5		60 - 200	07/15/24 08:20	07/15/24 11:53	1
M2-6:2 FTS	90.9		60 - 200	07/15/24 08:20	07/15/24 11:53	1
M2-8:2 FTS	84.1		50 - 200	07/15/24 08:20	07/15/24 11:53	1
13C3 HFPO-DA	97.8		25 - 160	07/15/24 08:20	07/15/24 11:53	1
d7-N-MeFOSE-M	68.0		10 - 150	07/15/24 08:20	07/15/24 11:53	1
d9-N-EtFOSE-M	64.8		10 - 150	07/15/24 08:20	07/15/24 11:53	1
d5-NEtPFOSA	66.9		10 - 130	07/15/24 08:20	07/15/24 11:53	1
d3-NMePFOSA	65.6		15 - 130	07/15/24 08:20	07/15/24 11:53	1
13C2-PFDoDA	91.2		10 - 150	07/15/24 08:20	07/15/24 11:53	1

Lab Sample ID: LCS 240-619819/3-A
Matrix: Water
Analysis Batch: 619841

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 619819

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	100	104		ng/L		104	58 - 148
Perfluoropentanoic acid (PFPeA)	50.0	49.3		ng/L		99	54 - 152
Perfluorohexanoic acid (PFHxA)	25.0	22.9		ng/L		92	55 - 152
Perfluoroheptanoic acid (PFHpA)	25.0	23.4		ng/L		93	54 - 154
Perfluorooctanoic acid (PFOA)	25.0	24.1		ng/L		96	52 - 161
Perfluorononanoic acid (PFNA)	25.0	24.1		ng/L		96	59 - 149
Perfluorodecanoic acid (PFDA)	25.0	16.0		ng/L		64	52 - 147
Perfluoroundecanoic acid (PFUnA)	25.0	23.8		ng/L		95	48 - 159
Perfluorododecanoic acid (PFDoA)	25.0	19.1		ng/L		76	64 - 142
Perfluorotridecanoic acid (PFTrDA)	25.0	19.5		ng/L		78	49 - 148
Perfluorotetradecanoic acid (PFTeDA)	25.0	26.7		ng/L		107	47 - 161
Perfluorobutanesulfonic acid (PFBS)	22.1	20.0		ng/L		91	62 - 144
Perfluoropentanesulfonic acid (PFPeS)	23.5	23.3		ng/L		99	59 - 151
Perfluorohexanesulfonic acid (PFHxS)	22.8	20.0		ng/L		88	57 - 146
Perfluoroheptanesulfonic acid (PFHpS)	23.8	24.0		ng/L		101	55 - 152
Perfluorooctanesulfonic acid (PFOS)	23.2	22.6		ng/L		97	58 - 149
Perfluorononanesulfonic acid (PFNS)	24.0	22.5		ng/L		94	52 - 148
Perfluorododecanesulfonic acid (PFDoS)	24.2	16.6		ng/L		69	36 - 145

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 240-619819/3-A
Matrix: Water
Analysis Batch: 619841

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 619819

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	93.4	88.9		ng/L		95	67 - 146
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	94.8	89.3		ng/L		94	61 - 151
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	95.8	98.9		ng/L		103	63 - 152
Perfluorooctanesulfonamide (PFOSA)	25.0	25.3		ng/L		101	61 - 148
N-methylperfluorooctane sulfonamide (NMeFOSA)	25.0	29.4		ng/L		117	63 - 145
N-ethylperfluorooctane sulfonamide (NEtFOSA)	25.0	25.3		ng/L		101	65 - 139
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	25.0	26.0		ng/L		104	58 - 144
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	25.0	26.3		ng/L		105	59 - 146
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	250	283		ng/L		113	71 - 136
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	250	250		ng/L		100	69 - 137
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	100	108		ng/L		108	63 - 144
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	94.2	105		ng/L		112	68 - 146
Perfluoro-4-methoxybutanoic acid (PFMBA)	50.0	50.4		ng/L		101	55 - 148
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	50.0	36.1		ng/L		72	48 - 161
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	93.2	90.8		ng/L		97	56 - 156
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	94.2	82.8		ng/L		88	46 - 156
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	44.5	43.4		ng/L		97	56 - 151
3-Perfluoropropylpropanoic acid (3:3 FTCA)	125	218	I *+	ng/L		175	62 - 129
3-Perfluoropentylpropanoic acid (5:3 FTCA)	625	620		ng/L		99	63 - 134
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	625	529		ng/L		85	50 - 138
Perfluorodecanesulfonic acid (PFDS)	24.1	22.0		ng/L		91	51 - 147
Perfluoro-3-methoxypropanoic acid (PFMPA)	50.0	50.8		ng/L		102	51 - 145

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*104*		*10 - 130*
13C5 PFPeA	*93.4*		*40 - 150*
13C5 PFHxA	*97.0*		*40 - 150*
13C4 PFHpA	*86.8*		*40 - 150*
13C8 PFOA	*84.7*		*30 - 140*
13C9 PFNA	*89.1*		*30 - 140*
13C6 PFDA	*106*		*20 - 140*
13C7 PFUnA	*74.1*		*20 - 140*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 240-619819/3-A
Matrix: Water
Analysis Batch: 619841

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 619819

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C2 PFTeDA	52.0		10 - 130
13C3 PFBS	94.5		25 - 150
13C3 PFHxS	91.0		25 - 150
13C8 PFOS	96.4		20 - 140
13C8 FOSA	93.4		10 - 130
d3-NMeFOSAA	86.1		10 - 200
d5-NEtFOSAA	150		10 - 200
M2-4:2 FTS	90.4		25 - 200
M2-6:2 FTS	92.7		25 - 200
M2-8:2 FTS	82.0		25 - 200
13C3 HFPO-DA	85.5		25 - 160
d7-N-MeFOSE-M	63.4		10 - 150
d9-N-EtFOSE-M	59.6		10 - 150
d5-NEtPFOSA	66.7		10 - 130
d3-NMePFOSA	64.6		10 - 130
13C2-PFDoDA	89.6		10 - 150

Lab Sample ID: LLCS 240-619819/2-A
Matrix: Water
Analysis Batch: 619841

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 619819

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	8.00	7.70	J	ng/L		96	44 - 157
Perfluoropentanoic acid (PFPeA)	4.00	4.24		ng/L		106	57 - 148
Perfluorohexanoic acid (PFHxA)	2.00	2.13		ng/L		107	62 - 149
Perfluoroheptanoic acid (PFHpA)	2.00	1.95	J	ng/L		97	56 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.30		ng/L		115	57 - 161
Perfluorononanoic acid (PFNA)	2.00	2.08		ng/L		104	53 - 157
Perfluorodecanoic acid (PFDA)	2.00	1.66	J	ng/L		83	43 - 158
Perfluoroundecanoic acid (PFUnA)	2.00	2.17		ng/L		109	50 - 155
Perfluorododecanoic acid (PFDoA)	2.00	1.75	J	ng/L		87	60 - 141
Perfluorotridecanoic acid (PFTrDA)	2.00	1.78	J	ng/L		89	52 - 140
Perfluorotetradecanoic acid (PFTeDA)	2.00	2.17		ng/L		108	52 - 156
Perfluorobutanesulfonic acid (PFBS)	1.77	1.69	J	ng/L		95	63 - 145
Perfluoropentanesulfonic acid (PFPeS)	1.88	1.92	J	ng/L		102	58 - 144
Perfluorohexanesulfonic acid (PFHxS)	1.82	1.74	J	ng/L		96	44 - 158
Perfluoroheptanesulfonic acid (PFHpS)	1.90	1.90	J	ng/L		100	51 - 150
Perfluorooctanesulfonic acid (PFOS)	1.86	1.93	J	ng/L		104	43 - 162
Perfluorononanesulfonic acid (PFNS)	1.92	1.76	J	ng/L		92	46 - 151
Perfluorododecanesulfonic acid (PFDoS)	1.94	1.19	J	ng/L		61	30 - 138

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 240-619819/2-A
Matrix: Water
Analysis Batch: 619841

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 619819

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.47	6.67	J	ng/L		89	52 - 158
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.58	7.31	J	ng/L		96	48 - 158
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.66	7.71	J	ng/L		101	46 - 165
Perfluorooctanesulfonamide (PFOSA)	2.00	2.08		ng/L		104	47 - 163
N-methylperfluorooctane sulfonamide (NMeFOSA)	2.00	2.36		ng/L		118	54 - 155
N-ethylperfluorooctane sulfonamide (NEtFOSA)	2.00	2.32		ng/L		116	49 - 156
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	1.85	J	ng/L		93	32 - 160
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	2.08		ng/L		104	51 - 154
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	18.6	J	ng/L		93	56 - 151
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	20.0		ng/L		100	60 - 147
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	8.00	8.14		ng/L		102	58 - 154
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	7.54	7.96	J	ng/L		106	61 - 148
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.00	3.82	J	ng/L		95	49 - 154
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.00	2.89	J	ng/L		72	47 - 160
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	7.46	6.97	J	ng/L		93	44 - 167
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	7.54	6.29	J	ng/L		84	36 - 158
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.56	3.60	J	ng/L		101	56 - 144
3-Perfluoropropylpropanoic acid (3:3 FTCA)	10.0	15.7	I	ng/L		157	32 - 161
3-Perfluoropentylpropanoic acid (5:3 FTCA)	50.0	48.7	J	ng/L		97	39 - 156
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	50.0	42.8	J	ng/L		86	36 - 149
Perfluorodecanesulfonic acid (PFDS)	1.93	1.76	J	ng/L		91	50 - 144
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	4.01		ng/L		100	48 - 150

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*103*		*10 - 130*
13C5 PFPeA	*95.4*		*40 - 150*
13C5 PFHxA	*97.6*		*40 - 150*
13C4 PFHpA	*83.8*		*40 - 150*
13C8 PFOA	*87.8*		*30 - 140*
13C9 PFNA	*92.3*		*30 - 140*
13C6 PFDA	*107*		*20 - 140*
13C7 PFUnA	*79.6*		*20 - 140*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 240-619819/2-A
Matrix: Water
Analysis Batch: 619841

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 619819

Isotope Dilution	LLCS %Recovery	LLCS Qualifier	Limits
13C2 PFTeDA	49.8		10 - 130
13C3 PFBS	110		25 - 150
13C3 PFHxS	101		25 - 150
13C8 PFOS	91.9		20 - 140
13C8 FOSA	89.2		10 - 130
d3-NMeFOSAA	91.4		10 - 200
d5-NEtFOSAA	143		10 - 200
M2-4:2 FTS	105		25 - 200
M2-6:2 FTS	106		25 - 200
M2-8:2 FTS	98.7		25 - 200
13C3 HFPO-DA	88.1		25 - 160
d7-N-MeFOSE-M	70.2		10 - 150
d9-N-EtFOSE-M	57.2		10 - 150
d5-NEtPFOSA	62.3		10 - 130
d3-NMePFOSA	64.5		10 - 130
13C2-PFDoDA	86.3		10 - 150

Lab Sample ID: MB 240-619820/1-A
Matrix: Solid
Analysis Batch: 619961

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 619820

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.0	0.25	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluoropentanoic acid (PFPeA)	ND		0.50	0.13	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorohexanoic acid (PFHxA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluoroheptanoic acid (PFHpA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorooctanoic acid (PFOA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorononanoic acid (PFNA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorodecanoic acid (PFDA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluoroundecanoic acid (PFUnA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorododecanoic acid (PFDoA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorononanesulfonic acid (PFNS)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1.0	0.25	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1.0	0.25	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1.0	0.25	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 240-619820/1-A
Matrix: Solid
Analysis Batch: 619961

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 619820

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		2.5	0.63	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		2.5	0.63	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.0	0.25	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.0	0.25	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.50	0.13	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.50	0.13	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		1.0	0.25	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		1.0	0.25	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.50	0.13	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1.3	0.31	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		6.3	1.6	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		6.3	1.6	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.25	0.063	ug/Kg		07/15/24 08:23	07/16/24 06:14	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.50	0.13	ug/Kg		07/15/24 08:23	07/16/24 06:14	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*97.7*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C5 PFPeA	*85.7*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C5 PFHxA	*86.7*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C4 PFHpA	*79.7*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C8 PFOA	*81.3*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C9 PFNA	*89.6*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C6 PFDA	*102*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C7 PFUnA	*100*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C2 PFTeDA	*56.7*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C3 PFBS	*86.9*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C3 PFHxS	*80.6*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C8 PFOS	*91.7*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
13C8 FOSA	*84.3*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
d3-NMeFOSAA	*84.3*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
d5-NEtFOSAA	*143*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*
M2-4:2 FTS	*81.6*		*20 - 150*	*07/15/24 08:23*	*07/16/24 06:14*	*1*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 240-619820/1-A
Matrix: Solid
Analysis Batch: 619961

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 619820

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	84.2		20 - 150	07/15/24 08:23	07/16/24 06:14	1
M2-8:2 FTS	68.1		20 - 150	07/15/24 08:23	07/16/24 06:14	1
13C3 HFPO-DA	82.3		20 - 150	07/15/24 08:23	07/16/24 06:14	1
d7-N-MeFOSE-M	73.4		20 - 150	07/15/24 08:23	07/16/24 06:14	1
d9-N-EtFOSE-M	63.5		20 - 150	07/15/24 08:23	07/16/24 06:14	1
d5-NEtPFOSA	62.8		20 - 150	07/15/24 08:23	07/16/24 06:14	1
d3-NMePFOSA	61.0		20 - 150	07/15/24 08:23	07/16/24 06:14	1
13C2-PFDoDA	88.9		20 - 150	07/15/24 08:23	07/16/24 06:14	1

Lab Sample ID: LCS 240-619820/3-A
Matrix: Solid
Analysis Batch: 619961

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 619820

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	12.5	13.4		ug/Kg		107	40 - 150
Perfluoropentanoic acid (PFPeA)	6.25	6.51		ug/Kg		104	40 - 150
Perfluorohexanoic acid (PFHxA)	3.13	3.04		ug/Kg		97	40 - 150
Perfluoroheptanoic acid (PFHpA)	3.13	3.17		ug/Kg		101	40 - 150
Perfluorooctanoic acid (PFOA)	3.13	2.86		ug/Kg		92	40 - 150
Perfluorononanoic acid (PFNA)	3.13	3.10		ug/Kg		99	40 - 150
Perfluorodecanoic acid (PFDA)	3.13	2.43		ug/Kg		78	40 - 150
Perfluoroundecanoic acid (PFUnA)	3.13	2.96		ug/Kg		95	40 - 150
Perfluorododecanoic acid (PFDoA)	3.13	2.46		ug/Kg		79	40 - 150
Perfluorotridecanoic acid (PFTrDA)	3.13	2.87		ug/Kg		92	40 - 150
Perfluorotetradecanoic acid (PFTeDA)	3.13	3.64		ug/Kg		117	40 - 150
Perfluorobutanesulfonic acid (PFBS)	2.76	2.70		ug/Kg		98	40 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.93	3.07		ug/Kg		105	40 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.84	2.58		ug/Kg		91	40 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.98	3.09		ug/Kg		104	40 - 150
Perfluorooctanesulfonic acid (PFOS)	2.90	3.00		ug/Kg		103	40 - 150
Perfluorononanesulfonic acid (PFNS)	3.00	3.01		ug/Kg		100	40 - 150
Perfluorododecanesulfonic acid (PFDoS)	3.03	2.58		ug/Kg		85	40 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	11.7	12.5		ug/Kg		107	40 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	11.9	13.6		ug/Kg		115	40 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	12.0	14.0		ug/Kg		117	40 - 150
Perfluorooctanesulfonamide (PFOSA)	3.13	3.38		ug/Kg		108	40 - 150
N-methylperfluorooctane sulfonamide (NMeFOSA)	3.13	3.58		ug/Kg		115	40 - 150

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 240-619820/3-A
Matrix: Solid
Analysis Batch: 619961

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 619820

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
N-ethylperfluorooctane sulfonamide (NEtFOSA)	3.13	3.21		ug/Kg		103	40 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	3.13	3.27		ug/Kg		105	40 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	3.13	3.56		ug/Kg		114	40 - 150
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	31.3	28.3		ug/Kg		91	40 - 150
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	31.3	28.8		ug/Kg		92	40 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	12.5	13.5		ug/Kg		108	40 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	11.8	13.2		ug/Kg		112	40 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	6.25	6.73		ug/Kg		108	40 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6.25	4.27		ug/Kg		68	40 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	11.7	11.5		ug/Kg		98	40 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	11.8	11.5		ug/Kg		97	40 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	5.56	5.97		ug/Kg		107	40 - 150
3-Perfluoropropylpropanoic acid (3:3 FTCA)	15.6	29.2	I *+	ug/Kg		187	40 - 150
3-Perfluoropentylpropanoic acid (5:3 FTCA)	78.1	86.3		ug/Kg		110	40 - 150
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	78.1	74.1		ug/Kg		95	40 - 150
Perfluorodecanesulfonic acid (PFDS)	3.01	3.03		ug/Kg		101	40 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	6.25	6.58		ug/Kg		105	40 - 150

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*99.0*		*20 - 150*
13C5 PFPeA	*89.7*		*20 - 150*
13C5 PFHxA	*88.7*		*20 - 150*
13C4 PFHpA	*80.3*		*20 - 150*
13C8 PFOA	*79.6*		*20 - 150*
13C9 PFNA	*85.1*		*20 - 150*
13C6 PFDA	*101*		*20 - 150*
13C7 PFUnA	*85.8*		*20 - 150*
13C2 PFTeDA	*56.4*		*20 - 150*
13C3 PFBS	*88.8*		*20 - 150*
13C3 PFHxS	*82.3*		*20 - 150*
13C8 PFOS	*89.0*		*20 - 150*
13C8 FOSA	*87.6*		*20 - 150*
d3-NMeFOSAA	*85.0*		*20 - 150*
d5-NEtFOSAA	*126*		*20 - 150*
M2-4:2 FTS	*74.2*		*20 - 150*
M2-6:2 FTS	*77.7*		*20 - 150*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 240-619820/3-A
Matrix: Solid
Analysis Batch: 619961

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 619820

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
M2-8:2 FTS	*62.9*		*20 - 150*
13C3 HFPO-DA	*80.4*		*20 - 150*
d7-N-MeFOSE-M	*76.5*		*20 - 150*
d9-N-EtFOSE-M	*65.1*		*20 - 150*
d5-NEtPFOSA	*65.8*		*20 - 150*
d3-NMePFOSA	*65.5*		*20 - 150*
13C2-PFDoDA	*90.0*		*20 - 150*

Lab Sample ID: LLCS 240-619820/2-A
Matrix: Solid
Analysis Batch: 619961

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 619820

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	1.00	1.06		ug/Kg		106	40 - 150
Perfluoropentanoic acid (PFPeA)	0.500	0.528		ug/Kg		106	40 - 150
Perfluorohexanoic acid (PFHxA)	0.250	0.231	J	ug/Kg		93	40 - 150
Perfluoroheptanoic acid (PFHpA)	0.250	0.269		ug/Kg		108	40 - 150
Perfluorooctanoic acid (PFOA)	0.250	0.331		ug/Kg		133	40 - 150
Perfluorononanoic acid (PFNA)	0.250	0.274		ug/Kg		109	40 - 150
Perfluorodecanoic acid (PFDA)	0.250	0.215	J	ug/Kg		86	40 - 150
Perfluoroundecanoic acid (PFUnA)	0.250	0.207	J	ug/Kg		83	40 - 150
Perfluorododecanoic acid (PFDoA)	0.250	0.226	J	ug/Kg		90	40 - 150
Perfluorotridecanoic acid (PFTrDA)	0.250	0.229	J	ug/Kg		91	40 - 150
Perfluorotetradecanoic acid (PFTeDA)	0.250	0.343		ug/Kg		137	40 - 150
Perfluorobutanesulfonic acid (PFBS)	0.221	0.239	J	ug/Kg		108	40 - 150
Perfluoropentanesulfonic acid (PFPeS)	0.235	0.267		ug/Kg		114	40 - 150
Perfluorohexanesulfonic acid (PFHxS)	0.228	0.232	J	ug/Kg		102	40 - 150
Perfluoroheptanesulfonic acid (PFHpS)	0.238	0.245	J	ug/Kg		103	40 - 150
Perfluorooctanesulfonic acid (PFOS)	0.232	0.262		ug/Kg		113	40 - 150
Perfluorononanesulfonic acid (PFNS)	0.240	0.239	J	ug/Kg		100	40 - 150
Perfluorododecanesulfonic acid (PFDoS)	0.242	0.208	J	ug/Kg		86	40 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	0.934	1.04		ug/Kg		112	40 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	0.948	1.08		ug/Kg		114	40 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	0.958	0.992	J	ug/Kg		104	40 - 150
Perfluorooctanesulfonamide (PFOSA)	0.250	0.269		ug/Kg		108	40 - 150
N-methylperfluorooctane sulfonamide (NMeFOSA)	0.250	0.291		ug/Kg		117	40 - 150

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 240-619820/2-A
Matrix: Solid
Analysis Batch: 619961

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 619820

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
N-ethylperfluorooctane sulfonamide (NEtFOSA)	0.250	0.285		ug/Kg		114	40 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.250	0.295		ug/Kg		118	40 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.250	0.305		ug/Kg		122	40 - 150
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	2.50	2.56		ug/Kg		103	40 - 150
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	2.50	2.21	J	ug/Kg		88	40 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	1.00	1.02		ug/Kg		102	40 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	0.942	0.998	J	ug/Kg		106	40 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	0.500	0.511		ug/Kg		102	40 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	0.500	0.308	J	ug/Kg		62	40 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	0.932	0.904	J	ug/Kg		97	40 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	0.942	0.888	J	ug/Kg		94	40 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	0.445	0.468	J	ug/Kg		105	40 - 150
3-Perfluoropropylpropanoic acid (3:3 FTCA)	1.25	2.24	I *+	ug/Kg		179	40 - 150
3-Perfluoropentylpropanoic acid (5:3 FTCA)	6.25	6.36		ug/Kg		102	40 - 150
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	6.25	5.76	J	ug/Kg		92	40 - 150
Perfluorodecanesulfonic acid (PFDS)	0.241	0.244	J	ug/Kg		101	40 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	0.500	0.511		ug/Kg		102	40 - 150

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*104*		*20 - 150*
13C5 PFPeA	*99.5*		*20 - 150*
13C5 PFHxA	*101*		*20 - 150*
13C4 PFHpA	*90.3*		*20 - 150*
13C8 PFOA	*92.5*		*20 - 150*
13C9 PFNA	*94.4*		*20 - 150*
13C6 PFDA	*109*		*20 - 150*
13C7 PFUnA	*102*		*20 - 150*
13C2 PFTeDA	*64.0*		*20 - 150*
13C3 PFBS	*87.9*		*20 - 150*
13C3 PFHxS	*87.9*		*20 - 150*
13C8 PFOS	*92.7*		*20 - 150*
13C8 FOSA	*91.6*		*20 - 150*
d3-NMeFOSAA	*87.9*		*20 - 150*
d5-NEtFOSAA	*133*		*20 - 150*
M2-4:2 FTS	*87.3*		*20 - 150*
M2-6:2 FTS	*90.2*		*20 - 150*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 240-619820/2-A
Matrix: Solid
Analysis Batch: 619961

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 619820

Isotope Dilution	LLCS %Recovery	LLCS Qualifier	Limits
M2-8:2 FTS	77.7		20 - 150
13C3 HFPO-DA	93.4		20 - 150
d7-N-MeFOSE-M	75.4		20 - 150
d9-N-EtFOSE-M	67.5		20 - 150
d5-NEtPFOSA	68.9		20 - 150
d3-NMePFOSA	66.7		20 - 150
13C2-PFDoDA	95.5		20 - 150

Lab Sample ID: 480-221553-6 MS
Matrix: Solid
Analysis Batch: 619961

Client Sample ID: HA-05-3.0-4.0-MS
Prep Type: Total/NA
Prep Batch: 619820

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	ND		10.1	11.7		ug/Kg	☼	115	40 - 150
Perfluoropentanoic acid (PFPeA)	ND		5.07	5.36		ug/Kg	☼	106	40 - 150
Perfluorohexanoic acid (PFHxA)	ND		2.54	2.65		ug/Kg	☼	104	40 - 150
Perfluoroheptanoic acid (PFHpA)	ND		2.54	2.62		ug/Kg	☼	103	40 - 150
Perfluorooctanoic acid (PFOA)	ND		2.54	2.35		ug/Kg	☼	93	40 - 150
Perfluorononanoic acid (PFNA)	ND		2.54	2.80		ug/Kg	☼	111	40 - 150
Perfluorodecanoic acid (PFDA)	ND		2.54	1.89		ug/Kg	☼	75	40 - 150
Perfluoroundecanoic acid (PFUnA)	ND		2.54	2.36		ug/Kg	☼	93	40 - 150
Perfluorododecanoic acid (PFDoA)	ND		2.54	2.37		ug/Kg	☼	93	40 - 150
Perfluorotridecanoic acid (PFTrDA)	ND		2.54	2.47		ug/Kg	☼	98	40 - 150
Perfluorotetradecanoic acid (PFTeDA)	ND		2.54	2.74		ug/Kg	☼	108	40 - 150
Perfluorobutanesulfonic acid (PFBS)	ND		2.24	2.18		ug/Kg	☼	97	40 - 150
Perfluoropentanesulfonic acid (PFPeS)	ND		2.38	2.70		ug/Kg	☼	113	40 - 150
Perfluorohexanesulfonic acid (PFHxS)	ND		2.31	2.18		ug/Kg	☼	95	40 - 150
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.41	2.61		ug/Kg	☼	108	40 - 150
Perfluorooctanesulfonic acid (PFOS)	0.089	J	2.35	2.58		ug/Kg	☼	106	40 - 150
Perfluorononanesulfonic acid (PFNS)	ND		2.43	2.48		ug/Kg	☼	102	40 - 150
Perfluorododecanesulfonic acid (PFDoS)	ND		2.45	2.30		ug/Kg	☼	94	40 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		9.47	10.2		ug/Kg	☼	108	40 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		9.61	10.7		ug/Kg	☼	111	40 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		9.72	10.4		ug/Kg	☼	107	40 - 150
Perfluorooctanesulfonamide (PFOSA)	ND		2.54	3.01		ug/Kg	☼	119	40 - 150
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.54	3.06		ug/Kg	☼	121	40 - 150

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: 480-221553-6 MS
Matrix: Solid
Analysis Batch: 619961

Client Sample ID: HA-05-3.0-4.0-MS
Prep Type: Total/NA
Prep Batch: 619820

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.54	2.73		ug/Kg	☼	108	40 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.54	2.82		ug/Kg	☼	111	40 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.54	2.70		ug/Kg	☼	107	40 - 150
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		25.4	25.5		ug/Kg	☼	100	40 - 150
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		25.4	27.3		ug/Kg	☼	108	40 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		10.1	10.9		ug/Kg	☼	107	40 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		9.55	10.5		ug/Kg	☼	110	40 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		5.07	5.58		ug/Kg	☼	110	40 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		9.45	9.38		ug/Kg	☼	99	40 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		9.55	9.48		ug/Kg	☼	99	40 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		4.51	4.85		ug/Kg	☼	107	40 - 150
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	*+	12.7	24.7	I F1	ug/Kg	☼	195	40 - 150
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		63.4	69.1		ug/Kg	☼	109	40 - 150
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		63.4	63.1		ug/Kg	☼	100	40 - 150
Perfluorodecanesulfonic acid (PFDS)	ND		2.44	2.64		ug/Kg	☼	108	40 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		5.07	5.37		ug/Kg	☼	106	40 - 150

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
13C4 PFBA	*117*		*20 - 150*
13C5 PFPeA	*105*		*20 - 150*
13C5 PFHxA	*106*		*20 - 150*
13C4 PFHpA	*96.9*		*20 - 150*
13C8 PFOA	*104*		*20 - 150*
13C9 PFNA	*92.0*		*20 - 150*
13C6 PFDA	*118*		*20 - 150*
13C7 PFUnA	*111*		*20 - 150*
13C2 PFTeDA	*76.8*		*20 - 150*
13C3 PFBS	*105*		*20 - 150*
13C3 PFHxS	*95.0*		*20 - 150*
13C8 PFOS	*109*		*20 - 150*
13C8 FOSA	*95.1*		*20 - 150*
d3-NMeFOSAA	*98.5*		*20 - 150*
d5-NEtFOSAA	*158*	*5+	*20 - 150*
M2-4:2 FTS	*95.3*		*20 - 150*
M2-6:2 FTS	*99.8*		*20 - 150*
M2-8:2 FTS	*85.7*		*20 - 150*
13C3 HFPO-DA	*101*		*20 - 150*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: 480-221553-6 MS
Matrix: Solid
Analysis Batch: 619961

Client Sample ID: HA-05-3.0-4.0-MS
Prep Type: Total/NA
Prep Batch: 619820

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
d7-N-MeFOSE-M	*88.7*		*20 - 150*
d9-N-EtFOSE-M	*79.5*		*20 - 150*
d5-NEtPFOSA	*75.4*		*20 - 150*
d3-NMePFOSA	*77.7*		*20 - 150*
13C2-PFDoDA	*96.3*		*20 - 150*

Lab Sample ID: 480-221553-6 MSD
Matrix: Solid
Analysis Batch: 619961

Client Sample ID: HA-05-3.0-4.0-MSD
Prep Type: Total/NA
Prep Batch: 619820

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	ND		9.81	11.4		ug/Kg	☼	116	40 - 150	2	30
Perfluoropentanoic acid (PFPeA)	ND		4.91	5.13		ug/Kg	☼	105	40 - 150	4	30
Perfluorohexanoic acid (PFHxA)	ND		2.45	2.42		ug/Kg	☼	99	40 - 150	9	30
Perfluoroheptanoic acid (PFHpA)	ND		2.45	2.48		ug/Kg	☼	101	40 - 150	5	30
Perfluorooctanoic acid (PFOA)	ND		2.45	2.54		ug/Kg	☼	103	40 - 150	8	30
Perfluorononanoic acid (PFNA)	ND		2.45	2.60		ug/Kg	☼	106	40 - 150	7	30
Perfluorodecanoic acid (PFDA)	ND		2.45	1.94		ug/Kg	☼	79	40 - 150	2	30
Perfluoroundecanoic acid (PFUnA)	ND		2.45	1.93		ug/Kg	☼	79	40 - 150	20	30
Perfluorododecanoic acid (PFDoA)	ND		2.45	1.97		ug/Kg	☼	80	40 - 150	18	30
Perfluorotridecanoic acid (PFTrDA)	ND		2.45	2.21		ug/Kg	☼	90	40 - 150	11	30
Perfluorotetradecanoic acid (PFTeDA)	ND		2.45	2.92		ug/Kg	☼	119	40 - 150	7	30
Perfluorobutanesulfonic acid (PFBS)	ND		2.17	2.25		ug/Kg	☼	104	40 - 150	3	30
Perfluoropentanesulfonic acid (PFPeS)	ND		2.30	2.61		ug/Kg	☼	113	40 - 150	3	30
Perfluorohexanesulfonic acid (PFHxS)	ND		2.23	2.11		ug/Kg	☼	94	40 - 150	4	30
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.34	2.57		ug/Kg	☼	110	40 - 150	2	30
Perfluorooctanesulfonic acid (PFOS)	0.089	J	2.28	2.39		ug/Kg	☼	101	40 - 150	8	30
Perfluorononanesulfonic acid (PFNS)	ND		2.36	2.44		ug/Kg	☼	104	40 - 150	2	30
Perfluorododecanesulfonic acid (PFDoS)	ND		2.38	2.14		ug/Kg	☼	90	40 - 150	7	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		9.17	10.2		ug/Kg	☼	112	40 - 150	0	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		9.30	10.3		ug/Kg	☼	110	40 - 150	4	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		9.40	10.6		ug/Kg	☼	113	40 - 150	2	30
Perfluorooctanesulfonamide (PFOSA)	ND		2.45	2.82		ug/Kg	☼	115	40 - 150	7	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.45	3.02		ug/Kg	☼	123	40 - 150	1	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.45	2.71		ug/Kg	☼	110	40 - 150	1	30

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: 480-221553-6 MSD
Matrix: Solid
Analysis Batch: 619961

Client Sample ID: HA-05-3.0-4.0-MSD
Prep Type: Total/NA
Prep Batch: 619820

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.45	2.91		ug/Kg	☼	119	40 - 150	3	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.45	2.84		ug/Kg	☼	116	40 - 150	5	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		24.5	24.0		ug/Kg	☼	98	40 - 150	6	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		24.5	23.2		ug/Kg	☼	95	40 - 150	16	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		9.81	10.9		ug/Kg	☼	111	40 - 150	0	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		9.25	10.7		ug/Kg	☼	116	40 - 150	2	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		4.91	5.23		ug/Kg	☼	107	40 - 150	6	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		9.15	9.09		ug/Kg	☼	99	40 - 150	3	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		9.25	9.12		ug/Kg	☼	99	40 - 150	4	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		4.37	4.61		ug/Kg	☼	106	40 - 150	5	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	*+	12.3	24.0	I F1	ug/Kg	☼	195	40 - 150	3	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		61.3	66.8		ug/Kg	☼	109	40 - 150	3	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		61.3	58.0		ug/Kg	☼	94	40 - 150	9	30
Perfluorodecanesulfonic acid (PFDS)	ND		2.37	2.52		ug/Kg	☼	106	40 - 150	5	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		4.91	5.29		ug/Kg	☼	108	40 - 150	1	30

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
13C4 PFBA	*102*		*20 - 150*
13C5 PFPeA	*98.5*		*20 - 150*
13C5 PFHxA	*98.4*		*20 - 150*
13C4 PFHpA	*91.4*		*20 - 150*
13C8 PFOA	*84.6*		*20 - 150*
13C9 PFNA	*90.2*		*20 - 150*
13C6 PFDA	*96.9*		*20 - 150*
13C7 PFUnA	*109*		*20 - 150*
13C2 PFTeDA	*64.5*		*20 - 150*
13C3 PFBS	*89.7*		*20 - 150*
13C3 PFHxS	*82.3*		*20 - 150*
13C8 PFOS	*93.4*		*20 - 150*
13C8 FOSA	*85.7*		*20 - 150*
d3-NMeFOSAA	*83.4*		*20 - 150*
d5-NEtFOSAA	*125*		*20 - 150*
M2-4:2 FTS	*77.7*		*20 - 150*
M2-6:2 FTS	*85.3*		*20 - 150*
M2-8:2 FTS	*69.7*		*20 - 150*
13C3 HFPO-DA	*91.5*		*20 - 150*
d7-N-MeFOSE-M	*77.8*		*20 - 150*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: 480-221553-6 MSD
Matrix: Solid
Analysis Batch: 619961

Client Sample ID: HA-05-3.0-4.0-MSD
Prep Type: Total/NA
Prep Batch: 619820

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
d9-N-EtFOSE-M	68.8		20 - 150
d5-NEtPFOSA	63.9		20 - 150
d3-NMePFOSA	65.8		20 - 150
13C2-PFDoDA	98.4		20 - 150

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS - RA

Lab Sample ID: 480-221553-6 MS
Matrix: Solid
Analysis Batch: 620562

Client Sample ID: HA-05-3.0-4.0-MS
Prep Type: Total/NA
Prep Batch: 619820

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) - RA	ND		5.07	5.97		ug/Kg	☼	118	40 - 150

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C4 PFBA - RA	98.2		20 - 150
13C5 PFPeA - RA	86.2		20 - 150
13C5 PFHxA - RA	93.0		20 - 150
13C4 PFHpA - RA	91.1		20 - 150
13C8 PFOA - RA	82.6		20 - 150
13C9 PFNA - RA	101		20 - 150
13C6 PFDA - RA	90.3		20 - 150
13C7 PFUnA - RA	87.3		20 - 150
13C2 PFTeDA - RA	77.2		20 - 150
13C3 PFBS - RA	91.3		20 - 150
13C3 PFHxS - RA	91.2		20 - 150
13C8 PFOS - RA	95.2		20 - 150
13C8 FOSA - RA	76.8		20 - 150
d3-NMeFOSAA - RA	76.0		20 - 150
d5-NEtFOSAA - RA	121		20 - 150
M2-4:2 FTS - RA	94.6		20 - 150
M2-6:2 FTS - RA	93.6		20 - 150
M2-8:2 FTS - RA	96.1		20 - 150
13C3 HFPO-DA - RA	88.5		20 - 150
d7-N-MeFOSE-M - RA	85.4		20 - 150
d9-N-EtFOSE-M - RA	84.7		20 - 150
d5-NEtPFOSA - RA	72.4		20 - 150
d3-NMePFOSA - RA	71.5		20 - 150
13C2-PFDoDA - RA	78.0		20 - 150

Lab Sample ID: 480-221553-6 MSD
Matrix: Solid
Analysis Batch: 620562

Client Sample ID: HA-05-3.0-4.0-MSD
Prep Type: Total/NA
Prep Batch: 619820

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA) - RA	ND		4.91	5.50		ug/Kg	☼	112	40 - 150	8	30

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS - RA (Continued)

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C4 PFBA - RA	100		20 - 150
13C5 PFPeA - RA	89.4		20 - 150
13C5 PFHxA - RA	91.7		20 - 150
13C4 PFHpA - RA	92.3		20 - 150
13C8 PFOA - RA	82.9		20 - 150
13C9 PFNA - RA	99.9		20 - 150
13C6 PFDA - RA	87.8		20 - 150
13C7 PFUnA - RA	89.1		20 - 150
13C2 PFTeDA - RA	84.2		20 - 150
13C3 PFBS - RA	95.5		20 - 150
13C3 PFHxS - RA	90.2		20 - 150
13C8 PFOS - RA	87.2		20 - 150
13C8 FOSA - RA	76.0		20 - 150
d3-NMeFOSAA - RA	77.2		20 - 150
d5-NEtFOSAA - RA	107		20 - 150
M2-4:2 FTS - RA	101		20 - 150
M2-6:2 FTS - RA	102		20 - 150
M2-8:2 FTS - RA	91.7		20 - 150
13C3 HFPO-DA - RA	90.0		20 - 150
d7-N-MeFOSE-M - RA	79.8		20 - 150
d9-N-EtFOSE-M - RA	77.6		20 - 150
d5-NEtPFOSA - RA	64.6		20 - 150
d3-NMePFOSA - RA	65.6		20 - 150
13C2-PFDoDA - RA	80.7		20 - 150

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-718289/1-A
Matrix: Solid
Analysis Batch: 718597

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718289

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	19.61		9.6	8.3	mg/Kg		07/12/24 12:30	07/15/24 17:29	1
Antimony	ND		14.4	0.51	mg/Kg		07/12/24 12:30	07/15/24 17:29	1
Arsenic	ND		1.9	0.85	mg/Kg		07/12/24 12:30	07/15/24 17:29	1
Barium	ND		0.48	0.13	mg/Kg		07/12/24 12:30	07/15/24 17:29	1
Beryllium	ND		0.19	0.038	mg/Kg		07/12/24 12:30	07/15/24 17:29	1
Cadmium	ND		0.19	0.067	mg/Kg		07/12/24 12:30	07/15/24 17:29	1
Calcium	36.83	J	48.1	25.9	mg/Kg		07/12/24 12:30	07/15/24 17:29	1
Chromium	ND		0.48	0.35	mg/Kg		07/12/24 12:30	07/15/24 17:29	1
Cobalt	ND		0.48	0.096	mg/Kg		07/12/24 12:30	07/15/24 17:29	1
Copper	0.768	J	0.96	0.55	mg/Kg		07/12/24 12:30	07/15/24 17:29	1
Iron	21.02		9.6	8.2	mg/Kg		07/12/24 12:30	07/15/24 17:29	1
Lead	0.491	J	0.96	0.44	mg/Kg		07/12/24 12:30	07/15/24 17:29	1
Magnesium	11.26	J	19.2	8.2	mg/Kg		07/12/24 12:30	07/15/24 17:29	1
Manganese	0.474	J	0.96	0.27	mg/Kg		07/12/24 12:30	07/15/24 17:29	1
Nickel	ND		4.8	0.24	mg/Kg		07/12/24 12:30	07/15/24 17:29	1
Potassium	ND	^+	28.8	23.3	mg/Kg		07/12/24 12:30	07/15/24 17:29	1
Selenium	ND		3.8	0.77	mg/Kg		07/12/24 12:30	07/15/24 17:29	1
Silver	ND		0.58	0.19	mg/Kg		07/12/24 12:30	07/15/24 17:29	1
Sodium	ND		135	58.9	mg/Kg		07/12/24 12:30	07/15/24 17:29	1
Thallium	ND		5.8	0.73	mg/Kg		07/12/24 12:30	07/15/24 17:29	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 480-718289/1-A
Matrix: Solid
Analysis Batch: 718597

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718289

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	ND		0.48	0.12	mg/Kg		07/12/24 12:30	07/15/24 17:29	1
Zinc	ND		1.9	0.98	mg/Kg		07/12/24 12:30	07/15/24 17:29	1

Lab Sample ID: LCSSRM 480-718289/2-A
Matrix: Solid
Analysis Batch: 718597

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718289

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	10600	10500		mg/Kg		99.0	52.7 - 148.1
Antimony	59.8	90.81		mg/Kg		151.9	46.2 - 633.8
Arsenic	180	155.5		mg/Kg		86.4	70.0 - 130.0
Barium	431	368.3		mg/Kg		85.4	74.9 - 125.1
Beryllium	121	110.8		mg/Kg		91.5	74.8 - 124.8
Cadmium	199	181.6		mg/Kg		91.2	74.9 - 125.1
Calcium	5760	5160		mg/Kg		89.6	73.6 - 126.4
Chromium	210	191.9		mg/Kg		91.4	70.0 - 130.0
Cobalt	237	234.4		mg/Kg		98.9	75.1 - 124.9
Copper	229	192.3		mg/Kg		84.0	75.1 - 124.9
Iron	9280	8058		mg/Kg		86.8	18.4 - 181.0
Lead	261	248.9		mg/Kg		95.4	78.2 - 121.1
Magnesium	2520	2145		mg/Kg		85.1	63.5 - 136.5
Manganese	316	254.1		mg/Kg		80.4	74.7 - 125.0
Nickel	108	108.4		mg/Kg		100.3	69.8 - 129.6
Potassium	2100	2005	^+	mg/Kg		95.5	70.0 - 130.0
Selenium	117	94.32		mg/Kg		80.6	65.8 - 133.3
Silver	65.5	59.77		mg/Kg		91.2	70.5 - 129.3
Sodium	442	391.8		mg/Kg		88.6	58.6 - 141.4
Thallium	144	146.9		mg/Kg		102.0	70.1 - 129.9
Vanadium	183	154.9		mg/Kg		84.7	68.9 - 119.1
Zinc	264	237.0		mg/Kg		89.8	69.7 - 129.5

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-221553-6 MS
Matrix: Solid
Analysis Batch: 718597

Client Sample ID: HA-05-3.0-4.0-MS
Prep Type: Total/NA
Prep Batch: 718289

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	26900	B	1240	35880	4	mg/Kg	☼	726	75 - 125
Antimony	ND	F1 F2	121	46.96	F1	mg/Kg	☼	39	75 - 125
Arsenic	4.1	F1	242	184.6	F1	mg/Kg	☼	74	75 - 125
Barium	162		242	397.1		mg/Kg	☼	97	75 - 125
Beryllium	2.0		121	102.5		mg/Kg	☼	83	75 - 125
Cadmium	0.20	J	121	100.2		mg/Kg	☼	83	75 - 125
Calcium	27500	B F2	6060	16910	4	mg/Kg	☼	-175	75 - 125
Chromium	28.3		121	137.1		mg/Kg	☼	90	75 - 125
Cobalt	14.9		121	131.0		mg/Kg	☼	96	75 - 125
Copper	14.9	B	121	124.9		mg/Kg	☼	91	75 - 125
Iron	20500	B	1240	24540	4	mg/Kg	☼	330	75 - 125
Lead	15.1	B	121	129.4		mg/Kg	☼	94	75 - 125
Magnesium	9980	B	6060	15820		mg/Kg	☼	96	75 - 125
Manganese	512	B	121	584.8	4	mg/Kg	☼	60	75 - 125
Nickel	32.1		121	154.4		mg/Kg	☼	101	75 - 125
Potassium	4880	F1	6060	14370	F1	mg/Kg	☼	157	75 - 125
Selenium	ND	F1	242	167.3	F1	mg/Kg	☼	69	75 - 125
Silver	0.34	J	12.1	10.34		mg/Kg	☼	82	75 - 125
Sodium	277		6060	5183		mg/Kg	☼	81	75 - 125
Thallium	ND		242	224.3		mg/Kg	☼	93	75 - 125
Vanadium	41.0		121	158.8		mg/Kg	☼	97	75 - 125
Zinc	59.6		121	167.3		mg/Kg	☼	89	75 - 125

Lab Sample ID: 480-221553-6 MSD
Matrix: Solid
Analysis Batch: 718597

Client Sample ID: HA-05-3.0-4.0-MSD
Prep Type: Total/NA
Prep Batch: 718289

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	26900	B	1210	36280	4	mg/Kg	☼	776	75 - 125	1	20
Antimony	ND	F1 F2	118	38.03	F1 F2	mg/Kg	☼	32	75 - 125	21	20
Arsenic	4.1	F1	236	172.5	F1	mg/Kg	☼	71	75 - 125	7	20
Barium	162		236	403.5		mg/Kg	☼	102	75 - 125	2	20
Beryllium	2.0		118	94.13		mg/Kg	☼	78	75 - 125	8	20
Cadmium	0.20	J	118	93.50		mg/Kg	☼	79	75 - 125	7	20
Calcium	27500	B F2	5910	25140	4 F2	mg/Kg	☼	-40	75 - 125	39	20
Chromium	28.3		118	128.6		mg/Kg	☼	85	75 - 125	6	20
Cobalt	14.9		118	131.7		mg/Kg	☼	99	75 - 125	0	20
Copper	14.9	B	118	119.4		mg/Kg	☼	88	75 - 125	5	20
Iron	20500	B	1210	24930	4	mg/Kg	☼	371	75 - 125	2	20
Lead	15.1	B	118	132.8		mg/Kg	☼	100	75 - 125	3	20
Magnesium	9980	B	5910	15580		mg/Kg	☼	95	75 - 125	2	20
Manganese	512	B	118	574.3	4	mg/Kg	☼	53	75 - 125	2	20
Nickel	32.1		118	156.8		mg/Kg	☼	105	75 - 125	2	20
Potassium	4880	F1	5910	13770	F1	mg/Kg	☼	150	75 - 125	4	20
Selenium	ND	F1	236	155.4	F1	mg/Kg	☼	66	75 - 125	7	20
Silver	0.34	J	11.8	9.69		mg/Kg	☼	79	75 - 125	6	20
Sodium	277		5910	4802		mg/Kg	☼	77	75 - 125	8	20
Thallium	ND		236	220.8		mg/Kg	☼	93	75 - 125	2	20
Vanadium	41.0		118	152.4		mg/Kg	☼	94	75 - 125	4	20

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-221553-6 MSD
Matrix: Solid
Analysis Batch: 718597

Client Sample ID: HA-05-3.0-4.0-MSD
Prep Type: Total/NA
Prep Batch: 718289

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Zinc	59.6		118	165.1		mg/Kg	☼	89	75 - 125	1	20

Lab Sample ID: MB 480-718342/1-A
Matrix: Water
Analysis Batch: 718628

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718342

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		07/15/24 09:17	07/16/24 12:46	1
Antimony	ND		0.020	0.0068	mg/L		07/15/24 09:17	07/16/24 12:46	1
Arsenic	ND		0.015	0.0056	mg/L		07/15/24 09:17	07/16/24 12:46	1
Barium	ND		0.0020	0.00070	mg/L		07/15/24 09:17	07/16/24 12:46	1
Beryllium	ND		0.0020	0.00030	mg/L		07/15/24 09:17	07/16/24 12:46	1
Cadmium	ND		0.0020	0.00050	mg/L		07/15/24 09:17	07/16/24 12:46	1
Calcium	ND		0.50	0.10	mg/L		07/15/24 09:17	07/16/24 12:46	1
Chromium	ND		0.0040	0.0010	mg/L		07/15/24 09:17	07/16/24 12:46	1
Cobalt	ND		0.0040	0.00063	mg/L		07/15/24 09:17	07/16/24 12:46	1
Copper	0.00437	J	0.010	0.0016	mg/L		07/15/24 09:17	07/16/24 12:46	1
Iron	ND		0.050	0.019	mg/L		07/15/24 09:17	07/16/24 12:46	1
Lead	ND		0.010	0.0030	mg/L		07/15/24 09:17	07/16/24 12:46	1
Magnesium	ND		0.20	0.043	mg/L		07/15/24 09:17	07/16/24 12:46	1
Manganese	0.00147	J	0.0030	0.00040	mg/L		07/15/24 09:17	07/16/24 12:46	1
Nickel	ND		0.010	0.0013	mg/L		07/15/24 09:17	07/16/24 12:46	1
Potassium	ND		0.50	0.10	mg/L		07/15/24 09:17	07/16/24 12:46	1
Selenium	ND		0.025	0.0087	mg/L		07/15/24 09:17	07/16/24 12:46	1
Silver	ND		0.0060	0.0017	mg/L		07/15/24 09:17	07/16/24 12:46	1
Sodium	ND		1.0	0.32	mg/L		07/15/24 09:17	07/16/24 12:46	1
Thallium	ND		0.020	0.010	mg/L		07/15/24 09:17	07/16/24 12:46	1
Vanadium	ND		0.0050	0.0015	mg/L		07/15/24 09:17	07/16/24 12:46	1
Zinc	0.00174	J ^+	0.010	0.0015	mg/L		07/15/24 09:17	07/16/24 12:46	1

Lab Sample ID: LCS 480-718342/2-A
Matrix: Water
Analysis Batch: 718628

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718342

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	5.10	5.14		mg/L		101	80 - 120
Antimony	0.500	0.520		mg/L		104	80 - 120
Arsenic	1.00	1.05		mg/L		105	80 - 120
Barium	1.00	1.05		mg/L		105	80 - 120
Beryllium	0.500	0.544		mg/L		109	80 - 120
Cadmium	0.500	0.520		mg/L		104	80 - 120
Calcium	25.0	26.06		mg/L		104	80 - 120
Chromium	0.500	0.512		mg/L		102	80 - 120
Cobalt	0.500	0.517		mg/L		103	80 - 120
Copper	0.500	0.500		mg/L		100	80 - 120
Iron	5.10	5.52		mg/L		108	80 - 120
Lead	0.500	0.515		mg/L		103	80 - 120
Magnesium	25.0	25.29		mg/L		101	80 - 120
Manganese	0.500	0.528		mg/L		106	80 - 120

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 480-718342/2-A
Matrix: Water
Analysis Batch: 718628

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718342

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nickel	0.500	0.524		mg/L		105	80 - 120
Potassium	25.0	25.47		mg/L		102	80 - 120
Selenium	1.00	1.02		mg/L		102	80 - 120
Silver	0.0500	0.0517		mg/L		103	80 - 120
Sodium	25.0	25.84		mg/L		103	80 - 120
Thallium	1.00	1.03		mg/L		103	80 - 120
Vanadium	0.500	0.503		mg/L		101	80 - 120
Zinc	0.500	0.559	^+	mg/L		112	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-718814/1-A
Matrix: Water
Analysis Batch: 718935

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718814

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		07/18/24 10:07	07/18/24 16:31	1

Lab Sample ID: LCS 480-718814/2-A
Matrix: Water
Analysis Batch: 718935

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718814

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00669	0.00713		mg/L		106	80 - 120

Lab Sample ID: 480-221553-17 MS
Matrix: Water
Analysis Batch: 718935

Client Sample ID: RB-07112024
Prep Type: Total/NA
Prep Batch: 718814

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		0.00669	0.00691		mg/L		103	80 - 120

Lab Sample ID: 480-221553-17 MSD
Matrix: Water
Analysis Batch: 718935

Client Sample ID: RB-07112024
Prep Type: Total/NA
Prep Batch: 718814

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.00669	0.00683		mg/L		102	80 - 120	1	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 480-718350/1-A
Matrix: Solid
Analysis Batch: 718456

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718350

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.019	0.0045	mg/Kg		07/15/24 09:13	07/15/24 11:13	1

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: LCSSRM 480-718350/2-A ^10
Matrix: Solid
Analysis Batch: 718456

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718350

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	19.1	18.48		mg/Kg		96.8	59.7 - 139.8

Lab Sample ID: 480-221553-6 MS
Matrix: Solid
Analysis Batch: 718456

Client Sample ID: HA-05-3.0-4.0-MS
Prep Type: Total/NA
Prep Batch: 718350

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.010	J	0.398	0.437		mg/Kg	☼	107	80 - 120

Lab Sample ID: 480-221553-6 MSD
Matrix: Solid
Analysis Batch: 718456

Client Sample ID: HA-05-3.0-4.0-MSD
Prep Type: Total/NA
Prep Batch: 718350

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.010	J	0.403	0.443		mg/Kg	☼	108	80 - 120	1	20

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 480-718886/1-A
Matrix: Solid
Analysis Batch: 718934

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718886

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.92	0.45	mg/Kg		07/18/24 12:15	07/18/24 16:08	1

Lab Sample ID: LCS 480-718886/3-A
Matrix: Solid
Analysis Batch: 718934

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718886

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.400	0.396		mg/Kg		99	29 - 122

Lab Sample ID: LCS 480-718886/4-A
Matrix: Solid
Analysis Batch: 718934

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718886

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.250	0.248		mg/Kg		99	29 - 122

Lab Sample ID: LCSSRM 480-718886/2-A ^10
Matrix: Solid
Analysis Batch: 718934

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718886

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	154	40.79		mg/Kg		26.5	20.6 - 120.8

Method: 9012B - Cyanide, Total andor Amenable (Continued)

Lab Sample ID: 480-221553-3 MS
Matrix: Solid
Analysis Batch: 718934

Client Sample ID: HA-06-3.0-4.0
Prep Type: Total/NA
Prep Batch: 718886

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	ND		1.48	1.54		mg/Kg	☼	104	85 - 115

Lab Sample ID: MB 480-718893/1-A
Matrix: Solid
Analysis Batch: 718934

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718893

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.95	0.46	mg/Kg		07/18/24 13:15	07/18/24 16:46	1

Lab Sample ID: LCSSRM 480-718893/2-A ^10
Matrix: Solid
Analysis Batch: 718934

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718893

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	154	42.78		mg/Kg		27.8	20.6 - 120.8

Lab Sample ID: 480-221553-6 MS
Matrix: Solid
Analysis Batch: 718934

Client Sample ID: HA-05-3.0-4.0-MS
Prep Type: Total/NA
Prep Batch: 718893

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	ND	F1	1.36	1.70	F1	mg/Kg	☼	125	85 - 115

Lab Sample ID: 480-221553-6 MSD
Matrix: Solid
Analysis Batch: 718934

Client Sample ID: HA-05-3.0-4.0-MSD
Prep Type: Total/NA
Prep Batch: 718893

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyanide, Total	ND	F1	1.41	1.73	F1	mg/Kg	☼	122	85 - 115	1	15

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 480-718368/21
Matrix: Water
Analysis Batch: 718368

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0041	mg/L			07/12/24 21:04	1

Lab Sample ID: MB 480-718368/47
Matrix: Water
Analysis Batch: 718368

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.00720	J	0.010	0.0041	mg/L			07/12/24 22:32	1

Method: 9012B - Cyanide, Total and/or Amenable (Continued)

Lab Sample ID: HLCS 480-718368/22
Matrix: Water
Analysis Batch: 718368

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total			0.400	0.384		mg/L		96	90 - 110		

Lab Sample ID: LCS 480-718368/23
Matrix: Water
Analysis Batch: 718368

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total			0.250	0.240		mg/L		96	90 - 110		

Lab Sample ID: LCS 480-718368/48
Matrix: Water
Analysis Batch: 718368

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total			0.250	0.243		mg/L		97	90 - 110		

GC/MS VOA

Analysis Batch: 718296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-17	RB-07112024	Total/NA	Water	8260C	
MB 480-718296/10	Method Blank	Total/NA	Water	8260C	
LCS 480-718296/7	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-718296/8	Lab Control Sample Dup	Total/NA	Water	8260C	

Prep Batch: 718388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-1	SB-01-26.0-31.7	Total/NA	Solid	5035A_L	
480-221553-3	HA-06-3.0-4.0	Total/NA	Solid	5035A_L	
480-221553-4	HA-06-3.0-4.0-FD	Total/NA	Solid	5035A_L	
480-221553-6	HA-05-3.0-4.0	Total/NA	Solid	5035A_L	
480-221553-9	HA-04-1.3-1.5	Total/NA	Solid	5035A_L	
MB 480-718388/2-A	Method Blank	Total/NA	Solid	5035A_L	
LCS 480-718388/1-A	Lab Control Sample	Total/NA	Solid	5035A_L	
480-221553-6 MS	HA-05-3.0-4.0-MS	Total/NA	Solid	5035A_L	
480-221553-6 MSD	HA-05-3.0-4.0-MSD	Total/NA	Solid	5035A_L	

Analysis Batch: 718389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-1	SB-01-26.0-31.7	Total/NA	Solid	8260C	718388
480-221553-3	HA-06-3.0-4.0	Total/NA	Solid	8260C	718388
480-221553-4	HA-06-3.0-4.0-FD	Total/NA	Solid	8260C	718388
480-221553-6	HA-05-3.0-4.0	Total/NA	Solid	8260C	718388
480-221553-9	HA-04-1.3-1.5	Total/NA	Solid	8260C	718388
MB 480-718388/2-A	Method Blank	Total/NA	Solid	8260C	718388
LCS 480-718388/1-A	Lab Control Sample	Total/NA	Solid	8260C	718388
480-221553-6 MS	HA-05-3.0-4.0-MS	Total/NA	Solid	8260C	718388
480-221553-6 MSD	HA-05-3.0-4.0-MSD	Total/NA	Solid	8260C	718388

Analysis Batch: 718408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-11	HA-03-2.3-2.5	Total/NA	Solid	8260C	718435
480-221553-13	HA-02-3.0-4.0	Total/NA	Solid	8260C	718435
MB 480-718435/3-A	Method Blank	Total/NA	Solid	8260C	718435
LCS 480-718435/1-A	Lab Control Sample	Total/NA	Solid	8260C	718435

Prep Batch: 718435

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-11	HA-03-2.3-2.5	Total/NA	Solid	5035A_H	
480-221553-13	HA-02-3.0-4.0	Total/NA	Solid	5035A_H	
MB 480-718435/3-A	Method Blank	Total/NA	Solid	5035A_H	
LCS 480-718435/1-A	Lab Control Sample	Total/NA	Solid	5035A_H	

Prep Batch: 718658

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-14	HA-02-3.0-4.0-FD	Total/NA	Solid	5035A_L	
MB 480-718658/2-A	Method Blank	Total/NA	Solid	5035A_L	
LCS 480-718658/1-A	Lab Control Sample	Total/NA	Solid	5035A_L	

QC Association Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221553-1

GC/MS VOA

Analysis Batch: 718659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-14	HA-02-3.0-4.0-FD	Total/NA	Solid	8260C	718658
MB 480-718658/2-A	Method Blank	Total/NA	Solid	8260C	718658
LCS 480-718658/1-A	Lab Control Sample	Total/NA	Solid	8260C	718658

Prep Batch: 718793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-15	SB-01-43.0-45.0	Total/NA	Solid	5035A_L	
MB 480-718793/2-A	Method Blank	Total/NA	Solid	5035A_L	
LCS 480-718793/1-A	Lab Control Sample	Total/NA	Solid	5035A_L	

Analysis Batch: 718794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-15	SB-01-43.0-45.0	Total/NA	Solid	8260C	718793
MB 480-718793/2-A	Method Blank	Total/NA	Solid	8260C	718793
LCS 480-718793/1-A	Lab Control Sample	Total/NA	Solid	8260C	718793

GC/MS Semi VOA

Prep Batch: 718325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-17	RB-07112024	Total/NA	Water	3510C	
MB 480-718325/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-718325/2-A	Lab Control Sample	Total/NA	Water	3510C	

Prep Batch: 718393

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-17	RB-07112024	Total/NA	Water	3510C	
MB 480-718393/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-718393/2-A	Lab Control Sample	Total/NA	Water	3510C	

Prep Batch: 718403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-1	SB-01-26.0-31.7	Total/NA	Solid	3550C	
480-221553-2	HA-06-0.0-0.2	Total/NA	Solid	3550C	
480-221553-3	HA-06-3.0-4.0	Total/NA	Solid	3550C	
480-221553-4	HA-06-3.0-4.0-FD	Total/NA	Solid	3550C	
480-221553-5	HA-05-0.0-0.2	Total/NA	Solid	3550C	
480-221553-6	HA-05-3.0-4.0	Total/NA	Solid	3550C	
480-221553-7	HA-04-0.0-0.2	Total/NA	Solid	3550C	
480-221553-8	HA-04-0.0-0.2-FD	Total/NA	Solid	3550C	
480-221553-9	HA-04-1.3-1.5	Total/NA	Solid	3550C	
480-221553-10	HA-03-0.0-0.2	Total/NA	Solid	3550C	
480-221553-11	HA-03-2.3-2.5	Total/NA	Solid	3550C	
480-221553-12	HA-02-0.0-0.2	Total/NA	Solid	3550C	
480-221553-13	HA-02-3.0-4.0	Total/NA	Solid	3550C	
480-221553-14	HA-02-3.0-4.0-FD	Total/NA	Solid	3550C	
480-221553-15	SB-01-43.0-45.0	Total/NA	Solid	3550C	
480-221553-16	SB-04-0.0-0.2	Total/NA	Solid	3550C	
MB 480-718403/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-718403/2-A	Lab Control Sample	Total/NA	Solid	3550C	
480-221553-6 MS	HA-05-3.0-4.0-MS	Total/NA	Solid	3550C	

GC/MS Semi VOA (Continued)

Prep Batch: 718403 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-6 MSD	HA-05-3.0-4.0-MSD	Total/NA	Solid	3550C	

Analysis Batch: 718419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-17	RB-07112024	Total/NA	Water	8270D SIM ID	718393
MB 480-718393/1-A	Method Blank	Total/NA	Water	8270D SIM ID	718393
LCS 480-718393/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	718393

Analysis Batch: 718502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-17	RB-07112024	Total/NA	Water	8270D	718325
MB 480-718325/1-A	Method Blank	Total/NA	Water	8270D	718325
LCS 480-718325/2-A	Lab Control Sample	Total/NA	Water	8270D	718325

Analysis Batch: 718990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-1	SB-01-26.0-31.7	Total/NA	Solid	8270D	718403
480-221553-2	HA-06-0.0-0.2	Total/NA	Solid	8270D	718403
480-221553-3	HA-06-3.0-4.0	Total/NA	Solid	8270D	718403
480-221553-4	HA-06-3.0-4.0-FD	Total/NA	Solid	8270D	718403
480-221553-5	HA-05-0.0-0.2	Total/NA	Solid	8270D	718403
480-221553-6	HA-05-3.0-4.0	Total/NA	Solid	8270D	718403
480-221553-7	HA-04-0.0-0.2	Total/NA	Solid	8270D	718403
480-221553-8	HA-04-0.0-0.2-FD	Total/NA	Solid	8270D	718403
480-221553-9	HA-04-1.3-1.5	Total/NA	Solid	8270D	718403
480-221553-10	HA-03-0.0-0.2	Total/NA	Solid	8270D	718403
480-221553-11	HA-03-2.3-2.5	Total/NA	Solid	8270D	718403
480-221553-12	HA-02-0.0-0.2	Total/NA	Solid	8270D	718403
480-221553-13	HA-02-3.0-4.0	Total/NA	Solid	8270D	718403
480-221553-14	HA-02-3.0-4.0-FD	Total/NA	Solid	8270D	718403
480-221553-15	SB-01-43.0-45.0	Total/NA	Solid	8270D	718403
480-221553-16	SB-04-0.0-0.2	Total/NA	Solid	8270D	718403
MB 480-718403/1-A	Method Blank	Total/NA	Solid	8270D	718403
LCS 480-718403/2-A	Lab Control Sample	Total/NA	Solid	8270D	718403
480-221553-6 MS	HA-05-3.0-4.0-MS	Total/NA	Solid	8270D	718403
480-221553-6 MSD	HA-05-3.0-4.0-MSD	Total/NA	Solid	8270D	718403

GC Semi VOA

Prep Batch: 718399

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-1	SB-01-26.0-31.7	Total/NA	Solid	3550C	
480-221553-2	HA-06-0.0-0.2	Total/NA	Solid	3550C	
480-221553-3	HA-06-3.0-4.0	Total/NA	Solid	3550C	
480-221553-4	HA-06-3.0-4.0-FD	Total/NA	Solid	3550C	
480-221553-5	HA-05-0.0-0.2	Total/NA	Solid	3550C	
480-221553-6	HA-05-3.0-4.0	Total/NA	Solid	3550C	
480-221553-7	HA-04-0.0-0.2	Total/NA	Solid	3550C	
480-221553-8	HA-04-0.0-0.2-FD	Total/NA	Solid	3550C	
480-221553-9	HA-04-1.3-1.5	Total/NA	Solid	3550C	
480-221553-10	HA-03-0.0-0.2	Total/NA	Solid	3550C	

GC Semi VOA (Continued)

Prep Batch: 718399 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-11	HA-03-2.3-2.5	Total/NA	Solid	3550C	
480-221553-12	HA-02-0.0-0.2	Total/NA	Solid	3550C	
480-221553-13	HA-02-3.0-4.0	Total/NA	Solid	3550C	
480-221553-14	HA-02-3.0-4.0-FD	Total/NA	Solid	3550C	
480-221553-15	SB-01-43.0-45.0	Total/NA	Solid	3550C	
480-221553-16	SB-04-0.0-0.2	Total/NA	Solid	3550C	
MB 480-718399/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-718399/2-A	Lab Control Sample	Total/NA	Solid	3550C	
480-221553-6 MS	HA-05-3.0-4.0-MS	Total/NA	Solid	3550C	
480-221553-6 MSD	HA-05-3.0-4.0-MSD	Total/NA	Solid	3550C	

Prep Batch: 718405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-1	SB-01-26.0-31.7	Total/NA	Solid	3550C	
480-221553-2	HA-06-0.0-0.2	Total/NA	Solid	3550C	
480-221553-3	HA-06-3.0-4.0	Total/NA	Solid	3550C	
480-221553-4	HA-06-3.0-4.0-FD	Total/NA	Solid	3550C	
480-221553-5	HA-05-0.0-0.2	Total/NA	Solid	3550C	
480-221553-6	HA-05-3.0-4.0	Total/NA	Solid	3550C	
480-221553-7	HA-04-0.0-0.2	Total/NA	Solid	3550C	
480-221553-8	HA-04-0.0-0.2-FD	Total/NA	Solid	3550C	
480-221553-9	HA-04-1.3-1.5	Total/NA	Solid	3550C	
480-221553-10	HA-03-0.0-0.2	Total/NA	Solid	3550C	
480-221553-11	HA-03-2.3-2.5	Total/NA	Solid	3550C	
480-221553-12	HA-02-0.0-0.2	Total/NA	Solid	3550C	
480-221553-13	HA-02-3.0-4.0	Total/NA	Solid	3550C	
480-221553-14	HA-02-3.0-4.0-FD	Total/NA	Solid	3550C	
480-221553-15	SB-01-43.0-45.0	Total/NA	Solid	3550C	
480-221553-16	SB-04-0.0-0.2	Total/NA	Solid	3550C	
MB 480-718405/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-718405/2-A	Lab Control Sample	Total/NA	Solid	3550C	
480-221553-6 MS	HA-05-3.0-4.0-MS	Total/NA	Solid	3550C	
480-221553-6 MSD	HA-05-3.0-4.0-MSD	Total/NA	Solid	3550C	

Analysis Batch: 718531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-1	SB-01-26.0-31.7	Total/NA	Solid	8081B	718399
480-221553-2	HA-06-0.0-0.2	Total/NA	Solid	8081B	718399
480-221553-3	HA-06-3.0-4.0	Total/NA	Solid	8081B	718399
480-221553-4	HA-06-3.0-4.0-FD	Total/NA	Solid	8081B	718399
480-221553-5	HA-05-0.0-0.2	Total/NA	Solid	8081B	718399
480-221553-6	HA-05-3.0-4.0	Total/NA	Solid	8081B	718399
480-221553-7	HA-04-0.0-0.2	Total/NA	Solid	8081B	718399
480-221553-8	HA-04-0.0-0.2-FD	Total/NA	Solid	8081B	718399
480-221553-9	HA-04-1.3-1.5	Total/NA	Solid	8081B	718399
480-221553-10	HA-03-0.0-0.2	Total/NA	Solid	8081B	718399
480-221553-11	HA-03-2.3-2.5	Total/NA	Solid	8081B	718399
480-221553-12	HA-02-0.0-0.2	Total/NA	Solid	8081B	718399
480-221553-13	HA-02-3.0-4.0	Total/NA	Solid	8081B	718399
480-221553-14	HA-02-3.0-4.0-FD	Total/NA	Solid	8081B	718399
480-221553-15	SB-01-43.0-45.0	Total/NA	Solid	8081B	718399

GC Semi VOA (Continued)

Analysis Batch: 718531 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-16	SB-04-0.0-0.2	Total/NA	Solid	8081B	718399
MB 480-718399/1-A	Method Blank	Total/NA	Solid	8081B	718399
LCS 480-718399/2-A	Lab Control Sample	Total/NA	Solid	8081B	718399
480-221553-6 MS	HA-05-3.0-4.0-MS	Total/NA	Solid	8081B	718399
480-221553-6 MSD	HA-05-3.0-4.0-MSD	Total/NA	Solid	8081B	718399

Prep Batch: 718568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-17	RB-07112024	Total/NA	Water	3510C	
MB 480-718568/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-718568/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-718568/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 718599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-17	RB-07112024	Total/NA	Water	8082A	718610
MB 480-718610/1-A	Method Blank	Total/NA	Water	8082A	718610
LCS 480-718610/2-A	Lab Control Sample	Total/NA	Water	8082A	718610
LCSD 480-718610/3-A	Lab Control Sample Dup	Total/NA	Water	8082A	718610

Prep Batch: 718610

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-17	RB-07112024	Total/NA	Water	3510C	
MB 480-718610/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-718610/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-718610/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 718688

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-17	RB-07112024	Total/NA	Water	8081B	718568
MB 480-718568/1-A	Method Blank	Total/NA	Water	8081B	718568
LCS 480-718568/2-A	Lab Control Sample	Total/NA	Water	8081B	718568
LCSD 480-718568/3-A	Lab Control Sample Dup	Total/NA	Water	8081B	718568

Analysis Batch: 718748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-1	SB-01-26.0-31.7	Total/NA	Solid	8082A	718405
480-221553-2	HA-06-0.0-0.2	Total/NA	Solid	8082A	718405
480-221553-3	HA-06-3.0-4.0	Total/NA	Solid	8082A	718405
480-221553-4	HA-06-3.0-4.0-FD	Total/NA	Solid	8082A	718405
480-221553-5	HA-05-0.0-0.2	Total/NA	Solid	8082A	718405
480-221553-6	HA-05-3.0-4.0	Total/NA	Solid	8082A	718405
480-221553-7	HA-04-0.0-0.2	Total/NA	Solid	8082A	718405
480-221553-8	HA-04-0.0-0.2-FD	Total/NA	Solid	8082A	718405
480-221553-9	HA-04-1.3-1.5	Total/NA	Solid	8082A	718405
480-221553-10	HA-03-0.0-0.2	Total/NA	Solid	8082A	718405
480-221553-12	HA-02-0.0-0.2	Total/NA	Solid	8082A	718405
480-221553-13	HA-02-3.0-4.0	Total/NA	Solid	8082A	718405
480-221553-14	HA-02-3.0-4.0-FD	Total/NA	Solid	8082A	718405
MB 480-718405/1-A	Method Blank	Total/NA	Solid	8082A	718405
LCS 480-718405/2-A	Lab Control Sample	Total/NA	Solid	8082A	718405

GC Semi VOA (Continued)

Analysis Batch: 718748 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-6 MS	HA-05-3.0-4.0-MS	Total/NA	Solid	8082A	718405
480-221553-6 MSD	HA-05-3.0-4.0-MSD	Total/NA	Solid	8082A	718405

Analysis Batch: 718951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-11	HA-03-2.3-2.5	Total/NA	Solid	8082A	718405
480-221553-15	SB-01-43.0-45.0	Total/NA	Solid	8082A	718405
480-221553-16	SB-04-0.0-0.2	Total/NA	Solid	8082A	718405

LCMS

Prep Batch: 619819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-17	RB-07112024	Total/NA	Water	1633	
MB 240-619819/1-A	Method Blank	Total/NA	Water	1633	
LCS 240-619819/3-A	Lab Control Sample	Total/NA	Water	1633	
LLCS 240-619819/2-A	Lab Control Sample	Total/NA	Water	1633	

Prep Batch: 619820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-1	SB-01-26.0-31.7	Total/NA	Solid	1633 Shake	
480-221553-1 - RA	SB-01-26.0-31.7	Total/NA	Solid	1633 Shake	
480-221553-6	HA-05-3.0-4.0	Total/NA	Solid	1633 Shake	
480-221553-6 - RA	HA-05-3.0-4.0	Total/NA	Solid	1633 Shake	
MB 240-619820/1-A	Method Blank	Total/NA	Solid	1633 Shake	
LCS 240-619820/3-A	Lab Control Sample	Total/NA	Solid	1633 Shake	
LLCS 240-619820/2-A	Lab Control Sample	Total/NA	Solid	1633 Shake	
480-221553-6 MS	HA-05-3.0-4.0-MS	Total/NA	Solid	1633 Shake	
480-221553-6 MS - RA	HA-05-3.0-4.0-MS	Total/NA	Solid	1633 Shake	
480-221553-6 MSD - RA	HA-05-3.0-4.0-MSD	Total/NA	Solid	1633 Shake	
480-221553-6 MSD	HA-05-3.0-4.0-MSD	Total/NA	Solid	1633 Shake	

Analysis Batch: 619841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-17	RB-07112024	Total/NA	Water	1633	619819
MB 240-619819/1-A	Method Blank	Total/NA	Water	1633	619819
LCS 240-619819/3-A	Lab Control Sample	Total/NA	Water	1633	619819
LLCS 240-619819/2-A	Lab Control Sample	Total/NA	Water	1633	619819

Analysis Batch: 619961

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-1	SB-01-26.0-31.7	Total/NA	Solid	1633	619820
480-221553-6	HA-05-3.0-4.0	Total/NA	Solid	1633	619820
MB 240-619820/1-A	Method Blank	Total/NA	Solid	1633	619820
LCS 240-619820/3-A	Lab Control Sample	Total/NA	Solid	1633	619820
LLCS 240-619820/2-A	Lab Control Sample	Total/NA	Solid	1633	619820
480-221553-6 MS	HA-05-3.0-4.0-MS	Total/NA	Solid	1633	619820
480-221553-6 MSD	HA-05-3.0-4.0-MSD	Total/NA	Solid	1633	619820

LCMS

Analysis Batch: 620562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-1 - RA	SB-01-26.0-31.7	Total/NA	Solid	1633	619820
480-221553-6 MS - RA	HA-05-3.0-4.0-MS	Total/NA	Solid	1633	619820
480-221553-6 MSD - RA	HA-05-3.0-4.0-MSD	Total/NA	Solid	1633	619820

Analysis Batch: 621222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-6 - RA	HA-05-3.0-4.0	Total/NA	Solid	1633	619820

Metals

Prep Batch: 718289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-1	SB-01-26.0-31.7	Total/NA	Solid	3050B	
480-221553-2	HA-06-0.0-0.2	Total/NA	Solid	3050B	
480-221553-3	HA-06-3.0-4.0	Total/NA	Solid	3050B	
480-221553-4	HA-06-3.0-4.0-FD	Total/NA	Solid	3050B	
480-221553-5	HA-05-0.0-0.2	Total/NA	Solid	3050B	
480-221553-6	HA-05-3.0-4.0	Total/NA	Solid	3050B	
480-221553-7	HA-04-0.0-0.2	Total/NA	Solid	3050B	
480-221553-8	HA-04-0.0-0.2-FD	Total/NA	Solid	3050B	
480-221553-9	HA-04-1.3-1.5	Total/NA	Solid	3050B	
480-221553-10	HA-03-0.0-0.2	Total/NA	Solid	3050B	
480-221553-11	HA-03-2.3-2.5	Total/NA	Solid	3050B	
480-221553-12	HA-02-0.0-0.2	Total/NA	Solid	3050B	
480-221553-13	HA-02-3.0-4.0	Total/NA	Solid	3050B	
480-221553-14	HA-02-3.0-4.0-FD	Total/NA	Solid	3050B	
480-221553-15	SB-01-43.0-45.0	Total/NA	Solid	3050B	
480-221553-16	SB-04-0.0-0.2	Total/NA	Solid	3050B	
MB 480-718289/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 480-718289/2-A	Lab Control Sample	Total/NA	Solid	3050B	
480-221553-6 MS	HA-05-3.0-4.0-MS	Total/NA	Solid	3050B	
480-221553-6 MSD	HA-05-3.0-4.0-MSD	Total/NA	Solid	3050B	

Prep Batch: 718342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-17	RB-07112024	Total/NA	Water	3005A	
MB 480-718342/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-718342/2-A	Lab Control Sample	Total/NA	Water	3005A	

Prep Batch: 718350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-1	SB-01-26.0-31.7	Total/NA	Solid	7471B	
480-221553-2	HA-06-0.0-0.2	Total/NA	Solid	7471B	
480-221553-3	HA-06-3.0-4.0	Total/NA	Solid	7471B	
480-221553-4	HA-06-3.0-4.0-FD	Total/NA	Solid	7471B	
480-221553-5	HA-05-0.0-0.2	Total/NA	Solid	7471B	
480-221553-6	HA-05-3.0-4.0	Total/NA	Solid	7471B	
480-221553-7	HA-04-0.0-0.2	Total/NA	Solid	7471B	
480-221553-8	HA-04-0.0-0.2-FD	Total/NA	Solid	7471B	
480-221553-9	HA-04-1.3-1.5	Total/NA	Solid	7471B	
480-221553-10	HA-03-0.0-0.2	Total/NA	Solid	7471B	

Metals (Continued)

Prep Batch: 718350 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-11	HA-03-2.3-2.5	Total/NA	Solid	7471B	
480-221553-12	HA-02-0.0-0.2	Total/NA	Solid	7471B	
480-221553-13	HA-02-3.0-4.0	Total/NA	Solid	7471B	
480-221553-14	HA-02-3.0-4.0-FD	Total/NA	Solid	7471B	
480-221553-15	SB-01-43.0-45.0	Total/NA	Solid	7471B	
480-221553-16	SB-04-0.0-0.2	Total/NA	Solid	7471B	
MB 480-718350/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 480-718350/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	
480-221553-6 MS	HA-05-3.0-4.0-MS	Total/NA	Solid	7471B	
480-221553-6 MSD	HA-05-3.0-4.0-MSD	Total/NA	Solid	7471B	

Analysis Batch: 718456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-1	SB-01-26.0-31.7	Total/NA	Solid	7471B	718350
480-221553-2	HA-06-0.0-0.2	Total/NA	Solid	7471B	718350
480-221553-3	HA-06-3.0-4.0	Total/NA	Solid	7471B	718350
480-221553-4	HA-06-3.0-4.0-FD	Total/NA	Solid	7471B	718350
480-221553-5	HA-05-0.0-0.2	Total/NA	Solid	7471B	718350
480-221553-6	HA-05-3.0-4.0	Total/NA	Solid	7471B	718350
480-221553-7	HA-04-0.0-0.2	Total/NA	Solid	7471B	718350
480-221553-8	HA-04-0.0-0.2-FD	Total/NA	Solid	7471B	718350
480-221553-9	HA-04-1.3-1.5	Total/NA	Solid	7471B	718350
480-221553-10	HA-03-0.0-0.2	Total/NA	Solid	7471B	718350
480-221553-11	HA-03-2.3-2.5	Total/NA	Solid	7471B	718350
480-221553-12	HA-02-0.0-0.2	Total/NA	Solid	7471B	718350
480-221553-13	HA-02-3.0-4.0	Total/NA	Solid	7471B	718350
480-221553-14	HA-02-3.0-4.0-FD	Total/NA	Solid	7471B	718350
480-221553-15	SB-01-43.0-45.0	Total/NA	Solid	7471B	718350
480-221553-16	SB-04-0.0-0.2	Total/NA	Solid	7471B	718350
MB 480-718350/1-A	Method Blank	Total/NA	Solid	7471B	718350
LCSSRM 480-718350/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	718350
480-221553-6 MS	HA-05-3.0-4.0-MS	Total/NA	Solid	7471B	718350
480-221553-6 MSD	HA-05-3.0-4.0-MSD	Total/NA	Solid	7471B	718350

Analysis Batch: 718597

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-1	SB-01-26.0-31.7	Total/NA	Solid	6010C	718289
480-221553-2	HA-06-0.0-0.2	Total/NA	Solid	6010C	718289
480-221553-3	HA-06-3.0-4.0	Total/NA	Solid	6010C	718289
480-221553-4	HA-06-3.0-4.0-FD	Total/NA	Solid	6010C	718289
480-221553-5	HA-05-0.0-0.2	Total/NA	Solid	6010C	718289
480-221553-6	HA-05-3.0-4.0	Total/NA	Solid	6010C	718289
480-221553-7	HA-04-0.0-0.2	Total/NA	Solid	6010C	718289
480-221553-8	HA-04-0.0-0.2-FD	Total/NA	Solid	6010C	718289
480-221553-9	HA-04-1.3-1.5	Total/NA	Solid	6010C	718289
480-221553-10	HA-03-0.0-0.2	Total/NA	Solid	6010C	718289
480-221553-11	HA-03-2.3-2.5	Total/NA	Solid	6010C	718289
480-221553-12	HA-02-0.0-0.2	Total/NA	Solid	6010C	718289
480-221553-13	HA-02-3.0-4.0	Total/NA	Solid	6010C	718289
480-221553-14	HA-02-3.0-4.0-FD	Total/NA	Solid	6010C	718289
480-221553-15	SB-01-43.0-45.0	Total/NA	Solid	6010C	718289

Metals (Continued)

Analysis Batch: 718597 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-16	SB-04-0.0-0.2	Total/NA	Solid	6010C	718289
MB 480-718289/1-A	Method Blank	Total/NA	Solid	6010C	718289
LCSSRM 480-718289/2-A	Lab Control Sample	Total/NA	Solid	6010C	718289
480-221553-6 MS	HA-05-3.0-4.0-MS	Total/NA	Solid	6010C	718289
480-221553-6 MSD	HA-05-3.0-4.0-MSD	Total/NA	Solid	6010C	718289

Analysis Batch: 718628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-17	RB-07112024	Total/NA	Water	6010C	718342
MB 480-718342/1-A	Method Blank	Total/NA	Water	6010C	718342
LCS 480-718342/2-A	Lab Control Sample	Total/NA	Water	6010C	718342

Analysis Batch: 718650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-11	HA-03-2.3-2.5	Total/NA	Solid	6010C	718289

Analysis Batch: 718734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-17	RB-07112024	Total/NA	Water	6010C	718342

Prep Batch: 718814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-17	RB-07112024	Total/NA	Water	7470A	
MB 480-718814/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-718814/2-A	Lab Control Sample	Total/NA	Water	7470A	
480-221553-17 MS	RB-07112024	Total/NA	Water	7470A	
480-221553-17 MSD	RB-07112024	Total/NA	Water	7470A	

Analysis Batch: 718935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-17	RB-07112024	Total/NA	Water	7470A	718814
MB 480-718814/1-A	Method Blank	Total/NA	Water	7470A	718814
LCS 480-718814/2-A	Lab Control Sample	Total/NA	Water	7470A	718814
480-221553-17 MS	RB-07112024	Total/NA	Water	7470A	718814
480-221553-17 MSD	RB-07112024	Total/NA	Water	7470A	718814

General Chemistry

Analysis Batch: 718331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-1	SB-01-26.0-31.7	Total/NA	Solid	Moisture	
480-221553-2	HA-06-0.0-0.2	Total/NA	Solid	Moisture	
480-221553-3	HA-06-3.0-4.0	Total/NA	Solid	Moisture	
480-221553-4	HA-06-3.0-4.0-FD	Total/NA	Solid	Moisture	
480-221553-5	HA-05-0.0-0.2	Total/NA	Solid	Moisture	
480-221553-6	HA-05-3.0-4.0	Total/NA	Solid	Moisture	
480-221553-7	HA-04-0.0-0.2	Total/NA	Solid	Moisture	
480-221553-8	HA-04-0.0-0.2-FD	Total/NA	Solid	Moisture	
480-221553-9	HA-04-1.3-1.5	Total/NA	Solid	Moisture	
480-221553-10	HA-03-0.0-0.2	Total/NA	Solid	Moisture	
480-221553-11	HA-03-2.3-2.5	Total/NA	Solid	Moisture	

General Chemistry (Continued)

Analysis Batch: 718331 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-12	HA-02-0.0-0.2	Total/NA	Solid	Moisture	
480-221553-13	HA-02-3.0-4.0	Total/NA	Solid	Moisture	
480-221553-14	HA-02-3.0-4.0-FD	Total/NA	Solid	Moisture	
480-221553-15	SB-01-43.0-45.0	Total/NA	Solid	Moisture	
480-221553-16	SB-04-0.0-0.2	Total/NA	Solid	Moisture	
480-221553-6 MS	HA-05-3.0-4.0-MS	Total/NA	Solid	Moisture	
480-221553-6 MSD	HA-05-3.0-4.0-MSD	Total/NA	Solid	Moisture	

Analysis Batch: 718368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-17	RB-07112024	Total/NA	Water	9012B	
MB 480-718368/21	Method Blank	Total/NA	Water	9012B	
MB 480-718368/47	Method Blank	Total/NA	Water	9012B	
HLCS 480-718368/22	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-718368/23	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-718368/48	Lab Control Sample	Total/NA	Water	9012B	

Prep Batch: 718886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-1	SB-01-26.0-31.7	Total/NA	Solid	9012B	
480-221553-2	HA-06-0.0-0.2	Total/NA	Solid	9012B	
480-221553-3	HA-06-3.0-4.0	Total/NA	Solid	9012B	
MB 480-718886/1-A	Method Blank	Total/NA	Solid	9012B	
LCS 480-718886/3-A	Lab Control Sample	Total/NA	Solid	9012B	
LCS 480-718886/4-A	Lab Control Sample	Total/NA	Solid	9012B	
LCSSRM 480-718886/2-A ^1	Lab Control Sample	Total/NA	Solid	9012B	
480-221553-3 MS	HA-06-3.0-4.0	Total/NA	Solid	9012B	

Prep Batch: 718893

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-4	HA-06-3.0-4.0-FD	Total/NA	Solid	9012B	
480-221553-5	HA-05-0.0-0.2	Total/NA	Solid	9012B	
480-221553-6	HA-05-3.0-4.0	Total/NA	Solid	9012B	
480-221553-7	HA-04-0.0-0.2	Total/NA	Solid	9012B	
480-221553-8	HA-04-0.0-0.2-FD	Total/NA	Solid	9012B	
480-221553-9	HA-04-1.3-1.5	Total/NA	Solid	9012B	
480-221553-10	HA-03-0.0-0.2	Total/NA	Solid	9012B	
480-221553-11	HA-03-2.3-2.5	Total/NA	Solid	9012B	
480-221553-12	HA-02-0.0-0.2	Total/NA	Solid	9012B	
480-221553-13	HA-02-3.0-4.0	Total/NA	Solid	9012B	
480-221553-14	HA-02-3.0-4.0-FD	Total/NA	Solid	9012B	
480-221553-15	SB-01-43.0-45.0	Total/NA	Solid	9012B	
480-221553-16	SB-04-0.0-0.2	Total/NA	Solid	9012B	
MB 480-718893/1-A	Method Blank	Total/NA	Solid	9012B	
LCSSRM 480-718893/2-A ^1	Lab Control Sample	Total/NA	Solid	9012B	
480-221553-6 MS	HA-05-3.0-4.0-MS	Total/NA	Solid	9012B	
480-221553-6 MSD	HA-05-3.0-4.0-MSD	Total/NA	Solid	9012B	

Analysis Batch: 718934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-1	SB-01-26.0-31.7	Total/NA	Solid	9012B	718886

General Chemistry (Continued)

Analysis Batch: 718934 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221553-2	HA-06-0.0-0.2	Total/NA	Solid	9012B	718886
480-221553-3	HA-06-3.0-4.0	Total/NA	Solid	9012B	718886
480-221553-4	HA-06-3.0-4.0-FD	Total/NA	Solid	9012B	718893
480-221553-5	HA-05-0.0-0.2	Total/NA	Solid	9012B	718893
480-221553-6	HA-05-3.0-4.0	Total/NA	Solid	9012B	718893
480-221553-7	HA-04-0.0-0.2	Total/NA	Solid	9012B	718893
480-221553-8	HA-04-0.0-0.2-FD	Total/NA	Solid	9012B	718893
480-221553-9	HA-04-1.3-1.5	Total/NA	Solid	9012B	718893
480-221553-10	HA-03-0.0-0.2	Total/NA	Solid	9012B	718893
480-221553-11	HA-03-2.3-2.5	Total/NA	Solid	9012B	718893
480-221553-12	HA-02-0.0-0.2	Total/NA	Solid	9012B	718893
480-221553-13	HA-02-3.0-4.0	Total/NA	Solid	9012B	718893
480-221553-14	HA-02-3.0-4.0-FD	Total/NA	Solid	9012B	718893
480-221553-15	SB-01-43.0-45.0	Total/NA	Solid	9012B	718893
480-221553-16	SB-04-0.0-0.2	Total/NA	Solid	9012B	718893
MB 480-718886/1-A	Method Blank	Total/NA	Solid	9012B	718886
MB 480-718893/1-A	Method Blank	Total/NA	Solid	9012B	718893
LCS 480-718886/3-A	Lab Control Sample	Total/NA	Solid	9012B	718886
LCS 480-718886/4-A	Lab Control Sample	Total/NA	Solid	9012B	718886
LCSSRM 480-718886/2-A ^1	Lab Control Sample	Total/NA	Solid	9012B	718886
LCSSRM 480-718893/2-A ^1	Lab Control Sample	Total/NA	Solid	9012B	718893
480-221553-3 MS	HA-06-3.0-4.0	Total/NA	Solid	9012B	718886
480-221553-6 MS	HA-05-3.0-4.0-MS	Total/NA	Solid	9012B	718893
480-221553-6 MSD	HA-05-3.0-4.0-MSD	Total/NA	Solid	9012B	718893

Client Sample ID: SB-01-26.0-31.7
Date Collected: 07/11/24 08:35
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	718331	AF	EET BUF	07/12/24 14:44

Client Sample ID: SB-01-26.0-31.7
Date Collected: 07/11/24 08:35
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-1
Matrix: Solid
Percent Solids: 77.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			718388	CDC	EET BUF	07/12/24 10:00
Total/NA	Analysis	8260C		1	718389	CDC	EET BUF	07/14/24 16:59
Total/NA	Prep	3550C			718403	VXF	EET BUF	07/15/24 07:53
Total/NA	Analysis	8270D		1	718990	EMD	EET BUF	07/19/24 14:40
Total/NA	Prep	3550C			718399	DP	EET BUF	07/15/24 07:45
Total/NA	Analysis	8081B		1	718531	JLS	EET BUF	07/16/24 11:19
Total/NA	Prep	3550C			718405	VXF	EET BUF	07/15/24 08:01
Total/NA	Analysis	8082A		1	718748	W1T	EET BUF	07/18/24 05:49
Total/NA	Prep	1633 Shake			619820	JVB4	EET CLE	07/15/24 08:23
Total/NA	Analysis	1633		1	619961	MRL	EET CLE	07/16/24 09:11
Total/NA	Prep	1633 Shake	RA		619820	JVB4	EET CLE	07/15/24 08:23
Total/NA	Analysis	1633	RA	1	620562	MRL	EET CLE	07/19/24 21:38
Total/NA	Prep	3050B			718289	ET	EET BUF	07/12/24 12:30
Total/NA	Analysis	6010C		1	718597	NZG	EET BUF	07/15/24 17:33
Total/NA	Prep	7471B			718350	ESB	EET BUF	07/15/24 09:13
Total/NA	Analysis	7471B		1	718456	ESB	EET BUF	07/15/24 11:16
Total/NA	Prep	9012B			718886	AM	EET BUF	07/18/24 12:15
Total/NA	Analysis	9012B		1	718934	AM	EET BUF	07/18/24 16:37

Client Sample ID: HA-06-0.0-0.2
Date Collected: 07/11/24 09:30
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	718331	AF	EET BUF	07/12/24 14:44

Client Sample ID: HA-06-0.0-0.2
Date Collected: 07/11/24 09:30
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-2
Matrix: Solid
Percent Solids: 78.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			718403	VXF	EET BUF	07/15/24 07:53
Total/NA	Analysis	8270D		5	718990	EMD	EET BUF	07/19/24 15:12
Total/NA	Prep	3550C			718399	DP	EET BUF	07/15/24 07:45
Total/NA	Analysis	8081B		10	718531	JLS	EET BUF	07/16/24 11:38
Total/NA	Prep	3550C			718405	VXF	EET BUF	07/15/24 08:01
Total/NA	Analysis	8082A		1	718748	W1T	EET BUF	07/18/24 06:06

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221553-1

Client Sample ID: HA-06-0.0-0.2

Lab Sample ID: 480-221553-2
Date Collected: 07/11/24 09:30
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 78.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			718289	ET	EET BUF	07/12/24 12:30
Total/NA	Analysis	6010C		1	718597	NZG	EET BUF	07/15/24 17:40
Total/NA	Prep	7471B			718350	ESB	EET BUF	07/15/24 09:13
Total/NA	Analysis	7471B		1	718456	ESB	EET BUF	07/15/24 11:17
Total/NA	Prep	9012B			718886	AM	EET BUF	07/18/24 12:15
Total/NA	Analysis	9012B		1	718934	AM	EET BUF	07/18/24 16:39

Client Sample ID: HA-06-3.0-4.0

Lab Sample ID: 480-221553-3
Date Collected: 07/11/24 09:50
Matrix: Solid
Date Received: 07/12/24 17:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	718331	AF	EET BUF	07/12/24 14:44

Client Sample ID: HA-06-3.0-4.0

Lab Sample ID: 480-221553-3
Date Collected: 07/11/24 09:50
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 79.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			718388	CDC	EET BUF	07/12/24 10:00
Total/NA	Analysis	8260C		1	718389	CDC	EET BUF	07/14/24 17:23
Total/NA	Prep	3550C			718403	VXF	EET BUF	07/15/24 07:53
Total/NA	Analysis	8270D		1	718990	EMD	EET BUF	07/19/24 15:59
Total/NA	Prep	3550C			718399	DP	EET BUF	07/15/24 07:45
Total/NA	Analysis	8081B		1	718531	JLS	EET BUF	07/16/24 11:58
Total/NA	Prep	3550C			718405	VXF	EET BUF	07/15/24 08:01
Total/NA	Analysis	8082A		1	718748	W1T	EET BUF	07/18/24 06:23
Total/NA	Prep	3050B			718289	ET	EET BUF	07/12/24 12:30
Total/NA	Analysis	6010C		1	718597	NZG	EET BUF	07/15/24 17:42
Total/NA	Prep	7471B			718350	ESB	EET BUF	07/15/24 09:13
Total/NA	Analysis	7471B		1	718456	ESB	EET BUF	07/15/24 11:18
Total/NA	Prep	9012B			718886	AM	EET BUF	07/18/24 12:15
Total/NA	Analysis	9012B		1	718934	AM	EET BUF	07/18/24 16:43

Client Sample ID: HA-06-3.0-4.0-FD

Lab Sample ID: 480-221553-4
Date Collected: 07/11/24 09:50
Matrix: Solid
Date Received: 07/12/24 17:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	718331	AF	EET BUF	07/12/24 14:44

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221553-1

Client Sample ID: HA-06-3.0-4.0-FD

Lab Sample ID: 480-221553-4
Date Collected: 07/11/24 09:50
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 80.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			718388	CDC	EET BUF	07/12/24 10:00
Total/NA	Analysis	8260C		1	718389	CDC	EET BUF	07/14/24 17:47
Total/NA	Prep	3550C			718403	VXF	EET BUF	07/15/24 07:53
Total/NA	Analysis	8270D		1	718990	EMD	EET BUF	07/19/24 16:27
Total/NA	Prep	3550C			718399	DP	EET BUF	07/15/24 07:45
Total/NA	Analysis	8081B		1	718531	JLS	EET BUF	07/16/24 12:18
Total/NA	Prep	3550C			718405	VXF	EET BUF	07/15/24 08:01
Total/NA	Analysis	8082A		1	718748	W1T	EET BUF	07/18/24 06:40
Total/NA	Prep	3050B			718289	ET	EET BUF	07/12/24 12:30
Total/NA	Analysis	6010C		1	718597	NZG	EET BUF	07/15/24 17:44
Total/NA	Prep	7471B			718350	ESB	EET BUF	07/15/24 09:13
Total/NA	Analysis	7471B		1	718456	ESB	EET BUF	07/15/24 11:20
Total/NA	Prep	9012B			718893	AM	EET BUF	07/18/24 13:15
Total/NA	Analysis	9012B		1	718934	AM	EET BUF	07/18/24 16:53

Client Sample ID: HA-05-0.0-0.2

Lab Sample ID: 480-221553-5
Date Collected: 07/11/24 10:25
Matrix: Solid
Date Received: 07/12/24 17:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	718331	AF	EET BUF	07/12/24 14:44

Client Sample ID: HA-05-0.0-0.2

Lab Sample ID: 480-221553-5
Date Collected: 07/11/24 10:25
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 75.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			718403	VXF	EET BUF	07/15/24 07:53
Total/NA	Analysis	8270D		5	718990	EMD	EET BUF	07/19/24 16:54
Total/NA	Prep	3550C			718399	DP	EET BUF	07/15/24 07:45
Total/NA	Analysis	8081B		10	718531	JLS	EET BUF	07/16/24 12:37
Total/NA	Prep	3550C			718405	VXF	EET BUF	07/15/24 08:01
Total/NA	Analysis	8082A		1	718748	W1T	EET BUF	07/18/24 06:56
Total/NA	Prep	3050B			718289	ET	EET BUF	07/12/24 12:30
Total/NA	Analysis	6010C		1	718597	NZG	EET BUF	07/15/24 17:46
Total/NA	Prep	7471B			718350	ESB	EET BUF	07/15/24 09:13
Total/NA	Analysis	7471B		1	718456	ESB	EET BUF	07/15/24 11:21
Total/NA	Prep	9012B			718893	AM	EET BUF	07/18/24 13:15
Total/NA	Analysis	9012B		1	718934	AM	EET BUF	07/18/24 16:55

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221553-1

Client Sample ID: HA-05-3.0-4.0

Lab Sample ID: 480-221553-6
Date Collected: 07/11/24 10:50
Matrix: Solid
Date Received: 07/12/24 17:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	718331	AF	EET BUF	07/12/24 14:44

Client Sample ID: HA-05-3.0-4.0

Lab Sample ID: 480-221553-6
Date Collected: 07/11/24 10:50
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 82.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			718388	CDC	EET BUF	07/12/24 10:00
Total/NA	Analysis	8260C		1	718389	CDC	EET BUF	07/14/24 18:10
Total/NA	Prep	3550C			718403	VXF	EET BUF	07/15/24 07:53
Total/NA	Analysis	8270D		1	718990	EMD	EET BUF	07/19/24 14:10
Total/NA	Prep	3550C			718399	DP	EET BUF	07/15/24 07:45
Total/NA	Analysis	8081B		1	718531	JLS	EET BUF	07/16/24 10:59
Total/NA	Prep	3550C			718405	VXF	EET BUF	07/15/24 08:01
Total/NA	Analysis	8082A		1	718748	W1T	EET BUF	07/18/24 05:32
Total/NA	Prep	1633 Shake			619820	JVB4	EET CLE	07/15/24 08:23
Total/NA	Analysis	1633		1	619961	MRL	EET CLE	07/16/24 09:25
Total/NA	Prep	1633 Shake	RA		619820	JVB4	EET CLE	07/15/24 08:23
Total/NA	Analysis	1633	RA	1	621222	MRL	EET CLE	07/25/24 22:39
Total/NA	Prep	3050B			718289	ET	EET BUF	07/12/24 12:30
Total/NA	Analysis	6010C		1	718597	NZG	EET BUF	07/15/24 17:48
Total/NA	Prep	7471B			718350	ESB	EET BUF	07/15/24 09:13
Total/NA	Analysis	7471B		1	718456	ESB	EET BUF	07/15/24 11:22
Total/NA	Prep	9012B			718893	AM	EET BUF	07/18/24 13:15
Total/NA	Analysis	9012B		1	718934	AM	EET BUF	07/18/24 16:49

Client Sample ID: HA-04-0.0-0.2

Lab Sample ID: 480-221553-7
Date Collected: 07/11/24 11:30
Matrix: Solid
Date Received: 07/12/24 17:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	718331	AF	EET BUF	07/12/24 14:44

Client Sample ID: HA-04-0.0-0.2

Lab Sample ID: 480-221553-7
Date Collected: 07/11/24 11:30
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 78.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			718403	VXF	EET BUF	07/15/24 07:53
Total/NA	Analysis	8270D		10	718990	EMD	EET BUF	07/19/24 17:25
Total/NA	Prep	3550C			718399	DP	EET BUF	07/15/24 07:45
Total/NA	Analysis	8081B		50	718531	JLS	EET BUF	07/16/24 12:57
Total/NA	Prep	3550C			718405	VXF	EET BUF	07/15/24 08:01
Total/NA	Analysis	8082A		1	718748	W1T	EET BUF	07/18/24 07:13

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221553-1

Client Sample ID: HA-04-0.0-0.2

Lab Sample ID: 480-221553-7
Date Collected: 07/11/24 11:30
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 78.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			718289	ET	EET BUF	07/12/24 12:30
Total/NA	Analysis	6010C		1	718597	NZG	EET BUF	07/15/24 18:03
Total/NA	Prep	7471B			718350	ESB	EET BUF	07/15/24 09:13
Total/NA	Analysis	7471B		1	718456	ESB	EET BUF	07/15/24 11:30
Total/NA	Prep	9012B			718893	AM	EET BUF	07/18/24 13:15
Total/NA	Analysis	9012B		1	718934	AM	EET BUF	07/18/24 16:56

Client Sample ID: HA-04-0.0-0.2-FD

Lab Sample ID: 480-221553-8
Date Collected: 07/11/24 11:30
Matrix: Solid
Date Received: 07/12/24 17:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	718331	AF	EET BUF	07/12/24 14:44

Client Sample ID: HA-04-0.0-0.2-FD

Lab Sample ID: 480-221553-8
Date Collected: 07/11/24 11:30
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 79.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			718403	VXF	EET BUF	07/15/24 07:53
Total/NA	Analysis	8270D		10	718990	EMD	EET BUF	07/19/24 17:51
Total/NA	Prep	3550C			718399	DP	EET BUF	07/15/24 07:45
Total/NA	Analysis	8081B		50	718531	JLS	EET BUF	07/16/24 13:17
Total/NA	Prep	3550C			718405	VXF	EET BUF	07/15/24 08:01
Total/NA	Analysis	8082A		1	718748	W1T	EET BUF	07/18/24 07:30
Total/NA	Prep	3050B			718289	ET	EET BUF	07/12/24 12:30
Total/NA	Analysis	6010C		1	718597	NZG	EET BUF	07/15/24 18:05
Total/NA	Prep	7471B			718350	ESB	EET BUF	07/15/24 09:13
Total/NA	Analysis	7471B		1	718456	ESB	EET BUF	07/15/24 11:31
Total/NA	Prep	9012B			718893	AM	EET BUF	07/18/24 13:15
Total/NA	Analysis	9012B		1	718934	AM	EET BUF	07/18/24 17:01

Client Sample ID: HA-04-1.3-1.5

Lab Sample ID: 480-221553-9
Date Collected: 07/11/24 11:50
Matrix: Solid
Date Received: 07/12/24 17:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	718331	AF	EET BUF	07/12/24 14:44

Client Sample ID: HA-04-1.3-1.5

Lab Sample ID: 480-221553-9
Date Collected: 07/11/24 11:50
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 80.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			718388	CDC	EET BUF	07/12/24 10:00
Total/NA	Analysis	8260C		1	718389	CDC	EET BUF	07/14/24 18:34

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221553-1

Client Sample ID: HA-04-1.3-1.5

Lab Sample ID: 480-221553-9
Date Collected: 07/11/24 11:50
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 80.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			718403	VXF	EET BUF	07/15/24 07:53
Total/NA	Analysis	8270D		10	718990	EMD	EET BUF	07/19/24 18:19
Total/NA	Prep	3550C			718399	DP	EET BUF	07/15/24 07:45
Total/NA	Analysis	8081B		50	718531	JLS	EET BUF	07/16/24 13:36
Total/NA	Prep	3550C			718405	VXF	EET BUF	07/15/24 08:01
Total/NA	Analysis	8082A		1	718748	W1T	EET BUF	07/18/24 07:47
Total/NA	Prep	3050B			718289	ET	EET BUF	07/12/24 12:30
Total/NA	Analysis	6010C		1	718597	NZG	EET BUF	07/15/24 18:07
Total/NA	Prep	7471B			718350	ESB	EET BUF	07/15/24 09:13
Total/NA	Analysis	7471B		1	718456	ESB	EET BUF	07/15/24 11:33
Total/NA	Prep	9012B			718893	AM	EET BUF	07/18/24 13:15
Total/NA	Analysis	9012B		1	718934	AM	EET BUF	07/18/24 17:02

Client Sample ID: HA-03-0.0-0.2

Lab Sample ID: 480-221553-10
Date Collected: 07/11/24 12:15
Matrix: Solid
Date Received: 07/12/24 17:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	718331	AF	EET BUF	07/12/24 14:44

Client Sample ID: HA-03-0.0-0.2

Lab Sample ID: 480-221553-10
Date Collected: 07/11/24 12:15
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 88.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			718403	VXF	EET BUF	07/15/24 07:53
Total/NA	Analysis	8270D		10	718990	EMD	EET BUF	07/19/24 18:45
Total/NA	Prep	3550C			718399	DP	EET BUF	07/15/24 07:45
Total/NA	Analysis	8081B		50	718531	JLS	EET BUF	07/16/24 13:56
Total/NA	Prep	3550C			718405	VXF	EET BUF	07/15/24 08:01
Total/NA	Analysis	8082A		1	718748	W1T	EET BUF	07/18/24 08:03
Total/NA	Prep	3050B			718289	ET	EET BUF	07/12/24 12:30
Total/NA	Analysis	6010C		1	718597	NZG	EET BUF	07/15/24 18:09
Total/NA	Prep	7471B			718350	ESB	EET BUF	07/15/24 09:13
Total/NA	Analysis	7471B		1	718456	ESB	EET BUF	07/15/24 11:34
Total/NA	Prep	9012B			718893	AM	EET BUF	07/18/24 13:15
Total/NA	Analysis	9012B		1	718934	AM	EET BUF	07/18/24 17:04

Client Sample ID: HA-03-2.3-2.5

Lab Sample ID: 480-221553-11
Date Collected: 07/11/24 13:00
Matrix: Solid
Date Received: 07/12/24 17:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	718331	AF	EET BUF	07/12/24 14:44

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221553-1

Client Sample ID: HA-03-2.3-2.5

Date Collected: 07/11/24 13:00
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-11

Matrix: Solid
Percent Solids: 94.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_H			718435	ZN	EET BUF	07/15/24 09:29
Total/NA	Analysis	8260C		10	718408	ZN	EET BUF	07/15/24 16:16
Total/NA	Prep	3550C			718403	VXF	EET BUF	07/15/24 07:53
Total/NA	Analysis	8270D		10	718990	EMD	EET BUF	07/19/24 19:14
Total/NA	Prep	3550C			718399	DP	EET BUF	07/15/24 07:45
Total/NA	Analysis	8081B		50	718531	JLS	EET BUF	07/16/24 14:16
Total/NA	Prep	3550C			718405	VXF	EET BUF	07/15/24 08:01
Total/NA	Analysis	8082A		1	718951	W1T	EET BUF	07/19/24 16:20
Total/NA	Prep	3050B			718289	ET	EET BUF	07/12/24 12:30
Total/NA	Analysis	6010C		1	718597	NZG	EET BUF	07/15/24 18:11
Total/NA	Prep	3050B			718289	ET	EET BUF	07/12/24 12:30
Total/NA	Analysis	6010C		1	718650	NZG	EET BUF	07/16/24 14:06
Total/NA	Prep	7471B			718350	ESB	EET BUF	07/15/24 09:13
Total/NA	Analysis	7471B		1	718456	ESB	EET BUF	07/15/24 11:35
Total/NA	Prep	9012B			718893	AM	EET BUF	07/18/24 13:15
Total/NA	Analysis	9012B		1	718934	AM	EET BUF	07/18/24 17:05

Client Sample ID: HA-02-0.0-0.2

Date Collected: 07/11/24 13:30
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-12

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	718331	AF	EET BUF	07/12/24 14:44

Client Sample ID: HA-02-0.0-0.2

Date Collected: 07/11/24 13:30
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-12

Matrix: Solid
Percent Solids: 77.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			718403	VXF	EET BUF	07/15/24 07:53
Total/NA	Analysis	8270D		10	718990	EMD	EET BUF	07/19/24 19:42
Total/NA	Prep	3550C			718399	DP	EET BUF	07/15/24 07:45
Total/NA	Analysis	8081B		20	718531	JLS	EET BUF	07/16/24 14:35
Total/NA	Prep	3550C			718405	VXF	EET BUF	07/15/24 08:01
Total/NA	Analysis	8082A		1	718748	W1T	EET BUF	07/18/24 08:37
Total/NA	Prep	3050B			718289	ET	EET BUF	07/12/24 12:30
Total/NA	Analysis	6010C		1	718597	NZG	EET BUF	07/15/24 18:12
Total/NA	Prep	7471B			718350	ESB	EET BUF	07/15/24 09:13
Total/NA	Analysis	7471B		1	718456	ESB	EET BUF	07/15/24 11:37
Total/NA	Prep	9012B			718893	AM	EET BUF	07/18/24 13:15
Total/NA	Analysis	9012B		1	718934	AM	EET BUF	07/18/24 17:06

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221553-1

Client Sample ID: HA-02-3.0-4.0
Date Collected: 07/11/24 13:40
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-13
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	718331	AF	EET BUF	07/12/24 14:44

Client Sample ID: HA-02-3.0-4.0
Date Collected: 07/11/24 13:40
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-13
Matrix: Solid
Percent Solids: 82.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_H			718435	ZN	EET BUF	07/15/24 09:29
Total/NA	Analysis	8260C		20	718408	ZN	EET BUF	07/15/24 16:40
Total/NA	Prep	3550C			718403	VXF	EET BUF	07/15/24 07:53
Total/NA	Analysis	8270D		1	718990	EMD	EET BUF	07/19/24 20:08
Total/NA	Prep	3550C			718399	DP	EET BUF	07/15/24 07:45
Total/NA	Analysis	8081B		1	718531	JLS	EET BUF	07/16/24 14:55
Total/NA	Prep	3550C			718405	VXF	EET BUF	07/15/24 08:01
Total/NA	Analysis	8082A		1	718748	W1T	EET BUF	07/18/24 08:54
Total/NA	Prep	3050B			718289	ET	EET BUF	07/12/24 12:30
Total/NA	Analysis	6010C		1	718597	NZG	EET BUF	07/15/24 18:14
Total/NA	Prep	7471B			718350	ESB	EET BUF	07/15/24 09:13
Total/NA	Analysis	7471B		1	718456	ESB	EET BUF	07/15/24 11:38
Total/NA	Prep	9012B			718893	AM	EET BUF	07/18/24 13:15
Total/NA	Analysis	9012B		1	718934	AM	EET BUF	07/18/24 17:08

Client Sample ID: HA-02-3.0-4.0-FD
Date Collected: 07/11/24 13:40
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	718331	AF	EET BUF	07/12/24 14:44

Client Sample ID: HA-02-3.0-4.0-FD
Date Collected: 07/11/24 13:40
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-14
Matrix: Solid
Percent Solids: 83.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			718658	CDC	EET BUF	07/12/24 10:00
Total/NA	Analysis	8260C		1	718659	CDC	EET BUF	07/17/24 00:07
Total/NA	Prep	3550C			718403	VXF	EET BUF	07/15/24 07:53
Total/NA	Analysis	8270D		1	718990	EMD	EET BUF	07/19/24 20:38
Total/NA	Prep	3550C			718399	DP	EET BUF	07/15/24 07:45
Total/NA	Analysis	8081B		1	718531	JLS	EET BUF	07/16/24 15:15
Total/NA	Prep	3550C			718405	VXF	EET BUF	07/15/24 08:01
Total/NA	Analysis	8082A		1	718748	W1T	EET BUF	07/18/24 09:10
Total/NA	Prep	3050B			718289	ET	EET BUF	07/12/24 12:30
Total/NA	Analysis	6010C		1	718597	NZG	EET BUF	07/15/24 18:16

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221553-1

Client Sample ID: HA-02-3.0-4.0-FD

Lab Sample ID: 480-221553-14
Date Collected: 07/11/24 13:40
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 83.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7471B			718350	ESB	EET BUF	07/15/24 09:13
Total/NA	Analysis	7471B		1	718456	ESB	EET BUF	07/15/24 11:39
Total/NA	Prep	9012B			718893	AM	EET BUF	07/18/24 13:15
Total/NA	Analysis	9012B		1	718934	AM	EET BUF	07/18/24 17:09

Client Sample ID: SB-01-43.0-45.0

Lab Sample ID: 480-221553-15
Date Collected: 07/11/24 13:46
Matrix: Solid
Date Received: 07/12/24 17:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	718331	AF	EET BUF	07/12/24 14:44

Client Sample ID: SB-01-43.0-45.0

Lab Sample ID: 480-221553-15
Date Collected: 07/11/24 13:46
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 73.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			718793	CDC	EET BUF	07/12/24 10:00
Total/NA	Analysis	8260C		1	718794	CDC	EET BUF	07/17/24 23:05
Total/NA	Prep	3550C			718403	VXF	EET BUF	07/15/24 07:53
Total/NA	Analysis	8270D		1	718990	EMD	EET BUF	07/19/24 21:07
Total/NA	Prep	3550C			718399	DP	EET BUF	07/15/24 07:45
Total/NA	Analysis	8081B		1	718531	JLS	EET BUF	07/16/24 15:35
Total/NA	Prep	3550C			718405	VXF	EET BUF	07/15/24 08:01
Total/NA	Analysis	8082A		1	718951	W1T	EET BUF	07/19/24 15:13
Total/NA	Prep	3050B			718289	ET	EET BUF	07/12/24 12:30
Total/NA	Analysis	6010C		1	718597	NZG	EET BUF	07/15/24 18:18
Total/NA	Prep	7471B			718350	ESB	EET BUF	07/15/24 09:13
Total/NA	Analysis	7471B		1	718456	ESB	EET BUF	07/15/24 11:41
Total/NA	Prep	9012B			718893	AM	EET BUF	07/18/24 13:15
Total/NA	Analysis	9012B		1	718934	AM	EET BUF	07/18/24 17:11

Client Sample ID: SB-04-0.0-0.2

Lab Sample ID: 480-221553-16
Date Collected: 07/11/24 14:55
Matrix: Solid
Date Received: 07/12/24 17:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	718331	AF	EET BUF	07/12/24 14:44

Client Sample ID: SB-04-0.0-0.2

Lab Sample ID: 480-221553-16
Date Collected: 07/11/24 14:55
Matrix: Solid
Date Received: 07/12/24 17:50
Percent Solids: 74.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			718403	VXF	EET BUF	07/15/24 07:53
Total/NA	Analysis	8270D		10	718990	EMD	EET BUF	07/19/24 21:37

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221553-1

Client Sample ID: SB-04-0.0-0.2

Date Collected: 07/11/24 14:55
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-16

Matrix: Solid
Percent Solids: 74.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			718399	DP	EET BUF	07/15/24 07:45
Total/NA	Analysis	8081B		50	718531	JLS	EET BUF	07/16/24 15:54
Total/NA	Prep	3550C			718405	VXF	EET BUF	07/15/24 08:01
Total/NA	Analysis	8082A		1	718951	W1T	EET BUF	07/19/24 16:03
Total/NA	Prep	3050B			718289	ET	EET BUF	07/12/24 12:30
Total/NA	Analysis	6010C		1	718597	NZG	EET BUF	07/15/24 18:26
Total/NA	Prep	7471B			718350	ESB	EET BUF	07/15/24 09:13
Total/NA	Analysis	7471B		1	718456	ESB	EET BUF	07/15/24 11:45
Total/NA	Prep	9012B			718893	AM	EET BUF	07/18/24 13:15
Total/NA	Analysis	9012B		1	718934	AM	EET BUF	07/18/24 17:12

Client Sample ID: RB-07112024

Date Collected: 07/11/24 16:10
Date Received: 07/12/24 17:50

Lab Sample ID: 480-221553-17

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	718296	ERS	EET BUF	07/12/24 22:57
Total/NA	Prep	3510C			718325	LSC	EET BUF	07/12/24 13:42
Total/NA	Analysis	8270D		1	718502	EMD	EET BUF	07/15/24 20:43
Total/NA	Prep	3510C			718393	JMP	EET BUF	07/14/24 09:20
Total/NA	Analysis	8270D SIM ID		1	718419	JMM	EET BUF	07/15/24 19:05
Total/NA	Prep	3510C			718568	JMP	EET BUF	07/16/24 09:36
Total/NA	Analysis	8081B		1	718688	JLS	EET BUF	07/17/24 11:15
Total/NA	Prep	3510C			718610	LSC	EET BUF	07/16/24 13:19
Total/NA	Analysis	8082A		1	718599	H9RU	EET BUF	07/17/24 00:25
Total/NA	Prep	1633			619819	WJW	EET CLE	07/15/24 08:20
Total/NA	Analysis	1633		1	619841	MRL	EET CLE	07/15/24 18:00
Total/NA	Prep	3005A			718342	EMO	EET BUF	07/15/24 09:17
Total/NA	Analysis	6010C		1	718734	NZG	EET BUF	07/17/24 10:20
Total/NA	Prep	3005A			718342	EMO	EET BUF	07/15/24 09:17
Total/NA	Analysis	6010C		1	718628	NZG	EET BUF	07/16/24 12:57
Total/NA	Prep	7470A			718814	ESB	EET BUF	07/18/24 10:07
Total/NA	Analysis	7470A		1	718935	ESB	EET BUF	07/18/24 16:33
Total/NA	Analysis	9012B		1	718368	GW	EET BUF	07/12/24 23:47

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Ashland LLC
Job ID: 480-221553-1
Project/Site: Tank 75 Analysis

Laboratory: Eurofins Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-28-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Method Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221553-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET BUF
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	EET BUF
8081B	Organochlorine Pesticides (GC)	SW846	EET BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET BUF
1633	Per- and Polyfluoroalkyl Substances by LC/MS/MS	EPA	EET CLE
6010C	Metals (ICP)	SW846	EET BUF
7470A	Mercury (CVAA)	SW846	EET BUF
7471B	Mercury (CVAA)	SW846	EET BUF
9012B	Cyanide, Total and/or Amenable	SW846	EET BUF
9012B	Cyanide, Total andor Amenable	SW846	EET BUF
Moisture	Percent Moisture	EPA	EET BUF
1633	Solid-Phase Extraction (SPE)	EPA	EET CLE
1633 Shake	Shake Extraction with SPE	EPA	EET CLE
3005A	Preparation, Total Metals	SW846	EET BUF
3050B	Preparation, Metals	SW846	EET BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET BUF
3550C	Ultrasonic Extraction	SW846	EET BUF
5030C	Purge and Trap	SW846	EET BUF
5035A_H	Closed System Purge and Trap	SW846	EET BUF
5035A_L	Closed System Purge and Trap	SW846	EET BUF
7470A	Preparation, Mercury	SW846	EET BUF
7471B	Preparation, Mercury	SW846	EET BUF
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	EET BUF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221553-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-221553-1	SB-01-26.0-31.7	Solid	07/11/24 08:35	07/12/24 17:50
480-221553-2	HA-06-0.0-0.2	Solid	07/11/24 09:30	07/12/24 17:50
480-221553-3	HA-06-3.0-4.0	Solid	07/11/24 09:50	07/12/24 17:50
480-221553-4	HA-06-3.0-4.0-FD	Solid	07/11/24 09:50	07/12/24 17:50
480-221553-5	HA-05-0.0-0.2	Solid	07/11/24 10:25	07/12/24 17:50
480-221553-6	HA-05-3.0-4.0	Solid	07/11/24 10:50	07/12/24 17:50
480-221553-7	HA-04-0.0-0.2	Solid	07/11/24 11:30	07/12/24 17:50
480-221553-8	HA-04-0.0-0.2-FD	Solid	07/11/24 11:30	07/12/24 17:50
480-221553-9	HA-04-1.3-1.5	Solid	07/11/24 11:50	07/12/24 17:50
480-221553-10	HA-03-0.0-0.2	Solid	07/11/24 12:15	07/12/24 17:50
480-221553-11	HA-03-2.3-2.5	Solid	07/11/24 13:00	07/12/24 17:50
480-221553-12	HA-02-0.0-0.2	Solid	07/11/24 13:30	07/12/24 17:50
480-221553-13	HA-02-3.0-4.0	Solid	07/11/24 13:40	07/12/24 17:50
480-221553-14	HA-02-3.0-4.0-FD	Solid	07/11/24 13:40	07/12/24 17:50
480-221553-15	SB-01-43.0-45.0	Solid	07/11/24 13:46	07/12/24 17:50
480-221553-16	SB-04-0.0-0.2	Solid	07/11/24 14:55	07/12/24 17:50
480-221553-17	RB-07112024	Water	07/11/24 16:10	07/12/24 17:50

10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins Environment Testing

Client Information

Client Contact: Ethan Smith
Company: AECOM
Address: 50 Lakefront Boulevard Suite 111
City: Buffalo
State, Zip: NY, 14202
Phone: 614-790-2274(Tel) / (716)912-4456
Email: ethan.smith@aecom.com / edyta.dunstkowska@aecom.com
Project Name: Tank 75 - Soil Analysis
Site: Tank 75 Site - Tonawanda, NY

Sampler: E. Smith / C. Hancocks / D. Kunowski
Phone: (716) 912-4456
Lab PM: Beninati, John
E-Mail: John.Beninati@et.eurofinsus.com
Carrier Tracking No(s):
State of Origin:
COC No: 480-197590-40883.7
Page: Page 1 of 2
Job #: 60730037
PWSID:
Due Date Requested:
TAT Requested (days): Standard
Compliance Project: Δ Yes Δ No
PO #: 1120269 Task 300
WO #: Ann.Marie.Kropovitch@aecom.com
Project #: 48027595
SSOW#:

Analysis Requested

480-221553 Chain of Custody

Preservation Codes:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL VOCs + TICs	8081B, 8082A, 8270D	6010C, 7471B, 9012B	8270D - TCL SVOCs + 1,4 Dioxane, TICs	1633 - 1633 Standard List	8260C - TCL VOCs + TICs	8270D - TCL SVOCs +TICs	1633_DRAFT_TSS - Percent Suspend Solids PFAS	8082A - TCL PCBs	8081B - TCL Pesticides	6010C, 7470A	9012B_NP - Cyanide, Total	8270D_SIM_MS_ID - 1,4 Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N	N	A	N	N	N	N	D	B	N		
SB-01-26.0-31.7	7-11-24	0835	G	Solid			X	X	X	X	X									9	
HA-06-0.0-0.2	7-11-24	0930	G	Solid				X	X											3	
HA-06-3.0-4.0	7-11-24	0950	G	Solid			X	X	X											7	
HA-06-3.0-4.0-FD	7-11-24	0950	G	Solid			X	X	X											7	
HA-05-0.0-0.2	7-11-24	1025	G	Solid				X	X											3	
HA-05-3.0-4.0	7-11-24	1050	G	Solid			X	X	X	X	X									9	
HA-05-3.0-4.0-MS	7-11-24	1050	G	Solid		Y	X	X	X	X	X									9	
HA-05-3.0-4.0-MSD	7-11-24	1050	G	Solid		Y	X	X	X	X	X									9	
HA-04-0.0-0.2	7-11-24	1130	G	Solid				X	X												
HA-04-0.0-0.2-FD	7-11-24	1130	G	Solid				X	X												
HA-04-1.3-1.5	7-11-24	1150	G	Solid			X	X	X												No MS/MSD Discussed mark

Other:

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:
Date:
Time:
Method of Shipment

	Date/Time	Company	Received by	Date/Time	Company
Relinquished by:	7-11-24 1750	AECOM	LC	7/11/24 1750	
Relinquished by			Received by:		
Relinquished by			Received by:		

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 5.1 4.7 4.3 3.9 5.2 ICE

Ver: 04/02/2024

Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins
Environment Testing

Client Information	Sampler: E. Smith / C. Hanaks / D. Vanmeter	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-197590-40883.10
Client Contact: Ethan Smith	Phone: (716) 912-4456	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin:	Page: ~~Page 10 of 11~~ 2 of 2
Company: AECOM	PWSID:			Job #: 60730037
Address: 50 Lakefront Boulevard Suite 111	Due Date Requested:			
City: Buffalo	TAT Requested (days): Standard			
State, Zip: NY, 14202	Compliance Project: Δ Yes Δ No			
Phone: 614-790-2274(Tel) / (716) 912-4456	PO #: 1120269 Task 300			
Email: ethan.smith@aecom.com / ethan.thomashanaks@aecom.com	WO #: Ann.Marie.Kropovitch@aecom.com			
Project Name: Tank 75 - Soil Analysis	Project #: 48027595			
Site: Tank 75 Site - Tonawanda, NY	SSOW#:			

Analysis Requested

Preservation Codes:
N - None
A - HCL
D - HNO3
B - NaOH

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL VOCs + TICs	8081B, 8082A, 8270D	6010C, 7471B, 9012B	8270D - TCL SVOCs + 1,4 Dioxane, TICs	1633 - 1633 Standard List	8260C - TCL VOCs + TICs	8270D - TCL SVOCs +TICs	1633_DRAFT_TSS - Percent Suspend Solids PFAS	8082A - TCL PCBs	8081B - TCL Pesticides	6010C, 7470A	9012B_NP - Cyanide, Total	8270D_SIM_MS_ID - 1,4 Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N	N	A	N	N	N	N	D	B	N		
HA-03-0.0-0.2	7-11-24	1215	G	Solid				X	X											3	
HA-03-2.3-2.5	7-11-24	1300	G	Solid			X	X	X											7	
HA-02-0.0-0.2	7-11-24	1330	G	Solid				X	X											3	
HA-02-3.0-4.0	7-11-24	1340	G	Solid			X	X	X											7	
HA-02-3.0-4.0-FD	7-11-24	1340	G	Solid			X	X	X											7	
SB-01-43.0-45.0	7-11-24	1346	G	Solid			X	X	X											7	
SB-04-0.0-0.2	7-11-24	1455	G	Solid				X	X											3	
RB-07112024	7-11-24	1610	G	~~Solid~~ water								X	X	X	X	X	X	X	X	16	
				Solid																	
				Solid																	
				Solid																	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
	Relinquished by	7-11-24 1750	AECOM	LC	7/11/24 17:50	
	Relinquished by	Date/Time:	Company	Received by:	Date/Time	Company
	Relinquished by	Date/Time:	Company	Received by:	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 04/02/2024

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-88410.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note): NELAP New York		Job #: 480-221553-1
Address: 180 S. Van Buren Avenue,	Due Date Requested: 7/25/2024			Preservation Codes:
City: Barberton	TAT Requested (days):			
State, Zip: OH, 44203				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site:	SSOW#:			Other:

Analysis Requested

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633/1633_Shake 1633 Standard List	1633/1633_SPE 1633 Standard List	1633_DRAFT_TSS/ Percent Suspend Solids PFAS	Total Number of containers	Special Instructions/Note:
			Preservation Code:								85-35
SB-01-26.0-31 7 (480-221553-1)	7/11/24	08:35 Eastern		Solid			X			1	
HA-05-3.0-4.0 (480-221553-6)	7/11/24	10:50 Eastern		Solid			X			1	
HA-05-3.0-4.0-MS (480-221553-6MS)	7/11/24	10:50 Eastern	MS	Solid			X			1	
HA-05-3.0-4.0-MSD (480-221553-6MSD)	7/11/24	10:50 Eastern	MSD	Solid			X			1	
RB-07112024 (480-221553-17)	7/11/24	16:10 Eastern		Water				X	X	3	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I II III IV Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	7/12/24 1600	EA	MELISSA LOAR	7/13/24 930	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :**
Barberton Facility

Client EDR Buffalo Site Name

Cooler Received on 7-13-24 Opened on 7-13-24

Cooler unpacked by: MALISSA LOAR

FedEx: 1st Grd (Exp) UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # 5C Foam Box Client Cooler Box Other

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☒ See Multiple Cooler Form

IR GUN # (CF °C) Observed Cooler Temp °C Corrected Cooler Temp. °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	(Yes)	No
-Were tamper/custody seals intact and uncompromised?	(Yes)	No NA
3 Shippers' packing slip attached to the cooler(s)?	(Yes)	No
4. Did custody papers accompany the sample(s)?	(Yes)	No
5 Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	(No)
7 Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes)	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp(Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
11 Sufficient quantity received to perform indicated analyses?	(Yes)	No
12. Are these work share samples and all listed on the COC?	(Yes)	No
If yes, Questions 13-17 have been checked at the originating laboratory		
13. Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC442471
14 Were VOAs on the COC?	Yes	No
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes	No NA
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	No
17 Was a LL Hg or Me Hg trip blank present?	Yes	No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19 SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired

Sample(s) were received in a broken container

Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory

Time preserved. Preservative(s) added/Lot number(s)

VOA Sample Preservation - Date/Time VOAs Frozen.

Login # : ____________

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
[✓ EC] Client Box Other	IR GUN #: 22	2.4	2.3	[✓ Wet Ice] Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______	2.6	2.5	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: ______			Wet Ice Blue Ice Dry Ice Water None

☐ See Temperature Excursion Form

WI-NC-099 Cooler Receipt Form Page 2 – Multiple Coolers

SAMPLE CONTROL
EUROFINS ENVIRONMENT TESTING
10 HAZELWOOD DRIVE

BUFFALO, NY 142282223
UNITED STATES US

ACTWGT 43.25 LB
CAD 0759273/CAFE3608
DIMS 26x15x14 IN

BILL SENDER

Part # 159469-434 MTM EXP 08/25

TO SAMPLE RECEIPT
EUROFINS CLEVELAND
180 S VAN BUREN AVE

BARBERTON OH 442033543
(330) 497-9396
REF: BARBERTON

FedEx Express

J241023112201uv

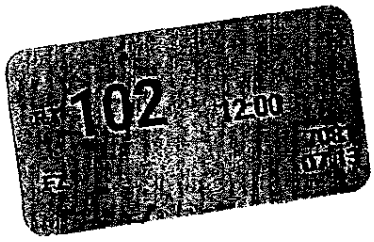
2 of 2
MPS# 0263 7117 9321 7081
Mstr# 7117 9321 7070

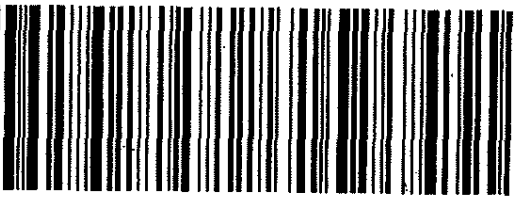
SATURDAY 12:00P
PRIORITY OVERNIGHT

0201

XO CAKA

44203
OH-US CLE





Login Sample Receipt Checklist

Client: Ashland LLC

Job Number: 480-221553-1

Login Number: 221553
List Number: 1
Creator: Yeager, Brian A

List Source: Eurofins Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	FREEZE 7-12-24 10:00
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	AECOM
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Shannon Lloyd
Ashland LLC
PO BOX 2219
Columbus, Ohio 43216

Generated 7/26/2024 12:51:52 PM

JOB DESCRIPTION

Tank 75 Analysis

JOB NUMBER

480-221629-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

See page two for job notes and contact information.

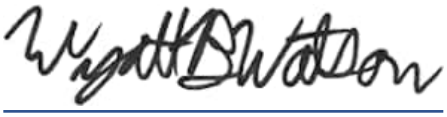
Eurofins Buffalo

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

Authorization



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7/26/2024 12:51:52 PM

Authorized for release by
Wyatt Watson, Project Management Assistant I
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(716)504-9874

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
E	Result exceeded calibration range.
S1-	Surrogate recovery exceeds control limits, low biased.

GC/MS Semi VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.

LCMS

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
480-221629-1

Receipt
The samples were received on 7/12/2024 3:41 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 5.8º C, 6.6º C and 7.2º C.

GC/MS VOA
Method 8260C: The continuing calibration verification (CCV) associated with batch 480-718659 recovered above the upper control limit for Carbon tetrachloride. The sample(s) associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The associated samples are impacted: SB-04-0.5-2.0 (480-221629-2), SB-04-0.5-2.0-FD (480-221629-3) and SB-04-38.0-42.0 (480-221629-4).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method 8270D: The continuing calibration verification (CCV) associated with batch 480-718596 recovered above the upper control limit for Hexachlorocyclopentadiene and 2,4-Dimethylphenol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: RB-07122024 (480-221629-1).

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-718596 recovered outside acceptance criteria, low biased, for 3-Nitroaniline. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D: The following samples were diluted due to color, appearance, and viscosity: SB-04-0.5-2.0 (480-221629-2) and SB-04-0.5-2.0-FD (480-221629-3). Elevated reporting limits (RL) are provided.

Method 8270D: The following sample required a dilution due to the nature of the sample matrix: SB-04-0.5-2.0 (480-221629-2). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8270D: The laboratory control sample (LCS) for preparation batch 480-718528 and analytical batch 480-718824 recovered outside control limits for the following analytes: 3,3'-Dichlorobenzidine. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The following sample was diluted due to the nature of the sample matrix: SB-04-0.5-2.0-FD (480-221629-3). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

Method 8270D: The laboratory control sample (LCS) for preparation batch 480-718528 and analytical batch 480-718966 recovered outside control limits for the following analytes: 3,3'-Dichlorobenzidine. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The following compound have been spiked at a level above the upper range of the initial calibration: 3,3'-Dichlorobenzidine The laboratory control sample (LCS) associated with preparation batch 480-718528 and analytical batch 480-718573 recovered within acceptable limits for this analyte and have been qualified with an "E" flag.

(LCS 480-718528/2-A)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method 8081B: The laboratory control sample duplicate (LCSD) for preparation batch 480-718568 and analytical batch 480-718688 recovered outside control limits for the following analytes: 4,4'-DDT. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

Method 8081B: The method blank for preparation batch 480-718568 and analytical batch 480-718688 contained alpha-BHC and gamma-BHC (Lindane) above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8081B: The following samples were diluted due to the nature of the sample matrix: SB-04-0.5-2.0 (480-221629-2) and SB-04-0.5-2.0-FD (480-221629-3). As such, surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method 8081B: The continuing calibration verification (CCV) associated with batch 480-718686 recovered above the upper control limit for Methoxychlor. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: SB-04-0.5-2.0 (480-221629-2), SB-04-0.5-2.0-FD (480-221629-3) and SB-04-38.0-42.0 (480-221629-4).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method 6010C: The low level continuing calibration verification (CCVL) associated with batch 480-718781 recovered above the upper control limit for Lead. The samples associated with this CCVL were non-detects for the affected analytes; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

LCMS
Method 1633: The following sample was collected in an improper container: RB-07122024 (480-221629-1). Laboratory proceed with analysis.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
Method 9012B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 480-719044 and analytical batch 480-719060 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-718568.

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-718610.

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-718611.

Method 3550C: Due to the matrix, the following samples could not be concentrated to the final method required volume: SB-04-0.5-2.0 (480-221629-2) and SB-04-0.5-2.0-FD (480-221629-3). The reporting limits (RLs) are elevated proportionately.

Method 3550C: The following samples required a Florisil clean-up, via EPA Method 3620C, to reduce matrix interferences: SB-04-0.5-2.0 (480-221629-2) and SB-04-0.5-2.0-FD (480-221629-3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221629-1

Client Sample ID: RB-07122024 — Lab Sample ID: 480-221629-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
alpha-BHC	0.0083	J B	0.050	0.0077	ug/L	1		8081B	Total/NA
Perfluorobutanoic acid (PFBA)	4.1	J	8.2	2.2	ng/L	1		1633	Total/NA
Manganese	0.00044	J B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Potassium	0.39	J	0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	1.0		1.0	0.32	mg/L	1		6010C	Total/NA

Client Sample ID: SB-04-0.5-2.0 — Lab Sample ID: 480-221629-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	4.7	J	6.7	3.1	ug/Kg	1	☼	8260C	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.050	J B	0.20	0.049	ug/Kg	1	☼	1633	Total/NA
Aluminum	18300		12.1	10.4	mg/Kg	1	☼	6010C	Total/NA
Arsenic	4.8		2.4	1.1	mg/Kg	1	☼	6010C	Total/NA
Barium	123		0.61	0.17	mg/Kg	1	☼	6010C	Total/NA
Beryllium	1.0		0.24	0.048	mg/Kg	1	☼	6010C	Total/NA
Cadmium	1.2		0.24	0.085	mg/Kg	1	☼	6010C	Total/NA
Calcium	23300		60.5	32.7	mg/Kg	1	☼	6010C	Total/NA
Chromium	23.0		0.61	0.44	mg/Kg	1	☼	6010C	Total/NA
Cobalt	11.9		0.61	0.12	mg/Kg	1	☼	6010C	Total/NA
Copper	24.5		1.2	0.69	mg/Kg	1	☼	6010C	Total/NA
Iron	20700		12.1	10.3	mg/Kg	1	☼	6010C	Total/NA
Lead	36.1		1.2	0.56	mg/Kg	1	☼	6010C	Total/NA
Magnesium	8980		24.2	10.3	mg/Kg	1	☼	6010C	Total/NA
Manganese	693		1.2	0.34	mg/Kg	1	☼	6010C	Total/NA
Nickel	24.8		6.1	0.30	mg/Kg	1	☼	6010C	Total/NA
Potassium	3690		36.3	29.4	mg/Kg	1	☼	6010C	Total/NA
Selenium	1.4	J	4.8	0.97	mg/Kg	1	☼	6010C	Total/NA
Sodium	163	J	170	74.2	mg/Kg	1	☼	6010C	Total/NA
Vanadium	40.3		0.61	0.16	mg/Kg	1	☼	6010C	Total/NA
Zinc	113		2.4	1.2	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.060		0.024	0.0056	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SB-04-0.5-2.0-FD — Lab Sample ID: 480-221629-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid (PFOS)	0.081	J B	0.19	0.047	ug/Kg	1	☼	1633	Total/NA
Aluminum	21700		12.7	10.9	mg/Kg	1	☼	6010C	Total/NA
Antimony	1.3	J	19.0	0.67	mg/Kg	1	☼	6010C	Total/NA
Arsenic	4.9		2.5	1.1	mg/Kg	1	☼	6010C	Total/NA
Barium	132		0.63	0.18	mg/Kg	1	☼	6010C	Total/NA
Beryllium	1.1		0.25	0.051	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.79		0.25	0.089	mg/Kg	1	☼	6010C	Total/NA
Calcium	28400		63.5	34.3	mg/Kg	1	☼	6010C	Total/NA
Chromium	30.5		0.63	0.46	mg/Kg	1	☼	6010C	Total/NA
Cobalt	12.6		0.63	0.13	mg/Kg	1	☼	6010C	Total/NA
Copper	37.1		1.3	0.72	mg/Kg	1	☼	6010C	Total/NA
Iron	23300		12.7	10.8	mg/Kg	1	☼	6010C	Total/NA
Lead	37.5		1.3	0.58	mg/Kg	1	☼	6010C	Total/NA
Magnesium	10700		25.4	10.8	mg/Kg	1	☼	6010C	Total/NA
Manganese	712		1.3	0.36	mg/Kg	1	☼	6010C	Total/NA
Nickel	26.5		6.3	0.32	mg/Kg	1	☼	6010C	Total/NA
Potassium	4640		38.1	30.8	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Client Sample ID: SB-04-0.5-2.0-FD (Continued)

Lab Sample ID: 480-221629-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	1.2	J	5.1	1.0	mg/Kg	1	☼	6010C	Total/NA
Silver	0.29	J	0.76	0.25	mg/Kg	1	☼	6010C	Total/NA
Sodium	167	J	178	77.8	mg/Kg	1	☼	6010C	Total/NA
Vanadium	41.0		0.63	0.17	mg/Kg	1	☼	6010C	Total/NA
Zinc	136		2.5	1.3	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.063		0.024	0.0056	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SB-04-38.0-42.0

Lab Sample ID: 480-221629-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	13	J	26	4.4	ug/Kg	1	☼	8260C	Total/NA
Methylene Chloride	6.4		5.3	2.4	ug/Kg	1	☼	8260C	Total/NA
Aluminum	27600		13.0	11.2	mg/Kg	1	☼	6010C	Total/NA
Arsenic	3.5		2.6	1.1	mg/Kg	1	☼	6010C	Total/NA
Barium	170		0.65	0.18	mg/Kg	1	☼	6010C	Total/NA
Beryllium	1.2		0.26	0.052	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.31		0.26	0.091	mg/Kg	1	☼	6010C	Total/NA
Calcium	46100		65.2	35.2	mg/Kg	1	☼	6010C	Total/NA
Chromium	33.1		0.65	0.47	mg/Kg	1	☼	6010C	Total/NA
Cobalt	15.0		0.65	0.13	mg/Kg	1	☼	6010C	Total/NA
Copper	22.0		1.3	0.74	mg/Kg	1	☼	6010C	Total/NA
Iron	26100		13.0	11.1	mg/Kg	1	☼	6010C	Total/NA
Lead	10.2		1.3	0.60	mg/Kg	1	☼	6010C	Total/NA
Magnesium	15500		26.1	11.1	mg/Kg	1	☼	6010C	Total/NA
Manganese	568		1.3	0.37	mg/Kg	1	☼	6010C	Total/NA
Nickel	30.0		6.5	0.33	mg/Kg	1	☼	6010C	Total/NA
Potassium	9120		39.1	31.6	mg/Kg	1	☼	6010C	Total/NA
Silver	0.32	J	0.78	0.26	mg/Kg	1	☼	6010C	Total/NA
Sodium	567		183	80.0	mg/Kg	1	☼	6010C	Total/NA
Vanadium	50.3		0.65	0.17	mg/Kg	1	☼	6010C	Total/NA
Zinc	61.2		2.6	1.3	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.019	J	0.027	0.0062	mg/Kg	1	☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221629-1

Client Sample ID: RB-07122024
Date Collected: 07/12/24 09:30
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-1
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/17/24 05:13	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/17/24 05:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/17/24 05:13	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/17/24 05:13	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/17/24 05:13	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/17/24 05:13	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/17/24 05:13	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/17/24 05:13	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/17/24 05:13	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/17/24 05:13	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/17/24 05:13	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/17/24 05:13	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/17/24 05:13	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/17/24 05:13	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/17/24 05:13	1
2-Hexanone	ND		5.0	1.2	ug/L			07/17/24 05:13	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/17/24 05:13	1
Acetone	ND		10	3.0	ug/L			07/17/24 05:13	1
Benzene	ND		1.0	0.41	ug/L			07/17/24 05:13	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/17/24 05:13	1
Bromoform	ND		1.0	0.26	ug/L			07/17/24 05:13	1
Bromomethane	ND		1.0	0.69	ug/L			07/17/24 05:13	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/17/24 05:13	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/17/24 05:13	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/17/24 05:13	1
Chloroethane	ND		1.0	0.32	ug/L			07/17/24 05:13	1
Chloroform	ND		1.0	0.34	ug/L			07/17/24 05:13	1
Chloromethane	ND		1.0	0.35	ug/L			07/17/24 05:13	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			07/17/24 05:13	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/17/24 05:13	1
Cyclohexane	ND		1.0	0.18	ug/L			07/17/24 05:13	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/17/24 05:13	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/17/24 05:13	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/17/24 05:13	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/17/24 05:13	1
Methyl acetate	ND		2.5	1.3	ug/L			07/17/24 05:13	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/17/24 05:13	1
Methylcyclohexane	ND		1.0	0.16	ug/L			07/17/24 05:13	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/17/24 05:13	1
Styrene	ND		1.0	0.73	ug/L			07/17/24 05:13	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/17/24 05:13	1
Toluene	ND		1.0	0.51	ug/L			07/17/24 05:13	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/17/24 05:13	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			07/17/24 05:13	1
Trichloroethene	ND		1.0	0.46	ug/L			07/17/24 05:13	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/17/24 05:13	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/17/24 05:13	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/17/24 05:13	1

Client Sample ID: RB-07122024

Date Collected: 07/12/24 09:30
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-1

Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A		07/17/24 05:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		77 - 120		07/17/24 05:13	1
4-Bromofluorobenzene (Surr)	91		73 - 120		07/17/24 05:13	1
Dibromofluoromethane (Surr)	88		75 - 123		07/17/24 05:13	1
Toluene-d8 (Surr)	94		80 - 120		07/17/24 05:13	1

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.23	0.11	ug/L		07/16/24 13:25	07/17/24 13:00	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	28		15 - 110	07/16/24 13:25	07/17/24 13:00	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		10	1.1	ug/L		07/15/24 13:29	07/16/24 18:46	1
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		07/15/24 13:29	07/16/24 18:46	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		07/15/24 13:29	07/16/24 18:46	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		07/15/24 13:29	07/16/24 18:46	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		07/15/24 13:29	07/16/24 18:46	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		07/15/24 13:29	07/16/24 18:46	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		07/15/24 13:29	07/16/24 18:46	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		07/15/24 13:29	07/16/24 18:46	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		07/15/24 13:29	07/16/24 18:46	1
2-Chlorophenol	ND		5.0	0.53	ug/L		07/15/24 13:29	07/16/24 18:46	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		07/15/24 13:29	07/16/24 18:46	1
2-Methylphenol	ND		5.0	0.40	ug/L		07/15/24 13:29	07/16/24 18:46	1
2-Nitroaniline	ND		10	0.42	ug/L		07/15/24 13:29	07/16/24 18:46	1
2-Nitrophenol	ND		5.0	0.48	ug/L		07/15/24 13:29	07/16/24 18:46	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		07/15/24 13:29	07/16/24 18:46	1
3-Nitroaniline	ND		10	0.48	ug/L		07/15/24 13:29	07/16/24 18:46	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		07/15/24 13:29	07/16/24 18:46	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		07/15/24 13:29	07/16/24 18:46	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		07/15/24 13:29	07/16/24 18:46	1
4-Chloroaniline	ND		5.0	0.59	ug/L		07/15/24 13:29	07/16/24 18:46	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		07/15/24 13:29	07/16/24 18:46	1
4-Methylphenol	ND		10	0.36	ug/L		07/15/24 13:29	07/16/24 18:46	1
4-Nitroaniline	ND		10	0.25	ug/L		07/15/24 13:29	07/16/24 18:46	1
4-Nitrophenol	ND		10	1.5	ug/L		07/15/24 13:29	07/16/24 18:46	1
Acenaphthene	ND		5.0	0.41	ug/L		07/15/24 13:29	07/16/24 18:46	1
Acenaphthylene	ND		5.0	0.38	ug/L		07/15/24 13:29	07/16/24 18:46	1
Acetophenone	ND		5.0	0.54	ug/L		07/15/24 13:29	07/16/24 18:46	1
Anthracene	ND		5.0	0.28	ug/L		07/15/24 13:29	07/16/24 18:46	1
Atrazine	ND		5.0	0.46	ug/L		07/15/24 13:29	07/16/24 18:46	1
Benzaldehyde	ND		5.0	0.27	ug/L		07/15/24 13:29	07/16/24 18:46	1
Benzo(a)anthracene	ND		5.0	0.36	ug/L		07/15/24 13:29	07/16/24 18:46	1
Benzo(a)pyrene	ND		5.0	0.47	ug/L		07/15/24 13:29	07/16/24 18:46	1
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L		07/15/24 13:29	07/16/24 18:46	1
Benzo(g,h,i)perylene	ND		5.0	0.35	ug/L		07/15/24 13:29	07/16/24 18:46	1

Client Sample ID: RB-07122024
Date Collected: 07/12/24 09:30
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-1
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L		07/15/24 13:29	07/16/24 18:46	1
Biphenyl	ND		5.0	0.65	ug/L		07/15/24 13:29	07/16/24 18:46	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		07/15/24 13:29	07/16/24 18:46	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		07/15/24 13:29	07/16/24 18:46	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		07/15/24 13:29	07/16/24 18:46	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		07/15/24 13:29	07/16/24 18:46	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		07/15/24 13:29	07/16/24 18:46	1
Caprolactam	ND		5.0	2.2	ug/L		07/15/24 13:29	07/16/24 18:46	1
Carbazole	ND		5.0	0.30	ug/L		07/15/24 13:29	07/16/24 18:46	1
Chrysene	ND		5.0	0.33	ug/L		07/15/24 13:29	07/16/24 18:46	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		07/15/24 13:29	07/16/24 18:46	1
Dibenzofuran	ND		10	0.51	ug/L		07/15/24 13:29	07/16/24 18:46	1
Diethyl phthalate	ND		5.0	0.22	ug/L		07/15/24 13:29	07/16/24 18:46	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		07/15/24 13:29	07/16/24 18:46	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		07/15/24 13:29	07/16/24 18:46	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		07/15/24 13:29	07/16/24 18:46	1
Fluoranthene	ND		5.0	0.40	ug/L		07/15/24 13:29	07/16/24 18:46	1
Fluorene	ND		5.0	0.36	ug/L		07/15/24 13:29	07/16/24 18:46	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		07/15/24 13:29	07/16/24 18:46	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		07/15/24 13:29	07/16/24 18:46	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		07/15/24 13:29	07/16/24 18:46	1
Hexachloroethane	ND		5.0	0.59	ug/L		07/15/24 13:29	07/16/24 18:46	1
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L		07/15/24 13:29	07/16/24 18:46	1
Isophorone	ND		5.0	0.43	ug/L		07/15/24 13:29	07/16/24 18:46	1
Naphthalene	ND		5.0	0.76	ug/L		07/15/24 13:29	07/16/24 18:46	1
Nitrobenzene	ND		5.0	0.29	ug/L		07/15/24 13:29	07/16/24 18:46	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		07/15/24 13:29	07/16/24 18:46	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		07/15/24 13:29	07/16/24 18:46	1
Pentachlorophenol	ND		10	2.2	ug/L		07/15/24 13:29	07/16/24 18:46	1
Phenanthrene	ND		5.0	0.44	ug/L		07/15/24 13:29	07/16/24 18:46	1
Phenol	ND		5.0	0.39	ug/L		07/15/24 13:29	07/16/24 18:46	1
Pyrene	ND		5.0	0.34	ug/L		07/15/24 13:29	07/16/24 18:46	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Furan, tetrahydro-	*3.5*	*T J N*	*ug/L*		*3.17*	*109-99-9*	*07/15/24 13:29*	*07/16/24 18:46*	*1*
Unknown	*2.7*	*T J*	*ug/L*		*3.26*	*N/A*	*07/15/24 13:29*	*07/16/24 18:46*	*1*
Unknown	*42*	*T J*	*ug/L*		*4.94*	*N/A*	*07/15/24 13:29*	*07/16/24 18:46*	*1*
Unknown	*1.9*	*T J*	*ug/L*		*5.37*	*N/A*	*07/15/24 13:29*	*07/16/24 18:46*	*1*
Unknown	*1.6*	*T J*	*ug/L*		*5.71*	*N/A*	*07/15/24 13:29*	*07/16/24 18:46*	*1*
Tetracosane	*2.0*	*T J N*	*ug/L*		*12.92*	*646-31-1*	*07/15/24 13:29*	*07/16/24 18:46*	*1*
Heptadecane	*3.0*	*T J N*	*ug/L*		*13.25*	*629-78-7*	*07/15/24 13:29*	*07/16/24 18:46*	*1*
Heptacosane	*3.7*	*T J N*	*ug/L*		*13.91*	*593-49-7*	*07/15/24 13:29*	*07/16/24 18:46*	*1*
Hexadecane	*3.2*	*T J N*	*ug/L*		*14.26*	*544-76-3*	*07/15/24 13:29*	*07/16/24 18:46*	*1*
Nonacosane	*3.1*	*T J N*	*ug/L*		*14.65*	*630-03-5*	*07/15/24 13:29*	*07/16/24 18:46*	*1*
Nonadecane	*2.0*	*T J N*	*ug/L*		*15.08*	*629-92-5*	*07/15/24 13:29*	*07/16/24 18:46*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*82*		*25 - 144*	*07/15/24 13:29*	*07/16/24 18:46*	*1*
2-Fluorobiphenyl	*75*		*53 - 126*	*07/15/24 13:29*	*07/16/24 18:46*	*1*
2-Fluorophenol	*52*		*24 - 120*	*07/15/24 13:29*	*07/16/24 18:46*	*1*

Client Sample ID: RB-07122024

Date Collected: 07/12/24 09:30
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-1

Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*62*		*29 - 129*	*07/15/24 13:29*	*07/16/24 18:46*	*1*
Phenol-d5	*39*		*10 - 120*	*07/15/24 13:29*	*07/16/24 18:46*	*1*
p-Terphenyl-d14	*86*		*33 - 132*	*07/15/24 13:29*	*07/16/24 18:46*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.050	0.0092	ug/L		07/16/24 09:36	07/17/24 11:34	1
4,4'-DDE	ND		0.050	0.012	ug/L		07/16/24 09:36	07/17/24 11:34	1
4,4'-DDT	ND	*+	0.050	0.011	ug/L		07/16/24 09:36	07/17/24 11:34	1
Aldrin	ND		0.050	0.0081	ug/L		07/16/24 09:36	07/17/24 11:34	1
alpha-BHC	**0.0083**	**J B**	0.050	0.0077	ug/L		07/16/24 09:36	07/17/24 11:34	1
cis-Chlordane	ND		0.050	0.015	ug/L		07/16/24 09:36	07/17/24 11:34	1
beta-BHC	ND		0.050	0.025	ug/L		07/16/24 09:36	07/17/24 11:34	1
delta-BHC	ND		0.050	0.010	ug/L		07/16/24 09:36	07/17/24 11:34	1
Dieldrin	ND		0.050	0.0098	ug/L		07/16/24 09:36	07/17/24 11:34	1
Endosulfan I	ND		0.050	0.011	ug/L		07/16/24 09:36	07/17/24 11:34	1
Endosulfan II	ND		0.050	0.012	ug/L		07/16/24 09:36	07/17/24 11:34	1
Endosulfan sulfate	ND		0.050	0.016	ug/L		07/16/24 09:36	07/17/24 11:34	1
Endrin	ND		0.050	0.014	ug/L		07/16/24 09:36	07/17/24 11:34	1
Endrin aldehyde	ND		0.050	0.016	ug/L		07/16/24 09:36	07/17/24 11:34	1
Endrin ketone	ND		0.050	0.012	ug/L		07/16/24 09:36	07/17/24 11:34	1
gamma-BHC (Lindane)	ND		0.050	0.0080	ug/L		07/16/24 09:36	07/17/24 11:34	1
trans-Chlordane	ND		0.050	0.011	ug/L		07/16/24 09:36	07/17/24 11:34	1
Heptachlor	ND		0.050	0.0085	ug/L		07/16/24 09:36	07/17/24 11:34	1
Heptachlor epoxide	ND		0.050	0.0074	ug/L		07/16/24 09:36	07/17/24 11:34	1
Methoxychlor	ND		0.050	0.014	ug/L		07/16/24 09:36	07/17/24 11:34	1
Toxaphene	ND		0.50	0.12	ug/L		07/16/24 09:36	07/17/24 11:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	*47*		*10 - 120*	*07/16/24 09:36*	*07/17/24 11:34*	*1*
DCB Decachlorobiphenyl	*44*		*10 - 120*	*07/16/24 09:36*	*07/17/24 11:34*	*1*
Tetrachloro-m-xylene	*62*		*10 - 120*	*07/16/24 09:36*	*07/17/24 11:34*	*1*
Tetrachloro-m-xylene	*56*		*10 - 120*	*07/16/24 09:36*	*07/17/24 11:34*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.60	0.21	ug/L		07/16/24 13:19	07/17/24 00:42	1
PCB-1221	ND		0.60	0.21	ug/L		07/16/24 13:19	07/17/24 00:42	1
PCB-1232	ND		0.60	0.21	ug/L		07/16/24 13:19	07/17/24 00:42	1
PCB-1242	ND		0.60	0.21	ug/L		07/16/24 13:19	07/17/24 00:42	1
PCB-1248	ND		0.60	0.21	ug/L		07/16/24 13:19	07/17/24 00:42	1
PCB-1254	ND		0.60	0.30	ug/L		07/16/24 13:19	07/17/24 00:42	1
PCB-1260	ND		0.60	0.30	ug/L		07/16/24 13:19	07/17/24 00:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	*67*		*10 - 123*	*07/16/24 13:19*	*07/17/24 00:42*	*1*
DCB Decachlorobiphenyl	*58*		*10 - 123*	*07/16/24 13:19*	*07/17/24 00:42*	*1*
Tetrachloro-m-xylene	*60*		*10 - 145*	*07/16/24 13:19*	*07/17/24 00:42*	*1*
Tetrachloro-m-xylene	*59*		*10 - 145*	*07/16/24 13:19*	*07/17/24 00:42*	*1*

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221629-1

Client Sample ID: RB-07122024
Date Collected: 07/12/24 09:30
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-1
Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**4.1**	**J**	8.2	2.2	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluoropentanoic acid (PFPeA)	ND		4.1	1.0	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluorohexanoic acid (PFHxA)	ND		2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluoroheptanoic acid (PFHpA)	ND		2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluorooctanoic acid (PFOA)	ND		2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluorononanoic acid (PFNA)	ND		2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluorodecanoic acid (PFDA)	ND		2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluoroundecanoic acid (PFUnA)	ND		2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluorododecanoic acid (PFDoA)	ND		2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.1	0.53	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluorononanesulfonic acid (PFNS)	ND		2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		8.2	2.1	ng/L		07/17/24 14:24	07/18/24 05:55	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		8.2	2.1	ng/L		07/17/24 14:24	07/18/24 05:55	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		8.2	2.1	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.1	0.64	ng/L		07/17/24 14:24	07/18/24 05:55	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.1	0.53	ng/L		07/17/24 14:24	07/18/24 05:55	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		21	5.1	ng/L		07/17/24 14:24	07/18/24 05:55	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		21	5.1	ng/L		07/17/24 14:24	07/18/24 05:55	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		8.2	2.1	ng/L		07/17/24 14:24	07/18/24 05:55	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		8.2	2.1	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		4.1	1.0	ng/L		07/17/24 14:24	07/18/24 05:55	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		4.1	1.3	ng/L		07/17/24 14:24	07/18/24 05:55	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		8.2	2.1	ng/L		07/17/24 14:24	07/18/24 05:55	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		8.2	2.1	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		4.1	1.0	ng/L		07/17/24 14:24	07/18/24 05:55	1

Client Sample ID: RB-07122024
Date Collected: 07/12/24 09:30
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-1
Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		10	2.6	ng/L		07/17/24 14:24	07/18/24 05:55	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		51	13	ng/L		07/17/24 14:24	07/18/24 05:55	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		51	15	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.1	0.51	ng/L		07/17/24 14:24	07/18/24 05:55	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		4.1	1.0	ng/L		07/17/24 14:24	07/18/24 05:55	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*105*		*10 - 130*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
13C5 PFPeA	*84.1*		*35 - 150*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
13C5 PFHxA	*88.9*		*55 - 150*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
13C4 PFHpA	*92.5*		*55 - 150*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
13C8 PFOA	*89.1*		*60 - 140*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
13C9 PFNA	*91.0*		*55 - 140*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
13C6 PFDA	*98.0*		*50 - 140*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
13C7 PFUnA	*89.5*		*30 - 140*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
13C2 PFTeDA	*70.5*		*10 - 130*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
13C3 PFBS	*87.1*		*55 - 150*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
13C3 PFHxS	*91.6*		*55 - 150*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
13C8 PFOS	*92.8*		*45 - 140*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
13C8 FOSA	*89.4*		*30 - 130*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
d3-NMeFOSAA	*87.8*		*45 - 200*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
d5-NEtFOSAA	*125*		*10 - 200*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
M2-4:2 FTS	*103*		*60 - 200*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
M2-6:2 FTS	*97.3*		*60 - 200*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
M2-8:2 FTS	*93.4*		*50 - 200*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
13C3 HFPO-DA	*87.4*		*25 - 160*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
d7-N-MeFOSE-M	*94.7*		*10 - 150*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
d9-N-EtFOSE-M	*94.7*		*10 - 150*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
d5-NEtPFOSA	*72.4*		*10 - 130*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
d3-NMePFOSA	*74.7*		*15 - 130*	*07/17/24 14:24*	*07/18/24 05:55*	*1*
13C2-PFDoDA	*85.3*		*10 - 150*	*07/17/24 14:24*	*07/18/24 05:55*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		07/16/24 08:42	07/16/24 16:55	1
Antimony	ND		0.020	0.0068	mg/L		07/16/24 08:42	07/16/24 16:55	1
Arsenic	ND		0.015	0.0056	mg/L		07/16/24 08:42	07/16/24 16:55	1
Barium	ND		0.0020	0.00070	mg/L		07/16/24 08:42	07/16/24 16:55	1
Beryllium	ND		0.0020	0.00030	mg/L		07/16/24 08:42	07/16/24 16:55	1
Cadmium	ND		0.0020	0.00050	mg/L		07/16/24 08:42	07/16/24 16:55	1
Calcium	ND		0.50	0.10	mg/L		07/16/24 08:42	07/16/24 16:55	1
Chromium	ND		0.0040	0.0010	mg/L		07/16/24 08:42	07/16/24 16:55	1
Cobalt	ND		0.0040	0.00063	mg/L		07/16/24 08:42	07/16/24 16:55	1
Copper	ND		0.010	0.0016	mg/L		07/16/24 08:42	07/16/24 16:55	1
Iron	ND		0.050	0.019	mg/L		07/16/24 08:42	07/16/24 16:55	1
Lead	ND	^+	0.010	0.0030	mg/L		07/16/24 08:42	07/17/24 15:39	1
Magnesium	ND		0.20	0.043	mg/L		07/16/24 08:42	07/16/24 16:55	1

Client Sample ID: RB-07122024

Date Collected: 07/12/24 09:30
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-1
Matrix: Water

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**0.00044**	**J B**	0.0030	0.00040	mg/L		07/16/24 08:42	07/16/24 16:55	1
Nickel	ND		0.010	0.0013	mg/L		07/16/24 08:42	07/16/24 16:55	1
Potassium	**0.39**	**J**	0.50	0.10	mg/L		07/16/24 08:42	07/16/24 16:55	1
Selenium	ND		0.025	0.0087	mg/L		07/16/24 08:42	07/16/24 16:55	1
Silver	ND		0.0060	0.0017	mg/L		07/16/24 08:42	07/16/24 16:55	1
Sodium	**1.0**		1.0	0.32	mg/L		07/16/24 08:42	07/16/24 16:55	1
Thallium	ND		0.020	0.010	mg/L		07/16/24 08:42	07/16/24 16:55	1
Vanadium	ND		0.0050	0.0015	mg/L		07/16/24 08:42	07/16/24 16:55	1
Zinc	ND		0.010	0.0015	mg/L		07/16/24 08:42	07/16/24 16:55	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		07/16/24 08:01	07/16/24 15:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			07/16/24 19:02	1

Client Sample ID: SB-04-0.5-2.0

Date Collected: 07/12/24 11:45
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-2
Matrix: Solid
Percent Solids: 82.7

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		6.7	0.49	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
1,1,2,2-Tetrachloroethane	ND		6.7	1.1	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6.7	1.5	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
1,1,2-Trichloroethane	ND		6.7	0.88	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
1,1-Dichloroethane	ND		6.7	0.82	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
1,1-Dichloroethene	ND		6.7	0.83	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
1,2,4-Trichlorobenzene	ND		6.7	0.41	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
1,2-Dibromo-3-Chloropropane	ND		6.7	3.4	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
1,2-Dibromoethane	ND		6.7	0.87	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
1,2-Dichlorobenzene	ND		6.7	0.53	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
1,2-Dichloroethane	ND		6.7	0.34	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
1,2-Dichloropropane	ND		6.7	3.4	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
1,3-Dichlorobenzene	ND		6.7	0.35	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
1,4-Dichlorobenzene	ND		6.7	0.94	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
2-Butanone (MEK)	ND		34	2.5	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
2-Hexanone	ND		34	3.4	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
4-Methyl-2-pentanone (MIBK)	ND		34	2.2	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Acetone	ND		34	5.7	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Benzene	ND		6.7	0.33	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Bromodichloromethane	ND		6.7	0.90	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Bromoform	ND		6.7	3.4	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Bromomethane	ND		6.7	0.61	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Carbon disulfide	ND		6.7	3.4	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Carbon tetrachloride	ND		6.7	0.65	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Chlorobenzene	ND		6.7	0.89	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Chloroethane	ND		6.7	1.5	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1

Client Sample ID: SB-04-0.5-2.0
Date Collected: 07/12/24 11:45
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-2
Matrix: Solid
Percent Solids: 82.7

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		6.7	0.42	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Chloromethane	ND		6.7	0.41	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
cis-1,2-Dichloroethene	ND		6.7	0.86	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
cis-1,3-Dichloropropene	ND		6.7	0.97	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Cyclohexane	ND		6.7	0.94	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Dibromochloromethane	ND		6.7	0.86	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Dichlorodifluoromethane	ND		6.7	0.56	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Ethylbenzene	ND		6.7	0.47	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Isopropylbenzene	ND		6.7	1.0	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Methyl acetate	ND		34	4.1	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Methyl tert-butyl ether	ND		6.7	0.66	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Methylcyclohexane	ND		6.7	1.0	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Methylene Chloride	**4.7**	**J**	6.7	3.1	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Styrene	ND		6.7	0.34	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Tetrachloroethene	ND		6.7	0.90	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Toluene	ND		6.7	0.51	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
trans-1,2-Dichloroethene	ND		6.7	0.70	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
trans-1,3-Dichloropropene	ND		6.7	3.0	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Trichloroethene	ND		6.7	1.5	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Trichlorofluoromethane	ND		6.7	0.64	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Vinyl chloride	ND		6.7	0.82	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1
Xylenes, Total	ND		13	1.1	ug/Kg	☼	07/12/24 16:30	07/17/24 00:54	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/12/24 16:30*	*07/17/24 00:54*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*64 - 126*	*07/12/24 16:30*	*07/17/24 00:54*	*1*
4-Bromofluorobenzene (Surr)	*99*		*72 - 126*	*07/12/24 16:30*	*07/17/24 00:54*	*1*
Dibromofluoromethane (Surr)	*95*		*60 - 140*	*07/12/24 16:30*	*07/17/24 00:54*	*1*
Toluene-d8 (Surr)	*99*		*71 - 125*	*07/12/24 16:30*	*07/17/24 00:54*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		5900	3200	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
2,4,5-Trichlorophenol	ND		10000	2700	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
2,4,6-Trichlorophenol	ND		10000	2000	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
2,4-Dichlorophenol	ND		10000	1100	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
2,4-Dimethylphenol	ND		10000	2400	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
2,4-Dinitrophenol	ND		98000	46000	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
2,4-Dinitrotoluene	ND		10000	2100	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
2,6-Dinitrotoluene	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
2-Chloronaphthalene	ND		10000	1700	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
2-Chlorophenol	ND		19000	1800	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
2-Methylnaphthalene	ND		10000	2000	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
2-Methylphenol	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
2-Nitroaniline	ND		19000	1500	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
2-Nitrophenol	ND		10000	2800	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
3,3'-Dichlorobenzidine	ND	*+	19000	12000	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
3-Nitroaniline	ND		19000	2800	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5

Client Sample ID: SB-04-0.5-2.0
Date Collected: 07/12/24 11:45
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-2
Matrix: Solid
Percent Solids: 82.7

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,6-Dinitro-2-methylphenol	ND		19000	10000	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
4-Bromophenyl phenyl ether	ND		10000	1400	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
4-Chloro-3-methylphenol	ND		10000	2500	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
4-Chloroaniline	ND		10000	2500	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
4-Chlorophenyl phenyl ether	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
4-Methylphenol	ND		19000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
4-Nitroaniline	ND		19000	5300	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
4-Nitrophenol	ND		19000	7000	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Acenaphthene	ND		10000	1500	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Acenaphthylene	ND		10000	1300	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Acetophenone	ND		10000	1400	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Anthracene	ND		10000	2500	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Atrazine	ND		10000	3500	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Benzaldehyde	ND		10000	8000	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Benzo[a]anthracene	ND		10000	1000	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Benzo[a]pyrene	ND		10000	1500	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Benzo[b]fluoranthene	ND		10000	1600	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Benzo[g,h,i]perylene	ND		10000	1100	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Benzo[k]fluoranthene	ND		10000	1300	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Biphenyl	ND		10000	1500	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
bis (2-chloroisopropyl) ether	ND		10000	2000	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Bis(2-chloroethoxy)methane	ND		10000	2100	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Bis(2-chloroethyl)ether	ND		10000	1300	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Bis(2-ethylhexyl) phthalate	ND		10000	3400	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Butyl benzyl phthalate	ND		10000	1700	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Caprolactam	ND		10000	3000	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Carbazole	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Chrysene	ND		10000	2200	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Dibenz(a,h)anthracene	ND		10000	1800	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Dibenzofuran	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Diethyl phthalate	ND		10000	1300	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Dimethyl phthalate	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Di-n-butyl phthalate	ND		10000	1700	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Di-n-octyl phthalate	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Fluoranthene	ND		10000	1100	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Fluorene	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Hexachlorobenzene	ND		10000	1400	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Hexachlorobutadiene	ND		10000	1500	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Hexachlorocyclopentadiene	ND		10000	1400	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Hexachloroethane	ND		10000	1300	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Indeno[1,2,3-cd]pyrene	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Isophorone	ND		10000	2100	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Naphthalene	ND		10000	1300	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Nitrobenzene	ND		10000	1100	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
N-Nitrosodi-n-propylamine	ND		10000	1700	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
N-Nitrosodiphenylamine	ND		10000	8200	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Pentachlorophenol	ND		19000	10000	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Phenanthrene	ND		10000	1500	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5
Phenol	ND		10000	1500	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5

Client Sample ID: SB-04-0.5-2.0

Date Collected: 07/12/24 11:45
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-2

Matrix: Solid
Percent Solids: 82.7

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 20:55	5

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/16/24 07:37*	*07/18/24 20:55*	*5*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*127*		*26 - 143*	*07/16/24 07:37*	*07/18/24 20:55*	*5*
2-Fluorobiphenyl	*73*		*50 - 121*	*07/16/24 07:37*	*07/18/24 20:55*	*5*
2-Fluorophenol	*94*		*36 - 120*	*07/16/24 07:37*	*07/18/24 20:55*	*5*
Nitrobenzene-d5	*50*		*40 - 121*	*07/16/24 07:37*	*07/18/24 20:55*	*5*
Phenol-d5	*59*		*41 - 120*	*07/16/24 07:37*	*07/18/24 20:55*	*5*
p-Terphenyl-d14	*77*		*46 - 143*	*07/16/24 07:37*	*07/18/24 20:55*	*5*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		99	19	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
4,4'-DDE	ND		99	21	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
4,4'-DDT	ND		99	23	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
Aldrin	ND		99	24	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
alpha-BHC	ND		99	18	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
cis-Chlordane	ND		99	49	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
beta-BHC	ND		99	18	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
delta-BHC	ND		99	18	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
Dieldrin	ND		99	24	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
Endosulfan I	ND		99	19	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
Endosulfan II	ND		99	18	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
Endosulfan sulfate	ND		99	18	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
Endrin	ND		99	20	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
Endrin aldehyde	ND		99	25	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
Endrin ketone	ND		99	24	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
gamma-BHC (Lindane)	ND		99	18	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
trans-Chlordane	ND		99	31	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
Heptachlor	ND		99	21	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
Heptachlor epoxide	ND		99	25	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
Methoxychlor	ND		99	20	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50
Toxaphene	ND		990	570	ug/Kg	☼	07/16/24 16:34	07/17/24 13:00	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/16/24 16:34*	*07/17/24 13:00*	*50*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/16/24 16:34*	*07/17/24 13:00*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/16/24 16:34*	*07/17/24 13:00*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/16/24 16:34*	*07/17/24 13:00*	*50*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.26	0.051	mg/Kg	☼	07/16/24 16:39	07/17/24 23:40	1
PCB-1221	ND		0.26	0.051	mg/Kg	☼	07/16/24 16:39	07/17/24 23:40	1
PCB-1232	ND		0.26	0.051	mg/Kg	☼	07/16/24 16:39	07/17/24 23:40	1
PCB-1242	ND		0.26	0.051	mg/Kg	☼	07/16/24 16:39	07/17/24 23:40	1
PCB-1248	ND		0.26	0.051	mg/Kg	☼	07/16/24 16:39	07/17/24 23:40	1
PCB-1254	ND		0.26	0.12	mg/Kg	☼	07/16/24 16:39	07/17/24 23:40	1

Client Sample ID: SB-04-0.5-2.0
Date Collected: 07/12/24 11:45
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-2
Matrix: Solid
Percent Solids: 82.7

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1260	ND		0.26	0.12	mg/Kg	☼	07/16/24 16:39	07/17/24 23:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*98*		*60 - 154*	*07/16/24 16:39*	*07/17/24 23:40*	*1*
Tetrachloro-m-xylene	*90*		*60 - 154*	*07/16/24 16:39*	*07/17/24 23:40*	*1*
DCB Decachlorobiphenyl	*85*		*65 - 174*	*07/16/24 16:39*	*07/17/24 23:40*	*1*
DCB Decachlorobiphenyl	*88*		*65 - 174*	*07/16/24 16:39*	*07/17/24 23:40*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.79	0.20	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluoropentanoic acid (PFPeA)	ND		0.39	0.098	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluorohexanoic acid (PFHxA)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluoroheptanoic acid (PFHpA)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluorooctanoic acid (PFOA)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluorononanoic acid (PFNA)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluorodecanoic acid (PFDA)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluoroundecanoic acid (PFUnA)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluorododecanoic acid (PFDoA)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluorooctanesulfonic acid (PFOS)	**0.050**	**J B**	0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluorononanesulfonic acid (PFNS)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		0.79	0.20	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		0.79	0.20	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		0.79	0.20	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		2.0	0.49	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		2.0	0.49	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.79	0.20	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1

Client Sample ID: SB-04-0.5-2.0

Date Collected: 07/12/24 11:45
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-2

Matrix: Solid
Percent Solids: 82.7

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.79	0.20	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.39	0.098	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.39	0.098	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		0.79	0.20	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		0.79	0.20	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.39	0.098	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		0.98	0.25	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		4.9	1.2	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		4.9	1.2	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.20	0.049	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.39	0.098	ug/Kg	☼	07/18/24 08:14	07/18/24 18:02	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*100*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
13C5 PFPeA	*101*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
13C5 PFHxA	*103*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
13C4 PFHpA	*105*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
13C8 PFOA	*103*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
13C9 PFNA	*99.2*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
13C6 PFDA	*92.5*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
13C7 PFUnA	*103*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
13C2 PFTeDA	*87.1*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
13C3 PFBS	*97.4*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
13C3 PFHxS	*98.7*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
13C8 PFOS	*90.8*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
13C8 FOSA	*87.3*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
d3-NMeFOSAA	*90.4*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
d5-NEtFOSAA	*129*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
M2-4:2 FTS	*115*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
M2-6:2 FTS	*128*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
M2-8:2 FTS	*111*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
13C3 HFPO-DA	*102*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
d7-N-MeFOSE-M	*80.6*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
d9-N-EtFOSE-M	*80.4*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
d5-NEtPFOSA	*78.4*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
d3-NMePFOSA	*70.8*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*
13C2-PFDoDA	*93.6*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:02*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**18300**		12.1	10.4	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Antimony	ND		18.2	0.64	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Arsenic	**4.8**		2.4	1.1	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1

Client Sample ID: SB-04-0.5-2.0

Date Collected: 07/12/24 11:45
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-2

Matrix: Solid
Percent Solids: 82.7

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	123		0.61	0.17	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Beryllium	1.0		0.24	0.048	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Cadmium	1.2		0.24	0.085	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Calcium	23300		60.5	32.7	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Chromium	23.0		0.61	0.44	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Cobalt	11.9		0.61	0.12	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Copper	24.5		1.2	0.69	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Iron	20700		12.1	10.3	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Lead	36.1		1.2	0.56	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Magnesium	8980		24.2	10.3	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Manganese	693		1.2	0.34	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Nickel	24.8		6.1	0.30	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Potassium	3690		36.3	29.4	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Selenium	1.4	J	4.8	0.97	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Silver	ND		0.73	0.24	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Sodium	163	J	170	74.2	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Thallium	ND		7.3	0.92	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Vanadium	40.3		0.61	0.16	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1
Zinc	113		2.4	1.2	mg/Kg	☼	07/15/24 13:07	07/16/24 16:00	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.060		0.024	0.0056	mg/Kg	☼	07/17/24 08:25	07/17/24 10:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.1	0.54	mg/Kg	☼	07/19/24 13:18	07/19/24 15:48	1

Client Sample ID: SB-04-0.5-2.0-FD

Date Collected: 07/12/24 11:45
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-3

Matrix: Solid
Percent Solids: 83.8

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.8	0.35	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
1,1,2,2-Tetrachloroethane	ND		4.8	0.78	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.8	1.1	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
1,1,2-Trichloroethane	ND		4.8	0.63	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
1,1-Dichloroethane	ND		4.8	0.59	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
1,1-Dichloroethene	ND		4.8	0.59	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
1,2,4-Trichlorobenzene	ND		4.8	0.29	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
1,2-Dibromo-3-Chloropropane	ND		4.8	2.4	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
1,2-Dibromoethane	ND		4.8	0.62	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
1,2-Dichlorobenzene	ND		4.8	0.38	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
1,2-Dichloroethane	ND		4.8	0.24	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
1,2-Dichloropropane	ND		4.8	2.4	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
1,3-Dichlorobenzene	ND		4.8	0.25	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
1,4-Dichlorobenzene	ND		4.8	0.67	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
2-Butanone (MEK)	ND		24	1.8	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
2-Hexanone	ND		24	2.4	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221629-1

Client Sample ID: SB-04-0.5-2.0-FD
Date Collected: 07/12/24 11:45
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-3
Matrix: Solid
Percent Solids: 83.8

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	ND		24	1.6	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Acetone	ND		24	4.1	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Benzene	ND		4.8	0.24	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Bromodichloromethane	ND		4.8	0.65	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Bromoform	ND		4.8	2.4	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Bromomethane	ND		4.8	0.43	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Carbon disulfide	ND		4.8	2.4	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Carbon tetrachloride	ND		4.8	0.47	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Chlorobenzene	ND		4.8	0.64	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Chloroethane	ND		4.8	1.1	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Chloroform	ND		4.8	0.30	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Chloromethane	ND		4.8	0.29	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
cis-1,2-Dichloroethene	ND		4.8	0.62	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
cis-1,3-Dichloropropene	ND		4.8	0.69	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Cyclohexane	ND		4.8	0.67	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Dibromochloromethane	ND		4.8	0.62	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Dichlorodifluoromethane	ND		4.8	0.40	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Ethylbenzene	ND		4.8	0.33	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Isopropylbenzene	ND		4.8	0.73	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Methyl acetate	ND		24	2.9	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Methyl tert-butyl ether	ND		4.8	0.47	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Methylcyclohexane	ND		4.8	0.73	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Methylene Chloride	ND		4.8	2.2	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Styrene	ND		4.8	0.24	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Tetrachloroethene	ND		4.8	0.65	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Toluene	ND		4.8	0.36	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
trans-1,2-Dichloroethene	ND		4.8	0.50	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
trans-1,3-Dichloropropene	ND		4.8	2.1	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Trichloroethene	ND		4.8	1.1	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Trichlorofluoromethane	ND		4.8	0.46	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Vinyl chloride	ND		4.8	0.59	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1
Xylenes, Total	ND		9.6	0.81	ug/Kg	☼	07/12/24 16:30	07/17/24 01:18	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/12/24 16:30*	*07/17/24 01:18*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*64 - 126*	*07/12/24 16:30*	*07/17/24 01:18*	*1*
4-Bromofluorobenzene (Surr)	*100*		*72 - 126*	*07/12/24 16:30*	*07/17/24 01:18*	*1*
Dibromofluoromethane (Surr)	*99*		*60 - 140*	*07/12/24 16:30*	*07/17/24 01:18*	*1*
Toluene-d8 (Surr)	*98*		*71 - 125*	*07/12/24 16:30*	*07/17/24 01:18*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		5900	3300	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
2,4,5-Trichlorophenol	ND		10000	2700	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
2,4,6-Trichlorophenol	ND		10000	2000	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
2,4-Dichlorophenol	ND		10000	1100	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
2,4-Dimethylphenol	ND		10000	2400	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
2,4-Dinitrophenol	ND		99000	47000	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5

Client Sample ID: SB-04-0.5-2.0-FD
Date Collected: 07/12/24 11:45
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-3
Matrix: Solid
Percent Solids: 83.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		10000	2100	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
2,6-Dinitrotoluene	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
2-Chloronaphthalene	ND		10000	1700	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
2-Chlorophenol	ND		20000	1800	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
2-Methylnaphthalene	ND		10000	2000	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
2-Methylphenol	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
2-Nitroaniline	ND		20000	1500	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
2-Nitrophenol	ND		10000	2900	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
3,3'-Dichlorobenzidine	ND	*+	20000	12000	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
3-Nitroaniline	ND		20000	2800	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
4,6-Dinitro-2-methylphenol	ND		20000	10000	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
4-Bromophenyl phenyl ether	ND		10000	1400	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
4-Chloro-3-methylphenol	ND		10000	2500	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
4-Chloroaniline	ND		10000	2500	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
4-Chlorophenyl phenyl ether	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
4-Methylphenol	ND		20000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
4-Nitroaniline	ND		20000	5300	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
4-Nitrophenol	ND		20000	7100	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Acenaphthene	ND		10000	1500	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Acenaphthylene	ND		10000	1300	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Acetophenone	ND		10000	1400	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Anthracene	ND		10000	2500	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Atrazine	ND		10000	3500	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Benzaldehyde	ND		10000	8000	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Benzo[a]anthracene	ND		10000	1000	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Benzo[a]pyrene	ND		10000	1500	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Benzo[b]fluoranthene	ND		10000	1600	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Benzo[g,h,i]perylene	ND		10000	1100	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Benzo[k]fluoranthene	ND		10000	1300	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Biphenyl	ND		10000	1500	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
bis (2-chloroisopropyl) ether	ND		10000	2000	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Bis(2-chloroethoxy)methane	ND		10000	2100	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Bis(2-chloroethyl)ether	ND		10000	1300	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Bis(2-ethylhexyl) phthalate	ND		10000	3400	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Butyl benzyl phthalate	ND		10000	1700	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Caprolactam	ND		10000	3000	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Carbazole	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Chrysene	ND		10000	2300	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Dibenz(a,h)anthracene	ND		10000	1800	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Dibenzofuran	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Diethyl phthalate	ND		10000	1300	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Dimethyl phthalate	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Di-n-butyl phthalate	ND		10000	1700	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Di-n-octyl phthalate	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Fluoranthene	ND		10000	1100	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Fluorene	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Hexachlorobenzene	ND		10000	1400	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Hexachlorobutadiene	ND		10000	1500	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Hexachlorocyclopentadiene	ND		10000	1400	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5

Client Sample ID: SB-04-0.5-2.0-FD

Date Collected: 07/12/24 11:45
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-3

Matrix: Solid
Percent Solids: 83.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachloroethane	ND		10000	1300	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Indeno[1,2,3-cd]pyrene	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Isophorone	ND		10000	2100	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Naphthalene	ND		10000	1300	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Nitrobenzene	ND		10000	1100	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
N-Nitrosodi-n-propylamine	ND		10000	1700	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
N-Nitrosodiphenylamine	ND		10000	8200	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Pentachlorophenol	ND		20000	10000	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Phenanthrene	ND		10000	1500	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Phenol	ND		10000	1500	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5
Pyrene	ND		10000	1200	ug/Kg	☼	07/16/24 07:37	07/18/24 21:22	5

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/16/24 07:37*	*07/18/24 21:22*	*5*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*127*		*26 - 143*	*07/16/24 07:37*	*07/18/24 21:22*	*5*
2-Fluorobiphenyl	*80*		*50 - 121*	*07/16/24 07:37*	*07/18/24 21:22*	*5*
2-Fluorophenol	*0*	*S1-*	*36 - 120*	*07/16/24 07:37*	*07/18/24 21:22*	*5*
Nitrobenzene-d5	*63*		*40 - 121*	*07/16/24 07:37*	*07/18/24 21:22*	*5*
Phenol-d5	*75*		*41 - 120*	*07/16/24 07:37*	*07/18/24 21:22*	*5*
p-Terphenyl-d14	*76*		*46 - 143*	*07/16/24 07:37*	*07/18/24 21:22*	*5*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		97	19	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
4,4'-DDE	ND		97	20	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
4,4'-DDT	ND		97	23	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
Aldrin	ND		97	24	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
alpha-BHC	ND		97	18	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
cis-Chlordane	ND		97	48	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
beta-BHC	ND		97	18	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
delta-BHC	ND		97	18	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
Dieldrin	ND		97	23	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
Endosulfan I	ND		97	19	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
Endosulfan II	ND		97	18	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
Endosulfan sulfate	ND		97	18	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
Endrin	ND		97	19	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
Endrin aldehyde	ND		97	25	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
Endrin ketone	ND		97	24	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
gamma-BHC (Lindane)	ND		97	18	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
trans-Chlordane	ND		97	31	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
Heptachlor	ND		97	21	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
Heptachlor epoxide	ND		97	25	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
Methoxychlor	ND		97	20	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50
Toxaphene	ND		970	570	ug/Kg	☼	07/16/24 16:34	07/17/24 13:20	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/16/24 16:34*	*07/17/24 13:20*	*50*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/16/24 16:34*	*07/17/24 13:20*	*50*

Client Sample ID: SB-04-0.5-2.0-FD
Date Collected: 07/12/24 11:45
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-3
Matrix: Solid
Percent Solids: 83.8

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/16/24 16:34*	*07/17/24 13:20*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/16/24 16:34*	*07/17/24 13:20*	*50*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.22	0.043	mg/Kg	☼	07/16/24 16:39	07/17/24 23:57	1
PCB-1221	ND		0.22	0.043	mg/Kg	☼	07/16/24 16:39	07/17/24 23:57	1
PCB-1232	ND		0.22	0.043	mg/Kg	☼	07/16/24 16:39	07/17/24 23:57	1
PCB-1242	ND		0.22	0.043	mg/Kg	☼	07/16/24 16:39	07/17/24 23:57	1
PCB-1248	ND		0.22	0.043	mg/Kg	☼	07/16/24 16:39	07/17/24 23:57	1
PCB-1254	ND		0.22	0.10	mg/Kg	☼	07/16/24 16:39	07/17/24 23:57	1
PCB-1260	ND		0.22	0.10	mg/Kg	☼	07/16/24 16:39	07/17/24 23:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	*101*		*60 - 154*	*07/16/24 16:39*	*07/17/24 23:57*	*1*
Tetrachloro-m-xylene	*87*		*60 - 154*	*07/16/24 16:39*	*07/17/24 23:57*	*1*
DCB Decachlorobiphenyl	*87*		*65 - 174*	*07/16/24 16:39*	*07/17/24 23:57*	*1*
DCB Decachlorobiphenyl	*90*		*65 - 174*	*07/16/24 16:39*	*07/17/24 23:57*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.76	0.19	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluoropentanoic acid (PFPeA)	ND		0.38	0.094	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluorohexanoic acid (PFHxA)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluoroheptanoic acid (PFHpA)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluorooctanoic acid (PFOA)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluorononanoic acid (PFNA)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluorodecanoic acid (PFDA)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluoroundecanoic acid (PFUnA)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluorododecanoic acid (PFDoA)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluorooctanesulfonic acid (PFOS)	**0.081**	**J B**	0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluorononanesulfonic acid (PFNS)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		0.76	0.19	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		0.76	0.19	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		0.76	0.19	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1

Client Sample ID: SB-04-0.5-2.0-FD
Date Collected: 07/12/24 11:45
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-3
Matrix: Solid
Percent Solids: 83.8

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1.9	0.47	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1.9	0.47	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.76	0.19	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.76	0.19	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.38	0.094	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.38	0.094	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		0.76	0.19	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		0.76	0.19	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.38	0.094	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		0.94	0.24	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		4.7	1.2	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		4.7	1.2	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.19	0.047	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.38	0.094	ug/Kg	☼	07/18/24 08:14	07/18/24 18:16	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*102*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
13C5 PFPeA	*88.3*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
13C5 PFHxA	*92.4*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
13C4 PFHpA	*95.4*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
13C8 PFOA	*82.8*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
13C9 PFNA	*98.3*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
13C6 PFDA	*100*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
13C7 PFUnA	*103*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
13C2 PFTeDA	*99.3*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
13C3 PFBS	*98.5*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
13C3 PFHxS	*101*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
13C8 PFOS	*97.1*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
13C8 FOSA	*99.9*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
d3-NMeFOSAA	*94.2*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
d5-NEtFOSAA	*113*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
M2-4:2 FTS	*112*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
M2-6:2 FTS	*129*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
M2-8:2 FTS	*129*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*
13C3 HFPO-DA	*90.7*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:16*	*1*

Client Sample ID: SB-04-0.5-2.0-FD

Date Collected: 07/12/24 11:45
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-3

Matrix: Solid
Percent Solids: 83.8

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d7-N-MeFOSE-M	91.1		20 - 150	07/18/24 08:14	07/18/24 18:16	1
d9-N-EtFOSE-M	90.0		20 - 150	07/18/24 08:14	07/18/24 18:16	1
d5-NEtPFOSA	87.4		20 - 150	07/18/24 08:14	07/18/24 18:16	1
d3-NMePFOSA	87.3		20 - 150	07/18/24 08:14	07/18/24 18:16	1
13C2-PFDoDA	98.6		20 - 150	07/18/24 08:14	07/18/24 18:16	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	21700		12.7	10.9	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Antimony	1.3	J	19.0	0.67	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Arsenic	4.9		2.5	1.1	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Barium	132		0.63	0.18	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Beryllium	1.1		0.25	0.051	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Cadmium	0.79		0.25	0.089	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Calcium	28400		63.5	34.3	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Chromium	30.5		0.63	0.46	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Cobalt	12.6		0.63	0.13	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Copper	37.1		1.3	0.72	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Iron	23300		12.7	10.8	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Lead	37.5		1.3	0.58	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Magnesium	10700		25.4	10.8	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Manganese	712		1.3	0.36	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Nickel	26.5		6.3	0.32	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Potassium	4640		38.1	30.8	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Selenium	1.2	J	5.1	1.0	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Silver	0.29	J	0.76	0.25	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Sodium	167	J	178	77.8	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Thallium	ND		7.6	0.96	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Vanadium	41.0		0.63	0.17	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1
Zinc	136		2.5	1.3	mg/Kg	☼	07/15/24 13:07	07/16/24 16:02	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.063		0.024	0.0056	mg/Kg	☼	07/17/24 08:25	07/17/24 10:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.1	0.55	mg/Kg	☼	07/19/24 13:18	07/19/24 15:50	1

Client Sample ID: SB-04-38.0-42.0

Date Collected: 07/12/24 12:50
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-4

Matrix: Solid
Percent Solids: 73.4

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.3	0.38	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
1,1,2,2-Tetrachloroethane	ND		5.3	0.85	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.3	1.2	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
1,1,2-Trichloroethane	ND		5.3	0.68	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
1,1-Dichloroethane	ND		5.3	0.64	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
1,1-Dichloroethene	ND		5.3	0.64	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1

Client Sample ID: SB-04-38.0-42.0
Date Collected: 07/12/24 12:50
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-4
Matrix: Solid
Percent Solids: 73.4

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		5.3	0.32	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
1,2-Dibromo-3-Chloropropane	ND		5.3	2.6	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
1,2-Dibromoethane	ND		5.3	0.68	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
1,2-Dichlorobenzene	ND		5.3	0.41	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
1,2-Dichloroethane	ND		5.3	0.26	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
1,2-Dichloropropane	ND		5.3	2.6	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
1,3-Dichlorobenzene	ND		5.3	0.27	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
1,4-Dichlorobenzene	ND		5.3	0.74	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
2-Butanone (MEK)	ND		26	1.9	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
2-Hexanone	ND		26	2.6	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
4-Methyl-2-pentanone (MIBK)	ND		26	1.7	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Acetone	**13**	**J**	26	4.4	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Benzene	ND		5.3	0.26	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Bromodichloromethane	ND		5.3	0.71	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Bromoform	ND		5.3	2.6	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Bromomethane	ND		5.3	0.47	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Carbon disulfide	ND		5.3	2.6	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Carbon tetrachloride	ND		5.3	0.51	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Chlorobenzene	ND		5.3	0.70	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Chloroethane	ND		5.3	1.2	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Chloroform	ND		5.3	0.33	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Chloromethane	ND		5.3	0.32	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
cis-1,2-Dichloroethene	ND		5.3	0.67	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
cis-1,3-Dichloropropene	ND		5.3	0.76	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Cyclohexane	ND		5.3	0.74	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Dibromochloromethane	ND		5.3	0.67	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Dichlorodifluoromethane	ND		5.3	0.44	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Ethylbenzene	ND		5.3	0.36	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Isopropylbenzene	ND		5.3	0.79	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Methyl acetate	ND		26	3.2	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Methyl tert-butyl ether	ND		5.3	0.52	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Methylcyclohexane	ND		5.3	0.80	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Methylene Chloride	**6.4**		5.3	2.4	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Styrene	ND		5.3	0.26	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Tetrachloroethene	ND		5.3	0.71	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Toluene	ND		5.3	0.40	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
trans-1,2-Dichloroethene	ND		5.3	0.54	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
trans-1,3-Dichloropropene	ND		5.3	2.3	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Trichloroethene	ND		5.3	1.2	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Trichlorofluoromethane	ND		5.3	0.50	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Vinyl chloride	ND		5.3	0.64	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1
Xylenes, Total	ND		11	0.89	ug/Kg	☼	07/12/24 16:30	07/17/24 01:42	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/12/24 16:30*	*07/17/24 01:42*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*64 - 126*	*07/12/24 16:30*	*07/17/24 01:42*	*1*
4-Bromofluorobenzene (Surr)	*101*		*72 - 126*	*07/12/24 16:30*	*07/17/24 01:42*	*1*
Dibromofluoromethane (Surr)	*98*		*60 - 140*	*07/12/24 16:30*	*07/17/24 01:42*	*1*

Client Sample ID: SB-04-38.0-42.0
Date Collected: 07/12/24 12:50
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-4
Matrix: Solid
Percent Solids: 73.4

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*71 - 125*	*07/12/24 16:30*	*07/17/24 01:42*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		130	73	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
2,4,5-Trichlorophenol	ND		230	61	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
2,4,6-Trichlorophenol	ND		230	45	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
2,4-Dichlorophenol	ND		230	24	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
2,4-Dimethylphenol	ND		230	55	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
2,4-Dinitrophenol	ND		2200	1000	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
2,4-Dinitrotoluene	ND		230	47	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
2,6-Dinitrotoluene	ND		230	27	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
2-Chloronaphthalene	ND		230	37	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
2-Chlorophenol	ND		440	41	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
2-Methylnaphthalene	ND		230	45	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
2-Methylphenol	ND		230	27	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
2-Nitroaniline	ND		440	33	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
2-Nitrophenol	ND		230	64	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
3,3'-Dichlorobenzidine	ND	*+	440	270	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
3-Nitroaniline	ND		440	63	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
4,6-Dinitro-2-methylphenol	ND		440	230	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
4-Bromophenyl phenyl ether	ND		230	32	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
4-Chloro-3-methylphenol	ND		230	56	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
4-Chloroaniline	ND		230	56	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
4-Chlorophenyl phenyl ether	ND		230	28	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
4-Methylphenol	ND		440	27	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
4-Nitroaniline	ND		440	120	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
4-Nitrophenol	ND		440	160	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Acenaphthene	ND		230	33	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Acenaphthylene	ND		230	29	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Acetophenone	ND		230	31	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Anthracene	ND		230	56	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Atrazine	ND		230	79	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Benzaldehyde	ND		230	180	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Benzo[a]anthracene	ND		230	23	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Benzo[a]pyrene	ND		230	33	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Benzo[b]fluoranthene	ND		230	36	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Benzo[g,h,i]perylene	ND		230	24	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Benzo[k]fluoranthene	ND		230	29	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Biphenyl	ND		230	33	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
bis (2-chloroisopropyl) ether	ND		230	45	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Bis(2-chloroethoxy)methane	ND		230	48	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Bis(2-chloroethyl)ether	ND		230	29	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Bis(2-ethylhexyl) phthalate	ND		230	77	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Butyl benzyl phthalate	ND		230	37	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Caprolactam	ND		230	68	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Carbazole	ND		230	27	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Chrysene	ND		230	51	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Dibenz(a,h)anthracene	ND		230	40	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1

Client Sample ID: SB-04-38.0-42.0
Date Collected: 07/12/24 12:50
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-4
Matrix: Solid
Percent Solids: 73.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	ND		230	27	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Diethyl phthalate	ND		230	29	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Dimethyl phthalate	ND		230	27	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Di-n-butyl phthalate	ND		230	39	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Di-n-octyl phthalate	ND		230	27	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Fluoranthene	ND		230	24	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Fluorene	ND		230	27	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Hexachlorobenzene	ND		230	31	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Hexachlorobutadiene	ND		230	33	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Hexachlorocyclopentadiene	ND		230	31	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Hexachloroethane	ND		230	29	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Indeno[1,2,3-cd]pyrene	ND		230	28	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Isophorone	ND		230	48	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Naphthalene	ND		230	29	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Nitrobenzene	ND		230	25	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
N-Nitrosodi-n-propylamine	ND		230	39	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
N-Nitrosodiphenylamine	ND		230	180	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Pentachlorophenol	ND		440	230	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Phenanthrene	ND		230	33	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Phenol	ND		230	35	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1
Pyrene	ND		230	27	ug/Kg	☼	07/16/24 07:37	07/19/24 16:58	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*740*	*T J*	*ug/Kg*	☼	*4.52*	*N/A*	*07/16/24 07:37*	*07/19/24 16:58*	*1*
Butyl citrate	*400*	*T J N*	*ug/Kg*	☼	*12.53*	*77-94-1*	*07/16/24 07:37*	*07/19/24 16:58*	*1*
Pregnan-20-one, (5.alpha.)-	*250*	*T J N*	*ug/Kg*	☼	*14.07*	*848-62-4*	*07/16/24 07:37*	*07/19/24 16:58*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*93*		*26 - 143*	*07/16/24 07:37*	*07/19/24 16:58*	*1*
2-Fluorobiphenyl	*77*		*50 - 121*	*07/16/24 07:37*	*07/19/24 16:58*	*1*
2-Fluorophenol	*74*		*36 - 120*	*07/16/24 07:37*	*07/19/24 16:58*	*1*
Nitrobenzene-d5	*71*		*40 - 121*	*07/16/24 07:37*	*07/19/24 16:58*	*1*
Phenol-d5	*77*		*41 - 120*	*07/16/24 07:37*	*07/19/24 16:58*	*1*
p-Terphenyl-d14	*90*		*46 - 143*	*07/16/24 07:37*	*07/19/24 16:58*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.2	0.43	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
4,4'-DDE	ND		2.2	0.47	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
4,4'-DDT	ND		2.2	0.52	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
Aldrin	ND		2.2	0.54	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
alpha-BHC	ND		2.2	0.40	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
cis-Chlordane	ND		2.2	1.1	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
beta-BHC	ND		2.2	0.40	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
delta-BHC	ND		2.2	0.41	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
Dieldrin	ND		2.2	0.53	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
Endosulfan I	ND		2.2	0.43	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
Endosulfan II	ND		2.2	0.40	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
Endosulfan sulfate	ND		2.2	0.41	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
Endrin	ND		2.2	0.44	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1

Client Sample ID: SB-04-38.0-42.0

Date Collected: 07/12/24 12:50
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-4

Matrix: Solid
Percent Solids: 73.4

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin aldehyde	ND		2.2	0.57	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
Endrin ketone	ND		2.2	0.54	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
gamma-BHC (Lindane)	ND		2.2	0.41	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
trans-Chlordane	ND		2.2	0.70	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
Heptachlor	ND		2.2	0.48	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
Heptachlor epoxide	ND		2.2	0.57	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
Methoxychlor	ND		2.2	0.45	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1
Toxaphene	ND		22	13	ug/Kg	☼	07/16/24 16:34	07/17/24 13:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*65*		*45 - 120*	*07/16/24 16:34*	*07/17/24 13:39*	*1*
DCB Decachlorobiphenyl	*68*		*45 - 120*	*07/16/24 16:34*	*07/17/24 13:39*	*1*
Tetrachloro-m-xylene	*57*		*30 - 124*	*07/16/24 16:34*	*07/17/24 13:39*	*1*
Tetrachloro-m-xylene	*68*		*30 - 124*	*07/16/24 16:34*	*07/17/24 13:39*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.25	0.049	mg/Kg	☼	07/16/24 16:39	07/18/24 00:14	1
PCB-1221	ND		0.25	0.049	mg/Kg	☼	07/16/24 16:39	07/18/24 00:14	1
PCB-1232	ND		0.25	0.049	mg/Kg	☼	07/16/24 16:39	07/18/24 00:14	1
PCB-1242	ND		0.25	0.049	mg/Kg	☼	07/16/24 16:39	07/18/24 00:14	1
PCB-1248	ND		0.25	0.049	mg/Kg	☼	07/16/24 16:39	07/18/24 00:14	1
PCB-1254	ND		0.25	0.12	mg/Kg	☼	07/16/24 16:39	07/18/24 00:14	1
PCB-1260	ND		0.25	0.12	mg/Kg	☼	07/16/24 16:39	07/18/24 00:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*111*		*60 - 154*	*07/16/24 16:39*	*07/18/24 00:14*	*1*
Tetrachloro-m-xylene	*97*		*60 - 154*	*07/16/24 16:39*	*07/18/24 00:14*	*1*
DCB Decachlorobiphenyl	*98*		*65 - 174*	*07/16/24 16:39*	*07/18/24 00:14*	*1*
DCB Decachlorobiphenyl	*103*		*65 - 174*	*07/16/24 16:39*	*07/18/24 00:14*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.87	0.22	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluoropentanoic acid (PFPeA)	ND		0.44	0.11	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluorohexanoic acid (PFHxA)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluoroheptanoic acid (PFHpA)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluorooctanoic acid (PFOA)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluorononanoic acid (PFNA)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluorodecanoic acid (PFDA)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluoroundecanoic acid (PFUnA)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluorododecanoic acid (PFDoA)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1

Client Sample ID: SB-04-38.0-42.0
Date Collected: 07/12/24 12:50
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-4
Matrix: Solid
Percent Solids: 73.4

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanesulfonic acid (PFNS)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		0.87	0.22	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		0.87	0.22	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		0.87	0.22	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		2.2	0.55	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		2.2	0.55	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.87	0.22	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.87	0.22	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.44	0.11	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.44	0.11	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		0.87	0.22	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		0.87	0.22	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.44	0.11	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1.1	0.27	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		5.5	1.4	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		5.5	1.4	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.22	0.055	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.44	0.11	ug/Kg	☼	07/18/24 08:14	07/18/24 18:29	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*102*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:29*	*1*
13C5 PFPeA	*102*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:29*	*1*
13C5 PFHxA	*104*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:29*	*1*
13C4 PFHpA	*104*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:29*	*1*
13C8 PFOA	*79.9*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:29*	*1*
13C9 PFNA	*100*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:29*	*1*
13C6 PFDA	*95.0*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:29*	*1*
13C7 PFUnA	*109*		*20 - 150*	*07/18/24 08:14*	*07/18/24 18:29*	*1*

Client Sample ID: SB-04-38.0-42.0

Date Collected: 07/12/24 12:50
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-4

Matrix: Solid
Percent Solids: 73.4

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFTeDA	93.9		20 - 150	07/18/24 08:14	07/18/24 18:29	1
13C3 PFBS	97.4		20 - 150	07/18/24 08:14	07/18/24 18:29	1
13C3 PFHxS	96.1		20 - 150	07/18/24 08:14	07/18/24 18:29	1
13C8 PFOS	94.9		20 - 150	07/18/24 08:14	07/18/24 18:29	1
13C8 FOSA	87.2		20 - 150	07/18/24 08:14	07/18/24 18:29	1
d3-NMeFOSAA	83.3		20 - 150	07/18/24 08:14	07/18/24 18:29	1
d5-NEtFOSAA	122		20 - 150	07/18/24 08:14	07/18/24 18:29	1
M2-4:2 FTS	107		20 - 150	07/18/24 08:14	07/18/24 18:29	1
M2-6:2 FTS	128		20 - 150	07/18/24 08:14	07/18/24 18:29	1
M2-8:2 FTS	108		20 - 150	07/18/24 08:14	07/18/24 18:29	1
13C3 HFPO-DA	100		20 - 150	07/18/24 08:14	07/18/24 18:29	1
d7-N-MeFOSE-M	87.7		20 - 150	07/18/24 08:14	07/18/24 18:29	1
d9-N-EtFOSE-M	89.1		20 - 150	07/18/24 08:14	07/18/24 18:29	1
d5-NEtPFOSA	87.9		20 - 150	07/18/24 08:14	07/18/24 18:29	1
d3-NMePFOSA	83.0		20 - 150	07/18/24 08:14	07/18/24 18:29	1
13C2-PFDoDA	96.5		20 - 150	07/18/24 08:14	07/18/24 18:29	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**27600**		13.0	11.2	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Antimony	ND		19.6	0.69	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Arsenic	**3.5**		2.6	1.1	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Barium	**170**		0.65	0.18	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Beryllium	**1.2**		0.26	0.052	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Cadmium	**0.31**		0.26	0.091	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Calcium	**46100**		65.2	35.2	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Chromium	**33.1**		0.65	0.47	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Cobalt	**15.0**		0.65	0.13	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Copper	**22.0**		1.3	0.74	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Iron	**26100**		13.0	11.1	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Lead	**10.2**		1.3	0.60	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Magnesium	**15500**		26.1	11.1	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Manganese	**568**		1.3	0.37	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Nickel	**30.0**		6.5	0.33	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Potassium	**9120**		39.1	31.6	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Selenium	ND		5.2	1.0	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Silver	**0.32**	**J**	0.78	0.26	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Sodium	**567**		183	80.0	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Thallium	ND		7.8	0.99	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Vanadium	**50.3**		0.65	0.17	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1
Zinc	**61.2**		2.6	1.3	mg/Kg	☼	07/15/24 13:07	07/16/24 16:04	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.019**	**J**	0.027	0.0062	mg/Kg	☼	07/17/24 08:25	07/17/24 10:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.3	0.65	mg/Kg	☼	07/19/24 13:18	07/19/24 15:51	1

Surrogate Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221629-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(64-126)	(72-126)	(60-140)	(71-125)
480-221629-2	SB-04-0.5-2.0	100	99	95	99
480-221629-3	SB-04-0.5-2.0-FD	104	100	99	98
480-221629-4	SB-04-38.0-42.0	101	101	98	96
LCS 480-718658/1-A	Lab Control Sample	97	107	101	98
MB 480-718658/2-A	Method Blank	99	107	100	96

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(77-120)	(73-120)	(75-123)	(80-120)
480-221629-1	RB-07122024	94	91	88	94
LCS 480-718619/6	Lab Control Sample	94	95	92	97
LCSD 480-718619/24	Lab Control Sample Dup	95	90	92	94
MB 480-718619/8	Method Blank	92	91	90	97

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPHd14
Lab Sample ID	Client Sample ID	(26-143)	(50-121)	(36-120)	(40-121)	(41-120)	(46-143)
480-221629-2	SB-04-0.5-2.0	127	73	94	50	59	77
480-221629-3	SB-04-0.5-2.0-FD	127	80	0 S1-	63	75	76
480-221629-4	SB-04-38.0-42.0	93	77	74	71	77	90
LCS 480-718528/2-A	Lab Control Sample	106	91	84	85	93	99
MB 480-718528/1-A	Method Blank	98	87	82	82	87	97

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHd14 = p-Terphenyl-d14

Surrogate Summary

Client: Ashland LLC
Job ID: 480-221629-1
Project/Site: Tank 75 Analysis

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPHd14
Lab Sample ID	Client Sample ID	(25-144)	(53-126)	(24-120)	(29-129)	(10-120)	(33-132)
480-221629-1	RB-07122024	82	75	52	62	39	86
LCS 480-718459/2-A	Lab Control Sample	88	77	64	77	49	82
LCSD 480-718459/3-A	Lab Control Sample Dup	85	74	61	72	47	76
MB 480-718459/1-A	Method Blank	72	74	60	69	42	77

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHd14 = p-Terphenyl-d14

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1	DCBP2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(45-120)	(45-120)	(30-124)	(30-124)
480-221629-2	SB-04-0.5-2.0	0 S1-	0 S1-	0 S1-	0 S1-
480-221629-3	SB-04-0.5-2.0-FD	0 S1-	0 S1-	0 S1-	0 S1-
480-221629-4	SB-04-38.0-42.0	65	68	57	68
LCS 480-718655/2-A	Lab Control Sample	59	66	58	64
MB 480-718655/1-A	Method Blank	56	63	52	57

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1	DCBP2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(10-120)	(10-120)	(10-120)	(10-120)
480-221629-1	RB-07122024	47	44	62	56
LCS 480-718568/2-A	Lab Control Sample	51	46	77	64
LCSD 480-718568/3-A	Lab Control Sample Dup	55	57	75	69
MB 480-718568/1-A	Method Blank	51	46	76	63

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCBP1	DCBP2
Lab Sample ID	Client Sample ID	(60-154)	(60-154)	(65-174)	(65-174)
480-221629-2	SB-04-0.5-2.0	90	98	88	85
480-221629-3	SB-04-0.5-2.0-FD	87	101	90	87
480-221629-4	SB-04-38.0-42.0	97	111	103	98

Surrogate Summary

Client: Ashland LLC
Job ID: 480-221629-1
Project/Site: Tank 75 Analysis

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCBP1	DCBP2
Lab Sample ID	Client Sample ID	(60-154)	(60-154)	(65-174)	(65-174)
LCS 480-718656/2-A	Lab Control Sample	111	128	133	117
MB 480-718656/1-A	Method Blank	100	114	122	106

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1	DCBP2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(10-123)	(10-123)	(10-145)	(10-145)
480-221629-1	RB-07122024	58	67	59	60
LCS 480-718610/2-A	Lab Control Sample	60	69	63	60
LCSD 480-718610/3-A	Lab Control Sample Dup	56	65	67	63
MB 480-718610/1-A	Method Blank	63	60	63	71

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Isotope Dilution Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221629-1

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	DXE (15-110)							
480-221629-1	RB-07122024	28							
LCS 480-718611/2-A	Lab Control Sample	27							
LCSD 480-718611/3-A	Lab Control Sample Dup	29							
MB 480-718611/1-A	Method Blank	26							

Surrogate Legend

DXE = 1,4-Dioxane-d8

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (20-150)	PFPeA (20-150)	13C5PHA (20-150)	C4PFHA (20-150)	C8PFOA (20-150)	C9PFNA (20-150)	C6PFDA (20-150)	13C7PUA (20-150)
480-221629-2	SB-04-0.5-2.0	100	101	103	105	103	99.2	92.5	103
480-221629-3	SB-04-0.5-2.0-FD	102	88.3	92.4	95.4	82.8	98.3	100	103
480-221629-4	SB-04-38.0-42.0	102	102	104	104	79.9	100	95.0	109
LCS 240-620309/3-A	Lab Control Sample	102	101	104	103	90.6	105	101	90.3
LLCS 240-620309/2-A	Lab Control Sample	103	97.8	103	98.7	91.6	98.8	99.0	91.4
MB 240-620309/1-A	Method Blank	105	106	102	107	79.0	101	103	94.7

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFTDA (20-150)	C3PFBS (20-150)	C3PFHS (20-150)	C8PFOS (20-150)	PFOSA (20-150)	d3NMFOS (20-150)	d5NEFOS (20-150)	M242FTS (20-150)
480-221629-2	SB-04-0.5-2.0	87.1	97.4	98.7	90.8	87.3	90.4	129	115
480-221629-3	SB-04-0.5-2.0-FD	99.3	98.5	101	97.1	99.9	94.2	113	112
480-221629-4	SB-04-38.0-42.0	93.9	97.4	96.1	94.9	87.2	83.3	122	107
LCS 240-620309/3-A	Lab Control Sample	77.7	94.6	96.8	95.8	82.7	85.6	129	107
LLCS 240-620309/2-A	Lab Control Sample	84.9	99.7	103	95.5	88.7	86.7	127	106
MB 240-620309/1-A	Method Blank	76.3	95.9	99.7	98.6	90.7	88.5	140	107

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M262FTS (20-150)	M282FTS (20-150)	HFPODA (20-150)	NMFM (20-150)	NEFM (20-150)	d5NPFSA (20-150)	d3NMFSA (20-150)	PFDoDA (20-150)
480-221629-2	SB-04-0.5-2.0	128	111	102	80.6	80.4	78.4	70.8	93.6
480-221629-3	SB-04-0.5-2.0-FD	129	129	90.7	91.1	90.0	87.4	87.3	98.6
480-221629-4	SB-04-38.0-42.0	128	108	100	87.7	89.1	87.9	83.0	96.5
LCS 240-620309/3-A	Lab Control Sample	115	103	99.5	79.0	82.2	59.6	58.7	89.7
LLCS 240-620309/2-A	Lab Control Sample	118	108	97.8	80.8	81.4	62.6	61.8	88.5
MB 240-620309/1-A	Method Blank	115	112	98.6	90.1	84.7	69.9	69.0	95.1

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS

Isotope Dilution Summary

Client: Ashland LLC
Job ID: 480-221629-1
Project/Site: Tank 75 Analysis

C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoDA = 13C2-PFDoDA

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(10-130)	(35-150)	(55-150)	(55-150)	(60-140)	(55-140)	(50-140)	(30-140)
480-221629-1	RB-07122024	105	84.1	88.9	92.5	89.1	91.0	98.0	89.5
MB 240-620207/1-A	Method Blank	94.0	85.9	88.1	89.5	90.3	77.7	84.5	77.4

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFTDA	C3PFBS	C3PFHS	C8PFOS	PFOSA	d3NMFOS	d5NEFOS	M242FTS
Lab Sample ID	Client Sample ID	(10-130)	(55-150)	(55-150)	(45-140)	(30-130)	(45-200)	(10-200)	(60-200)
480-221629-1	RB-07122024	70.5	87.1	91.6	92.8	89.4	87.8	125	103
MB 240-620207/1-A	Method Blank	63.5	78.4	83.0	83.4	82.6	74.9	97.4	97.1

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M262FTS	M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	PFDoDA
Lab Sample ID	Client Sample ID	(60-200)	(50-200)	(25-160)	(10-150)	(10-150)	(10-130)	(15-130)	(10-150)
480-221629-1	RB-07122024	97.3	93.4	87.4	94.7	94.7	72.4	74.7	85.3
MB 240-620207/1-A	Method Blank	95.0	86.6	91.7	91.1	81.3	63.9	67.2	71.0

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M

Isotope Dilution Summary

Client: Ashland LLC
Job ID: 480-221629-1
Project/Site: Tank 75 Analysis

d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoDA = 13C2-PFDoDA

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(10-130)	(40-150)	(40-150)	(40-150)	(30-140)	(30-140)	(20-140)	(20-140)
LCS 240-620207/3-A	Lab Control Sample	100	85.9	90.0	88.6	90.8	94.4	82.0	74.9
LLCS 240-620207/2-A	Lab Control Sample	97.6	92.8	90.9	93.3	85.6	84.4	87.5	81.8

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFTDA	C3PFBS	C3PFHS	C8PFOS	PFOSA	d3NMFOS	d5NEFOS	M242FTS
Lab Sample ID	Client Sample ID	(10-130)	(25-150)	(25-150)	(20-140)	(10-130)	(10-200)	(10-200)	(25-200)
LCS 240-620207/3-A	Lab Control Sample	60.8	78.6	84.1	82.7	83.5	75.3	115	93.6
LLCS 240-620207/2-A	Lab Control Sample	69.3	86.0	89.2	89.3	83.3	78.3	121	106

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M262FTS	M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	PFDoDA
Lab Sample ID	Client Sample ID	(25-200)	(25-200)	(25-160)	(10-150)	(10-150)	(10-130)	(10-130)	(10-150)
LCS 240-620207/3-A	Lab Control Sample	94.2	88.0	88.2	101	81.0	63.2	66.7	65.2
LLCS 240-620207/2-A	Lab Control Sample	88.6	94.0	93.7	94.7	87.3	67.8	68.2	81.1

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoDA = 13C2-PFDoDA

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221629-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-718619/8
Matrix: Water
Analysis Batch: 718619

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/17/24 01:32	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/17/24 01:32	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/17/24 01:32	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/17/24 01:32	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/17/24 01:32	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/17/24 01:32	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/17/24 01:32	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/17/24 01:32	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/17/24 01:32	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/17/24 01:32	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/17/24 01:32	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/17/24 01:32	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/17/24 01:32	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/17/24 01:32	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/17/24 01:32	1
2-Hexanone	ND		5.0	1.2	ug/L			07/17/24 01:32	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/17/24 01:32	1
Acetone	ND		10	3.0	ug/L			07/17/24 01:32	1
Benzene	ND		1.0	0.41	ug/L			07/17/24 01:32	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/17/24 01:32	1
Bromoform	ND		1.0	0.26	ug/L			07/17/24 01:32	1
Bromomethane	ND		1.0	0.69	ug/L			07/17/24 01:32	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/17/24 01:32	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/17/24 01:32	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/17/24 01:32	1
Chloroethane	ND		1.0	0.32	ug/L			07/17/24 01:32	1
Chloroform	ND		1.0	0.34	ug/L			07/17/24 01:32	1
Chloromethane	ND		1.0	0.35	ug/L			07/17/24 01:32	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			07/17/24 01:32	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/17/24 01:32	1
Cyclohexane	ND		1.0	0.18	ug/L			07/17/24 01:32	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/17/24 01:32	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/17/24 01:32	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/17/24 01:32	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/17/24 01:32	1
Methyl acetate	ND		2.5	1.3	ug/L			07/17/24 01:32	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/17/24 01:32	1
Methylcyclohexane	ND		1.0	0.16	ug/L			07/17/24 01:32	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/17/24 01:32	1
Styrene	ND		1.0	0.73	ug/L			07/17/24 01:32	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/17/24 01:32	1
Toluene	ND		1.0	0.51	ug/L			07/17/24 01:32	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/17/24 01:32	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			07/17/24 01:32	1
Trichloroethene	ND		1.0	0.46	ug/L			07/17/24 01:32	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/17/24 01:32	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/17/24 01:32	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/17/24 01:32	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-718619/8
Matrix: Water
Analysis Batch: 718619

Client Sample ID: Method Blank
Prep Type: Total/NA

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	18.4	T J	ug/L		1.52	N/A		07/17/24 01:32	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		77 - 120		07/17/24 01:32	1
4-Bromofluorobenzene (Surr)	91		73 - 120		07/17/24 01:32	1
Dibromofluoromethane (Surr)	90		75 - 123		07/17/24 01:32	1
Toluene-d8 (Surr)	97		80 - 120		07/17/24 01:32	1

Lab Sample ID: LCS 480-718619/6
Matrix: Water
Analysis Batch: 718619

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	25.0	25.1		ug/L		100	73 - 126
1,1,2,2-Tetrachloroethane	25.0	26.0		ug/L		104	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	22.9		ug/L		91	61 - 148
1,1,2-Trichloroethane	25.0	25.0		ug/L		100	76 - 122
1,1-Dichloroethane	25.0	24.4		ug/L		98	77 - 120
1,1-Dichloroethene	25.0	24.5		ug/L		98	66 - 127
1,2,4-Trichlorobenzene	25.0	24.6		ug/L		99	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	30.0		ug/L		120	56 - 134
1,2-Dibromoethane	25.0	24.8		ug/L		99	77 - 120
1,2-Dichlorobenzene	25.0	24.6		ug/L		98	80 - 124
1,2-Dichloroethane	25.0	23.6		ug/L		95	75 - 120
1,2-Dichloropropane	25.0	24.3		ug/L		97	76 - 120
1,3-Dichlorobenzene	25.0	24.7		ug/L		99	77 - 120
1,4-Dichlorobenzene	25.0	23.9		ug/L		96	80 - 120
2-Butanone (MEK)	125	137		ug/L		110	57 - 140
2-Hexanone	125	141		ug/L		112	65 - 127
4-Methyl-2-pentanone (MIBK)	125	137		ug/L		110	71 - 125
Acetone	125	134		ug/L		107	56 - 142
Benzene	25.0	23.3		ug/L		93	71 - 124
Bromodichloromethane	25.0	24.6		ug/L		98	80 - 122
Bromoform	25.0	26.7		ug/L		107	61 - 132
Bromomethane	25.0	21.8		ug/L		87	55 - 144
Carbon disulfide	25.0	23.7		ug/L		95	59 - 134
Carbon tetrachloride	25.0	25.9		ug/L		104	72 - 134
Chlorobenzene	25.0	23.9		ug/L		96	80 - 120
Chloroethane	25.0	24.3		ug/L		97	69 - 136
Chloroform	25.0	22.2		ug/L		89	73 - 127
Chloromethane	25.0	23.3		ug/L		93	68 - 124
cis-1,2-Dichloroethene	25.0	24.2		ug/L		97	74 - 124
cis-1,3-Dichloropropene	25.0	24.2		ug/L		97	74 - 124
Cyclohexane	25.0	26.3		ug/L		105	59 - 135
Dibromochloromethane	25.0	26.2		ug/L		105	75 - 125
Dichlorodifluoromethane	25.0	21.9		ug/L		88	59 - 135
Ethylbenzene	25.0	24.6		ug/L		98	77 - 123

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-718619/6
Matrix: Water
Analysis Batch: 718619

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Isopropylbenzene	25.0	26.3		ug/L		105	77 - 122
Methyl acetate	50.0	51.5		ug/L		103	74 - 133
Methyl tert-butyl ether	25.0	23.2		ug/L		93	77 - 120
Methylcyclohexane	25.0	25.1		ug/L		100	68 - 134
Methylene Chloride	25.0	23.7		ug/L		95	75 - 124
Styrene	25.0	24.5		ug/L		98	80 - 120
Tetrachloroethene	25.0	23.8		ug/L		95	74 - 122
Toluene	25.0	23.6		ug/L		94	80 - 122
trans-1,2-Dichloroethene	25.0	23.9		ug/L		96	73 - 127
Trichloroethene	25.0	23.6		ug/L		94	74 - 123
Trichlorofluoromethane	25.0	24.0		ug/L		96	62 - 150
Vinyl chloride	25.0	24.6		ug/L		99	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*94*		*77 - 120*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*
Dibromofluoromethane (Surr)	*92*		*75 - 123*
Toluene-d8 (Surr)	*97*		*80 - 120*

Lab Sample ID: LCSD 480-718619/24
Matrix: Water
Analysis Batch: 718619

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane	25.0	24.9		ug/L		100	73 - 126	1	15
1,1,2,2-Tetrachloroethane	25.0	24.8		ug/L		99	76 - 120	5	15
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	23.2		ug/L		93	61 - 148	1	20
1,1,2-Trichloroethane	25.0	24.9		ug/L		99	76 - 122	1	15
1,1-Dichloroethane	25.0	24.9		ug/L		99	77 - 120	2	20
1,1-Dichloroethene	25.0	24.8		ug/L		99	66 - 127	1	16
1,2,4-Trichlorobenzene	25.0	23.1		ug/L		92	79 - 122	7	20
1,2-Dibromo-3-Chloropropane	25.0	28.3		ug/L		113	56 - 134	6	15
1,2-Dibromoethane	25.0	24.7		ug/L		99	77 - 120	1	15
1,2-Dichlorobenzene	25.0	23.6		ug/L		94	80 - 124	4	20
1,2-Dichloroethane	25.0	24.0		ug/L		96	75 - 120	2	20
1,2-Dichloropropane	25.0	24.5		ug/L		98	76 - 120	1	20
1,3-Dichlorobenzene	25.0	23.3		ug/L		93	77 - 120	6	20
1,4-Dichlorobenzene	25.0	22.6		ug/L		90	80 - 120	6	20
2-Butanone (MEK)	125	137		ug/L		109	57 - 140	1	20
2-Hexanone	125	138		ug/L		110	65 - 127	2	15
4-Methyl-2-pentanone (MIBK)	125	135		ug/L		108	71 - 125	1	35
Acetone	125	134		ug/L		107	56 - 142	0	15
Benzene	25.0	23.7		ug/L		95	71 - 124	2	13
Bromodichloromethane	25.0	24.4		ug/L		98	80 - 122	1	15
Bromoform	25.0	25.3		ug/L		101	61 - 132	5	15
Bromomethane	25.0	21.6		ug/L		87	55 - 144	1	15
Carbon disulfide	25.0	24.2		ug/L		97	59 - 134	2	15
Carbon tetrachloride	25.0	26.6		ug/L		106	72 - 134	3	15

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 480-718619/24
Matrix: Water
Analysis Batch: 718619

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chlorobenzene			25.0	23.5		ug/L		94	80 - 120	2	25
Chloroethane			25.0	23.9		ug/L		95	69 - 136	2	15
Chloroform			25.0	22.6		ug/L		90	73 - 127	2	20
Chloromethane			25.0	24.2		ug/L		97	68 - 124	4	15
cis-1,2-Dichloroethene			25.0	24.0		ug/L		96	74 - 124	1	15
cis-1,3-Dichloropropene			25.0	23.5		ug/L		94	74 - 124	3	15
Cyclohexane			25.0	26.9		ug/L		108	59 - 135	2	20
Dibromochloromethane			25.0	25.1		ug/L		100	75 - 125	4	15
Dichlorodifluoromethane			25.0	20.6		ug/L		82	59 - 135	6	20
Ethylbenzene			25.0	24.3		ug/L		97	77 - 123	1	15
Isopropylbenzene			25.0	24.8		ug/L		99	77 - 122	6	20
Methyl acetate			50.0	52.0		ug/L		104	74 - 133	1	20
Methyl tert-butyl ether			25.0	23.4		ug/L		94	77 - 120	1	37
Methylcyclohexane			25.0	25.3		ug/L		101	68 - 134	1	20
Methylene Chloride			25.0	24.4		ug/L		98	75 - 124	3	15
Styrene			25.0	24.0		ug/L		96	80 - 120	2	20
Tetrachloroethene			25.0	23.4		ug/L		93	74 - 122	2	20
Toluene			25.0	23.4		ug/L		94	80 - 122	1	15
trans-1,2-Dichloroethene			25.0	23.3		ug/L		93	73 - 127	2	20
Trichloroethene			25.0	23.9		ug/L		96	74 - 123	1	16
Trichlorofluoromethane			25.0	23.5		ug/L		94	62 - 150	2	20
Vinyl chloride			25.0	24.5		ug/L		98	65 - 133	1	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*77 - 120*
4-Bromofluorobenzene (Surr)	*90*		*73 - 120*
Dibromofluoromethane (Surr)	*92*		*75 - 123*
Toluene-d8 (Surr)	*94*		*80 - 120*

Lab Sample ID: MB 480-718658/2-A
Matrix: Solid
Analysis Batch: 718659

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718658

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg		07/16/24 17:08	07/16/24 20:31	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-718658/2-A
Matrix: Solid
Analysis Batch: 718659

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718658

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	ND		25	1.8	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
2-Hexanone	ND		25	2.5	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Acetone	ND		25	4.2	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Benzene	ND		5.0	0.25	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Bromoform	ND		5.0	2.5	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Bromomethane	ND		5.0	0.45	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Carbon disulfide	ND		5.0	2.5	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Chlorobenzene	ND		5.0	0.66	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Chloroethane	ND		5.0	1.1	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Chloroform	ND		5.0	0.31	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Chloromethane	ND		5.0	0.30	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Cyclohexane	ND		5.0	0.70	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Ethylbenzene	ND		5.0	0.35	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Methyl acetate	ND		25	3.0	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Methylene Chloride	ND		5.0	2.3	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Styrene	ND		5.0	0.25	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Tetrachloroethene	ND		5.0	0.67	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Toluene	ND		5.0	0.38	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
trans-1,2-Dichloroethene	ND		5.0	0.52	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Trichloroethene	ND		5.0	1.1	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Vinyl chloride	ND		5.0	0.61	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Xylenes, Total	ND		10	0.84	ug/Kg		07/16/24 17:08	07/16/24 20:31	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*			*N/A*	*07/16/24 17:08*	*07/16/24 20:31*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*64 - 126*	*07/16/24 17:08*	*07/16/24 20:31*	*1*
4-Bromofluorobenzene (Surr)	*107*		*72 - 126*	*07/16/24 17:08*	*07/16/24 20:31*	*1*
Dibromofluoromethane (Surr)	*100*		*60 - 140*	*07/16/24 17:08*	*07/16/24 20:31*	*1*
Toluene-d8 (Surr)	*96*		*71 - 125*	*07/16/24 17:08*	*07/16/24 20:31*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-718658/1-A
Matrix: Solid
Analysis Batch: 718659

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718658

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	50.0	46.4		ug/Kg		93	77 - 121
1,1,2,2-Tetrachloroethane	50.0	43.0		ug/Kg		86	80 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	42.2		ug/Kg		84	60 - 140
1,1,2-Trichloroethane	50.0	46.2		ug/Kg		92	78 - 122
1,1-Dichloroethane	50.0	42.2		ug/Kg		84	73 - 126
1,1-Dichloroethene	50.0	41.9		ug/Kg		84	59 - 125
1,2,4-Trichlorobenzene	50.0	43.4		ug/Kg		87	64 - 120
1,2-Dibromo-3-Chloropropane	50.0	44.8		ug/Kg		90	63 - 124
1,2-Dibromoethane	50.0	52.9		ug/Kg		106	78 - 120
1,2-Dichlorobenzene	50.0	42.7		ug/Kg		85	75 - 120
1,2-Dichloroethane	50.0	47.0		ug/Kg		94	77 - 122
1,2-Dichloropropane	50.0	44.1		ug/Kg		88	75 - 124
1,3-Dichlorobenzene	50.0	42.1		ug/Kg		84	74 - 120
1,4-Dichlorobenzene	50.0	41.7		ug/Kg		83	73 - 120
2-Butanone (MEK)	250	243		ug/Kg		97	70 - 134
2-Hexanone	250	246		ug/Kg		98	59 - 130
4-Methyl-2-pentanone (MIBK)	250	230		ug/Kg		92	65 - 133
Acetone	250	244		ug/Kg		98	61 - 137
Benzene	50.0	43.6		ug/Kg		87	79 - 127
Bromodichloromethane	50.0	50.4		ug/Kg		101	80 - 122
Bromoform	50.0	59.9		ug/Kg		120	68 - 126
Bromomethane	50.0	44.7		ug/Kg		89	37 - 149
Carbon disulfide	50.0	40.1		ug/Kg		80	64 - 131
Carbon tetrachloride	50.0	52.8		ug/Kg		106	75 - 135
Chlorobenzene	50.0	44.3		ug/Kg		89	76 - 124
Chloroethane	50.0	40.5		ug/Kg		81	69 - 135
Chloroform	50.0	44.2		ug/Kg		88	80 - 120
Chloromethane	50.0	47.6		ug/Kg		95	63 - 127
cis-1,2-Dichloroethene	50.0	44.6		ug/Kg		89	81 - 120
cis-1,3-Dichloropropene	50.0	51.1		ug/Kg		102	80 - 120
Cyclohexane	50.0	40.1		ug/Kg		80	65 - 120
Dibromochloromethane	50.0	55.3		ug/Kg		111	76 - 125
Dichlorodifluoromethane	50.0	49.4		ug/Kg		99	57 - 142
Ethylbenzene	50.0	42.7		ug/Kg		85	80 - 120
Isopropylbenzene	50.0	41.3		ug/Kg		83	72 - 120
Methyl acetate	100	96.6		ug/Kg		97	55 - 136
Methyl tert-butyl ether	50.0	46.7		ug/Kg		93	63 - 125
Methylcyclohexane	50.0	42.0		ug/Kg		84	60 - 140
Methylene Chloride	50.0	46.7		ug/Kg		93	61 - 127
Styrene	50.0	45.8		ug/Kg		92	80 - 120
Tetrachloroethene	50.0	45.6		ug/Kg		91	74 - 122
Toluene	50.0	42.1		ug/Kg		84	74 - 128
trans-1,2-Dichloroethene	50.0	43.0		ug/Kg		86	78 - 126
Trichloroethene	50.0	44.8		ug/Kg		90	77 - 129
Trichlorofluoromethane	50.0	48.8		ug/Kg		98	65 - 146
Vinyl chloride	50.0	43.6		ug/Kg		87	61 - 133

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-718658/1-A
Matrix: Solid
Analysis Batch: 718659

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718658

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*64 - 126*
4-Bromofluorobenzene (Surr)	*107*		*72 - 126*
Dibromofluoromethane (Surr)	*101*		*60 - 140*
Toluene-d8 (Surr)	*98*		*71 - 125*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-718459/1-A
Matrix: Water
Analysis Batch: 718596

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718459

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		10	1.1	ug/L		07/15/24 13:29	07/16/24 16:59	1
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		07/15/24 13:29	07/16/24 16:59	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		07/15/24 13:29	07/16/24 16:59	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		07/15/24 13:29	07/16/24 16:59	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		07/15/24 13:29	07/16/24 16:59	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		07/15/24 13:29	07/16/24 16:59	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		07/15/24 13:29	07/16/24 16:59	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		07/15/24 13:29	07/16/24 16:59	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		07/15/24 13:29	07/16/24 16:59	1
2-Chlorophenol	ND		5.0	0.53	ug/L		07/15/24 13:29	07/16/24 16:59	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		07/15/24 13:29	07/16/24 16:59	1
2-Methylphenol	ND		5.0	0.40	ug/L		07/15/24 13:29	07/16/24 16:59	1
2-Nitroaniline	ND		10	0.42	ug/L		07/15/24 13:29	07/16/24 16:59	1
2-Nitrophenol	ND		5.0	0.48	ug/L		07/15/24 13:29	07/16/24 16:59	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		07/15/24 13:29	07/16/24 16:59	1
3-Nitroaniline	ND		10	0.48	ug/L		07/15/24 13:29	07/16/24 16:59	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		07/15/24 13:29	07/16/24 16:59	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		07/15/24 13:29	07/16/24 16:59	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		07/15/24 13:29	07/16/24 16:59	1
4-Chloroaniline	ND		5.0	0.59	ug/L		07/15/24 13:29	07/16/24 16:59	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		07/15/24 13:29	07/16/24 16:59	1
4-Methylphenol	ND		10	0.36	ug/L		07/15/24 13:29	07/16/24 16:59	1
4-Nitroaniline	ND		10	0.25	ug/L		07/15/24 13:29	07/16/24 16:59	1
4-Nitrophenol	ND		10	1.5	ug/L		07/15/24 13:29	07/16/24 16:59	1
Acenaphthene	ND		5.0	0.41	ug/L		07/15/24 13:29	07/16/24 16:59	1
Acenaphthylene	ND		5.0	0.38	ug/L		07/15/24 13:29	07/16/24 16:59	1
Acetophenone	ND		5.0	0.54	ug/L		07/15/24 13:29	07/16/24 16:59	1
Anthracene	ND		5.0	0.28	ug/L		07/15/24 13:29	07/16/24 16:59	1
Atrazine	ND		5.0	0.46	ug/L		07/15/24 13:29	07/16/24 16:59	1
Benzaldehyde	ND		5.0	0.27	ug/L		07/15/24 13:29	07/16/24 16:59	1
Benzo(a)anthracene	ND		5.0	0.36	ug/L		07/15/24 13:29	07/16/24 16:59	1
Benzo(a)pyrene	ND		5.0	0.47	ug/L		07/15/24 13:29	07/16/24 16:59	1
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L		07/15/24 13:29	07/16/24 16:59	1
Benzo(g,h,i)perylene	ND		5.0	0.35	ug/L		07/15/24 13:29	07/16/24 16:59	1
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L		07/15/24 13:29	07/16/24 16:59	1
Biphenyl	ND		5.0	0.65	ug/L		07/15/24 13:29	07/16/24 16:59	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		07/15/24 13:29	07/16/24 16:59	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-718459/1-A
Matrix: Water
Analysis Batch: 718596

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718459

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		07/15/24 13:29	07/16/24 16:59	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		07/15/24 13:29	07/16/24 16:59	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		07/15/24 13:29	07/16/24 16:59	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		07/15/24 13:29	07/16/24 16:59	1
Caprolactam	ND		5.0	2.2	ug/L		07/15/24 13:29	07/16/24 16:59	1
Carbazole	ND		5.0	0.30	ug/L		07/15/24 13:29	07/16/24 16:59	1
Chrysene	ND		5.0	0.33	ug/L		07/15/24 13:29	07/16/24 16:59	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		07/15/24 13:29	07/16/24 16:59	1
Dibenzofuran	ND		10	0.51	ug/L		07/15/24 13:29	07/16/24 16:59	1
Diethyl phthalate	ND		5.0	0.22	ug/L		07/15/24 13:29	07/16/24 16:59	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		07/15/24 13:29	07/16/24 16:59	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		07/15/24 13:29	07/16/24 16:59	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		07/15/24 13:29	07/16/24 16:59	1
Fluoranthene	ND		5.0	0.40	ug/L		07/15/24 13:29	07/16/24 16:59	1
Fluorene	ND		5.0	0.36	ug/L		07/15/24 13:29	07/16/24 16:59	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		07/15/24 13:29	07/16/24 16:59	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		07/15/24 13:29	07/16/24 16:59	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		07/15/24 13:29	07/16/24 16:59	1
Hexachloroethane	ND		5.0	0.59	ug/L		07/15/24 13:29	07/16/24 16:59	1
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L		07/15/24 13:29	07/16/24 16:59	1
Isophorone	ND		5.0	0.43	ug/L		07/15/24 13:29	07/16/24 16:59	1
Naphthalene	ND		5.0	0.76	ug/L		07/15/24 13:29	07/16/24 16:59	1
Nitrobenzene	ND		5.0	0.29	ug/L		07/15/24 13:29	07/16/24 16:59	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		07/15/24 13:29	07/16/24 16:59	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		07/15/24 13:29	07/16/24 16:59	1
Pentachlorophenol	ND		10	2.2	ug/L		07/15/24 13:29	07/16/24 16:59	1
Phenanthrene	ND		5.0	0.44	ug/L		07/15/24 13:29	07/16/24 16:59	1
Phenol	ND		5.0	0.39	ug/L		07/15/24 13:29	07/16/24 16:59	1
Pyrene	ND		5.0	0.34	ug/L		07/15/24 13:29	07/16/24 16:59	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Furan, tetrahydro-	*4.12*	*T J N*	*ug/L*		*3.18*	*109-99-9*	*07/15/24 13:29*	*07/16/24 16:59*	*1*
Unknown	*3.38*	*T J*	*ug/L*		*3.26*	*N/A*	*07/15/24 13:29*	*07/16/24 16:59*	*1*
2-Butanone, 3-methyl-	*1.64*	*T J N*	*ug/L*		*3.39*	*563-80-4*	*07/15/24 13:29*	*07/16/24 16:59*	*1*
Pyridine	*1.51*	*J*	*ug/L*		*4.12*	*110-86-1*	*07/15/24 13:29*	*07/16/24 16:59*	*1*
Unknown	*34.9*	*T J*	*ug/L*		*4.94*	*N/A*	*07/15/24 13:29*	*07/16/24 16:59*	*1*
Unknown	*2.08*	*T J*	*ug/L*		*5.71*	*N/A*	*07/15/24 13:29*	*07/16/24 16:59*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*72*		*25 - 144*	*07/15/24 13:29*	*07/16/24 16:59*	*1*
2-Fluorobiphenyl	*74*		*53 - 126*	*07/15/24 13:29*	*07/16/24 16:59*	*1*
2-Fluorophenol	*60*		*24 - 120*	*07/15/24 13:29*	*07/16/24 16:59*	*1*
Nitrobenzene-d5	*69*		*29 - 129*	*07/15/24 13:29*	*07/16/24 16:59*	*1*
Phenol-d5	*42*		*10 - 120*	*07/15/24 13:29*	*07/16/24 16:59*	*1*
p-Terphenyl-d14	*77*		*33 - 132*	*07/15/24 13:29*	*07/16/24 16:59*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-718459/2-A
Matrix: Water
Analysis Batch: 718596

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718459

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	32.0	17.0		ug/L		53	10 - 120
2,4,5-Trichlorophenol	32.0	25.8		ug/L		81	65 - 126
2,4,6-Trichlorophenol	32.0	25.0		ug/L		78	64 - 120
2,4-Dichlorophenol	32.0	24.3		ug/L		76	63 - 120
2,4-Dimethylphenol	32.0	32.4		ug/L		101	47 - 120
2,4-Dinitrophenol	64.0	55.3		ug/L		86	31 - 137
2,4-Dinitrotoluene	32.0	25.7		ug/L		80	69 - 120
2,6-Dinitrotoluene	32.0	25.4		ug/L		79	68 - 120
2-Chloronaphthalene	32.0	23.1		ug/L		72	58 - 120
2-Chlorophenol	32.0	23.9		ug/L		75	48 - 120
2-Methylnaphthalene	32.0	20.9		ug/L		65	59 - 120
2-Methylphenol	32.0	22.9		ug/L		72	39 - 120
2-Nitroaniline	32.0	24.6		ug/L		77	54 - 127
2-Nitrophenol	32.0	26.0		ug/L		81	52 - 125
3,3'-Dichlorobenzidine	64.0	62.8		ug/L		98	49 - 135
3-Nitroaniline	32.0	20.6		ug/L		64	51 - 120
4,6-Dinitro-2-methylphenol	64.0	58.9		ug/L		92	46 - 136
4-Bromophenyl phenyl ether	32.0	25.3		ug/L		79	65 - 120
4-Chloro-3-methylphenol	32.0	24.9		ug/L		78	61 - 123
4-Chloroaniline	32.0	21.1		ug/L		66	30 - 120
4-Chlorophenyl phenyl ether	32.0	25.0		ug/L		78	62 - 120
4-Methylphenol	32.0	22.5		ug/L		70	29 - 131
4-Nitroaniline	32.0	26.8		ug/L		84	65 - 120
4-Nitrophenol	64.0	38.2		ug/L		60	45 - 120
Acenaphthene	32.0	23.7		ug/L		74	60 - 120
Acenaphthylene	32.0	25.8		ug/L		81	63 - 120
Acetophenone	32.0	25.2		ug/L		79	45 - 120
Anthracene	32.0	26.3		ug/L		82	67 - 120
Atrazine	64.0	54.5		ug/L		85	71 - 130
Benzaldehyde	64.0	48.0		ug/L		75	10 - 140
Benzo(a)anthracene	32.0	27.3		ug/L		85	70 - 121
Benzo(a)pyrene	32.0	27.7		ug/L		86	60 - 123
Benzo(b)fluoranthene	32.0	28.3		ug/L		89	66 - 126
Benzo(g,h,i)perylene	32.0	25.8		ug/L		81	66 - 150
Benzo(k)fluoranthene	32.0	30.5		ug/L		95	65 - 124
Biphenyl	32.0	23.5		ug/L		73	59 - 120
bis (2-chloroisopropyl) ether	32.0	26.1		ug/L		81	21 - 136
Bis(2-chloroethoxy)methane	32.0	25.9		ug/L		81	50 - 128
Bis(2-chloroethyl)ether	32.0	28.9		ug/L		90	44 - 120
Bis(2-ethylhexyl) phthalate	32.0	26.4		ug/L		83	63 - 139
Butyl benzyl phthalate	32.0	26.6		ug/L		83	70 - 129
Caprolactam	64.0	17.7		ug/L		28	22 - 120
Carbazole	32.0	30.1		ug/L		94	66 - 123
Chrysene	32.0	27.2		ug/L		85	69 - 120
Dibenz(a,h)anthracene	32.0	26.3		ug/L		82	65 - 135
Dibenzofuran	32.0	24.0		ug/L		75	66 - 120
Diethyl phthalate	32.0	26.4		ug/L		83	59 - 127
Dimethyl phthalate	32.0	27.8		ug/L		87	68 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-718459/2-A
Matrix: Water
Analysis Batch: 718596

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718459

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Di-n-butyl phthalate	32.0	28.7		ug/L		90	69 - 131
Di-n-octyl phthalate	32.0	27.1		ug/L		85	63 - 140
Fluoranthene	32.0	27.4		ug/L		86	69 - 126
Fluorene	32.0	24.5		ug/L		76	66 - 120
Hexachlorobenzene	32.0	26.6		ug/L		83	61 - 120
Hexachlorobutadiene	32.0	19.3		ug/L		60	35 - 120
Hexachlorocyclopentadiene	32.0	22.8		ug/L		71	31 - 120
Hexachloroethane	32.0	19.5		ug/L		61	33 - 120
Indeno(1,2,3-cd)pyrene	32.0	25.0		ug/L		78	69 - 146
Isophorone	32.0	26.0		ug/L		81	55 - 120
Naphthalene	32.0	23.8		ug/L		74	57 - 120
Nitrobenzene	32.0	25.2		ug/L		79	53 - 123
N-Nitrosodi-n-propylamine	32.0	25.8		ug/L		81	32 - 140
Pentachlorophenol	64.0	50.2		ug/L		78	10 - 136
Phenanthrene	32.0	25.8		ug/L		81	68 - 120
Phenol	32.0	16.0		ug/L		50	17 - 120
Pyrene	32.0	26.0		ug/L		81	70 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*88*		*25 - 144*
2-Fluorobiphenyl	*77*		*53 - 126*
2-Fluorophenol	*64*		*24 - 120*
Nitrobenzene-d5	*77*		*29 - 129*
Phenol-d5	*49*		*10 - 120*
p-Terphenyl-d14	*82*		*33 - 132*

Lab Sample ID: LCSD 480-718459/3-A
Matrix: Water
Analysis Batch: 718596

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 718459

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane	32.0	15.8		ug/L		49	10 - 120	8	50
2,4,5-Trichlorophenol	32.0	25.4		ug/L		80	65 - 126	1	18
2,4,6-Trichlorophenol	32.0	23.8		ug/L		74	64 - 120	5	19
2,4-Dichlorophenol	32.0	22.9		ug/L		71	63 - 120	6	19
2,4-Dimethylphenol	32.0	30.5		ug/L		95	47 - 120	6	42
2,4-Dinitrophenol	64.0	53.2		ug/L		83	31 - 137	4	22
2,4-Dinitrotoluene	32.0	25.2		ug/L		79	69 - 120	2	20
2,6-Dinitrotoluene	32.0	24.8		ug/L		77	68 - 120	3	15
2-Chloronaphthalene	32.0	22.0		ug/L		69	58 - 120	5	21
2-Chlorophenol	32.0	22.6		ug/L		71	48 - 120	5	25
2-Methylnaphthalene	32.0	19.5		ug/L		61	59 - 120	7	21
2-Methylphenol	32.0	21.5		ug/L		67	39 - 120	7	27
2-Nitroaniline	32.0	23.8		ug/L		74	54 - 127	3	15
2-Nitrophenol	32.0	24.5		ug/L		77	52 - 125	6	18
3,3'-Dichlorobenzidine	64.0	59.8		ug/L		93	49 - 135	5	25
3-Nitroaniline	32.0	20.7		ug/L		65	51 - 120	0	19
4,6-Dinitro-2-methylphenol	64.0	55.5		ug/L		87	46 - 136	6	15

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-718459/3-A
Matrix: Water
Analysis Batch: 718596

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 718459

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4-Bromophenyl phenyl ether	32.0	24.2		ug/L		76	65 - 120	4	15
4-Chloro-3-methylphenol	32.0	23.6		ug/L		74	61 - 123	5	27
4-Chloroaniline	32.0	21.4		ug/L		67	30 - 120	1	22
4-Chlorophenyl phenyl ether	32.0	23.6		ug/L		74	62 - 120	6	16
4-Methylphenol	32.0	21.1		ug/L		66	29 - 131	6	24
4-Nitroaniline	32.0	25.9		ug/L		81	65 - 120	3	24
4-Nitrophenol	64.0	36.8		ug/L		58	45 - 120	4	48
Acenaphthene	32.0	22.8		ug/L		71	60 - 120	4	24
Acenaphthylene	32.0	25.0		ug/L		78	63 - 120	3	18
Acetophenone	32.0	23.7		ug/L		74	45 - 120	6	20
Anthracene	32.0	25.2		ug/L		79	67 - 120	4	15
Atrazine	64.0	51.6		ug/L		81	71 - 130	6	20
Benzaldehyde	64.0	45.4		ug/L		71	10 - 140	6	20
Benzo(a)anthracene	32.0	25.5		ug/L		80	70 - 121	7	15
Benzo(a)pyrene	32.0	25.8		ug/L		81	60 - 123	7	15
Benzo(b)fluoranthene	32.0	26.1		ug/L		82	66 - 126	8	15
Benzo(g,h,i)perylene	32.0	23.8		ug/L		74	66 - 150	8	15
Benzo(k)fluoranthene	32.0	28.3		ug/L		89	65 - 124	7	22
Biphenyl	32.0	22.6		ug/L		71	59 - 120	4	20
bis (2-chloroisopropyl) ether	32.0	24.4		ug/L		76	21 - 136	6	24
Bis(2-chloroethoxy)methane	32.0	24.4		ug/L		76	50 - 128	6	17
Bis(2-chloroethyl)ether	32.0	27.5		ug/L		86	44 - 120	5	21
Bis(2-ethylhexyl) phthalate	32.0	25.7		ug/L		80	63 - 139	3	15
Butyl benzyl phthalate	32.0	25.0		ug/L		78	70 - 129	7	16
Caprolactam	64.0	17.0		ug/L		27	22 - 120	4	20
Carbazole	32.0	28.2		ug/L		88	66 - 123	6	20
Chrysene	32.0	25.5		ug/L		80	69 - 120	6	15
Dibenz(a,h)anthracene	32.0	24.1		ug/L		75	65 - 135	9	15
Dibenzofuran	32.0	23.0		ug/L		72	66 - 120	5	15
Diethyl phthalate	32.0	25.8		ug/L		81	59 - 127	2	15
Dimethyl phthalate	32.0	26.7		ug/L		83	68 - 120	4	15
Di-n-butyl phthalate	32.0	26.9		ug/L		84	69 - 131	6	15
Di-n-octyl phthalate	32.0	25.5		ug/L		80	63 - 140	6	16
Fluoranthene	32.0	25.4		ug/L		79	69 - 126	8	15
Fluorene	32.0	23.3		ug/L		73	66 - 120	5	15
Hexachlorobenzene	32.0	25.4		ug/L		79	61 - 120	5	15
Hexachlorobutadiene	32.0	17.8		ug/L		56	35 - 120	8	44
Hexachlorocyclopentadiene	32.0	22.8		ug/L		71	31 - 120	0	49
Hexachloroethane	32.0	18.1		ug/L		56	33 - 120	8	46
Indeno(1,2,3-cd)pyrene	32.0	23.2		ug/L		73	69 - 146	7	15
Isophorone	32.0	24.8		ug/L		78	55 - 120	5	17
Naphthalene	32.0	22.4		ug/L		70	57 - 120	6	29
Nitrobenzene	32.0	23.8		ug/L		74	53 - 123	6	24
N-Nitrosodi-n-propylamine	32.0	24.2		ug/L		75	32 - 140	6	31
Pentachlorophenol	64.0	48.1		ug/L		75	10 - 136	4	37
Phenanthrene	32.0	24.8		ug/L		77	68 - 120	4	15
Phenol	32.0	15.1		ug/L		47	17 - 120	6	34
Pyrene	32.0	24.6		ug/L		77	70 - 125	6	19

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-718459/3-A
Matrix: Water
Analysis Batch: 718596

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 718459

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*85*		*25 - 144*
2-Fluorobiphenyl	*74*		*53 - 126*
2-Fluorophenol	*61*		*24 - 120*
Nitrobenzene-d5	*72*		*29 - 129*
Phenol-d5	*47*		*10 - 120*
p-Terphenyl-d14	*76*		*33 - 132*

Lab Sample ID: MB 480-718528/1-A
Matrix: Solid
Analysis Batch: 718573

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718528

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		100	55	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
2,4,5-Trichlorophenol	ND		170	46	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
2,4,6-Trichlorophenol	ND		170	34	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
2,4-Dichlorophenol	ND		170	18	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
2,4-Dimethylphenol	ND		170	41	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
2,4-Dinitrophenol	ND		1700	780	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
2,4-Dinitrotoluene	ND		170	35	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
2,6-Dinitrotoluene	ND		170	20	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
2-Chloronaphthalene	ND		170	28	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
2-Chlorophenol	ND		330	31	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
2-Methylnaphthalene	ND		170	34	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
2-Methylphenol	ND		170	20	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
2-Nitroaniline	ND		330	25	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
2-Nitrophenol	ND		170	48	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
3,3'-Dichlorobenzidine	ND		330	200	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
3-Nitroaniline	ND		330	47	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
4,6-Dinitro-2-methylphenol	ND		330	170	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
4-Bromophenyl phenyl ether	ND		170	24	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
4-Chloro-3-methylphenol	ND		170	42	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
4-Chloroaniline	ND		170	42	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
4-Chlorophenyl phenyl ether	ND		170	21	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
4-Methylphenol	ND		330	20	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
4-Nitroaniline	ND		330	89	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
4-Nitrophenol	ND		330	120	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Acenaphthene	ND		170	25	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Acenaphthylene	ND		170	22	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Acetophenone	ND		170	23	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Anthracene	ND		170	42	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Atrazine	ND		170	59	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Benzaldehyde	ND		170	140	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Benzo[a]anthracene	ND		170	17	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Benzo[a]pyrene	ND		170	25	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Benzo[b]fluoranthene	ND		170	27	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Benzo[g,h,i]perylene	ND		170	18	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Benzo[k]fluoranthene	ND		170	22	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Biphenyl	ND		170	25	ug/Kg		07/16/24 07:37	07/17/24 17:35	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-718528/1-A
Matrix: Solid
Analysis Batch: 718573

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718528

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
bis (2-chloroisopropyl) ether	ND		170	34	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Bis(2-chloroethoxy)methane	ND		170	36	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Bis(2-chloroethyl)ether	ND		170	22	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Bis(2-ethylhexyl) phthalate	ND		170	58	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Butyl benzyl phthalate	ND		170	28	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Caprolactam	ND		170	51	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Carbazole	ND		170	20	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Chrysene	ND		170	38	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Dibenz(a,h)anthracene	ND		170	30	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Dibenzofuran	ND		170	20	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Diethyl phthalate	ND		170	22	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Dimethyl phthalate	ND		170	20	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Di-n-butyl phthalate	ND		170	29	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Di-n-octyl phthalate	ND		170	20	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Fluoranthene	ND		170	18	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Fluorene	ND		170	20	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Hexachlorobenzene	ND		170	23	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Hexachlorobutadiene	ND		170	25	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Hexachlorocyclopentadiene	ND		170	23	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Hexachloroethane	ND		170	22	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Indeno[1,2,3-cd]pyrene	ND		170	21	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Isophorone	ND		170	36	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Naphthalene	ND		170	22	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Nitrobenzene	ND		170	19	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
N-Nitrosodi-n-propylamine	ND		170	29	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
N-Nitrosodiphenylamine	ND		170	140	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Pentachlorophenol	ND		330	170	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Phenanthrene	ND		170	25	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Phenol	ND		170	26	ug/Kg		07/16/24 07:37	07/17/24 17:35	1
Pyrene	ND		170	20	ug/Kg		07/16/24 07:37	07/17/24 17:35	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*614*	*T J*	*ug/Kg*		*4.52*	*N/A*	*07/16/24 07:37*	*07/17/24 17:35*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*98*		*26 - 143*	*07/16/24 07:37*	*07/17/24 17:35*	*1*
2-Fluorobiphenyl	*87*		*50 - 121*	*07/16/24 07:37*	*07/17/24 17:35*	*1*
2-Fluorophenol	*82*		*36 - 120*	*07/16/24 07:37*	*07/17/24 17:35*	*1*
Nitrobenzene-d5	*82*		*40 - 121*	*07/16/24 07:37*	*07/17/24 17:35*	*1*
Phenol-d5	*87*		*41 - 120*	*07/16/24 07:37*	*07/17/24 17:35*	*1*
p-Terphenyl-d14	*97*		*46 - 143*	*07/16/24 07:37*	*07/17/24 17:35*	*1*

Lab Sample ID: LCS 480-718528/2-A
Matrix: Solid
Analysis Batch: 718573

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718528

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,4-Dioxane			1330	643		ug/Kg		48	23 - 120		

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-718528/2-A
Matrix: Solid
Analysis Batch: 718573

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718528

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4,5-Trichlorophenol	1330	1330		ug/Kg		100	59 - 126
2,4,6-Trichlorophenol	1330	1340		ug/Kg		100	59 - 123
2,4-Dichlorophenol	1330	1340		ug/Kg		100	61 - 120
2,4-Dimethylphenol	1330	1290		ug/Kg		97	59 - 120
2,4-Dinitrophenol	2670	2060		ug/Kg		77	41 - 146
2,4-Dinitrotoluene	1330	1390		ug/Kg		104	63 - 120
2,6-Dinitrotoluene	1330	1330		ug/Kg		100	66 - 120
2-Chloronaphthalene	1330	1250		ug/Kg		94	57 - 120
2-Chlorophenol	1330	1170		ug/Kg		88	53 - 120
2-Methylnaphthalene	1330	1220		ug/Kg		92	59 - 120
2-Methylphenol	1330	1270		ug/Kg		95	54 - 120
2-Nitroaniline	1330	1290		ug/Kg		97	61 - 120
2-Nitrophenol	1330	1210		ug/Kg		90	56 - 120
3,3'-Dichlorobenzidine	2670	3370	E *+	ug/Kg		126	54 - 120
3-Nitroaniline	1330	1250		ug/Kg		94	48 - 120
4,6-Dinitro-2-methylphenol	2670	2450		ug/Kg		92	49 - 122
4-Bromophenyl phenyl ether	1330	1420		ug/Kg		106	58 - 120
4-Chloro-3-methylphenol	1330	1320		ug/Kg		99	61 - 120
4-Chloroaniline	1330	1100		ug/Kg		83	38 - 120
4-Chlorophenyl phenyl ether	1330	1330		ug/Kg		100	63 - 124
4-Methylphenol	1330	1290		ug/Kg		97	55 - 120
4-Nitroaniline	1330	1290		ug/Kg		97	56 - 120
4-Nitrophenol	2670	2880		ug/Kg		108	43 - 147
Acenaphthene	1330	1250		ug/Kg		94	62 - 120
Acenaphthylene	1330	1270		ug/Kg		95	58 - 121
Acetophenone	1330	1220		ug/Kg		91	54 - 120
Anthracene	1330	1360		ug/Kg		102	62 - 120
Atrazine	2670	2650		ug/Kg		99	60 - 127
Benzaldehyde	2670	2130		ug/Kg		80	10 - 150
Benzo[a]anthracene	1330	1380		ug/Kg		104	65 - 120
Benzo[a]pyrene	1330	1360		ug/Kg		102	64 - 120
Benzo[b]fluoranthene	1330	1420		ug/Kg		106	64 - 120
Benzo[g,h,i]perylene	1330	1530		ug/Kg		115	45 - 145
Benzo[k]fluoranthene	1330	1340		ug/Kg		101	65 - 120
Biphenyl	1330	1240		ug/Kg		93	59 - 120
bis (2-chloroisopropyl) ether	1330	1100		ug/Kg		82	44 - 120
Bis(2-chloroethoxy)methane	1330	1170		ug/Kg		88	55 - 120
Bis(2-chloroethyl)ether	1330	1130		ug/Kg		84	45 - 120
Bis(2-ethylhexyl) phthalate	1330	1400		ug/Kg		105	61 - 133
Butyl benzyl phthalate	1330	1380		ug/Kg		104	61 - 129
Caprolactam	2670	2650		ug/Kg		99	47 - 120
Carbazole	1330	1370		ug/Kg		103	65 - 120
Chrysene	1330	1330		ug/Kg		100	64 - 120
Dibenz(a,h)anthracene	1330	1560		ug/Kg		117	54 - 132
Dibenzofuran	1330	1290		ug/Kg		97	63 - 120
Diethyl phthalate	1330	1370		ug/Kg		103	66 - 120
Dimethyl phthalate	1330	1290		ug/Kg		97	65 - 124
Di-n-butyl phthalate	1330	1430		ug/Kg		107	58 - 130
Di-n-octyl phthalate	1330	1410		ug/Kg		105	57 - 133

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-718528/2-A
Matrix: Solid
Analysis Batch: 718573

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718528

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoranthene	1330	1360		ug/Kg		102	62 - 120
Fluorene	1330	1310		ug/Kg		98	63 - 120
Hexachlorobenzene	1330	1420		ug/Kg		106	60 - 120
Hexachlorobutadiene	1330	1170		ug/Kg		88	45 - 120
Hexachlorocyclopentadiene	1330	928		ug/Kg		70	47 - 120
Hexachloroethane	1330	1090		ug/Kg		82	41 - 120
Indeno[1,2,3-cd]pyrene	1330	1530		ug/Kg		115	56 - 134
Isophorone	1330	1220		ug/Kg		91	56 - 120
Naphthalene	1330	1160		ug/Kg		87	55 - 120
Nitrobenzene	1330	1150		ug/Kg		86	54 - 120
N-Nitrosodi-n-propylamine	1330	1200		ug/Kg		90	52 - 120
Pentachlorophenol	2670	1910		ug/Kg		72	10 - 120
Phenanthrene	1330	1350		ug/Kg		101	60 - 120
Phenol	1330	1260		ug/Kg		95	53 - 120
Pyrene	1330	1350		ug/Kg		101	61 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*106*		*26 - 143*
2-Fluorobiphenyl	*91*		*50 - 121*
2-Fluorophenol	*84*		*36 - 120*
Nitrobenzene-d5	*85*		*40 - 121*
Phenol-d5	*93*		*41 - 120*
p-Terphenyl-d14	*99*		*46 - 143*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 480-718611/1-A
Matrix: Water
Analysis Batch: 718706

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718611

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		07/16/24 13:25	07/17/24 10:31	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*26*		*15 - 110*	*07/16/24 13:25*	*07/17/24 10:31*	*1*

Lab Sample ID: LCS 480-718611/2-A
Matrix: Water
Analysis Batch: 718706

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718611

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	2.00	2.27		ug/L		113	40 - 140

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*27*		*15 - 110*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution) (Continued)

Lab Sample ID: LCSD 480-718611/3-A
Matrix: Water
Analysis Batch: 718706

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 718611

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane			2.00	2.24		ug/L		112	40 - 140	1	20

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Dioxane-d8	*29*		*15 - 110*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 480-718568/1-A
Matrix: Water
Analysis Batch: 718688

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718568

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.050	0.0092	ug/L		07/16/24 09:36	07/17/24 09:57	1
4,4'-DDE	ND		0.050	0.012	ug/L		07/16/24 09:36	07/17/24 09:57	1
4,4'-DDT	ND		0.050	0.011	ug/L		07/16/24 09:36	07/17/24 09:57	1
Aldrin	ND		0.050	0.0081	ug/L		07/16/24 09:36	07/17/24 09:57	1
alpha-BHC	0.00864	J	0.050	0.0077	ug/L		07/16/24 09:36	07/17/24 09:57	1
cis-Chlordane	ND		0.050	0.015	ug/L		07/16/24 09:36	07/17/24 09:57	1
beta-BHC	ND		0.050	0.025	ug/L		07/16/24 09:36	07/17/24 09:57	1
delta-BHC	ND		0.050	0.010	ug/L		07/16/24 09:36	07/17/24 09:57	1
Dieldrin	ND		0.050	0.0098	ug/L		07/16/24 09:36	07/17/24 09:57	1
Endosulfan I	ND		0.050	0.011	ug/L		07/16/24 09:36	07/17/24 09:57	1
Endosulfan II	ND		0.050	0.012	ug/L		07/16/24 09:36	07/17/24 09:57	1
Endosulfan sulfate	ND		0.050	0.016	ug/L		07/16/24 09:36	07/17/24 09:57	1
Endrin	ND		0.050	0.014	ug/L		07/16/24 09:36	07/17/24 09:57	1
Endrin aldehyde	ND		0.050	0.016	ug/L		07/16/24 09:36	07/17/24 09:57	1
Endrin ketone	ND		0.050	0.012	ug/L		07/16/24 09:36	07/17/24 09:57	1
gamma-BHC (Lindane)	0.0108	J	0.050	0.0080	ug/L		07/16/24 09:36	07/17/24 09:57	1
trans-Chlordane	ND		0.050	0.011	ug/L		07/16/24 09:36	07/17/24 09:57	1
Heptachlor	ND		0.050	0.0085	ug/L		07/16/24 09:36	07/17/24 09:57	1
Heptachlor epoxide	ND		0.050	0.0074	ug/L		07/16/24 09:36	07/17/24 09:57	1
Methoxychlor	ND		0.050	0.014	ug/L		07/16/24 09:36	07/17/24 09:57	1
Toxaphene	ND		0.50	0.12	ug/L		07/16/24 09:36	07/17/24 09:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*51*		*10 - 120*	*07/16/24 09:36*	*07/17/24 09:57*	*1*
DCB Decachlorobiphenyl	*46*		*10 - 120*	*07/16/24 09:36*	*07/17/24 09:57*	*1*
Tetrachloro-m-xylene	*76*		*10 - 120*	*07/16/24 09:36*	*07/17/24 09:57*	*1*
Tetrachloro-m-xylene	*63*		*10 - 120*	*07/16/24 09:36*	*07/17/24 09:57*	*1*

Lab Sample ID: LCS 480-718568/2-A
Matrix: Water
Analysis Batch: 718688

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718568

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
4,4'-DDD			0.400	0.428		ug/L		107	64 - 129		
4,4'-DDE			0.400	0.355		ug/L		89	50 - 120		

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 480-718568/2-A
Matrix: Water
Analysis Batch: 718688

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718568

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
4,4'-DDT			0.400	0.463		ug/L		116	59 - 120		
Aldrin			0.400	0.224		ug/L		56	40 - 125		
alpha-BHC			0.400	0.306		ug/L		77	52 - 125		
cis-Chlordane			0.400	0.351		ug/L		88	52 - 120		
beta-BHC			0.400	0.383		ug/L		96	51 - 120		
delta-BHC			0.400	0.373		ug/L		93	51 - 120		
Dieldrin			0.400	0.445		ug/L		111	66 - 128		
Endosulfan I			0.400	0.418		ug/L		104	57 - 120		
Endosulfan II			0.400	0.454		ug/L		113	66 - 131		
Endosulfan sulfate			0.400	0.414		ug/L		104	66 - 136		
Endrin			0.400	0.440		ug/L		110	65 - 135		
Endrin aldehyde			0.400	0.399		ug/L		100	61 - 134		
Endrin ketone			0.400	0.471		ug/L		118	71 - 133		
gamma-BHC (Lindane)			0.400	0.366		ug/L		91	56 - 120		
trans-Chlordane			0.400	0.372		ug/L		93	54 - 120		
Heptachlor			0.400	0.377		ug/L		94	58 - 120		
Heptachlor epoxide			0.400	0.432		ug/L		108	65 - 125		
Methoxychlor			0.400	0.518		ug/L		129	50 - 150		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*51*		*10 - 120*
DCB Decachlorobiphenyl	*46*		*10 - 120*
Tetrachloro-m-xylene	*77*		*10 - 120*
Tetrachloro-m-xylene	*64*		*10 - 120*

Lab Sample ID: LCSD 480-718568/3-A
Matrix: Water
Analysis Batch: 718688

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 718568

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD			0.400	0.450		ug/L		112	64 - 129	5	23
4,4'-DDE			0.400	0.368		ug/L		92	50 - 120	3	22
4,4'-DDT			0.400	0.501	*+	ug/L		125	59 - 120	8	24
Aldrin			0.400	0.285		ug/L		71	40 - 125	24	25
alpha-BHC			0.400	0.334		ug/L		83	52 - 125	9	24
cis-Chlordane			0.400	0.356		ug/L		89	52 - 120	1	23
beta-BHC			0.400	0.390		ug/L		98	51 - 120	2	24
delta-BHC			0.400	0.391		ug/L		98	51 - 120	5	24
Dieldrin			0.400	0.467		ug/L		117	66 - 128	5	24
Endosulfan I			0.400	0.444		ug/L		111	57 - 120	6	30
Endosulfan II			0.400	0.474		ug/L		119	66 - 131	4	40
Endosulfan sulfate			0.400	0.436		ug/L		109	66 - 136	5	24
Endrin			0.400	0.465		ug/L		116	65 - 135	5	24
Endrin aldehyde			0.400	0.414		ug/L		104	61 - 134	4	28
Endrin ketone			0.400	0.487		ug/L		122	71 - 133	3	26
gamma-BHC (Lindane)			0.400	0.389		ug/L		97	56 - 120	6	24
trans-Chlordane			0.400	0.379		ug/L		95	54 - 120	2	24
Heptachlor			0.400	0.409		ug/L		102	58 - 120	8	25

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 480-718568/3-A
Matrix: Water
Analysis Batch: 718688

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 718568

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Heptachlor epoxide			0.400	0.457		ug/L		114	65 - 125	6	23
Methoxychlor			0.400	0.542		ug/L		135	50 - 150	5	26

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*55*		*10 - 120*
DCB Decachlorobiphenyl	*57*		*10 - 120*
Tetrachloro-m-xylene	*75*		*10 - 120*
Tetrachloro-m-xylene	*69*		*10 - 120*

Lab Sample ID: MB 480-718655/1-A
Matrix: Solid
Analysis Batch: 718686

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718655

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1.7	0.32	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
4,4'-DDE	ND		1.7	0.35	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
4,4'-DDT	ND		1.7	0.39	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
Aldrin	ND		1.7	0.41	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
alpha-BHC	ND		1.7	0.30	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
cis-Chlordane	ND		1.7	0.83	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
beta-BHC	ND		1.7	0.30	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
delta-BHC	ND		1.7	0.31	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
Dieldrin	ND		1.7	0.40	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
Endosulfan I	ND		1.7	0.32	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
Endosulfan II	ND		1.7	0.30	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
Endosulfan sulfate	ND		1.7	0.31	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
Endrin	ND		1.7	0.33	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
Endrin aldehyde	ND		1.7	0.43	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
Endrin ketone	ND		1.7	0.41	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
gamma-BHC (Lindane)	ND		1.7	0.31	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
trans-Chlordane	ND		1.7	0.53	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
Heptachlor	ND		1.7	0.36	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
Heptachlor epoxide	ND		1.7	0.43	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
Methoxychlor	ND		1.7	0.34	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
Toxaphene	ND		17	9.7	ug/Kg		07/16/24 16:34	07/17/24 11:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*56*		*45 - 120*	*07/16/24 16:34*	*07/17/24 11:22*	*1*
DCB Decachlorobiphenyl	*63*		*45 - 120*	*07/16/24 16:34*	*07/17/24 11:22*	*1*
Tetrachloro-m-xylene	*52*		*30 - 124*	*07/16/24 16:34*	*07/17/24 11:22*	*1*
Tetrachloro-m-xylene	*57*		*30 - 124*	*07/16/24 16:34*	*07/17/24 11:22*	*1*

Lab Sample ID: LCS 480-718655/2-A
Matrix: Solid
Analysis Batch: 718686

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718655

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
4,4'-DDD			16.7	13.8		ug/Kg		83	56 - 120		

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 480-718655/2-A
Matrix: Solid
Analysis Batch: 718686

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718655

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDE	16.7	12.2		ug/Kg		73	44 - 120
4,4'-DDT	16.7	15.2		ug/Kg		91	38 - 120
Aldrin	16.7	11.2		ug/Kg		67	38 - 120
alpha-BHC	16.7	8.32		ug/Kg		50	39 - 120
cis-Chlordane	16.7	11.0		ug/Kg		66	47 - 120
beta-BHC	16.7	11.8		ug/Kg		71	40 - 120
delta-BHC	16.7	10.1		ug/Kg		61	45 - 120
Dieldrin	16.7	13.7		ug/Kg		82	58 - 120
Endosulfan I	16.7	11.9		ug/Kg		72	49 - 120
Endosulfan II	16.7	14.9		ug/Kg		89	55 - 120
Endosulfan sulfate	16.7	13.7		ug/Kg		82	49 - 124
Endrin	16.7	13.6		ug/Kg		81	58 - 120
Endrin aldehyde	16.7	9.65		ug/Kg		58	37 - 121
Endrin ketone	16.7	15.6		ug/Kg		94	46 - 123
gamma-BHC (Lindane)	16.7	9.77		ug/Kg		59	50 - 120
trans-Chlordane	16.7	12.6		ug/Kg		76	48 - 120
Heptachlor	16.7	13.4		ug/Kg		81	50 - 120
Heptachlor epoxide	16.7	14.7		ug/Kg		88	50 - 120
Methoxychlor	16.7	17.1		ug/Kg		103	58 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*59*		*45 - 120*
DCB Decachlorobiphenyl	*66*		*45 - 120*
Tetrachloro-m-xylene	*58*		*30 - 124*
Tetrachloro-m-xylene	*64*		*30 - 124*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 480-718610/1-A
Matrix: Water
Analysis Batch: 718599

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718610

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		07/16/24 13:19	07/16/24 23:35	1
PCB-1221	ND		0.50	0.18	ug/L		07/16/24 13:19	07/16/24 23:35	1
PCB-1232	ND		0.50	0.18	ug/L		07/16/24 13:19	07/16/24 23:35	1
PCB-1242	ND		0.50	0.18	ug/L		07/16/24 13:19	07/16/24 23:35	1
PCB-1248	ND		0.50	0.18	ug/L		07/16/24 13:19	07/16/24 23:35	1
PCB-1254	ND		0.50	0.25	ug/L		07/16/24 13:19	07/16/24 23:35	1
PCB-1260	ND		0.50	0.25	ug/L		07/16/24 13:19	07/16/24 23:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*60*		*10 - 123*	*07/16/24 13:19*	*07/16/24 23:35*	*1*
DCB Decachlorobiphenyl	*63*		*10 - 123*	*07/16/24 13:19*	*07/16/24 23:35*	*1*
Tetrachloro-m-xylene	*71*		*10 - 145*	*07/16/24 13:19*	*07/16/24 23:35*	*1*
Tetrachloro-m-xylene	*63*		*10 - 145*	*07/16/24 13:19*	*07/16/24 23:35*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 480-718610/2-A
Matrix: Water
Analysis Batch: 718599

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718610

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
PCB-1016			4.00	3.23		ug/L		81	62 - 130		
PCB-1260			4.00	3.36		ug/L		84	56 - 123		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*69*		*10 - 123*
DCB Decachlorobiphenyl	*60*		*10 - 123*
Tetrachloro-m-xylene	*60*		*10 - 145*
Tetrachloro-m-xylene	*63*		*10 - 145*

Lab Sample ID: LCSD 480-718610/3-A
Matrix: Water
Analysis Batch: 718599

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 718610

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016			4.00	3.39		ug/L		85	62 - 130	5	50
PCB-1260			4.00	3.52		ug/L		88	56 - 123	5	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*65*		*10 - 123*
DCB Decachlorobiphenyl	*56*		*10 - 123*
Tetrachloro-m-xylene	*63*		*10 - 145*
Tetrachloro-m-xylene	*67*		*10 - 145*

Lab Sample ID: MB 480-718656/1-A
Matrix: Solid
Analysis Batch: 718748

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718656

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.25	0.049	mg/Kg		07/16/24 16:39	07/17/24 22:16	1
PCB-1221	ND		0.25	0.049	mg/Kg		07/16/24 16:39	07/17/24 22:16	1
PCB-1232	ND		0.25	0.049	mg/Kg		07/16/24 16:39	07/17/24 22:16	1
PCB-1242	ND		0.25	0.049	mg/Kg		07/16/24 16:39	07/17/24 22:16	1
PCB-1248	ND		0.25	0.049	mg/Kg		07/16/24 16:39	07/17/24 22:16	1
PCB-1254	ND		0.25	0.12	mg/Kg		07/16/24 16:39	07/17/24 22:16	1
PCB-1260	ND		0.25	0.12	mg/Kg		07/16/24 16:39	07/17/24 22:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*106*		*65 - 174*	*07/16/24 16:39*	*07/17/24 22:16*	*1*
DCB Decachlorobiphenyl	*122*		*65 - 174*	*07/16/24 16:39*	*07/17/24 22:16*	*1*
Tetrachloro-m-xylene	*114*		*60 - 154*	*07/16/24 16:39*	*07/17/24 22:16*	*1*
Tetrachloro-m-xylene	*100*		*60 - 154*	*07/16/24 16:39*	*07/17/24 22:16*	*1*

Lab Sample ID: LCS 480-718656/2-A
Matrix: Solid
Analysis Batch: 718748

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718656

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
PCB-1016			2.50	2.65		mg/Kg		106	51 - 185		

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 480-718656/2-A
Matrix: Solid
Analysis Batch: 718748

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718656

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
PCB-1260			2.50	2.88		mg/Kg		115	61 - 184		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*117*		*65 - 174*
DCB Decachlorobiphenyl	*133*		*65 - 174*
Tetrachloro-m-xylene	*128*		*60 - 154*
Tetrachloro-m-xylene	*111*		*60 - 154*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Lab Sample ID: MB 240-620207/1-A
Matrix: Water
Analysis Batch: 620277

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 620207

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		8.0	2.1	ng/L		07/17/24 10:44	07/18/24 02:04	1
Perfluoropentanoic acid (PFPeA)	ND		4.0	1.0	ng/L		07/17/24 10:44	07/18/24 02:04	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.50	ng/L		07/17/24 10:44	07/18/24 02:04	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.50	ng/L		07/17/24 10:44	07/18/24 02:04	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.50	ng/L		07/17/24 10:44	07/18/24 02:04	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.50	ng/L		07/17/24 10:44	07/18/24 02:04	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.50	ng/L		07/17/24 10:44	07/18/24 02:04	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.50	ng/L		07/17/24 10:44	07/18/24 02:04	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.50	ng/L		07/17/24 10:44	07/18/24 02:04	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0	0.50	ng/L		07/17/24 10:44	07/18/24 02:04	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	0.50	ng/L		07/17/24 10:44	07/18/24 02:04	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.50	ng/L		07/17/24 10:44	07/18/24 02:04	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	0.50	ng/L		07/17/24 10:44	07/18/24 02:04	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.52	ng/L		07/17/24 10:44	07/18/24 02:04	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0	0.50	ng/L		07/17/24 10:44	07/18/24 02:04	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.50	ng/L		07/17/24 10:44	07/18/24 02:04	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0	0.50	ng/L		07/17/24 10:44	07/18/24 02:04	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	0.50	ng/L		07/17/24 10:44	07/18/24 02:04	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		8.0	2.0	ng/L		07/17/24 10:44	07/18/24 02:04	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.14	J	8.0	2.0	ng/L		07/17/24 10:44	07/18/24 02:04	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	3.29	J	8.0	2.0	ng/L		07/17/24 10:44	07/18/24 02:04	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	0.50	ng/L		07/17/24 10:44	07/18/24 02:04	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	0.50	ng/L		07/17/24 10:44	07/18/24 02:04	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0	0.50	ng/L		07/17/24 10:44	07/18/24 02:04	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	0.62	ng/L		07/17/24 10:44	07/18/24 02:04	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	0.52	ng/L		07/17/24 10:44	07/18/24 02:04	1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 240-620207/1-A
Matrix: Water
Analysis Batch: 620277

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 620207

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		20	5.0	ng/L		07/17/24 10:44	07/18/24 02:04	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		20	5.0	ng/L		07/17/24 10:44	07/18/24 02:04	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		8.0	2.0	ng/L		07/17/24 10:44	07/18/24 02:04	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		8.0	2.0	ng/L		07/17/24 10:44	07/18/24 02:04	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		4.0	1.0	ng/L		07/17/24 10:44	07/18/24 02:04	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		4.0	1.2	ng/L		07/17/24 10:44	07/18/24 02:04	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		8.0	2.0	ng/L		07/17/24 10:44	07/18/24 02:04	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		8.0	2.0	ng/L		07/17/24 10:44	07/18/24 02:04	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		4.0	1.0	ng/L		07/17/24 10:44	07/18/24 02:04	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		10	2.5	ng/L		07/17/24 10:44	07/18/24 02:04	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		50	13	ng/L		07/17/24 10:44	07/18/24 02:04	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		50	15	ng/L		07/17/24 10:44	07/18/24 02:04	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.50	ng/L		07/17/24 10:44	07/18/24 02:04	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		4.0	1.0	ng/L		07/17/24 10:44	07/18/24 02:04	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*94.0*		*10 - 130*	*07/17/24 10:44*	*07/18/24 02:04*	*1*
13C5 PFPeA	*85.9*		*35 - 150*	*07/17/24 10:44*	*07/18/24 02:04*	*1*
13C5 PFHxA	*88.1*		*55 - 150*	*07/17/24 10:44*	*07/18/24 02:04*	*1*
13C4 PFHpA	*89.5*		*55 - 150*	*07/17/24 10:44*	*07/18/24 02:04*	*1*
13C8 PFOA	*90.3*		*60 - 140*	*07/17/24 10:44*	*07/18/24 02:04*	*1*
13C9 PFNA	*77.7*		*55 - 140*	*07/17/24 10:44*	*07/18/24 02:04*	*1*
13C6 PFDA	*84.5*		*50 - 140*	*07/17/24 10:44*	*07/18/24 02:04*	*1*
13C7 PFUnA	*77.4*		*30 - 140*	*07/17/24 10:44*	*07/18/24 02:04*	*1*
13C2 PFTeDA	*63.5*		*10 - 130*	*07/17/24 10:44*	*07/18/24 02:04*	*1*
13C3 PFBS	*78.4*		*55 - 150*	*07/17/24 10:44*	*07/18/24 02:04*	*1*
13C3 PFHxS	*83.0*		*55 - 150*	*07/17/24 10:44*	*07/18/24 02:04*	*1*
13C8 PFOS	*83.4*		*45 - 140*	*07/17/24 10:44*	*07/18/24 02:04*	*1*
13C8 FOSA	*82.6*		*30 - 130*	*07/17/24 10:44*	*07/18/24 02:04*	*1*
d3-NMeFOSAA	*74.9*		*45 - 200*	*07/17/24 10:44*	*07/18/24 02:04*	*1*
d5-NEtFOSAA	*97.4*		*10 - 200*	*07/17/24 10:44*	*07/18/24 02:04*	*1*
M2-4:2 FTS	*97.1*		*60 - 200*	*07/17/24 10:44*	*07/18/24 02:04*	*1*
M2-6:2 FTS	*95.0*		*60 - 200*	*07/17/24 10:44*	*07/18/24 02:04*	*1*
M2-8:2 FTS	*86.6*		*50 - 200*	*07/17/24 10:44*	*07/18/24 02:04*	*1*
13C3 HFPO-DA	*91.7*		*25 - 160*	*07/17/24 10:44*	*07/18/24 02:04*	*1*
d7-N-MeFOSE-M	*91.1*		*10 - 150*	*07/17/24 10:44*	*07/18/24 02:04*	*1*
d9-N-EtFOSE-M	*81.3*		*10 - 150*	*07/17/24 10:44*	*07/18/24 02:04*	*1*
d5-NEtPFOSA	*63.9*		*10 - 130*	*07/17/24 10:44*	*07/18/24 02:04*	*1*
d3-NMePFOSA	*67.2*		*15 - 130*	*07/17/24 10:44*	*07/18/24 02:04*	*1*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 240-620207/1-A
Matrix: Water
Analysis Batch: 620277

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 620207

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2-PFDoDA	71.0		10 - 150	07/17/24 10:44	07/18/24 02:04	1

Lab Sample ID: LCS 240-620207/3-A
Matrix: Water
Analysis Batch: 620277

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620207

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	100	111		ng/L		111	58 - 148
Perfluoropentanoic acid (PFPeA)	50.0	56.6		ng/L		113	54 - 152
Perfluorohexanoic acid (PFHxA)	25.0	25.8		ng/L		103	55 - 152
Perfluoroheptanoic acid (PFHpA)	25.0	26.9		ng/L		107	54 - 154
Perfluorooctanoic acid (PFOA)	25.0	26.5		ng/L		106	52 - 161
Perfluorononanoic acid (PFNA)	25.0	27.7		ng/L		111	59 - 149
Perfluorodecanoic acid (PFDA)	25.0	26.1		ng/L		104	52 - 147
Perfluoroundecanoic acid (PFUnA)	25.0	26.0		ng/L		104	48 - 159
Perfluorododecanoic acid (PFDoA)	25.0	30.0		ng/L		120	64 - 142
Perfluorotridecanoic acid (PFTrDA)	25.0	28.0		ng/L		112	49 - 148
Perfluorotetradecanoic acid (PFTeDA)	25.0	26.5		ng/L		106	47 - 161
Perfluorobutanesulfonic acid (PFBS)	22.1	25.9		ng/L		117	62 - 144
Perfluoropentanesulfonic acid (PFPeS)	23.5	25.2		ng/L		108	59 - 151
Perfluorohexanesulfonic acid (PFHxS)	22.8	23.4		ng/L		103	57 - 146
Perfluoroheptanesulfonic acid (PFHpS)	23.8	26.4		ng/L		111	55 - 152
Perfluorooctanesulfonic acid (PFOS)	23.2	26.0		ng/L		112	58 - 149
Perfluorononanesulfonic acid (PFNS)	24.0	24.4		ng/L		102	52 - 148
Perfluorododecanesulfonic acid (PFDoS)	24.2	19.9		ng/L		82	36 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	93.4	95.4		ng/L		102	67 - 146
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	94.8	98.7		ng/L		104	61 - 151
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	95.8	101		ng/L		106	63 - 152
Perfluorooctanesulfonamide (PFOSA)	25.0	28.0		ng/L		112	61 - 148
N-methylperfluorooctane sulfonamide (NMeFOSA)	25.0	29.1		ng/L		116	63 - 145
N-ethylperfluorooctane sulfonamide (NEtFOSA)	25.0	27.6		ng/L		111	65 - 139
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	25.0	27.3		ng/L		109	58 - 144
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	25.0	27.7		ng/L		111	59 - 146
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	250	255		ng/L		102	71 - 136

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 240-620207/3-A
Matrix: Water
Analysis Batch: 620277

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620207

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	250	288		ng/L		115	69 - 137
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	100	112		ng/L		112	63 - 144
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	94.2	103		ng/L		110	68 - 146
Perfluoro-4-methoxybutanoic acid (PFMBA)	50.0	52.2		ng/L		104	55 - 148
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	50.0	64.1		ng/L		128	48 - 161
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	93.2	92.8		ng/L		100	56 - 156
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	94.2	86.6		ng/L		92	46 - 156
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	44.5	46.3		ng/L		104	56 - 151
3-Perfluoropropylpropanoic acid (3:3 FTCA)	125	153		ng/L		122	62 - 129
3-Perfluoropentylpropanoic acid (5:3 FTCA)	625	730		ng/L		117	63 - 134
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	625	623		ng/L		100	50 - 138
Perfluorodecanesulfonic acid (PFDS)	24.1	23.3		ng/L		97	51 - 147
Perfluoro-3-methoxypropanoic acid (PFMPA)	50.0	57.9		ng/L		116	51 - 145

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*100*		*10 - 130*
13C5 PFPeA	*85.9*		*40 - 150*
13C5 PFHxA	*90.0*		*40 - 150*
13C4 PFHpA	*88.6*		*40 - 150*
13C8 PFOA	*90.8*		*30 - 140*
13C9 PFNA	*94.4*		*30 - 140*
13C6 PFDA	*82.0*		*20 - 140*
13C7 PFUnA	*74.9*		*20 - 140*
13C2 PFTeDA	*60.8*		*10 - 130*
13C3 PFBS	*78.6*		*25 - 150*
13C3 PFHxS	*84.1*		*25 - 150*
13C8 PFOS	*82.7*		*20 - 140*
13C8 FOSA	*83.5*		*10 - 130*
d3-NMeFOSAA	*75.3*		*10 - 200*
d5-NEtFOSAA	*115*		*10 - 200*
M2-4:2 FTS	*93.6*		*25 - 200*
M2-6:2 FTS	*94.2*		*25 - 200*
M2-8:2 FTS	*88.0*		*25 - 200*
13C3 HFPO-DA	*88.2*		*25 - 160*
d7-N-MeFOSE-M	*101*		*10 - 150*
d9-N-EtFOSE-M	*81.0*		*10 - 150*
d5-NEtPFOSA	*63.2*		*10 - 130*
d3-NMePFOSA	*66.7*		*10 - 130*
13C2-PFDoDA	*65.2*		*10 - 150*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Lab Sample ID: LLCS 240-620207/2-A
Matrix: Water
Analysis Batch: 620277

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620207

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	8.00	7.85	J	ng/L		98	44 - 157
Perfluoropentanoic acid (PFPeA)	4.00	4.46		ng/L		111	57 - 148
Perfluorohexanoic acid (PFHxA)	2.00	2.28		ng/L		114	62 - 149
Perfluoroheptanoic acid (PFHpA)	2.00	2.19		ng/L		109	56 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.02		ng/L		101	57 - 161
Perfluorononanoic acid (PFNA)	2.00	2.39		ng/L		120	53 - 157
Perfluorodecanoic acid (PFDA)	2.00	1.77	J	ng/L		88	43 - 158
Perfluoroundecanoic acid (PFUnA)	2.00	2.17		ng/L		109	50 - 155
Perfluorododecanoic acid (PFDoA)	2.00	2.08		ng/L		104	60 - 141
Perfluorotridecanoic acid (PFTrDA)	2.00	2.00		ng/L		100	52 - 140
Perfluorotetradecanoic acid (PFTeDA)	2.00	1.92	J	ng/L		96	52 - 156
Perfluorobutanesulfonic acid (PFBS)	1.77	1.76	J	ng/L		100	63 - 145
Perfluoropentanesulfonic acid (PFPeS)	1.88	1.94	J	ng/L		103	58 - 144
Perfluorohexanesulfonic acid (PFHxS)	1.82	1.85	J	ng/L		101	44 - 158
Perfluoroheptanesulfonic acid (PFHpS)	1.90	1.67	J	ng/L		88	51 - 150
Perfluorooctanesulfonic acid (PFOS)	1.86	2.00		ng/L		108	43 - 162
Perfluorononanesulfonic acid (PFNS)	1.92	1.73	J	ng/L		90	46 - 151
Perfluorododecanesulfonic acid (PFDoS)	1.94	1.50	J	ng/L		77	30 - 138
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.47	6.36	J	ng/L		85	52 - 158
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.58	9.02		ng/L		119	48 - 158
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.66	9.06		ng/L		118	46 - 165
Perfluorooctanesulfonamide (PFOSA)	2.00	2.09		ng/L		105	47 - 163
N-methylperfluorooctane sulfonamide (NMeFOSA)	2.00	2.29		ng/L		115	54 - 155
N-ethylperfluorooctane sulfonamide (NEtFOSA)	2.00	2.11		ng/L		106	49 - 156
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	2.14		ng/L		107	32 - 160
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	2.02		ng/L		101	51 - 154
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	18.7	J	ng/L		93	56 - 151
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	18.7	J	ng/L		93	60 - 147
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	8.00	8.45		ng/L		106	58 - 154
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	7.54	7.14	J	ng/L		95	61 - 148

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 240-620207/2-A
Matrix: Water
Analysis Batch: 620277

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620207

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.00	4.15		ng/L		104	49 - 154
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.00	4.65		ng/L		116	47 - 160
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	7.46	6.96	J	ng/L		93	44 - 167
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	7.54	6.64	J	ng/L		88	36 - 158
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.56	3.39	J	ng/L		95	56 - 144
3-Perfluoropropylpropanoic acid (3:3 FTCA)	10.0	10.5		ng/L		105	32 - 161
3-Perfluoropentylpropanoic acid (5:3 FTCA)	50.0	51.7		ng/L		103	39 - 156
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	50.0	45.5	J	ng/L		91	36 - 149
Perfluorodecanesulfonic acid (PFDS)	1.93	1.68	J	ng/L		87	50 - 144
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	4.00		ng/L		100	48 - 150

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*97.6*		*10 - 130*
13C5 PFPeA	*92.8*		*40 - 150*
13C5 PFHxA	*90.9*		*40 - 150*
13C4 PFHpA	*93.3*		*40 - 150*
13C8 PFOA	*85.6*		*30 - 140*
13C9 PFNA	*84.4*		*30 - 140*
13C6 PFDA	*87.5*		*20 - 140*
13C7 PFUnA	*81.8*		*20 - 140*
13C2 PFTeDA	*69.3*		*10 - 130*
13C3 PFBS	*86.0*		*25 - 150*
13C3 PFHxS	*89.2*		*25 - 150*
13C8 PFOS	*89.3*		*20 - 140*
13C8 FOSA	*83.3*		*10 - 130*
d3-NMeFOSAA	*78.3*		*10 - 200*
d5-NEtFOSAA	*121*		*10 - 200*
M2-4:2 FTS	*106*		*25 - 200*
M2-6:2 FTS	*88.6*		*25 - 200*
M2-8:2 FTS	*94.0*		*25 - 200*
13C3 HFPO-DA	*93.7*		*25 - 160*
d7-N-MeFOSE-M	*94.7*		*10 - 150*
d9-N-EtFOSE-M	*87.3*		*10 - 150*
d5-NEtPFOSA	*67.8*		*10 - 130*
d3-NMePFOSA	*68.2*		*10 - 130*
13C2-PFDoDA	*81.1*		*10 - 150*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 240-620309/1-A
Matrix: Solid
Analysis Batch: 620319

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 620309

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.80	0.20	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
Perfluoropentanoic acid (PFPeA)	ND		0.40	0.10	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
Perfluorohexanoic acid (PFHxA)	ND		0.20	0.050	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
Perfluoroheptanoic acid (PFHpA)	ND		0.20	0.050	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
Perfluorooctanoic acid (PFOA)	ND		0.20	0.050	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
Perfluorononanoic acid (PFNA)	ND		0.20	0.050	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
Perfluorodecanoic acid (PFDA)	ND		0.20	0.050	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
Perfluoroundecanoic acid (PFUnA)	ND		0.20	0.050	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
Perfluorododecanoic acid (PFDoA)	ND		0.20	0.050	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.20	0.050	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.20	0.050	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.20	0.050	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.20	0.050	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.20	0.050	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.20	0.050	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
Perfluorooctanesulfonic acid (PFOS)	0.196	J	0.20	0.050	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
Perfluorononanesulfonic acid (PFNS)	ND		0.20	0.050	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.20	0.050	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		0.80	0.20	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		0.80	0.20	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		0.80	0.20	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.20	0.050	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.20	0.050	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.20	0.050	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.20	0.050	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.20	0.050	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		2.0	0.50	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		2.0	0.50	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.80	0.20	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.80	0.20	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.40	0.10	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.40	0.10	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		0.80	0.20	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		0.80	0.20	ug/Kg		07/18/24 08:14	07/18/24 16:54	1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 240-620309/1-A
Matrix: Solid
Analysis Batch: 620319

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 620309

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.40	0.10	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1.0	0.25	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		5.0	1.3	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		5.0	1.3	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.20	0.050	ug/Kg		07/18/24 08:14	07/18/24 16:54	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.40	0.10	ug/Kg		07/18/24 08:14	07/18/24 16:54	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*105*		*20 - 150*	*07/18/24 08:14*	*07/18/24 16:54*	*1*
13C5 PFPeA	*106*		*20 - 150*	*07/18/24 08:14*	*07/18/24 16:54*	*1*
13C5 PFHxA	*102*		*20 - 150*	*07/18/24 08:14*	*07/18/24 16:54*	*1*
13C4 PFHpA	*107*		*20 - 150*	*07/18/24 08:14*	*07/18/24 16:54*	*1*
13C8 PFOA	*79.0*		*20 - 150*	*07/18/24 08:14*	*07/18/24 16:54*	*1*
13C9 PFNA	*101*		*20 - 150*	*07/18/24 08:14*	*07/18/24 16:54*	*1*
13C6 PFDA	*103*		*20 - 150*	*07/18/24 08:14*	*07/18/24 16:54*	*1*
13C7 PFUnA	*94.7*		*20 - 150*	*07/18/24 08:14*	*07/18/24 16:54*	*1*
13C2 PFTeDA	*76.3*		*20 - 150*	*07/18/24 08:14*	*07/18/24 16:54*	*1*
13C3 PFBS	*95.9*		*20 - 150*	*07/18/24 08:14*	*07/18/24 16:54*	*1*
13C3 PFHxS	*99.7*		*20 - 150*	*07/18/24 08:14*	*07/18/24 16:54*	*1*
13C8 PFOS	*98.6*		*20 - 150*	*07/18/24 08:14*	*07/18/24 16:54*	*1*
13C8 FOSA	*90.7*		*20 - 150*	*07/18/24 08:14*	*07/18/24 16:54*	*1*
d3-NMeFOSAA	*88.5*		*20 - 150*	*07/18/24 08:14*	*07/18/24 16:54*	*1*
d5-NEtFOSAA	*140*		*20 - 150*	*07/18/24 08:14*	*07/18/24 16:54*	*1*
M2-4:2 FTS	*107*		*20 - 150*	*07/18/24 08:14*	*07/18/24 16:54*	*1*
M2-6:2 FTS	*115*		*20 - 150*	*07/18/24 08:14*	*07/18/24 16:54*	*1*
M2-8:2 FTS	*112*		*20 - 150*	*07/18/24 08:14*	*07/18/24 16:54*	*1*
13C3 HFPO-DA	*98.6*		*20 - 150*	*07/18/24 08:14*	*07/18/24 16:54*	*1*
d7-N-MeFOSE-M	*90.1*		*20 - 150*	*07/18/24 08:14*	*07/18/24 16:54*	*1*
d9-N-EtFOSE-M	*84.7*		*20 - 150*	*07/18/24 08:14*	*07/18/24 16:54*	*1*
d5-NEtPFOSA	*69.9*		*20 - 150*	*07/18/24 08:14*	*07/18/24 16:54*	*1*
d3-NMePFOSA	*69.0*		*20 - 150*	*07/18/24 08:14*	*07/18/24 16:54*	*1*
13C2-PFDoDA	*95.1*		*20 - 150*	*07/18/24 08:14*	*07/18/24 16:54*	*1*

Lab Sample ID: LCS 240-620309/3-A
Matrix: Solid
Analysis Batch: 620319

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620309

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	10.0	11.9		ug/Kg		119	40 - 150
Perfluoropentanoic acid (PFPeA)	5.00	5.67		ug/Kg		113	40 - 150
Perfluorohexanoic acid (PFHxA)	2.50	2.68		ug/Kg		107	40 - 150
Perfluoroheptanoic acid (PFHpA)	2.50	2.74		ug/Kg		109	40 - 150
Perfluorooctanoic acid (PFOA)	2.50	2.97		ug/Kg		119	40 - 150
Perfluorononanoic acid (PFNA)	2.50	2.44		ug/Kg		98	40 - 150
Perfluorodecanoic acid (PFDA)	2.50	2.40		ug/Kg		96	40 - 150

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 240-620309/3-A
Matrix: Solid
Analysis Batch: 620319

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620309

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	2.50	2.70		ug/Kg		108	40 - 150
Perfluorododecanoic acid (PFDoA)	2.50	2.83		ug/Kg		113	40 - 150
Perfluorotridecanoic acid (PFTrDA)	2.50	2.69		ug/Kg		107	40 - 150
Perfluorotetradecanoic acid (PFTeDA)	2.50	2.76		ug/Kg		110	40 - 150
Perfluorobutanesulfonic acid (PFBS)	2.21	2.42		ug/Kg		109	40 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.35	2.59		ug/Kg		111	40 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.28	2.52		ug/Kg		111	40 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.38	2.55		ug/Kg		107	40 - 150
Perfluorooctanesulfonic acid (PFOS)	2.32	2.66		ug/Kg		115	40 - 150
Perfluorononanesulfonic acid (PFNS)	2.40	2.44		ug/Kg		102	40 - 150
Perfluorododecanesulfonic acid (PFDoS)	2.42	2.27		ug/Kg		94	40 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	9.34	9.81		ug/Kg		105	40 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	9.48	10.2		ug/Kg		108	40 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	9.58	10.3		ug/Kg		107	40 - 150
Perfluorooctanesulfonamide (PFOSA)	2.50	2.89		ug/Kg		115	40 - 150
N-methylperfluorooctane sulfonamide (NMeFOSA)	2.50	3.28		ug/Kg		131	40 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	2.50	2.90		ug/Kg		116	40 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.50	2.87		ug/Kg		115	40 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.50	2.79		ug/Kg		112	40 - 150
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	25.0	29.5		ug/Kg		118	40 - 150
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	25.0	28.7		ug/Kg		115	40 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	10.0	11.8		ug/Kg		118	40 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	9.42	11.0		ug/Kg		116	40 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	5.00	5.66		ug/Kg		113	40 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	5.00	6.52		ug/Kg		130	40 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	9.32	11.2		ug/Kg		120	40 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	9.42	10.6		ug/Kg		113	40 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	4.45	4.98		ug/Kg		112	40 - 150

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 240-620309/3-A
Matrix: Solid
Analysis Batch: 620319

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620309

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
3-Perfluoropropylpropanoic acid (3:3 FTCA)	12.5	13.6		ug/Kg		109	40 - 150
3-Perfluoropentylpropanoic acid (5:3 FTCA)	62.5	66.8		ug/Kg		107	40 - 150
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	62.5	62.0		ug/Kg		99	40 - 150
Perfluorodecanesulfonic acid (PFDS)	2.41	2.45		ug/Kg		101	40 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	5.00	5.62		ug/Kg		112	40 - 150

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*102*		*20 - 150*
13C5 PFPeA	*101*		*20 - 150*
13C5 PFHxA	*104*		*20 - 150*
13C4 PFHpA	*103*		*20 - 150*
13C8 PFOA	*90.6*		*20 - 150*
13C9 PFNA	*105*		*20 - 150*
13C6 PFDA	*101*		*20 - 150*
13C7 PFUnA	*90.3*		*20 - 150*
13C2 PFTeDA	*77.7*		*20 - 150*
13C3 PFBS	*94.6*		*20 - 150*
13C3 PFHxS	*96.8*		*20 - 150*
13C8 PFOS	*95.8*		*20 - 150*
13C8 FOSA	*82.7*		*20 - 150*
d3-NMeFOSAA	*85.6*		*20 - 150*
d5-NEtFOSAA	*129*		*20 - 150*
M2-4:2 FTS	*107*		*20 - 150*
M2-6:2 FTS	*115*		*20 - 150*
M2-8:2 FTS	*103*		*20 - 150*
13C3 HFPO-DA	*99.5*		*20 - 150*
d7-N-MeFOSE-M	*79.0*		*20 - 150*
d9-N-EtFOSE-M	*82.2*		*20 - 150*
d5-NEtPFOSA	*59.6*		*20 - 150*
d3-NMePFOSA	*58.7*		*20 - 150*
13C2-PFDoDA	*89.7*		*20 - 150*

Lab Sample ID: LLCS 240-620309/2-A
Matrix: Solid
Analysis Batch: 620319

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620309

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	0.800	0.821		ug/Kg		103	40 - 150
Perfluoropentanoic acid (PFPeA)	0.400	0.410		ug/Kg		102	40 - 150
Perfluorohexanoic acid (PFHxA)	0.200	0.201		ug/Kg		101	40 - 150
Perfluoroheptanoic acid (PFHpA)	0.200	0.228		ug/Kg		114	40 - 150
Perfluorooctanoic acid (PFOA)	0.200	0.235		ug/Kg		118	40 - 150
Perfluorononanoic acid (PFNA)	0.200	0.226		ug/Kg		113	40 - 150
Perfluorodecanoic acid (PFDA)	0.200	0.196	J	ug/Kg		98	40 - 150

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 240-620309/2-A
Matrix: Solid
Analysis Batch: 620319

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620309

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	0.200	0.199	J	ug/Kg		99	40 - 150
Perfluorododecanoic acid (PFDoA)	0.200	0.195	J	ug/Kg		98	40 - 150
Perfluorotridecanoic acid (PFTrDA)	0.200	0.226		ug/Kg		113	40 - 150
Perfluorotetradecanoic acid (PFTeDA)	0.200	0.157	J	ug/Kg		79	40 - 150
Perfluorobutanesulfonic acid (PFBS)	0.177	0.163	J	ug/Kg		92	40 - 150
Perfluoropentanesulfonic acid (PFPeS)	0.188	0.182	J	ug/Kg		97	40 - 150
Perfluorohexanesulfonic acid (PFHxS)	0.182	0.180	J	ug/Kg		99	40 - 150
Perfluoroheptanesulfonic acid (PFHpS)	0.190	0.172	J	ug/Kg		90	40 - 150
Perfluorooctanesulfonic acid (PFOS)	0.186	0.229		ug/Kg		123	40 - 150
Perfluorononanesulfonic acid (PFNS)	0.192	0.176	J	ug/Kg		92	40 - 150
Perfluorododecanesulfonic acid (PFDoS)	0.194	0.166	J	ug/Kg		86	40 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	0.747	0.768	J	ug/Kg		103	40 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	0.758	0.817		ug/Kg		108	40 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	0.766	0.754	J	ug/Kg		98	40 - 150
Perfluorooctanesulfonamide (PFOSA)	0.200	0.190	J	ug/Kg		95	40 - 150
N-methylperfluorooctane sulfonamide (NMeFOSA)	0.200	0.258		ug/Kg		129	40 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	0.200	0.196	J	ug/Kg		98	40 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.200	0.239		ug/Kg		120	40 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.200	0.268		ug/Kg		134	40 - 150
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	2.00	1.93	J	ug/Kg		97	40 - 150
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	2.00	2.09		ug/Kg		105	40 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	0.800	0.792	J	ug/Kg		99	40 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	0.754	0.775	J	ug/Kg		103	40 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	0.400	0.397	J	ug/Kg		99	40 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	0.400	0.324	J	ug/Kg		81	40 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	0.746	0.763	J	ug/Kg		102	40 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	0.754	0.742	J	ug/Kg		99	40 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	0.356	0.320	J	ug/Kg		90	40 - 150

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 240-620309/2-A
Matrix: Solid
Analysis Batch: 620319

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620309

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
3-Perfluoropropylpropanoic acid (3:3 FTCA)	1.00	0.960	J	ug/Kg		96	40 - 150
3-Perfluoropentylpropanoic acid (5:3 FTCA)	5.00	4.43	J	ug/Kg		89	40 - 150
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	5.00	4.42	J	ug/Kg		88	40 - 150
Perfluorodecanesulfonic acid (PFDS)	0.193	0.183	J	ug/Kg		95	40 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	0.400	0.402		ug/Kg		100	40 - 150

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*103*		*20 - 150*
13C5 PFPeA	*97.8*		*20 - 150*
13C5 PFHxA	*103*		*20 - 150*
13C4 PFHpA	*98.7*		*20 - 150*
13C8 PFOA	*91.6*		*20 - 150*
13C9 PFNA	*98.8*		*20 - 150*
13C6 PFDA	*99.0*		*20 - 150*
13C7 PFUnA	*91.4*		*20 - 150*
13C2 PFTeDA	*84.9*		*20 - 150*
13C3 PFBS	*99.7*		*20 - 150*
13C3 PFHxS	*103*		*20 - 150*
13C8 PFOS	*95.5*		*20 - 150*
13C8 FOSA	*88.7*		*20 - 150*
d3-NMeFOSAA	*86.7*		*20 - 150*
d5-NEtFOSAA	*127*		*20 - 150*
M2-4:2 FTS	*106*		*20 - 150*
M2-6:2 FTS	*118*		*20 - 150*
M2-8:2 FTS	*108*		*20 - 150*
13C3 HFPO-DA	*97.8*		*20 - 150*
d7-N-MeFOSE-M	*80.8*		*20 - 150*
d9-N-EtFOSE-M	*81.4*		*20 - 150*
d5-NEtPFOSA	*62.6*		*20 - 150*
d3-NMePFOSA	*61.8*		*20 - 150*
13C2-PFDoDA	*88.5*		*20 - 150*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-718444/1-A
Matrix: Solid
Analysis Batch: 718685

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718444

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		10.1	8.7	mg/Kg		07/15/24 13:07	07/16/24 15:04	1
Antimony	ND		15.1	0.53	mg/Kg		07/15/24 13:07	07/16/24 15:04	1
Arsenic	ND		2.0	0.88	mg/Kg		07/15/24 13:07	07/16/24 15:04	1
Barium	ND		0.50	0.14	mg/Kg		07/15/24 13:07	07/16/24 15:04	1
Beryllium	ND		0.20	0.040	mg/Kg		07/15/24 13:07	07/16/24 15:04	1
Cadmium	ND		0.20	0.070	mg/Kg		07/15/24 13:07	07/16/24 15:04	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 480-718444/1-A
Matrix: Solid
Analysis Batch: 718685

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718444

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		50.3	27.1	mg/Kg		07/15/24 13:07	07/16/24 15:04	1
Chromium	ND		0.50	0.36	mg/Kg		07/15/24 13:07	07/16/24 15:04	1
Cobalt	ND		0.50	0.10	mg/Kg		07/15/24 13:07	07/16/24 15:04	1
Copper	ND		1.0	0.57	mg/Kg		07/15/24 13:07	07/16/24 15:04	1
Iron	ND		10.1	8.5	mg/Kg		07/15/24 13:07	07/16/24 15:04	1
Lead	ND		1.0	0.46	mg/Kg		07/15/24 13:07	07/16/24 15:04	1
Magnesium	ND		20.1	8.5	mg/Kg		07/15/24 13:07	07/16/24 15:04	1
Manganese	ND		1.0	0.28	mg/Kg		07/15/24 13:07	07/16/24 15:04	1
Nickel	ND		5.0	0.25	mg/Kg		07/15/24 13:07	07/16/24 15:04	1
Potassium	ND		30.2	24.4	mg/Kg		07/15/24 13:07	07/16/24 15:04	1
Selenium	ND		4.0	0.80	mg/Kg		07/15/24 13:07	07/16/24 15:04	1
Silver	ND		0.60	0.20	mg/Kg		07/15/24 13:07	07/16/24 15:04	1
Sodium	ND		141	61.6	mg/Kg		07/15/24 13:07	07/16/24 15:04	1
Thallium	ND		6.0	0.76	mg/Kg		07/15/24 13:07	07/16/24 15:04	1
Vanadium	ND		0.50	0.13	mg/Kg		07/15/24 13:07	07/16/24 15:04	1
Zinc	ND		2.0	1.0	mg/Kg		07/15/24 13:07	07/16/24 15:04	1

Lab Sample ID: LCSSRM 480-718444/2-A
Matrix: Solid
Analysis Batch: 718685

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718444

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	10600	10090		mg/Kg		95.2	52.7 - 148.1
Antimony	59.8	93.19		mg/Kg		155.8	46.2 - 633.8
Arsenic	180	152.3		mg/Kg		84.6	70.0 - 130.0
Barium	431	369.5		mg/Kg		85.7	74.9 - 125.1
Beryllium	121	106.6		mg/Kg		88.1	74.8 - 124.8
Cadmium	199	169.7		mg/Kg		85.3	74.9 - 125.1
Calcium	5760	4862		mg/Kg		84.4	73.6 - 126.4
Chromium	210	180.6		mg/Kg		86.0	70.0 - 130.0
Cobalt	237	220.0		mg/Kg		92.8	75.1 - 124.9
Copper	229	185.4		mg/Kg		81.0	75.1 - 124.9
Iron	9280	7695		mg/Kg		82.9	18.4 - 181.0
Lead	261	237.8		mg/Kg		91.1	78.2 - 121.1
Magnesium	2520	2093		mg/Kg		83.1	63.5 - 136.5
Manganese	316	283.6		mg/Kg		89.8	74.7 - 125.0
Nickel	108	90.14		mg/Kg		83.5	69.8 - 129.6

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 480-718444/2-A
Matrix: Solid
Analysis Batch: 718685

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718444

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Potassium	2100	1952		mg/Kg		93.0	70.0 - 130.0
Selenium	117	93.09		mg/Kg		79.6	65.8 - 133.3
Silver	65.5	57.84		mg/Kg		88.3	70.5 - 129.3
Sodium	442	372.5		mg/Kg		84.3	58.6 - 141.4
Thallium	144	137.2		mg/Kg		95.3	70.1 - 129.9
Vanadium	183	141.3		mg/Kg		77.2	68.9 - 119.1
Zinc	264	223.9		mg/Kg		84.8	69.7 - 129.5

Lab Sample ID: MB 480-718488/1-A
Matrix: Water
Analysis Batch: 718685

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718488

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		07/16/24 08:42	07/16/24 16:08	1
Antimony	ND		0.020	0.0068	mg/L		07/16/24 08:42	07/16/24 16:08	1
Arsenic	ND		0.015	0.0056	mg/L		07/16/24 08:42	07/16/24 16:08	1
Barium	ND		0.0020	0.00070	mg/L		07/16/24 08:42	07/16/24 16:08	1
Beryllium	ND		0.0020	0.00030	mg/L		07/16/24 08:42	07/16/24 16:08	1
Cadmium	ND		0.0020	0.00050	mg/L		07/16/24 08:42	07/16/24 16:08	1
Calcium	ND		0.50	0.10	mg/L		07/16/24 08:42	07/16/24 16:08	1
Chromium	ND		0.0040	0.0010	mg/L		07/16/24 08:42	07/16/24 16:08	1
Cobalt	ND		0.0040	0.00063	mg/L		07/16/24 08:42	07/16/24 16:08	1
Copper	ND		0.010	0.0016	mg/L		07/16/24 08:42	07/16/24 16:08	1
Iron	ND		0.050	0.019	mg/L		07/16/24 08:42	07/16/24 16:08	1
Lead	ND		0.010	0.0030	mg/L		07/16/24 08:42	07/16/24 16:08	1
Magnesium	ND		0.20	0.043	mg/L		07/16/24 08:42	07/16/24 16:08	1
Manganese	0.000637	J	0.0030	0.00040	mg/L		07/16/24 08:42	07/16/24 16:08	1
Nickel	ND		0.010	0.0013	mg/L		07/16/24 08:42	07/16/24 16:08	1
Potassium	ND		0.50	0.10	mg/L		07/16/24 08:42	07/16/24 16:08	1
Selenium	ND		0.025	0.0087	mg/L		07/16/24 08:42	07/16/24 16:08	1
Silver	ND		0.0060	0.0017	mg/L		07/16/24 08:42	07/16/24 16:08	1
Sodium	ND		1.0	0.32	mg/L		07/16/24 08:42	07/16/24 16:08	1
Thallium	ND		0.020	0.010	mg/L		07/16/24 08:42	07/16/24 16:08	1
Vanadium	ND		0.0050	0.0015	mg/L		07/16/24 08:42	07/16/24 16:08	1
Zinc	ND		0.010	0.0015	mg/L		07/16/24 08:42	07/16/24 16:08	1

Lab Sample ID: LCS 480-718488/2-A
Matrix: Water
Analysis Batch: 718685

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718488

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	5.10	5.11		mg/L		100	80 - 120
Antimony	0.500	0.499		mg/L		100	80 - 120
Arsenic	1.00	0.994		mg/L		99	80 - 120

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 480-718488/2-A
Matrix: Water
Analysis Batch: 718685

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718488

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	1.00	1.03		mg/L		103	80 - 120
Beryllium	0.500	0.535		mg/L		107	80 - 120
Cadmium	0.500	0.508		mg/L		102	80 - 120
Calcium	25.0	26.12		mg/L		104	80 - 120
Chromium	0.500	0.504		mg/L		101	80 - 120
Cobalt	0.500	0.504		mg/L		101	80 - 120
Copper	0.500	0.488		mg/L		98	80 - 120
Iron	5.10	5.45		mg/L		107	80 - 120
Lead	0.500	0.500		mg/L		100	80 - 120
Magnesium	25.0	25.40		mg/L		102	80 - 120
Manganese	0.500	0.515		mg/L		103	80 - 120
Nickel	0.500	0.513		mg/L		103	80 - 120
Potassium	25.0	25.33		mg/L		101	80 - 120
Selenium	1.00	0.980		mg/L		98	80 - 120
Silver	0.0500	0.0505		mg/L		101	80 - 120
Sodium	25.0	25.86		mg/L		103	80 - 120
Thallium	1.00	0.986		mg/L		99	80 - 120
Vanadium	0.500	0.493		mg/L		99	80 - 120
Zinc	0.500	0.547		mg/L		109	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-718537/1-A
Matrix: Water
Analysis Batch: 718676

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718537

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		07/16/24 08:01	07/16/24 15:36	1

Lab Sample ID: LCS 480-718537/2-A
Matrix: Water
Analysis Batch: 718676

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718537

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00669	0.00756		mg/L		113	80 - 120

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 480-718647/1-A
Matrix: Solid
Analysis Batch: 718726

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718647

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.0045	mg/Kg		07/17/24 08:25	07/17/24 10:05	1

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: LCSSRM 480-718647/2-A ^10
Matrix: Solid
Analysis Batch: 718726

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718647

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	19.1	19.66		mg/Kg		102.9	59.7 - 139.8

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 480-719044/1-A
Matrix: Solid
Analysis Batch: 719060

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 719044

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.92	0.45	mg/Kg		07/19/24 13:18	07/19/24 15:27	1

Lab Sample ID: LCS 480-719044/3-A
Matrix: Solid
Analysis Batch: 719060

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 719044

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.400	0.415		mg/Kg		104	29 - 122

Lab Sample ID: LCS 480-719044/4-A
Matrix: Solid
Analysis Batch: 719060

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 719044

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.250	0.260		mg/Kg		104	29 - 122

Lab Sample ID: LCSSRM 480-719044/2-A ^10
Matrix: Solid
Analysis Batch: 719060

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 719044

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	154	43.10		mg/Kg		28.0	20.6 - 120.8

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 480-718665/21
Matrix: Water
Analysis Batch: 718665

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0041	mg/L			07/16/24 18:05	1

Lab Sample ID: HLCS 480-718665/22
Matrix: Water
Analysis Batch: 718665

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.400	0.412		mg/L		103	90 - 110

Method: 9012B - Cyanide, Total and/or Amenable (Continued)

Lab Sample ID: LCS 480-718665/23
Matrix: Water
Analysis Batch: 718665

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total			0.250	0.246		mg/L		98	90 - 110		

QC Association Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221629-1

GC/MS VOA

Analysis Batch: 718619

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221629-1	RB-07122024	Total/NA	Water	8260C	
MB 480-718619/8	Method Blank	Total/NA	Water	8260C	
LCS 480-718619/6	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-718619/24	Lab Control Sample Dup	Total/NA	Water	8260C	

Prep Batch: 718658

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221629-2	SB-04-0.5-2.0	Total/NA	Solid	5035A_L	
480-221629-3	SB-04-0.5-2.0-FD	Total/NA	Solid	5035A_L	
480-221629-4	SB-04-38.0-42.0	Total/NA	Solid	5035A_L	
MB 480-718658/2-A	Method Blank	Total/NA	Solid	5035A_L	
LCS 480-718658/1-A	Lab Control Sample	Total/NA	Solid	5035A_L	

Analysis Batch: 718659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221629-2	SB-04-0.5-2.0	Total/NA	Solid	8260C	718658
480-221629-3	SB-04-0.5-2.0-FD	Total/NA	Solid	8260C	718658
480-221629-4	SB-04-38.0-42.0	Total/NA	Solid	8260C	718658
MB 480-718658/2-A	Method Blank	Total/NA	Solid	8260C	718658
LCS 480-718658/1-A	Lab Control Sample	Total/NA	Solid	8260C	718658

GC/MS Semi VOA

Prep Batch: 718459

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221629-1	RB-07122024	Total/NA	Water	3510C	
MB 480-718459/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-718459/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-718459/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 718528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221629-2	SB-04-0.5-2.0	Total/NA	Solid	3550C	
480-221629-3	SB-04-0.5-2.0-FD	Total/NA	Solid	3550C	
480-221629-4	SB-04-38.0-42.0	Total/NA	Solid	3550C	
MB 480-718528/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-718528/2-A	Lab Control Sample	Total/NA	Solid	3550C	

Analysis Batch: 718573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-718528/1-A	Method Blank	Total/NA	Solid	8270D	718528
LCS 480-718528/2-A	Lab Control Sample	Total/NA	Solid	8270D	718528

Analysis Batch: 718596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221629-1	RB-07122024	Total/NA	Water	8270D	718459
MB 480-718459/1-A	Method Blank	Total/NA	Water	8270D	718459
LCS 480-718459/2-A	Lab Control Sample	Total/NA	Water	8270D	718459
LCSD 480-718459/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	718459

QC Association Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221629-1

GC/MS Semi VOA

Prep Batch: 718611

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221629-1	RB-07122024	Total/NA	Water	3510C	
MB 480-718611/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-718611/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-718611/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 718706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221629-1	RB-07122024	Total/NA	Water	8270D SIM ID	718611
MB 480-718611/1-A	Method Blank	Total/NA	Water	8270D SIM ID	718611
LCS 480-718611/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	718611
LCSD 480-718611/3-A	Lab Control Sample Dup	Total/NA	Water	8270D SIM ID	718611

Analysis Batch: 718824

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221629-2	SB-04-0.5-2.0	Total/NA	Solid	8270D	718528
480-221629-3	SB-04-0.5-2.0-FD	Total/NA	Solid	8270D	718528

Analysis Batch: 718966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221629-4	SB-04-38.0-42.0	Total/NA	Solid	8270D	718528

GC Semi VOA

Prep Batch: 718568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221629-1	RB-07122024	Total/NA	Water	3510C	
MB 480-718568/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-718568/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-718568/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 718599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221629-1	RB-07122024	Total/NA	Water	8082A	718610
MB 480-718610/1-A	Method Blank	Total/NA	Water	8082A	718610
LCS 480-718610/2-A	Lab Control Sample	Total/NA	Water	8082A	718610
LCSD 480-718610/3-A	Lab Control Sample Dup	Total/NA	Water	8082A	718610

Prep Batch: 718610

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221629-1	RB-07122024	Total/NA	Water	3510C	
MB 480-718610/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-718610/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-718610/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 718655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221629-2	SB-04-0.5-2.0	Total/NA	Solid	3550C	
480-221629-3	SB-04-0.5-2.0-FD	Total/NA	Solid	3550C	
480-221629-4	SB-04-38.0-42.0	Total/NA	Solid	3550C	
MB 480-718655/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-718655/2-A	Lab Control Sample	Total/NA	Solid	3550C	

GC Semi VOA

Prep Batch: 718656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221629-2	SB-04-0.5-2.0	Total/NA	Solid	3550C	
480-221629-3	SB-04-0.5-2.0-FD	Total/NA	Solid	3550C	
480-221629-4	SB-04-38.0-42.0	Total/NA	Solid	3550C	
MB 480-718656/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-718656/2-A	Lab Control Sample	Total/NA	Solid	3550C	

Analysis Batch: 718686

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221629-2	SB-04-0.5-2.0	Total/NA	Solid	8081B	718655
480-221629-3	SB-04-0.5-2.0-FD	Total/NA	Solid	8081B	718655
480-221629-4	SB-04-38.0-42.0	Total/NA	Solid	8081B	718655
MB 480-718655/1-A	Method Blank	Total/NA	Solid	8081B	718655
LCS 480-718655/2-A	Lab Control Sample	Total/NA	Solid	8081B	718655

Analysis Batch: 718688

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221629-1	RB-07122024	Total/NA	Water	8081B	718568
MB 480-718568/1-A	Method Blank	Total/NA	Water	8081B	718568
LCS 480-718568/2-A	Lab Control Sample	Total/NA	Water	8081B	718568
LCSD 480-718568/3-A	Lab Control Sample Dup	Total/NA	Water	8081B	718568

Analysis Batch: 718748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221629-2	SB-04-0.5-2.0	Total/NA	Solid	8082A	718656
480-221629-3	SB-04-0.5-2.0-FD	Total/NA	Solid	8082A	718656
480-221629-4	SB-04-38.0-42.0	Total/NA	Solid	8082A	718656
MB 480-718656/1-A	Method Blank	Total/NA	Solid	8082A	718656
LCS 480-718656/2-A	Lab Control Sample	Total/NA	Solid	8082A	718656

LCMS

Prep Batch: 620207

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221629-1	RB-07122024	Total/NA	Water	1633	
MB 240-620207/1-A	Method Blank	Total/NA	Water	1633	
LCS 240-620207/3-A	Lab Control Sample	Total/NA	Water	1633	
LLCS 240-620207/2-A	Lab Control Sample	Total/NA	Water	1633	

Analysis Batch: 620277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221629-1	RB-07122024	Total/NA	Water	1633	620207
MB 240-620207/1-A	Method Blank	Total/NA	Water	1633	620207
LCS 240-620207/3-A	Lab Control Sample	Total/NA	Water	1633	620207
LLCS 240-620207/2-A	Lab Control Sample	Total/NA	Water	1633	620207

Prep Batch: 620309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221629-2	SB-04-0.5-2.0	Total/NA	Solid	1633 Shake	
480-221629-3	SB-04-0.5-2.0-FD	Total/NA	Solid	1633 Shake	
480-221629-4	SB-04-38.0-42.0	Total/NA	Solid	1633 Shake	
MB 240-620309/1-A	Method Blank	Total/NA	Solid	1633 Shake	

LCMS (Continued)

Prep Batch: 620309 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-620309/3-A	Lab Control Sample	Total/NA	Solid	1633 Shake	
LLCS 240-620309/2-A	Lab Control Sample	Total/NA	Solid	1633 Shake	

Analysis Batch: 620319

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221629-2	SB-04-0.5-2.0	Total/NA	Solid	1633	620309
480-221629-3	SB-04-0.5-2.0-FD	Total/NA	Solid	1633	620309
480-221629-4	SB-04-38.0-42.0	Total/NA	Solid	1633	620309
MB 240-620309/1-A	Method Blank	Total/NA	Solid	1633	620309
LCS 240-620309/3-A	Lab Control Sample	Total/NA	Solid	1633	620309
LLCS 240-620309/2-A	Lab Control Sample	Total/NA	Solid	1633	620309

Metals

Prep Batch: 718444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221629-2	SB-04-0.5-2.0	Total/NA	Solid	3050B	
480-221629-3	SB-04-0.5-2.0-FD	Total/NA	Solid	3050B	
480-221629-4	SB-04-38.0-42.0	Total/NA	Solid	3050B	
MB 480-718444/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 480-718444/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Prep Batch: 718488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221629-1	RB-07122024	Total/NA	Water	3005A	
MB 480-718488/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-718488/2-A	Lab Control Sample	Total/NA	Water	3005A	

Prep Batch: 718537

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221629-1	RB-07122024	Total/NA	Water	7470A	
MB 480-718537/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-718537/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 718647

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221629-2	SB-04-0.5-2.0	Total/NA	Solid	7471B	
480-221629-3	SB-04-0.5-2.0-FD	Total/NA	Solid	7471B	
480-221629-4	SB-04-38.0-42.0	Total/NA	Solid	7471B	
MB 480-718647/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 480-718647/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	

Analysis Batch: 718676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221629-1	RB-07122024	Total/NA	Water	7470A	718537
MB 480-718537/1-A	Method Blank	Total/NA	Water	7470A	718537
LCS 480-718537/2-A	Lab Control Sample	Total/NA	Water	7470A	718537

Analysis Batch: 718685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221629-1	RB-07122024	Total/NA	Water	6010C	718488

Metals (Continued)

Analysis Batch: 718685 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221629-2	SB-04-0.5-2.0	Total/NA	Solid	6010C	718444
480-221629-3	SB-04-0.5-2.0-FD	Total/NA	Solid	6010C	718444
480-221629-4	SB-04-38.0-42.0	Total/NA	Solid	6010C	718444
MB 480-718444/1-A	Method Blank	Total/NA	Solid	6010C	718444
MB 480-718488/1-A	Method Blank	Total/NA	Water	6010C	718488
LCS 480-718488/2-A	Lab Control Sample	Total/NA	Water	6010C	718488
LCSSRM 480-718444/2-A	Lab Control Sample	Total/NA	Solid	6010C	718444

Analysis Batch: 718726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221629-2	SB-04-0.5-2.0	Total/NA	Solid	7471B	718647
480-221629-3	SB-04-0.5-2.0-FD	Total/NA	Solid	7471B	718647
480-221629-4	SB-04-38.0-42.0	Total/NA	Solid	7471B	718647
MB 480-718647/1-A	Method Blank	Total/NA	Solid	7471B	718647
LCSSRM 480-718647/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	718647

Analysis Batch: 718781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221629-1	RB-07122024	Total/NA	Water	6010C	718488

General Chemistry

Analysis Batch: 718485

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221629-2	SB-04-0.5-2.0	Total/NA	Solid	Moisture	
480-221629-3	SB-04-0.5-2.0-FD	Total/NA	Solid	Moisture	
480-221629-4	SB-04-38.0-42.0	Total/NA	Solid	Moisture	

Analysis Batch: 718665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221629-1	RB-07122024	Total/NA	Water	9012B	
MB 480-718665/21	Method Blank	Total/NA	Water	9012B	
HLCS 480-718665/22	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-718665/23	Lab Control Sample	Total/NA	Water	9012B	

Prep Batch: 719044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221629-2	SB-04-0.5-2.0	Total/NA	Solid	9012B	
480-221629-3	SB-04-0.5-2.0-FD	Total/NA	Solid	9012B	
480-221629-4	SB-04-38.0-42.0	Total/NA	Solid	9012B	
MB 480-719044/1-A	Method Blank	Total/NA	Solid	9012B	
LCS 480-719044/3-A	Lab Control Sample	Total/NA	Solid	9012B	
LCS 480-719044/4-A	Lab Control Sample	Total/NA	Solid	9012B	
LCSSRM 480-719044/2-A ^1	Lab Control Sample	Total/NA	Solid	9012B	

Analysis Batch: 719060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221629-2	SB-04-0.5-2.0	Total/NA	Solid	9012B	719044
480-221629-3	SB-04-0.5-2.0-FD	Total/NA	Solid	9012B	719044
480-221629-4	SB-04-38.0-42.0	Total/NA	Solid	9012B	719044
MB 480-719044/1-A	Method Blank	Total/NA	Solid	9012B	719044

General Chemistry (Continued)

Analysis Batch: 719060 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-719044/3-A	Lab Control Sample	Total/NA	Solid	9012B	719044
LCS 480-719044/4-A	Lab Control Sample	Total/NA	Solid	9012B	719044
LCSSRM 480-719044/2-A ^1	Lab Control Sample	Total/NA	Solid	9012B	719044

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221629-1

Client Sample ID: RB-07122024

Lab Sample ID: 480-221629-1

Date Collected: 07/12/24 09:30

Matrix: Water

Date Received: 07/12/24 15:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	718619	ERS	EET BUF	07/17/24 05:13
Total/NA	Prep	3510C			718459	LSC	EET BUF	07/15/24 13:29
Total/NA	Analysis	8270D		1	718596	EMD	EET BUF	07/16/24 18:46
Total/NA	Prep	3510C			718611	LSC	EET BUF	07/16/24 13:25
Total/NA	Analysis	8270D SIM ID		1	718706	EMD	EET BUF	07/17/24 13:00
Total/NA	Prep	3510C			718568	JMP	EET BUF	07/16/24 09:36
Total/NA	Analysis	8081B		1	718688	JLS	EET BUF	07/17/24 11:34
Total/NA	Prep	3510C			718610	LSC	EET BUF	07/16/24 13:19
Total/NA	Analysis	8082A		1	718599	H9RU	EET BUF	07/17/24 00:42
Total/NA	Prep	1633			620207	WJW	EET CLE	07/17/24 14:24
Total/NA	Analysis	1633		1	620277	MRL	EET CLE	07/18/24 05:55
Total/NA	Prep	3005A			718488	EMO	EET BUF	07/16/24 08:42
Total/NA	Analysis	6010C		1	718685	NZG	EET BUF	07/16/24 16:55
Total/NA	Prep	3005A			718488	EMO	EET BUF	07/16/24 08:42
Total/NA	Analysis	6010C		1	718781	NZG	EET BUF	07/17/24 15:39
Total/NA	Prep	7470A			718537	ESB	EET BUF	07/16/24 08:01
Total/NA	Analysis	7470A		1	718676	ESB	EET BUF	07/16/24 15:46
Total/NA	Analysis	9012B		1	718665	GW	EET BUF	07/16/24 19:02

Client Sample ID: SB-04-0.5-2.0

Lab Sample ID: 480-221629-2

Date Collected: 07/12/24 11:45

Matrix: Solid

Date Received: 07/12/24 15:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	718485	DSC	EET BUF	07/15/24 15:10

Client Sample ID: SB-04-0.5-2.0

Lab Sample ID: 480-221629-2

Date Collected: 07/12/24 11:45

Matrix: Solid

Date Received: 07/12/24 15:41

Percent Solids: 82.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			718658	CDC	EET BUF	07/12/24 16:30
Total/NA	Analysis	8260C		1	718659	CDC	EET BUF	07/17/24 00:54
Total/NA	Prep	3550C			718528	DP	EET BUF	07/16/24 07:37
Total/NA	Analysis	8270D		5	718824	JMM	EET BUF	07/18/24 20:55
Total/NA	Prep	3550C			718655	SJM	EET BUF	07/16/24 16:34
Total/NA	Analysis	8081B		50	718686	JLS	EET BUF	07/17/24 13:00
Total/NA	Prep	3550C			718656	SJM	EET BUF	07/16/24 16:39
Total/NA	Analysis	8082A		1	718748	W1T	EET BUF	07/17/24 23:40
Total/NA	Prep	1633 Shake			620309	WJW	EET CLE	07/18/24 08:14
Total/NA	Analysis	1633		1	620319	MRL	EET CLE	07/18/24 18:02
Total/NA	Prep	3050B			718444	ET	EET BUF	07/15/24 13:07
Total/NA	Analysis	6010C		1	718685	NZG	EET BUF	07/16/24 16:00
Total/NA	Prep	7471B			718647	ESB	EET BUF	07/17/24 08:25
Total/NA	Analysis	7471B		1	718726	ESB	EET BUF	07/17/24 10:08

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221629-1

Client Sample ID: SB-04-0.5-2.0

Lab Sample ID: 480-221629-2
Date Collected: 07/12/24 11:45
Matrix: Solid
Date Received: 07/12/24 15:41
Percent Solids: 82.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	9012B			719044	AM	EET BUF	07/19/24 13:18
Total/NA	Analysis	9012B		1	719060	AM	EET BUF	07/19/24 15:48

Client Sample ID: SB-04-0.5-2.0-FD

Lab Sample ID: 480-221629-3
Date Collected: 07/12/24 11:45
Matrix: Solid
Date Received: 07/12/24 15:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	718485	DSC	EET BUF	07/15/24 15:10

Client Sample ID: SB-04-0.5-2.0-FD

Lab Sample ID: 480-221629-3
Date Collected: 07/12/24 11:45
Matrix: Solid
Date Received: 07/12/24 15:41
Percent Solids: 83.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			718658	CDC	EET BUF	07/12/24 16:30
Total/NA	Analysis	8260C		1	718659	CDC	EET BUF	07/17/24 01:18
Total/NA	Prep	3550C			718528	DP	EET BUF	07/16/24 07:37
Total/NA	Analysis	8270D		5	718824	JMM	EET BUF	07/18/24 21:22
Total/NA	Prep	3550C			718655	SJM	EET BUF	07/16/24 16:34
Total/NA	Analysis	8081B		50	718686	JLS	EET BUF	07/17/24 13:20
Total/NA	Prep	3550C			718656	SJM	EET BUF	07/16/24 16:39
Total/NA	Analysis	8082A		1	718748	W1T	EET BUF	07/17/24 23:57
Total/NA	Prep	1633 Shake			620309	WJW	EET CLE	07/18/24 08:14
Total/NA	Analysis	1633		1	620319	MRL	EET CLE	07/18/24 18:16
Total/NA	Prep	3050B			718444	ET	EET BUF	07/15/24 13:07
Total/NA	Analysis	6010C		1	718685	NZG	EET BUF	07/16/24 16:02
Total/NA	Prep	7471B			718647	ESB	EET BUF	07/17/24 08:25
Total/NA	Analysis	7471B		1	718726	ESB	EET BUF	07/17/24 10:09
Total/NA	Prep	9012B			719044	AM	EET BUF	07/19/24 13:18
Total/NA	Analysis	9012B		1	719060	AM	EET BUF	07/19/24 15:50

Client Sample ID: SB-04-38.0-42.0

Lab Sample ID: 480-221629-4
Date Collected: 07/12/24 12:50
Matrix: Solid
Date Received: 07/12/24 15:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	718485	DSC	EET BUF	07/15/24 15:10

Client Sample ID: SB-04-38.0-42.0

Lab Sample ID: 480-221629-4
Date Collected: 07/12/24 12:50
Matrix: Solid
Date Received: 07/12/24 15:41
Percent Solids: 73.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			718658	CDC	EET BUF	07/12/24 16:30
Total/NA	Analysis	8260C		1	718659	CDC	EET BUF	07/17/24 01:42

Lab Chronicle

Client: Ashland LLC
Job ID: 480-221629-1
Project/Site: Tank 75 Analysis

Client Sample ID: SB-04-38.0-42.0
Date Collected: 07/12/24 12:50
Date Received: 07/12/24 15:41

Lab Sample ID: 480-221629-4
Matrix: Solid
Percent Solids: 73.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			718528	DP	EET BUF	07/16/24 07:37
Total/NA	Analysis	8270D		1	718966	JMM	EET BUF	07/19/24 16:58
Total/NA	Prep	3550C			718655	SJM	EET BUF	07/16/24 16:34
Total/NA	Analysis	8081B		1	718686	JLS	EET BUF	07/17/24 13:39
Total/NA	Prep	3550C			718656	SJM	EET BUF	07/16/24 16:39
Total/NA	Analysis	8082A		1	718748	W1T	EET BUF	07/18/24 00:14
Total/NA	Prep	1633 Shake			620309	WJW	EET CLE	07/18/24 08:14
Total/NA	Analysis	1633		1	620319	MRL	EET CLE	07/18/24 18:29
Total/NA	Prep	3050B			718444	ET	EET BUF	07/15/24 13:07
Total/NA	Analysis	6010C		1	718685	NZG	EET BUF	07/16/24 16:04
Total/NA	Prep	7471B			718647	ESB	EET BUF	07/17/24 08:25
Total/NA	Analysis	7471B		1	718726	ESB	EET BUF	07/17/24 10:11
Total/NA	Prep	9012B			719044	AM	EET BUF	07/19/24 13:18
Total/NA	Analysis	9012B		1	719060	AM	EET BUF	07/19/24 15:51

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Ashland LLC
Job ID: 480-221629-1
Project/Site: Tank 75 Analysis

Laboratory: Eurofins Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-28-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Method Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221629-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET BUF
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	EET BUF
8081B	Organochlorine Pesticides (GC)	SW846	EET BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET BUF
1633	Per- and Polyfluoroalkyl Substances by LC/MS/MS	EPA	EET CLE
6010C	Metals (ICP)	SW846	EET BUF
7470A	Mercury (CVAA)	SW846	EET BUF
7471B	Mercury (CVAA)	SW846	EET BUF
9012B	Cyanide, Total and/or Amenable	SW846	EET BUF
9012B	Cyanide, Total andor Amenable	SW846	EET BUF
Moisture	Percent Moisture	EPA	EET BUF
1633	Solid-Phase Extraction (SPE)	EPA	EET CLE
1633 Shake	Shake Extraction with SPE	EPA	EET CLE
3005A	Preparation, Total Metals	SW846	EET BUF
3050B	Preparation, Metals	SW846	EET BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET BUF
3550C	Ultrasonic Extraction	SW846	EET BUF
5030C	Purge and Trap	SW846	EET BUF
5035A_L	Closed System Purge and Trap	SW846	EET BUF
7470A	Preparation, Mercury	SW846	EET BUF
7471B	Preparation, Mercury	SW846	EET BUF
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	EET BUF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Ashland LLC
Project/Site: Tank 75 Analysis

Job ID: 480-221629-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-221629-1	RB-07122024	Water	07/12/24 09:30	07/12/24 15:41
480-221629-2	SB-04-0.5-2.0	Solid	07/12/24 11:45	07/12/24 15:41
480-221629-3	SB-04-0.5-2.0-FD	Solid	07/12/24 11:45	07/12/24 15:41
480-221629-4	SB-04-38.0-42.0	Solid	07/12/24 12:50	07/12/24 15:41

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins
Environment Testing

Client Information	Sampler: E. Smith / C. Horrocks	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-197590-40883.9
Client Contact: Ethan Smith	Phone: (716) 912-4456	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin:	Page: ~~Page 8 of 11~~ 1 of 1
Company: AECOM	PWSID:	Analysis Requested		Job #: 60730037
Address: 50 Lakefront Boulevard Suite 111	Due Date Requested:			Preservation Codes: N - None; A - HCL; D - HNO3; B - NaOH
City: Buffalo	TAT Requested (days): Standard			
State, Zip: NY, 14202	Compliance Project: Δ Yes Δ No			
Phone: 614-790-2274(Tel)	PO #: 1120269 Task 300			
Email: ethan.smith@aecom.com [illegible]	WO #: Ann Marie Kropovitch@aecom.com			Other:
Project Name: Tank 75 - Soil Analysis	Project #: 48027595			
Site: Tank 75 Site - Tonawanda, NY	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL VOCs + TICs	8081B, 8082A, 8270D	6010C, 7471B, 9012B	8270D - TCL SVOCs + 1,4 Dioxane, TICs	1633 - 1633 Standard List	8260C - TCL VOCs + TICs	8270D - TCL SVOCs + TICs	1633_DRAFT_TSS - Percent Suspend Solids PFAS	8082A - TCL PCBs	8081B - TCL Pesticides	6010C, 7470A	9012B_NP - Cyanide, Total	8270D_SIM_MS_ID - 1,4 Dioxane	Total Number of containers	Special Instructions/Note:
Preservation Code:					X	X	N	N	N	N	N	A	N	N	N	N	D	B	N		
RB - 07122024	7-12-24	0930	G	~~Solid~~ water								X	X	X	X	X	X	X	X	16	
SB-04-0.5-2.0	7-12-24	1145	G	Solid			X	X	X	X	X									9	
SB-04-0.5-2.0-FD	7-12-24	1145	G	Solid			X	X	X	X	X									9	
SB-04-38.0-42.0	7-12-24	1250	G	Solid			X	X	X	X	X									9	
				Solid																	
				Solid																	
				Solid																	
				Solid																	
				Solid																	
				Solid																	
				Solid																	

480-221629 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	7-12-24 1541	AECOM	[signature]	7/12/24 1541	TA
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 7.2 5.8 6.6 # ITLE

Ver: 04/02/2024

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins
Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-88481 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note): NELAP New York		Job #: 480-221629-1
Address: 180 S. Van Buren Avenue,	Due Date Requested: 7/25/2024			Preservation Codes:
City: Barberton	TAT Requested (days):			
State, Zip: OH, 44203				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site:	SSOW#:			Other:

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633/1633_SPE 1633 Standard List	1633_DRAFT TSS/ Percent Suspend Solids PFAS	1633/1633_Shake 1633 Standard List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								R886-46
RB-07122024 (480-221629-1)	7/12/24	09:30 Eastern		Water			X	X		3	
SB-04-0.5-2.0 (480-221629-2)	7/12/24	11:45 Eastern		Solid					X	1	
SB-04-0.5-2.0-FD (480-221629-3)	7/12/24	11:45 Eastern		Solid					X	1	
SB-04-38.0-42.0 (480-221629-4)	7/12/24	12:50 Eastern		Solid					X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory *does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided.* Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I II III IV Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
KS					
Relinquished by:	Date/Time:	Company	Received by: 7/16/24 1600	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: Darrell Jarvis 7/17/24 940	Date/Time:	Company BETNE

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :** _____
Barberton Facility

Client Eurofins Buffalo Site Name _____ Cooler unpacked by: Rachelle Hadek

Cooler Received on 7/17/24 Opened on 7/17/24

FedEx. 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other _____

Receipt After-hours Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____

Packing material used. Bubble Wrap Foam Plastic Bag None Other _____

COOLANT Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp 1.0 °C Corrected Cooler Temp 0.9 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5 Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7 Did all bottles arrive in good condition (Unbroken)?	Yes	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp(Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	Yes	No
11 Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC442471
14 Were VOAs on the COC?	Yes	No
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes	No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes	No
17 Was a LL Hg or Me Hg trip blank present? _____	Yes	No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page | Samples processed by:

_____

_____

_____

_____

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container

Sample(s) _____ were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory

Time preserved. _____ Preservative(s) added/Lot number(s). _____

VOA Sample Preservation - Date/Time VOAs Frozen. _____

SAMPLE CONTROL
EUROFINS ENVIRONMENT TESTING
19 HAZELWOOD DRIVE
BUFFALO, NY 14228223
UNITED STATES US
BILL SENDER
CAD: 07592737/CAFE3808
DIMS: 15x12x11 IN
TO SAMPLE RECEIPT
EUROFINS CLEVELAND
180 S VAN BUREN AVE
BARBERTON OH 44203543
(330) 497-9396
REF. BARBERTON
FedEx Express
WED - 17 JUL 10:30
PRIORITY OVERNIGHT
TRK# 0201 7117 9321 7840
NX CAKA
44203
OH-US
CLE

Login Sample Receipt Checklist

Client: Ashland LLC

Job Number: 480-221629-1

Login Number: 221629
List Number: 1
Creator: Yeager, Brian A

List Source: Eurofins Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	FREEZE 7/12/24 16:30
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	AECOM
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Shannon Lloyd
Ashland LLC
PO BOX 2219
Columbus, Ohio 43216

Generated 8/16/2024 5:33:35 PM

JOB DESCRIPTION

Tank 75 - Radiological Analysis

JOB NUMBER

480-221654-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

See page two for job notes and contact information.

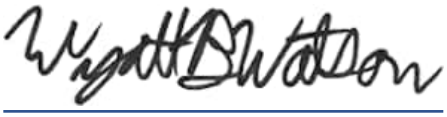
myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

Authorization



Generated
8/16/2024 5:33:35 PM

Authorized for release by
Wyatt Watson, Project Management Assistant I
Wyatt.Watson@et.eurofinsus.com
Designee for
John Beninati, Project Manager I
John.Beninati@et.eurofinsus.com
(716)504-9874

Table of Contents

Definitions/Glossary

Client: Ashland LLC
Job ID: 480-221654-1
Project/Site: Tank 75 - Radiological Analysis

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
480-221654-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 7/16/2024 3:57 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.2°C.

Gamma Spectroscopy
Method 901.1_Ra: Gamma Prep Batch 160-671473:

Due to sample matrix the following samples are under the target prep weight of 260 g indicating low density: SB-01-C (480-221654-1) and SB-05-C (480-221654-2). As such, there may be a bias to the results.

Method 901.1_Ra: Gamma Prep Batch 160-671473
Many isotopes requested by gamma spectrometry analysis do not have any gamma emissions, the gamma emissions they do have are very poor, and/or are reported by assuming secular equilibrium with a longer-lived parent (or vice-versa). For example, Th-232 (which does not have a good gamma-ray) is often reported assuming the shorter-lived Ra-228 daughter is in equilibrium with the Th-232 parent. Or, Pb-214 and/or Bi-214, daughters of potentially volatile Rn-222 in the Ra-226 decay chain, may not be in equilibrium with the parent unless sufficient time has been allowed since the break in equilibrium (e.g. 21 days in the case of Ra-226-supported ingrowth). The client should ensure that such inference is acceptable for their sample based upon process knowledge. The following assumptions were made for this report:

Inferred from	Reported to Analyte
Th-234	Pa-234
Th-234	U-238
Pb-210	Po-210
Pb-210	Bi-210
Cs-137	Ba-137m
Pb-212	Po-216
Xe-131m	Xe-131
Sb-125	Te-125m
Ag-108m	Ag-108
Rh-106	Ru-106
Pb-212	Th-228
Pb-212	Ra-224
U-235	Th-231
Ac-228	Th-232
Ac-228	Ra-228
Th-227	Ra-223
Th-227	Ac-227
Th-227	Bi-211
Th-227	Pb-211
Bi-214	Ra-226

SB-01-C (480-221654-1), SB-05-C (480-221654-2), (480-221638-A-1-E) and (480-221638-A-1-F DU)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Buffalo

Detection Summary

Client: Ashland LLC
Job ID: 480-221654-1
Project/Site: Tank 75 - Radiological Analysis

Client Sample ID: SB-01-C
Lab Sample ID: 480-221654-1

No Detections.

Client Sample ID: SB-05-C
Lab Sample ID: 480-221654-2

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Ashland LLC
Job ID: 480-221654-1
Project/Site: Tank 75 - Radiological Analysis

Client Sample ID: SB-01-C
Lab Sample ID: 480-221654-1
Date Collected: 07/15/24 11:15
Matrix: Solid
Date Received: 07/16/24 15:57

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.937**		0.218	0.237	1.00	0.182	pCi/g	07/19/24 09:17	08/09/24 14:44	1
Radium-228	**1.19**		0.238	0.265		0.349	pCi/g	07/19/24 09:17	08/09/24 14:44	1
Thorium-232	**1.19**		0.238	0.265		0.349	pCi/g	07/19/24 09:17	08/09/24 14:44	1
Thorium-234	1.00	U	0.791	0.798		1.35	pCi/g	07/19/24 09:17	08/09/24 14:44	1
Uranium-235	0.0140	U	0.0323	0.0324		1.22	pCi/g	07/19/24 09:17	08/09/24 14:44	1
Uranium-238	1.00	U	0.791	0.798		1.35	pCi/g	07/19/24 09:17	08/09/24 14:44	1

Client Sample ID: SB-05-C
Lab Sample ID: 480-221654-2
Date Collected: 07/15/24 11:45
Matrix: Solid
Date Received: 07/16/24 15:57

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.960**		0.235	0.254	1.00	0.174	pCi/g	07/19/24 09:17	08/09/24 14:44	1
Radium-228	**1.08**		0.289	0.308		0.180	pCi/g	07/19/24 09:17	08/09/24 14:44	1
Thorium-232	**1.08**		0.289	0.308		0.180	pCi/g	07/19/24 09:17	08/09/24 14:44	1
Thorium-234	0.526	U	0.736	0.739		1.22	pCi/g	07/19/24 09:17	08/09/24 14:44	1
Uranium-235	-0.249	U	0.635	0.635		1.06	pCi/g	07/19/24 09:17	08/09/24 14:44	1
Uranium-238	0.526	U	0.736	0.739		1.22	pCi/g	07/19/24 09:17	08/09/24 14:44	1

QC Sample Results

Client: Ashland LLC
Job ID: 480-221654-1
Project/Site: Tank 75 - Radiological Analysis

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Lab Sample ID: MB 160-671473/1-A
Matrix: Solid
Analysis Batch: 674556

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 671473

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.06228	U	0.0471	0.0475	1.00	0.299	pCi/g	07/19/24 09:17	08/09/24 13:14	1
Radium-228	-0.09234	U	0.128	0.128		0.350	pCi/g	07/19/24 09:17	08/09/24 13:14	1
Thorium-232	-0.09234	U	0.128	0.128		0.350	pCi/g	07/19/24 09:17	08/09/24 13:14	1
Thorium-234	-0.4003	U	0.419	0.421		0.797	pCi/g	07/19/24 09:17	08/09/24 13:14	1
Uranium-235	-0.02682	U	0.0689	0.0689		0.583	pCi/g	07/19/24 09:17	08/09/24 13:14	1
Uranium-238	-0.4003	U	0.419	0.421		0.797	pCi/g	07/19/24 09:17	08/09/24 13:14	1

Lab Sample ID: LCS 160-671473/2-A
Matrix: Solid
Analysis Batch: 674588

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 671473

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Americium-241	95.9	96.42		10.5		1.01	pCi/g	101	75 - 125
Cesium-137	24.6	25.50		2.58		0.143	pCi/g	104	75 - 125
Cobalt-60	5.85	5.799		0.611		0.0325	pCi/g	99	75 - 125

QC Association Summary

Client: Ashland LLC
Job ID: 480-221654-1
Project/Site: Tank 75 - Radiological Analysis

Rad

Leach Batch: 671140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221654-1	SB-01-C	Total/NA	Solid	Dry and Grind	
480-221654-2	SB-05-C	Total/NA	Solid	Dry and Grind	

Prep Batch: 671473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221654-1	SB-01-C	Total/NA	Solid	Fill_Geo-21	671140
480-221654-2	SB-05-C	Total/NA	Solid	Fill_Geo-21	671140
MB 160-671473/1-A	Method Blank	Total/NA	Solid	Fill_Geo-21	
LCS 160-671473/2-A	Lab Control Sample	Total/NA	Solid	Fill_Geo-21	

Lab Chronicle

Client: Ashland LLC
Job ID: 480-221654-1
Project/Site: Tank 75 - Radiological Analysis

Client Sample ID: SB-01-C
Lab Sample ID: 480-221654-1
Date Collected: 07/15/24 11:15
Matrix: Solid
Date Received: 07/16/24 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Leach	Dry and Grind			671140	SRE	EET SL	07/17/24 18:10
Total/NA	Prep	Fill_Geo-21			671473	HGB	EET SL	07/19/24 09:17
Total/NA	Analysis	901.1		1	674556	CAH	EET SL	08/09/24 14:44

Client Sample ID: SB-05-C
Lab Sample ID: 480-221654-2
Date Collected: 07/15/24 11:45
Matrix: Solid
Date Received: 07/16/24 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Leach	Dry and Grind			671140	SRE	EET SL	07/17/24 18:10
Total/NA	Prep	Fill_Geo-21			671473	HGB	EET SL	07/19/24 09:17
Total/NA	Analysis	901.1		1	674588	CAH	EET SL	08/09/24 14:44

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Ashland LLC
Job ID: 480-221654-1
Project/Site: Tank 75 - Radiological Analysis

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24 *
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-24
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	10-01-24
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-25
Oklahoma	NELAP	9997	08-31-24
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24 *
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-24 *
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Ashland LLC
Job ID: 480-221654-1
Project/Site: Tank 75 - Radiological Analysis

Method	Method Description	Protocol	Laboratory
901.1	Radium-226 & Other Gamma Emitters (GS)	EPA	EET SL
Dry and Grind	Preparation, Dry and Grind	None	EET SL
Fill_Geo-21	Fill Geometry, 21-Day In-Growth	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency
None = None

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Ashland LLC
Job ID: 480-221654-1
Project/Site: Tank 75 - Radiological Analysis

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-221654-1	SB-01-C	Solid	07/15/24 11:15	07/16/24 15:57
480-221654-2	SB-05-C	Solid	07/15/24 11:45	07/16/24 15:57

.rofins Buffalo
J Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins Environment Testing

Client Information	Sampler: Chris Higgins	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-197592-40885.1
Client Contact: Ethan Smith	Phone: (203) 583-3273	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: AECOM	PWSID:			Job #: 60730037
Address: 50 Lakefront Boulevard Suite 111	Due Date Requested:			
City: Buffalo	TAT Requested (days): Standard			
State, Zip: NY, 14202	Compliance Project: Δ Yes Δ No			
Phone: 614-790-2274(Tel) / (716) 912-4456	PO #: 1120269 Task 300			
Email: ethan.smith@aecom.com / ashley.chorostkowska@aecom.com	WO #: Ann.Marie.Kropovitch@aecom.com			
Project Name: Tank 75 - Radiological Analysis	Project #: 48027595			
Site: Tank 75 Site, Tonawanda, NY	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	A01R_U - Uranium Isotopes	901.1_Ra - Gamma Emitters	Total Number of containers	Special Instructions/Note:
Preservation Code:							N	N		
SB-01-C	7-6-24	1115	C	Solid				X	1	
SB-05-C	7-6-24	1145	C	Solid				X	1	
				Solid						

Preservation Codes: N - None

Other:

480-221654 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by:	Date/Time: 7/15/24 1557	Company: AECOM	Received by:	Date/Time: 7/15/24 1557	Company: TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 4.2 ICE

Ver: 04/02/2024

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-88486.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 480-221654-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 7/29/2024			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis	Project #: 48027595			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
-
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	901.1_Ra/Dry_Grind Gamma Emitters	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SB-01-C (480-221654-1)	7/15/24	11:15 Eastern		Solid			X	1	
SB-05-C (480-221654-2)	7/15/24	11:45 Eastern		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
KS	7/16/24 1600		Richard Thornley	JUL 17 2024 0900	ETA STL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks

Ver: 04/02/2024

8/16/2024

Login Sample Receipt Checklist

Client: Ashland LLC

Job Number: 480-221654-1

Login Number: 221654
List Number: 1
Creator: Stopa, Erik S

List Source: Eurofins Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background		
The cooler's custody seal, if present, is intact.		
The cooler or samples do not appear to have been compromised or tampered with.		
Samples were received on ice.		
Cooler Temperature is acceptable.		
Cooler Temperature is recorded.		
COC is present.		
COC is filled out in ink and legible.		
COC is filled out with all pertinent information.		
Is the Field Sampler's name present on COC?		
There are no discrepancies between the sample IDs on the containers and the COC.		
Samples are received within Holding Time (Excluding tests with immediate HTs)..		
Sample containers have legible labels.		
Containers are not broken or leaking.		
Sample collection date/times are provided.		
Appropriate sample containers are used.		
Sample bottles are completely filled.		
Sample Preservation Verified		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs		
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.		
If necessary, staff have been informed of any short hold time or quick TAT needs		
Multiphasic samples are not present.		
Samples do not require splitting or compositing.		
Sampling Company provided.		
Samples received within 48 hours of sampling.		
Samples requiring field filtration have been filtered in the field.		
Chlorine Residual checked.		

Login Sample Receipt Checklist

Client: Ashland LLC

Job Number: 480-221654-1

Login Number: 221654
List Number: 2
Creator: Thornley, Richard W

List Source: Eurofins St. Louis
List Creation: 07/17/24 02:37 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Shannon Lloyd
Ashland LLC
PO BOX 2219
Columbus, Ohio 43216

Generated 7/23/2024 3:24:55 PM

JOB DESCRIPTION

Tank 75 - Soil Analysis

JOB NUMBER

480-221655-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

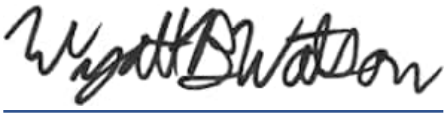
See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

Authorization



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7/23/2024 3:24:55 PM

Authorized for release by
Wyatt Watson, Project Management Assistant I
Wyatt.Watson@et.eurofinsus.com
Designee for
John Beninati, Project Manager I
John.Beninati@et.eurofinsus.com
(716)504-9874

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

GC/MS Semi VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
480-221655-1

Receipt
The samples were received on 7/15/2024 3:57 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.2º C.

GC/MS VOA
Method 8260C: The continuing calibration verification (CCV) associated with batch 480-718659 recovered above the upper control limit for Carbon tetrachloride. The sample(s) associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The associated samples are impacted: SB-05-27.0-29.0 (480-221655-2) and SB-05-32.0-33.0 (480-221655-3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method 8270D: Surrogate recovery for the following samples were outside control limits: SB-05-0.0-0.2 (480-221655-1), SB-05-0.0-0.2-MS (480-221655-1[MS]) and SB-05-0.0-0.2-MSD (480-221655-1[MSD]). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: SB-03-0.0-0.2 (480-221655-4) and (LCS 480-718672/2-A). These results have been reported and qualified.

Method 8270D: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 480-718672 and analytical batch 480-718832 recovered outside control limits for the following analytes: 4-Methylphenol, Benzaldehyde, Benzo[b]fluoranthene and bis (2-chloroisopropyl) ether. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-718832 recovered above the upper control limit for 2,4-Dimethylphenol, Di-n-octyl phthalate, Hexachlorocyclopentadiene and Pyrene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: SB-05-0.0-0.2 (480-221655-1), SB-05-0.0-0.2-MS (480-221655-1[MS]), SB-05-0.0-0.2-MSD (480-221655-1[MSD]), SB-05-27.0-29.0 (480-221655-2), SB-05-32.0-33.0 (480-221655-3) and SB-03-0.0-0.2 (480-221655-4).

Method 8270D: The following compound has been spiked at a level above the upper range of the initial calibration: Benzaldehyde The laboratory control sample (LCS) associated with preparation batch 480-718672 and analytical batch 480-718832 recovered within acceptable limits for this analyte and has been qualified with an "E" flag.

(LCS 480-718672/2-A)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method 8081B: The following samples were diluted due to the nature of the sample matrix: SB-05-0.0-0.2 (480-221655-1) and SB-03-0.0-0.2 (480-221655-4). As such, surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method 8081B: The following samples were diluted due to the nature of the sample matrix: SB-05-0.0-0.2-MS (480-221655-1[MS]) and SB-05-0.0-0.2-MSD (480-221655-1[MSD]). As such, spike and surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method 8081B: The continuing calibration verification (CCV) associated with batch 480-718686 recovered above the upper control limit for Methoxychlor. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: SB-05-0.0-0.2 (480-221655-1), SB-05-27.0-29.0 (480-221655-2), SB-05-32.0-33.0 (480-221655-3) and SB-03-0.0-0.2 (480-221655-4).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Method 9012B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 480-719044 and analytical batch 480-719060 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method 3550C: The following samples required a Florisil clean-up, via EPA Method 3620C, to reduce matrix interferences: SB-05-0.0-0.2 (480-221655-1), SB-05-0.0-0.2-MS (480-221655-1[MS]), SB-05-0.0-0.2-MSD (480-221655-1[MSD]) and SB-03-0.0-0.2 (480-221655-4).

Method 3550C: Due to the matrix, the following samples could not be concentrated to the final method required volume: SB-05-0.0-0.2 (480-221655-1), SB-05-0.0-0.2-MS (480-221655-1[MS]) and SB-05-0.0-0.2-MSD (480-221655-1[MSD]). The reporting limits (RLs) are elevated proportionately.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Ashland LLC
Project/Site: Tank 75 - Soil Analysis

Job ID: 480-221655-1

Client Sample ID: SB-05-0.0-0.2 — Lab Sample ID: 480-221655-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	12300	F2	10.4	9.0	mg/Kg	1	☼	6010C	Total/NA
Antimony	2.1	J F1 F2	15.6	0.55	mg/Kg	1	☼	6010C	Total/NA
Arsenic	8.6		2.1	0.91	mg/Kg	1	☼	6010C	Total/NA
Barium	78.2		0.52	0.15	mg/Kg	1	☼	6010C	Total/NA
Beryllium	1.1		0.21	0.042	mg/Kg	1	☼	6010C	Total/NA
Cadmium	1.2		0.21	0.073	mg/Kg	1	☼	6010C	Total/NA
Calcium	55200	F2	52.0	28.0	mg/Kg	1	☼	6010C	Total/NA
Chromium	24.5		0.52	0.37	mg/Kg	1	☼	6010C	Total/NA
Cobalt	7.9		0.52	0.10	mg/Kg	1	☼	6010C	Total/NA
Copper	27.3		1.0	0.59	mg/Kg	1	☼	6010C	Total/NA
Iron	20800	F2	10.4	8.8	mg/Kg	1	☼	6010C	Total/NA
Lead	93.6	F1	1.0	0.48	mg/Kg	1	☼	6010C	Total/NA
Magnesium	31900	F2	20.8	8.8	mg/Kg	1	☼	6010C	Total/NA
Manganese	465		1.0	0.29	mg/Kg	1	☼	6010C	Total/NA
Nickel	19.7		5.2	0.26	mg/Kg	1	☼	6010C	Total/NA
Potassium	2540	F1	31.2	25.2	mg/Kg	1	☼	6010C	Total/NA
Selenium	1.3	J	4.2	0.83	mg/Kg	1	☼	6010C	Total/NA
Sodium	293		145	63.7	mg/Kg	1	☼	6010C	Total/NA
Vanadium	31.0		0.52	0.14	mg/Kg	1	☼	6010C	Total/NA
Zinc	223	F2 F1	2.1	1.1	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.031		0.021	0.0049	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SB-05-27.0-29.0 — Lab Sample ID: 480-221655-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	7.4	J	18	3.1	ug/Kg	1	☼	8260C	Total/NA
Methylene Chloride	2.9	J	3.7	1.7	ug/Kg	1	☼	8260C	Total/NA
Aluminum	19000		12.5	10.8	mg/Kg	1	☼	6010C	Total/NA
Arsenic	2.8		2.5	1.1	mg/Kg	1	☼	6010C	Total/NA
Barium	122		0.63	0.18	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.82		0.25	0.050	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.25		0.25	0.088	mg/Kg	1	☼	6010C	Total/NA
Calcium	48000		62.7	33.9	mg/Kg	1	☼	6010C	Total/NA
Chromium	23.2		0.63	0.45	mg/Kg	1	☼	6010C	Total/NA
Cobalt	12.2		0.63	0.13	mg/Kg	1	☼	6010C	Total/NA
Copper	16.8		1.3	0.72	mg/Kg	1	☼	6010C	Total/NA
Iron	20400		12.5	10.6	mg/Kg	1	☼	6010C	Total/NA
Lead	10.4		1.3	0.58	mg/Kg	1	☼	6010C	Total/NA
Magnesium	15800		25.1	10.6	mg/Kg	1	☼	6010C	Total/NA
Manganese	538		1.3	0.35	mg/Kg	1	☼	6010C	Total/NA
Nickel	23.1		6.3	0.31	mg/Kg	1	☼	6010C	Total/NA
Potassium	6300		37.6	30.4	mg/Kg	1	☼	6010C	Total/NA
Selenium	1.4	J	5.0	1.0	mg/Kg	1	☼	6010C	Total/NA
Sodium	383		176	76.9	mg/Kg	1	☼	6010C	Total/NA
Vanadium	35.9		0.63	0.16	mg/Kg	1	☼	6010C	Total/NA
Zinc	58.1		2.5	1.3	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.011	J	0.023	0.0053	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SB-05-32.0-33.0 — Lab Sample ID: 480-221655-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	8.7	J	24	4.1	ug/Kg	1	☼	8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Client Sample ID: SB-05-32.0-33.0 (Continued)

Lab Sample ID: 480-221655-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	5.0		4.8	2.2	ug/Kg	1	☼	8260C	Total/NA
Aluminum	19500		12.7	11.0	mg/Kg	1	☼	6010C	Total/NA
Antimony	1.0	J	19.1	0.68	mg/Kg	1	☼	6010C	Total/NA
Arsenic	2.8		2.5	1.1	mg/Kg	1	☼	6010C	Total/NA
Barium	123		0.64	0.18	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.84		0.25	0.051	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.25		0.25	0.089	mg/Kg	1	☼	6010C	Total/NA
Calcium	48600		63.7	34.4	mg/Kg	1	☼	6010C	Total/NA
Chromium	23.7		0.64	0.46	mg/Kg	1	☼	6010C	Total/NA
Cobalt	11.2		0.64	0.13	mg/Kg	1	☼	6010C	Total/NA
Copper	16.2		1.3	0.73	mg/Kg	1	☼	6010C	Total/NA
Iron	19700		12.7	10.8	mg/Kg	1	☼	6010C	Total/NA
Lead	10		1.3	0.59	mg/Kg	1	☼	6010C	Total/NA
Magnesium	16600		25.5	10.8	mg/Kg	1	☼	6010C	Total/NA
Manganese	512		1.3	0.36	mg/Kg	1	☼	6010C	Total/NA
Nickel	22.0		6.4	0.32	mg/Kg	1	☼	6010C	Total/NA
Potassium	6740		38.2	30.9	mg/Kg	1	☼	6010C	Total/NA
Sodium	501		178	78.2	mg/Kg	1	☼	6010C	Total/NA
Vanadium	34.7		0.64	0.17	mg/Kg	1	☼	6010C	Total/NA
Zinc	55.5		2.5	1.3	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.010	J	0.025	0.0057	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SB-03-0.0-0.2

Lab Sample ID: 480-221655-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	490	J	1900	190	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]pyrene	570	J	1900	280	ug/Kg	10	☼	8270D	Total/NA
Benzo[b]fluoranthene	910	J *+	1900	300	ug/Kg	10	☼	8270D	Total/NA
Benzo[g,h,i]perylene	430	J	1900	200	ug/Kg	10	☼	8270D	Total/NA
Benzo[k]fluoranthene	330	J	1900	240	ug/Kg	10	☼	8270D	Total/NA
Chrysene	610	J	1900	420	ug/Kg	10	☼	8270D	Total/NA
Fluoranthene	970	J	1900	200	ug/Kg	10	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	400	J	1900	230	ug/Kg	10	☼	8270D	Total/NA
Phenanthrene	450	J	1900	280	ug/Kg	10	☼	8270D	Total/NA
Pyrene	730	J	1900	220	ug/Kg	10	☼	8270D	Total/NA
Aluminum	17000		10.8	9.3	mg/Kg	1	☼	6010C	Total/NA
Antimony	1.8	J	16.2	0.57	mg/Kg	1	☼	6010C	Total/NA
Arsenic	4.6		2.2	0.95	mg/Kg	1	☼	6010C	Total/NA
Barium	132		0.54	0.15	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.97		0.22	0.043	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.56		0.22	0.076	mg/Kg	1	☼	6010C	Total/NA
Calcium	71500		54.0	29.2	mg/Kg	1	☼	6010C	Total/NA
Chromium	28.6		0.54	0.39	mg/Kg	1	☼	6010C	Total/NA
Cobalt	10.7		0.54	0.11	mg/Kg	1	☼	6010C	Total/NA
Copper	45.2		1.1	0.62	mg/Kg	1	☼	6010C	Total/NA
Iron	23100		10.8	9.2	mg/Kg	1	☼	6010C	Total/NA
Lead	62.1		1.1	0.50	mg/Kg	1	☼	6010C	Total/NA
Magnesium	15000		21.6	9.2	mg/Kg	1	☼	6010C	Total/NA
Manganese	763		1.1	0.30	mg/Kg	1	☼	6010C	Total/NA
Nickel	24.7		5.4	0.27	mg/Kg	1	☼	6010C	Total/NA
Potassium	4020		32.4	26.2	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SB-03-0.0-0.2 (Continued)
Lab Sample ID: 480-221655-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	1.2	J	4.3	0.86	mg/Kg	1	☼	6010C	Total/NA
Silver	0.34	J	0.65	0.22	mg/Kg	1	☼	6010C	Total/NA
Sodium	225		151	66.2	mg/Kg	1	☼	6010C	Total/NA
Vanadium	32.7		0.54	0.14	mg/Kg	1	☼	6010C	Total/NA
Zinc	117		2.2	1.1	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.14		0.022	0.0051	mg/Kg	1	☼	7471B	Total/NA
Cyanide, Total	2.1		1.1	0.53	mg/Kg	1	☼	9012B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Ashland LLC
Project/Site: Tank 75 - Soil Analysis

Job ID: 480-221655-1

Client Sample ID: SB-05-0.0-0.2
Date Collected: 07/15/24 09:35
Date Received: 07/15/24 15:57

Lab Sample ID: 480-221655-1
Matrix: Solid
Percent Solids: 93.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		18000	4800	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
2,4,6-Trichlorophenol	ND		18000	3600	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
2,4-Dichlorophenol	ND		18000	1900	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
2,4-Dimethylphenol	ND		18000	4300	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
2,4-Dinitrophenol	ND		170000	83000	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
2,4-Dinitrotoluene	ND		18000	3700	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
2,6-Dinitrotoluene	ND		18000	2100	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
2-Chloronaphthalene	ND		18000	3000	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
2-Chlorophenol	ND		35000	3300	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
2-Methylnaphthalene	ND		18000	3600	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
2-Methylphenol	ND		18000	2100	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
2-Nitroaniline	ND		35000	2600	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
2-Nitrophenol	ND		18000	5100	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
3,3'-Dichlorobenzidine	ND		35000	21000	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
3-Nitroaniline	ND		35000	5000	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
4,6-Dinitro-2-methylphenol	ND		35000	18000	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
4-Bromophenyl phenyl ether	ND		18000	2500	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
4-Chloro-3-methylphenol	ND		18000	4400	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
4-Chloroaniline	ND		18000	4400	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
4-Chlorophenyl phenyl ether	ND		18000	2200	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
4-Methylphenol	ND	*+	35000	2100	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
4-Nitroaniline	ND		35000	9400	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
4-Nitrophenol	ND		35000	13000	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Acenaphthene	ND		18000	2600	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Acenaphthylene	ND		18000	2300	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Acetophenone	ND		18000	2400	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Anthracene	ND		18000	4400	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Atrazine	ND		18000	6200	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Benzaldehyde	ND		18000	14000	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Benzo[a]anthracene	ND		18000	1800	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Benzo[a]pyrene	ND		18000	2600	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Benzo[b]fluoranthene	ND	*+	18000	2800	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Benzo[g,h,i]perylene	ND		18000	1900	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Benzo[k]fluoranthene	ND		18000	2300	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Biphenyl	ND		18000	2600	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
bis (2-chloroisopropyl) ether	ND	*+	18000	3600	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Bis(2-chloroethoxy)methane	ND		18000	3800	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Bis(2-chloroethyl)ether	ND		18000	2300	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Bis(2-ethylhexyl) phthalate	ND		18000	6100	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Butyl benzyl phthalate	ND		18000	3000	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Caprolactam	ND		18000	5400	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Carbazole	ND		18000	2100	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Chrysene	ND		18000	4000	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Dibenz(a,h)anthracene	ND		18000	3200	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Dibenzofuran	ND		18000	2100	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Diethyl phthalate	ND		18000	2300	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Dimethyl phthalate	ND		18000	2100	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Di-n-butyl phthalate	ND		18000	3100	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Di-n-octyl phthalate	ND		18000	2100	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10

Client Sample ID: SB-05-0.0-0.2
Date Collected: 07/15/24 09:35
Date Received: 07/15/24 15:57

Lab Sample ID: 480-221655-1
Matrix: Solid
Percent Solids: 93.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		18000	1900	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Fluorene	ND		18000	2100	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Hexachlorobenzene	ND		18000	2400	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Hexachlorobutadiene	ND		18000	2600	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Hexachlorocyclopentadiene	ND		18000	2400	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Hexachloroethane	ND		18000	2300	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Indeno[1,2,3-cd]pyrene	ND		18000	2200	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Isophorone	ND		18000	3800	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Naphthalene	ND		18000	2300	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Nitrobenzene	ND		18000	2000	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
N-Nitrosodi-n-propylamine	ND		18000	3100	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
N-Nitrosodiphenylamine	ND		18000	15000	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Pentachlorophenol	ND		35000	18000	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Phenanthrene	ND		18000	2600	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Phenol	ND		18000	2700	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10
Pyrene	ND		18000	2100	ug/Kg	☼	07/17/24 07:16	07/18/24 18:23	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/17/24 07:16*	*07/18/24 18:23*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*237*	*S1+*	*26 - 143*	*07/17/24 07:16*	*07/18/24 18:23*	*10*
2-Fluorobiphenyl	*91*		*50 - 121*	*07/17/24 07:16*	*07/18/24 18:23*	*10*
2-Fluorophenol	*89*		*36 - 120*	*07/17/24 07:16*	*07/18/24 18:23*	*10*
Nitrobenzene-d5	*76*		*40 - 121*	*07/17/24 07:16*	*07/18/24 18:23*	*10*
Phenol-d5	*153*	*S1+*	*41 - 120*	*07/17/24 07:16*	*07/18/24 18:23*	*10*
p-Terphenyl-d14	*116*		*46 - 143*	*07/17/24 07:16*	*07/18/24 18:23*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND	F1	87	17	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
4,4'-DDE	ND		87	18	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
4,4'-DDT	ND		87	20	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
Aldrin	ND		87	21	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
alpha-BHC	ND	F1	87	16	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
cis-Chlordane	ND		87	43	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
beta-BHC	ND	F1	87	16	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
delta-BHC	ND	F1	87	16	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
Dieldrin	ND		87	21	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
Endosulfan I	ND	F1	87	17	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
Endosulfan II	ND	F1	87	16	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
Endosulfan sulfate	ND	F1	87	16	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
Endrin	ND	F1	87	17	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
Endrin aldehyde	ND		87	22	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
Endrin ketone	ND		87	21	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
gamma-BHC (Lindane)	ND	F1	87	16	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
trans-Chlordane	ND		87	28	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
Heptachlor	ND		87	19	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
Heptachlor epoxide	ND		87	22	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50
Methoxychlor	ND		87	18	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50

Client Sample ID: SB-05-0.0-0.2

Date Collected: 07/15/24 09:35
Date Received: 07/15/24 15:57

Lab Sample ID: 480-221655-1

Matrix: Solid
Percent Solids: 93.2

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	ND		870	500	ug/Kg	☼	07/16/24 16:34	07/17/24 12:41	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/16/24 16:34*	*07/17/24 12:41*	*50*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/16/24 16:34*	*07/17/24 12:41*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/16/24 16:34*	*07/17/24 12:41*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/16/24 16:34*	*07/17/24 12:41*	*50*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.23	0.044	mg/Kg	☼	07/16/24 16:39	07/17/24 23:23	1
PCB-1221	ND		0.23	0.044	mg/Kg	☼	07/16/24 16:39	07/17/24 23:23	1
PCB-1232	ND		0.23	0.044	mg/Kg	☼	07/16/24 16:39	07/17/24 23:23	1
PCB-1242	ND		0.23	0.044	mg/Kg	☼	07/16/24 16:39	07/17/24 23:23	1
PCB-1248	ND		0.23	0.044	mg/Kg	☼	07/16/24 16:39	07/17/24 23:23	1
PCB-1254	ND		0.23	0.11	mg/Kg	☼	07/16/24 16:39	07/17/24 23:23	1
PCB-1260	ND		0.23	0.11	mg/Kg	☼	07/16/24 16:39	07/17/24 23:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*93*		*60 - 154*	*07/16/24 16:39*	*07/17/24 23:23*	*1*
Tetrachloro-m-xylene	*83*		*60 - 154*	*07/16/24 16:39*	*07/17/24 23:23*	*1*
DCB Decachlorobiphenyl	*81*		*65 - 174*	*07/16/24 16:39*	*07/17/24 23:23*	*1*
DCB Decachlorobiphenyl	*83*		*65 - 174*	*07/16/24 16:39*	*07/17/24 23:23*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**12300**	**F2**	10.4	9.0	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Antimony	**2.1**	**J F1 F2**	15.6	0.55	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Arsenic	**8.6**		2.1	0.91	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Barium	**78.2**		0.52	0.15	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Beryllium	**1.1**		0.21	0.042	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Cadmium	**1.2**		0.21	0.073	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Calcium	**55200**	**F2**	52.0	28.0	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Chromium	**24.5**		0.52	0.37	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Cobalt	**7.9**		0.52	0.10	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Copper	**27.3**		1.0	0.59	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Iron	**20800**	**F2**	10.4	8.8	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Lead	**93.6**	**F1**	1.0	0.48	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Magnesium	**31900**	**F2**	20.8	8.8	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Manganese	**465**		1.0	0.29	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Nickel	**19.7**		5.2	0.26	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Potassium	**2540**	**F1**	31.2	25.2	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Selenium	**1.3**	**J**	4.2	0.83	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Silver	ND		0.62	0.21	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Sodium	**293**		145	63.7	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Thallium	ND		6.2	0.79	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Vanadium	**31.0**		0.52	0.14	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1
Zinc	**223**	**F2 F1**	2.1	1.1	mg/Kg	☼	07/16/24 13:38	07/17/24 14:22	1

Client Sample ID: SB-05-0.0-0.2
Lab Sample ID: 480-221655-1
Date Collected: 07/15/24 09:35
Matrix: Solid
Date Received: 07/15/24 15:57
Percent Solids: 93.2

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.031**		0.021	0.0049	mg/Kg	☼	07/17/24 08:25	07/17/24 10:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND	F1	1.1	0.51	mg/Kg	☼	07/19/24 13:18	07/19/24 15:34	1

Client Sample ID: SB-05-27.0-29.0
Lab Sample ID: 480-221655-2
Date Collected: 07/15/24 11:45
Matrix: Solid
Date Received: 07/15/24 15:57
Percent Solids: 84.7

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		3.7	0.27	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
1,1,2,2-Tetrachloroethane	ND		3.7	0.59	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.7	0.83	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
1,1,2-Trichloroethane	ND		3.7	0.47	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
1,1-Dichloroethane	ND		3.7	0.45	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
1,1-Dichloroethene	ND		3.7	0.45	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
1,2,4-Trichlorobenzene	ND		3.7	0.22	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
1,2-Dibromo-3-Chloropropane	ND		3.7	1.8	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
1,2-Dibromoethane	ND		3.7	0.47	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
1,2-Dichlorobenzene	ND		3.7	0.29	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
1,2-Dichloroethane	ND		3.7	0.18	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
1,2-Dichloropropane	ND		3.7	1.8	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
1,3-Dichlorobenzene	ND		3.7	0.19	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
1,4-Dichlorobenzene	ND		3.7	0.51	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
2-Butanone (MEK)	ND		18	1.3	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
2-Hexanone	ND		18	1.8	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
4-Methyl-2-pentanone (MIBK)	ND		18	1.2	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Acetone	**7.4**	**J**	18	3.1	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Benzene	ND		3.7	0.18	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Bromodichloromethane	ND		3.7	0.49	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Bromoform	ND		3.7	1.8	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Bromomethane	ND		3.7	0.33	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Carbon disulfide	ND		3.7	1.8	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Carbon tetrachloride	ND		3.7	0.35	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Chlorobenzene	ND		3.7	0.48	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Chloroethane	ND		3.7	0.82	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Chloroform	ND		3.7	0.23	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Chloromethane	ND		3.7	0.22	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
cis-1,2-Dichloroethene	ND		3.7	0.47	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
cis-1,3-Dichloropropene	ND		3.7	0.53	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Cyclohexane	ND		3.7	0.51	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Dibromochloromethane	ND		3.7	0.47	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Dichlorodifluoromethane	ND		3.7	0.30	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Ethylbenzene	ND		3.7	0.25	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Isopropylbenzene	ND		3.7	0.55	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Methyl acetate	ND		18	2.2	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Methyl tert-butyl ether	ND		3.7	0.36	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Methylcyclohexane	ND		3.7	0.55	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1

Client Sample ID: SB-05-27.0-29.0
Date Collected: 07/15/24 11:45
Date Received: 07/15/24 15:57

Lab Sample ID: 480-221655-2
Matrix: Solid
Percent Solids: 84.7

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	**2.9**	**J**	3.7	1.7	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Styrene	ND		3.7	0.18	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Tetrachloroethene	ND		3.7	0.49	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Toluene	ND		3.7	0.28	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
trans-1,2-Dichloroethene	ND		3.7	0.38	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
trans-1,3-Dichloropropene	ND		3.7	1.6	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Trichloroethene	ND		3.7	0.80	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Trichlorofluoromethane	ND		3.7	0.35	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Vinyl chloride	ND		3.7	0.45	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1
Xylenes, Total	ND		7.3	0.61	ug/Kg	☼	07/16/24 10:00	07/17/24 02:06	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/16/24 10:00*	*07/17/24 02:06*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*64 - 126*	*07/16/24 10:00*	*07/17/24 02:06*	*1*
4-Bromofluorobenzene (Surr)	*103*		*72 - 126*	*07/16/24 10:00*	*07/17/24 02:06*	*1*
Dibromofluoromethane (Surr)	*103*		*60 - 140*	*07/16/24 10:00*	*07/17/24 02:06*	*1*
Toluene-d8 (Surr)	*97*		*71 - 125*	*07/16/24 10:00*	*07/17/24 02:06*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		200	54	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
2,4,6-Trichlorophenol	ND		200	40	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
2,4-Dichlorophenol	ND		200	21	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
2,4-Dimethylphenol	ND		200	48	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
2,4-Dinitrophenol	ND		1900	920	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
2,4-Dinitrotoluene	ND		200	41	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
2,6-Dinitrotoluene	ND		200	23	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
2-Chloronaphthalene	ND		200	33	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
2-Chlorophenol	ND		390	36	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
2-Methylnaphthalene	ND		200	40	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
2-Methylphenol	ND		200	23	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
2-Nitroaniline	ND		390	29	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
2-Nitrophenol	ND		200	56	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
3,3'-Dichlorobenzidine	ND		390	230	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
3-Nitroaniline	ND		390	55	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
4,6-Dinitro-2-methylphenol	ND		390	200	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
4-Bromophenyl phenyl ether	ND		200	28	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
4-Chloro-3-methylphenol	ND		200	49	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
4-Chloroaniline	ND		200	49	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
4-Chlorophenyl phenyl ether	ND		200	25	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
4-Methylphenol	ND	*+	390	23	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
4-Nitroaniline	ND		390	100	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
4-Nitrophenol	ND		390	140	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Acenaphthene	ND		200	29	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Acenaphthylene	ND		200	26	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Acetophenone	ND		200	27	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Anthracene	ND		200	49	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Atrazine	ND		200	69	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1

Client Sample ID: SB-05-27.0-29.0
Date Collected: 07/15/24 11:45
Date Received: 07/15/24 15:57

Lab Sample ID: 480-221655-2
Matrix: Solid
Percent Solids: 84.7

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzaldehyde	ND		200	160	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Benzo[a]anthracene	ND		200	20	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Benzo[a]pyrene	ND		200	29	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Benzo[b]fluoranthene	ND	*+	200	32	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Benzo[g,h,i]perylene	ND		200	21	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Benzo[k]fluoranthene	ND		200	26	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Biphenyl	ND		200	29	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
bis (2-chloroisopropyl) ether	ND	*+	200	40	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Bis(2-chloroethoxy)methane	ND		200	42	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Bis(2-chloroethyl)ether	ND		200	26	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Bis(2-ethylhexyl) phthalate	ND		200	68	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Butyl benzyl phthalate	ND		200	33	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Caprolactam	ND		200	60	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Carbazole	ND		200	23	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Chrysene	ND		200	44	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Dibenz(a,h)anthracene	ND		200	35	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Dibenzofuran	ND		200	23	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Diethyl phthalate	ND		200	26	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Dimethyl phthalate	ND		200	23	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Di-n-butyl phthalate	ND		200	34	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Di-n-octyl phthalate	ND		200	23	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Fluoranthene	ND		200	21	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Fluorene	ND		200	23	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Hexachlorobenzene	ND		200	27	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Hexachlorobutadiene	ND		200	29	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Hexachlorocyclopentadiene	ND		200	27	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Hexachloroethane	ND		200	26	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Indeno[1,2,3-cd]pyrene	ND		200	25	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Isophorone	ND		200	42	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Naphthalene	ND		200	26	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Nitrobenzene	ND		200	22	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
N-Nitrosodi-n-propylamine	ND		200	34	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
N-Nitrosodiphenylamine	ND		200	160	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Pentachlorophenol	ND		390	200	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Phenanthrene	ND		200	29	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Phenol	ND		200	30	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1
Pyrene	ND		200	23	ug/Kg	☼	07/17/24 07:16	07/18/24 18:51	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*1500*	*T J*	*ug/Kg*	☼	*1.80*	*N/A*	*07/17/24 07:16*	*07/18/24 18:51*	*1*
Unknown	*2100*	*T J*	*ug/Kg*	☼	*1.94*	*N/A*	*07/17/24 07:16*	*07/18/24 18:51*	*1*
Unknown	*960*	*T J*	*ug/Kg*	☼	*3.35*	*N/A*	*07/17/24 07:16*	*07/18/24 18:51*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*103*		*26 - 143*	*07/17/24 07:16*	*07/18/24 18:51*	*1*
2-Fluorobiphenyl	*86*		*50 - 121*	*07/17/24 07:16*	*07/18/24 18:51*	*1*
2-Fluorophenol	*76*		*36 - 120*	*07/17/24 07:16*	*07/18/24 18:51*	*1*
Nitrobenzene-d5	*95*		*40 - 121*	*07/17/24 07:16*	*07/18/24 18:51*	*1*
Phenol-d5	*92*		*41 - 120*	*07/17/24 07:16*	*07/18/24 18:51*	*1*
p-Terphenyl-d14	*95*		*46 - 143*	*07/17/24 07:16*	*07/18/24 18:51*	*1*

Client Sample ID: SB-05-27.0-29.0

Date Collected: 07/15/24 11:45
Date Received: 07/15/24 15:57

Lab Sample ID: 480-221655-2

Matrix: Solid
Percent Solids: 84.7

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1.9	0.37	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
4,4'-DDE	ND		1.9	0.40	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
4,4'-DDT	ND		1.9	0.45	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
Aldrin	ND		1.9	0.47	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
alpha-BHC	ND		1.9	0.34	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
cis-Chlordane	ND		1.9	0.95	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
beta-BHC	ND		1.9	0.34	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
delta-BHC	ND		1.9	0.36	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
Dieldrin	ND		1.9	0.46	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
Endosulfan I	ND		1.9	0.37	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
Endosulfan II	ND		1.9	0.34	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
Endosulfan sulfate	ND		1.9	0.36	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
Endrin	ND		1.9	0.38	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
Endrin aldehyde	ND		1.9	0.49	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
Endrin ketone	ND		1.9	0.47	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
gamma-BHC (Lindane)	ND		1.9	0.35	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
trans-Chlordane	ND		1.9	0.61	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
Heptachlor	ND		1.9	0.41	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
Heptachlor epoxide	ND		1.9	0.49	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
Methoxychlor	ND		1.9	0.39	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1
Toxaphene	ND		19	11	ug/Kg	☼	07/16/24 16:34	07/17/24 13:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*67*		*45 - 120*	*07/16/24 16:34*	*07/17/24 13:59*	*1*
DCB Decachlorobiphenyl	*69*		*45 - 120*	*07/16/24 16:34*	*07/17/24 13:59*	*1*
Tetrachloro-m-xylene	*61*		*30 - 124*	*07/16/24 16:34*	*07/17/24 13:59*	*1*
Tetrachloro-m-xylene	*69*		*30 - 124*	*07/16/24 16:34*	*07/17/24 13:59*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.22	0.043	mg/Kg	☼	07/16/24 16:39	07/18/24 00:30	1
PCB-1221	ND		0.22	0.043	mg/Kg	☼	07/16/24 16:39	07/18/24 00:30	1
PCB-1232	ND		0.22	0.043	mg/Kg	☼	07/16/24 16:39	07/18/24 00:30	1
PCB-1242	ND		0.22	0.043	mg/Kg	☼	07/16/24 16:39	07/18/24 00:30	1
PCB-1248	ND		0.22	0.043	mg/Kg	☼	07/16/24 16:39	07/18/24 00:30	1
PCB-1254	ND		0.22	0.10	mg/Kg	☼	07/16/24 16:39	07/18/24 00:30	1
PCB-1260	ND		0.22	0.10	mg/Kg	☼	07/16/24 16:39	07/18/24 00:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*116*		*60 - 154*	*07/16/24 16:39*	*07/18/24 00:30*	*1*
Tetrachloro-m-xylene	*99*		*60 - 154*	*07/16/24 16:39*	*07/18/24 00:30*	*1*
DCB Decachlorobiphenyl	*103*		*65 - 174*	*07/16/24 16:39*	*07/18/24 00:30*	*1*
DCB Decachlorobiphenyl	*110*		*65 - 174*	*07/16/24 16:39*	*07/18/24 00:30*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**19000**		12.5	10.8	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Antimony	ND		18.8	0.66	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Arsenic	**2.8**		2.5	1.1	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Barium	**122**		0.63	0.18	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1

Client Sample ID: SB-05-27.0-29.0

Date Collected: 07/15/24 11:45
Date Received: 07/15/24 15:57

Lab Sample ID: 480-221655-2

Matrix: Solid
Percent Solids: 84.7

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.82		0.25	0.050	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Cadmium	0.25		0.25	0.088	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Calcium	48000		62.7	33.9	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Chromium	23.2		0.63	0.45	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Cobalt	12.2		0.63	0.13	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Copper	16.8		1.3	0.72	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Iron	20400		12.5	10.6	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Lead	10.4		1.3	0.58	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Magnesium	15800		25.1	10.6	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Manganese	538		1.3	0.35	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Nickel	23.1		6.3	0.31	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Potassium	6300		37.6	30.4	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Selenium	1.4	J	5.0	1.0	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Silver	ND		0.75	0.25	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Sodium	383		176	76.9	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Thallium	ND		7.5	0.95	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Vanadium	35.9		0.63	0.16	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1
Zinc	58.1		2.5	1.3	mg/Kg	☼	07/16/24 13:38	07/17/24 14:28	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.011	J	0.023	0.0053	mg/Kg	☼	07/17/24 08:25	07/17/24 10:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.1	0.55	mg/Kg	☼	07/19/24 13:18	07/19/24 15:38	1

Client Sample ID: SB-05-32.0-33.0

Date Collected: 07/15/24 12:10
Date Received: 07/15/24 15:57

Lab Sample ID: 480-221655-3

Matrix: Solid
Percent Solids: 83.4

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.8	0.35	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
1,1,2,2-Tetrachloroethane	ND		4.8	0.78	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.8	1.1	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
1,1,2-Trichloroethane	ND		4.8	0.63	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
1,1-Dichloroethane	ND		4.8	0.59	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
1,1-Dichloroethene	ND		4.8	0.59	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
1,2,4-Trichlorobenzene	ND		4.8	0.29	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
1,2-Dibromo-3-Chloropropane	ND		4.8	2.4	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
1,2-Dibromoethane	ND		4.8	0.62	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
1,2-Dichlorobenzene	ND		4.8	0.38	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
1,2-Dichloroethane	ND		4.8	0.24	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
1,2-Dichloropropane	ND		4.8	2.4	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
1,3-Dichlorobenzene	ND		4.8	0.25	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
1,4-Dichlorobenzene	ND		4.8	0.67	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
2-Butanone (MEK)	ND		24	1.8	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
2-Hexanone	ND		24	2.4	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
4-Methyl-2-pentanone (MIBK)	ND		24	1.6	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1

Client Sample ID: SB-05-32.0-33.0
Date Collected: 07/15/24 12:10
Date Received: 07/15/24 15:57

Lab Sample ID: 480-221655-3
Matrix: Solid
Percent Solids: 83.4

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**8.7**	**J**	24	4.1	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Benzene	ND		4.8	0.24	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Bromodichloromethane	ND		4.8	0.65	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Bromoform	ND		4.8	2.4	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Bromomethane	ND		4.8	0.43	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Carbon disulfide	ND		4.8	2.4	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Carbon tetrachloride	ND		4.8	0.47	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Chlorobenzene	ND		4.8	0.64	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Chloroethane	ND		4.8	1.1	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Chloroform	ND		4.8	0.30	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Chloromethane	ND		4.8	0.29	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
cis-1,2-Dichloroethene	ND		4.8	0.62	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
cis-1,3-Dichloropropene	ND		4.8	0.69	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Cyclohexane	ND		4.8	0.67	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Dibromochloromethane	ND		4.8	0.62	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Dichlorodifluoromethane	ND		4.8	0.40	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Ethylbenzene	ND		4.8	0.33	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Isopropylbenzene	ND		4.8	0.73	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Methyl acetate	ND		24	2.9	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Methyl tert-butyl ether	ND		4.8	0.47	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Methylcyclohexane	ND		4.8	0.73	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Methylene Chloride	**5.0**		4.8	2.2	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Styrene	ND		4.8	0.24	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Tetrachloroethene	ND		4.8	0.65	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Toluene	ND		4.8	0.36	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
trans-1,2-Dichloroethene	ND		4.8	0.50	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
trans-1,3-Dichloropropene	ND		4.8	2.1	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Trichloroethene	ND		4.8	1.1	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Trichlorofluoromethane	ND		4.8	0.46	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Vinyl chloride	ND		4.8	0.59	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1
Xylenes, Total	ND		9.6	0.81	ug/Kg	☼	07/16/24 10:00	07/17/24 02:29	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*07/16/24 10:00*	*07/17/24 02:29*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*64 - 126*	*07/16/24 10:00*	*07/17/24 02:29*	*1*
4-Bromofluorobenzene (Surr)	*103*		*72 - 126*	*07/16/24 10:00*	*07/17/24 02:29*	*1*
Dibromofluoromethane (Surr)	*101*		*60 - 140*	*07/16/24 10:00*	*07/17/24 02:29*	*1*
Toluene-d8 (Surr)	*98*		*71 - 125*	*07/16/24 10:00*	*07/17/24 02:29*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		200	55	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
2,4,6-Trichlorophenol	ND		200	41	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
2,4-Dichlorophenol	ND		200	21	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
2,4-Dimethylphenol	ND		200	49	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
2,4-Dinitrophenol	ND		2000	930	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
2,4-Dinitrotoluene	ND		200	42	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
2,6-Dinitrotoluene	ND		200	24	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1

Client: Ashland LLC
Project/Site: Tank 75 - Soil Analysis

Job ID: 480-221655-1

Client Sample ID: SB-05-32.0-33.0
Date Collected: 07/15/24 12:10
Date Received: 07/15/24 15:57

Lab Sample ID: 480-221655-3
Matrix: Solid
Percent Solids: 83.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	ND		200	33	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
2-Chlorophenol	ND		390	37	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
2-Methylnaphthalene	ND		200	41	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
2-Methylphenol	ND		200	24	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
2-Nitroaniline	ND		390	30	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
2-Nitrophenol	ND		200	57	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
3,3'-Dichlorobenzidine	ND		390	240	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
3-Nitroaniline	ND		390	56	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
4,6-Dinitro-2-methylphenol	ND		390	200	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
4-Bromophenyl phenyl ether	ND		200	29	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
4-Chloro-3-methylphenol	ND		200	50	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
4-Chloroaniline	ND		200	50	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
4-Chlorophenyl phenyl ether	ND		200	25	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
4-Methylphenol	ND	*+	390	24	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
4-Nitroaniline	ND		390	110	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
4-Nitrophenol	ND		390	140	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Acenaphthene	ND		200	30	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Acenaphthylene	ND		200	26	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Acetophenone	ND		200	27	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Anthracene	ND		200	50	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Atrazine	ND		200	70	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Benzaldehyde	ND		200	160	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Benzo[a]anthracene	ND		200	20	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Benzo[a]pyrene	ND		200	30	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Benzo[b]fluoranthene	ND	*+	200	32	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Benzo[g,h,i]perylene	ND		200	21	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Benzo[k]fluoranthene	ND		200	26	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Biphenyl	ND		200	30	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
bis (2-chloroisopropyl) ether	ND	*+	200	41	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Bis(2-chloroethoxy)methane	ND		200	43	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Bis(2-chloroethyl)ether	ND		200	26	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Bis(2-ethylhexyl) phthalate	ND		200	69	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Butyl benzyl phthalate	ND		200	33	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Caprolactam	ND		200	61	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Carbazole	ND		200	24	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Chrysene	ND		200	45	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Dibenz(a,h)anthracene	ND		200	36	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Dibenzofuran	ND		200	24	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Diethyl phthalate	ND		200	26	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Dimethyl phthalate	ND		200	24	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Di-n-butyl phthalate	ND		200	35	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Di-n-octyl phthalate	ND		200	24	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Fluoranthene	ND		200	21	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Fluorene	ND		200	24	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Hexachlorobenzene	ND		200	27	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Hexachlorobutadiene	ND		200	30	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Hexachlorocyclopentadiene	ND		200	27	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Hexachloroethane	ND		200	26	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Indeno[1,2,3-cd]pyrene	ND		200	25	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1

Client Sample ID: SB-05-32.0-33.0

Date Collected: 07/15/24 12:10
Date Received: 07/15/24 15:57

Lab Sample ID: 480-221655-3

Matrix: Solid
Percent Solids: 83.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isophorone	ND		200	43	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Naphthalene	ND		200	26	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Nitrobenzene	ND		200	23	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
N-Nitrosodi-n-propylamine	ND		200	35	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
N-Nitrosodiphenylamine	ND		200	160	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Pentachlorophenol	ND		390	200	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Phenanthrene	ND		200	30	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Phenol	ND		200	31	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1
Pyrene	ND		200	24	ug/Kg	☼	07/17/24 07:16	07/18/24 19:18	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*220*	*T J*	*ug/Kg*	☼	*1.69*	*N/A*	*07/17/24 07:16*	*07/18/24 19:18*	*1*
Unknown	*2100*	*T J*	*ug/Kg*	☼	*1.94*	*N/A*	*07/17/24 07:16*	*07/18/24 19:18*	*1*
Unknown	*1100*	*T J*	*ug/Kg*	☼	*3.36*	*N/A*	*07/17/24 07:16*	*07/18/24 19:18*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*99*		*26 - 143*	*07/17/24 07:16*	*07/18/24 19:18*	*1*
2-Fluorobiphenyl	*91*		*50 - 121*	*07/17/24 07:16*	*07/18/24 19:18*	*1*
2-Fluorophenol	*94*		*36 - 120*	*07/17/24 07:16*	*07/18/24 19:18*	*1*
Nitrobenzene-d5	*76*		*40 - 121*	*07/17/24 07:16*	*07/18/24 19:18*	*1*
Phenol-d5	*101*		*41 - 120*	*07/17/24 07:16*	*07/18/24 19:18*	*1*
p-Terphenyl-d14	*91*		*46 - 143*	*07/17/24 07:16*	*07/18/24 19:18*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.0	0.39	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
4,4'-DDE	ND		2.0	0.42	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
4,4'-DDT	ND		2.0	0.47	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
Aldrin	ND		2.0	0.49	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
alpha-BHC	ND		2.0	0.36	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
cis-Chlordane	ND		2.0	0.99	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
beta-BHC	ND		2.0	0.36	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
delta-BHC	ND		2.0	0.37	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
Dieldrin	ND		2.0	0.48	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
Endosulfan I	ND		2.0	0.38	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
Endosulfan II	ND		2.0	0.36	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
Endosulfan sulfate	ND		2.0	0.37	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
Endrin	ND		2.0	0.39	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
Endrin aldehyde	ND		2.0	0.51	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
Endrin ketone	ND		2.0	0.49	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
gamma-BHC (Lindane)	ND		2.0	0.37	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
trans-Chlordane	ND		2.0	0.63	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
Heptachlor	ND		2.0	0.43	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
Heptachlor epoxide	ND		2.0	0.51	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
Methoxychlor	ND		2.0	0.41	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1
Toxaphene	ND		20	12	ug/Kg	☼	07/16/24 16:34	07/17/24 14:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*69*		*45 - 120*	*07/16/24 16:34*	*07/17/24 14:19*	*1*
DCB Decachlorobiphenyl	*67*		*45 - 120*	*07/16/24 16:34*	*07/17/24 14:19*	*1*

Client Sample ID: SB-05-32.0-33.0

Date Collected: 07/15/24 12:10
Date Received: 07/15/24 15:57

Lab Sample ID: 480-221655-3

Matrix: Solid
Percent Solids: 83.4

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	*57*		*30 - 124*	*07/16/24 16:34*	*07/17/24 14:19*	*1*
Tetrachloro-m-xylene	*71*		*30 - 124*	*07/16/24 16:34*	*07/17/24 14:19*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.21	0.042	mg/Kg	☼	07/16/24 16:39	07/18/24 00:47	1
PCB-1221	ND		0.21	0.042	mg/Kg	☼	07/16/24 16:39	07/18/24 00:47	1
PCB-1232	ND		0.21	0.042	mg/Kg	☼	07/16/24 16:39	07/18/24 00:47	1
PCB-1242	ND		0.21	0.042	mg/Kg	☼	07/16/24 16:39	07/18/24 00:47	1
PCB-1248	ND		0.21	0.042	mg/Kg	☼	07/16/24 16:39	07/18/24 00:47	1
PCB-1254	ND		0.21	0.10	mg/Kg	☼	07/16/24 16:39	07/18/24 00:47	1
PCB-1260	ND		0.21	0.10	mg/Kg	☼	07/16/24 16:39	07/18/24 00:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	*114*		*60 - 154*	*07/16/24 16:39*	*07/18/24 00:47*	*1*
Tetrachloro-m-xylene	*97*		*60 - 154*	*07/16/24 16:39*	*07/18/24 00:47*	*1*
DCB Decachlorobiphenyl	*100*		*65 - 174*	*07/16/24 16:39*	*07/18/24 00:47*	*1*
DCB Decachlorobiphenyl	*109*		*65 - 174*	*07/16/24 16:39*	*07/18/24 00:47*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**19500**		12.7	11.0	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Antimony	**1.0**	**J**	19.1	0.68	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Arsenic	**2.8**		2.5	1.1	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Barium	**123**		0.64	0.18	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Beryllium	**0.84**		0.25	0.051	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Cadmium	**0.25**		0.25	0.089	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Calcium	**48600**		63.7	34.4	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Chromium	**23.7**		0.64	0.46	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Cobalt	**11.2**		0.64	0.13	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Copper	**16.2**		1.3	0.73	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Iron	**19700**		12.7	10.8	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Lead	**10**		1.3	0.59	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Magnesium	**16600**		25.5	10.8	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Manganese	**512**		1.3	0.36	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Nickel	**22.0**		6.4	0.32	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Potassium	**6740**		38.2	30.9	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Selenium	ND		5.1	1.0	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Silver	ND		0.76	0.25	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Sodium	**501**		178	78.2	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Thallium	ND		7.6	0.97	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Vanadium	**34.7**		0.64	0.17	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1
Zinc	**55.5**		2.5	1.3	mg/Kg	☼	07/16/24 13:38	07/17/24 14:30	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.010**	**J**	0.025	0.0057	mg/Kg	☼	07/17/24 08:25	07/17/24 10:21	1

Client Sample ID: SB-05-32.0-33.0
Lab Sample ID: 480-221655-3
Date Collected: 07/15/24 12:10
Matrix: Solid
Date Received: 07/15/24 15:57
Percent Solids: 83.4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.0	0.51	mg/Kg	☼	07/19/24 13:18	07/19/24 15:40	1

Client Sample ID: SB-03-0.0-0.2
Lab Sample ID: 480-221655-4
Date Collected: 07/15/24 12:20
Matrix: Solid
Date Received: 07/15/24 15:57
Percent Solids: 89.1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		1900	510	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
2,4,6-Trichlorophenol	ND		1900	380	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
2,4-Dichlorophenol	ND		1900	200	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
2,4-Dimethylphenol	ND		1900	450	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
2,4-Dinitrophenol	ND		18000	8700	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
2,4-Dinitrotoluene	ND		1900	390	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
2,6-Dinitrotoluene	ND		1900	220	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
2-Chloronaphthalene	ND		1900	310	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
2-Chlorophenol	ND		3700	340	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
2-Methylnaphthalene	ND		1900	380	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
2-Methylphenol	ND		1900	220	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
2-Nitroaniline	ND		3700	280	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
2-Nitrophenol	ND		1900	530	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
3,3'-Dichlorobenzidine	ND		3700	2200	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
3-Nitroaniline	ND		3700	520	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
4,6-Dinitro-2-methylphenol	ND		3700	1900	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
4-Bromophenyl phenyl ether	ND		1900	270	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
4-Chloro-3-methylphenol	ND		1900	470	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
4-Chloroaniline	ND		1900	470	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
4-Chlorophenyl phenyl ether	ND		1900	230	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
4-Methylphenol	ND	*+	3700	220	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
4-Nitroaniline	ND		3700	990	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
4-Nitrophenol	ND		3700	1300	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Acenaphthene	ND		1900	280	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Acenaphthylene	ND		1900	240	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Acetophenone	ND		1900	250	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Anthracene	ND		1900	470	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Atrazine	ND		1900	650	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Benzaldehyde	ND		1900	1500	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Benzo[a]anthracene	**490**	**J**	1900	190	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Benzo[a]pyrene	**570**	**J**	1900	280	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Benzo[b]fluoranthene	**910**	**J *+**	1900	300	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Benzo[g,h,i]perylene	**430**	**J**	1900	200	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Benzo[k]fluoranthene	**330**	**J**	1900	240	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Biphenyl	ND		1900	280	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
bis (2-chloroisopropyl) ether	ND	*+	1900	380	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Bis(2-chloroethoxy)methane	ND		1900	400	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Bis(2-chloroethyl)ether	ND		1900	240	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Bis(2-ethylhexyl) phthalate	ND		1900	640	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Butyl benzyl phthalate	ND		1900	310	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Caprolactam	ND		1900	570	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Carbazole	ND		1900	220	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10

Client Sample ID: SB-03-0.0-0.2
Date Collected: 07/15/24 12:20
Date Received: 07/15/24 15:57

Lab Sample ID: 480-221655-4
Matrix: Solid
Percent Solids: 89.1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	**610**	**J**	1900	420	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Dibenz(a,h)anthracene	ND		1900	330	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Dibenzofuran	ND		1900	220	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Diethyl phthalate	ND		1900	240	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Dimethyl phthalate	ND		1900	220	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Di-n-butyl phthalate	ND		1900	320	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Di-n-octyl phthalate	ND		1900	220	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Fluoranthene	**970**	**J**	1900	200	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Fluorene	ND		1900	220	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Hexachlorobenzene	ND		1900	250	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Hexachlorobutadiene	ND		1900	280	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Hexachlorocyclopentadiene	ND		1900	250	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Hexachloroethane	ND		1900	240	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Indeno[1,2,3-cd]pyrene	**400**	**J**	1900	230	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Isophorone	ND		1900	400	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Naphthalene	ND		1900	240	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Nitrobenzene	ND		1900	210	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
N-Nitrosodi-n-propylamine	ND		1900	320	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
N-Nitrosodiphenylamine	ND		1900	1500	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Pentachlorophenol	ND		3700	1900	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Phenanthrene	**450**	**J**	1900	280	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Phenol	ND		1900	290	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10
Pyrene	**730**	**J**	1900	220	ug/Kg	☼	07/17/24 07:16	07/18/24 19:46	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*2600*	*T J*	*ug/Kg*	☼	*1.73*	*N/A*	*07/17/24 07:16*	*07/18/24 19:46*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*95*		*26 - 143*	*07/17/24 07:16*	*07/18/24 19:46*	*10*
2-Fluorobiphenyl	*76*		*50 - 121*	*07/17/24 07:16*	*07/18/24 19:46*	*10*
2-Fluorophenol	*104*		*36 - 120*	*07/17/24 07:16*	*07/18/24 19:46*	*10*
Nitrobenzene-d5	*80*		*40 - 121*	*07/17/24 07:16*	*07/18/24 19:46*	*10*
Phenol-d5	*125*	*S1+*	*41 - 120*	*07/17/24 07:16*	*07/18/24 19:46*	*10*
p-Terphenyl-d14	*84*		*46 - 143*	*07/17/24 07:16*	*07/18/24 19:46*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		37	7.1	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
4,4'-DDE	ND		37	7.7	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
4,4'-DDT	ND		37	8.6	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
Aldrin	ND		37	9.0	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
alpha-BHC	ND		37	6.6	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
cis-Chlordane	ND		37	18	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
beta-BHC	ND		37	6.6	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
delta-BHC	ND		37	6.8	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
Dieldrin	ND		37	8.8	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
Endosulfan I	ND		37	7.0	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
Endosulfan II	ND		37	6.6	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
Endosulfan sulfate	ND		37	6.8	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
Endrin	ND		37	7.3	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20

Client Sample ID: SB-03-0.0-0.2
Date Collected: 07/15/24 12:20
Date Received: 07/15/24 15:57

Lab Sample ID: 480-221655-4
Matrix: Solid
Percent Solids: 89.1

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin aldehyde	ND		37	9.4	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
Endrin ketone	ND		37	9.0	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
gamma-BHC (Lindane)	ND		37	6.7	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
trans-Chlordane	ND		37	12	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
Heptachlor	ND		37	7.9	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
Heptachlor epoxide	ND		37	9.5	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
Methoxychlor	ND		37	7.5	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20
Toxaphene	ND		370	210	ug/Kg	☼	07/16/24 16:34	07/17/24 14:38	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/16/24 16:34*	*07/17/24 14:38*	*20*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*07/16/24 16:34*	*07/17/24 14:38*	*20*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/16/24 16:34*	*07/17/24 14:38*	*20*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*07/16/24 16:34*	*07/17/24 14:38*	*20*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.22	0.042	mg/Kg	☼	07/16/24 16:39	07/18/24 01:04	1
PCB-1221	ND		0.22	0.042	mg/Kg	☼	07/16/24 16:39	07/18/24 01:04	1
PCB-1232	ND		0.22	0.042	mg/Kg	☼	07/16/24 16:39	07/18/24 01:04	1
PCB-1242	ND		0.22	0.042	mg/Kg	☼	07/16/24 16:39	07/18/24 01:04	1
PCB-1248	ND		0.22	0.042	mg/Kg	☼	07/16/24 16:39	07/18/24 01:04	1
PCB-1254	ND		0.22	0.10	mg/Kg	☼	07/16/24 16:39	07/18/24 01:04	1
PCB-1260	ND		0.22	0.10	mg/Kg	☼	07/16/24 16:39	07/18/24 01:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*107*		*60 - 154*	*07/16/24 16:39*	*07/18/24 01:04*	*1*
Tetrachloro-m-xylene	*94*		*60 - 154*	*07/16/24 16:39*	*07/18/24 01:04*	*1*
DCB Decachlorobiphenyl	*97*		*65 - 174*	*07/16/24 16:39*	*07/18/24 01:04*	*1*
DCB Decachlorobiphenyl	*108*		*65 - 174*	*07/16/24 16:39*	*07/18/24 01:04*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**17000**		10.8	9.3	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Antimony	**1.8**	**J**	16.2	0.57	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Arsenic	**4.6**		2.2	0.95	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Barium	**132**		0.54	0.15	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Beryllium	**0.97**		0.22	0.043	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Cadmium	**0.56**		0.22	0.076	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Calcium	**71500**		54.0	29.2	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Chromium	**28.6**		0.54	0.39	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Cobalt	**10.7**		0.54	0.11	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Copper	**45.2**		1.1	0.62	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Iron	**23100**		10.8	9.2	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Lead	**62.1**		1.1	0.50	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Magnesium	**15000**		21.6	9.2	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Manganese	**763**		1.1	0.30	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Nickel	**24.7**		5.4	0.27	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Potassium	**4020**		32.4	26.2	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Selenium	**1.2**	**J**	4.3	0.86	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1

Client: Ashland LLC
Job ID: 480-221655-1
Project/Site: Tank 75 - Soil Analysis

Client Sample ID: SB-03-0.0-0.2
Lab Sample ID: 480-221655-4
Date Collected: 07/15/24 12:20
Matrix: Solid
Date Received: 07/15/24 15:57
Percent Solids: 89.1

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.34	J	0.65	0.22	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Sodium	225		151	66.2	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Thallium	ND		6.5	0.82	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Vanadium	32.7		0.54	0.14	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1
Zinc	117		2.2	1.1	mg/Kg	☼	07/16/24 13:38	07/17/24 14:31	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14		0.022	0.0051	mg/Kg	☼	07/17/24 08:25	07/17/24 10:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	2.1		1.1	0.53	mg/Kg	☼	07/19/24 13:18	07/19/24 15:44	1

Surrogate Summary

Client: Ashland LLC
Project/Site: Tank 75 - Soil Analysis

Job ID: 480-221655-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(64-126)	(72-126)	(60-140)	(71-125)
480-221655-2	SB-05-27.0-29.0	105	103	103	97
480-221655-3	SB-05-32.0-33.0	101	103	101	98
LCS 480-718658/1-A	Lab Control Sample	97	107	101	98
MB 480-718658/2-A	Method Blank	99	107	100	96

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPHd14
Lab Sample ID	Client Sample ID	(26-143)	(50-121)	(36-120)	(40-121)	(41-120)	(46-143)
480-221655-1	SB-05-0.0-0.2	237 S1+	91	89	76	153 S1+	116
480-221655-1 MS	SB-05-0.0-0.2-MS	0 S1-	94	0 S1-	107	189 S1+	127
480-221655-1 MSD	SB-05-0.0-0.2-MSD	218 S1+	83	91	81	202 S1+	103
480-221655-2	SB-05-27.0-29.0	103	86	76	95	92	95
480-221655-3	SB-05-32.0-33.0	99	91	94	76	101	91
480-221655-4	SB-03-0.0-0.2	95	76	104	80	125 S1+	84
LCS 480-718672/2-A	Lab Control Sample	104	92	100	92	128 S1+	92
MB 480-718672/1-A	Method Blank	110	84	60	80	83	82

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHd14 = p-Terphenyl-d14

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1	DCBP2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(45-120)	(45-120)	(30-124)	(30-124)
480-221655-1	SB-05-0.0-0.2	0 S1-	0 S1-	0 S1-	0 S1-
480-221655-1 MS	SB-05-0.0-0.2-MS	0 S1-	0 S1-	0 S1-	0 S1-
480-221655-1 MSD	SB-05-0.0-0.2-MSD	0 S1-	0 S1-	0 S1-	0 S1-
480-221655-2	SB-05-27.0-29.0	67	69	61	69
480-221655-3	SB-05-32.0-33.0	69	67	57	71
480-221655-4	SB-03-0.0-0.2	0 S1-	0 S1-	0 S1-	0 S1-
LCS 480-718655/2-A	Lab Control Sample	59	66	58	64
MB 480-718655/1-A	Method Blank	56	63	52	57

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Surrogate Summary

Client: Ashland LLC
Job ID: 480-221655-1
Project/Site: Tank 75 - Soil Analysis

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCBP1	DCBP2
Lab Sample ID	Client Sample ID	(60-154)	(60-154)	(65-174)	(65-174)
480-221655-1	SB-05-0.0-0.2	83	93	83	81
480-221655-1 MS	SB-05-0.0-0.2-MS	100	114	102	98
480-221655-1 MSD	SB-05-0.0-0.2-MSD	92	103	94	91
480-221655-2	SB-05-27.0-29.0	99	116	110	103
480-221655-3	SB-05-32.0-33.0	97	114	109	100
480-221655-4	SB-03-0.0-0.2	94	107	108	97
LCS 480-718656/2-A	Lab Control Sample	111	128	133	117
MB 480-718656/1-A	Method Blank	100	114	122	106

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCBP = DCB Decachlorobiphenyl

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-718658/2-A
Matrix: Solid
Analysis Batch: 718659

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718658

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
2-Hexanone	ND		25	2.5	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Acetone	ND		25	4.2	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Benzene	ND		5.0	0.25	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Bromoform	ND		5.0	2.5	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Bromomethane	ND		5.0	0.45	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Carbon disulfide	ND		5.0	2.5	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Chlorobenzene	ND		5.0	0.66	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Chloroethane	ND		5.0	1.1	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Chloroform	ND		5.0	0.31	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Chloromethane	ND		5.0	0.30	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Cyclohexane	ND		5.0	0.70	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Ethylbenzene	ND		5.0	0.35	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Methyl acetate	ND		25	3.0	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Methylene Chloride	ND		5.0	2.3	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Styrene	ND		5.0	0.25	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Tetrachloroethene	ND		5.0	0.67	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Toluene	ND		5.0	0.38	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
trans-1,2-Dichloroethene	ND		5.0	0.52	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Trichloroethene	ND		5.0	1.1	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Vinyl chloride	ND		5.0	0.61	ug/Kg		07/16/24 17:08	07/16/24 20:31	1
Xylenes, Total	ND		10	0.84	ug/Kg		07/16/24 17:08	07/16/24 20:31	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-718658/2-A
Matrix: Solid
Analysis Batch: 718659

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718658

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/Kg			N/A	07/16/24 17:08	07/16/24 20:31	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		64 - 126	07/16/24 17:08	07/16/24 20:31	1
4-Bromofluorobenzene (Surr)	107		72 - 126	07/16/24 17:08	07/16/24 20:31	1
Dibromofluoromethane (Surr)	100		60 - 140	07/16/24 17:08	07/16/24 20:31	1
Toluene-d8 (Surr)	96		71 - 125	07/16/24 17:08	07/16/24 20:31	1

Lab Sample ID: LCS 480-718658/1-A
Matrix: Solid
Analysis Batch: 718659

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718658

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	50.0	46.4		ug/Kg		93	77 - 121
1,1,2,2-Tetrachloroethane	50.0	43.0		ug/Kg		86	80 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	42.2		ug/Kg		84	60 - 140
1,1,2-Trichloroethane	50.0	46.2		ug/Kg		92	78 - 122
1,1-Dichloroethane	50.0	42.2		ug/Kg		84	73 - 126
1,1-Dichloroethene	50.0	41.9		ug/Kg		84	59 - 125
1,2,4-Trichlorobenzene	50.0	43.4		ug/Kg		87	64 - 120
1,2-Dibromo-3-Chloropropane	50.0	44.8		ug/Kg		90	63 - 124
1,2-Dibromoethane	50.0	52.9		ug/Kg		106	78 - 120
1,2-Dichlorobenzene	50.0	42.7		ug/Kg		85	75 - 120
1,2-Dichloroethane	50.0	47.0		ug/Kg		94	77 - 122
1,2-Dichloropropane	50.0	44.1		ug/Kg		88	75 - 124
1,3-Dichlorobenzene	50.0	42.1		ug/Kg		84	74 - 120
1,4-Dichlorobenzene	50.0	41.7		ug/Kg		83	73 - 120
2-Butanone (MEK)	250	243		ug/Kg		97	70 - 134
2-Hexanone	250	246		ug/Kg		98	59 - 130
4-Methyl-2-pentanone (MIBK)	250	230		ug/Kg		92	65 - 133
Acetone	250	244		ug/Kg		98	61 - 137
Benzene	50.0	43.6		ug/Kg		87	79 - 127
Bromodichloromethane	50.0	50.4		ug/Kg		101	80 - 122
Bromoform	50.0	59.9		ug/Kg		120	68 - 126
Bromomethane	50.0	44.7		ug/Kg		89	37 - 149
Carbon disulfide	50.0	40.1		ug/Kg		80	64 - 131
Carbon tetrachloride	50.0	52.8		ug/Kg		106	75 - 135
Chlorobenzene	50.0	44.3		ug/Kg		89	76 - 124
Chloroethane	50.0	40.5		ug/Kg		81	69 - 135
Chloroform	50.0	44.2		ug/Kg		88	80 - 120
Chloromethane	50.0	47.6		ug/Kg		95	63 - 127
cis-1,2-Dichloroethene	50.0	44.6		ug/Kg		89	81 - 120
cis-1,3-Dichloropropene	50.0	51.1		ug/Kg		102	80 - 120
Cyclohexane	50.0	40.1		ug/Kg		80	65 - 120
Dibromochloromethane	50.0	55.3		ug/Kg		111	76 - 125
Dichlorodifluoromethane	50.0	49.4		ug/Kg		99	57 - 142
Ethylbenzene	50.0	42.7		ug/Kg		85	80 - 120

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-718658/1-A
Matrix: Solid
Analysis Batch: 718659

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718658

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Isopropylbenzene	50.0	41.3		ug/Kg		83	72 - 120
Methyl acetate	100	96.6		ug/Kg		97	55 - 136
Methyl tert-butyl ether	50.0	46.7		ug/Kg		93	63 - 125
Methylcyclohexane	50.0	42.0		ug/Kg		84	60 - 140
Methylene Chloride	50.0	46.7		ug/Kg		93	61 - 127
Styrene	50.0	45.8		ug/Kg		92	80 - 120
Tetrachloroethene	50.0	45.6		ug/Kg		91	74 - 122
Toluene	50.0	42.1		ug/Kg		84	74 - 128
trans-1,2-Dichloroethene	50.0	43.0		ug/Kg		86	78 - 126
Trichloroethene	50.0	44.8		ug/Kg		90	77 - 129
Trichlorofluoromethane	50.0	48.8		ug/Kg		98	65 - 146
Vinyl chloride	50.0	43.6		ug/Kg		87	61 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*64 - 126*
4-Bromofluorobenzene (Surr)	*107*		*72 - 126*
Dibromofluoromethane (Surr)	*101*		*60 - 140*
Toluene-d8 (Surr)	*98*		*71 - 125*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-718672/1-A
Matrix: Solid
Analysis Batch: 718832

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718672

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		170	46	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
2,4,6-Trichlorophenol	ND		170	34	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
2,4-Dichlorophenol	ND		170	18	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
2,4-Dimethylphenol	ND		170	41	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
2,4-Dinitrophenol	ND		1700	780	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
2,4-Dinitrotoluene	ND		170	35	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
2,6-Dinitrotoluene	ND		170	20	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
2-Chloronaphthalene	ND		170	28	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
2-Chlorophenol	ND		330	31	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
2-Methylnaphthalene	ND		170	34	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
2-Methylphenol	ND		170	20	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
2-Nitroaniline	ND		330	25	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
2-Nitrophenol	ND		170	48	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
3,3'-Dichlorobenzidine	ND		330	200	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
3-Nitroaniline	ND		330	47	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
4,6-Dinitro-2-methylphenol	ND		330	170	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
4-Bromophenyl phenyl ether	ND		170	24	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
4-Chloro-3-methylphenol	ND		170	42	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
4-Chloroaniline	ND		170	42	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
4-Chlorophenyl phenyl ether	ND		170	21	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
4-Methylphenol	ND		330	20	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
4-Nitroaniline	ND		330	89	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
4-Nitrophenol	ND		330	120	ug/Kg		07/17/24 07:16	07/18/24 16:30	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-718672/1-A
Matrix: Solid
Analysis Batch: 718832

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718672

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		170	25	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Acenaphthylene	ND		170	22	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Acetophenone	ND		170	23	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Anthracene	ND		170	42	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Atrazine	ND		170	59	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Benzaldehyde	ND		170	140	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Benzo[a]anthracene	ND		170	17	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Benzo[a]pyrene	ND		170	25	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Benzo[b]fluoranthene	ND		170	27	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Benzo[g,h,i]perylene	ND		170	18	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Benzo[k]fluoranthene	ND		170	22	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Biphenyl	ND		170	25	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
bis (2-chloroisopropyl) ether	ND		170	34	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Bis(2-chloroethoxy)methane	ND		170	36	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Bis(2-chloroethyl)ether	ND		170	22	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Bis(2-ethylhexyl) phthalate	ND		170	58	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Butyl benzyl phthalate	ND		170	28	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Caprolactam	ND		170	51	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Carbazole	ND		170	20	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Chrysene	ND		170	38	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Dibenz(a,h)anthracene	ND		170	30	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Dibenzofuran	ND		170	20	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Diethyl phthalate	ND		170	22	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Dimethyl phthalate	ND		170	20	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Di-n-butyl phthalate	ND		170	29	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Di-n-octyl phthalate	ND		170	20	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Fluoranthene	ND		170	18	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Fluorene	ND		170	20	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Hexachlorobenzene	ND		170	23	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Hexachlorobutadiene	ND		170	25	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Hexachlorocyclopentadiene	ND		170	23	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Hexachloroethane	ND		170	22	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Indeno[1,2,3-cd]pyrene	ND		170	21	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Isophorone	ND		170	36	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Naphthalene	ND		170	22	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Nitrobenzene	ND		170	19	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
N-Nitrosodi-n-propylamine	ND		170	29	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
N-Nitrosodiphenylamine	ND		170	140	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Pentachlorophenol	ND		330	170	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Phenanthrene	ND		170	25	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Phenol	ND		170	26	ug/Kg		07/17/24 07:16	07/18/24 16:30	1
Pyrene	ND		170	20	ug/Kg		07/17/24 07:16	07/18/24 16:30	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*308*	*T J*	*ug/Kg*		*1.72*	*N/A*	*07/17/24 07:16*	*07/18/24 16:30*	*1*
Unknown	*1850*	*T J*	*ug/Kg*		*1.94*	*N/A*	*07/17/24 07:16*	*07/18/24 16:30*	*1*
Unknown	*692*	*T J*	*ug/Kg*		*3.36*	*N/A*	*07/17/24 07:16*	*07/18/24 16:30*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-718672/1-A
Matrix: Solid
Analysis Batch: 718832

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718672

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	110		26 - 143	07/17/24 07:16	07/18/24 16:30	1
2-Fluorobiphenyl	84		50 - 121	07/17/24 07:16	07/18/24 16:30	1
2-Fluorophenol	60		36 - 120	07/17/24 07:16	07/18/24 16:30	1
Nitrobenzene-d5	80		40 - 121	07/17/24 07:16	07/18/24 16:30	1
Phenol-d5	83		41 - 120	07/17/24 07:16	07/18/24 16:30	1
p-Terphenyl-d14	82		46 - 143	07/17/24 07:16	07/18/24 16:30	1

Lab Sample ID: LCS 480-718672/2-A
Matrix: Solid
Analysis Batch: 718832

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718672

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4,5-Trichlorophenol	1330	1290		ug/Kg		97	59 - 126
2,4,6-Trichlorophenol	1330	1330		ug/Kg		99	59 - 123
2,4-Dichlorophenol	1330	1100		ug/Kg		82	61 - 120
2,4-Dimethylphenol	1330	1490		ug/Kg		112	59 - 120
2,4-Dinitrophenol	2670	2520		ug/Kg		95	41 - 146
2,4-Dinitrotoluene	1330	1310		ug/Kg		98	63 - 120
2,6-Dinitrotoluene	1330	1280		ug/Kg		96	66 - 120
2-Chloronaphthalene	1330	1220		ug/Kg		92	57 - 120
2-Chlorophenol	1330	1460		ug/Kg		110	53 - 120
2-Methylnaphthalene	1330	1090		ug/Kg		82	59 - 120
2-Methylphenol	1330	1600		ug/Kg		120	54 - 120
2-Nitroaniline	1330	1400		ug/Kg		105	61 - 120
2-Nitrophenol	1330	956		ug/Kg		72	56 - 120
3,3'-Dichlorobenzidine	2670	2450		ug/Kg		92	54 - 120
3-Nitroaniline	1330	1220		ug/Kg		92	48 - 120
4,6-Dinitro-2-methylphenol	2670	2680		ug/Kg		100	49 - 122
4-Bromophenyl phenyl ether	1330	1270		ug/Kg		95	58 - 120
4-Chloro-3-methylphenol	1330	1370		ug/Kg		103	61 - 120
4-Chloroaniline	1330	1140		ug/Kg		85	38 - 120
4-Chlorophenyl phenyl ether	1330	1270		ug/Kg		96	63 - 124
4-Methylphenol	1330	1650	*+	ug/Kg		123	55 - 120
4-Nitroaniline	1330	1240		ug/Kg		93	56 - 120
4-Nitrophenol	2670	2900		ug/Kg		109	43 - 147
Acenaphthene	1330	1240		ug/Kg		93	62 - 120
Acenaphthylene	1330	1340		ug/Kg		101	58 - 121
Acetophenone	1330	1360		ug/Kg		102	54 - 120
Anthracene	1330	1310		ug/Kg		99	62 - 120
Atrazine	2670	2450		ug/Kg		92	60 - 127
Benzaldehyde	2670	3020	E	ug/Kg		113	10 - 150
Benzo[a]anthracene	1330	1270		ug/Kg		95	65 - 120
Benzo[a]pyrene	1330	1410		ug/Kg		106	64 - 120
Benzo[b]fluoranthene	1330	1740	*+	ug/Kg		131	64 - 120
Benzo[g,h,i]perylene	1330	1710		ug/Kg		128	45 - 145
Benzo[k]fluoranthene	1330	1430		ug/Kg		107	65 - 120
Biphenyl	1330	1210		ug/Kg		91	59 - 120
bis (2-chloroisopropyl) ether	1330	1640	*+	ug/Kg		123	44 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-718672/2-A
Matrix: Solid
Analysis Batch: 718832

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718672

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bis(2-chloroethoxy)methane	1330	1190		ug/Kg		89	55 - 120
Bis(2-chloroethyl)ether	1330	1580		ug/Kg		118	45 - 120
Bis(2-ethylhexyl) phthalate	1330	1500		ug/Kg		112	61 - 133
Butyl benzyl phthalate	1330	1460		ug/Kg		109	61 - 129
Caprolactam	2670	2480		ug/Kg		93	47 - 120
Carbazole	1330	1330		ug/Kg		100	65 - 120
Chrysene	1330	1310		ug/Kg		98	64 - 120
Dibenz(a,h)anthracene	1330	1690		ug/Kg		127	54 - 132
Dibenzofuran	1330	1260		ug/Kg		95	63 - 120
Diethyl phthalate	1330	1370		ug/Kg		103	66 - 120
Dimethyl phthalate	1330	1390		ug/Kg		105	65 - 124
Di-n-butyl phthalate	1330	1360		ug/Kg		102	58 - 130
Di-n-octyl phthalate	1330	1350		ug/Kg		101	57 - 133
Fluoranthene	1330	1300		ug/Kg		98	62 - 120
Fluorene	1330	1270		ug/Kg		95	63 - 120
Hexachlorobenzene	1330	1320		ug/Kg		99	60 - 120
Hexachlorobutadiene	1330	974		ug/Kg		73	45 - 120
Hexachlorocyclopentadiene	1330	1390		ug/Kg		105	47 - 120
Hexachloroethane	1330	1320		ug/Kg		99	41 - 120
Indeno[1,2,3-cd]pyrene	1330	1680		ug/Kg		126	56 - 134
Isophorone	1330	1290		ug/Kg		97	56 - 120
Naphthalene	1330	1130		ug/Kg		85	55 - 120
Nitrobenzene	1330	1250		ug/Kg		93	54 - 120
N-Nitrosodi-n-propylamine	1330	1570		ug/Kg		118	52 - 120
Pentachlorophenol	2670	2630		ug/Kg		99	10 - 120
Phenanthrene	1330	1360		ug/Kg		102	60 - 120
Phenol	1330	1590		ug/Kg		119	53 - 120
Pyrene	1330	1520		ug/Kg		114	61 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*104*		*26 - 143*
2-Fluorobiphenyl	*92*		*50 - 121*
2-Fluorophenol	*100*		*36 - 120*
Nitrobenzene-d5	*92*		*40 - 121*
Phenol-d5	*128*	*S1+*	*41 - 120*
p-Terphenyl-d14	*92*		*46 - 143*

Lab Sample ID: 480-221655-1 MS
Matrix: Solid
Analysis Batch: 718832

Client Sample ID: SB-05-0.0-0.2-MS
Prep Type: Total/NA
Prep Batch: 718672

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2,4,5-Trichlorophenol	ND		1420	ND		ug/Kg	☼	NC	46 - 120
2,4,6-Trichlorophenol	ND		1420	ND		ug/Kg	☼	NC	41 - 123
2,4-Dichlorophenol	ND		1420	2950	J	ug/Kg	☼	NC	45 - 120
2,4-Dimethylphenol	ND		1420	ND		ug/Kg	☼	NC	52 - 120
2,4-Dinitrophenol	ND		2840	ND		ug/Kg	☼	NC	41 - 146
2,4-Dinitrotoluene	ND		1420	ND		ug/Kg	☼	NC	63 - 125

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-221655-1 MS
Matrix: Solid
Analysis Batch: 718832

Client Sample ID: SB-05-0.0-0.2-MS
Prep Type: Total/NA
Prep Batch: 718672

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2,6-Dinitrotoluene	ND		1420	3240	J	ug/Kg	☼	NC	66 - 120
2-Chloronaphthalene	ND		1420	ND		ug/Kg	☼	NC	57 - 120
2-Chlorophenol	ND		1420	ND		ug/Kg	☼	NC	43 - 120
2-Methylnaphthalene	ND		1420	ND		ug/Kg	☼	NC	55 - 120
2-Methylphenol	ND		1420	ND		ug/Kg	☼	NC	48 - 120
2-Nitroaniline	ND		1420	3580	J	ug/Kg	☼	NC	61 - 120
2-Nitrophenol	ND		1420	ND		ug/Kg	☼	NC	37 - 120
3,3'-Dichlorobenzidine	ND		2840	ND		ug/Kg	☼	NC	37 - 126
3-Nitroaniline	ND		1420	ND		ug/Kg	☼	NC	48 - 120
4,6-Dinitro-2-methylphenol	ND		2840	ND		ug/Kg	☼	NC	23 - 149
4-Bromophenyl phenyl ether	ND		1420	ND		ug/Kg	☼	NC	58 - 120
4-Chloro-3-methylphenol	ND		1420	ND		ug/Kg	☼	NC	49 - 125
4-Chloroaniline	ND		1420	ND		ug/Kg	☼	NC	38 - 120
4-Chlorophenyl phenyl ether	ND		1420	ND		ug/Kg	☼	NC	63 - 124
4-Methylphenol	ND	*+	1420	ND		ug/Kg	☼	NC	50 - 120
4-Nitroaniline	ND		1420	ND		ug/Kg	☼	NC	47 - 120
4-Nitrophenol	ND		2840	ND		ug/Kg	☼	NC	31 - 147
Acenaphthene	ND		1420	ND		ug/Kg	☼	NC	60 - 120
Acenaphthylene	ND		1420	ND		ug/Kg	☼	NC	58 - 121
Acetophenone	ND		1420	ND		ug/Kg	☼	NC	47 - 120
Anthracene	ND		1420	ND		ug/Kg	☼	NC	62 - 120
Atrazine	ND		2840	ND		ug/Kg	☼	NC	60 - 150
Benzaldehyde	ND		2840	ND		ug/Kg	☼	NC	10 - 150
Benzo[a]anthracene	ND		1420	ND		ug/Kg	☼	NC	65 - 120
Benzo[a]pyrene	ND		1420	ND		ug/Kg	☼	NC	64 - 120
Benzo[b]fluoranthene	ND	*+	1420	ND		ug/Kg	☼	NC	10 - 150
Benzo[g,h,i]perylene	ND		1420	2250	J	ug/Kg	☼	NC	45 - 145
Benzo[k]fluoranthene	ND		1420	ND		ug/Kg	☼	NC	23 - 150
Biphenyl	ND		1420	ND		ug/Kg	☼	NC	58 - 120
bis (2-chloroisopropyl) ether	ND	*+	1420	ND		ug/Kg	☼	NC	31 - 120
Bis(2-chloroethoxy)methane	ND		1420	ND		ug/Kg	☼	NC	52 - 120
Bis(2-chloroethyl)ether	ND		1420	ND		ug/Kg	☼	NC	45 - 120
Bis(2-ethylhexyl) phthalate	ND		1420	ND		ug/Kg	☼	NC	61 - 133
Butyl benzyl phthalate	ND		1420	ND		ug/Kg	☼	NC	61 - 120
Caprolactam	ND		2840	ND		ug/Kg	☼	NC	37 - 133
Carbazole	ND		1420	ND		ug/Kg	☼	NC	59 - 120
Chrysene	ND		1420	ND		ug/Kg	☼	NC	64 - 120
Dibenz(a,h)anthracene	ND		1420	ND		ug/Kg	☼	NC	54 - 132
Dibenzofuran	ND		1420	ND		ug/Kg	☼	NC	62 - 120
Diethyl phthalate	ND		1420	ND		ug/Kg	☼	NC	66 - 120
Dimethyl phthalate	ND		1420	ND		ug/Kg	☼	NC	65 - 124
Di-n-butyl phthalate	ND		1420	ND		ug/Kg	☼	NC	58 - 130
Di-n-octyl phthalate	ND		1420	3460	J	ug/Kg	☼	NC	57 - 133
Fluoranthene	ND		1420	ND		ug/Kg	☼	NC	62 - 120
Fluorene	ND		1420	ND		ug/Kg	☼	NC	63 - 120
Hexachlorobenzene	ND		1420	ND		ug/Kg	☼	NC	60 - 120
Hexachlorobutadiene	ND		1420	ND		ug/Kg	☼	NC	45 - 120
Hexachlorocyclopentadiene	ND		1420	ND		ug/Kg	☼	NC	31 - 120
Hexachloroethane	ND		1420	ND		ug/Kg	☼	NC	21 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-221655-1 MS
Matrix: Solid
Analysis Batch: 718832

Client Sample ID: SB-05-0.0-0.2-MS
Prep Type: Total/NA
Prep Batch: 718672

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Indeno[1,2,3-cd]pyrene	ND		1420	2440	J	ug/Kg	☼	NC	56 - 134
Isophorone	ND		1420	ND		ug/Kg	☼	NC	56 - 120
Naphthalene	ND		1420	ND		ug/Kg	☼	NC	46 - 120
Nitrobenzene	ND		1420	ND		ug/Kg	☼	NC	49 - 120
N-Nitrosodi-n-propylamine	ND		1420	ND		ug/Kg	☼	NC	46 - 120
Pentachlorophenol	ND		2840	ND		ug/Kg	☼	NC	10 - 136
Phenanthrene	ND		1420	ND		ug/Kg	☼	NC	60 - 122
Phenol	ND		1420	ND		ug/Kg	☼	NC	50 - 120
Pyrene	ND		1420	ND		ug/Kg	☼	NC	61 - 133

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol	*0*	*S1-*	*26 - 143*
2-Fluorobiphenyl	*94*		*50 - 121*
2-Fluorophenol	*0*	*S1-*	*36 - 120*
Nitrobenzene-d5	*107*		*40 - 121*
Phenol-d5	*189*	*S1+*	*41 - 120*
p-Terphenyl-d14	*127*		*46 - 143*

Lab Sample ID: 480-221655-1 MSD
Matrix: Solid
Analysis Batch: 718832

Client Sample ID: SB-05-0.0-0.2-MSD
Prep Type: Total/NA
Prep Batch: 718672

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4,5-Trichlorophenol	ND		1400	ND		ug/Kg	☼	NC	46 - 120	NC	18
2,4,6-Trichlorophenol	ND		1400	ND		ug/Kg	☼	NC	41 - 123	NC	19
2,4-Dichlorophenol	ND		1400	2550	J	ug/Kg	☼	NC	45 - 120	15	19
2,4-Dimethylphenol	ND		1400	ND		ug/Kg	☼	NC	52 - 120	NC	42
2,4-Dinitrophenol	ND		2810	ND		ug/Kg	☼	NC	41 - 146	NC	22
2,4-Dinitrotoluene	ND		1400	ND		ug/Kg	☼	NC	63 - 125	NC	20
2,6-Dinitrotoluene	ND		1400	3360	J	ug/Kg	☼	NC	66 - 120	4	15
2-Chloronaphthalene	ND		1400	ND		ug/Kg	☼	NC	57 - 120	NC	21
2-Chlorophenol	ND		1400	ND		ug/Kg	☼	NC	43 - 120	NC	25
2-Methylnaphthalene	ND		1400	ND		ug/Kg	☼	NC	55 - 120	NC	21
2-Methylphenol	ND		1400	ND		ug/Kg	☼	NC	48 - 120	NC	27
2-Nitroaniline	ND		1400	3430	J	ug/Kg	☼	NC	61 - 120	4	15
2-Nitrophenol	ND		1400	ND		ug/Kg	☼	NC	37 - 120	NC	18
3,3'-Dichlorobenzidine	ND		2810	ND		ug/Kg	☼	NC	37 - 126	NC	25
3-Nitroaniline	ND		1400	ND		ug/Kg	☼	NC	48 - 120	NC	19
4,6-Dinitro-2-methylphenol	ND		2810	ND		ug/Kg	☼	NC	23 - 149	NC	15
4-Bromophenyl phenyl ether	ND		1400	ND		ug/Kg	☼	NC	58 - 120	NC	15
4-Chloro-3-methylphenol	ND		1400	ND		ug/Kg	☼	NC	49 - 125	NC	27
4-Chloroaniline	ND		1400	ND		ug/Kg	☼	NC	38 - 120	NC	22
4-Chlorophenyl phenyl ether	ND		1400	ND		ug/Kg	☼	NC	63 - 124	NC	16
4-Methylphenol	ND	*+	1400	ND		ug/Kg	☼	NC	50 - 120	NC	24
4-Nitroaniline	ND		1400	ND		ug/Kg	☼	NC	47 - 120	NC	24
4-Nitrophenol	ND		2810	ND		ug/Kg	☼	NC	31 - 147	NC	25
Acenaphthene	ND		1400	ND		ug/Kg	☼	NC	60 - 120	NC	35
Acenaphthylene	ND		1400	ND		ug/Kg	☼	NC	58 - 121	NC	18

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-221655-1 MSD
Matrix: Solid
Analysis Batch: 718832

Client Sample ID: SB-05-0.0-0.2-MSD
Prep Type: Total/NA
Prep Batch: 718672

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetophenone	ND		1400	ND		ug/Kg	☼	NC	47 - 120	NC	20
Anthracene	ND		1400	ND		ug/Kg	☼	NC	62 - 120	NC	15
Atrazine	ND		2810	ND		ug/Kg	☼	NC	60 - 150	NC	20
Benzaldehyde	ND		2810	ND		ug/Kg	☼	NC	10 - 150	NC	20
Benzo[a]anthracene	ND		1400	ND		ug/Kg	☼	NC	65 - 120	NC	15
Benzo[a]pyrene	ND		1400	ND		ug/Kg	☼	NC	64 - 120	NC	15
Benzo[b]fluoranthene	ND	*+	1400	ND		ug/Kg	☼	NC	10 - 150	NC	15
Benzo[g,h,i]perylene	ND		1400	2180	J	ug/Kg	☼	NC	45 - 145	3	15
Benzo[k]fluoranthene	ND		1400	ND		ug/Kg	☼	NC	23 - 150	NC	22
Biphenyl	ND		1400	ND		ug/Kg	☼	NC	58 - 120	NC	20
bis (2-chloroisopropyl) ether	ND	*+	1400	ND		ug/Kg	☼	NC	31 - 120	NC	24
Bis(2-chloroethoxy)methane	ND		1400	ND		ug/Kg	☼	NC	52 - 120	NC	17
Bis(2-chloroethyl)ether	ND		1400	ND		ug/Kg	☼	NC	45 - 120	NC	21
Bis(2-ethylhexyl) phthalate	ND		1400	ND		ug/Kg	☼	NC	61 - 133	NC	15
Butyl benzyl phthalate	ND		1400	ND		ug/Kg	☼	NC	61 - 120	NC	16
Caprolactam	ND		2810	ND		ug/Kg	☼	NC	37 - 133	NC	20
Carbazole	ND		1400	ND		ug/Kg	☼	NC	59 - 120	NC	20
Chrysene	ND		1400	ND		ug/Kg	☼	NC	64 - 120	NC	15
Dibenz(a,h)anthracene	ND		1400	ND		ug/Kg	☼	NC	54 - 132	NC	15
Dibenzofuran	ND		1400	ND		ug/Kg	☼	NC	62 - 120	NC	15
Diethyl phthalate	ND		1400	ND		ug/Kg	☼	NC	66 - 120	NC	15
Dimethyl phthalate	ND		1400	ND		ug/Kg	☼	NC	65 - 124	NC	15
Di-n-butyl phthalate	ND		1400	ND		ug/Kg	☼	NC	58 - 130	NC	15
Di-n-octyl phthalate	ND		1400	3230	J	ug/Kg	☼	NC	57 - 133	7	16
Fluoranthene	ND		1400	ND		ug/Kg	☼	NC	62 - 120	NC	15
Fluorene	ND		1400	ND		ug/Kg	☼	NC	63 - 120	NC	15
Hexachlorobenzene	ND		1400	ND		ug/Kg	☼	NC	60 - 120	NC	15
Hexachlorobutadiene	ND		1400	ND		ug/Kg	☼	NC	45 - 120	NC	44
Hexachlorocyclopentadiene	ND		1400	ND		ug/Kg	☼	NC	31 - 120	NC	49
Hexachloroethane	ND		1400	ND		ug/Kg	☼	NC	21 - 120	NC	46
Indeno[1,2,3-cd]pyrene	ND		1400	ND		ug/Kg	☼	NC	56 - 134	NC	15
Isophorone	ND		1400	ND		ug/Kg	☼	NC	56 - 120	NC	17
Naphthalene	ND		1400	ND		ug/Kg	☼	NC	46 - 120	NC	29
Nitrobenzene	ND		1400	ND		ug/Kg	☼	NC	49 - 120	NC	24
N-Nitrosodi-n-propylamine	ND		1400	ND		ug/Kg	☼	NC	46 - 120	NC	31
Pentachlorophenol	ND		2810	ND		ug/Kg	☼	NC	10 - 136	NC	35
Phenanthrene	ND		1400	ND		ug/Kg	☼	NC	60 - 122	NC	15
Phenol	ND		1400	2720	J	ug/Kg	☼	NC	50 - 120	NC	35
Pyrene	ND		1400	ND		ug/Kg	☼	NC	61 - 133	NC	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*218*	*S1+*	*26 - 143*
2-Fluorobiphenyl	*83*		*50 - 121*
2-Fluorophenol	*91*		*36 - 120*
Nitrobenzene-d5	*81*		*40 - 121*
Phenol-d5	*202*	*S1+*	*41 - 120*
p-Terphenyl-d14	*103*		*46 - 143*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 480-718655/1-A
Matrix: Solid
Analysis Batch: 718686

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718655

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1.7	0.32	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
4,4'-DDE	ND		1.7	0.35	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
4,4'-DDT	ND		1.7	0.39	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
Aldrin	ND		1.7	0.41	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
alpha-BHC	ND		1.7	0.30	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
cis-Chlordane	ND		1.7	0.83	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
beta-BHC	ND		1.7	0.30	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
delta-BHC	ND		1.7	0.31	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
Dieldrin	ND		1.7	0.40	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
Endosulfan I	ND		1.7	0.32	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
Endosulfan II	ND		1.7	0.30	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
Endosulfan sulfate	ND		1.7	0.31	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
Endrin	ND		1.7	0.33	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
Endrin aldehyde	ND		1.7	0.43	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
Endrin ketone	ND		1.7	0.41	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
gamma-BHC (Lindane)	ND		1.7	0.31	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
trans-Chlordane	ND		1.7	0.53	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
Heptachlor	ND		1.7	0.36	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
Heptachlor epoxide	ND		1.7	0.43	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
Methoxychlor	ND		1.7	0.34	ug/Kg		07/16/24 16:34	07/17/24 11:22	1
Toxaphene	ND		17	9.7	ug/Kg		07/16/24 16:34	07/17/24 11:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*56*		*45 - 120*	*07/16/24 16:34*	*07/17/24 11:22*	*1*
DCB Decachlorobiphenyl	*63*		*45 - 120*	*07/16/24 16:34*	*07/17/24 11:22*	*1*
Tetrachloro-m-xylene	*52*		*30 - 124*	*07/16/24 16:34*	*07/17/24 11:22*	*1*
Tetrachloro-m-xylene	*57*		*30 - 124*	*07/16/24 16:34*	*07/17/24 11:22*	*1*

Lab Sample ID: LCS 480-718655/2-A
Matrix: Solid
Analysis Batch: 718686

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718655

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	16.7	13.8		ug/Kg		83	56 - 120
4,4'-DDE	16.7	12.2		ug/Kg		73	44 - 120
4,4'-DDT	16.7	15.2		ug/Kg		91	38 - 120
Aldrin	16.7	11.2		ug/Kg		67	38 - 120
alpha-BHC	16.7	8.32		ug/Kg		50	39 - 120
cis-Chlordane	16.7	11.0		ug/Kg		66	47 - 120
beta-BHC	16.7	11.8		ug/Kg		71	40 - 120
delta-BHC	16.7	10.1		ug/Kg		61	45 - 120
Dieldrin	16.7	13.7		ug/Kg		82	58 - 120
Endosulfan I	16.7	11.9		ug/Kg		72	49 - 120
Endosulfan II	16.7	14.9		ug/Kg		89	55 - 120
Endosulfan sulfate	16.7	13.7		ug/Kg		82	49 - 124
Endrin	16.7	13.6		ug/Kg		81	58 - 120
Endrin aldehyde	16.7	9.65		ug/Kg		58	37 - 121
Endrin ketone	16.7	15.6		ug/Kg		94	46 - 123

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 480-718655/2-A
Matrix: Solid
Analysis Batch: 718686

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718655

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
gamma-BHC (Lindane)	16.7	9.77		ug/Kg		59	50 - 120
trans-Chlordane	16.7	12.6		ug/Kg		76	48 - 120
Heptachlor	16.7	13.4		ug/Kg		81	50 - 120
Heptachlor epoxide	16.7	14.7		ug/Kg		88	50 - 120
Methoxychlor	16.7	17.1		ug/Kg		103	58 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*59*		*45 - 120*
DCB Decachlorobiphenyl	*66*		*45 - 120*
Tetrachloro-m-xylene	*58*		*30 - 124*
Tetrachloro-m-xylene	*64*		*30 - 124*

Lab Sample ID: 480-221655-1 MS
Matrix: Solid
Analysis Batch: 718686

Client Sample ID: SB-05-0.0-0.2-MS
Prep Type: Total/NA
Prep Batch: 718655

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	ND	F1	17.7	ND	F1	ug/Kg	☼	0	37 - 126
4,4'-DDE	ND		17.7	ND		ug/Kg	☼	NC	34 - 120
4,4'-DDT	ND		17.7	24.4	J	ug/Kg	☼	NC	43 - 123
Aldrin	ND		17.7	ND		ug/Kg	☼	NC	37 - 125
alpha-BHC	ND	F1	17.7	ND	F1	ug/Kg	☼	0	39 - 120
cis-Chlordane	ND		17.7	ND		ug/Kg	☼	NC	35 - 120
beta-BHC	ND	F1	17.7	ND	F1	ug/Kg	☼	0	36 - 120
delta-BHC	ND	F1	17.7	ND	F1	ug/Kg	☼	0	34 - 120
Dieldrin	ND		17.7	ND		ug/Kg	☼	NC	45 - 120
Endosulfan I	ND	F1	17.7	ND	F1	ug/Kg	☼	0	39 - 120
Endosulfan II	ND	F1	17.7	ND	F1	ug/Kg	☼	0	34 - 126
Endosulfan sulfate	ND	F1	17.7	ND	F1	ug/Kg	☼	0	27 - 130
Endrin	ND	F1	17.7	ND		ug/Kg	☼	NC	47 - 121
Endrin aldehyde	ND		17.7	ND		ug/Kg	☼	NC	33 - 123
Endrin ketone	ND		17.7	ND		ug/Kg	☼	NC	43 - 126
gamma-BHC (Lindane)	ND	F1	17.7	ND	F1	ug/Kg	☼	0	50 - 120
trans-Chlordane	ND		17.7	ND		ug/Kg	☼	NC	31 - 120
Heptachlor	ND		17.7	ND		ug/Kg	☼	NC	42 - 120
Heptachlor epoxide	ND		17.7	ND		ug/Kg	☼	NC	40 - 120
Methoxychlor	ND		17.7	ND		ug/Kg	☼	NC	44 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 480-221655-1 MSD
Matrix: Solid
Analysis Batch: 718686

Client Sample ID: SB-05-0.0-0.2-MSD
Prep Type: Total/NA
Prep Batch: 718655

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	ND	F1	17.4	ND	F1	ug/Kg	☼	0	37 - 126	NC	21
4,4'-DDE	ND		17.4	ND		ug/Kg	☼	NC	34 - 120	NC	18
4,4'-DDT	ND		17.4	30.3	J	ug/Kg	☼	NC	43 - 123	22	25
Aldrin	ND		17.4	ND		ug/Kg	☼	NC	37 - 125	NC	12
alpha-BHC	ND	F1	17.4	ND	F1	ug/Kg	☼	0	39 - 120	NC	15
cis-Chlordane	ND		17.4	ND		ug/Kg	☼	NC	35 - 120	NC	23
beta-BHC	ND	F1	17.4	ND	F1	ug/Kg	☼	0	36 - 120	NC	19
delta-BHC	ND	F1	17.4	ND	F1	ug/Kg	☼	0	34 - 120	NC	14
Dieldrin	ND		17.4	ND		ug/Kg	☼	NC	45 - 120	NC	12
Endosulfan I	ND	F1	17.4	ND	F1	ug/Kg	☼	0	39 - 120	NC	18
Endosulfan II	ND	F1	17.4	ND	F1	ug/Kg	☼	0	34 - 126	NC	26
Endosulfan sulfate	ND	F1	17.4	ND	F1	ug/Kg	☼	0	27 - 130	NC	35
Endrin	ND	F1	17.4	ND	F1	ug/Kg	☼	0	47 - 121	NC	20
Endrin aldehyde	ND		17.4	ND		ug/Kg	☼	NC	33 - 123	NC	47
Endrin ketone	ND		17.4	ND		ug/Kg	☼	NC	43 - 126	NC	37
gamma-BHC (Lindane)	ND	F1	17.4	ND	F1	ug/Kg	☼	0	50 - 120	NC	12
trans-Chlordane	ND		17.4	ND		ug/Kg	☼	NC	31 - 120	NC	15
Heptachlor	ND		17.4	ND		ug/Kg	☼	NC	42 - 120	NC	22
Heptachlor epoxide	ND		17.4	ND		ug/Kg	☼	NC	40 - 120	NC	15
Methoxychlor	ND		17.4	ND		ug/Kg	☼	NC	44 - 150	NC	24

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 480-718656/1-A
Matrix: Solid
Analysis Batch: 718748

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718656

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.25	0.049	mg/Kg		07/16/24 16:39	07/17/24 22:16	1
PCB-1221	ND		0.25	0.049	mg/Kg		07/16/24 16:39	07/17/24 22:16	1
PCB-1232	ND		0.25	0.049	mg/Kg		07/16/24 16:39	07/17/24 22:16	1
PCB-1242	ND		0.25	0.049	mg/Kg		07/16/24 16:39	07/17/24 22:16	1
PCB-1248	ND		0.25	0.049	mg/Kg		07/16/24 16:39	07/17/24 22:16	1
PCB-1254	ND		0.25	0.12	mg/Kg		07/16/24 16:39	07/17/24 22:16	1
PCB-1260	ND		0.25	0.12	mg/Kg		07/16/24 16:39	07/17/24 22:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*114*		*60 - 154*	*07/16/24 16:39*	*07/17/24 22:16*	*1*
Tetrachloro-m-xylene	*100*		*60 - 154*	*07/16/24 16:39*	*07/17/24 22:16*	*1*
DCB Decachlorobiphenyl	*106*		*65 - 174*	*07/16/24 16:39*	*07/17/24 22:16*	*1*
DCB Decachlorobiphenyl	*122*		*65 - 174*	*07/16/24 16:39*	*07/17/24 22:16*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 480-718656/2-A
Matrix: Solid
Analysis Batch: 718748

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718656

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
PCB-1016			2.50	2.65		mg/Kg		106	51 - 185		
PCB-1260			2.50	2.88		mg/Kg		115	61 - 184		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*128*		*60 - 154*
Tetrachloro-m-xylene	*111*		*60 - 154*
DCB Decachlorobiphenyl	*117*		*65 - 174*
DCB Decachlorobiphenyl	*133*		*65 - 174*

Lab Sample ID: 480-221655-1 MS
Matrix: Solid
Analysis Batch: 718748

Client Sample ID: SB-05-0.0-0.2-MS
Prep Type: Total/NA
Prep Batch: 718656

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
PCB-1016	ND		2.18	1.61		mg/Kg	☼	74	50 - 177		
PCB-1260	ND		2.18	1.85		mg/Kg	☼	85	33 - 200		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*114*		*60 - 154*
Tetrachloro-m-xylene	*100*		*60 - 154*
DCB Decachlorobiphenyl	*98*		*65 - 174*
DCB Decachlorobiphenyl	*102*		*65 - 174*

Lab Sample ID: 480-221655-1 MSD
Matrix: Solid
Analysis Batch: 718748

Client Sample ID: SB-05-0.0-0.2-MSD
Prep Type: Total/NA
Prep Batch: 718656

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016	ND		2.29	1.77		mg/Kg	☼	77	50 - 177	9	50
PCB-1260	ND		2.29	2.03		mg/Kg	☼	89	33 - 200	10	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*103*		*60 - 154*
Tetrachloro-m-xylene	*92*		*60 - 154*
DCB Decachlorobiphenyl	*91*		*65 - 174*
DCB Decachlorobiphenyl	*94*		*65 - 174*

Method: 6010C - Metals (ICP)

Lab Sample ID: 480-221655-1 MS
Matrix: Solid
Analysis Batch: 718761

Client Sample ID: SB-05-0.0-0.2-MS
Prep Type: Total/NA
Prep Batch: 718577

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Aluminum	12300	F2	1120	21580	4	mg/Kg	☼	835	75 - 125		
Antimony	2.1	J F1 F2	109	59.06	F1	mg/Kg	☼	52	75 - 125		
Arsenic	8.6		219	200.1		mg/Kg	☼	88	75 - 125		
Barium	78.2		219	307.4		mg/Kg	☼	105	75 - 125		

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-221655-1 MS
Matrix: Solid
Analysis Batch: 718761

Client Sample ID: SB-05-0.0-0.2-MS
Prep Type: Total/NA
Prep Batch: 718577

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Beryllium	1.1		109	100.8		mg/Kg	☼	91	75 - 125
Cadmium	1.2		109	103.7		mg/Kg	☼	94	75 - 125
Calcium	55200	F2	5470	44330	4	mg/Kg	☼	-199	75 - 125
Chromium	24.5		109	124.7		mg/Kg	☼	92	75 - 125
Cobalt	7.9		109	125.1		mg/Kg	☼	107	75 - 125
Copper	27.3		109	130.9		mg/Kg	☼	95	75 - 125
Iron	20800	F2	1120	21970	4	mg/Kg	☼	103	75 - 125
Lead	93.6	F1	109	174.9	F1	mg/Kg	☼	74	75 - 125
Magnesium	31900	F2	5470	28980	4	mg/Kg	☼	-53	75 - 125
Manganese	465		109	703.1	4	mg/Kg	☼	218	75 - 125
Nickel	19.7		109	118.5		mg/Kg	☼	90	75 - 125
Potassium	2540	F1	5470	10240	F1	mg/Kg	☼	141	75 - 125
Selenium	1.3	J	219	179.3		mg/Kg	☼	81	75 - 125
Silver	ND		10.9	10.31		mg/Kg	☼	94	75 - 125
Sodium	293		5470	5285		mg/Kg	☼	91	75 - 125
Thallium	ND		219	229.5		mg/Kg	☼	105	75 - 125
Vanadium	31.0		109	143.0		mg/Kg	☼	102	75 - 125
Zinc	223	F2 F1	109	416.3	F1	mg/Kg	☼	177	75 - 125

Lab Sample ID: 480-221655-1 MSD
Matrix: Solid
Analysis Batch: 718761

Client Sample ID: SB-05-0.0-0.2-MSD
Prep Type: Total/NA
Prep Batch: 718577

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	12300	F2	1160	16610	4 F2	mg/Kg	☼	374	75 - 125	26	20
Antimony	2.1	J F1 F2	114	73.24	F1 F2	mg/Kg	☼	63	75 - 125	21	20
Arsenic	8.6		228	211.1		mg/Kg	☼	89	75 - 125	5	20
Barium	78.2		228	305.7		mg/Kg	☼	100	75 - 125	1	20
Beryllium	1.1		114	103.2		mg/Kg	☼	90	75 - 125	2	20
Cadmium	1.2		114	106.6		mg/Kg	☼	93	75 - 125	3	20
Calcium	55200	F2	5690	79970	E 4 F2	mg/Kg	☼	435	75 - 125	57	20
Chromium	24.5		114	130.0		mg/Kg	☼	93	75 - 125	4	20
Cobalt	7.9		114	125.3		mg/Kg	☼	103	75 - 125	0	20
Copper	27.3		114	155.2		mg/Kg	☼	112	75 - 125	17	20
Iron	20800	F2	1160	32740	4 F2	mg/Kg	☼	1027	75 - 125	39	20
Lead	93.6	F1	114	202.8		mg/Kg	☼	96	75 - 125	15	20
Magnesium	31900	F2	5690	50450	4 F2	mg/Kg	☼	327	75 - 125	54	20
Manganese	465		114	653.5	4	mg/Kg	☼	166	75 - 125	7	20
Nickel	19.7		114	125.3		mg/Kg	☼	93	75 - 125	6	20
Potassium	2540	F1	5690	8548		mg/Kg	☼	106	75 - 125	18	20
Selenium	1.3	J	228	183.2		mg/Kg	☼	80	75 - 125	2	20
Silver	ND		11.4	10.70		mg/Kg	☼	94	75 - 125	4	20
Sodium	293		5690	5716		mg/Kg	☼	95	75 - 125	8	20
Thallium	ND		228	230.2		mg/Kg	☼	101	75 - 125	0	20
Vanadium	31.0		114	139.4		mg/Kg	☼	95	75 - 125	3	20
Zinc	223	F2 F1	114	1617	F1 F2	mg/Kg	☼	1225	75 - 125	118	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 480-718647/1-A
Matrix: Solid
Analysis Batch: 718726

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718647

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.0045	mg/Kg		07/17/24 08:25	07/17/24 10:05	1

Lab Sample ID: LCSSRM 480-718647/2-A ^10
Matrix: Solid
Analysis Batch: 718726

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718647

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			19.1	19.66		mg/Kg		102.9	59.7 - 139.8		

Lab Sample ID: 480-221655-1 MS
Matrix: Solid
Analysis Batch: 718726

Client Sample ID: SB-05-0.0-0.2-MS
Prep Type: Total/NA
Prep Batch: 718647

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury	0.031		0.363	0.395		mg/Kg	☼	100	80 - 120		

Lab Sample ID: 480-221655-1 MSD
Matrix: Solid
Analysis Batch: 718726

Client Sample ID: SB-05-0.0-0.2-MSD
Prep Type: Total/NA
Prep Batch: 718647

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.031		0.356	0.385		mg/Kg	☼	100	80 - 120	3	20

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 480-719044/1-A
Matrix: Solid
Analysis Batch: 719060

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 719044

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.92	0.45	mg/Kg		07/19/24 13:18	07/19/24 15:27	1

Lab Sample ID: LCS 480-719044/3-A
Matrix: Solid
Analysis Batch: 719060

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 719044

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total			0.400	0.415		mg/Kg		104	29 - 122		

Lab Sample ID: LCS 480-719044/4-A
Matrix: Solid
Analysis Batch: 719060

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 719044

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total			0.250	0.260		mg/Kg		104	29 - 122		

Method: 9012B - Cyanide, Total andor Amenable (Continued)

Lab Sample ID: LCSSRM 480-719044/2-A ^10
Matrix: Solid
Analysis Batch: 719060

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 719044

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total			154	43.10		mg/Kg		28.0	20.6 - 120.8		

Lab Sample ID: 480-221655-1 MS
Matrix: Solid
Analysis Batch: 719060

Client Sample ID: SB-05-0.0-0.2-MS
Prep Type: Total/NA
Prep Batch: 719044

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total	ND	F1	1.26	0.802	J F1	mg/Kg	☼	64	85 - 115		

Lab Sample ID: 480-221655-1 MSD
Matrix: Solid
Analysis Batch: 719060

Client Sample ID: SB-05-0.0-0.2-MSD
Prep Type: Total/NA
Prep Batch: 719044

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyanide, Total	ND	F1	1.26	ND	F1	mg/Kg	☼	0	85 - 115	NC	15

QC Association Summary

Client: Ashland LLC
Job ID: 480-221655-1
Project/Site: Tank 75 - Soil Analysis

GC/MS VOA

Prep Batch: 718658

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221655-2	SB-05-27.0-29.0	Total/NA	Solid	5035A_L	
480-221655-3	SB-05-32.0-33.0	Total/NA	Solid	5035A_L	
MB 480-718658/2-A	Method Blank	Total/NA	Solid	5035A_L	
LCS 480-718658/1-A	Lab Control Sample	Total/NA	Solid	5035A_L	

Analysis Batch: 718659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221655-2	SB-05-27.0-29.0	Total/NA	Solid	8260C	718658
480-221655-3	SB-05-32.0-33.0	Total/NA	Solid	8260C	718658
MB 480-718658/2-A	Method Blank	Total/NA	Solid	8260C	718658
LCS 480-718658/1-A	Lab Control Sample	Total/NA	Solid	8260C	718658

GC/MS Semi VOA

Prep Batch: 718672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221655-1	SB-05-0.0-0.2	Total/NA	Solid	3550C	
480-221655-2	SB-05-27.0-29.0	Total/NA	Solid	3550C	
480-221655-3	SB-05-32.0-33.0	Total/NA	Solid	3550C	
480-221655-4	SB-03-0.0-0.2	Total/NA	Solid	3550C	
MB 480-718672/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-718672/2-A	Lab Control Sample	Total/NA	Solid	3550C	
480-221655-1 MS	SB-05-0.0-0.2-MS	Total/NA	Solid	3550C	
480-221655-1 MSD	SB-05-0.0-0.2-MSD	Total/NA	Solid	3550C	

Analysis Batch: 718832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221655-1	SB-05-0.0-0.2	Total/NA	Solid	8270D	718672
480-221655-2	SB-05-27.0-29.0	Total/NA	Solid	8270D	718672
480-221655-3	SB-05-32.0-33.0	Total/NA	Solid	8270D	718672
480-221655-4	SB-03-0.0-0.2	Total/NA	Solid	8270D	718672
MB 480-718672/1-A	Method Blank	Total/NA	Solid	8270D	718672
LCS 480-718672/2-A	Lab Control Sample	Total/NA	Solid	8270D	718672
480-221655-1 MS	SB-05-0.0-0.2-MS	Total/NA	Solid	8270D	718672
480-221655-1 MSD	SB-05-0.0-0.2-MSD	Total/NA	Solid	8270D	718672

GC Semi VOA

Prep Batch: 718655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221655-1	SB-05-0.0-0.2	Total/NA	Solid	3550C	
480-221655-2	SB-05-27.0-29.0	Total/NA	Solid	3550C	
480-221655-3	SB-05-32.0-33.0	Total/NA	Solid	3550C	
480-221655-4	SB-03-0.0-0.2	Total/NA	Solid	3550C	
MB 480-718655/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-718655/2-A	Lab Control Sample	Total/NA	Solid	3550C	
480-221655-1 MS	SB-05-0.0-0.2-MS	Total/NA	Solid	3550C	
480-221655-1 MSD	SB-05-0.0-0.2-MSD	Total/NA	Solid	3550C	

Prep Batch: 718656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221655-1	SB-05-0.0-0.2	Total/NA	Solid	3550C	

GC Semi VOA (Continued)

Prep Batch: 718656 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221655-2	SB-05-27.0-29.0	Total/NA	Solid	3550C	
480-221655-3	SB-05-32.0-33.0	Total/NA	Solid	3550C	
480-221655-4	SB-03-0.0-0.2	Total/NA	Solid	3550C	
MB 480-718656/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-718656/2-A	Lab Control Sample	Total/NA	Solid	3550C	
480-221655-1 MS	SB-05-0.0-0.2-MS	Total/NA	Solid	3550C	
480-221655-1 MSD	SB-05-0.0-0.2-MSD	Total/NA	Solid	3550C	

Analysis Batch: 718686

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221655-1	SB-05-0.0-0.2	Total/NA	Solid	8081B	718655
480-221655-2	SB-05-27.0-29.0	Total/NA	Solid	8081B	718655
480-221655-3	SB-05-32.0-33.0	Total/NA	Solid	8081B	718655
480-221655-4	SB-03-0.0-0.2	Total/NA	Solid	8081B	718655
MB 480-718655/1-A	Method Blank	Total/NA	Solid	8081B	718655
LCS 480-718655/2-A	Lab Control Sample	Total/NA	Solid	8081B	718655
480-221655-1 MS	SB-05-0.0-0.2-MS	Total/NA	Solid	8081B	718655
480-221655-1 MSD	SB-05-0.0-0.2-MSD	Total/NA	Solid	8081B	718655

Analysis Batch: 718748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221655-1	SB-05-0.0-0.2	Total/NA	Solid	8082A	718656
480-221655-2	SB-05-27.0-29.0	Total/NA	Solid	8082A	718656
480-221655-3	SB-05-32.0-33.0	Total/NA	Solid	8082A	718656
480-221655-4	SB-03-0.0-0.2	Total/NA	Solid	8082A	718656
MB 480-718656/1-A	Method Blank	Total/NA	Solid	8082A	718656
LCS 480-718656/2-A	Lab Control Sample	Total/NA	Solid	8082A	718656
480-221655-1 MS	SB-05-0.0-0.2-MS	Total/NA	Solid	8082A	718656
480-221655-1 MSD	SB-05-0.0-0.2-MSD	Total/NA	Solid	8082A	718656

Metals

Prep Batch: 718577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221655-1	SB-05-0.0-0.2	Total/NA	Solid	3050B	
480-221655-2	SB-05-27.0-29.0	Total/NA	Solid	3050B	
480-221655-3	SB-05-32.0-33.0	Total/NA	Solid	3050B	
480-221655-4	SB-03-0.0-0.2	Total/NA	Solid	3050B	
480-221655-1 MS	SB-05-0.0-0.2-MS	Total/NA	Solid	3050B	
480-221655-1 MSD	SB-05-0.0-0.2-MSD	Total/NA	Solid	3050B	

Prep Batch: 718647

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221655-1	SB-05-0.0-0.2	Total/NA	Solid	7471B	
480-221655-2	SB-05-27.0-29.0	Total/NA	Solid	7471B	
480-221655-3	SB-05-32.0-33.0	Total/NA	Solid	7471B	
480-221655-4	SB-03-0.0-0.2	Total/NA	Solid	7471B	
MB 480-718647/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 480-718647/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	
480-221655-1 MS	SB-05-0.0-0.2-MS	Total/NA	Solid	7471B	
480-221655-1 MSD	SB-05-0.0-0.2-MSD	Total/NA	Solid	7471B	

Metals

Analysis Batch: 718726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221655-1	SB-05-0.0-0.2	Total/NA	Solid	7471B	718647
480-221655-2	SB-05-27.0-29.0	Total/NA	Solid	7471B	718647
480-221655-3	SB-05-32.0-33.0	Total/NA	Solid	7471B	718647
480-221655-4	SB-03-0.0-0.2	Total/NA	Solid	7471B	718647
MB 480-718647/1-A	Method Blank	Total/NA	Solid	7471B	718647
LCSSRM 480-718647/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	718647
480-221655-1 MS	SB-05-0.0-0.2-MS	Total/NA	Solid	7471B	718647
480-221655-1 MSD	SB-05-0.0-0.2-MSD	Total/NA	Solid	7471B	718647

Analysis Batch: 718761

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221655-1	SB-05-0.0-0.2	Total/NA	Solid	6010C	718577
480-221655-2	SB-05-27.0-29.0	Total/NA	Solid	6010C	718577
480-221655-3	SB-05-32.0-33.0	Total/NA	Solid	6010C	718577
480-221655-4	SB-03-0.0-0.2	Total/NA	Solid	6010C	718577
480-221655-1 MS	SB-05-0.0-0.2-MS	Total/NA	Solid	6010C	718577
480-221655-1 MSD	SB-05-0.0-0.2-MSD	Total/NA	Solid	6010C	718577

General Chemistry

Analysis Batch: 718629

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221655-1	SB-05-0.0-0.2	Total/NA	Solid	Moisture	
480-221655-2	SB-05-27.0-29.0	Total/NA	Solid	Moisture	
480-221655-3	SB-05-32.0-33.0	Total/NA	Solid	Moisture	
480-221655-4	SB-03-0.0-0.2	Total/NA	Solid	Moisture	
480-221655-1 MS	SB-05-0.0-0.2-MS	Total/NA	Solid	Moisture	
480-221655-1 MSD	SB-05-0.0-0.2-MSD	Total/NA	Solid	Moisture	

Prep Batch: 719044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221655-1	SB-05-0.0-0.2	Total/NA	Solid	9012B	
480-221655-2	SB-05-27.0-29.0	Total/NA	Solid	9012B	
480-221655-3	SB-05-32.0-33.0	Total/NA	Solid	9012B	
480-221655-4	SB-03-0.0-0.2	Total/NA	Solid	9012B	
MB 480-719044/1-A	Method Blank	Total/NA	Solid	9012B	
LCS 480-719044/3-A	Lab Control Sample	Total/NA	Solid	9012B	
LCS 480-719044/4-A	Lab Control Sample	Total/NA	Solid	9012B	
LCSSRM 480-719044/2-A ^1	Lab Control Sample	Total/NA	Solid	9012B	
480-221655-1 MS	SB-05-0.0-0.2-MS	Total/NA	Solid	9012B	
480-221655-1 MSD	SB-05-0.0-0.2-MSD	Total/NA	Solid	9012B	

Analysis Batch: 719060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-221655-1	SB-05-0.0-0.2	Total/NA	Solid	9012B	719044
480-221655-2	SB-05-27.0-29.0	Total/NA	Solid	9012B	719044
480-221655-3	SB-05-32.0-33.0	Total/NA	Solid	9012B	719044
480-221655-4	SB-03-0.0-0.2	Total/NA	Solid	9012B	719044
MB 480-719044/1-A	Method Blank	Total/NA	Solid	9012B	719044
LCS 480-719044/3-A	Lab Control Sample	Total/NA	Solid	9012B	719044
LCS 480-719044/4-A	Lab Control Sample	Total/NA	Solid	9012B	719044

General Chemistry (Continued)

Analysis Batch: 719060 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSSRM 480-719044/2-A ^1	Lab Control Sample	Total/NA	Solid	9012B	719044
480-221655-1 MS	SB-05-0.0-0.2-MS	Total/NA	Solid	9012B	719044
480-221655-1 MSD	SB-05-0.0-0.2-MSD	Total/NA	Solid	9012B	719044

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 - Soil Analysis

Job ID: 480-221655-1

Client Sample ID: SB-05-0.0-0.2

Lab Sample ID: 480-221655-1
Date Collected: 07/15/24 09:35
Matrix: Solid
Date Received: 07/15/24 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	718629	EMD	EET BUF	07/16/24 13:57

Client Sample ID: SB-05-0.0-0.2

Lab Sample ID: 480-221655-1
Date Collected: 07/15/24 09:35
Matrix: Solid
Date Received: 07/15/24 15:57
Percent Solids: 93.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			718672	DP	EET BUF	07/17/24 07:16
Total/NA	Analysis	8270D		10	718832	EMD	EET BUF	07/18/24 18:23
Total/NA	Prep	3550C			718655	SJM	EET BUF	07/16/24 16:34
Total/NA	Analysis	8081B		50	718686	JLS	EET BUF	07/17/24 12:41
Total/NA	Prep	3550C			718656	SJM	EET BUF	07/16/24 16:39
Total/NA	Analysis	8082A		1	718748	W1T	EET BUF	07/17/24 23:23
Total/NA	Prep	3050B			718577	ET	EET BUF	07/16/24 13:38
Total/NA	Analysis	6010C		1	718761	NZG	EET BUF	07/17/24 14:22
Total/NA	Prep	7471B			718647	ESB	EET BUF	07/17/24 08:25
Total/NA	Analysis	7471B		1	718726	ESB	EET BUF	07/17/24 10:12
Total/NA	Prep	9012B			719044	AM	EET BUF	07/19/24 13:18
Total/NA	Analysis	9012B		1	719060	AM	EET BUF	07/19/24 15:34

Client Sample ID: SB-05-27.0-29.0

Lab Sample ID: 480-221655-2
Date Collected: 07/15/24 11:45
Matrix: Solid
Date Received: 07/15/24 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	718629	EMD	EET BUF	07/16/24 13:57

Client Sample ID: SB-05-27.0-29.0

Lab Sample ID: 480-221655-2
Date Collected: 07/15/24 11:45
Matrix: Solid
Date Received: 07/15/24 15:57
Percent Solids: 84.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			718658	CDC	EET BUF	07/16/24 10:00
Total/NA	Analysis	8260C		1	718659	CDC	EET BUF	07/17/24 02:06
Total/NA	Prep	3550C			718672	DP	EET BUF	07/17/24 07:16
Total/NA	Analysis	8270D		1	718832	EMD	EET BUF	07/18/24 18:51
Total/NA	Prep	3550C			718655	SJM	EET BUF	07/16/24 16:34
Total/NA	Analysis	8081B		1	718686	JLS	EET BUF	07/17/24 13:59
Total/NA	Prep	3550C			718656	SJM	EET BUF	07/16/24 16:39
Total/NA	Analysis	8082A		1	718748	W1T	EET BUF	07/18/24 00:30
Total/NA	Prep	3050B			718577	ET	EET BUF	07/16/24 13:38
Total/NA	Analysis	6010C		1	718761	NZG	EET BUF	07/17/24 14:28
Total/NA	Prep	7471B			718647	ESB	EET BUF	07/17/24 08:25
Total/NA	Analysis	7471B		1	718726	ESB	EET BUF	07/17/24 10:17

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 - Soil Analysis

Job ID: 480-221655-1

Client Sample ID: SB-05-27.0-29.0

Lab Sample ID: 480-221655-2
Date Collected: 07/15/24 11:45
Matrix: Solid
Date Received: 07/15/24 15:57
Percent Solids: 84.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	9012B			719044	AM	EET BUF	07/19/24 13:18
Total/NA	Analysis	9012B		1	719060	AM	EET BUF	07/19/24 15:38

Client Sample ID: SB-05-32.0-33.0

Lab Sample ID: 480-221655-3
Date Collected: 07/15/24 12:10
Matrix: Solid
Date Received: 07/15/24 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	718629	EMD	EET BUF	07/16/24 13:57

Client Sample ID: SB-05-32.0-33.0

Lab Sample ID: 480-221655-3
Date Collected: 07/15/24 12:10
Matrix: Solid
Date Received: 07/15/24 15:57
Percent Solids: 83.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			718658	CDC	EET BUF	07/16/24 10:00
Total/NA	Analysis	8260C		1	718659	CDC	EET BUF	07/17/24 02:29
Total/NA	Prep	3550C			718672	DP	EET BUF	07/17/24 07:16
Total/NA	Analysis	8270D		1	718832	EMD	EET BUF	07/18/24 19:18
Total/NA	Prep	3550C			718655	SJM	EET BUF	07/16/24 16:34
Total/NA	Analysis	8081B		1	718686	JLS	EET BUF	07/17/24 14:19
Total/NA	Prep	3550C			718656	SJM	EET BUF	07/16/24 16:39
Total/NA	Analysis	8082A		1	718748	W1T	EET BUF	07/18/24 00:47
Total/NA	Prep	3050B			718577	ET	EET BUF	07/16/24 13:38
Total/NA	Analysis	6010C		1	718761	NZG	EET BUF	07/17/24 14:30
Total/NA	Prep	7471B			718647	ESB	EET BUF	07/17/24 08:25
Total/NA	Analysis	7471B		1	718726	ESB	EET BUF	07/17/24 10:21
Total/NA	Prep	9012B			719044	AM	EET BUF	07/19/24 13:18
Total/NA	Analysis	9012B		1	719060	AM	EET BUF	07/19/24 15:40

Client Sample ID: SB-03-0.0-0.2

Lab Sample ID: 480-221655-4
Date Collected: 07/15/24 12:20
Matrix: Solid
Date Received: 07/15/24 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	718629	EMD	EET BUF	07/16/24 13:57

Client Sample ID: SB-03-0.0-0.2

Lab Sample ID: 480-221655-4
Date Collected: 07/15/24 12:20
Matrix: Solid
Date Received: 07/15/24 15:57
Percent Solids: 89.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			718672	DP	EET BUF	07/17/24 07:16
Total/NA	Analysis	8270D		10	718832	EMD	EET BUF	07/18/24 19:46
Total/NA	Prep	3550C			718655	SJM	EET BUF	07/16/24 16:34
Total/NA	Analysis	8081B		20	718686	JLS	EET BUF	07/17/24 14:38

Lab Chronicle

Client: Ashland LLC
Job ID: 480-221655-1
Project/Site: Tank 75 - Soil Analysis

Client Sample ID: SB-03-0.0-0.2
Date Collected: 07/15/24 12:20
Date Received: 07/15/24 15:57

Lab Sample ID: 480-221655-4
Matrix: Solid
Percent Solids: 89.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			718656	SJM	EET BUF	07/16/24 16:39
Total/NA	Analysis	8082A		1	718748	W1T	EET BUF	07/18/24 01:04
Total/NA	Prep	3050B			718577	ET	EET BUF	07/16/24 13:38
Total/NA	Analysis	6010C		1	718761	NZG	EET BUF	07/17/24 14:31
Total/NA	Prep	7471B			718647	ESB	EET BUF	07/17/24 08:25
Total/NA	Analysis	7471B		1	718726	ESB	EET BUF	07/17/24 10:22
Total/NA	Prep	9012B			719044	AM	EET BUF	07/19/24 13:18
Total/NA	Analysis	9012B		1	719060	AM	EET BUF	07/19/24 15:44

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Ashland LLC
Job ID: 480-221655-1
Project/Site: Tank 75 - Soil Analysis

Laboratory: Eurofins Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method Summary

Client: Ashland LLC
Project/Site: Tank 75 - Soil Analysis

Job ID: 480-221655-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET BUF
8081B	Organochlorine Pesticides (GC)	SW846	EET BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET BUF
6010C	Metals (ICP)	SW846	EET BUF
7471B	Mercury (CVAA)	SW846	EET BUF
9012B	Cyanide, Total andor Amenable	SW846	EET BUF
Moisture	Percent Moisture	EPA	EET BUF
3050B	Preparation, Metals	SW846	EET BUF
3550C	Ultrasonic Extraction	SW846	EET BUF
5035A_L	Closed System Purge and Trap	SW846	EET BUF
7471B	Preparation, Mercury	SW846	EET BUF
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	EET BUF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Ashland LLC
Project/Site: Tank 75 - Soil Analysis

Job ID: 480-221655-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-221655-1	SB-05-0.0-0.2	Solid	07/15/24 09:35	07/15/24 15:57
480-221655-2	SB-05-27.0-29.0	Solid	07/15/24 11:45	07/15/24 15:57
480-221655-3	SB-05-32.0-33.0	Solid	07/15/24 12:10	07/15/24 15:57
480-221655-4	SB-03-0.0-0.2	Solid	07/15/24 12:20	07/15/24 15:57

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins Environment Testing

Client Information	Sampler: E Smith / C. Horrocks	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-197590-40883.6
Client Contact: Ethan Smith	Phone: (716) 912-4456	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: AECOM	PWSID:			Job #:
Address: 50 Lakefront Boulevard Suite 111	Due Date Requested:			
City: Buffalo	TAT Requested (days): Standard			
State, Zip: NY, 14202	Compliance Project: Δ Yes Δ No			
Phone: 614-790-2274(Tel) / (716) 912-4456	PO #: 1120269 Task 300			
Email: ethan.smith@aecom.com / cecilyia.chorostkowska@aecom.com	WO #: Ann.Marie.Kropovitch@aecom.com			
Project Name: Tank 75 - Soil Analysis	Project #: 48027595			
Site: Tank 75 Site, Tonawanda, NY	SSOW#:			

Analysis Requested

Preservation Codes:
N - None
A - HCL
D - HNO3
B - NaOH

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL VOCs + TICs	8081B, 8082A, 8270D	6010C, 7471B, 9012B	8270D - TCL SVOCs + 1,4 Dioxane, TICs	1633 - 1633 Standard List	8260C - TCL VOCs + TICs	8270D - TCL SVOCs +TICs	1633_DRAFT_TSS - Percent Suspend Solids PFAS	8082A - TCL PCBs	8081B - TCL Pesticides	6010C, 7470A	9012B_NP - Cyanide, Total	8270D_SIM_MS_ID - 1,4 Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N	N	A	N	N	N	N	D	B	N		
SB-05-0.0-0.2	7-15-24	0935	G	Solid				X	X											3	
SB-05-0.0-0.2-MS	7-15-24	0935	G	Solid		Y		X	X											3	
SB-05-0.0-0.2-MSD	7-15-24	0935	G	Solid		Y		X	X											3	
SB-05-27.0-29.0	7-15-24	1145	G	Solid			X	X	X											7	
SB-05-32.0-33.0	7-15-24	1210	G	Solid			X	X	X											7	
SB-03-0.0-0.2	7-15-24	1220	G	Solid				X	X											3	
				Solid																	
				Solid																	
				Solid																	
				Solid																	
				Solid																	

480-221655 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by:	Date/Time: 7/16/24 1557	Company: AECOM	Received by:	Date/Time: 7/15/24 1557	Company: TA
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 4.2 ICE

Ver: 04/02/2024

Login Sample Receipt Checklist

Client: Ashland LLC

Job Number: 480-221655-1

Login Number: 221655
List Number: 1
Creator: Yeager, Brian A

List Source: Eurofins Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	FREEZE 7-16-24 10:00
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	AECOM
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Shannon Lloyd
Ashland LLC
PO BOX 2219
Columbus, Ohio 43216

Generated 8/21/2024 10:08:36 AM

JOB DESCRIPTION

Tank 75 - Soil Analysis

JOB NUMBER

480-222440-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

Authorization

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Authorized for release by
John Beninati, Project Manager I
John.Beninati@et.eurofinsus.com
(716)504-9874

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

GC/MS Semi VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

LCMS

Qualifier	Qualifier Description
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
480-222440-1

Receipt
The samples were received on 8/8/2024 5:09 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 3.9º C, 5.7º C and 6.2º C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA
Method 8270D: The following samples were diluted due to color, appearance, and viscosity: SB-02-0.0-0.2 (480-222440-3), SB-02-0.0-0.2-FD (480-222440-4), SB-02-10.0-11.0 (480-222440-5), SB-09-0.0-0.2 (480-222440-7), SB-08-0.0-0.2 (480-222440-10) and SB-07-0.0-0.2 (480-222440-11). Elevated reporting limits (RL) are provided.

Method 8270D: The following samples were diluted due to the nature of the sample matrix: SB-02-0.0-0.2-FD (480-222440-4), SB-02-10.0-11.0 (480-222440-5) and SB-08-0.0-0.2 (480-222440-10). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

Method 8270D: The following sample required a dilution due to the nature of the sample matrix: SB-02-0.0-0.2 (480-222440-3). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8270D: The following compound have been spiked at a level above the upper range of the initial calibration: 3,3'-Dichlorobenzidine and Caprolactam. The laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) associated with preparation batch 480-721348 and analytical batch 480-721404 recovered within acceptable limits for this analyte and has been qualified with an "E" flag.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

LCMS
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method 3550C: Due to the matrix, the following samples could not be concentrated to the final method required volume: SB-02-0.0-0.2 (480-222440-3), SB-02-0.0-0.2-FD (480-222440-4), SB-02-10.0-11.0 (480-222440-5) and SB-08-0.0-0.2 (480-222440-10). The reporting limits (RLs) are elevated proportionately.

Method 3550C: The following samples required a Florisil clean-up, via EPA Method 3620C, to reduce matrix interferences: SB-02-0.0-0.2 (480-222440-3), SB-02-0.0-0.2-FD (480-222440-4), SB-02-10.0-11.0 (480-222440-5), SB-09-0.0-0.2 (480-222440-7), SB-08-0.0-0.2 (480-222440-10) and SB-07-0.0-0.2 (480-222440-11).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Ashland LLC
Project/Site: Tank 75 - Soil Analysis

Job ID: 480-222440-1

Client Sample ID: SB-03-5.0-7.0 — Lab Sample ID: 480-222440-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	21	J	24	1.7	ug/Kg	1	☼	8260C	Total/NA
Acetone	110		24	4.0	ug/Kg	1	☼	8260C	Total/NA
Methylene Chloride	3.6	J	4.7	2.2	ug/Kg	1	☼	8260C	Total/NA
Aluminum	32500		13.8	11.9	mg/Kg	1	☼	6010C	Total/NA
Arsenic	4.3		2.8	1.2	mg/Kg	1	☼	6010C	Total/NA
Barium	180	B	0.69	0.19	mg/Kg	1	☼	6010C	Total/NA
Beryllium	1.2		0.28	0.055	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.40	B	0.28	0.097	mg/Kg	1	☼	6010C	Total/NA
Calcium	4100		68.9	37.2	mg/Kg	1	☼	6010C	Total/NA
Chromium	36.6		0.69	0.50	mg/Kg	1	☼	6010C	Total/NA
Cobalt	16.6		0.69	0.14	mg/Kg	1	☼	6010C	Total/NA
Copper	11.3		1.4	0.79	mg/Kg	1	☼	6010C	Total/NA
Iron	37000		13.8	11.7	mg/Kg	1	☼	6010C	Total/NA
Lead	22.4		1.4	0.63	mg/Kg	1	☼	6010C	Total/NA
Magnesium	5910		27.6	11.7	mg/Kg	1	☼	6010C	Total/NA
Manganese	2770		1.4	0.39	mg/Kg	1	☼	6010C	Total/NA
Nickel	23.6		6.9	0.34	mg/Kg	1	☼	6010C	Total/NA
Potassium	5280		41.4	33.4	mg/Kg	1	☼	6010C	Total/NA
Selenium	1.6	J	5.5	1.1	mg/Kg	1	☼	6010C	Total/NA
Silver	0.50	J	0.83	0.28	mg/Kg	1	☼	6010C	Total/NA
Sodium	174	J	193	84.5	mg/Kg	1	☼	6010C	Total/NA
Vanadium	63.3		0.69	0.18	mg/Kg	1	☼	6010C	Total/NA
Zinc	109	B	2.8	1.4	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.048		0.027	0.0063	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SB-03-28.0-30.0 — Lab Sample ID: 480-222440-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	20	J	36	6.1	ug/Kg	1	☼	8260C	Total/NA
Methylene Chloride	3.8	J	7.2	3.3	ug/Kg	1	☼	8260C	Total/NA
Aluminum	24800		13.8	11.9	mg/Kg	1	☼	6010C	Total/NA
Arsenic	3.9		2.8	1.2	mg/Kg	1	☼	6010C	Total/NA
Barium	143	B	0.69	0.19	mg/Kg	1	☼	6010C	Total/NA
Beryllium	1.1		0.28	0.055	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.17	J B	0.28	0.097	mg/Kg	1	☼	6010C	Total/NA
Calcium	45900		69.2	37.4	mg/Kg	1	☼	6010C	Total/NA
Chromium	32.7		0.69	0.50	mg/Kg	1	☼	6010C	Total/NA
Cobalt	16.1		0.69	0.14	mg/Kg	1	☼	6010C	Total/NA
Copper	23.9		1.4	0.79	mg/Kg	1	☼	6010C	Total/NA
Iron	26500		13.8	11.7	mg/Kg	1	☼	6010C	Total/NA
Lead	10.9		1.4	0.64	mg/Kg	1	☼	6010C	Total/NA
Magnesium	14600		27.7	11.7	mg/Kg	1	☼	6010C	Total/NA
Manganese	555		1.4	0.39	mg/Kg	1	☼	6010C	Total/NA
Nickel	36.4		6.9	0.35	mg/Kg	1	☼	6010C	Total/NA
Potassium	7560		41.5	33.6	mg/Kg	1	☼	6010C	Total/NA
Selenium	1.1	J	5.5	1.1	mg/Kg	1	☼	6010C	Total/NA
Sodium	384		194	84.9	mg/Kg	1	☼	6010C	Total/NA
Vanadium	47.9		0.69	0.18	mg/Kg	1	☼	6010C	Total/NA
Zinc	68.1	B	2.8	1.4	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.017	J	0.029	0.0068	mg/Kg	1	☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Detection Summary

Client: Ashland LLC
Project/Site: Tank 75 - Soil Analysis

Job ID: 480-222440-1

Client Sample ID: SB-02-0.0-0.2 — Lab Sample ID: 480-222440-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	0.29	J	0.34	0.16	mg/Kg	1	☼	8082A	Total/NA
Aluminum	13700		13.6	11.7	mg/Kg	1	☼	6010C	Total/NA
Antimony	1.8	J F1	20.4	0.72	mg/Kg	1	☼	6010C	Total/NA
Arsenic	9.6		2.7	1.2	mg/Kg	1	☼	6010C	Total/NA
Barium	109	B	0.68	0.19	mg/Kg	1	☼	6010C	Total/NA
Beryllium	1.2		0.27	0.054	mg/Kg	1	☼	6010C	Total/NA
Cadmium	1.1	B	0.27	0.095	mg/Kg	1	☼	6010C	Total/NA
Calcium	68600		68.0	36.7	mg/Kg	1	☼	6010C	Total/NA
Chromium	41.3		0.68	0.49	mg/Kg	1	☼	6010C	Total/NA
Cobalt	9.1		0.68	0.14	mg/Kg	1	☼	6010C	Total/NA
Copper	49.1		1.4	0.78	mg/Kg	1	☼	6010C	Total/NA
Iron	19500	F2	13.6	11.5	mg/Kg	1	☼	6010C	Total/NA
Lead	376	^+ F1	1.4	0.63	mg/Kg	1	☼	6010C	Total/NA
Magnesium	21800	F1	27.2	11.5	mg/Kg	1	☼	6010C	Total/NA
Manganese	710		1.4	0.38	mg/Kg	1	☼	6010C	Total/NA
Nickel	62.1		6.8	0.34	mg/Kg	1	☼	6010C	Total/NA
Potassium	2570		40.8	33.0	mg/Kg	1	☼	6010C	Total/NA
Sodium	253		190	83.4	mg/Kg	1	☼	6010C	Total/NA
Vanadium	154	F1 F2	0.68	0.18	mg/Kg	1	☼	6010C	Total/NA
Zinc	291	B F1	2.7	1.4	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.22		0.027	0.0061	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SB-02-0.0-0.2-FD — Lab Sample ID: 480-222440-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	0.27	J	0.28	0.13	mg/Kg	1	☼	8082A	Total/NA
Aluminum	13700		13.9	12.0	mg/Kg	1	☼	6010C	Total/NA
Antimony	2.4	J	20.8	0.74	mg/Kg	1	☼	6010C	Total/NA
Arsenic	8.1		2.8	1.2	mg/Kg	1	☼	6010C	Total/NA
Barium	105	B	0.69	0.19	mg/Kg	1	☼	6010C	Total/NA
Beryllium	1.1		0.28	0.056	mg/Kg	1	☼	6010C	Total/NA
Cadmium	1.0	B	0.28	0.097	mg/Kg	1	☼	6010C	Total/NA
Calcium	58900		69.5	37.5	mg/Kg	1	☼	6010C	Total/NA
Chromium	39.1		0.69	0.50	mg/Kg	1	☼	6010C	Total/NA
Cobalt	8.3		0.69	0.14	mg/Kg	1	☼	6010C	Total/NA
Copper	45.3		1.4	0.79	mg/Kg	1	☼	6010C	Total/NA
Iron	18900		13.9	11.8	mg/Kg	1	☼	6010C	Total/NA
Lead	347	^+	1.4	0.64	mg/Kg	1	☼	6010C	Total/NA
Magnesium	19900		27.8	11.8	mg/Kg	1	☼	6010C	Total/NA
Manganese	627		1.4	0.39	mg/Kg	1	☼	6010C	Total/NA
Nickel	52.3		6.9	0.35	mg/Kg	1	☼	6010C	Total/NA
Potassium	2840		41.7	33.7	mg/Kg	1	☼	6010C	Total/NA
Selenium	1.3	J	5.6	1.1	mg/Kg	1	☼	6010C	Total/NA
Sodium	263		195	85.2	mg/Kg	1	☼	6010C	Total/NA
Vanadium	113		0.69	0.18	mg/Kg	1	☼	6010C	Total/NA
Zinc	290	B	2.8	1.4	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.24		0.028	0.0065	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SB-02-10.0-11.0 — Lab Sample ID: 480-222440-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	0.34		0.26	0.12	mg/Kg	1	☼	8082A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Client Sample ID: SB-02-10.0-11.0 (Continued)

Lab Sample ID: 480-222440-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	13700		12.5	10.7	mg/Kg	1	☼	6010C	Total/NA
Antimony	4.9	J	18.7	0.66	mg/Kg	1	☼	6010C	Total/NA
Arsenic	7.2		2.5	1.1	mg/Kg	1	☼	6010C	Total/NA
Barium	104	B	0.62	0.17	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.99		0.25	0.050	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.79	B	0.25	0.087	mg/Kg	1	☼	6010C	Total/NA
Calcium	60700		62.3	33.6	mg/Kg	1	☼	6010C	Total/NA
Chromium	38.3		0.62	0.45	mg/Kg	1	☼	6010C	Total/NA
Cobalt	9.5		0.62	0.12	mg/Kg	1	☼	6010C	Total/NA
Copper	37.7		1.2	0.71	mg/Kg	1	☼	6010C	Total/NA
Iron	18600		12.5	10.6	mg/Kg	1	☼	6010C	Total/NA
Lead	394	^+	1.2	0.57	mg/Kg	1	☼	6010C	Total/NA
Magnesium	19300		24.9	10.6	mg/Kg	1	☼	6010C	Total/NA
Manganese	591		1.2	0.35	mg/Kg	1	☼	6010C	Total/NA
Nickel	42.2		6.2	0.31	mg/Kg	1	☼	6010C	Total/NA
Potassium	3070		37.4	30.2	mg/Kg	1	☼	6010C	Total/NA
Sodium	220		174	76.4	mg/Kg	1	☼	6010C	Total/NA
Vanadium	77.3		0.62	0.16	mg/Kg	1	☼	6010C	Total/NA
Zinc	173	B	2.5	1.3	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.055		0.024	0.0055	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SB-02-28.0-30.0

Lab Sample ID: 480-222440-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	16	J	19	3.3	ug/Kg	1	☼	8260C	Total/NA
Methylene Chloride	2.5	J	3.9	1.8	ug/Kg	1	☼	8260C	Total/NA
Aluminum	27500		13.0	11.2	mg/Kg	1	☼	6010C	Total/NA
Arsenic	3.6		2.6	1.1	mg/Kg	1	☼	6010C	Total/NA
Barium	166	B	0.65	0.18	mg/Kg	1	☼	6010C	Total/NA
Beryllium	1.2		0.26	0.052	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.11	J B	0.26	0.091	mg/Kg	1	☼	6010C	Total/NA
Calcium	50700		64.8	35.0	mg/Kg	1	☼	6010C	Total/NA
Chromium	34.8		0.65	0.47	mg/Kg	1	☼	6010C	Total/NA
Cobalt	17.3		0.65	0.13	mg/Kg	1	☼	6010C	Total/NA
Copper	25.1		1.3	0.74	mg/Kg	1	☼	6010C	Total/NA
Iron	27700		13.0	11.0	mg/Kg	1	☼	6010C	Total/NA
Lead	11.3		1.3	0.60	mg/Kg	1	☼	6010C	Total/NA
Magnesium	16000		25.9	11.0	mg/Kg	1	☼	6010C	Total/NA
Manganese	625		1.3	0.36	mg/Kg	1	☼	6010C	Total/NA
Nickel	39.1		6.5	0.32	mg/Kg	1	☼	6010C	Total/NA
Potassium	8370		38.9	31.4	mg/Kg	1	☼	6010C	Total/NA
Silver	0.27	J	0.78	0.26	mg/Kg	1	☼	6010C	Total/NA
Sodium	368		181	79.5	mg/Kg	1	☼	6010C	Total/NA
Vanadium	51.4		0.65	0.17	mg/Kg	1	☼	6010C	Total/NA
Zinc	70.5	B	2.6	1.3	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.016	J	0.026	0.0059	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SB-09-0.0-0.2

Lab Sample ID: 480-222440-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	340	J	2100	270	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]anthracene	600	J	2100	210	ug/Kg	10	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SB-09-0.0-0.2 (Continued)

Lab Sample ID: 480-222440-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	680	J	2100	300	ug/Kg	10	☼	8270D	Total/NA
Benzo[b]fluoranthene	800	J	2100	330	ug/Kg	10	☼	8270D	Total/NA
Benzo[g,h,i]perylene	570	J	2100	220	ug/Kg	10	☼	8270D	Total/NA
Benzo[k]fluoranthene	420	J	2100	270	ug/Kg	10	☼	8270D	Total/NA
Chrysene	640	J	2100	460	ug/Kg	10	☼	8270D	Total/NA
Fluoranthene	990	J	2100	220	ug/Kg	10	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	440	J	2100	250	ug/Kg	10	☼	8270D	Total/NA
Phenanthrene	420	J	2100	300	ug/Kg	10	☼	8270D	Total/NA
Pyrene	750	J	2100	240	ug/Kg	10	☼	8270D	Total/NA
Aluminum	19000		12.8	11.0	mg/Kg	1	☼	6010C	Total/NA
Arsenic	5.4		2.6	1.1	mg/Kg	1	☼	6010C	Total/NA
Barium	119	B	0.64	0.18	mg/Kg	1	☼	6010C	Total/NA
Beryllium	1.1		0.26	0.051	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.38	B	0.26	0.089	mg/Kg	1	☼	6010C	Total/NA
Calcium	37600		63.8	34.4	mg/Kg	1	☼	6010C	Total/NA
Chromium	33.7		0.64	0.46	mg/Kg	1	☼	6010C	Total/NA
Cobalt	11.3		0.64	0.13	mg/Kg	1	☼	6010C	Total/NA
Copper	38.1		1.3	0.73	mg/Kg	1	☼	6010C	Total/NA
Iron	20700		12.8	10.8	mg/Kg	1	☼	6010C	Total/NA
Lead	52.2	^+	1.3	0.59	mg/Kg	1	☼	6010C	Total/NA
Magnesium	12400		25.5	10.8	mg/Kg	1	☼	6010C	Total/NA
Manganese	605		1.3	0.36	mg/Kg	1	☼	6010C	Total/NA
Nickel	30.9		6.4	0.32	mg/Kg	1	☼	6010C	Total/NA
Potassium	4420		38.3	30.9	mg/Kg	1	☼	6010C	Total/NA
Sodium	190		179	78.2	mg/Kg	1	☼	6010C	Total/NA
Vanadium	37.1		0.64	0.17	mg/Kg	1	☼	6010C	Total/NA
Zinc	102	B	2.6	1.3	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.21		0.026	0.0059	mg/Kg	1	☼	7471B	Total/NA
Cyanide, Total	4.7	F1	1.1	0.55	mg/Kg	1	☼	9012B	Total/NA

Client Sample ID: SB-09-4.0-5.0

Lab Sample ID: 480-222440-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	6.7	J	23	1.7	ug/Kg	1	☼	8260C	Total/NA
Acetone	26		23	3.9	ug/Kg	1	☼	8260C	Total/NA
Methylene Chloride	3.4	J	4.6	2.1	ug/Kg	1	☼	8260C	Total/NA
Aluminum	24400		12.8	11.0	mg/Kg	1	☼	6010C	Total/NA
Arsenic	4.0		2.6	1.1	mg/Kg	1	☼	6010C	Total/NA
Barium	129	B	0.64	0.18	mg/Kg	1	☼	6010C	Total/NA
Beryllium	1.0		0.26	0.051	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.33	B	0.26	0.089	mg/Kg	1	☼	6010C	Total/NA
Calcium	7020		63.8	34.4	mg/Kg	1	☼	6010C	Total/NA
Chromium	27.4		0.64	0.46	mg/Kg	1	☼	6010C	Total/NA
Cobalt	15.4		0.64	0.13	mg/Kg	1	☼	6010C	Total/NA
Copper	14.5		1.3	0.73	mg/Kg	1	☼	6010C	Total/NA
Iron	24200		12.8	10.8	mg/Kg	1	☼	6010C	Total/NA
Lead	19.2	^+	1.3	0.59	mg/Kg	1	☼	6010C	Total/NA
Magnesium	6630		25.5	10.8	mg/Kg	1	☼	6010C	Total/NA
Manganese	1110		1.3	0.36	mg/Kg	1	☼	6010C	Total/NA
Nickel	26.8		6.4	0.32	mg/Kg	1	☼	6010C	Total/NA
Potassium	3840		38.3	30.9	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SB-09-4.0-5.0 (Continued)
Lab Sample ID: 480-222440-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	122	J	179	78.2	mg/Kg	1	☼	6010C	Total/NA
Vanadium	44.2		0.64	0.17	mg/Kg	1	☼	6010C	Total/NA
Zinc	96.3	B	2.6	1.3	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.047		0.027	0.0062	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SB-09-28.0-30.0
Lab Sample ID: 480-222440-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	17	J	32	5.3	ug/Kg	1	☼	8260C	Total/NA
Methylene Chloride	6.1	J	6.3	2.9	ug/Kg	1	☼	8260C	Total/NA
Aluminum	32000		14.5	12.5	mg/Kg	1	☼	6010C	Total/NA
Arsenic	4.1		2.9	1.3	mg/Kg	1	☼	6010C	Total/NA
Barium	163	B	0.73	0.20	mg/Kg	1	☼	6010C	Total/NA
Beryllium	1.5		0.29	0.058	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.18	J B	0.29	0.10	mg/Kg	1	☼	6010C	Total/NA
Calcium	45400		72.5	39.1	mg/Kg	1	☼	6010C	Total/NA
Chromium	40.1		0.73	0.52	mg/Kg	1	☼	6010C	Total/NA
Cobalt	18.9		0.73	0.15	mg/Kg	1	☼	6010C	Total/NA
Copper	26.4		1.5	0.83	mg/Kg	1	☼	6010C	Total/NA
Iron	31000		14.5	12.3	mg/Kg	1	☼	6010C	Total/NA
Lead	11.5		1.5	0.67	mg/Kg	1	☼	6010C	Total/NA
Magnesium	16400		29.0	12.3	mg/Kg	1	☼	6010C	Total/NA
Manganese	604		1.5	0.41	mg/Kg	1	☼	6010C	Total/NA
Nickel	43.1		7.3	0.36	mg/Kg	1	☼	6010C	Total/NA
Potassium	9790		43.5	35.1	mg/Kg	1	☼	6010C	Total/NA
Selenium	1.2	J	5.8	1.2	mg/Kg	1	☼	6010C	Total/NA
Sodium	434		203	88.9	mg/Kg	1	☼	6010C	Total/NA
Vanadium	59.9		0.73	0.19	mg/Kg	1	☼	6010C	Total/NA
Zinc	75.2	B	2.9	1.5	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.018	J	0.029	0.0066	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SB-08-0.0-0.2
Lab Sample ID: 480-222440-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[g,h,i]perylene	5300	J	19000	2000	ug/Kg	10	☼	8270D	Total/NA
PCB-1260	0.31		0.26	0.12	mg/Kg	1	☼	8082A	Total/NA
Aluminum	15000		10.6	9.1	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.62	J	15.9	0.56	mg/Kg	1	☼	6010C	Total/NA
Arsenic	12.3		2.1	0.93	mg/Kg	1	☼	6010C	Total/NA
Barium	98.6	B	0.53	0.15	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.99		0.21	0.042	mg/Kg	1	☼	6010C	Total/NA
Cadmium	1.1	B	0.21	0.074	mg/Kg	1	☼	6010C	Total/NA
Calcium	61900		53.0	28.6	mg/Kg	1	☼	6010C	Total/NA
Chromium	110		0.53	0.38	mg/Kg	1	☼	6010C	Total/NA
Cobalt	10.4		0.53	0.11	mg/Kg	1	☼	6010C	Total/NA
Copper	146		1.1	0.60	mg/Kg	1	☼	6010C	Total/NA
Iron	20300		10.6	9.0	mg/Kg	1	☼	6010C	Total/NA
Lead	591	^+	1.1	0.49	mg/Kg	1	☼	6010C	Total/NA
Magnesium	23300		21.2	9.0	mg/Kg	1	☼	6010C	Total/NA
Manganese	671		1.1	0.30	mg/Kg	1	☼	6010C	Total/NA
Nickel	74.3		5.3	0.26	mg/Kg	1	☼	6010C	Total/NA
Potassium	2960		31.8	25.7	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SB-08-0.0-0.2 (Continued) — Lab Sample ID: 480-222440-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	1.2	J	4.2	0.85	mg/Kg	1	☼	6010C	Total/NA
Silver	0.21	J	0.64	0.21	mg/Kg	1	☼	6010C	Total/NA
Sodium	246		148	65.0	mg/Kg	1	☼	6010C	Total/NA
Vanadium	131		0.53	0.14	mg/Kg	1	☼	6010C	Total/NA
Zinc	262	B	2.1	1.1	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.77		0.022	0.0051	mg/Kg	1	☼	7471B	Total/NA
Cyanide, Total	4.3		1.1	0.51	mg/Kg	1	☼	9012B	Total/NA

Client Sample ID: SB-07-0.0-0.2 — Lab Sample ID: 480-222440-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	210	J	1900	200	ug/Kg	10	☼	8270D	Total/NA
Perfluorononanoic acid (PFNA)	0.073	J I	0.20	0.049	ug/Kg	1	☼	1633	Total/NA
Perfluorodecanoic acid (PFDA)	0.12	J	0.20	0.049	ug/Kg	1	☼	1633	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.16	J I	0.20	0.049	ug/Kg	1	☼	1633	Total/NA
Perfluorododecanoic acid (PFDoA)	0.070	J	0.20	0.049	ug/Kg	1	☼	1633	Total/NA
Perfluorotridecanoic acid (PFTrDA)	0.057	J	0.20	0.049	ug/Kg	1	☼	1633	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.19	J	0.20	0.049	ug/Kg	1	☼	1633	Total/NA
Aluminum	13400		11.4	9.8	mg/Kg	1	☼	6010C	Total/NA
Arsenic	4.7		2.3	1.0	mg/Kg	1	☼	6010C	Total/NA
Barium	121	B	0.57	0.16	mg/Kg	1	☼	6010C	Total/NA
Beryllium	3.4		0.23	0.046	mg/Kg	1	☼	6010C	Total/NA
Calcium	64900		57.1	30.8	mg/Kg	1	☼	6010C	Total/NA
Chromium	15.7		0.57	0.41	mg/Kg	1	☼	6010C	Total/NA
Cobalt	4.6		0.57	0.11	mg/Kg	1	☼	6010C	Total/NA
Copper	11.0		1.1	0.65	mg/Kg	1	☼	6010C	Total/NA
Iron	10400		11.4	9.7	mg/Kg	1	☼	6010C	Total/NA
Lead	13.7		1.1	0.53	mg/Kg	1	☼	6010C	Total/NA
Magnesium	11400		22.8	9.7	mg/Kg	1	☼	6010C	Total/NA
Manganese	872		1.1	0.32	mg/Kg	1	☼	6010C	Total/NA
Nickel	15.2		5.7	0.29	mg/Kg	1	☼	6010C	Total/NA
Potassium	791		34.3	27.7	mg/Kg	1	☼	6010C	Total/NA
Sodium	788		160	70.0	mg/Kg	1	☼	6010C	Total/NA
Vanadium	6.1		0.57	0.15	mg/Kg	1	☼	6010C	Total/NA
Zinc	70.3	B	2.3	1.2	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.024		0.022	0.0050	mg/Kg	1	☼	7471B	Total/NA
Cyanide, Total	0.85	J	1.1	0.53	mg/Kg	1	☼	9012B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Ashland LLC
Project/Site: Tank 75 - Soil Analysis

Job ID: 480-222440-1

Client Sample ID: SB-03-5.0-7.0
Date Collected: 08/08/24 10:05
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-1
Matrix: Solid
Percent Solids: 76.1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.7	0.34	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
1,1,2,2-Tetrachloroethane	ND		4.7	0.77	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.7	1.1	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
1,1,2-Trichloroethane	ND		4.7	0.61	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
1,1-Dichloroethane	ND		4.7	0.58	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
1,1-Dichloroethene	ND		4.7	0.58	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
1,2,4-Trichlorobenzene	ND		4.7	0.29	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
1,2-Dibromo-3-Chloropropane	ND		4.7	2.4	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
1,2-Dibromoethane	ND		4.7	0.61	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
1,2-Dichlorobenzene	ND		4.7	0.37	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
1,2-Dichloroethane	ND		4.7	0.24	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
1,2-Dichloropropane	ND		4.7	2.4	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
1,3-Dichlorobenzene	ND		4.7	0.24	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
1,4-Dichlorobenzene	ND		4.7	0.66	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
2-Butanone (MEK)	**21**	**J**	24	1.7	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
2-Hexanone	ND		24	2.4	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
4-Methyl-2-pentanone (MIBK)	ND		24	1.6	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Acetone	**110**		24	4.0	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Benzene	ND		4.7	0.23	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Bromodichloromethane	ND		4.7	0.63	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Bromoform	ND		4.7	2.4	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Bromomethane	ND		4.7	0.43	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Carbon disulfide	ND		4.7	2.4	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Carbon tetrachloride	ND		4.7	0.46	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Chlorobenzene	ND		4.7	0.62	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Chloroethane	ND		4.7	1.1	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Chloroform	ND		4.7	0.29	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Chloromethane	ND		4.7	0.29	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
cis-1,2-Dichloroethene	ND		4.7	0.61	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
cis-1,3-Dichloropropene	ND		4.7	0.68	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Cyclohexane	ND		4.7	0.66	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Dibromochloromethane	ND		4.7	0.61	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Dichlorodifluoromethane	ND		4.7	0.39	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Ethylbenzene	ND		4.7	0.33	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Isopropylbenzene	ND		4.7	0.71	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Methyl acetate	ND		24	2.9	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Methyl tert-butyl ether	ND		4.7	0.46	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Methylcyclohexane	ND		4.7	0.72	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Methylene Chloride	**3.6**	**J**	4.7	2.2	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Styrene	ND		4.7	0.24	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Tetrachloroethene	ND		4.7	0.63	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Toluene	ND		4.7	0.36	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
trans-1,2-Dichloroethene	ND		4.7	0.49	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
trans-1,3-Dichloropropene	ND		4.7	2.1	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Trichloroethene	ND		4.7	1.0	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Trichlorofluoromethane	ND		4.7	0.45	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Vinyl chloride	ND		4.7	0.58	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1
Xylenes, Total	ND		9.5	0.79	ug/Kg	☼	08/09/24 15:00	08/13/24 02:42	1

Client Sample ID: SB-03-5.0-7.0

Date Collected: 08/08/24 10:05
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-1

Matrix: Solid
Percent Solids: 76.1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/Kg	☼		N/A	08/09/24 15:00	08/13/24 02:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		64 - 126	08/09/24 15:00	08/13/24 02:42	1
4-Bromofluorobenzene (Surr)	94		72 - 126	08/09/24 15:00	08/13/24 02:42	1
Dibromofluoromethane (Surr)	108		60 - 140	08/09/24 15:00	08/13/24 02:42	1
Toluene-d8 (Surr)	96		71 - 125	08/09/24 15:00	08/13/24 02:42	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		220	59	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
2,4,6-Trichlorophenol	ND		220	44	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
2,4-Dichlorophenol	ND		220	23	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
2,4-Dimethylphenol	ND		220	53	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
2,4-Dinitrophenol	ND		2100	1000	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
2,4-Dinitrotoluene	ND		220	45	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
2,6-Dinitrotoluene	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
2-Chloronaphthalene	ND		220	36	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
2-Chlorophenol	ND		430	40	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
2-Methylnaphthalene	ND		220	44	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
2-Methylphenol	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
2-Nitroaniline	ND		430	32	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
2-Nitrophenol	ND		220	62	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
3,3'-Dichlorobenzidine	ND		430	260	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
3-Nitroaniline	ND		430	61	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
4,6-Dinitro-2-methylphenol	ND		430	220	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
4-Bromophenyl phenyl ether	ND		220	31	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
4-Chloro-3-methylphenol	ND		220	54	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
4-Chloroaniline	ND		220	54	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
4-Chlorophenyl phenyl ether	ND		220	27	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
4-Methylphenol	ND		430	26	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
4-Nitroaniline	ND		430	110	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
4-Nitrophenol	ND		430	150	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Acenaphthene	ND		220	32	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Acenaphthylene	ND		220	28	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Acetophenone	ND		220	30	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Anthracene	ND		220	54	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Atrazine	ND		220	76	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Benzaldehyde	ND		220	170	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Benzo[a]anthracene	ND		220	22	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Benzo[a]pyrene	ND		220	32	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Benzo[b]fluoranthene	ND		220	35	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Benzo[g,h,i]perylene	ND		220	23	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Benzo[k]fluoranthene	ND		220	28	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Biphenyl	ND		220	32	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
bis (2-chloroisopropyl) ether	ND		220	44	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Bis(2-chloroethoxy)methane	ND		220	47	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Bis(2-chloroethyl)ether	ND		220	28	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Bis(2-ethylhexyl) phthalate	ND		220	75	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Butyl benzyl phthalate	ND		220	36	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1

Client Sample ID: SB-03-5.0-7.0
Date Collected: 08/08/24 10:05
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-1
Matrix: Solid
Percent Solids: 76.1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Caprolactam	ND		220	66	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Carbazole	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Chrysene	ND		220	49	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Dibenz(a,h)anthracene	ND		220	39	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Dibenzofuran	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Diethyl phthalate	ND		220	28	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Dimethyl phthalate	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Di-n-butyl phthalate	ND		220	37	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Di-n-octyl phthalate	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Fluoranthene	ND		220	23	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Fluorene	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Hexachlorobenzene	ND		220	30	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Hexachlorobutadiene	ND		220	32	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Hexachlorocyclopentadiene	ND		220	30	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Hexachloroethane	ND		220	28	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Indeno[1,2,3-cd]pyrene	ND		220	27	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Isophorone	ND		220	47	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Naphthalene	ND		220	28	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Nitrobenzene	ND		220	25	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
N-Nitrosodi-n-propylamine	ND		220	37	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
N-Nitrosodiphenylamine	ND		220	180	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Pentachlorophenol	ND		430	220	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Phenanthrene	ND		220	32	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Phenol	ND		220	34	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1
Pyrene	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 13:13	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*2800*	*T J*	*ug/Kg*	☼	*1.91*	*N/A*	*08/11/24 07:25*	*08/12/24 13:13*	*1*
Unknown	*5600*	*T J*	*ug/Kg*	☼	*3.30*	*N/A*	*08/11/24 07:25*	*08/12/24 13:13*	*1*
Unknown	*260*	*T J*	*ug/Kg*	☼	*3.97*	*N/A*	*08/11/24 07:25*	*08/12/24 13:13*	*1*
1-Docosene	*370*	*T J N*	*ug/Kg*	☼	*13.13*	*1599-67-3*	*08/11/24 07:25*	*08/12/24 13:13*	*1*
Unknown	*450*	*T J*	*ug/Kg*	☼	*13.67*	*N/A*	*08/11/24 07:25*	*08/12/24 13:13*	*1*
Perylene	*880*	*T J N*	*ug/Kg*	☼	*14.42*	*198-55-0*	*08/11/24 07:25*	*08/12/24 13:13*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*100*		*26 - 143*	*08/11/24 07:25*	*08/12/24 13:13*	*1*
2-Fluorobiphenyl	*90*		*50 - 121*	*08/11/24 07:25*	*08/12/24 13:13*	*1*
2-Fluorophenol	*82*		*36 - 120*	*08/11/24 07:25*	*08/12/24 13:13*	*1*
Nitrobenzene-d5	*87*		*40 - 121*	*08/11/24 07:25*	*08/12/24 13:13*	*1*
Phenol-d5	*89*		*41 - 120*	*08/11/24 07:25*	*08/12/24 13:13*	*1*
p-Terphenyl-d14	*92*		*46 - 143*	*08/11/24 07:25*	*08/12/24 13:13*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.2	0.42	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
4,4'-DDE	ND		2.2	0.45	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
4,4'-DDT	ND		2.2	0.50	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
Aldrin	ND		2.2	0.53	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
alpha-BHC	ND		2.2	0.39	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
cis-Chlordane	ND		2.2	1.1	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1

Client Sample ID: SB-03-5.0-7.0

Date Collected: 08/08/24 10:05
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-1

Matrix: Solid
Percent Solids: 76.1

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
beta-BHC	ND		2.2	0.39	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
delta-BHC	ND		2.2	0.40	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
Dieldrin	ND		2.2	0.52	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
Endosulfan I	ND		2.2	0.41	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
Endosulfan II	ND		2.2	0.39	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
Endosulfan sulfate	ND		2.2	0.40	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
Endrin	ND		2.2	0.43	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
Endrin aldehyde	ND		2.2	0.55	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
Endrin ketone	ND		2.2	0.53	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
gamma-BHC (Lindane)	ND		2.2	0.40	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
trans-Chlordane	ND		2.2	0.68	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
Heptachlor	ND		2.2	0.47	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
Heptachlor epoxide	ND		2.2	0.56	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
Methoxychlor	ND		2.2	0.44	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1
Toxaphene	ND		22	13	ug/Kg	☼	08/13/24 07:15	08/15/24 11:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*82*		*45 - 120*	*08/13/24 07:15*	*08/15/24 11:23*	*1*
DCB Decachlorobiphenyl	*93*		*45 - 120*	*08/13/24 07:15*	*08/15/24 11:23*	*1*
Tetrachloro-m-xylene	*59*		*30 - 124*	*08/13/24 07:15*	*08/15/24 11:23*	*1*
Tetrachloro-m-xylene	*76*		*30 - 124*	*08/13/24 07:15*	*08/15/24 11:23*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.32	0.062	mg/Kg	☼	08/11/24 07:13	08/13/24 03:50	1
PCB-1221	ND		0.32	0.062	mg/Kg	☼	08/11/24 07:13	08/13/24 03:50	1
PCB-1232	ND		0.32	0.062	mg/Kg	☼	08/11/24 07:13	08/13/24 03:50	1
PCB-1242	ND		0.32	0.062	mg/Kg	☼	08/11/24 07:13	08/13/24 03:50	1
PCB-1248	ND		0.32	0.062	mg/Kg	☼	08/11/24 07:13	08/13/24 03:50	1
PCB-1254	ND		0.32	0.15	mg/Kg	☼	08/11/24 07:13	08/13/24 03:50	1
PCB-1260	ND		0.32	0.15	mg/Kg	☼	08/11/24 07:13	08/13/24 03:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*111*		*60 - 154*	*08/11/24 07:13*	*08/13/24 03:50*	*1*
Tetrachloro-m-xylene	*91*		*60 - 154*	*08/11/24 07:13*	*08/13/24 03:50*	*1*
DCB Decachlorobiphenyl	*105*		*65 - 174*	*08/11/24 07:13*	*08/13/24 03:50*	*1*
DCB Decachlorobiphenyl	*102*		*65 - 174*	*08/11/24 07:13*	*08/13/24 03:50*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**32500**		13.8	11.9	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Antimony	ND		20.7	0.73	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Arsenic	**4.3**		2.8	1.2	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Barium	**180**	**B**	0.69	0.19	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Beryllium	**1.2**		0.28	0.055	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Cadmium	**0.40**	**B**	0.28	0.097	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Calcium	**4100**		68.9	37.2	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Chromium	**36.6**		0.69	0.50	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Cobalt	**16.6**		0.69	0.14	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Copper	**11.3**		1.4	0.79	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1

Client Sample ID: SB-03-5.0-7.0

Lab Sample ID: 480-222440-1

Date Collected: 08/08/24 10:05
Date Received: 08/08/24 17:09

Matrix: Solid
Percent Solids: 76.1

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	37000		13.8	11.7	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Lead	22.4		1.4	0.63	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Magnesium	5910		27.6	11.7	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Manganese	2770		1.4	0.39	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Nickel	23.6		6.9	0.34	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Potassium	5280		41.4	33.4	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Selenium	1.6	J	5.5	1.1	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Silver	0.50	J	0.83	0.28	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Sodium	174	J	193	84.5	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Thallium	ND		8.3	1.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Vanadium	63.3		0.69	0.18	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1
Zinc	109	B	2.8	1.4	mg/Kg	☼	08/12/24 14:53	08/13/24 17:13	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.048		0.027	0.0063	mg/Kg	☼	08/13/24 08:15	08/13/24 10:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.60	mg/Kg	☼	08/15/24 11:45	08/16/24 17:53	1

Client Sample ID: SB-03-28.0-30.0

Lab Sample ID: 480-222440-2

Date Collected: 08/08/24 10:15
Date Received: 08/08/24 17:09

Matrix: Solid
Percent Solids: 70.9

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		7.2	0.52	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
1,1,2,2-Tetrachloroethane	ND		7.2	1.2	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		7.2	1.6	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
1,1,2-Trichloroethane	ND		7.2	0.94	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
1,1-Dichloroethane	ND		7.2	0.88	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
1,1-Dichloroethene	ND		7.2	0.88	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
1,2,4-Trichlorobenzene	ND		7.2	0.44	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
1,2-Dibromo-3-Chloropropane	ND		7.2	3.6	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
1,2-Dibromoethane	ND		7.2	0.93	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
1,2-Dichlorobenzene	ND		7.2	0.56	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
1,2-Dichloroethane	ND		7.2	0.36	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
1,2-Dichloropropane	ND		7.2	3.6	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
1,3-Dichlorobenzene	ND		7.2	0.37	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
1,4-Dichlorobenzene	ND		7.2	1.0	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
2-Butanone (MEK)	ND		36	2.6	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
2-Hexanone	ND		36	3.6	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
4-Methyl-2-pentanone (MIBK)	ND		36	2.4	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Acetone	20	J	36	6.1	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Benzene	ND		7.2	0.35	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Bromodichloromethane	ND		7.2	0.97	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Bromoform	ND		7.2	3.6	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Bromomethane	ND		7.2	0.65	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Carbon disulfide	ND		7.2	3.6	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1

Client Sample ID: SB-03-28.0-30.0
Date Collected: 08/08/24 10:15
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-2
Matrix: Solid
Percent Solids: 70.9

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	ND		7.2	0.70	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Chlorobenzene	ND		7.2	0.95	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Chloroethane	ND		7.2	1.6	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Chloroform	ND		7.2	0.45	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Chloromethane	ND		7.2	0.44	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
cis-1,2-Dichloroethene	ND		7.2	0.92	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
cis-1,3-Dichloropropene	ND		7.2	1.0	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Cyclohexane	ND		7.2	1.0	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Dibromochloromethane	ND		7.2	0.92	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Dichlorodifluoromethane	ND		7.2	0.60	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Ethylbenzene	ND		7.2	0.50	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Isopropylbenzene	ND		7.2	1.1	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Methyl acetate	ND		36	4.4	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Methyl tert-butyl ether	ND		7.2	0.71	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Methylcyclohexane	ND		7.2	1.1	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Methylene Chloride	**3.8**	**J**	7.2	3.3	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Styrene	ND		7.2	0.36	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Tetrachloroethene	ND		7.2	0.97	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Toluene	ND		7.2	0.55	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
trans-1,2-Dichloroethene	ND		7.2	0.75	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
trans-1,3-Dichloropropene	ND		7.2	3.2	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Trichloroethene	ND		7.2	1.6	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Trichlorofluoromethane	ND		7.2	0.68	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Vinyl chloride	ND		7.2	0.88	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1
Xylenes, Total	ND		14	1.2	ug/Kg	☼	08/09/24 15:00	08/13/24 03:06	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*08/09/24 15:00*	*08/13/24 03:06*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*64 - 126*	*08/09/24 15:00*	*08/13/24 03:06*	*1*
4-Bromofluorobenzene (Surr)	*93*		*72 - 126*	*08/09/24 15:00*	*08/13/24 03:06*	*1*
Dibromofluoromethane (Surr)	*110*		*60 - 140*	*08/09/24 15:00*	*08/13/24 03:06*	*1*
Toluene-d8 (Surr)	*96*		*71 - 125*	*08/09/24 15:00*	*08/13/24 03:06*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		230	63	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
2,4,6-Trichlorophenol	ND		230	47	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
2,4-Dichlorophenol	ND		230	25	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
2,4-Dimethylphenol	ND		230	57	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
2,4-Dinitrophenol	ND		2300	1100	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
2,4-Dinitrotoluene	ND		230	48	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
2,6-Dinitrotoluene	ND		230	28	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
2-Chloronaphthalene	ND		230	39	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
2-Chlorophenol	ND		460	43	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
2-Methylnaphthalene	ND		230	47	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
2-Methylphenol	ND		230	28	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
2-Nitroaniline	ND		460	34	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
2-Nitrophenol	ND		230	66	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1

Client Sample ID: SB-03-28.0-30.0
Date Collected: 08/08/24 10:15
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-2
Matrix: Solid
Percent Solids: 70.9

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	ND		460	280	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
3-Nitroaniline	ND		460	65	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
4,6-Dinitro-2-methylphenol	ND		460	230	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
4-Bromophenyl phenyl ether	ND		230	33	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
4-Chloro-3-methylphenol	ND		230	58	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
4-Chloroaniline	ND		230	58	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
4-Chlorophenyl phenyl ether	ND		230	29	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
4-Methylphenol	ND		460	28	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
4-Nitroaniline	ND		460	120	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
4-Nitrophenol	ND		460	160	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Acenaphthene	ND		230	34	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Acenaphthylene	ND		230	30	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Acetophenone	ND		230	32	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Anthracene	ND		230	58	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Atrazine	ND		230	81	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Benzaldehyde	ND		230	190	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Benzo[a]anthracene	ND		230	23	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Benzo[a]pyrene	ND		230	34	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Benzo[b]fluoranthene	ND		230	37	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Benzo[g,h,i]perylene	ND		230	25	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Benzo[k]fluoranthene	ND		230	30	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Biphenyl	ND		230	34	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
bis (2-chloroisopropyl) ether	ND		230	47	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Bis(2-chloroethoxy)methane	ND		230	50	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Bis(2-chloroethyl)ether	ND		230	30	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Bis(2-ethylhexyl) phthalate	ND		230	80	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Butyl benzyl phthalate	ND		230	39	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Caprolactam	ND		230	70	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Carbazole	ND		230	28	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Chrysene	ND		230	52	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Dibenz(a,h)anthracene	ND		230	41	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Dibenzofuran	ND		230	28	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Diethyl phthalate	ND		230	30	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Dimethyl phthalate	ND		230	28	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Di-n-butyl phthalate	ND		230	40	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Di-n-octyl phthalate	ND		230	28	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Fluoranthene	ND		230	25	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Fluorene	ND		230	28	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Hexachlorobenzene	ND		230	32	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Hexachlorobutadiene	ND		230	34	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Hexachlorocyclopentadiene	ND		230	32	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Hexachloroethane	ND		230	30	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Indeno[1,2,3-cd]pyrene	ND		230	29	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Isophorone	ND		230	50	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Naphthalene	ND		230	30	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Nitrobenzene	ND		230	26	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
N-Nitrosodi-n-propylamine	ND		230	40	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
N-Nitrosodiphenylamine	ND		230	190	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Pentachlorophenol	ND		460	230	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1

Client Sample ID: SB-03-28.0-30.0
Date Collected: 08/08/24 10:15
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-2
Matrix: Solid
Percent Solids: 70.9

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	ND		230	34	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Phenol	ND		230	36	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1
Pyrene	ND		230	28	ug/Kg	☼	08/11/24 07:25	08/12/24 15:43	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*520*	*T J*	*ug/Kg*	☼	*1.69*	*N/A*	*08/11/24 07:25*	*08/12/24 15:43*	*1*
Unknown	*2500*	*T J*	*ug/Kg*	☼	*1.92*	*N/A*	*08/11/24 07:25*	*08/12/24 15:43*	*1*
Unknown	*5000*	*T J*	*ug/Kg*	☼	*3.30*	*N/A*	*08/11/24 07:25*	*08/12/24 15:43*	*1*
Unknown	*260*	*T J*	*ug/Kg*	☼	*3.97*	*N/A*	*08/11/24 07:25*	*08/12/24 15:43*	*1*
Tetratetracontane	*190*	*T J N*	*ug/Kg*	☼	*13.14*	*7098-22-8*	*08/11/24 07:25*	*08/12/24 15:43*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*98*		*26 - 143*	*08/11/24 07:25*	*08/12/24 15:43*	*1*
2-Fluorobiphenyl	*82*		*50 - 121*	*08/11/24 07:25*	*08/12/24 15:43*	*1*
2-Fluorophenol	*77*		*36 - 120*	*08/11/24 07:25*	*08/12/24 15:43*	*1*
Nitrobenzene-d5	*82*		*40 - 121*	*08/11/24 07:25*	*08/12/24 15:43*	*1*
Phenol-d5	*86*		*41 - 120*	*08/11/24 07:25*	*08/12/24 15:43*	*1*
p-Terphenyl-d14	*89*		*46 - 143*	*08/11/24 07:25*	*08/12/24 15:43*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.3	0.45	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
4,4'-DDE	ND		2.3	0.48	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
4,4'-DDT	ND		2.3	0.54	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
Aldrin	ND		2.3	0.56	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
alpha-BHC	ND		2.3	0.41	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
cis-Chlordane	ND		2.3	1.1	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
beta-BHC	ND		2.3	0.41	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
delta-BHC	ND		2.3	0.43	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
Dieldrin	ND		2.3	0.55	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
Endosulfan I	ND		2.3	0.44	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
Endosulfan II	ND		2.3	0.41	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
Endosulfan sulfate	ND		2.3	0.43	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
Endrin	ND		2.3	0.45	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
Endrin aldehyde	ND		2.3	0.59	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
Endrin ketone	ND		2.3	0.56	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
gamma-BHC (Lindane)	ND		2.3	0.42	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
trans-Chlordane	ND		2.3	0.73	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
Heptachlor	ND		2.3	0.50	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
Heptachlor epoxide	ND		2.3	0.59	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
Methoxychlor	ND		2.3	0.47	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1
Toxaphene	ND		23	13	ug/Kg	☼	08/13/24 07:15	08/15/24 11:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*80*		*45 - 120*	*08/13/24 07:15*	*08/15/24 11:43*	*1*
DCB Decachlorobiphenyl	*90*		*45 - 120*	*08/13/24 07:15*	*08/15/24 11:43*	*1*
Tetrachloro-m-xylene	*77*		*30 - 124*	*08/13/24 07:15*	*08/15/24 11:43*	*1*
Tetrachloro-m-xylene	*103*		*30 - 124*	*08/13/24 07:15*	*08/15/24 11:43*	*1*

Client Sample ID: SB-03-28.0-30.0

Date Collected: 08/08/24 10:15
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-2

Matrix: Solid
Percent Solids: 70.9

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.31	0.062	mg/Kg	☼	08/11/24 07:13	08/13/24 04:08	1
PCB-1221	ND		0.31	0.062	mg/Kg	☼	08/11/24 07:13	08/13/24 04:08	1
PCB-1232	ND		0.31	0.062	mg/Kg	☼	08/11/24 07:13	08/13/24 04:08	1
PCB-1242	ND		0.31	0.062	mg/Kg	☼	08/11/24 07:13	08/13/24 04:08	1
PCB-1248	ND		0.31	0.062	mg/Kg	☼	08/11/24 07:13	08/13/24 04:08	1
PCB-1254	ND		0.31	0.15	mg/Kg	☼	08/11/24 07:13	08/13/24 04:08	1
PCB-1260	ND		0.31	0.15	mg/Kg	☼	08/11/24 07:13	08/13/24 04:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*105*		*60 - 154*	*08/11/24 07:13*	*08/13/24 04:08*	*1*
Tetrachloro-m-xylene	*87*		*60 - 154*	*08/11/24 07:13*	*08/13/24 04:08*	*1*
DCB Decachlorobiphenyl	*102*		*65 - 174*	*08/11/24 07:13*	*08/13/24 04:08*	*1*
DCB Decachlorobiphenyl	*98*		*65 - 174*	*08/11/24 07:13*	*08/13/24 04:08*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**24800**		13.8	11.9	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Antimony	ND		20.8	0.73	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Arsenic	**3.9**		2.8	1.2	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Barium	**143**	**B**	0.69	0.19	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Beryllium	**1.1**		0.28	0.055	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Cadmium	**0.17**	**J B**	0.28	0.097	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Calcium	**45900**		69.2	37.4	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Chromium	**32.7**		0.69	0.50	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Cobalt	**16.1**		0.69	0.14	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Copper	**23.9**		1.4	0.79	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Iron	**26500**		13.8	11.7	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Lead	**10.9**		1.4	0.64	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Magnesium	**14600**		27.7	11.7	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Manganese	**555**		1.4	0.39	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Nickel	**36.4**		6.9	0.35	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Potassium	**7560**		41.5	33.6	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Selenium	**1.1**	**J**	5.5	1.1	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Silver	ND		0.83	0.28	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Sodium	**384**		194	84.9	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Thallium	ND		8.3	1.1	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Vanadium	**47.9**		0.69	0.18	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1
Zinc	**68.1**	**B**	2.8	1.4	mg/Kg	☼	08/12/24 14:53	08/13/24 17:15	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.017**	**J**	0.029	0.0068	mg/Kg	☼	08/13/24 08:15	08/13/24 10:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.59	mg/Kg	☼	08/15/24 11:45	08/16/24 17:54	1

Client: Ashland LLC
Project/Site: Tank 75 - Soil Analysis

Job ID: 480-222440-1

Client Sample ID: SB-02-0.0-0.2
Date Collected: 08/08/24 10:50
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-3
Matrix: Solid
Percent Solids: 71.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		24000	6400	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
2,4,6-Trichlorophenol	ND		24000	4700	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
2,4-Dichlorophenol	ND		24000	2500	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
2,4-Dimethylphenol	ND		24000	5700	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
2,4-Dinitrophenol	ND		230000	110000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
2,4-Dinitrotoluene	ND		24000	4800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
2,6-Dinitrotoluene	ND		24000	2800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
2-Chloronaphthalene	ND		24000	3900	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
2-Chlorophenol	ND		46000	4300	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
2-Methylnaphthalene	ND		24000	4700	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
2-Methylphenol	ND		24000	2800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
2-Nitroaniline	ND		46000	3500	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
2-Nitrophenol	ND		24000	6600	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
3,3'-Dichlorobenzidine	ND		46000	28000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
3-Nitroaniline	ND		46000	6500	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
4,6-Dinitro-2-methylphenol	ND		46000	24000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
4-Bromophenyl phenyl ether	ND		24000	3300	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
4-Chloro-3-methylphenol	ND		24000	5800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
4-Chloroaniline	ND		24000	5800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
4-Chlorophenyl phenyl ether	ND		24000	2900	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
4-Methylphenol	ND		46000	2800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
4-Nitroaniline	ND		46000	12000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
4-Nitrophenol	ND		46000	16000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Acenaphthene	ND		24000	3500	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Acenaphthylene	ND		24000	3000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Acetophenone	ND		24000	3200	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Anthracene	ND		24000	5800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Atrazine	ND		24000	8200	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Benzaldehyde	ND		24000	19000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Benzo[a]anthracene	ND		24000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Benzo[a]pyrene	ND		24000	3500	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Benzo[b]fluoranthene	ND		24000	3700	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Benzo[g,h,i]perylene	ND		24000	2500	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Benzo[k]fluoranthene	ND		24000	3000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Biphenyl	ND		24000	3500	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
bis (2-chloroisopropyl) ether	ND		24000	4700	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Bis(2-chloroethoxy)methane	ND		24000	5000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Bis(2-chloroethyl)ether	ND		24000	3000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Bis(2-ethylhexyl) phthalate	ND		24000	8000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Butyl benzyl phthalate	ND		24000	3900	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Caprolactam	ND		24000	7100	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Carbazole	ND		24000	2800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Chrysene	ND		24000	5300	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Dibenz(a,h)anthracene	ND		24000	4200	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Dibenzofuran	ND		24000	2800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Diethyl phthalate	ND		24000	3000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Dimethyl phthalate	ND		24000	2800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Di-n-butyl phthalate	ND		24000	4000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Di-n-octyl phthalate	ND		24000	2800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10

Client Sample ID: SB-02-0.0-0.2
Date Collected: 08/08/24 10:50
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-3
Matrix: Solid
Percent Solids: 71.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		24000	2500	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Fluorene	ND		24000	2800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Hexachlorobenzene	ND		24000	3200	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Hexachlorobutadiene	ND		24000	3500	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Hexachlorocyclopentadiene	ND		24000	3200	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Hexachloroethane	ND		24000	3000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Indeno[1,2,3-cd]pyrene	ND		24000	2900	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Isophorone	ND		24000	5000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Naphthalene	ND		24000	3000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Nitrobenzene	ND		24000	2600	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
N-Nitrosodi-n-propylamine	ND		24000	4000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
N-Nitrosodiphenylamine	ND		24000	19000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Pentachlorophenol	ND		46000	24000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Phenanthrene	ND		24000	3500	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Phenol	ND		24000	3600	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10
Pyrene	ND		24000	2800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:13	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*08/11/24 07:25*	*08/12/24 16:13*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*167*	*S1+*	*26 - 143*	*08/11/24 07:25*	*08/12/24 16:13*	*10*
2-Fluorobiphenyl	*91*		*50 - 121*	*08/11/24 07:25*	*08/12/24 16:13*	*10*
2-Fluorophenol	*128*	*S1+*	*36 - 120*	*08/11/24 07:25*	*08/12/24 16:13*	*10*
Nitrobenzene-d5	*89*		*40 - 121*	*08/11/24 07:25*	*08/12/24 16:13*	*10*
Phenol-d5	*93*		*41 - 120*	*08/11/24 07:25*	*08/12/24 16:13*	*10*
p-Terphenyl-d14	*98*		*46 - 143*	*08/11/24 07:25*	*08/12/24 16:13*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		120	22	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
4,4'-DDE	ND		120	24	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
4,4'-DDT	ND		120	27	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
Aldrin	ND		120	28	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
alpha-BHC	ND		120	21	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
cis-Chlordane	ND		120	57	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
beta-BHC	ND		120	21	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
delta-BHC	ND		120	21	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
Dieldrin	ND		120	28	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
Endosulfan I	ND		120	22	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
Endosulfan II	ND		120	21	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
Endosulfan sulfate	ND		120	21	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
Endrin	ND		120	23	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
Endrin aldehyde	ND		120	29	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
Endrin ketone	ND		120	28	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
gamma-BHC (Lindane)	ND		120	21	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
trans-Chlordane	ND		120	37	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
Heptachlor	ND		120	25	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
Heptachlor epoxide	ND		120	30	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50
Methoxychlor	ND		120	23	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50

Client Sample ID: SB-02-0.0-0.2
Date Collected: 08/08/24 10:50
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-3
Matrix: Solid
Percent Solids: 71.8

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	ND		1200	670	ug/Kg	☼	08/13/24 07:15	08/15/24 12:03	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*08/13/24 07:15*	*08/15/24 12:03*	*50*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*08/13/24 07:15*	*08/15/24 12:03*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*08/13/24 07:15*	*08/15/24 12:03*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*08/13/24 07:15*	*08/15/24 12:03*	*50*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.34	0.067	mg/Kg	☼	08/11/24 07:13	08/13/24 04:26	1
PCB-1221	ND		0.34	0.067	mg/Kg	☼	08/11/24 07:13	08/13/24 04:26	1
PCB-1232	ND		0.34	0.067	mg/Kg	☼	08/11/24 07:13	08/13/24 04:26	1
PCB-1242	ND		0.34	0.067	mg/Kg	☼	08/11/24 07:13	08/13/24 04:26	1
PCB-1248	ND		0.34	0.067	mg/Kg	☼	08/11/24 07:13	08/13/24 04:26	1
PCB-1254	ND		0.34	0.16	mg/Kg	☼	08/11/24 07:13	08/13/24 04:26	1
PCB-1260	**0.29**	**J**	0.34	0.16	mg/Kg	☼	08/11/24 07:13	08/13/24 04:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*98*		*60 - 154*	*08/11/24 07:13*	*08/13/24 04:26*	*1*
Tetrachloro-m-xylene	*78*		*60 - 154*	*08/11/24 07:13*	*08/13/24 04:26*	*1*
DCB Decachlorobiphenyl	*79*		*65 - 174*	*08/11/24 07:13*	*08/13/24 04:26*	*1*
DCB Decachlorobiphenyl	*77*		*65 - 174*	*08/11/24 07:13*	*08/13/24 04:26*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**13700**		13.6	11.7	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Antimony	**1.8**	**J F1**	20.4	0.72	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Arsenic	**9.6**		2.7	1.2	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Barium	**109**	**B**	0.68	0.19	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Beryllium	**1.2**		0.27	0.054	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Cadmium	**1.1**	**B**	0.27	0.095	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Calcium	**68600**		68.0	36.7	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Chromium	**41.3**		0.68	0.49	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Cobalt	**9.1**		0.68	0.14	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Copper	**49.1**		1.4	0.78	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Iron	**19500**	**F2**	13.6	11.5	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Lead	**376**	**^+ F1**	1.4	0.63	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Magnesium	**21800**	**F1**	27.2	11.5	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Manganese	**710**		1.4	0.38	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Nickel	**62.1**		6.8	0.34	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Potassium	**2570**		40.8	33.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Selenium	ND		5.4	1.1	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Silver	ND		0.82	0.27	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Sodium	**253**		190	83.4	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Thallium	ND		8.2	1.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Vanadium	**154**	**F1 F2**	0.68	0.18	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1
Zinc	**291**	**B F1**	2.7	1.4	mg/Kg	☼	08/12/24 14:53	08/13/24 17:24	1

Client Sample ID: SB-02-0.0-0.2

Date Collected: 08/08/24 10:50
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-3

Matrix: Solid
Percent Solids: 71.8

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.22		0.027	0.0061	mg/Kg	☼	08/13/24 08:15	08/13/24 10:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND	F1	1.4	0.66	mg/Kg	☼	08/15/24 11:45	08/16/24 17:54	1

Client Sample ID: SB-02-0.0-0.2-FD

Date Collected: 08/08/24 10:50
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-4

Matrix: Solid
Percent Solids: 74.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		23000	6100	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
2,4,6-Trichlorophenol	ND		23000	4500	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
2,4-Dichlorophenol	ND		23000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
2,4-Dimethylphenol	ND		23000	5400	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
2,4-Dinitrophenol	ND		220000	100000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
2,4-Dinitrotoluene	ND		23000	4600	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
2,6-Dinitrotoluene	ND		23000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
2-Chloronaphthalene	ND		23000	3700	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
2-Chlorophenol	ND		44000	4100	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
2-Methylnaphthalene	ND		23000	4500	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
2-Methylphenol	ND		23000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
2-Nitroaniline	ND		44000	3300	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
2-Nitrophenol	ND		23000	6400	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
3,3'-Dichlorobenzidine	ND		44000	27000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
3-Nitroaniline	ND		44000	6200	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
4,6-Dinitro-2-methylphenol	ND		44000	23000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
4-Bromophenyl phenyl ether	ND		23000	3200	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
4-Chloro-3-methylphenol	ND		23000	5600	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
4-Chloroaniline	ND		23000	5600	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
4-Chlorophenyl phenyl ether	ND		23000	2800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
4-Methylphenol	ND		44000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
4-Nitroaniline	ND		44000	12000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
4-Nitrophenol	ND		44000	16000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Acenaphthene	ND		23000	3300	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Acenaphthylene	ND		23000	2900	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Acetophenone	ND		23000	3100	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Anthracene	ND		23000	5600	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Atrazine	ND		23000	7800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Benzaldehyde	ND		23000	18000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Benzo[a]anthracene	ND		23000	2300	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Benzo[a]pyrene	ND		23000	3300	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Benzo[b]fluoranthene	ND		23000	3600	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Benzo[g,h,i]perylene	ND		23000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Benzo[k]fluoranthene	ND		23000	2900	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Biphenyl	ND		23000	3300	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
bis (2-chloroisopropyl) ether	ND		23000	4500	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Bis(2-chloroethoxy)methane	ND		23000	4800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Bis(2-chloroethyl)ether	ND		23000	2900	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10

Client: Ashland LLC
Project/Site: Tank 75 - Soil Analysis

Job ID: 480-222440-1

Client Sample ID: SB-02-0.0-0.2-FD
Date Collected: 08/08/24 10:50
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-4
Matrix: Solid
Percent Solids: 74.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND		23000	7700	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Butyl benzyl phthalate	ND		23000	3700	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Caprolactam	ND		23000	6800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Carbazole	ND		23000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Chrysene	ND		23000	5000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Dibenz(a,h)anthracene	ND		23000	4000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Dibenzofuran	ND		23000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Diethyl phthalate	ND		23000	2900	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Dimethyl phthalate	ND		23000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Di-n-butyl phthalate	ND		23000	3800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Di-n-octyl phthalate	ND		23000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Fluoranthene	ND		23000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Fluorene	ND		23000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Hexachlorobenzene	ND		23000	3100	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Hexachlorobutadiene	ND		23000	3300	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Hexachlorocyclopentadiene	ND		23000	3100	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Hexachloroethane	ND		23000	2900	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Indeno[1,2,3-cd]pyrene	ND		23000	2800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Isophorone	ND		23000	4800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Naphthalene	ND		23000	2900	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Nitrobenzene	ND		23000	2500	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
N-Nitrosodi-n-propylamine	ND		23000	3800	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
N-Nitrosodiphenylamine	ND		23000	18000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Pentachlorophenol	ND		44000	23000	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Phenanthrene	ND		23000	3300	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Phenol	ND		23000	3500	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10
Pyrene	ND		23000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 16:42	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*08/11/24 07:25*	*08/12/24 16:42*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*0*	*S1-*	*26 - 143*	*08/11/24 07:25*	*08/12/24 16:42*	*10*
2-Fluorobiphenyl	*80*		*50 - 121*	*08/11/24 07:25*	*08/12/24 16:42*	*10*
2-Fluorophenol	*0*	*S1-*	*36 - 120*	*08/11/24 07:25*	*08/12/24 16:42*	*10*
Nitrobenzene-d5	*74*		*40 - 121*	*08/11/24 07:25*	*08/12/24 16:42*	*10*
Phenol-d5	*83*		*41 - 120*	*08/11/24 07:25*	*08/12/24 16:42*	*10*
p-Terphenyl-d14	*93*		*46 - 143*	*08/11/24 07:25*	*08/12/24 16:42*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		110	21	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
4,4'-DDE	ND		110	23	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
4,4'-DDT	ND		110	26	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
Aldrin	ND		110	27	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
alpha-BHC	ND		110	20	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
cis-Chlordane	ND		110	54	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
beta-BHC	ND		110	20	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
delta-BHC	ND		110	20	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
Dieldrin	ND		110	26	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50

Client Sample ID: SB-02-0.0-0.2-FD
Date Collected: 08/08/24 10:50
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-4
Matrix: Solid
Percent Solids: 74.4

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I	ND		110	21	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
Endosulfan II	ND		110	20	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
Endosulfan sulfate	ND		110	20	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
Endrin	ND		110	22	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
Endrin aldehyde	ND		110	28	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
Endrin ketone	ND		110	27	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
gamma-BHC (Lindane)	ND		110	20	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
trans-Chlordane	ND		110	35	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
Heptachlor	ND		110	24	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
Heptachlor epoxide	ND		110	28	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
Methoxychlor	ND		110	22	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50
Toxaphene	ND		1100	640	ug/Kg	☼	08/13/24 07:15	08/15/24 12:23	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*08/13/24 07:15*	*08/15/24 12:23*	*50*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*08/13/24 07:15*	*08/15/24 12:23*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*08/13/24 07:15*	*08/15/24 12:23*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*08/13/24 07:15*	*08/15/24 12:23*	*50*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.28	0.056	mg/Kg	☼	08/11/24 07:13	08/13/24 04:43	1
PCB-1221	ND		0.28	0.056	mg/Kg	☼	08/11/24 07:13	08/13/24 04:43	1
PCB-1232	ND		0.28	0.056	mg/Kg	☼	08/11/24 07:13	08/13/24 04:43	1
PCB-1242	ND		0.28	0.056	mg/Kg	☼	08/11/24 07:13	08/13/24 04:43	1
PCB-1248	ND		0.28	0.056	mg/Kg	☼	08/11/24 07:13	08/13/24 04:43	1
PCB-1254	ND		0.28	0.13	mg/Kg	☼	08/11/24 07:13	08/13/24 04:43	1
PCB-1260	**0.27**	**J**	0.28	0.13	mg/Kg	☼	08/11/24 07:13	08/13/24 04:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*107*		*60 - 154*	*08/11/24 07:13*	*08/13/24 04:43*	*1*
Tetrachloro-m-xylene	*87*		*60 - 154*	*08/11/24 07:13*	*08/13/24 04:43*	*1*
DCB Decachlorobiphenyl	*88*		*65 - 174*	*08/11/24 07:13*	*08/13/24 04:43*	*1*
DCB Decachlorobiphenyl	*87*		*65 - 174*	*08/11/24 07:13*	*08/13/24 04:43*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**13700**		13.9	12.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Antimony	**2.4**	**J**	20.8	0.74	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Arsenic	**8.1**		2.8	1.2	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Barium	**105**	**B**	0.69	0.19	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Beryllium	**1.1**		0.28	0.056	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Cadmium	**1.0**	**B**	0.28	0.097	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Calcium	**58900**		69.5	37.5	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Chromium	**39.1**		0.69	0.50	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Cobalt	**8.3**		0.69	0.14	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Copper	**45.3**		1.4	0.79	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Iron	**18900**		13.9	11.8	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Lead	**347**	**^+**	1.4	0.64	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Magnesium	**19900**		27.8	11.8	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1

Client Sample ID: SB-02-0.0-0.2-FD
Lab Sample ID: 480-222440-4

Date Collected: 08/08/24 10:50
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 74.4

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	627		1.4	0.39	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Nickel	52.3		6.9	0.35	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Potassium	2840		41.7	33.7	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Selenium	1.3	J	5.6	1.1	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Silver	ND		0.83	0.28	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Sodium	263		195	85.2	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Thallium	ND		8.3	1.1	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Vanadium	113		0.69	0.18	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1
Zinc	290	B	2.8	1.4	mg/Kg	☼	08/12/24 14:53	08/13/24 17:34	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.24		0.028	0.0065	mg/Kg	☼	08/13/24 08:15	08/13/24 10:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.60	mg/Kg	☼	08/16/24 11:20	08/20/24 10:25	1

Client Sample ID: SB-02-10.0-11.0
Lab Sample ID: 480-222440-5

Date Collected: 08/08/24 12:25
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 83.8

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.2	0.31	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
1,1,2,2-Tetrachloroethane	ND		4.2	0.68	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.2	0.96	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
1,1,2-Trichloroethane	ND		4.2	0.55	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
1,1-Dichloroethane	ND		4.2	0.51	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
1,1-Dichloroethene	ND		4.2	0.52	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
1,2,4-Trichlorobenzene	ND		4.2	0.26	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
1,2-Dibromo-3-Chloropropane	ND		4.2	2.1	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
1,2-Dibromoethane	ND		4.2	0.54	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
1,2-Dichlorobenzene	ND		4.2	0.33	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
1,2-Dichloroethane	ND		4.2	0.21	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
1,2-Dichloropropane	ND		4.2	2.1	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
1,3-Dichlorobenzene	ND		4.2	0.22	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
1,4-Dichlorobenzene	ND		4.2	0.59	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
2-Butanone (MEK)	ND		21	1.5	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
2-Hexanone	ND		21	2.1	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
4-Methyl-2-pentanone (MIBK)	ND		21	1.4	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Acetone	ND		21	3.6	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Benzene	ND		4.2	0.21	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Bromodichloromethane	ND		4.2	0.57	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Bromoform	ND		4.2	2.1	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Bromomethane	ND		4.2	0.38	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Carbon disulfide	ND		4.2	2.1	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Carbon tetrachloride	ND		4.2	0.41	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Chlorobenzene	ND		4.2	0.56	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Chloroethane	ND		4.2	0.95	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1

Client Sample ID: SB-02-10.0-11.0
Lab Sample ID: 480-222440-5

Date Collected: 08/08/24 12:25
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 83.8

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		4.2	0.26	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Chloromethane	ND		4.2	0.25	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
cis-1,2-Dichloroethene	ND		4.2	0.54	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
cis-1,3-Dichloropropene	ND		4.2	0.61	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Cyclohexane	ND		4.2	0.59	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Dibromochloromethane	ND		4.2	0.54	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Dichlorodifluoromethane	ND		4.2	0.35	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Ethylbenzene	ND		4.2	0.29	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Isopropylbenzene	ND		4.2	0.64	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Methyl acetate	ND		21	2.5	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Methyl tert-butyl ether	ND		4.2	0.41	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Methylcyclohexane	ND		4.2	0.64	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Methylene Chloride	ND		4.2	1.9	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Styrene	ND		4.2	0.21	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Tetrachloroethene	ND		4.2	0.57	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Toluene	ND		4.2	0.32	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
trans-1,2-Dichloroethene	ND		4.2	0.44	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
trans-1,3-Dichloropropene	ND		4.2	1.9	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Trichloroethene	ND		4.2	0.93	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Trichlorofluoromethane	ND		4.2	0.40	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Vinyl chloride	ND		4.2	0.51	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1
Xylenes, Total	ND		8.4	0.71	ug/Kg	☼	08/09/24 15:00	08/13/24 03:30	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*08/09/24 15:00*	*08/13/24 03:30*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*64 - 126*	*08/09/24 15:00*	*08/13/24 03:30*	*1*
4-Bromofluorobenzene (Surr)	*93*		*72 - 126*	*08/09/24 15:00*	*08/13/24 03:30*	*1*
Dibromofluoromethane (Surr)	*106*		*60 - 140*	*08/09/24 15:00*	*08/13/24 03:30*	*1*
Toluene-d8 (Surr)	*96*		*71 - 125*	*08/09/24 15:00*	*08/13/24 03:30*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		20000	5400	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
2,4,6-Trichlorophenol	ND		20000	4000	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
2,4-Dichlorophenol	ND		20000	2100	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
2,4-Dimethylphenol	ND		20000	4800	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
2,4-Dinitrophenol	ND		200000	92000	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
2,4-Dinitrotoluene	ND		20000	4100	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
2,6-Dinitrotoluene	ND		20000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
2-Chloronaphthalene	ND		20000	3300	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
2-Chlorophenol	ND		39000	3600	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
2-Methylnaphthalene	ND		20000	4000	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
2-Methylphenol	ND		20000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
2-Nitroaniline	ND		39000	2900	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
2-Nitrophenol	ND		20000	5600	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
3,3'-Dichlorobenzidine	ND		39000	24000	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
3-Nitroaniline	ND		39000	5500	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
4,6-Dinitro-2-methylphenol	ND		39000	20000	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10

Client: Ashland LLC
Project/Site: Tank 75 - Soil Analysis

Job ID: 480-222440-1

Client Sample ID: SB-02-10.0-11.0
Date Collected: 08/08/24 12:25
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-5
Matrix: Solid
Percent Solids: 83.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Bromophenyl phenyl ether	ND		20000	2800	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
4-Chloro-3-methylphenol	ND		20000	4900	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
4-Chloroaniline	ND		20000	4900	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
4-Chlorophenyl phenyl ether	ND		20000	2500	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
4-Methylphenol	ND		39000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
4-Nitroaniline	ND		39000	10000	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
4-Nitrophenol	ND		39000	14000	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Acenaphthene	ND		20000	2900	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Acenaphthylene	ND		20000	2600	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Acetophenone	ND		20000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Anthracene	ND		20000	4900	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Atrazine	ND		20000	6900	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Benzaldehyde	ND		20000	16000	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Benzo[a]anthracene	ND		20000	2000	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Benzo[a]pyrene	ND		20000	2900	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Benzo[b]fluoranthene	ND		20000	3200	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Benzo[g,h,i]perylene	ND		20000	2100	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Benzo[k]fluoranthene	ND		20000	2600	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Biphenyl	ND		20000	2900	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
bis (2-chloroisopropyl) ether	ND		20000	4000	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Bis(2-chloroethoxy)methane	ND		20000	4200	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Bis(2-chloroethyl)ether	ND		20000	2600	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Bis(2-ethylhexyl) phthalate	ND		20000	6800	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Butyl benzyl phthalate	ND		20000	3300	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Caprolactam	ND		20000	6000	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Carbazole	ND		20000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Chrysene	ND		20000	4500	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Dibenz(a,h)anthracene	ND		20000	3500	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Dibenzofuran	ND		20000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Diethyl phthalate	ND		20000	2600	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Dimethyl phthalate	ND		20000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Di-n-butyl phthalate	ND		20000	3400	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Di-n-octyl phthalate	ND		20000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Fluoranthene	ND		20000	2100	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Fluorene	ND		20000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Hexachlorobenzene	ND		20000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Hexachlorobutadiene	ND		20000	2900	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Hexachlorocyclopentadiene	ND		20000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Hexachloroethane	ND		20000	2600	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Indeno[1,2,3-cd]pyrene	ND		20000	2500	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Isophorone	ND		20000	4200	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Naphthalene	ND		20000	2600	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Nitrobenzene	ND		20000	2200	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
N-Nitrosodi-n-propylamine	ND		20000	3400	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
N-Nitrosodiphenylamine	ND		20000	16000	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Pentachlorophenol	ND		39000	20000	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Phenanthrene	ND		20000	2900	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Phenol	ND		20000	3100	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10
Pyrene	ND		20000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 17:10	10

Client Sample ID: SB-02-10.0-11.0

Date Collected: 08/08/24 12:25
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-5

Matrix: Solid
Percent Solids: 83.8

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/Kg	☼		N/A	08/11/24 07:25	08/12/24 17:10	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	165	S1+	26 - 143	08/11/24 07:25	08/12/24 17:10	10
2-Fluorobiphenyl	93		50 - 121	08/11/24 07:25	08/12/24 17:10	10
2-Fluorophenol	0	S1-	36 - 120	08/11/24 07:25	08/12/24 17:10	10
Nitrobenzene-d5	74		40 - 121	08/11/24 07:25	08/12/24 17:10	10
Phenol-d5	59		41 - 120	08/11/24 07:25	08/12/24 17:10	10
p-Terphenyl-d14	96		46 - 143	08/11/24 07:25	08/12/24 17:10	10

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		98	19	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
4,4'-DDE	ND		98	20	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
4,4'-DDT	ND		98	23	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
Aldrin	ND		98	24	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
alpha-BHC	ND		98	18	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
cis-Chlordane	ND		98	49	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
beta-BHC	ND		98	18	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
delta-BHC	ND		98	18	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
Dieldrin	ND		98	23	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
Endosulfan I	ND		98	19	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
Endosulfan II	ND		98	18	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
Endosulfan sulfate	ND		98	18	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
Endrin	ND		98	19	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
Endrin aldehyde	ND		98	25	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
Endrin ketone	ND		98	24	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
gamma-BHC (Lindane)	ND		98	18	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
trans-Chlordane	ND		98	31	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
Heptachlor	ND		98	21	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
Heptachlor epoxide	ND		98	25	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
Methoxychlor	ND		98	20	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50
Toxaphene	ND		980	570	ug/Kg	☼	08/13/24 07:15	08/15/24 12:42	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	0	S1-	45 - 120	08/13/24 07:15	08/15/24 12:42	50
DCB Decachlorobiphenyl	0	S1-	45 - 120	08/13/24 07:15	08/15/24 12:42	50
Tetrachloro-m-xylene	0	S1-	30 - 124	08/13/24 07:15	08/15/24 12:42	50
Tetrachloro-m-xylene	0	S1-	30 - 124	08/13/24 07:15	08/15/24 12:42	50

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.26	0.051	mg/Kg	☼	08/11/24 07:13	08/13/24 05:01	1
PCB-1221	ND		0.26	0.051	mg/Kg	☼	08/11/24 07:13	08/13/24 05:01	1
PCB-1232	ND		0.26	0.051	mg/Kg	☼	08/11/24 07:13	08/13/24 05:01	1
PCB-1242	ND		0.26	0.051	mg/Kg	☼	08/11/24 07:13	08/13/24 05:01	1
PCB-1248	ND		0.26	0.051	mg/Kg	☼	08/11/24 07:13	08/13/24 05:01	1
PCB-1254	ND		0.26	0.12	mg/Kg	☼	08/11/24 07:13	08/13/24 05:01	1
PCB-1260	**0.34**		0.26	0.12	mg/Kg	☼	08/11/24 07:13	08/13/24 05:01	1

Client Sample ID: SB-02-10.0-11.0

Date Collected: 08/08/24 12:25
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-5

Matrix: Solid
Percent Solids: 83.8

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*107*		*60 - 154*	*08/11/24 07:13*	*08/13/24 05:01*	*1*
Tetrachloro-m-xylene	*93*		*60 - 154*	*08/11/24 07:13*	*08/13/24 05:01*	*1*
DCB Decachlorobiphenyl	*96*		*65 - 174*	*08/11/24 07:13*	*08/13/24 05:01*	*1*
DCB Decachlorobiphenyl	*95*		*65 - 174*	*08/11/24 07:13*	*08/13/24 05:01*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**13700**		12.5	10.7	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Antimony	**4.9**	**J**	18.7	0.66	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Arsenic	**7.2**		2.5	1.1	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Barium	**104**	**B**	0.62	0.17	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Beryllium	**0.99**		0.25	0.050	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Cadmium	**0.79**	**B**	0.25	0.087	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Calcium	**60700**		62.3	33.6	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Chromium	**38.3**		0.62	0.45	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Cobalt	**9.5**		0.62	0.12	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Copper	**37.7**		1.2	0.71	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Iron	**18600**		12.5	10.6	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Lead	**394**	**^+**	1.2	0.57	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Magnesium	**19300**		24.9	10.6	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Manganese	**591**		1.2	0.35	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Nickel	**42.2**		6.2	0.31	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Potassium	**3070**		37.4	30.2	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Selenium	ND		5.0	1.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Silver	ND		0.75	0.25	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Sodium	**220**		174	76.4	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Thallium	ND		7.5	0.95	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Vanadium	**77.3**		0.62	0.16	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1
Zinc	**173**	**B**	2.5	1.3	mg/Kg	☼	08/12/24 14:53	08/13/24 17:36	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.055**		0.024	0.0055	mg/Kg	☼	08/13/24 08:15	08/13/24 10:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.56	mg/Kg	☼	08/16/24 11:20	08/20/24 10:25	1

Client Sample ID: SB-02-28.0-30.0

Date Collected: 08/08/24 12:35
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-6

Matrix: Solid
Percent Solids: 75.4

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		3.9	0.28	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
1,1,2,2-Tetrachloroethane	ND		3.9	0.63	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.9	0.88	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
1,1,2-Trichloroethane	ND		3.9	0.50	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
1,1-Dichloroethane	ND		3.9	0.47	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
1,1-Dichloroethene	ND		3.9	0.47	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
1,2,4-Trichlorobenzene	ND		3.9	0.24	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1

Client Sample ID: SB-02-28.0-30.0
Date Collected: 08/08/24 12:35
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-6
Matrix: Solid
Percent Solids: 75.4

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		3.9	1.9	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
1,2-Dibromoethane	ND		3.9	0.50	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
1,2-Dichlorobenzene	ND		3.9	0.30	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
1,2-Dichloroethane	ND		3.9	0.19	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
1,2-Dichloropropane	ND		3.9	1.9	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
1,3-Dichlorobenzene	ND		3.9	0.20	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
1,4-Dichlorobenzene	ND		3.9	0.54	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
2-Butanone (MEK)	ND		19	1.4	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
2-Hexanone	ND		19	1.9	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
4-Methyl-2-pentanone (MIBK)	ND		19	1.3	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Acetone	**16**	**J**	19	3.3	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Benzene	ND		3.9	0.19	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Bromodichloromethane	ND		3.9	0.52	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Bromoform	ND		3.9	1.9	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Bromomethane	ND		3.9	0.35	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Carbon disulfide	ND		3.9	1.9	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Carbon tetrachloride	ND		3.9	0.38	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Chlorobenzene	ND		3.9	0.51	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Chloroethane	ND		3.9	0.88	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Chloroform	ND		3.9	0.24	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Chloromethane	ND		3.9	0.23	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
cis-1,2-Dichloroethene	ND		3.9	0.50	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
cis-1,3-Dichloropropene	ND		3.9	0.56	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Cyclohexane	ND		3.9	0.54	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Dibromochloromethane	ND		3.9	0.50	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Dichlorodifluoromethane	ND		3.9	0.32	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Ethylbenzene	ND		3.9	0.27	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Isopropylbenzene	ND		3.9	0.58	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Methyl acetate	ND		19	2.3	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Methyl tert-butyl ether	ND		3.9	0.38	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Methylcyclohexane	ND		3.9	0.59	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Methylene Chloride	**2.5**	**J**	3.9	1.8	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Styrene	ND		3.9	0.19	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Tetrachloroethene	ND		3.9	0.52	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Toluene	ND		3.9	0.29	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
trans-1,2-Dichloroethene	ND		3.9	0.40	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
trans-1,3-Dichloropropene	ND		3.9	1.7	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Trichloroethene	ND		3.9	0.85	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Trichlorofluoromethane	ND		3.9	0.37	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Vinyl chloride	ND		3.9	0.47	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1
Xylenes, Total	ND		7.8	0.65	ug/Kg	☼	08/09/24 15:00	08/13/24 03:54	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*08/09/24 15:00*	*08/13/24 03:54*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*64 - 126*	*08/09/24 15:00*	*08/13/24 03:54*	*1*
4-Bromofluorobenzene (Surr)	*91*		*72 - 126*	*08/09/24 15:00*	*08/13/24 03:54*	*1*
Dibromofluoromethane (Surr)	*112*		*60 - 140*	*08/09/24 15:00*	*08/13/24 03:54*	*1*
Toluene-d8 (Surr)	*99*		*71 - 125*	*08/09/24 15:00*	*08/13/24 03:54*	*1*

Client: Ashland LLC
Project/Site: Tank 75 - Soil Analysis

Job ID: 480-222440-1

Client Sample ID: SB-02-28.0-30.0
Date Collected: 08/08/24 12:35
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-6
Matrix: Solid
Percent Solids: 75.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		220	60	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
2,4,6-Trichlorophenol	ND		220	44	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
2,4-Dichlorophenol	ND		220	23	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
2,4-Dimethylphenol	ND		220	53	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
2,4-Dinitrophenol	ND		2100	1000	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
2,4-Dinitrotoluene	ND		220	45	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
2,6-Dinitrotoluene	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
2-Chloronaphthalene	ND		220	36	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
2-Chlorophenol	ND		430	40	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
2-Methylnaphthalene	ND		220	44	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
2-Methylphenol	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
2-Nitroaniline	ND		430	32	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
2-Nitrophenol	ND		220	62	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
3,3'-Dichlorobenzidine	ND		430	260	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
3-Nitroaniline	ND		430	61	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
4,6-Dinitro-2-methylphenol	ND		430	220	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
4-Bromophenyl phenyl ether	ND		220	31	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
4-Chloro-3-methylphenol	ND		220	54	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
4-Chloroaniline	ND		220	54	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
4-Chlorophenyl phenyl ether	ND		220	27	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
4-Methylphenol	ND		430	26	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
4-Nitroaniline	ND		430	120	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
4-Nitrophenol	ND		430	150	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Acenaphthene	ND		220	32	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Acenaphthylene	ND		220	28	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Acetophenone	ND		220	30	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Anthracene	ND		220	54	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Atrazine	ND		220	76	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Benzaldehyde	ND		220	170	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Benzo[a]anthracene	ND		220	22	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Benzo[a]pyrene	ND		220	32	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Benzo[b]fluoranthene	ND		220	35	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Benzo[g,h,i]perylene	ND		220	23	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Benzo[k]fluoranthene	ND		220	28	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Biphenyl	ND		220	32	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
bis (2-chloroisopropyl) ether	ND		220	44	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Bis(2-chloroethoxy)methane	ND		220	47	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Bis(2-chloroethyl)ether	ND		220	28	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Bis(2-ethylhexyl) phthalate	ND		220	75	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Butyl benzyl phthalate	ND		220	36	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Caprolactam	ND		220	66	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Carbazole	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Chrysene	ND		220	49	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Dibenz(a,h)anthracene	ND		220	39	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Dibenzofuran	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Diethyl phthalate	ND		220	28	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Dimethyl phthalate	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Di-n-butyl phthalate	ND		220	38	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Di-n-octyl phthalate	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1

Client Sample ID: SB-02-28.0-30.0
Lab Sample ID: 480-222440-6

Date Collected: 08/08/24 12:35
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 75.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		220	23	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Fluorene	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Hexachlorobenzene	ND		220	30	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Hexachlorobutadiene	ND		220	32	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Hexachlorocyclopentadiene	ND		220	30	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Hexachloroethane	ND		220	28	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Indeno[1,2,3-cd]pyrene	ND		220	27	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Isophorone	ND		220	47	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Naphthalene	ND		220	28	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Nitrobenzene	ND		220	25	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
N-Nitrosodi-n-propylamine	ND		220	38	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
N-Nitrosodiphenylamine	ND		220	180	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Pentachlorophenol	ND		430	220	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Phenanthrene	ND		220	32	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Phenol	ND		220	34	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1
Pyrene	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 17:39	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*2400*	*T J*	*ug/Kg*	☼	*1.92*	*N/A*	*08/11/24 07:25*	*08/12/24 17:39*	*1*
Unknown	*5100*	*T J*	*ug/Kg*	☼	*3.31*	*N/A*	*08/11/24 07:25*	*08/12/24 17:39*	*1*
Unknown	*240*	*T J*	*ug/Kg*	☼	*3.97*	*N/A*	*08/11/24 07:25*	*08/12/24 17:39*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*92*		*26 - 143*	*08/11/24 07:25*	*08/12/24 17:39*	*1*
2-Fluorobiphenyl	*81*		*50 - 121*	*08/11/24 07:25*	*08/12/24 17:39*	*1*
2-Fluorophenol	*76*		*36 - 120*	*08/11/24 07:25*	*08/12/24 17:39*	*1*
Nitrobenzene-d5	*81*		*40 - 121*	*08/11/24 07:25*	*08/12/24 17:39*	*1*
Phenol-d5	*84*		*41 - 120*	*08/11/24 07:25*	*08/12/24 17:39*	*1*
p-Terphenyl-d14	*85*		*46 - 143*	*08/11/24 07:25*	*08/12/24 17:39*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.2	0.42	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
4,4'-DDE	ND		2.2	0.45	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
4,4'-DDT	ND		2.2	0.51	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
Aldrin	ND		2.2	0.53	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
alpha-BHC	ND		2.2	0.39	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
cis-Chlordane	ND		2.2	1.1	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
beta-BHC	ND		2.2	0.39	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
delta-BHC	ND		2.2	0.40	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
Dieldrin	ND		2.2	0.52	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
Endosulfan I	ND		2.2	0.41	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
Endosulfan II	ND		2.2	0.39	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
Endosulfan sulfate	ND		2.2	0.40	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
Endrin	ND		2.2	0.43	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
Endrin aldehyde	ND		2.2	0.55	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
Endrin ketone	ND		2.2	0.53	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
gamma-BHC (Lindane)	ND		2.2	0.40	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
trans-Chlordane	ND		2.2	0.69	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
Heptachlor	ND		2.2	0.47	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1

Client Sample ID: SB-02-28.0-30.0

Date Collected: 08/08/24 12:35
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-6

Matrix: Solid
Percent Solids: 75.4

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor epoxide	ND		2.2	0.56	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
Methoxychlor	ND		2.2	0.44	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1
Toxaphene	ND		22	13	ug/Kg	☼	08/13/24 07:15	08/15/24 13:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*68*		*45 - 120*	*08/13/24 07:15*	*08/15/24 13:02*	*1*
DCB Decachlorobiphenyl	*88*		*45 - 120*	*08/13/24 07:15*	*08/15/24 13:02*	*1*
Tetrachloro-m-xylene	*70*		*30 - 124*	*08/13/24 07:15*	*08/15/24 13:02*	*1*
Tetrachloro-m-xylene	*80*		*30 - 124*	*08/13/24 07:15*	*08/15/24 13:02*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.31	0.061	mg/Kg	☼	08/11/24 07:13	08/13/24 05:18	1
PCB-1221	ND		0.31	0.061	mg/Kg	☼	08/11/24 07:13	08/13/24 05:18	1
PCB-1232	ND		0.31	0.061	mg/Kg	☼	08/11/24 07:13	08/13/24 05:18	1
PCB-1242	ND		0.31	0.061	mg/Kg	☼	08/11/24 07:13	08/13/24 05:18	1
PCB-1248	ND		0.31	0.061	mg/Kg	☼	08/11/24 07:13	08/13/24 05:18	1
PCB-1254	ND		0.31	0.15	mg/Kg	☼	08/11/24 07:13	08/13/24 05:18	1
PCB-1260	ND		0.31	0.15	mg/Kg	☼	08/11/24 07:13	08/13/24 05:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*120*		*60 - 154*	*08/11/24 07:13*	*08/13/24 05:18*	*1*
Tetrachloro-m-xylene	*98*		*60 - 154*	*08/11/24 07:13*	*08/13/24 05:18*	*1*
DCB Decachlorobiphenyl	*119*		*65 - 174*	*08/11/24 07:13*	*08/13/24 05:18*	*1*
DCB Decachlorobiphenyl	*115*		*65 - 174*	*08/11/24 07:13*	*08/13/24 05:18*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**27500**		13.0	11.2	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Antimony	ND		19.4	0.69	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Arsenic	**3.6**		2.6	1.1	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Barium	**166**	**B**	0.65	0.18	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Beryllium	**1.2**		0.26	0.052	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Cadmium	**0.11**	**J B**	0.26	0.091	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Calcium	**50700**		64.8	35.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Chromium	**34.8**		0.65	0.47	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Cobalt	**17.3**		0.65	0.13	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Copper	**25.1**		1.3	0.74	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Iron	**27700**		13.0	11.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Lead	**11.3**		1.3	0.60	mg/Kg	☼	08/12/24 14:53	08/14/24 15:41	1
Magnesium	**16000**		25.9	11.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Manganese	**625**		1.3	0.36	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Nickel	**39.1**		6.5	0.32	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Potassium	**8370**		38.9	31.4	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Selenium	ND		5.2	1.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Silver	**0.27**	**J**	0.78	0.26	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Sodium	**368**		181	79.5	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Thallium	ND		7.8	0.99	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Vanadium	**51.4**		0.65	0.17	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1
Zinc	**70.5**	**B**	2.6	1.3	mg/Kg	☼	08/12/24 14:53	08/13/24 17:37	1

Client Sample ID: SB-02-28.0-30.0
Lab Sample ID: 480-222440-6
Date Collected: 08/08/24 12:35
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 75.4

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.016**	**J**	0.026	0.0059	mg/Kg	☼	08/13/24 08:15	08/13/24 10:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.3	0.61	mg/Kg	☼	08/16/24 11:20	08/20/24 10:25	1

Client Sample ID: SB-09-0.0-0.2
Lab Sample ID: 480-222440-7
Date Collected: 08/08/24 12:50
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 81.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		2100	560	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
2,4,6-Trichlorophenol	ND		2100	410	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
2,4-Dichlorophenol	ND		2100	220	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
2,4-Dimethylphenol	ND		2100	500	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
2,4-Dinitrophenol	ND		20000	9500	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
2,4-Dinitrotoluene	ND		2100	420	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
2,6-Dinitrotoluene	ND		2100	240	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
2-Chloronaphthalene	ND		2100	340	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
2-Chlorophenol	ND		4000	370	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
2-Methylnaphthalene	ND		2100	410	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
2-Methylphenol	ND		2100	240	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
2-Nitroaniline	ND		4000	300	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
2-Nitrophenol	ND		2100	580	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
3,3'-Dichlorobenzidine	ND		4000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
3-Nitroaniline	ND		4000	570	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
4,6-Dinitro-2-methylphenol	ND		4000	2100	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
4-Bromophenyl phenyl ether	ND		2100	290	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
4-Chloro-3-methylphenol	ND		2100	510	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
4-Chloroaniline	ND		2100	510	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
4-Chlorophenyl phenyl ether	ND		2100	250	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
4-Methylphenol	ND		4000	240	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
4-Nitroaniline	ND		4000	1100	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
4-Nitrophenol	ND		4000	1400	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Acenaphthene	ND		2100	300	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Acenaphthylene	**340**	**J**	2100	270	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Acetophenone	ND		2100	280	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Anthracene	ND		2100	510	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Atrazine	ND		2100	710	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Benzaldehyde	ND		2100	1600	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Benzo[a]anthracene	**600**	**J**	2100	210	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Benzo[a]pyrene	**680**	**J**	2100	300	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Benzo[b]fluoranthene	**800**	**J**	2100	330	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Benzo[g,h,i]perylene	**570**	**J**	2100	220	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Benzo[k]fluoranthene	**420**	**J**	2100	270	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Biphenyl	ND		2100	300	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
bis (2-chloroisopropyl) ether	ND		2100	410	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Bis(2-chloroethoxy)methane	ND		2100	430	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Bis(2-chloroethyl)ether	ND		2100	270	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10

Client Sample ID: SB-09-0.0-0.2
Date Collected: 08/08/24 12:50
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-7
Matrix: Solid
Percent Solids: 81.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND		2100	700	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Butyl benzyl phthalate	ND		2100	340	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Caprolactam	ND		2100	620	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Carbazole	ND		2100	240	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Chrysene	**640**	**J**	2100	460	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Dibenz(a,h)anthracene	ND		2100	360	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Dibenzofuran	ND		2100	240	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Diethyl phthalate	ND		2100	270	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Dimethyl phthalate	ND		2100	240	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Di-n-butyl phthalate	ND		2100	350	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Di-n-octyl phthalate	ND		2100	240	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Fluoranthene	**990**	**J**	2100	220	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Fluorene	ND		2100	240	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Hexachlorobenzene	ND		2100	280	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Hexachlorobutadiene	ND		2100	300	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Hexachlorocyclopentadiene	ND		2100	280	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Hexachloroethane	ND		2100	270	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Indeno[1,2,3-cd]pyrene	**440**	**J**	2100	250	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Isophorone	ND		2100	430	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Naphthalene	ND		2100	270	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Nitrobenzene	ND		2100	230	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
N-Nitrosodi-n-propylamine	ND		2100	350	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
N-Nitrosodiphenylamine	ND		2100	1700	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Pentachlorophenol	ND		4000	2100	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Phenanthrene	**420**	**J**	2100	300	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Phenol	ND		2100	310	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10
Pyrene	**750**	**J**	2100	240	ug/Kg	☼	08/11/24 07:25	08/12/24 18:08	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*5100*	*T J*	*ug/Kg*	☼	*3.31*	*N/A*	*08/11/24 07:25*	*08/12/24 18:08*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*91*		*26 - 143*	*08/11/24 07:25*	*08/12/24 18:08*	*10*
2-Fluorobiphenyl	*82*		*50 - 121*	*08/11/24 07:25*	*08/12/24 18:08*	*10*
2-Fluorophenol	*88*		*36 - 120*	*08/11/24 07:25*	*08/12/24 18:08*	*10*
Nitrobenzene-d5	*78*		*40 - 121*	*08/11/24 07:25*	*08/12/24 18:08*	*10*
Phenol-d5	*83*		*41 - 120*	*08/11/24 07:25*	*08/12/24 18:08*	*10*
p-Terphenyl-d14	*77*		*46 - 143*	*08/11/24 07:25*	*08/12/24 18:08*	*10*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		41	7.9	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
4,4'-DDE	ND		41	8.5	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
4,4'-DDT	ND		41	9.5	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
Aldrin	ND		41	10	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
alpha-BHC	ND		41	7.3	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
cis-Chlordane	ND		41	20	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
beta-BHC	ND		41	7.3	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
delta-BHC	ND		41	7.6	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
Dieldrin	ND		41	9.8	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20

Client Sample ID: SB-09-0.0-0.2
Date Collected: 08/08/24 12:50
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-7
Matrix: Solid
Percent Solids: 81.8

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I	ND		41	7.8	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
Endosulfan II	ND		41	7.3	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
Endosulfan sulfate	ND		41	7.6	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
Endrin	ND		41	8.1	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
Endrin aldehyde	ND		41	10	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
Endrin ketone	ND		41	10	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
gamma-BHC (Lindane)	ND		41	7.5	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
trans-Chlordane	ND		41	13	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
Heptachlor	ND		41	8.8	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
Heptachlor epoxide	ND		41	10	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
Methoxychlor	ND		41	8.3	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20
Toxaphene	ND		410	240	ug/Kg	☼	08/13/24 07:15	08/15/24 13:21	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*334*	*S1+*	*45 - 120*	*08/13/24 07:15*	*08/15/24 13:21*	*20*
DCB Decachlorobiphenyl	*447*	*S1+*	*45 - 120*	*08/13/24 07:15*	*08/15/24 13:21*	*20*
Tetrachloro-m-xylene	*155*	*S1+*	*30 - 124*	*08/13/24 07:15*	*08/15/24 13:21*	*20*
Tetrachloro-m-xylene	*134*	*S1+*	*30 - 124*	*08/13/24 07:15*	*08/15/24 13:21*	*20*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.29	0.057	mg/Kg	☼	08/11/24 07:13	08/13/24 05:36	1
PCB-1221	ND		0.29	0.057	mg/Kg	☼	08/11/24 07:13	08/13/24 05:36	1
PCB-1232	ND		0.29	0.057	mg/Kg	☼	08/11/24 07:13	08/13/24 05:36	1
PCB-1242	ND		0.29	0.057	mg/Kg	☼	08/11/24 07:13	08/13/24 05:36	1
PCB-1248	ND		0.29	0.057	mg/Kg	☼	08/11/24 07:13	08/13/24 05:36	1
PCB-1254	ND		0.29	0.14	mg/Kg	☼	08/11/24 07:13	08/13/24 05:36	1
PCB-1260	ND		0.29	0.14	mg/Kg	☼	08/11/24 07:13	08/13/24 05:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*121*		*60 - 154*	*08/11/24 07:13*	*08/13/24 05:36*	*1*
Tetrachloro-m-xylene	*100*		*60 - 154*	*08/11/24 07:13*	*08/13/24 05:36*	*1*
DCB Decachlorobiphenyl	*111*		*65 - 174*	*08/11/24 07:13*	*08/13/24 05:36*	*1*
DCB Decachlorobiphenyl	*108*		*65 - 174*	*08/11/24 07:13*	*08/13/24 05:36*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**19000**		12.8	11.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Antimony	ND		19.1	0.68	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Arsenic	**5.4**		2.6	1.1	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Barium	**119**	**B**	0.64	0.18	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Beryllium	**1.1**		0.26	0.051	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Cadmium	**0.38**	**B**	0.26	0.089	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Calcium	**37600**		63.8	34.4	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Chromium	**33.7**		0.64	0.46	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Cobalt	**11.3**		0.64	0.13	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Copper	**38.1**		1.3	0.73	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Iron	**20700**		12.8	10.8	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Lead	**52.2**	**^+**	1.3	0.59	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Magnesium	**12400**		25.5	10.8	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1

Client Sample ID: SB-09-0.0-0.2

Date Collected: 08/08/24 12:50
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-7

Matrix: Solid
Percent Solids: 81.8

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**605**		1.3	0.36	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Nickel	**30.9**		6.4	0.32	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Potassium	**4420**		38.3	30.9	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Selenium	ND		5.1	1.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Silver	ND		0.77	0.26	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Sodium	**190**		179	78.2	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Thallium	ND		7.7	0.97	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Vanadium	**37.1**		0.64	0.17	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1
Zinc	**102**	**B**	2.6	1.3	mg/Kg	☼	08/12/24 14:53	08/13/24 17:47	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.21**		0.026	0.0059	mg/Kg	☼	08/13/24 08:15	08/13/24 10:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	**4.7**	**F1**	1.1	0.55	mg/Kg	☼	08/16/24 11:20	08/20/24 10:29	1

Client Sample ID: SB-09-4.0-5.0

Date Collected: 08/08/24 14:50
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-8

Matrix: Solid
Percent Solids: 75.4

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.6	0.34	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
1,1,2,2-Tetrachloroethane	ND		4.6	0.75	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.6	1.1	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
1,1,2-Trichloroethane	ND		4.6	0.60	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
1,1-Dichloroethane	ND		4.6	0.56	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
1,1-Dichloroethene	ND		4.6	0.57	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
1,2,4-Trichlorobenzene	ND		4.6	0.28	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
1,2-Dibromo-3-Chloropropane	ND		4.6	2.3	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
1,2-Dibromoethane	ND		4.6	0.59	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
1,2-Dichlorobenzene	ND		4.6	0.36	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
1,2-Dichloroethane	ND		4.6	0.23	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
1,2-Dichloropropane	ND		4.6	2.3	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
1,3-Dichlorobenzene	ND		4.6	0.24	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
1,4-Dichlorobenzene	ND		4.6	0.65	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
2-Butanone (MEK)	**6.7**	**J**	23	1.7	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
2-Hexanone	ND		23	2.3	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
4-Methyl-2-pentanone (MIBK)	ND		23	1.5	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Acetone	**26**		23	3.9	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Benzene	ND		4.6	0.23	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Bromodichloromethane	ND		4.6	0.62	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Bromoform	ND		4.6	2.3	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Bromomethane	ND		4.6	0.42	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Carbon disulfide	ND		4.6	2.3	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Carbon tetrachloride	ND		4.6	0.45	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Chlorobenzene	ND		4.6	0.61	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Chloroethane	ND		4.6	1.0	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1

Client Sample ID: SB-09-4.0-5.0
Date Collected: 08/08/24 14:50
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-8
Matrix: Solid
Percent Solids: 75.4

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		4.6	0.29	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Chloromethane	ND		4.6	0.28	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
cis-1,2-Dichloroethene	ND		4.6	0.59	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
cis-1,3-Dichloropropene	ND		4.6	0.67	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Cyclohexane	ND		4.6	0.65	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Dibromochloromethane	ND		4.6	0.59	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Dichlorodifluoromethane	ND		4.6	0.38	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Ethylbenzene	ND		4.6	0.32	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Isopropylbenzene	ND		4.6	0.70	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Methyl acetate	ND		23	2.8	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Methyl tert-butyl ether	ND		4.6	0.45	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Methylcyclohexane	ND		4.6	0.70	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Methylene Chloride	**3.4**	**J**	4.6	2.1	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Styrene	ND		4.6	0.23	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Tetrachloroethene	ND		4.6	0.62	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Toluene	ND		4.6	0.35	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
trans-1,2-Dichloroethene	ND		4.6	0.48	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
trans-1,3-Dichloropropene	ND		4.6	2.0	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Trichloroethene	ND		4.6	1.0	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Trichlorofluoromethane	ND		4.6	0.44	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Vinyl chloride	ND		4.6	0.56	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1
Xylenes, Total	ND		9.2	0.78	ug/Kg	☼	08/09/24 15:00	08/13/24 04:17	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*08/09/24 15:00*	*08/13/24 04:17*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*64 - 126*	*08/09/24 15:00*	*08/13/24 04:17*	*1*
4-Bromofluorobenzene (Surr)	*95*		*72 - 126*	*08/09/24 15:00*	*08/13/24 04:17*	*1*
Dibromofluoromethane (Surr)	*108*		*60 - 140*	*08/09/24 15:00*	*08/13/24 04:17*	*1*
Toluene-d8 (Surr)	*96*		*71 - 125*	*08/09/24 15:00*	*08/13/24 04:17*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		220	61	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
2,4,6-Trichlorophenol	ND		220	45	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
2,4-Dichlorophenol	ND		220	24	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
2,4-Dimethylphenol	ND		220	54	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
2,4-Dinitrophenol	ND		2200	1000	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
2,4-Dinitrotoluene	ND		220	46	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
2,6-Dinitrotoluene	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
2-Chloronaphthalene	ND		220	37	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
2-Chlorophenol	ND		430	41	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
2-Methylnaphthalene	ND		220	45	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
2-Methylphenol	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
2-Nitroaniline	ND		430	33	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
2-Nitrophenol	ND		220	63	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
3,3'-Dichlorobenzidine	ND		430	260	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
3-Nitroaniline	ND		430	62	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
4,6-Dinitro-2-methylphenol	ND		430	220	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1

Client: Ashland LLC
Project/Site: Tank 75 - Soil Analysis

Job ID: 480-222440-1

Client Sample ID: SB-09-4.0-5.0
Date Collected: 08/08/24 14:50
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-8
Matrix: Solid
Percent Solids: 75.4

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Bromophenyl phenyl ether	ND		220	32	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
4-Chloro-3-methylphenol	ND		220	55	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
4-Chloroaniline	ND		220	55	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
4-Chlorophenyl phenyl ether	ND		220	28	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
4-Methylphenol	ND		430	26	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
4-Nitroaniline	ND		430	120	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
4-Nitrophenol	ND		430	160	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Acenaphthene	ND		220	33	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Acenaphthylene	ND		220	29	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Acetophenone	ND		220	30	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Anthracene	ND		220	55	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Atrazine	ND		220	78	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Benzaldehyde	ND		220	180	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Benzo[a]anthracene	ND		220	22	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Benzo[a]pyrene	ND		220	33	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Benzo[b]fluoranthene	ND		220	36	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Benzo[g,h,i]perylene	ND		220	24	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Benzo[k]fluoranthene	ND		220	29	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Biphenyl	ND		220	33	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
bis (2-chloroisopropyl) ether	ND		220	45	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Bis(2-chloroethoxy)methane	ND		220	47	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Bis(2-chloroethyl)ether	ND		220	29	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Bis(2-ethylhexyl) phthalate	ND		220	76	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Butyl benzyl phthalate	ND		220	37	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Caprolactam	ND		220	67	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Carbazole	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Chrysene	ND		220	50	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Dibenz(a,h)anthracene	ND		220	40	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Dibenzofuran	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Diethyl phthalate	ND		220	29	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Dimethyl phthalate	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Di-n-butyl phthalate	ND		220	38	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Di-n-octyl phthalate	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Fluoranthene	ND		220	24	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Fluorene	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Hexachlorobenzene	ND		220	30	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Hexachlorobutadiene	ND		220	33	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Hexachlorocyclopentadiene	ND		220	30	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Hexachloroethane	ND		220	29	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Indeno[1,2,3-cd]pyrene	ND		220	28	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Isophorone	ND		220	47	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Naphthalene	ND		220	29	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Nitrobenzene	ND		220	25	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
N-Nitrosodi-n-propylamine	ND		220	38	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
N-Nitrosodiphenylamine	ND		220	180	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Pentachlorophenol	ND		430	220	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Phenanthrene	ND		220	33	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Phenol	ND		220	34	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1
Pyrene	ND		220	26	ug/Kg	☼	08/11/24 07:25	08/12/24 18:36	1

Client Sample ID: SB-09-4.0-5.0

Date Collected: 08/08/24 14:50
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-8

Matrix: Solid
Percent Solids: 75.4

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	1800	T J	ug/Kg	☼	1.79	N/A	08/11/24 07:25	08/12/24 18:36	1
Unknown	3500	T J	ug/Kg	☼	1.92	N/A	08/11/24 07:25	08/12/24 18:36	1
Unknown	4800	T J	ug/Kg	☼	3.30	N/A	08/11/24 07:25	08/12/24 18:36	1
Unknown	220	T J	ug/Kg	☼	3.97	N/A	08/11/24 07:25	08/12/24 18:36	1
Phosphonic acid, dioctadecyl ester	290	T J N	ug/Kg	☼	13.13	19047-85-9	08/11/24 07:25	08/12/24 18:36	1
1-Nonadecene	410	T J N	ug/Kg	☼	13.67	18435-45-5	08/11/24 07:25	08/12/24 18:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	65		26 - 143	08/11/24 07:25	08/12/24 18:36	1
2-Fluorobiphenyl	74		50 - 121	08/11/24 07:25	08/12/24 18:36	1
2-Fluorophenol	58		36 - 120	08/11/24 07:25	08/12/24 18:36	1
Nitrobenzene-d5	69		40 - 121	08/11/24 07:25	08/12/24 18:36	1
Phenol-d5	68		41 - 120	08/11/24 07:25	08/12/24 18:36	1
p-Terphenyl-d14	80		46 - 143	08/11/24 07:25	08/12/24 18:36	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.2	0.42	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
4,4'-DDE	ND		2.2	0.45	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
4,4'-DDT	ND		2.2	0.50	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
Aldrin	ND		2.2	0.53	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
alpha-BHC	ND		2.2	0.39	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
cis-Chlordane	ND		2.2	1.1	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
beta-BHC	ND		2.2	0.39	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
delta-BHC	ND		2.2	0.40	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
Dieldrin	ND		2.2	0.52	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
Endosulfan I	ND		2.2	0.41	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
Endosulfan II	ND		2.2	0.39	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
Endosulfan sulfate	ND		2.2	0.40	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
Endrin	ND		2.2	0.43	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
Endrin aldehyde	ND		2.2	0.55	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
Endrin ketone	ND		2.2	0.53	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
gamma-BHC (Lindane)	ND		2.2	0.40	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
trans-Chlordane	ND		2.2	0.69	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
Heptachlor	ND		2.2	0.47	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
Heptachlor epoxide	ND		2.2	0.56	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
Methoxychlor	ND		2.2	0.44	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1
Toxaphene	ND		22	13	ug/Kg	☼	08/13/24 07:15	08/15/24 13:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	66		45 - 120	08/13/24 07:15	08/15/24 13:41	1
DCB Decachlorobiphenyl	89		45 - 120	08/13/24 07:15	08/15/24 13:41	1
Tetrachloro-m-xylene	69		30 - 124	08/13/24 07:15	08/15/24 13:41	1
Tetrachloro-m-xylene	80		30 - 124	08/13/24 07:15	08/15/24 13:41	1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.28	0.054	mg/Kg	☼	08/11/24 07:13	08/13/24 05:53	1
PCB-1221	ND		0.28	0.054	mg/Kg	☼	08/11/24 07:13	08/13/24 05:53	1
PCB-1232	ND		0.28	0.054	mg/Kg	☼	08/11/24 07:13	08/13/24 05:53	1
PCB-1242	ND		0.28	0.054	mg/Kg	☼	08/11/24 07:13	08/13/24 05:53	1

Client Sample ID: SB-09-4.0-5.0
Lab Sample ID: 480-222440-8

Date Collected: 08/08/24 14:50
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 75.4

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1248	ND		0.28	0.054	mg/Kg	☼	08/11/24 07:13	08/13/24 05:53	1
PCB-1254	ND		0.28	0.13	mg/Kg	☼	08/11/24 07:13	08/13/24 05:53	1
PCB-1260	ND		0.28	0.13	mg/Kg	☼	08/11/24 07:13	08/13/24 05:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*127*		*60 - 154*	*08/11/24 07:13*	*08/13/24 05:53*	*1*
Tetrachloro-m-xylene	*100*		*60 - 154*	*08/11/24 07:13*	*08/13/24 05:53*	*1*
DCB Decachlorobiphenyl	*122*		*65 - 174*	*08/11/24 07:13*	*08/13/24 05:53*	*1*
DCB Decachlorobiphenyl	*118*		*65 - 174*	*08/11/24 07:13*	*08/13/24 05:53*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**24400**		12.8	11.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Antimony	ND		19.1	0.68	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Arsenic	**4.0**		2.6	1.1	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Barium	**129**	**B**	0.64	0.18	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Beryllium	**1.0**		0.26	0.051	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Cadmium	**0.33**	**B**	0.26	0.089	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Calcium	**7020**		63.8	34.4	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Chromium	**27.4**		0.64	0.46	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Cobalt	**15.4**		0.64	0.13	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Copper	**14.5**		1.3	0.73	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Iron	**24200**		12.8	10.8	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Lead	**19.2**	**^+**	1.3	0.59	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Magnesium	**6630**		25.5	10.8	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Manganese	**1110**		1.3	0.36	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Nickel	**26.8**		6.4	0.32	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Potassium	**3840**		38.3	30.9	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Selenium	ND		5.1	1.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Silver	ND		0.77	0.26	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Sodium	**122**	**J**	179	78.2	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Thallium	ND		7.7	0.97	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Vanadium	**44.2**		0.64	0.17	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1
Zinc	**96.3**	**B**	2.6	1.3	mg/Kg	☼	08/12/24 14:53	08/13/24 17:49	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.047**		0.027	0.0062	mg/Kg	☼	08/13/24 08:15	08/13/24 10:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND	F1	1.2	0.56	mg/Kg	☼	08/16/24 12:10	08/20/24 10:32	1

Client Sample ID: SB-09-28.0-30.0
Lab Sample ID: 480-222440-9

Date Collected: 08/08/24 15:00
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 70.2

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		6.3	0.46	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
1,1,2,2-Tetrachloroethane	ND		6.3	1.0	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1

Client Sample ID: SB-09-28.0-30.0
Date Collected: 08/08/24 15:00
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-9
Matrix: Solid
Percent Solids: 70.2

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6.3	1.4	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
1,1,2-Trichloroethane	ND		6.3	0.82	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
1,1-Dichloroethane	ND		6.3	0.77	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
1,1-Dichloroethene	ND		6.3	0.77	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
1,2,4-Trichlorobenzene	ND		6.3	0.38	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
1,2-Dibromo-3-Chloropropane	ND		6.3	3.2	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
1,2-Dibromoethane	ND		6.3	0.81	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
1,2-Dichlorobenzene	ND		6.3	0.49	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
1,2-Dichloroethane	ND		6.3	0.32	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
1,2-Dichloropropane	ND		6.3	3.2	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
1,3-Dichlorobenzene	ND		6.3	0.32	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
1,4-Dichlorobenzene	ND		6.3	0.88	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
2-Butanone (MEK)	ND		32	2.3	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
2-Hexanone	ND		32	3.2	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
4-Methyl-2-pentanone (MIBK)	ND		32	2.1	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Acetone	17	J	32	5.3	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Benzene	ND		6.3	0.31	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Bromodichloromethane	ND		6.3	0.85	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Bromoform	ND		6.3	3.2	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Bromomethane	ND		6.3	0.57	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Carbon disulfide	ND		6.3	3.2	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Carbon tetrachloride	ND		6.3	0.61	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Chlorobenzene	ND		6.3	0.83	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Chloroethane	ND		6.3	1.4	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Chloroform	ND		6.3	0.39	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Chloromethane	ND		6.3	0.38	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
cis-1,2-Dichloroethene	ND		6.3	0.81	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
cis-1,3-Dichloropropene	ND		6.3	0.91	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Cyclohexane	ND		6.3	0.88	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Dibromochloromethane	ND		6.3	0.81	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Dichlorodifluoromethane	ND		6.3	0.52	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Ethylbenzene	ND		6.3	0.44	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Isopropylbenzene	ND		6.3	0.95	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Methyl acetate	ND		32	3.8	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Methyl tert-butyl ether	ND		6.3	0.62	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Methylcyclohexane	ND		6.3	0.96	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Methylene Chloride	6.1	J	6.3	2.9	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Styrene	ND		6.3	0.32	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Tetrachloroethene	ND		6.3	0.85	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Toluene	ND		6.3	0.48	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
trans-1,2-Dichloroethene	ND		6.3	0.65	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
trans-1,3-Dichloropropene	ND		6.3	2.8	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Trichloroethene	ND		6.3	1.4	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Trichlorofluoromethane	ND		6.3	0.60	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Vinyl chloride	ND		6.3	0.77	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1
Xylenes, Total	ND		13	1.1	ug/Kg	☼	08/09/24 15:00	08/13/24 04:41	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*08/09/24 15:00*	*08/13/24 04:41*	*1*

Client Sample ID: SB-09-28.0-30.0

Date Collected: 08/08/24 15:00
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-9

Matrix: Solid
Percent Solids: 70.2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		64 - 126	08/09/24 15:00	08/13/24 04:41	1
4-Bromofluorobenzene (Surr)	91		72 - 126	08/09/24 15:00	08/13/24 04:41	1
Dibromofluoromethane (Surr)	107		60 - 140	08/09/24 15:00	08/13/24 04:41	1
Toluene-d8 (Surr)	96		71 - 125	08/09/24 15:00	08/13/24 04:41	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		240	65	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
2,4,6-Trichlorophenol	ND		240	48	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
2,4-Dichlorophenol	ND		240	25	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
2,4-Dimethylphenol	ND		240	58	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
2,4-Dinitrophenol	ND		2300	1100	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
2,4-Dinitrotoluene	ND		240	49	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
2,6-Dinitrotoluene	ND		240	28	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
2-Chloronaphthalene	ND		240	39	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
2-Chlorophenol	ND		460	43	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
2-Methylnaphthalene	ND		240	48	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
2-Methylphenol	ND		240	28	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
2-Nitroaniline	ND		460	35	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
2-Nitrophenol	ND		240	67	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
3,3'-Dichlorobenzidine	ND		460	280	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
3-Nitroaniline	ND		460	66	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
4,6-Dinitro-2-methylphenol	ND		460	240	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
4-Bromophenyl phenyl ether	ND		240	34	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
4-Chloro-3-methylphenol	ND		240	59	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
4-Chloroaniline	ND		240	59	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
4-Chlorophenyl phenyl ether	ND		240	29	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
4-Methylphenol	ND		460	28	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
4-Nitroaniline	ND		460	120	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
4-Nitrophenol	ND		460	170	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Acenaphthene	ND		240	35	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Acenaphthylene	ND		240	31	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Acetophenone	ND		240	32	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Anthracene	ND		240	59	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Atrazine	ND		240	83	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Benzaldehyde	ND		240	190	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Benzo[a]anthracene	ND		240	24	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Benzo[a]pyrene	ND		240	35	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Benzo[b]fluoranthene	ND		240	38	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Benzo[g,h,i]perylene	ND		240	25	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Benzo[k]fluoranthene	ND		240	31	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Biphenyl	ND		240	35	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
bis (2-chloroisopropyl) ether	ND		240	48	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Bis(2-chloroethoxy)methane	ND		240	51	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Bis(2-chloroethyl)ether	ND		240	31	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Bis(2-ethylhexyl) phthalate	ND		240	81	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Butyl benzyl phthalate	ND		240	39	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Caprolactam	ND		240	72	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Carbazole	ND		240	28	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Chrysene	ND		240	53	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1

Client Sample ID: SB-09-28.0-30.0
Lab Sample ID: 480-222440-9
Date Collected: 08/08/24 15:00
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 70.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		240	42	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Dibenzofuran	ND		240	28	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Diethyl phthalate	ND		240	31	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Dimethyl phthalate	ND		240	28	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Di-n-butyl phthalate	ND		240	41	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Di-n-octyl phthalate	ND		240	28	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Fluoranthene	ND		240	25	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Fluorene	ND		240	28	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Hexachlorobenzene	ND		240	32	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Hexachlorobutadiene	ND		240	35	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Hexachlorocyclopentadiene	ND		240	32	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Hexachloroethane	ND		240	31	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Indeno[1,2,3-cd]pyrene	ND		240	29	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Isophorone	ND		240	51	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Naphthalene	ND		240	31	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Nitrobenzene	ND		240	27	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
N-Nitrosodi-n-propylamine	ND		240	41	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
N-Nitrosodiphenylamine	ND		240	190	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Pentachlorophenol	ND		460	240	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Phenanthrene	ND		240	35	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Phenol	ND		240	36	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1
Pyrene	ND		240	28	ug/Kg	☼	08/11/24 07:25	08/12/24 19:04	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*3800*	*T J*	*ug/Kg*	☼	*1.92*	*N/A*	*08/11/24 07:25*	*08/12/24 19:04*	*1*
Unknown	*5000*	*T J*	*ug/Kg*	☼	*3.30*	*N/A*	*08/11/24 07:25*	*08/12/24 19:04*	*1*
Unknown	*240*	*T J*	*ug/Kg*	☼	*3.97*	*N/A*	*08/11/24 07:25*	*08/12/24 19:04*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*90*		*26 - 143*	*08/11/24 07:25*	*08/12/24 19:04*	*1*
2-Fluorobiphenyl	*74*		*50 - 121*	*08/11/24 07:25*	*08/12/24 19:04*	*1*
2-Fluorophenol	*70*		*36 - 120*	*08/11/24 07:25*	*08/12/24 19:04*	*1*
Nitrobenzene-d5	*77*		*40 - 121*	*08/11/24 07:25*	*08/12/24 19:04*	*1*
Phenol-d5	*75*		*41 - 120*	*08/11/24 07:25*	*08/12/24 19:04*	*1*
p-Terphenyl-d14	*78*		*46 - 143*	*08/11/24 07:25*	*08/12/24 19:04*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.3	0.45	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
4,4'-DDE	ND		2.3	0.48	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
4,4'-DDT	ND		2.3	0.54	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
Aldrin	ND		2.3	0.57	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
alpha-BHC	ND		2.3	0.42	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
cis-Chlordane	ND		2.3	1.1	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
beta-BHC	ND		2.3	0.42	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
delta-BHC	ND		2.3	0.43	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
Dieldrin	ND		2.3	0.55	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
Endosulfan I	ND		2.3	0.44	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
Endosulfan II	ND		2.3	0.42	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
Endosulfan sulfate	ND		2.3	0.43	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1

Client Sample ID: SB-09-28.0-30.0

Date Collected: 08/08/24 15:00
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-9

Matrix: Solid
Percent Solids: 70.2

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin	ND		2.3	0.46	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
Endrin aldehyde	ND		2.3	0.59	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
Endrin ketone	ND		2.3	0.57	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
gamma-BHC (Lindane)	ND		2.3	0.42	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
trans-Chlordane	ND		2.3	0.73	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
Heptachlor	ND		2.3	0.50	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
Heptachlor epoxide	ND		2.3	0.60	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
Methoxychlor	ND		2.3	0.47	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1
Toxaphene	ND		23	13	ug/Kg	☼	08/13/24 07:15	08/15/24 14:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*72*		*45 - 120*	*08/13/24 07:15*	*08/15/24 14:01*	*1*
DCB Decachlorobiphenyl	*87*		*45 - 120*	*08/13/24 07:15*	*08/15/24 14:01*	*1*
Tetrachloro-m-xylene	*65*		*30 - 124*	*08/13/24 07:15*	*08/15/24 14:01*	*1*
Tetrachloro-m-xylene	*79*		*30 - 124*	*08/13/24 07:15*	*08/15/24 14:01*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.33	0.065	mg/Kg	☼	08/11/24 07:13	08/13/24 06:11	1
PCB-1221	ND		0.33	0.065	mg/Kg	☼	08/11/24 07:13	08/13/24 06:11	1
PCB-1232	ND		0.33	0.065	mg/Kg	☼	08/11/24 07:13	08/13/24 06:11	1
PCB-1242	ND		0.33	0.065	mg/Kg	☼	08/11/24 07:13	08/13/24 06:11	1
PCB-1248	ND		0.33	0.065	mg/Kg	☼	08/11/24 07:13	08/13/24 06:11	1
PCB-1254	ND		0.33	0.16	mg/Kg	☼	08/11/24 07:13	08/13/24 06:11	1
PCB-1260	ND		0.33	0.16	mg/Kg	☼	08/11/24 07:13	08/13/24 06:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*120*		*60 - 154*	*08/11/24 07:13*	*08/13/24 06:11*	*1*
Tetrachloro-m-xylene	*99*		*60 - 154*	*08/11/24 07:13*	*08/13/24 06:11*	*1*
DCB Decachlorobiphenyl	*119*		*65 - 174*	*08/11/24 07:13*	*08/13/24 06:11*	*1*
DCB Decachlorobiphenyl	*115*		*65 - 174*	*08/11/24 07:13*	*08/13/24 06:11*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**32000**		14.5	12.5	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Antimony	ND		21.8	0.77	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Arsenic	**4.1**		2.9	1.3	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Barium	**163**	**B**	0.73	0.20	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Beryllium	**1.5**		0.29	0.058	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Cadmium	**0.18**	**J B**	0.29	0.10	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Calcium	**45400**		72.5	39.1	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Chromium	**40.1**		0.73	0.52	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Cobalt	**18.9**		0.73	0.15	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Copper	**26.4**		1.5	0.83	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Iron	**31000**		14.5	12.3	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Lead	**11.5**		1.5	0.67	mg/Kg	☼	08/12/24 14:53	08/14/24 15:43	1
Magnesium	**16400**		29.0	12.3	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Manganese	**604**		1.5	0.41	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Nickel	**43.1**		7.3	0.36	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Potassium	**9790**		43.5	35.1	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1

Client Sample ID: SB-09-28.0-30.0
Lab Sample ID: 480-222440-9
Date Collected: 08/08/24 15:00
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 70.2

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	**1.2**	**J**	5.8	1.2	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Silver	ND		0.87	0.29	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Sodium	**434**		203	88.9	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Thallium	ND		8.7	1.1	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Vanadium	**59.9**		0.73	0.19	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1
Zinc	**75.2**	**B**	2.9	1.5	mg/Kg	☼	08/12/24 14:53	08/13/24 17:51	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.018**	**J**	0.029	0.0066	mg/Kg	☼	08/13/24 08:15	08/13/24 10:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.4	0.68	mg/Kg	☼	08/16/24 12:10	08/20/24 10:33	1

Client Sample ID: SB-08-0.0-0.2
Lab Sample ID: 480-222440-10
Date Collected: 08/08/24 15:10
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 90.5

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		19000	5000	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
2,4,6-Trichlorophenol	ND		19000	3700	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
2,4-Dichlorophenol	ND		19000	2000	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
2,4-Dimethylphenol	ND		19000	4500	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
2,4-Dinitrophenol	ND		180000	86000	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
2,4-Dinitrotoluene	ND		19000	3800	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
2,6-Dinitrotoluene	ND		19000	2200	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
2-Chloronaphthalene	ND		19000	3100	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
2-Chlorophenol	ND		36000	3400	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
2-Methylnaphthalene	ND		19000	3700	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
2-Methylphenol	ND		19000	2200	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
2-Nitroaniline	ND		36000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
2-Nitrophenol	ND		19000	5200	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
3,3'-Dichlorobenzidine	ND		36000	22000	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
3-Nitroaniline	ND		36000	5100	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
4,6-Dinitro-2-methylphenol	ND		36000	19000	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
4-Bromophenyl phenyl ether	ND		19000	2600	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
4-Chloro-3-methylphenol	ND		19000	4600	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
4-Chloroaniline	ND		19000	4600	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
4-Chlorophenyl phenyl ether	ND		19000	2300	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
4-Methylphenol	ND		36000	2200	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
4-Nitroaniline	ND		36000	9700	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
4-Nitrophenol	ND		36000	13000	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Acenaphthene	ND		19000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Acenaphthylene	ND		19000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Acetophenone	ND		19000	2500	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Anthracene	ND		19000	4600	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Atrazine	ND		19000	6400	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Benzaldehyde	ND		19000	15000	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10

Client: Ashland LLC
Project/Site: Tank 75 - Soil Analysis

Job ID: 480-222440-1

Client Sample ID: SB-08-0.0-0.2
Date Collected: 08/08/24 15:10
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-10
Matrix: Solid
Percent Solids: 90.5

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		19000	1900	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Benzo[a]pyrene	ND		19000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Benzo[b]fluoranthene	ND		19000	2900	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Benzo[g,h,i]perylene	**5300**	**J**	19000	2000	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Benzo[k]fluoranthene	ND		19000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Biphenyl	ND		19000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
bis (2-chloroisopropyl) ether	ND		19000	3700	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Bis(2-chloroethoxy)methane	ND		19000	3900	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Bis(2-chloroethyl)ether	ND		19000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Bis(2-ethylhexyl) phthalate	ND		19000	6300	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Butyl benzyl phthalate	ND		19000	3100	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Caprolactam	ND		19000	5600	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Carbazole	ND		19000	2200	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Chrysene	ND		19000	4100	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Dibenz(a,h)anthracene	ND		19000	3300	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Dibenzofuran	ND		19000	2200	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Diethyl phthalate	ND		19000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Dimethyl phthalate	ND		19000	2200	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Di-n-butyl phthalate	ND		19000	3200	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Di-n-octyl phthalate	ND		19000	2200	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Fluoranthene	ND		19000	2000	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Fluorene	ND		19000	2200	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Hexachlorobenzene	ND		19000	2500	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Hexachlorobutadiene	ND		19000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Hexachlorocyclopentadiene	ND		19000	2500	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Hexachloroethane	ND		19000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Indeno[1,2,3-cd]pyrene	ND		19000	2300	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Isophorone	ND		19000	3900	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Naphthalene	ND		19000	2400	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Nitrobenzene	ND		19000	2100	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
N-Nitrosodi-n-propylamine	ND		19000	3200	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
N-Nitrosodiphenylamine	ND		19000	15000	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Pentachlorophenol	ND		36000	19000	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Phenanthrene	ND		19000	2700	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Phenol	ND		19000	2800	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10
Pyrene	ND		19000	2200	ug/Kg	☼	08/11/24 07:25	08/12/24 19:33	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*08/11/24 07:25*	*08/12/24 19:33*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*0*	*S1-*	*26 - 143*	*08/11/24 07:25*	*08/12/24 19:33*	*10*
2-Fluorobiphenyl	*72*		*50 - 121*	*08/11/24 07:25*	*08/12/24 19:33*	*10*
2-Fluorophenol	*0*	*S1-*	*36 - 120*	*08/11/24 07:25*	*08/12/24 19:33*	*10*
Nitrobenzene-d5	*76*		*40 - 121*	*08/11/24 07:25*	*08/12/24 19:33*	*10*
Phenol-d5	*73*		*41 - 120*	*08/11/24 07:25*	*08/12/24 19:33*	*10*
p-Terphenyl-d14	*85*		*46 - 143*	*08/11/24 07:25*	*08/12/24 19:33*	*10*

Client Sample ID: SB-08-0.0-0.2

Date Collected: 08/08/24 15:10
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-10

Matrix: Solid
Percent Solids: 90.5

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		91	18	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
4,4'-DDE	ND		91	19	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
4,4'-DDT	ND		91	21	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
Aldrin	ND		91	22	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
alpha-BHC	ND		91	16	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
cis-Chlordane	ND		91	45	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
beta-BHC	ND		91	16	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
delta-BHC	ND		91	17	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
Dieldrin	ND		91	22	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
Endosulfan I	ND		91	17	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
Endosulfan II	ND		91	16	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
Endosulfan sulfate	ND		91	17	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
Endrin	ND		91	18	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
Endrin aldehyde	ND		91	23	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
Endrin ketone	ND		91	22	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
gamma-BHC (Lindane)	ND		91	17	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
trans-Chlordane	ND		91	29	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
Heptachlor	ND		91	20	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
Heptachlor epoxide	ND		91	23	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
Methoxychlor	ND		91	18	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50
Toxaphene	ND		910	530	ug/Kg	☼	08/13/24 07:15	08/15/24 14:20	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*08/13/24 07:15*	*08/15/24 14:20*	*50*
DCB Decachlorobiphenyl	*0*	*S1-*	*45 - 120*	*08/13/24 07:15*	*08/15/24 14:20*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*08/13/24 07:15*	*08/15/24 14:20*	*50*
Tetrachloro-m-xylene	*0*	*S1-*	*30 - 124*	*08/13/24 07:15*	*08/15/24 14:20*	*50*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.26	0.051	mg/Kg	☼	08/11/24 07:13	08/13/24 06:29	1
PCB-1221	ND		0.26	0.051	mg/Kg	☼	08/11/24 07:13	08/13/24 06:29	1
PCB-1232	ND		0.26	0.051	mg/Kg	☼	08/11/24 07:13	08/13/24 06:29	1
PCB-1242	ND		0.26	0.051	mg/Kg	☼	08/11/24 07:13	08/13/24 06:29	1
PCB-1248	ND		0.26	0.051	mg/Kg	☼	08/11/24 07:13	08/13/24 06:29	1
PCB-1254	ND		0.26	0.12	mg/Kg	☼	08/11/24 07:13	08/13/24 06:29	1
PCB-1260	**0.31**		0.26	0.12	mg/Kg	☼	08/11/24 07:13	08/13/24 06:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*108*		*60 - 154*	*08/11/24 07:13*	*08/13/24 06:29*	*1*
Tetrachloro-m-xylene	*89*		*60 - 154*	*08/11/24 07:13*	*08/13/24 06:29*	*1*
DCB Decachlorobiphenyl	*86*		*65 - 174*	*08/11/24 07:13*	*08/13/24 06:29*	*1*
DCB Decachlorobiphenyl	*90*		*65 - 174*	*08/11/24 07:13*	*08/13/24 06:29*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**15000**		10.6	9.1	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Antimony	**0.62**	**J**	15.9	0.56	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Arsenic	**12.3**		2.1	0.93	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Barium	**98.6**	**B**	0.53	0.15	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1

Client Sample ID: SB-08-0.0-0.2

Date Collected: 08/08/24 15:10
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-10

Matrix: Solid
Percent Solids: 90.5

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.99		0.21	0.042	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Cadmium	1.1	B	0.21	0.074	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Calcium	61900		53.0	28.6	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Chromium	110		0.53	0.38	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Cobalt	10.4		0.53	0.11	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Copper	146		1.1	0.60	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Iron	20300		10.6	9.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Lead	591	^+	1.1	0.49	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Magnesium	23300		21.2	9.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Manganese	671		1.1	0.30	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Nickel	74.3		5.3	0.26	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Potassium	2960		31.8	25.7	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Selenium	1.2	J	4.2	0.85	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Silver	0.21	J	0.64	0.21	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Sodium	246		148	65.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Thallium	ND		6.4	0.81	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Vanadium	131		0.53	0.14	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1
Zinc	262	B	2.1	1.1	mg/Kg	☼	08/12/24 14:53	08/13/24 17:53	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.77		0.022	0.0051	mg/Kg	☼	08/13/24 08:15	08/13/24 10:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	4.3		1.1	0.51	mg/Kg	☼	08/16/24 12:10	08/20/24 10:34	1

Client Sample ID: SB-07-0.0-0.2

Date Collected: 08/08/24 15:25
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-11

Matrix: Solid
Percent Solids: 88.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		1100	610	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
2,4,5-Trichlorophenol	ND		1900	510	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
2,4,6-Trichlorophenol	ND		1900	380	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
2,4-Dichlorophenol	ND		1900	200	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
2,4-Dimethylphenol	ND		1900	460	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
2,4-Dinitrophenol	ND		18000	8700	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
2,4-Dinitrotoluene	ND		1900	390	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
2,6-Dinitrotoluene	ND		1900	220	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
2-Chloronaphthalene	ND		1900	310	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
2-Chlorophenol	ND		3700	340	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
2-Methylnaphthalene	ND		1900	380	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
2-Methylphenol	ND		1900	220	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
2-Nitroaniline	ND		3700	280	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
2-Nitrophenol	ND		1900	530	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
3,3'-Dichlorobenzidine	ND		3700	2200	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
3-Nitroaniline	ND		3700	520	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
4,6-Dinitro-2-methylphenol	ND		3700	1900	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10

Client: Ashland LLC
Project/Site: Tank 75 - Soil Analysis

Job ID: 480-222440-1

Client Sample ID: SB-07-0.0-0.2
Date Collected: 08/08/24 15:25
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-11
Matrix: Solid
Percent Solids: 88.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Bromophenyl phenyl ether	ND		1900	270	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
4-Chloro-3-methylphenol	ND		1900	470	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
4-Chloroaniline	ND		1900	470	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
4-Chlorophenyl phenyl ether	ND		1900	230	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
4-Methylphenol	ND		3700	220	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
4-Nitroaniline	ND		3700	990	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
4-Nitrophenol	ND		3700	1300	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Acenaphthene	ND		1900	280	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Acenaphthylene	ND		1900	240	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Acetophenone	ND		1900	260	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Anthracene	ND		1900	470	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Atrazine	ND		1900	660	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Benzaldehyde	ND		1900	1500	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Benzo[a]anthracene	ND		1900	190	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Benzo[a]pyrene	ND		1900	280	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Benzo[b]fluoranthene	ND		1900	300	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Benzo[g,h,i]perylene	ND		1900	200	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Benzo[k]fluoranthene	ND		1900	240	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Biphenyl	ND		1900	280	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
bis (2-chloroisopropyl) ether	ND		1900	380	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Bis(2-chloroethoxy)methane	ND		1900	400	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Bis(2-chloroethyl)ether	ND		1900	240	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Bis(2-ethylhexyl) phthalate	ND		1900	650	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Butyl benzyl phthalate	ND		1900	310	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Caprolactam	ND		1900	570	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Carbazole	ND		1900	220	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Chrysene	ND		1900	420	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Dibenz(a,h)anthracene	ND		1900	330	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Dibenzofuran	ND		1900	220	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Diethyl phthalate	ND		1900	240	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Dimethyl phthalate	ND		1900	220	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Di-n-butyl phthalate	ND		1900	320	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Di-n-octyl phthalate	ND		1900	220	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Fluoranthene	**210**	**J**	1900	200	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Fluorene	ND		1900	220	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Hexachlorobenzene	ND		1900	260	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Hexachlorobutadiene	ND		1900	280	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Hexachlorocyclopentadiene	ND		1900	260	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Hexachloroethane	ND		1900	240	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Indeno[1,2,3-cd]pyrene	ND		1900	230	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Isophorone	ND		1900	400	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Naphthalene	ND		1900	240	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Nitrobenzene	ND		1900	210	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
N-Nitrosodi-n-propylamine	ND		1900	320	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
N-Nitrosodiphenylamine	ND		1900	1500	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Pentachlorophenol	ND		3700	1900	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Phenanthrene	ND		1900	280	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Phenol	ND		1900	290	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10
Pyrene	ND		1900	220	ug/Kg	☼	08/11/24 07:25	08/12/24 20:01	10

Client Sample ID: SB-07-0.0-0.2

Date Collected: 08/08/24 15:25
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-11

Matrix: Solid
Percent Solids: 88.8

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	3700	T J	ug/Kg	☼	3.32	N/A	08/11/24 07:25	08/12/24 20:01	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	82		26 - 143	08/11/24 07:25	08/12/24 20:01	10
2-Fluorobiphenyl	73		50 - 121	08/11/24 07:25	08/12/24 20:01	10
2-Fluorophenol	71		36 - 120	08/11/24 07:25	08/12/24 20:01	10
Nitrobenzene-d5	74		40 - 121	08/11/24 07:25	08/12/24 20:01	10
Phenol-d5	72		41 - 120	08/11/24 07:25	08/12/24 20:01	10
p-Terphenyl-d14	71		46 - 143	08/11/24 07:25	08/12/24 20:01	10

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		19	3.6	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
4,4'-DDE	ND		19	3.9	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
4,4'-DDT	ND		19	4.4	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
Aldrin	ND		19	4.6	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
alpha-BHC	ND		19	3.4	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
cis-Chlordane	ND		19	9.3	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
beta-BHC	ND		19	3.4	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
delta-BHC	ND		19	3.5	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
Dieldrin	ND		19	4.5	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
Endosulfan I	ND		19	3.6	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
Endosulfan II	ND		19	3.4	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
Endosulfan sulfate	ND		19	3.5	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
Endrin	ND		19	3.7	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
Endrin aldehyde	ND		19	4.8	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
Endrin ketone	ND		19	4.6	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
gamma-BHC (Lindane)	ND		19	3.4	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
trans-Chlordane	ND		19	5.9	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
Heptachlor	ND		19	4.0	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
Heptachlor epoxide	ND		19	4.8	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
Methoxychlor	ND		19	3.8	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10
Toxaphene	ND		190	110	ug/Kg	☼	08/13/24 07:15	08/16/24 16:23	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	181	S1+	45 - 120	08/13/24 07:15	08/16/24 16:23	10
DCB Decachlorobiphenyl	154	S1+	45 - 120	08/13/24 07:15	08/16/24 16:23	10
Tetrachloro-m-xylene	103		30 - 124	08/13/24 07:15	08/16/24 16:23	10
Tetrachloro-m-xylene	114		30 - 124	08/13/24 07:15	08/16/24 16:23	10

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.27	0.053	mg/Kg	☼	08/11/24 07:13	08/13/24 06:46	1
PCB-1221	ND		0.27	0.053	mg/Kg	☼	08/11/24 07:13	08/13/24 06:46	1
PCB-1232	ND		0.27	0.053	mg/Kg	☼	08/11/24 07:13	08/13/24 06:46	1
PCB-1242	ND		0.27	0.053	mg/Kg	☼	08/11/24 07:13	08/13/24 06:46	1
PCB-1248	ND		0.27	0.053	mg/Kg	☼	08/11/24 07:13	08/13/24 06:46	1
PCB-1254	ND		0.27	0.13	mg/Kg	☼	08/11/24 07:13	08/13/24 06:46	1
PCB-1260	ND		0.27	0.13	mg/Kg	☼	08/11/24 07:13	08/13/24 06:46	1

Client Sample ID: SB-07-0.0-0.2
Date Collected: 08/08/24 15:25
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-11
Matrix: Solid
Percent Solids: 88.8

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	106		60 - 154	08/11/24 07:13	08/13/24 06:46	1
Tetrachloro-m-xylene	86		60 - 154	08/11/24 07:13	08/13/24 06:46	1
DCB Decachlorobiphenyl	96		65 - 174	08/11/24 07:13	08/13/24 06:46	1
DCB Decachlorobiphenyl	95		65 - 174	08/11/24 07:13	08/13/24 06:46	1

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.78	0.20	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluoropentanoic acid (PFPeA)	ND		0.39	0.098	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluorohexanoic acid (PFHxA)	ND		0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluoroheptanoic acid (PFHpA)	ND		0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluorooctanoic acid (PFOA)	ND		0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluorononanoic acid (PFNA)	**0.073**	**J I**	0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluorodecanoic acid (PFDA)	**0.12**	**J**	0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluoroundecanoic acid (PFUnA)	**0.16**	**J I**	0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluorododecanoic acid (PFDoA)	**0.070**	**J**	0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluorotridecanoic acid (PFTrDA)	**0.057**	**J**	0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluorooctanesulfonic acid (PFOS)	**0.19**	**J**	0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluorononanesulfonic acid (PFNS)	ND		0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		0.78	0.20	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		0.78	0.20	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		0.78	0.20	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		2.0	0.49	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		2.0	0.49	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.78	0.20	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.78	0.20	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1

Client Sample ID: SB-07-0.0-0.2
Date Collected: 08/08/24 15:25
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-11
Matrix: Solid
Percent Solids: 88.8

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.39	0.098	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.39	0.098	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		0.78	0.20	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		0.78	0.20	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.39	0.098	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		0.98	0.24	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		4.9	1.2	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		4.9	1.2	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.20	0.049	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.39	0.098	ug/Kg	☼	08/14/24 08:25	08/14/24 23:30	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*81.9*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
13C5 PFPeA	*75.2*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
13C5 PFHxA	*77.4*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
13C4 PFHpA	*78.1*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
13C8 PFOA	*82.9*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
13C9 PFNA	*82.6*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
13C6 PFDA	*94.9*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
13C7 PFUnA	*95.5*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
13C2 PFTeDA	*53.7*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
13C3 PFBS	*92.3*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
13C3 PFHxS	*91.2*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
13C8 PFOS	*86.3*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
13C8 FOSA	*77.6*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
d3-NMeFOSAA	*82.0*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
d5-NEtFOSAA	*77.5*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
M2-4:2 FTS	*116*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
M2-6:2 FTS	*125*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
M2-8:2 FTS	*106*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
13C3 HFPO-DA	*78.3*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
d7-N-MeFOSE-M	*75.1*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
d9-N-EtFOSE-M	*80.1*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
d5-NEtPFOSA	*76.4*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
d3-NMePFOSA	*71.4*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*
13C2-PFDoDA	*72.1*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:30*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**13400**		11.4	9.8	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Antimony	ND		17.1	0.61	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Arsenic	**4.7**		2.3	1.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Barium	**121**	**B**	0.57	0.16	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Beryllium	**3.4**		0.23	0.046	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1

Client Sample ID: SB-07-0.0-0.2
Date Collected: 08/08/24 15:25
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-11
Matrix: Solid
Percent Solids: 88.8

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.23	0.080	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Calcium	**64900**		57.1	30.8	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Chromium	**15.7**		0.57	0.41	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Cobalt	**4.6**		0.57	0.11	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Copper	**11.0**		1.1	0.65	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Iron	**10400**		11.4	9.7	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Lead	**13.7**		1.1	0.53	mg/Kg	☼	08/12/24 14:53	08/14/24 15:45	1
Magnesium	**11400**		22.8	9.7	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Manganese	**872**		1.1	0.32	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Nickel	**15.2**		5.7	0.29	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Potassium	**791**		34.3	27.7	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Selenium	ND		4.6	0.91	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Silver	ND		0.69	0.23	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Sodium	**788**		160	70.0	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Thallium	ND		6.9	0.87	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Vanadium	**6.1**		0.57	0.15	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1
Zinc	**70.3**	**B**	2.3	1.2	mg/Kg	☼	08/12/24 14:53	08/13/24 17:54	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.024**		0.022	0.0050	mg/Kg	☼	08/13/24 08:15	08/13/24 10:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	**0.85**	**J**	1.1	0.53	mg/Kg	☼	08/16/24 12:10	08/20/24 10:36	1

Surrogate Summary

Client: Ashland LLC
Project/Site: Tank 75 - Soil Analysis

Job ID: 480-222440-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(64-126)	(72-126)	(60-140)	(71-125)
480-222440-1	SB-03-5.0-7.0	112	94	108	96
480-222440-2	SB-03-28.0-30.0	114	93	110	96
480-222440-5	SB-02-10.0-11.0	109	93	106	96
480-222440-6	SB-02-28.0-30.0	111	91	112	99
480-222440-8	SB-09-4.0-5.0	112	95	108	96
480-222440-9	SB-09-28.0-30.0	110	91	107	96
LCS 480-721517/1-A	Lab Control Sample	96	98	93	96
LCSD 480-721517/21-A	Lab Control Sample Dup	103	95	99	95
MB 480-721517/2-A	Method Blank	107	96	105	95

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPHd14
Lab Sample ID	Client Sample ID	(26-143)	(50-121)	(36-120)	(40-121)	(41-120)	(46-143)
480-222440-1	SB-03-5.0-7.0	100	90	82	87	89	92
480-222440-1 MS	SB-03-5.0-7.0	108	90	77	84	86	99
480-222440-1 MSD	SB-03-5.0-7.0	110	89	77	84	88	92
480-222440-2	SB-03-28.0-30.0	98	82	77	82	86	89
480-222440-3	SB-02-0.0-0.2	167 S1+	91	128 S1+	89	93	98
480-222440-4	SB-02-0.0-0.2-FD	0 S1-	80	0 S1-	74	83	93
480-222440-5	SB-02-10.0-11.0	165 S1+	93	0 S1-	74	59	96
480-222440-6	SB-02-28.0-30.0	92	81	76	81	84	85
480-222440-7	SB-09-0.0-0.2	91	82	88	78	83	77
480-222440-8	SB-09-4.0-5.0	65	74	58	69	68	80
480-222440-9	SB-09-28.0-30.0	90	74	70	77	75	78
480-222440-10	SB-08-0.0-0.2	0 S1-	72	0 S1-	76	73	85
480-222440-11	SB-07-0.0-0.2	82	73	71	74	72	71
LCS 480-721348/2-A	Lab Control Sample	112	95	84	93	93	94
MB 480-721348/1-A	Method Blank	100	93	85	90	91	91

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHd14 = p-Terphenyl-d14

Surrogate Summary

Client: Ashland LLC
Job ID: 480-222440-1
Project/Site: Tank 75 - Soil Analysis

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1	DCBP2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(45-120)	(45-120)	(30-124)	(30-124)
480-222440-1	SB-03-5.0-7.0	82	93	59	76
480-222440-2	SB-03-28.0-30.0	80	90	77	103
480-222440-3	SB-02-0.0-0.2	0 S1-	0 S1-	0 S1-	0 S1-
480-222440-4	SB-02-0.0-0.2-FD	0 S1-	0 S1-	0 S1-	0 S1-
480-222440-5	SB-02-10.0-11.0	0 S1-	0 S1-	0 S1-	0 S1-
480-222440-6	SB-02-28.0-30.0	68	88	70	80
480-222440-7	SB-09-0.0-0.2	334 S1+	447 S1+	155 S1+	134 S1+
480-222440-8	SB-09-4.0-5.0	66	89	69	80
480-222440-9	SB-09-28.0-30.0	72	87	65	79
480-222440-10	SB-08-0.0-0.2	0 S1-	0 S1-	0 S1-	0 S1-
480-222440-11	SB-07-0.0-0.2	181 S1+	154 S1+	103	114
LCS 480-721530/2-A	Lab Control Sample	81	109	84	93
MB 480-721530/1-A	Method Blank	84	116	85	98

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCBP1	DCBP2
Lab Sample ID	Client Sample ID	(60-154)	(60-154)	(65-174)	(65-174)
480-222440-1	SB-03-5.0-7.0	111	91	105	102
480-222440-2	SB-03-28.0-30.0	105	87	102	98
480-222440-3	SB-02-0.0-0.2	98	78	79	77
480-222440-4	SB-02-0.0-0.2-FD	107	87	88	87
480-222440-5	SB-02-10.0-11.0	107	93	96	95
480-222440-6	SB-02-28.0-30.0	120	98	119	115
480-222440-7	SB-09-0.0-0.2	121	100	111	108
480-222440-8	SB-09-4.0-5.0	127	100	122	118
480-222440-9	SB-09-28.0-30.0	120	99	119	115
480-222440-10	SB-08-0.0-0.2	108	89	86	90
480-222440-11	SB-07-0.0-0.2	106	86	96	95
LCS 480-721346/2-A	Lab Control Sample	150	124	155	150
MB 480-721346/1-A	Method Blank	133	108	134	131

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

Isotope Dilution Summary

Client: Ashland LLC
Project/Site: Tank 75 - Soil Analysis

Job ID: 480-222440-1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(20-150)	(20-150)	(20-150)	(20-150)	(20-150)	(20-150)	(20-150)	(20-150)
480-222440-11	SB-07-0.0-0.2	81.9	75.2	77.4	78.1	82.9	82.6	94.9	95.5
LCS 240-623299/3-A	Lab Control Sample	79.4	73.0	75.9	77.7	92.0	79.8	91.8	102
LLCS 240-623299/2-A	Lab Control Sample	81.0	72.3	73.2	79.4	91.9	87.3	102	99.4
MB 240-623299/1-A	Method Blank	80.6	76.2	75.0	78.8	82.8	76.9	104	111

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFTDA	C3PFBS	C3PFHS	C8PFOS	PFOSA	d3NMFOS	d5NEFOS	M242FTS
Lab Sample ID	Client Sample ID	(20-150)	(20-150)	(20-150)	(20-150)	(20-150)	(20-150)	(20-150)	(20-150)
480-222440-11	SB-07-0.0-0.2	53.7	92.3	91.2	86.3	77.6	82.0	77.5	116
LCS 240-623299/3-A	Lab Control Sample	70.1	92.0	96.6	93.3	75.8	80.7	72.4	108
LLCS 240-623299/2-A	Lab Control Sample	70.5	97.5	94.5	94.3	79.3	84.1	69.9	114
MB 240-623299/1-A	Method Blank	73.0	97.0	96.8	93.7	74.7	83.4	71.3	109

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M262FTS	M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	PFDoDA
Lab Sample ID	Client Sample ID	(20-150)	(20-150)	(20-150)	(20-150)	(20-150)	(20-150)	(20-150)	(20-150)
480-222440-11	SB-07-0.0-0.2	125	106	78.3	75.1	80.1	76.4	71.4	72.1
LCS 240-623299/3-A	Lab Control Sample	115	112	79.8	76.8	79.7	63.0	62.4	79.2
LLCS 240-623299/2-A	Lab Control Sample	124	118	76.3	79.8	78.5	68.2	63.9	76.5
MB 240-623299/1-A	Method Blank	117	115	83.4	77.6	86.6	64.4	60.7	82.6

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoDA = 13C2-PFDoDA

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-721517/2-A
Matrix: Solid
Analysis Batch: 721513

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 721517

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
2-Hexanone	ND		25	2.5	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
Acetone	ND		25	4.2	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
Benzene	ND		5.0	0.25	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
Bromoform	ND		5.0	2.5	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
Bromomethane	ND		5.0	0.45	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
Carbon disulfide	ND		5.0	2.5	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
Chlorobenzene	ND		5.0	0.66	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
Chloroethane	ND		5.0	1.1	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
Chloroform	ND		5.0	0.31	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
Chloromethane	ND		5.0	0.30	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
Cyclohexane	ND		5.0	0.70	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
Ethylbenzene	ND		5.0	0.35	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
Methyl acetate	ND		25	3.0	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
Methylene Chloride	ND		5.0	2.3	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
Styrene	ND		5.0	0.25	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
Tetrachloroethene	ND		5.0	0.67	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
Toluene	ND		5.0	0.38	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
trans-1,2-Dichloroethene	ND		5.0	0.52	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
Trichloroethene	ND		5.0	1.1	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
Vinyl chloride	ND		5.0	0.61	ug/Kg		08/12/24 19:29	08/12/24 21:58	1
Xylenes, Total	ND		10	0.84	ug/Kg		08/12/24 19:29	08/12/24 21:58	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-721517/2-A
Matrix: Solid
Analysis Batch: 721513

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 721517

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/Kg			N/A	08/12/24 19:29	08/12/24 21:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		64 - 126	08/12/24 19:29	08/12/24 21:58	1
4-Bromofluorobenzene (Surr)	96		72 - 126	08/12/24 19:29	08/12/24 21:58	1
Dibromofluoromethane (Surr)	105		60 - 140	08/12/24 19:29	08/12/24 21:58	1
Toluene-d8 (Surr)	95		71 - 125	08/12/24 19:29	08/12/24 21:58	1

Lab Sample ID: LCS 480-721517/1-A
Matrix: Solid
Analysis Batch: 721513

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 721517

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	50.0	42.8		ug/Kg		86	77 - 121
1,1,2,2-Tetrachloroethane	50.0	46.3		ug/Kg		93	80 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	40.0		ug/Kg		80	60 - 140
1,1,2-Trichloroethane	50.0	47.6		ug/Kg		95	78 - 122
1,1-Dichloroethane	50.0	42.9		ug/Kg		86	73 - 126
1,1-Dichloroethene	50.0	41.1		ug/Kg		82	59 - 125
1,2,4-Trichlorobenzene	50.0	43.6		ug/Kg		87	64 - 120
1,2-Dibromo-3-Chloropropane	50.0	45.3		ug/Kg		91	63 - 124
1,2-Dibromoethane	50.0	47.4		ug/Kg		95	78 - 120
1,2-Dichlorobenzene	50.0	45.6		ug/Kg		91	75 - 120
1,2-Dichloroethane	50.0	44.9		ug/Kg		90	77 - 122
1,2-Dichloropropane	50.0	45.1		ug/Kg		90	75 - 124
1,3-Dichlorobenzene	50.0	46.0		ug/Kg		92	74 - 120
1,4-Dichlorobenzene	50.0	46.4		ug/Kg		93	73 - 120
2-Butanone (MEK)	250	219		ug/Kg		88	70 - 134
2-Hexanone	250	266		ug/Kg		107	59 - 130
4-Methyl-2-pentanone (MIBK)	250	252		ug/Kg		101	65 - 133
Acetone	250	198		ug/Kg		79	61 - 137
Benzene	50.0	43.1		ug/Kg		86	79 - 127
Bromodichloromethane	50.0	43.8		ug/Kg		88	80 - 122
Bromoform	50.0	47.6		ug/Kg		95	68 - 126
Bromomethane	50.0	43.1		ug/Kg		86	37 - 149
Carbon disulfide	50.0	39.1		ug/Kg		78	64 - 131
Carbon tetrachloride	50.0	43.2		ug/Kg		86	75 - 135
Chlorobenzene	50.0	46.7		ug/Kg		93	76 - 124
Chloroethane	50.0	43.7		ug/Kg		87	69 - 135
Chloroform	50.0	41.3		ug/Kg		83	80 - 120
Chloromethane	50.0	43.4		ug/Kg		87	63 - 127
cis-1,2-Dichloroethene	50.0	41.3		ug/Kg		83	81 - 120
cis-1,3-Dichloropropene	50.0	46.3		ug/Kg		93	80 - 120
Cyclohexane	50.0	41.8		ug/Kg		84	65 - 120
Dibromochloromethane	50.0	47.3		ug/Kg		95	76 - 125
Dichlorodifluoromethane	50.0	40.4		ug/Kg		81	57 - 142
Ethylbenzene	50.0	46.6		ug/Kg		93	80 - 120

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-721517/1-A
Matrix: Solid
Analysis Batch: 721513

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 721517

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Isopropylbenzene			50.0	45.7		ug/Kg		91	72 - 120		
Methyl acetate			100	82.6		ug/Kg		83	55 - 136		
Methyl tert-butyl ether			50.0	41.0		ug/Kg		82	63 - 125		
Methylcyclohexane			50.0	41.1		ug/Kg		82	60 - 140		
Methylene Chloride			50.0	45.5		ug/Kg		91	61 - 127		
Styrene			50.0	47.1		ug/Kg		94	80 - 120		
Tetrachloroethene			50.0	45.6		ug/Kg		91	74 - 122		
Toluene			50.0	46.3		ug/Kg		93	74 - 128		
trans-1,2-Dichloroethene			50.0	41.2		ug/Kg		82	78 - 126		
Trichloroethene			50.0	42.5		ug/Kg		85	77 - 129		
Trichlorofluoromethane			50.0	44.7		ug/Kg		89	65 - 146		
Vinyl chloride			50.0	43.2		ug/Kg		86	61 - 133		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*64 - 126*
4-Bromofluorobenzene (Surr)	*98*		*72 - 126*
Dibromofluoromethane (Surr)	*93*		*60 - 140*
Toluene-d8 (Surr)	*96*		*71 - 125*

Lab Sample ID: LCSD 480-721517/21-A
Matrix: Solid
Analysis Batch: 721513

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 721517

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane			50.0	44.3		ug/Kg		89	77 - 121	4	20
1,1,2,2-Tetrachloroethane			50.0	48.5		ug/Kg		97	80 - 120	5	20
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	42.1		ug/Kg		84	60 - 140	5	20
1,1,2-Trichloroethane			50.0	48.9		ug/Kg		98	78 - 122	3	20
1,1-Dichloroethane			50.0	46.8		ug/Kg		94	73 - 126	9	20
1,1-Dichloroethene			50.0	43.7		ug/Kg		87	59 - 125	6	20
1,2,4-Trichlorobenzene			50.0	41.0		ug/Kg		82	64 - 120	6	20
1,2-Dibromo-3-Chloropropane			50.0	46.5		ug/Kg		93	63 - 124	2	20
1,2-Dibromoethane			50.0	48.4		ug/Kg		97	78 - 120	2	20
1,2-Dichlorobenzene			50.0	47.3		ug/Kg		95	75 - 120	4	20
1,2-Dichloroethane			50.0	49.5		ug/Kg		99	77 - 122	10	20
1,2-Dichloropropane			50.0	49.0		ug/Kg		98	75 - 124	8	20
1,3-Dichlorobenzene			50.0	47.1		ug/Kg		94	74 - 120	2	20
1,4-Dichlorobenzene			50.0	46.9		ug/Kg		94	73 - 120	1	20
2-Butanone (MEK)			250	227		ug/Kg		91	70 - 134	4	20
2-Hexanone			250	258		ug/Kg		103	59 - 130	3	20
4-Methyl-2-pentanone (MIBK)			250	252		ug/Kg		101	65 - 133	0	20
Acetone			250	208		ug/Kg		83	61 - 137	5	20
Benzene			50.0	47.2		ug/Kg		94	79 - 127	9	20
Bromodichloromethane			50.0	48.2		ug/Kg		96	80 - 122	10	20
Bromoform			50.0	46.1		ug/Kg		92	68 - 126	3	20
Bromomethane			50.0	49.4		ug/Kg		99	37 - 149	14	20
Carbon disulfide			50.0	43.0		ug/Kg		86	64 - 131	10	20
Carbon tetrachloride			50.0	43.4		ug/Kg		87	75 - 135	1	20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 480-721517/21-A
Matrix: Solid
Analysis Batch: 721513

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 721517

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chlorobenzene			50.0	47.0		ug/Kg		94	76 - 124	1	20
Chloroethane			50.0	50.1		ug/Kg		100	69 - 135	14	20
Chloroform			50.0	45.8		ug/Kg		92	80 - 120	10	20
Chloromethane			50.0	51.0		ug/Kg		102	63 - 127	16	20
cis-1,2-Dichloroethene			50.0	45.5		ug/Kg		91	81 - 120	10	20
cis-1,3-Dichloropropene			50.0	47.5		ug/Kg		95	80 - 120	3	20
Cyclohexane			50.0	41.9		ug/Kg		84	65 - 120	0	20
Dibromochloromethane			50.0	49.2		ug/Kg		98	76 - 125	4	20
Dichlorodifluoromethane			50.0	42.7		ug/Kg		85	57 - 142	6	20
Ethylbenzene			50.0	45.1		ug/Kg		90	80 - 120	3	20
Isopropylbenzene			50.0	46.3		ug/Kg		93	72 - 120	1	20
Methyl acetate			100	92.3		ug/Kg		92	55 - 136	11	20
Methyl tert-butyl ether			50.0	44.5		ug/Kg		89	63 - 125	8	20
Methylcyclohexane			50.0	40.5		ug/Kg		81	60 - 140	1	20
Methylene Chloride			50.0	50.8		ug/Kg		102	61 - 127	11	20
Styrene			50.0	46.5		ug/Kg		93	80 - 120	1	20
Tetrachloroethene			50.0	42.4		ug/Kg		85	74 - 122	7	20
Toluene			50.0	47.3		ug/Kg		95	74 - 128	2	20
trans-1,2-Dichloroethene			50.0	45.1		ug/Kg		90	78 - 126	9	20
Trichloroethene			50.0	46.2		ug/Kg		92	77 - 129	8	20
Trichlorofluoromethane			50.0	45.5		ug/Kg		91	65 - 146	2	20
Vinyl chloride			50.0	48.9		ug/Kg		98	61 - 133	12	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*64 - 126*
4-Bromofluorobenzene (Surr)	*95*		*72 - 126*
Dibromofluoromethane (Surr)	*99*		*60 - 140*
Toluene-d8 (Surr)	*95*		*71 - 125*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-721348/1-A
Matrix: Solid
Analysis Batch: 721404

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 721348

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		100	55	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
2,4,5-Trichlorophenol	ND		170	46	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
2,4,6-Trichlorophenol	ND		170	34	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
2,4-Dichlorophenol	ND		170	18	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
2,4-Dimethylphenol	ND		170	41	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
2,4-Dinitrophenol	ND		1700	780	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
2,4-Dinitrotoluene	ND		170	35	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
2,6-Dinitrotoluene	ND		170	20	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
2-Chloronaphthalene	ND		170	28	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
2-Chlorophenol	ND		330	31	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
2-Methylnaphthalene	ND		170	34	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
2-Methylphenol	ND		170	20	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
2-Nitroaniline	ND		330	25	ug/Kg		08/11/24 07:25	08/12/24 10:50	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-721348/1-A
Matrix: Solid
Analysis Batch: 721404

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 721348

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitrophenol	ND		170	48	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
3,3'-Dichlorobenzidine	ND		330	200	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
3-Nitroaniline	ND		330	47	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
4,6-Dinitro-2-methylphenol	ND		330	170	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
4-Bromophenyl phenyl ether	ND		170	24	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
4-Chloro-3-methylphenol	ND		170	42	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
4-Chloroaniline	ND		170	42	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
4-Chlorophenyl phenyl ether	ND		170	21	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
4-Methylphenol	ND		330	20	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
4-Nitroaniline	ND		330	89	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
4-Nitrophenol	ND		330	120	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Acenaphthene	ND		170	25	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Acenaphthylene	ND		170	22	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Acetophenone	ND		170	23	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Anthracene	ND		170	42	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Atrazine	ND		170	59	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Benzaldehyde	ND		170	140	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Benzo[a]anthracene	ND		170	17	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Benzo[a]pyrene	ND		170	25	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Benzo[b]fluoranthene	ND		170	27	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Benzo[g,h,i]perylene	ND		170	18	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Benzo[k]fluoranthene	ND		170	22	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Biphenyl	ND		170	25	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
bis (2-chloroisopropyl) ether	ND		170	34	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Bis(2-chloroethoxy)methane	ND		170	36	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Bis(2-chloroethyl)ether	ND		170	22	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Bis(2-ethylhexyl) phthalate	ND		170	58	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Butyl benzyl phthalate	ND		170	28	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Caprolactam	ND		170	51	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Carbazole	ND		170	20	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Chrysene	ND		170	38	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Dibenz(a,h)anthracene	ND		170	30	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Dibenzofuran	ND		170	20	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Diethyl phthalate	ND		170	22	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Dimethyl phthalate	ND		170	20	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Di-n-butyl phthalate	ND		170	29	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Di-n-octyl phthalate	ND		170	20	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Fluoranthene	ND		170	18	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Fluorene	ND		170	20	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Hexachlorobenzene	ND		170	23	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Hexachlorobutadiene	ND		170	25	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Hexachlorocyclopentadiene	ND		170	23	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Hexachloroethane	ND		170	22	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Indeno[1,2,3-cd]pyrene	ND		170	21	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Isophorone	ND		170	36	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Naphthalene	ND		170	22	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Nitrobenzene	ND		170	19	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
N-Nitrosodi-n-propylamine	ND		170	29	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
N-Nitrosodiphenylamine	ND		170	140	ug/Kg		08/11/24 07:25	08/12/24 10:50	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-721348/1-A
Matrix: Solid
Analysis Batch: 721404

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 721348

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		330	170	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Phenanthrene	ND		170	25	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Phenol	ND		170	26	ug/Kg		08/11/24 07:25	08/12/24 10:50	1
Pyrene	ND		170	20	ug/Kg		08/11/24 07:25	08/12/24 10:50	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*546*	*T J*	*ug/Kg*		*1.70*	*N/A*	*08/11/24 07:25*	*08/12/24 10:50*	*1*
Unknown	*2760*	*T J*	*ug/Kg*		*1.91*	*N/A*	*08/11/24 07:25*	*08/12/24 10:50*	*1*
Unknown	*4920*	*T J*	*ug/Kg*		*3.31*	*N/A*	*08/11/24 07:25*	*08/12/24 10:50*	*1*
Unknown	*184*	*T J*	*ug/Kg*		*3.97*	*N/A*	*08/11/24 07:25*	*08/12/24 10:50*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*100*		*26 - 143*	*08/11/24 07:25*	*08/12/24 10:50*	*1*
2-Fluorobiphenyl	*93*		*50 - 121*	*08/11/24 07:25*	*08/12/24 10:50*	*1*
2-Fluorophenol	*85*		*36 - 120*	*08/11/24 07:25*	*08/12/24 10:50*	*1*
Nitrobenzene-d5	*90*		*40 - 121*	*08/11/24 07:25*	*08/12/24 10:50*	*1*
Phenol-d5	*91*		*41 - 120*	*08/11/24 07:25*	*08/12/24 10:50*	*1*
p-Terphenyl-d14	*91*		*46 - 143*	*08/11/24 07:25*	*08/12/24 10:50*	*1*

Lab Sample ID: LCS 480-721348/2-A
Matrix: Solid
Analysis Batch: 721404

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 721348

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	1330	790		ug/Kg		59	23 - 120
2,4,5-Trichlorophenol	1330	1270		ug/Kg		95	59 - 126
2,4,6-Trichlorophenol	1330	1220		ug/Kg		91	59 - 123
2,4-Dichlorophenol	1330	1250		ug/Kg		94	61 - 120
2,4-Dimethylphenol	1330	1330		ug/Kg		100	59 - 120
2,4-Dinitrophenol	2670	2590		ug/Kg		97	41 - 146
2,4-Dinitrotoluene	1330	1260		ug/Kg		94	63 - 120
2,6-Dinitrotoluene	1330	1270		ug/Kg		95	66 - 120
2-Chloronaphthalene	1330	1290		ug/Kg		96	57 - 120
2-Chlorophenol	1330	1180		ug/Kg		88	53 - 120
2-Methylnaphthalene	1330	1220		ug/Kg		91	59 - 120
2-Methylphenol	1330	1290		ug/Kg		97	54 - 120
2-Nitroaniline	1330	1430		ug/Kg		107	61 - 120
2-Nitrophenol	1330	1250		ug/Kg		94	56 - 120
3,3'-Dichlorobenzidine	2670	2710	E	ug/Kg		102	54 - 120
3-Nitroaniline	1330	1140		ug/Kg		86	48 - 120
4,6-Dinitro-2-methylphenol	2670	2800		ug/Kg		105	49 - 122
4-Bromophenyl phenyl ether	1330	1430		ug/Kg		107	58 - 120
4-Chloro-3-methylphenol	1330	1360		ug/Kg		102	61 - 120
4-Chloroaniline	1330	1130		ug/Kg		85	38 - 120
4-Chlorophenyl phenyl ether	1330	1310		ug/Kg		98	63 - 124
4-Methylphenol	1330	1310		ug/Kg		98	55 - 120
4-Nitroaniline	1330	1300		ug/Kg		97	56 - 120
4-Nitrophenol	2670	2720		ug/Kg		102	43 - 147

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-721348/2-A
Matrix: Solid
Analysis Batch: 721404

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 721348

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	1330	1360		ug/Kg		102	62 - 120
Acenaphthylene	1330	1370		ug/Kg		103	58 - 121
Acetophenone	1330	1240		ug/Kg		93	54 - 120
Anthracene	1330	1380		ug/Kg		103	62 - 120
Atrazine	2670	2410		ug/Kg		90	60 - 127
Benzaldehyde	2670	2600		ug/Kg		98	10 - 150
Benzo[a]anthracene	1330	1290		ug/Kg		97	65 - 120
Benzo[a]pyrene	1330	1360		ug/Kg		102	64 - 120
Benzo[b]fluoranthene	1330	1330		ug/Kg		100	64 - 120
Benzo[g,h,i]perylene	1330	1340		ug/Kg		101	45 - 145
Benzo[k]fluoranthene	1330	1370		ug/Kg		102	65 - 120
Biphenyl	1330	1310		ug/Kg		98	59 - 120
bis (2-chloroisopropyl) ether	1330	1230		ug/Kg		92	44 - 120
Bis(2-chloroethoxy)methane	1330	1250		ug/Kg		93	55 - 120
Bis(2-chloroethyl)ether	1330	1200		ug/Kg		90	45 - 120
Bis(2-ethylhexyl) phthalate	1330	1300		ug/Kg		98	61 - 133
Butyl benzyl phthalate	1330	1320		ug/Kg		99	61 - 129
Caprolactam	2670	2870	E	ug/Kg		107	47 - 120
Carbazole	1330	1380		ug/Kg		103	65 - 120
Chrysene	1330	1260		ug/Kg		95	64 - 120
Dibenz(a,h)anthracene	1330	1360		ug/Kg		102	54 - 132
Dibenzofuran	1330	1280		ug/Kg		96	63 - 120
Diethyl phthalate	1330	1320		ug/Kg		99	66 - 120
Dimethyl phthalate	1330	1350		ug/Kg		102	65 - 124
Di-n-butyl phthalate	1330	1380		ug/Kg		103	58 - 130
Di-n-octyl phthalate	1330	1320		ug/Kg		99	57 - 133
Fluoranthene	1330	1370		ug/Kg		103	62 - 120
Fluorene	1330	1290		ug/Kg		97	63 - 120
Hexachlorobenzene	1330	1460		ug/Kg		110	60 - 120
Hexachlorobutadiene	1330	1100		ug/Kg		82	45 - 120
Hexachlorocyclopentadiene	1330	1130		ug/Kg		85	47 - 120
Hexachloroethane	1330	1100		ug/Kg		82	41 - 120
Indeno[1,2,3-cd]pyrene	1330	1360		ug/Kg		102	56 - 134
Isophorone	1330	1350		ug/Kg		101	56 - 120
Naphthalene	1330	1210		ug/Kg		90	55 - 120
Nitrobenzene	1330	1300		ug/Kg		98	54 - 120
N-Nitrosodi-n-propylamine	1330	1280		ug/Kg		96	52 - 120
Pentachlorophenol	2670	2870		ug/Kg		108	10 - 120
Phenanthrene	1330	1410		ug/Kg		106	60 - 120
Phenol	1330	1170		ug/Kg		88	53 - 120
Pyrene	1330	1380		ug/Kg		103	61 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*112*		*26 - 143*
2-Fluorobiphenyl	*95*		*50 - 121*
2-Fluorophenol	*84*		*36 - 120*
Nitrobenzene-d5	*93*		*40 - 121*
Phenol-d5	*93*		*41 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-721348/2-A
Matrix: Solid
Analysis Batch: 721404

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 721348

Surrogate	LCS %Recovery	LCS Qualifier	Limits
p-Terphenyl-d14	94		46 - 143

Lab Sample ID: 480-222440-1 MS
Matrix: Solid
Analysis Batch: 721404

Client Sample ID: SB-03-5.0-7.0
Prep Type: Total/NA
Prep Batch: 721348

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2,4,5-Trichlorophenol	ND		1720	1540		ug/Kg	☼	90	46 - 120
2,4,6-Trichlorophenol	ND		1720	1510		ug/Kg	☼	88	41 - 123
2,4-Dichlorophenol	ND		1720	1530		ug/Kg	☼	89	45 - 120
2,4-Dimethylphenol	ND		1720	1610		ug/Kg	☼	94	52 - 120
2,4-Dinitrophenol	ND		3450	3150		ug/Kg	☼	92	41 - 146
2,4-Dinitrotoluene	ND		1720	1520		ug/Kg	☼	88	63 - 125
2,6-Dinitrotoluene	ND		1720	1560		ug/Kg	☼	91	66 - 120
2-Chloronaphthalene	ND		1720	1550		ug/Kg	☼	90	57 - 120
2-Chlorophenol	ND		1720	1340		ug/Kg	☼	78	43 - 120
2-Methylnaphthalene	ND		1720	1410		ug/Kg	☼	82	55 - 120
2-Methylphenol	ND		1720	1480		ug/Kg	☼	86	48 - 120
2-Nitroaniline	ND		1720	1710		ug/Kg	☼	99	61 - 120
2-Nitrophenol	ND		1720	1450		ug/Kg	☼	84	37 - 120
3,3'-Dichlorobenzidine	ND		3450	3100		ug/Kg	☼	90	37 - 126
3-Nitroaniline	ND		1720	1370		ug/Kg	☼	80	48 - 120
4,6-Dinitro-2-methylphenol	ND		3450	3420		ug/Kg	☼	99	23 - 149
4-Bromophenyl phenyl ether	ND		1720	1700		ug/Kg	☼	99	58 - 120
4-Chloro-3-methylphenol	ND		1720	1590		ug/Kg	☼	92	49 - 125
4-Chloroaniline	ND		1720	1270		ug/Kg	☼	74	38 - 120
4-Chlorophenyl phenyl ether	ND		1720	1540		ug/Kg	☼	89	63 - 124
4-Methylphenol	ND		1720	1550		ug/Kg	☼	90	50 - 120
4-Nitroaniline	ND		1720	1470		ug/Kg	☼	85	47 - 120
4-Nitrophenol	ND		3450	3210		ug/Kg	☼	93	31 - 147
Acenaphthene	ND		1720	1650		ug/Kg	☼	96	60 - 120
Acenaphthylene	ND		1720	1650		ug/Kg	☼	96	58 - 121
Acetophenone	ND		1720	1460		ug/Kg	☼	85	47 - 120
Anthracene	ND		1720	1660		ug/Kg	☼	96	62 - 120
Atrazine	ND		3450	2840		ug/Kg	☼	82	60 - 150
Benzaldehyde	ND		3450	2950		ug/Kg	☼	86	10 - 150
Benzo[a]anthracene	ND		1720	1580		ug/Kg	☼	92	65 - 120
Benzo[a]pyrene	ND		1720	1700		ug/Kg	☼	99	64 - 120
Benzo[b]fluoranthene	ND		1720	1690		ug/Kg	☼	98	10 - 150
Benzo[g,h,i]perylene	ND		1720	1710		ug/Kg	☼	99	45 - 145
Benzo[k]fluoranthene	ND		1720	1690		ug/Kg	☼	98	23 - 150
Biphenyl	ND		1720	1610		ug/Kg	☼	94	58 - 120
bis (2-chloroisopropyl) ether	ND		1720	1420		ug/Kg	☼	83	31 - 120
Bis(2-chloroethoxy)methane	ND		1720	1470		ug/Kg	☼	85	52 - 120
Bis(2-chloroethyl)ether	ND		1720	1400		ug/Kg	☼	82	45 - 120
Bis(2-ethylhexyl) phthalate	ND		1720	1610		ug/Kg	☼	93	61 - 133
Butyl benzyl phthalate	ND		1720	1740		ug/Kg	☼	101	61 - 120
Caprolactam	ND		3450	3320		ug/Kg	☼	96	37 - 133

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-222440-1 MS
Matrix: Solid
Analysis Batch: 721404

Client Sample ID: SB-03-5.0-7.0
Prep Type: Total/NA
Prep Batch: 721348

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Carbazole	ND		1720	1580		ug/Kg	☼	92	59 - 120
Chrysene	ND		1720	1530		ug/Kg	☼	89	64 - 120
Dibenz(a,h)anthracene	ND		1720	1720		ug/Kg	☼	100	54 - 132
Dibenzofuran	ND		1720	1560		ug/Kg	☼	91	62 - 120
Diethyl phthalate	ND		1720	1620		ug/Kg	☼	94	66 - 120
Dimethyl phthalate	ND		1720	1610		ug/Kg	☼	94	65 - 124
Di-n-butyl phthalate	ND		1720	1680		ug/Kg	☼	98	58 - 130
Di-n-octyl phthalate	ND		1720	1580		ug/Kg	☼	92	57 - 133
Fluoranthene	ND		1720	1590		ug/Kg	☼	92	62 - 120
Fluorene	ND		1720	1560		ug/Kg	☼	91	63 - 120
Hexachlorobenzene	ND		1720	1760		ug/Kg	☼	102	60 - 120
Hexachlorobutadiene	ND		1720	1260		ug/Kg	☼	73	45 - 120
Hexachlorocyclopentadiene	ND		1720	1450		ug/Kg	☼	84	31 - 120
Hexachloroethane	ND		1720	1250		ug/Kg	☼	73	21 - 120
Indeno[1,2,3-cd]pyrene	ND		1720	1710		ug/Kg	☼	99	56 - 134
Isophorone	ND		1720	1600		ug/Kg	☼	93	56 - 120
Naphthalene	ND		1720	1440		ug/Kg	☼	83	46 - 120
Nitrobenzene	ND		1720	1510		ug/Kg	☼	88	49 - 120
N-Nitrosodi-n-propylamine	ND		1720	1550		ug/Kg	☼	90	46 - 120
Pentachlorophenol	ND		3450	3550		ug/Kg	☼	103	10 - 136
Phenanthrene	ND		1720	1670		ug/Kg	☼	97	60 - 122
Phenol	ND		1720	1370		ug/Kg	☼	80	50 - 120
Pyrene	ND		1720	1820		ug/Kg	☼	106	61 - 133

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol	*108*		*26 - 143*
2-Fluorobiphenyl	*90*		*50 - 121*
2-Fluorophenol	*77*		*36 - 120*
Nitrobenzene-d5	*84*		*40 - 121*
Phenol-d5	*86*		*41 - 120*
p-Terphenyl-d14	*99*		*46 - 143*

Lab Sample ID: 480-222440-1 MSD
Matrix: Solid
Analysis Batch: 721404

Client Sample ID: SB-03-5.0-7.0
Prep Type: Total/NA
Prep Batch: 721348

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4,5-Trichlorophenol	ND		1750	1610		ug/Kg	☼	92	46 - 120	4	18
2,4,6-Trichlorophenol	ND		1750	1590		ug/Kg	☼	91	41 - 123	5	19
2,4-Dichlorophenol	ND		1750	1590		ug/Kg	☼	91	45 - 120	4	19
2,4-Dimethylphenol	ND		1750	1680		ug/Kg	☼	96	52 - 120	4	42
2,4-Dinitrophenol	ND		3490	3440		ug/Kg	☼	98	41 - 146	9	22
2,4-Dinitrotoluene	ND		1750	1660		ug/Kg	☼	95	63 - 125	9	20
2,6-Dinitrotoluene	ND		1750	1610		ug/Kg	☼	93	66 - 120	3	15
2-Chloronaphthalene	ND		1750	1580		ug/Kg	☼	91	57 - 120	2	21
2-Chlorophenol	ND		1750	1410		ug/Kg	☼	81	43 - 120	5	25
2-Methylnaphthalene	ND		1750	1430		ug/Kg	☼	82	55 - 120	1	21
2-Methylphenol	ND		1750	1610		ug/Kg	☼	92	48 - 120	8	27

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-222440-1 MSD
Matrix: Solid
Analysis Batch: 721404

Client Sample ID: SB-03-5.0-7.0
Prep Type: Total/NA
Prep Batch: 721348

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Nitroaniline	ND		1750	1790		ug/Kg	☼	103	61 - 120	5	15
2-Nitrophenol	ND		1750	1440		ug/Kg	☼	83	37 - 120	0	18
3,3'-Dichlorobenzidine	ND		3490	3490		ug/Kg	☼	100	37 - 126	12	25
3-Nitroaniline	ND		1750	1550		ug/Kg	☼	89	48 - 120	12	19
4,6-Dinitro-2-methylphenol	ND		3490	3630		ug/Kg	☼	104	23 - 149	6	15
4-Bromophenyl phenyl ether	ND		1750	1730		ug/Kg	☼	99	58 - 120	2	15
4-Chloro-3-methylphenol	ND		1750	1720		ug/Kg	☼	98	49 - 125	8	27
4-Chloroaniline	ND		1750	1370		ug/Kg	☼	79	38 - 120	8	22
4-Chlorophenyl phenyl ether	ND		1750	1650		ug/Kg	☼	94	63 - 124	7	16
4-Methylphenol	ND		1750	1640		ug/Kg	☼	94	50 - 120	5	24
4-Nitroaniline	ND		1750	1670		ug/Kg	☼	96	47 - 120	13	24
4-Nitrophenol	ND		3490	3700		ug/Kg	☼	106	31 - 147	14	25
Acenaphthene	ND		1750	1690		ug/Kg	☼	97	60 - 120	2	35
Acenaphthylene	ND		1750	1730		ug/Kg	☼	99	58 - 121	5	18
Acetophenone	ND		1750	1540		ug/Kg	☼	88	47 - 120	6	20
Anthracene	ND		1750	1720		ug/Kg	☼	99	62 - 120	4	15
Atrazine	ND		3490	3180		ug/Kg	☼	91	60 - 150	11	20
Benzaldehyde	ND		3490	2960		ug/Kg	☼	85	10 - 150	0	20
Benzo[a]anthracene	ND		1750	1620		ug/Kg	☼	93	65 - 120	2	15
Benzo[a]pyrene	ND		1750	1700		ug/Kg	☼	98	64 - 120	0	15
Benzo[b]fluoranthene	ND		1750	1660		ug/Kg	☼	95	10 - 150	2	15
Benzo[g,h,i]perylene	ND		1750	1690		ug/Kg	☼	97	45 - 145	1	15
Benzo[k]fluoranthene	ND		1750	1800		ug/Kg	☼	103	23 - 150	6	22
Biphenyl	ND		1750	1600		ug/Kg	☼	92	58 - 120	1	20
bis (2-chloroisopropyl) ether	ND		1750	1440		ug/Kg	☼	82	31 - 120	1	24
Bis(2-chloroethoxy)methane	ND		1750	1490		ug/Kg	☼	85	52 - 120	1	17
Bis(2-chloroethyl)ether	ND		1750	1380		ug/Kg	☼	79	45 - 120	2	21
Bis(2-ethylhexyl) phthalate	ND		1750	1640		ug/Kg	☼	94	61 - 133	2	15
Butyl benzyl phthalate	ND		1750	1690		ug/Kg	☼	97	61 - 120	3	16
Caprolactam	ND		3490	3760	E	ug/Kg	☼	108	37 - 133	12	20
Carbazole	ND		1750	1720		ug/Kg	☼	99	59 - 120	9	20
Chrysene	ND		1750	1560		ug/Kg	☼	90	64 - 120	2	15
Dibenz(a,h)anthracene	ND		1750	1700		ug/Kg	☼	97	54 - 132	1	15
Dibenzofuran	ND		1750	1620		ug/Kg	☼	93	62 - 120	4	15
Diethyl phthalate	ND		1750	1730		ug/Kg	☼	99	66 - 120	7	15
Dimethyl phthalate	ND		1750	1740		ug/Kg	☼	100	65 - 124	8	15
Di-n-butyl phthalate	ND		1750	1800		ug/Kg	☼	103	58 - 130	6	15
Di-n-octyl phthalate	ND		1750	1710		ug/Kg	☼	98	57 - 133	8	16
Fluoranthene	ND		1750	1760		ug/Kg	☼	101	62 - 120	10	15
Fluorene	ND		1750	1640		ug/Kg	☼	94	63 - 120	5	15
Hexachlorobenzene	ND		1750	1780		ug/Kg	☼	102	60 - 120	1	15
Hexachlorobutadiene	ND		1750	1280		ug/Kg	☼	74	45 - 120	2	44
Hexachlorocyclopentadiene	ND		1750	1390		ug/Kg	☼	79	31 - 120	4	49
Hexachloroethane	ND		1750	1250		ug/Kg	☼	71	21 - 120	1	46
Indeno[1,2,3-cd]pyrene	ND		1750	1700		ug/Kg	☼	98	56 - 134	0	15
Isophorone	ND		1750	1620		ug/Kg	☼	93	56 - 120	1	17
Naphthalene	ND		1750	1450		ug/Kg	☼	83	46 - 120	1	29
Nitrobenzene	ND		1750	1470		ug/Kg	☼	84	49 - 120	3	24
N-Nitrosodi-n-propylamine	ND		1750	1630		ug/Kg	☼	93	46 - 120	5	31

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-222440-1 MSD
Matrix: Solid
Analysis Batch: 721404

Client Sample ID: SB-03-5.0-7.0
Prep Type: Total/NA
Prep Batch: 721348

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Pentachlorophenol	ND		3490	3700		ug/Kg	☼	106	10 - 136	4	35
Phenanthrene	ND		1750	1730		ug/Kg	☼	99	60 - 122	3	15
Phenol	ND		1750	1450		ug/Kg	☼	83	50 - 120	5	35
Pyrene	ND		1750	1740		ug/Kg	☼	100	61 - 133	5	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*110*		*26 - 143*
2-Fluorobiphenyl	*89*		*50 - 121*
2-Fluorophenol	*77*		*36 - 120*
Nitrobenzene-d5	*84*		*40 - 121*
Phenol-d5	*88*		*41 - 120*
p-Terphenyl-d14	*92*		*46 - 143*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 480-721530/1-A
Matrix: Solid
Analysis Batch: 721873

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 721530

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1.7	0.32	ug/Kg		08/13/24 07:15	08/15/24 08:27	1
4,4'-DDE	ND		1.7	0.35	ug/Kg		08/13/24 07:15	08/15/24 08:27	1
4,4'-DDT	ND		1.7	0.39	ug/Kg		08/13/24 07:15	08/15/24 08:27	1
Aldrin	ND		1.7	0.41	ug/Kg		08/13/24 07:15	08/15/24 08:27	1
alpha-BHC	ND		1.7	0.30	ug/Kg		08/13/24 07:15	08/15/24 08:27	1
cis-Chlordane	ND		1.7	0.83	ug/Kg		08/13/24 07:15	08/15/24 08:27	1
beta-BHC	ND		1.7	0.30	ug/Kg		08/13/24 07:15	08/15/24 08:27	1
delta-BHC	ND		1.7	0.31	ug/Kg		08/13/24 07:15	08/15/24 08:27	1
Dieldrin	ND		1.7	0.40	ug/Kg		08/13/24 07:15	08/15/24 08:27	1
Endosulfan I	ND		1.7	0.32	ug/Kg		08/13/24 07:15	08/15/24 08:27	1
Endosulfan II	ND		1.7	0.30	ug/Kg		08/13/24 07:15	08/15/24 08:27	1
Endosulfan sulfate	ND		1.7	0.31	ug/Kg		08/13/24 07:15	08/15/24 08:27	1
Endrin	ND		1.7	0.33	ug/Kg		08/13/24 07:15	08/15/24 08:27	1
Endrin aldehyde	ND		1.7	0.43	ug/Kg		08/13/24 07:15	08/15/24 08:27	1
Endrin ketone	ND		1.7	0.41	ug/Kg		08/13/24 07:15	08/15/24 08:27	1
gamma-BHC (Lindane)	ND		1.7	0.31	ug/Kg		08/13/24 07:15	08/15/24 08:27	1
trans-Chlordane	ND		1.7	0.53	ug/Kg		08/13/24 07:15	08/15/24 08:27	1
Heptachlor	ND		1.7	0.36	ug/Kg		08/13/24 07:15	08/15/24 08:27	1
Heptachlor epoxide	ND		1.7	0.43	ug/Kg		08/13/24 07:15	08/15/24 08:27	1
Methoxychlor	ND		1.7	0.34	ug/Kg		08/13/24 07:15	08/15/24 08:27	1
Toxaphene	ND		17	9.7	ug/Kg		08/13/24 07:15	08/15/24 08:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*84*		*45 - 120*	*08/13/24 07:15*	*08/15/24 08:27*	*1*
DCB Decachlorobiphenyl	*116*		*45 - 120*	*08/13/24 07:15*	*08/15/24 08:27*	*1*
Tetrachloro-m-xylene	*85*		*30 - 124*	*08/13/24 07:15*	*08/15/24 08:27*	*1*
Tetrachloro-m-xylene	*98*		*30 - 124*	*08/13/24 07:15*	*08/15/24 08:27*	*1*

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 480-721530/2-A
Matrix: Solid
Analysis Batch: 721873

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 721530

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	16.7	18.3		ug/Kg		110	56 - 120
4,4'-DDE	16.7	15.8		ug/Kg		95	44 - 120
4,4'-DDT	16.7	17.3		ug/Kg		104	38 - 120
Aldrin	16.7	15.6		ug/Kg		94	38 - 120
alpha-BHC	16.7	13.2		ug/Kg		79	39 - 120
cis-Chlordane	16.7	15.3		ug/Kg		92	47 - 120
beta-BHC	16.7	15.4		ug/Kg		92	40 - 120
delta-BHC	16.7	14.3		ug/Kg		86	45 - 120
Dieldrin	16.7	18.9		ug/Kg		114	58 - 120
Endosulfan I	16.7	18.2		ug/Kg		109	49 - 120
Endosulfan II	16.7	19.0		ug/Kg		114	55 - 120
Endosulfan sulfate	16.7	17.0		ug/Kg		102	49 - 124
Endrin	16.7	19.6		ug/Kg		117	58 - 120
Endrin aldehyde	16.7	14.8		ug/Kg		89	37 - 121
Endrin ketone	16.7	18.8		ug/Kg		113	46 - 123
gamma-BHC (Lindane)	16.7	14.5		ug/Kg		87	50 - 120
trans-Chlordane	16.7	16.6		ug/Kg		100	48 - 120
Heptachlor	16.7	17.1		ug/Kg		102	50 - 120
Heptachlor epoxide	16.7	19.2		ug/Kg		115	50 - 120
Methoxychlor	16.7	18.7		ug/Kg		112	58 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*81*		*45 - 120*
DCB Decachlorobiphenyl	*109*		*45 - 120*
Tetrachloro-m-xylene	*84*		*30 - 124*
Tetrachloro-m-xylene	*93*		*30 - 124*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 480-721346/1-A
Matrix: Solid
Analysis Batch: 721438

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 721346

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.25	0.049	mg/Kg		08/11/24 07:13	08/13/24 01:12	1
PCB-1221	ND		0.25	0.049	mg/Kg		08/11/24 07:13	08/13/24 01:12	1
PCB-1232	ND		0.25	0.049	mg/Kg		08/11/24 07:13	08/13/24 01:12	1
PCB-1242	ND		0.25	0.049	mg/Kg		08/11/24 07:13	08/13/24 01:12	1
PCB-1248	ND		0.25	0.049	mg/Kg		08/11/24 07:13	08/13/24 01:12	1
PCB-1254	ND		0.25	0.12	mg/Kg		08/11/24 07:13	08/13/24 01:12	1
PCB-1260	ND		0.25	0.12	mg/Kg		08/11/24 07:13	08/13/24 01:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*133*		*60 - 154*	*08/11/24 07:13*	*08/13/24 01:12*	*1*
Tetrachloro-m-xylene	*108*		*60 - 154*	*08/11/24 07:13*	*08/13/24 01:12*	*1*
DCB Decachlorobiphenyl	*134*		*65 - 174*	*08/11/24 07:13*	*08/13/24 01:12*	*1*
DCB Decachlorobiphenyl	*131*		*65 - 174*	*08/11/24 07:13*	*08/13/24 01:12*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 480-721346/2-A
Matrix: Solid
Analysis Batch: 721438

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 721346

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
PCB-1016			2.50	3.39		mg/Kg		135	51 - 185		
PCB-1260			2.50	3.46		mg/Kg		138	61 - 184		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*150*		*60 - 154*
Tetrachloro-m-xylene	*124*		*60 - 154*
DCB Decachlorobiphenyl	*155*		*65 - 174*
DCB Decachlorobiphenyl	*150*		*65 - 174*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Lab Sample ID: MB 240-623299/1-A
Matrix: Solid
Analysis Batch: 623401

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 623299

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.80	0.20	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluoropentanoic acid (PFPeA)	ND		0.40	0.10	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluorohexanoic acid (PFHxA)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluoroheptanoic acid (PFHpA)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluorooctanoic acid (PFOA)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluorononanoic acid (PFNA)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluorodecanoic acid (PFDA)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluoroundecanoic acid (PFUnA)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluorododecanoic acid (PFDoA)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluorononanesulfonic acid (PFNS)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		0.80	0.20	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		0.80	0.20	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		0.80	0.20	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 240-623299/1-A
Matrix: Solid
Analysis Batch: 623401

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 623299

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		2.0	0.50	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		2.0	0.50	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.80	0.20	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.80	0.20	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.40	0.10	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.40	0.10	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		0.80	0.20	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		0.80	0.20	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.40	0.10	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1.0	0.25	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		5.0	1.3	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		5.0	1.3	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.40	0.10	ug/Kg		08/14/24 08:25	08/14/24 22:49	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*80.6*		*20 - 150*	*08/14/24 08:25*	*08/14/24 22:49*	*1*
13C5 PFPeA	*76.2*		*20 - 150*	*08/14/24 08:25*	*08/14/24 22:49*	*1*
13C5 PFHxA	*75.0*		*20 - 150*	*08/14/24 08:25*	*08/14/24 22:49*	*1*
13C4 PFHpA	*78.8*		*20 - 150*	*08/14/24 08:25*	*08/14/24 22:49*	*1*
13C8 PFOA	*82.8*		*20 - 150*	*08/14/24 08:25*	*08/14/24 22:49*	*1*
13C9 PFNA	*76.9*		*20 - 150*	*08/14/24 08:25*	*08/14/24 22:49*	*1*
13C6 PFDA	*104*		*20 - 150*	*08/14/24 08:25*	*08/14/24 22:49*	*1*
13C7 PFUnA	*111*		*20 - 150*	*08/14/24 08:25*	*08/14/24 22:49*	*1*
13C2 PFTeDA	*73.0*		*20 - 150*	*08/14/24 08:25*	*08/14/24 22:49*	*1*
13C3 PFBS	*97.0*		*20 - 150*	*08/14/24 08:25*	*08/14/24 22:49*	*1*
13C3 PFHxS	*96.8*		*20 - 150*	*08/14/24 08:25*	*08/14/24 22:49*	*1*
13C8 PFOS	*93.7*		*20 - 150*	*08/14/24 08:25*	*08/14/24 22:49*	*1*
13C8 FOSA	*74.7*		*20 - 150*	*08/14/24 08:25*	*08/14/24 22:49*	*1*
d3-NMeFOSAA	*83.4*		*20 - 150*	*08/14/24 08:25*	*08/14/24 22:49*	*1*
d5-NEtFOSAA	*71.3*		*20 - 150*	*08/14/24 08:25*	*08/14/24 22:49*	*1*
M2-4:2 FTS	*109*		*20 - 150*	*08/14/24 08:25*	*08/14/24 22:49*	*1*
M2-6:2 FTS	*117*		*20 - 150*	*08/14/24 08:25*	*08/14/24 22:49*	*1*
M2-8:2 FTS	*115*		*20 - 150*	*08/14/24 08:25*	*08/14/24 22:49*	*1*
13C3 HFPO-DA	*83.4*		*20 - 150*	*08/14/24 08:25*	*08/14/24 22:49*	*1*
d7-N-MeFOSE-M	*77.6*		*20 - 150*	*08/14/24 08:25*	*08/14/24 22:49*	*1*
d9-N-EtFOSE-M	*86.6*		*20 - 150*	*08/14/24 08:25*	*08/14/24 22:49*	*1*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 240-623299/1-A
Matrix: Solid
Analysis Batch: 623401

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 623299

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtPFOSA	64.4		20 - 150	08/14/24 08:25	08/14/24 22:49	1
d3-NMePFOSA	60.7		20 - 150	08/14/24 08:25	08/14/24 22:49	1
13C2-PFDoDA	82.6		20 - 150	08/14/24 08:25	08/14/24 22:49	1

Lab Sample ID: LCS 240-623299/3-A
Matrix: Solid
Analysis Batch: 623401

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 623299

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	10.0	10.9		ug/Kg		109	40 - 150
Perfluoropentanoic acid (PFPeA)	5.00	5.40		ug/Kg		108	40 - 150
Perfluorohexanoic acid (PFHxA)	2.50	2.66		ug/Kg		107	40 - 150
Perfluoroheptanoic acid (PFHpA)	2.50	2.55		ug/Kg		102	40 - 150
Perfluorooctanoic acid (PFOA)	2.50	2.55		ug/Kg		102	40 - 150
Perfluorononanoic acid (PFNA)	2.50	2.77		ug/Kg		111	40 - 150
Perfluorodecanoic acid (PFDA)	2.50	2.27		ug/Kg		91	40 - 150
Perfluoroundecanoic acid (PFUnA)	2.50	2.78		ug/Kg		111	40 - 150
Perfluorododecanoic acid (PFDoA)	2.50	2.53		ug/Kg		101	40 - 150
Perfluorotridecanoic acid (PFTrDA)	2.50	2.47		ug/Kg		99	40 - 150
Perfluorotetradecanoic acid (PFTeDA)	2.50	2.62		ug/Kg		105	40 - 150
Perfluorobutanesulfonic acid (PFBS)	2.21	2.37		ug/Kg		107	40 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.35	2.36		ug/Kg		101	40 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.28	2.17		ug/Kg		95	40 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.38	2.12		ug/Kg		89	40 - 150
Perfluorooctanesulfonic acid (PFOS)	2.32	2.14		ug/Kg		92	40 - 150
Perfluorononanesulfonic acid (PFNS)	2.40	2.22		ug/Kg		93	40 - 150
Perfluorododecanesulfonic acid (PFDoS)	2.42	1.78		ug/Kg		74	40 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	9.34	9.69		ug/Kg		104	40 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	9.48	8.98		ug/Kg		95	40 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	9.58	8.86		ug/Kg		93	40 - 150
Perfluorooctanesulfonamide (PFOSA)	2.50	2.58		ug/Kg		103	40 - 150
N-methylperfluorooctane sulfonamide (NMeFOSA)	2.50	2.75		ug/Kg		110	40 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	2.50	2.69		ug/Kg		108	40 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.50	2.77		ug/Kg		111	40 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.50	2.34		ug/Kg		93	40 - 150

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 240-623299/3-A
Matrix: Solid
Analysis Batch: 623401

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 623299

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	25.0	25.5		ug/Kg		102	40 - 150
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	25.0	24.9		ug/Kg		100	40 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	10.0	10.4		ug/Kg		104	40 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	9.42	9.46		ug/Kg		100	40 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	5.00	5.21		ug/Kg		104	40 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	5.00	5.01		ug/Kg		100	40 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	9.32	9.50		ug/Kg		102	40 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	9.42	9.11		ug/Kg		97	40 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	4.45	4.91		ug/Kg		110	40 - 150
3-Perfluoropropylpropanoic acid (3:3 FTCA)	12.5	13.4		ug/Kg		107	40 - 150
3-Perfluoropentylpropanoic acid (5:3 FTCA)	62.5	64.8		ug/Kg		104	40 - 150
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	62.5	58.9		ug/Kg		94	40 - 150
Perfluorodecanesulfonic acid (PFDS)	2.41	2.13		ug/Kg		88	40 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	5.00	5.15		ug/Kg		103	40 - 150

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*79.4*		*20 - 150*
13C5 PFPeA	*73.0*		*20 - 150*
13C5 PFHxA	*75.9*		*20 - 150*
13C4 PFHpA	*77.7*		*20 - 150*
13C8 PFOA	*92.0*		*20 - 150*
13C9 PFNA	*79.8*		*20 - 150*
13C6 PFDA	*91.8*		*20 - 150*
13C7 PFUnA	*102*		*20 - 150*
13C2 PFTeDA	*70.1*		*20 - 150*
13C3 PFBS	*92.0*		*20 - 150*
13C3 PFHxS	*96.6*		*20 - 150*
13C8 PFOS	*93.3*		*20 - 150*
13C8 FOSA	*75.8*		*20 - 150*
d3-NMeFOSAA	*80.7*		*20 - 150*
d5-NEtFOSAA	*72.4*		*20 - 150*
M2-4:2 FTS	*108*		*20 - 150*
M2-6:2 FTS	*115*		*20 - 150*
M2-8:2 FTS	*112*		*20 - 150*
13C3 HFPO-DA	*79.8*		*20 - 150*
d7-N-MeFOSE-M	*76.8*		*20 - 150*
d9-N-EtFOSE-M	*79.7*		*20 - 150*
d5-NEtPFOSA	*63.0*		*20 - 150*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 240-623299/3-A
Matrix: Solid
Analysis Batch: 623401

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 623299

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
d3-NMePFOSA	62.4		20 - 150
13C2-PFDoDA	79.2		20 - 150

Lab Sample ID: LLCS 240-623299/2-A
Matrix: Solid
Analysis Batch: 623401

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 623299

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	0.800	0.896		ug/Kg		112	40 - 150
Perfluoropentanoic acid (PFPeA)	0.400	0.482		ug/Kg		121	40 - 150
Perfluorohexanoic acid (PFHxA)	0.200	0.219		ug/Kg		110	40 - 150
Perfluoroheptanoic acid (PFHpA)	0.200	0.199	J	ug/Kg		100	40 - 150
Perfluorooctanoic acid (PFOA)	0.200	0.274		ug/Kg		137	40 - 150
Perfluorononanoic acid (PFNA)	0.200	0.283	I	ug/Kg		142	40 - 150
Perfluorodecanoic acid (PFDA)	0.200	0.188	J	ug/Kg		94	40 - 150
Perfluoroundecanoic acid (PFUnA)	0.200	0.230		ug/Kg		115	40 - 150
Perfluorododecanoic acid (PFDoA)	0.200	0.235		ug/Kg		118	40 - 150
Perfluorotridecanoic acid (PFTrDA)	0.200	0.223		ug/Kg		112	40 - 150
Perfluorotetradecanoic acid (PFTeDA)	0.200	0.256		ug/Kg		128	40 - 150
Perfluorobutanesulfonic acid (PFBS)	0.177	0.175	J	ug/Kg		99	40 - 150
Perfluoropentanesulfonic acid (PFPeS)	0.188	0.191	J	ug/Kg		102	40 - 150
Perfluorohexanesulfonic acid (PFHxS)	0.182	0.180	J	ug/Kg		99	40 - 150
Perfluoroheptanesulfonic acid (PFHpS)	0.190	0.182	J	ug/Kg		96	40 - 150
Perfluorooctanesulfonic acid (PFOS)	0.186	0.181	J	ug/Kg		97	40 - 150
Perfluorononanesulfonic acid (PFNS)	0.192	0.173	J	ug/Kg		90	40 - 150
Perfluorododecanesulfonic acid (PFDoS)	0.194	0.152	J	ug/Kg		78	40 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	0.747	0.838		ug/Kg		112	40 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	0.758	0.750	J	ug/Kg		99	40 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	0.766	0.723	J	ug/Kg		94	40 - 150
Perfluorooctanesulfonamide (PFOSA)	0.200	0.211		ug/Kg		105	40 - 150
N-methylperfluorooctane sulfonamide (NMeFOSA)	0.200	0.239		ug/Kg		120	40 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	0.200	0.201		ug/Kg		100	40 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.200	0.234		ug/Kg		117	40 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.200	0.190	J	ug/Kg		95	40 - 150

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 240-623299/2-A
Matrix: Solid
Analysis Batch: 623401

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 623299

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	2.00	2.02		ug/Kg		101	40 - 150
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	2.00	2.12		ug/Kg		106	40 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	0.800	0.918		ug/Kg		115	40 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	0.754	0.837		ug/Kg		111	40 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	0.400	0.436		ug/Kg		109	40 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	0.400	0.339	J	ug/Kg		85	40 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	0.746	0.807		ug/Kg		108	40 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	0.754	0.813		ug/Kg		108	40 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	0.356	0.409		ug/Kg		115	40 - 150
3-Perfluoropropylpropanoic acid (3:3 FTCA)	1.00	1.16		ug/Kg		116	40 - 150
3-Perfluoropentylpropanoic acid (5:3 FTCA)	5.00	5.31		ug/Kg		106	40 - 150
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	5.00	5.16		ug/Kg		103	40 - 150
Perfluorodecanesulfonic acid (PFDS)	0.193	0.181	J	ug/Kg		94	40 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	0.400	0.418		ug/Kg		104	40 - 150

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*81.0*		*20 - 150*
13C5 PFPeA	*72.3*		*20 - 150*
13C5 PFHxA	*73.2*		*20 - 150*
13C4 PFHpA	*79.4*		*20 - 150*
13C8 PFOA	*91.9*		*20 - 150*
13C9 PFNA	*87.3*		*20 - 150*
13C6 PFDA	*102*		*20 - 150*
13C7 PFUnA	*99.4*		*20 - 150*
13C2 PFTeDA	*70.5*		*20 - 150*
13C3 PFBS	*97.5*		*20 - 150*
13C3 PFHxS	*94.5*		*20 - 150*
13C8 PFOS	*94.3*		*20 - 150*
13C8 FOSA	*79.3*		*20 - 150*
d3-NMeFOSAA	*84.1*		*20 - 150*
d5-NEtFOSAA	*69.9*		*20 - 150*
M2-4:2 FTS	*114*		*20 - 150*
M2-6:2 FTS	*124*		*20 - 150*
M2-8:2 FTS	*118*		*20 - 150*
13C3 HFPO-DA	*76.3*		*20 - 150*
d7-N-MeFOSE-M	*79.8*		*20 - 150*
d9-N-EtFOSE-M	*78.5*		*20 - 150*
d5-NEtPFOSA	*68.2*		*20 - 150*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 240-623299/2-A
Matrix: Solid
Analysis Batch: 623401

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 623299

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
d3-NMePFOSA	*63.9*		*20 - 150*
13C2-PFDoDA	*76.5*		*20 - 150*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-721473/1-A
Matrix: Solid
Analysis Batch: 721715

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 721473

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		10.3	8.9	mg/Kg		08/12/24 14:53	08/13/24 17:09	1
Antimony	ND		15.5	0.55	mg/Kg		08/12/24 14:53	08/13/24 17:09	1
Arsenic	ND		2.1	0.91	mg/Kg		08/12/24 14:53	08/13/24 17:09	1
Barium	0.165	J	0.52	0.14	mg/Kg		08/12/24 14:53	08/13/24 17:09	1
Beryllium	ND		0.21	0.041	mg/Kg		08/12/24 14:53	08/13/24 17:09	1
Cadmium	0.0958	J	0.21	0.072	mg/Kg		08/12/24 14:53	08/13/24 17:09	1
Calcium	ND		51.5	27.8	mg/Kg		08/12/24 14:53	08/13/24 17:09	1
Chromium	ND		0.52	0.37	mg/Kg		08/12/24 14:53	08/13/24 17:09	1
Cobalt	ND		0.52	0.10	mg/Kg		08/12/24 14:53	08/13/24 17:09	1
Copper	ND		1.0	0.59	mg/Kg		08/12/24 14:53	08/13/24 17:09	1
Iron	ND		10.3	8.7	mg/Kg		08/12/24 14:53	08/13/24 17:09	1
Lead	ND		1.0	0.47	mg/Kg		08/12/24 14:53	08/13/24 17:09	1
Magnesium	ND		20.6	8.7	mg/Kg		08/12/24 14:53	08/13/24 17:09	1
Manganese	ND		1.0	0.29	mg/Kg		08/12/24 14:53	08/13/24 17:09	1
Nickel	ND		5.2	0.26	mg/Kg		08/12/24 14:53	08/13/24 17:09	1
Potassium	ND		30.9	25.0	mg/Kg		08/12/24 14:53	08/13/24 17:09	1
Selenium	ND		4.1	0.82	mg/Kg		08/12/24 14:53	08/13/24 17:09	1
Silver	ND		0.62	0.21	mg/Kg		08/12/24 14:53	08/13/24 17:09	1
Sodium	ND		144	63.2	mg/Kg		08/12/24 14:53	08/13/24 17:09	1
Thallium	ND		6.2	0.78	mg/Kg		08/12/24 14:53	08/13/24 17:09	1
Vanadium	ND		0.52	0.13	mg/Kg		08/12/24 14:53	08/13/24 17:09	1
Zinc	1.48	J	2.1	1.1	mg/Kg		08/12/24 14:53	08/13/24 17:09	1

Lab Sample ID: LCSSRM 480-721473/2-A
Matrix: Solid
Analysis Batch: 721715

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 721473

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	10600	10210		mg/Kg		96.3	52.7 - 148.1
Antimony	59.8	77.04		mg/Kg		128.8	46.2 - 633.8
Arsenic	180	169.5		mg/Kg		94.1	70.0 - 130.0
Barium	431	384.5		mg/Kg		89.2	74.9 - 125.1
Beryllium	121	116.1		mg/Kg		96.0	74.8 - 124.8
Cadmium	199	185.9		mg/Kg		93.4	74.9 - 125.1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 480-721473/2-A
Matrix: Solid
Analysis Batch: 721715

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 721473

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	5760	5328		mg/Kg		92.5	73.6 - 126.4
Chromium	210	198.7		mg/Kg		94.6	70.0 - 130.0
Cobalt	237	239.6		mg/Kg		101.1	75.1 - 124.9
Copper	229	203.9		mg/Kg		89.0	75.1 - 124.9
Iron	9280	7972		mg/Kg		85.9	18.4 - 181.0
Lead	261	259.6		mg/Kg		99.5	78.2 - 121.1
Magnesium	2520	2187		mg/Kg		86.8	63.5 - 136.5
Manganese	316	283.2		mg/Kg		89.6	74.7 - 125.0
Nickel	108	110.5		mg/Kg		102.3	69.8 - 129.6
Potassium	2100	1949		mg/Kg		92.8	70.0 - 130.0
Selenium	117	104.8		mg/Kg		89.6	65.8 - 133.3
Silver	65.5	61.44		mg/Kg		93.8	70.5 - 129.3
Sodium	442	391.8		mg/Kg		88.6	58.6 - 141.4
Thallium	144	137.6		mg/Kg		95.5	70.1 - 129.9
Vanadium	183	160.0		mg/Kg		87.4	68.9 - 119.1
Zinc	264	247.4		mg/Kg		93.7	69.7 - 129.5

Lab Sample ID: 480-222440-3 MS
Matrix: Solid
Analysis Batch: 721715

Client Sample ID: SB-02-0.0-0.2
Prep Type: Total/NA
Prep Batch: 721473

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	13700		1400	17450	4	mg/Kg	☼	269	75 - 125
Antimony	1.8	J F1	137	74.56	F1	mg/Kg	☼	53	75 - 125
Arsenic	9.6		274	248.4		mg/Kg	☼	87	75 - 125
Barium	109	B	274	336.1		mg/Kg	☼	83	75 - 125
Beryllium	1.2		137	121.4		mg/Kg	☼	88	75 - 125
Cadmium	1.1	B	137	127.5		mg/Kg	☼	92	75 - 125
Calcium	68600		6850	75180	4	mg/Kg	☼	96	75 - 125
Chromium	41.3		137	164.5		mg/Kg	☼	90	75 - 125
Cobalt	9.1		137	143.7		mg/Kg	☼	98	75 - 125
Copper	49.1		137	191.5		mg/Kg	☼	104	75 - 125
Iron	19500	F2	1400	24750	4	mg/Kg	☼	373	75 - 125
Lead	376	^+ F1	137	512.0	^+	mg/Kg	☼	99	75 - 125
Magnesium	21800	F1	6850	32320	F1	mg/Kg	☼	154	75 - 125
Manganese	710		137	816.6	4	mg/Kg	☼	78	75 - 125
Nickel	62.1		137	194.2		mg/Kg	☼	96	75 - 125

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-222440-3 MS
Matrix: Solid
Analysis Batch: 721715

Client Sample ID: SB-02-0.0-0.2
Prep Type: Total/NA
Prep Batch: 721473

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Potassium	2570		6850	10040		mg/Kg	☼	109	75 - 125
Selenium	ND		274	226.0		mg/Kg	☼	82	75 - 125
Silver	ND		13.7	12.71		mg/Kg	☼	93	75 - 125
Sodium	253		6850	6472		mg/Kg	☼	91	75 - 125
Thallium	ND		274	264.0		mg/Kg	☼	96	75 - 125
Vanadium	154	F1 F2	137	245.3	F1	mg/Kg	☼	67	75 - 125
Zinc	291	B F1	137	391.0	F1	mg/Kg	☼	73	75 - 125

Lab Sample ID: 480-222440-3 MSD
Matrix: Solid
Analysis Batch: 721715

Client Sample ID: SB-02-0.0-0.2
Prep Type: Total/NA
Prep Batch: 721473

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	13700		1440	17780	4	mg/Kg	☼	283	75 - 125	2	20
Antimony	1.8	J F1	141	79.39	F1	mg/Kg	☼	55	75 - 125	6	20
Arsenic	9.6		283	261.3		mg/Kg	☼	89	75 - 125	5	20
Barium	109	B	283	341.0		mg/Kg	☼	82	75 - 125	1	20
Beryllium	1.2		141	125.7		mg/Kg	☼	88	75 - 125	3	20
Cadmium	1.1	B	141	132.7		mg/Kg	☼	93	75 - 125	4	20
Calcium	68600		7070	84260	4	mg/Kg	☼	222	75 - 125	11	20
Chromium	41.3		141	166.0		mg/Kg	☼	88	75 - 125	1	20
Cobalt	9.1		141	147.3		mg/Kg	☼	98	75 - 125	2	20
Copper	49.1		141	195.0		mg/Kg	☼	103	75 - 125	2	20
Iron	19500	F2	1440	19880	4 F2	mg/Kg	☼	23	75 - 125	22	20
Lead	376	^+ F1	141	452.1	F1 ^+	mg/Kg	☼	54	75 - 125	12	20
Magnesium	21800	F1	7070	32860	F1	mg/Kg	☼	157	75 - 125	2	20
Manganese	710		141	724.6	4	mg/Kg	☼	11	75 - 125	12	20
Nickel	62.1		141	211.6		mg/Kg	☼	106	75 - 125	9	20
Potassium	2570		7070	10410		mg/Kg	☼	111	75 - 125	4	20
Selenium	ND		283	237.4		mg/Kg	☼	84	75 - 125	5	20
Silver	ND		14.1	13.35		mg/Kg	☼	94	75 - 125	5	20
Sodium	253		7070	6708		mg/Kg	☼	91	75 - 125	4	20
Thallium	ND		283	272.7		mg/Kg	☼	96	75 - 125	3	20
Vanadium	154	F1 F2	141	538.1	F1 F2	mg/Kg	☼	272	75 - 125	75	20
Zinc	291	B F1	141	364.7	F1	mg/Kg	☼	52	75 - 125	7	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 480-721446/1-A
Matrix: Solid
Analysis Batch: 721606

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 721446

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.0046	mg/Kg		08/13/24 08:15	08/13/24 10:11	1

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: LCSSRM 480-721446/2-A ^10
Matrix: Solid
Analysis Batch: 721606

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 721446

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			19.1	19.65		mg/Kg		102.9	59.7 - 139.8		

Lab Sample ID: 480-222440-4 MS
Matrix: Solid
Analysis Batch: 721606

Client Sample ID: SB-02-0.0-0.2-FD
Prep Type: Total/NA
Prep Batch: 721446

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury	0.24		0.453	0.697		mg/Kg	☼	101	80 - 120		

Lab Sample ID: 480-222440-4 MSD
Matrix: Solid
Analysis Batch: 721606

Client Sample ID: SB-02-0.0-0.2-FD
Prep Type: Total/NA
Prep Batch: 721446

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.24		0.450	0.670		mg/Kg	☼	96	80 - 120	4	20

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 480-721982/1-A
Matrix: Solid
Analysis Batch: 722303

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 721982

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.97	0.47	mg/Kg		08/15/24 11:45	08/16/24 17:37	1

Lab Sample ID: LCSSRM 480-721982/2-A
Matrix: Solid
Analysis Batch: 722303

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 721982

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total			150	63.57		mg/Kg		42.4	38.9 - 138.7		

Lab Sample ID: 480-222440-3 MS
Matrix: Solid
Analysis Batch: 722303

Client Sample ID: SB-02-0.0-0.2
Prep Type: Total/NA
Prep Batch: 721982

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total	ND	F1	8.05	1.51	F1	mg/Kg	☼	19	85 - 115		

Lab Sample ID: MB 480-722127/1-A
Matrix: Solid
Analysis Batch: 722470

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 722127

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.98	0.47	mg/Kg		08/16/24 11:20	08/20/24 10:09	1

Method: 9012B - Cyanide, Total andor Amenable (Continued)

Lab Sample ID: LCS 480-722127/3-A
Matrix: Solid
Analysis Batch: 722470

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 722127

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.400	0.386		mg/Kg		97	29 - 122

Lab Sample ID: LCS 480-722127/4-A
Matrix: Solid
Analysis Batch: 722470

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 722127

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.250	0.267		mg/Kg		107	29 - 122

Lab Sample ID: LCSSRM 480-722127/2-A
Matrix: Solid
Analysis Batch: 722470

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 722127

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	150	76.55		mg/Kg		51.0	38.9 - 138.7

Lab Sample ID: 480-222440-7 MS
Matrix: Solid
Analysis Batch: 722470

Client Sample ID: SB-09-0.0-0.2
Prep Type: Total/NA
Prep Batch: 722127

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	4.7	F1	7.09	5.97	F1	mg/Kg	☼	18	85 - 115

Lab Sample ID: MB 480-722129/1-A
Matrix: Solid
Analysis Batch: 722470

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 722129

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.86	0.41	mg/Kg		08/16/24 12:10	08/20/24 10:29	1

Lab Sample ID: LCSSRM 480-722129/2-A
Matrix: Solid
Analysis Batch: 722470

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 722129

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	150	99.17		mg/Kg		66.1	38.9 - 138.7

Lab Sample ID: 480-222440-8 MS
Matrix: Solid
Analysis Batch: 722470

Client Sample ID: SB-09-4.0-5.0
Prep Type: Total/NA
Prep Batch: 722129

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	ND	F1	7.02	0.969	J F1	mg/Kg	☼	14	85 - 115

Method: 9012B - Cyanide, Total andor Amenable (Continued)

Lab Sample ID: 480-222440-8 DU
Matrix: Solid
Analysis Batch: 722470

Client Sample ID: SB-09-4.0-5.0
Prep Type: Total/NA
Prep Batch: 722129

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Cyanide, Total	ND	F1		ND		mg/Kg	☼			NC	15

QC Association Summary

Client: Ashland LLC
Project/Site: Tank 75 - Soil Analysis

Job ID: 480-222440-1

GC/MS VOA

Analysis Batch: 721513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222440-1	SB-03-5.0-7.0	Total/NA	Solid	8260C	721517
480-222440-2	SB-03-28.0-30.0	Total/NA	Solid	8260C	721517
480-222440-5	SB-02-10.0-11.0	Total/NA	Solid	8260C	721517
480-222440-6	SB-02-28.0-30.0	Total/NA	Solid	8260C	721517
480-222440-8	SB-09-4.0-5.0	Total/NA	Solid	8260C	721517
480-222440-9	SB-09-28.0-30.0	Total/NA	Solid	8260C	721517
MB 480-721517/2-A	Method Blank	Total/NA	Solid	8260C	721517
LCS 480-721517/1-A	Lab Control Sample	Total/NA	Solid	8260C	721517
LCSD 480-721517/21-A	Lab Control Sample Dup	Total/NA	Solid	8260C	721517

Prep Batch: 721517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222440-1	SB-03-5.0-7.0	Total/NA	Solid	5035A_L	
480-222440-2	SB-03-28.0-30.0	Total/NA	Solid	5035A_L	
480-222440-5	SB-02-10.0-11.0	Total/NA	Solid	5035A_L	
480-222440-6	SB-02-28.0-30.0	Total/NA	Solid	5035A_L	
480-222440-8	SB-09-4.0-5.0	Total/NA	Solid	5035A_L	
480-222440-9	SB-09-28.0-30.0	Total/NA	Solid	5035A_L	
MB 480-721517/2-A	Method Blank	Total/NA	Solid	5035A_L	
LCS 480-721517/1-A	Lab Control Sample	Total/NA	Solid	5035A_L	
LCSD 480-721517/21-A	Lab Control Sample Dup	Total/NA	Solid	5035A_L	

GC/MS Semi VOA

Prep Batch: 721348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222440-1	SB-03-5.0-7.0	Total/NA	Solid	3550C	
480-222440-2	SB-03-28.0-30.0	Total/NA	Solid	3550C	
480-222440-3	SB-02-0.0-0.2	Total/NA	Solid	3550C	
480-222440-4	SB-02-0.0-0.2-FD	Total/NA	Solid	3550C	
480-222440-5	SB-02-10.0-11.0	Total/NA	Solid	3550C	
480-222440-6	SB-02-28.0-30.0	Total/NA	Solid	3550C	
480-222440-7	SB-09-0.0-0.2	Total/NA	Solid	3550C	
480-222440-8	SB-09-4.0-5.0	Total/NA	Solid	3550C	
480-222440-9	SB-09-28.0-30.0	Total/NA	Solid	3550C	
480-222440-10	SB-08-0.0-0.2	Total/NA	Solid	3550C	
480-222440-11	SB-07-0.0-0.2	Total/NA	Solid	3550C	
MB 480-721348/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-721348/2-A	Lab Control Sample	Total/NA	Solid	3550C	
480-222440-1 MS	SB-03-5.0-7.0	Total/NA	Solid	3550C	
480-222440-1 MSD	SB-03-5.0-7.0	Total/NA	Solid	3550C	

Analysis Batch: 721404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222440-1	SB-03-5.0-7.0	Total/NA	Solid	8270D	721348
480-222440-2	SB-03-28.0-30.0	Total/NA	Solid	8270D	721348
480-222440-3	SB-02-0.0-0.2	Total/NA	Solid	8270D	721348
480-222440-4	SB-02-0.0-0.2-FD	Total/NA	Solid	8270D	721348
480-222440-5	SB-02-10.0-11.0	Total/NA	Solid	8270D	721348
480-222440-6	SB-02-28.0-30.0	Total/NA	Solid	8270D	721348
480-222440-7	SB-09-0.0-0.2	Total/NA	Solid	8270D	721348

GC/MS Semi VOA (Continued)

Analysis Batch: 721404 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222440-8	SB-09-4.0-5.0	Total/NA	Solid	8270D	721348
480-222440-9	SB-09-28.0-30.0	Total/NA	Solid	8270D	721348
480-222440-10	SB-08-0.0-0.2	Total/NA	Solid	8270D	721348
480-222440-11	SB-07-0.0-0.2	Total/NA	Solid	8270D	721348
MB 480-721348/1-A	Method Blank	Total/NA	Solid	8270D	721348
LCS 480-721348/2-A	Lab Control Sample	Total/NA	Solid	8270D	721348
480-222440-1 MS	SB-03-5.0-7.0	Total/NA	Solid	8270D	721348
480-222440-1 MSD	SB-03-5.0-7.0	Total/NA	Solid	8270D	721348

GC Semi VOA

Prep Batch: 721346

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222440-1	SB-03-5.0-7.0	Total/NA	Solid	3550C	
480-222440-2	SB-03-28.0-30.0	Total/NA	Solid	3550C	
480-222440-3	SB-02-0.0-0.2	Total/NA	Solid	3550C	
480-222440-4	SB-02-0.0-0.2-FD	Total/NA	Solid	3550C	
480-222440-5	SB-02-10.0-11.0	Total/NA	Solid	3550C	
480-222440-6	SB-02-28.0-30.0	Total/NA	Solid	3550C	
480-222440-7	SB-09-0.0-0.2	Total/NA	Solid	3550C	
480-222440-8	SB-09-4.0-5.0	Total/NA	Solid	3550C	
480-222440-9	SB-09-28.0-30.0	Total/NA	Solid	3550C	
480-222440-10	SB-08-0.0-0.2	Total/NA	Solid	3550C	
480-222440-11	SB-07-0.0-0.2	Total/NA	Solid	3550C	
MB 480-721346/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-721346/2-A	Lab Control Sample	Total/NA	Solid	3550C	

Analysis Batch: 721438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222440-1	SB-03-5.0-7.0	Total/NA	Solid	8082A	721346
480-222440-2	SB-03-28.0-30.0	Total/NA	Solid	8082A	721346
480-222440-3	SB-02-0.0-0.2	Total/NA	Solid	8082A	721346
480-222440-4	SB-02-0.0-0.2-FD	Total/NA	Solid	8082A	721346
480-222440-5	SB-02-10.0-11.0	Total/NA	Solid	8082A	721346
480-222440-6	SB-02-28.0-30.0	Total/NA	Solid	8082A	721346
480-222440-7	SB-09-0.0-0.2	Total/NA	Solid	8082A	721346
480-222440-8	SB-09-4.0-5.0	Total/NA	Solid	8082A	721346
480-222440-9	SB-09-28.0-30.0	Total/NA	Solid	8082A	721346
480-222440-10	SB-08-0.0-0.2	Total/NA	Solid	8082A	721346
480-222440-11	SB-07-0.0-0.2	Total/NA	Solid	8082A	721346
MB 480-721346/1-A	Method Blank	Total/NA	Solid	8082A	721346
LCS 480-721346/2-A	Lab Control Sample	Total/NA	Solid	8082A	721346

Prep Batch: 721530

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222440-1	SB-03-5.0-7.0	Total/NA	Solid	3550C	
480-222440-2	SB-03-28.0-30.0	Total/NA	Solid	3550C	
480-222440-3	SB-02-0.0-0.2	Total/NA	Solid	3550C	
480-222440-4	SB-02-0.0-0.2-FD	Total/NA	Solid	3550C	
480-222440-5	SB-02-10.0-11.0	Total/NA	Solid	3550C	
480-222440-6	SB-02-28.0-30.0	Total/NA	Solid	3550C	

GC Semi VOA (Continued)

Prep Batch: 721530 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222440-7	SB-09-0.0-0.2	Total/NA	Solid	3550C	
480-222440-8	SB-09-4.0-5.0	Total/NA	Solid	3550C	
480-222440-9	SB-09-28.0-30.0	Total/NA	Solid	3550C	
480-222440-10	SB-08-0.0-0.2	Total/NA	Solid	3550C	
480-222440-11	SB-07-0.0-0.2	Total/NA	Solid	3550C	
MB 480-721530/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-721530/2-A	Lab Control Sample	Total/NA	Solid	3550C	

Analysis Batch: 721873

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222440-1	SB-03-5.0-7.0	Total/NA	Solid	8081B	721530
480-222440-2	SB-03-28.0-30.0	Total/NA	Solid	8081B	721530
480-222440-3	SB-02-0.0-0.2	Total/NA	Solid	8081B	721530
480-222440-4	SB-02-0.0-0.2-FD	Total/NA	Solid	8081B	721530
480-222440-5	SB-02-10.0-11.0	Total/NA	Solid	8081B	721530
480-222440-6	SB-02-28.0-30.0	Total/NA	Solid	8081B	721530
480-222440-7	SB-09-0.0-0.2	Total/NA	Solid	8081B	721530
480-222440-8	SB-09-4.0-5.0	Total/NA	Solid	8081B	721530
480-222440-9	SB-09-28.0-30.0	Total/NA	Solid	8081B	721530
480-222440-10	SB-08-0.0-0.2	Total/NA	Solid	8081B	721530
MB 480-721530/1-A	Method Blank	Total/NA	Solid	8081B	721530
LCS 480-721530/2-A	Lab Control Sample	Total/NA	Solid	8081B	721530

Analysis Batch: 722116

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222440-11	SB-07-0.0-0.2	Total/NA	Solid	8081B	721530

LCMS

Prep Batch: 623299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222440-11	SB-07-0.0-0.2	Total/NA	Solid	1633 Shake	
MB 240-623299/1-A	Method Blank	Total/NA	Solid	1633 Shake	
LCS 240-623299/3-A	Lab Control Sample	Total/NA	Solid	1633 Shake	
LLCS 240-623299/2-A	Lab Control Sample	Total/NA	Solid	1633 Shake	

Analysis Batch: 623401

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222440-11	SB-07-0.0-0.2	Total/NA	Solid	1633	623299
MB 240-623299/1-A	Method Blank	Total/NA	Solid	1633	623299
LCS 240-623299/3-A	Lab Control Sample	Total/NA	Solid	1633	623299
LLCS 240-623299/2-A	Lab Control Sample	Total/NA	Solid	1633	623299

Metals

Prep Batch: 721446

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222440-1	SB-03-5.0-7.0	Total/NA	Solid	7471B	
480-222440-2	SB-03-28.0-30.0	Total/NA	Solid	7471B	
480-222440-3	SB-02-0.0-0.2	Total/NA	Solid	7471B	
480-222440-4	SB-02-0.0-0.2-FD	Total/NA	Solid	7471B	
480-222440-5	SB-02-10.0-11.0	Total/NA	Solid	7471B	

Metals (Continued)

Prep Batch: 721446 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222440-6	SB-02-28.0-30.0	Total/NA	Solid	7471B	
480-222440-7	SB-09-0.0-0.2	Total/NA	Solid	7471B	
480-222440-8	SB-09-4.0-5.0	Total/NA	Solid	7471B	
480-222440-9	SB-09-28.0-30.0	Total/NA	Solid	7471B	
480-222440-10	SB-08-0.0-0.2	Total/NA	Solid	7471B	
480-222440-11	SB-07-0.0-0.2	Total/NA	Solid	7471B	
MB 480-721446/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 480-721446/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	
480-222440-4 MS	SB-02-0.0-0.2-FD	Total/NA	Solid	7471B	
480-222440-4 MSD	SB-02-0.0-0.2-FD	Total/NA	Solid	7471B	

Prep Batch: 721473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222440-1	SB-03-5.0-7.0	Total/NA	Solid	3050B	
480-222440-2	SB-03-28.0-30.0	Total/NA	Solid	3050B	
480-222440-3	SB-02-0.0-0.2	Total/NA	Solid	3050B	
480-222440-4	SB-02-0.0-0.2-FD	Total/NA	Solid	3050B	
480-222440-5	SB-02-10.0-11.0	Total/NA	Solid	3050B	
480-222440-6	SB-02-28.0-30.0	Total/NA	Solid	3050B	
480-222440-7	SB-09-0.0-0.2	Total/NA	Solid	3050B	
480-222440-8	SB-09-4.0-5.0	Total/NA	Solid	3050B	
480-222440-9	SB-09-28.0-30.0	Total/NA	Solid	3050B	
480-222440-10	SB-08-0.0-0.2	Total/NA	Solid	3050B	
480-222440-11	SB-07-0.0-0.2	Total/NA	Solid	3050B	
MB 480-721473/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 480-721473/2-A	Lab Control Sample	Total/NA	Solid	3050B	
480-222440-3 MS	SB-02-0.0-0.2	Total/NA	Solid	3050B	
480-222440-3 MSD	SB-02-0.0-0.2	Total/NA	Solid	3050B	

Analysis Batch: 721606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222440-1	SB-03-5.0-7.0	Total/NA	Solid	7471B	721446
480-222440-2	SB-03-28.0-30.0	Total/NA	Solid	7471B	721446
480-222440-3	SB-02-0.0-0.2	Total/NA	Solid	7471B	721446
480-222440-4	SB-02-0.0-0.2-FD	Total/NA	Solid	7471B	721446
480-222440-5	SB-02-10.0-11.0	Total/NA	Solid	7471B	721446
480-222440-6	SB-02-28.0-30.0	Total/NA	Solid	7471B	721446
480-222440-7	SB-09-0.0-0.2	Total/NA	Solid	7471B	721446
480-222440-8	SB-09-4.0-5.0	Total/NA	Solid	7471B	721446
480-222440-9	SB-09-28.0-30.0	Total/NA	Solid	7471B	721446
480-222440-10	SB-08-0.0-0.2	Total/NA	Solid	7471B	721446
480-222440-11	SB-07-0.0-0.2	Total/NA	Solid	7471B	721446
MB 480-721446/1-A	Method Blank	Total/NA	Solid	7471B	721446
LCSSRM 480-721446/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	721446
480-222440-4 MS	SB-02-0.0-0.2-FD	Total/NA	Solid	7471B	721446
480-222440-4 MSD	SB-02-0.0-0.2-FD	Total/NA	Solid	7471B	721446

Analysis Batch: 721715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222440-1	SB-03-5.0-7.0	Total/NA	Solid	6010C	721473
480-222440-2	SB-03-28.0-30.0	Total/NA	Solid	6010C	721473

Metals (Continued)

Analysis Batch: 721715 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222440-3	SB-02-0.0-0.2	Total/NA	Solid	6010C	721473
480-222440-4	SB-02-0.0-0.2-FD	Total/NA	Solid	6010C	721473
480-222440-5	SB-02-10.0-11.0	Total/NA	Solid	6010C	721473
480-222440-6	SB-02-28.0-30.0	Total/NA	Solid	6010C	721473
480-222440-7	SB-09-0.0-0.2	Total/NA	Solid	6010C	721473
480-222440-8	SB-09-4.0-5.0	Total/NA	Solid	6010C	721473
480-222440-9	SB-09-28.0-30.0	Total/NA	Solid	6010C	721473
480-222440-10	SB-08-0.0-0.2	Total/NA	Solid	6010C	721473
480-222440-11	SB-07-0.0-0.2	Total/NA	Solid	6010C	721473
MB 480-721473/1-A	Method Blank	Total/NA	Solid	6010C	721473
LCSSRM 480-721473/2-A	Lab Control Sample	Total/NA	Solid	6010C	721473
480-222440-3 MS	SB-02-0.0-0.2	Total/NA	Solid	6010C	721473
480-222440-3 MSD	SB-02-0.0-0.2	Total/NA	Solid	6010C	721473

Analysis Batch: 721845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222440-6	SB-02-28.0-30.0	Total/NA	Solid	6010C	721473
480-222440-9	SB-09-28.0-30.0	Total/NA	Solid	6010C	721473
480-222440-11	SB-07-0.0-0.2	Total/NA	Solid	6010C	721473

General Chemistry

Analysis Batch: 721298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222440-1	SB-03-5.0-7.0	Total/NA	Solid	Moisture	
480-222440-2	SB-03-28.0-30.0	Total/NA	Solid	Moisture	
480-222440-3	SB-02-0.0-0.2	Total/NA	Solid	Moisture	
480-222440-4	SB-02-0.0-0.2-FD	Total/NA	Solid	Moisture	
480-222440-5	SB-02-10.0-11.0	Total/NA	Solid	Moisture	
480-222440-6	SB-02-28.0-30.0	Total/NA	Solid	Moisture	
480-222440-7	SB-09-0.0-0.2	Total/NA	Solid	Moisture	
480-222440-8	SB-09-4.0-5.0	Total/NA	Solid	Moisture	
480-222440-9	SB-09-28.0-30.0	Total/NA	Solid	Moisture	
480-222440-10	SB-08-0.0-0.2	Total/NA	Solid	Moisture	
480-222440-11	SB-07-0.0-0.2	Total/NA	Solid	Moisture	

Prep Batch: 721982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222440-1	SB-03-5.0-7.0	Total/NA	Solid	9012B	
480-222440-2	SB-03-28.0-30.0	Total/NA	Solid	9012B	
480-222440-3	SB-02-0.0-0.2	Total/NA	Solid	9012B	
MB 480-721982/1-A	Method Blank	Total/NA	Solid	9012B	
LCSSRM 480-721982/2-A	Lab Control Sample	Total/NA	Solid	9012B	
480-222440-3 MS	SB-02-0.0-0.2	Total/NA	Solid	9012B	

Prep Batch: 722127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222440-4	SB-02-0.0-0.2-FD	Total/NA	Solid	9012B	
480-222440-5	SB-02-10.0-11.0	Total/NA	Solid	9012B	
480-222440-6	SB-02-28.0-30.0	Total/NA	Solid	9012B	
480-222440-7	SB-09-0.0-0.2	Total/NA	Solid	9012B	

General Chemistry (Continued)

Prep Batch: 722127 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-722127/1-A	Method Blank	Total/NA	Solid	9012B	
LCS 480-722127/3-A	Lab Control Sample	Total/NA	Solid	9012B	
LCS 480-722127/4-A	Lab Control Sample	Total/NA	Solid	9012B	
LCSSRM 480-722127/2-A	Lab Control Sample	Total/NA	Solid	9012B	
480-222440-7 MS	SB-09-0.0-0.2	Total/NA	Solid	9012B	

Prep Batch: 722129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222440-8	SB-09-4.0-5.0	Total/NA	Solid	9012B	
480-222440-9	SB-09-28.0-30.0	Total/NA	Solid	9012B	
480-222440-10	SB-08-0.0-0.2	Total/NA	Solid	9012B	
480-222440-11	SB-07-0.0-0.2	Total/NA	Solid	9012B	
MB 480-722129/1-A	Method Blank	Total/NA	Solid	9012B	
LCSSRM 480-722129/2-A	Lab Control Sample	Total/NA	Solid	9012B	
480-222440-8 MS	SB-09-4.0-5.0	Total/NA	Solid	9012B	
480-222440-8 DU	SB-09-4.0-5.0	Total/NA	Solid	9012B	

Analysis Batch: 722303

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222440-1	SB-03-5.0-7.0	Total/NA	Solid	9012B	721982
480-222440-2	SB-03-28.0-30.0	Total/NA	Solid	9012B	721982
480-222440-3	SB-02-0.0-0.2	Total/NA	Solid	9012B	721982
MB 480-721982/1-A	Method Blank	Total/NA	Solid	9012B	721982
LCSSRM 480-721982/2-A	Lab Control Sample	Total/NA	Solid	9012B	721982
480-222440-3 MS	SB-02-0.0-0.2	Total/NA	Solid	9012B	721982

Analysis Batch: 722470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222440-4	SB-02-0.0-0.2-FD	Total/NA	Solid	9012B	722127
480-222440-5	SB-02-10.0-11.0	Total/NA	Solid	9012B	722127
480-222440-6	SB-02-28.0-30.0	Total/NA	Solid	9012B	722127
480-222440-7	SB-09-0.0-0.2	Total/NA	Solid	9012B	722127
480-222440-8	SB-09-4.0-5.0	Total/NA	Solid	9012B	722129
480-222440-9	SB-09-28.0-30.0	Total/NA	Solid	9012B	722129
480-222440-10	SB-08-0.0-0.2	Total/NA	Solid	9012B	722129
480-222440-11	SB-07-0.0-0.2	Total/NA	Solid	9012B	722129
MB 480-722127/1-A	Method Blank	Total/NA	Solid	9012B	722127
MB 480-722129/1-A	Method Blank	Total/NA	Solid	9012B	722129
LCS 480-722127/3-A	Lab Control Sample	Total/NA	Solid	9012B	722127
LCS 480-722127/4-A	Lab Control Sample	Total/NA	Solid	9012B	722127
LCSSRM 480-722127/2-A	Lab Control Sample	Total/NA	Solid	9012B	722127
LCSSRM 480-722129/2-A	Lab Control Sample	Total/NA	Solid	9012B	722129
480-222440-7 MS	SB-09-0.0-0.2	Total/NA	Solid	9012B	722127
480-222440-8 MS	SB-09-4.0-5.0	Total/NA	Solid	9012B	722129
480-222440-8 DU	SB-09-4.0-5.0	Total/NA	Solid	9012B	722129

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 - Soil Analysis

Job ID: 480-222440-1

Client Sample ID: SB-03-5.0-7.0
Date Collected: 08/08/24 10:05
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	721298	AF	EET BUF	08/09/24 15:30

Client Sample ID: SB-03-5.0-7.0
Date Collected: 08/08/24 10:05
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-1
Matrix: Solid
Percent Solids: 76.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			721517	CDC	EET BUF	08/09/24 15:00
Total/NA	Analysis	8260C		1	721513	LCH	EET BUF	08/13/24 02:42
Total/NA	Prep	3550C			721348	DP	EET BUF	08/11/24 07:25
Total/NA	Analysis	8270D		1	721404	JMM	EET BUF	08/12/24 13:13
Total/NA	Prep	3550C			721530	DP	EET BUF	08/13/24 07:15
Total/NA	Analysis	8081B		1	721873	JLS	EET BUF	08/15/24 11:23
Total/NA	Prep	3550C			721346	DP	EET BUF	08/11/24 07:13
Total/NA	Analysis	8082A		1	721438	W1T	EET BUF	08/13/24 03:50
Total/NA	Prep	3050B			721473	ET	EET BUF	08/12/24 14:53
Total/NA	Analysis	6010C		1	721715	NZG	EET BUF	08/13/24 17:13
Total/NA	Prep	7471B			721446	ESB	EET BUF	08/13/24 08:15
Total/NA	Analysis	7471B		1	721606	ESB	EET BUF	08/13/24 10:14
Total/NA	Prep	9012B			721982	CG	EET BUF	08/15/24 11:45
Total/NA	Analysis	9012B		1	722303	IMZ	EET BUF	08/16/24 17:53

Client Sample ID: SB-03-28.0-30.0
Date Collected: 08/08/24 10:15
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	721298	AF	EET BUF	08/09/24 15:30

Client Sample ID: SB-03-28.0-30.0
Date Collected: 08/08/24 10:15
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-2
Matrix: Solid
Percent Solids: 70.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			721517	CDC	EET BUF	08/09/24 15:00
Total/NA	Analysis	8260C		1	721513	LCH	EET BUF	08/13/24 03:06
Total/NA	Prep	3550C			721348	DP	EET BUF	08/11/24 07:25
Total/NA	Analysis	8270D		1	721404	JMM	EET BUF	08/12/24 15:43
Total/NA	Prep	3550C			721530	DP	EET BUF	08/13/24 07:15
Total/NA	Analysis	8081B		1	721873	JLS	EET BUF	08/15/24 11:43
Total/NA	Prep	3550C			721346	DP	EET BUF	08/11/24 07:13
Total/NA	Analysis	8082A		1	721438	W1T	EET BUF	08/13/24 04:08
Total/NA	Prep	3050B			721473	ET	EET BUF	08/12/24 14:53
Total/NA	Analysis	6010C		1	721715	NZG	EET BUF	08/13/24 17:15

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 - Soil Analysis

Job ID: 480-222440-1

Client Sample ID: SB-03-28.0-30.0

Lab Sample ID: 480-222440-2
Date Collected: 08/08/24 10:15
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 70.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7471B			721446	ESB	EET BUF	08/13/24 08:15
Total/NA	Analysis	7471B		1	721606	ESB	EET BUF	08/13/24 10:15
Total/NA	Prep	9012B			721982	CG	EET BUF	08/15/24 11:45
Total/NA	Analysis	9012B		1	722303	IMZ	EET BUF	08/16/24 17:54

Client Sample ID: SB-02-0.0-0.2

Lab Sample ID: 480-222440-3
Date Collected: 08/08/24 10:50
Matrix: Solid
Date Received: 08/08/24 17:09

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	721298	AF	EET BUF	08/09/24 15:30

Client Sample ID: SB-02-0.0-0.2

Lab Sample ID: 480-222440-3
Date Collected: 08/08/24 10:50
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 71.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			721348	DP	EET BUF	08/11/24 07:25
Total/NA	Analysis	8270D		10	721404	JMM	EET BUF	08/12/24 16:13
Total/NA	Prep	3550C			721530	DP	EET BUF	08/13/24 07:15
Total/NA	Analysis	8081B		50	721873	JLS	EET BUF	08/15/24 12:03
Total/NA	Prep	3550C			721346	DP	EET BUF	08/11/24 07:13
Total/NA	Analysis	8082A		1	721438	W1T	EET BUF	08/13/24 04:26
Total/NA	Prep	3050B			721473	ET	EET BUF	08/12/24 14:53
Total/NA	Analysis	6010C		1	721715	NZG	EET BUF	08/13/24 17:24
Total/NA	Prep	7471B			721446	ESB	EET BUF	08/13/24 08:15
Total/NA	Analysis	7471B		1	721606	ESB	EET BUF	08/13/24 10:16
Total/NA	Prep	9012B			721982	CG	EET BUF	08/15/24 11:45
Total/NA	Analysis	9012B		1	722303	IMZ	EET BUF	08/16/24 17:54

Client Sample ID: SB-02-0.0-0.2-FD

Lab Sample ID: 480-222440-4
Date Collected: 08/08/24 10:50
Matrix: Solid
Date Received: 08/08/24 17:09

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	721298	AF	EET BUF	08/09/24 15:30

Client Sample ID: SB-02-0.0-0.2-FD

Lab Sample ID: 480-222440-4
Date Collected: 08/08/24 10:50
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 74.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			721348	DP	EET BUF	08/11/24 07:25
Total/NA	Analysis	8270D		10	721404	JMM	EET BUF	08/12/24 16:42
Total/NA	Prep	3550C			721530	DP	EET BUF	08/13/24 07:15
Total/NA	Analysis	8081B		50	721873	JLS	EET BUF	08/15/24 12:23

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 - Soil Analysis

Job ID: 480-222440-1

Client Sample ID: SB-02-0.0-0.2-FD

Lab Sample ID: 480-222440-4
Date Collected: 08/08/24 10:50
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 74.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			721346	DP	EET BUF	08/11/24 07:13
Total/NA	Analysis	8082A		1	721438	W1T	EET BUF	08/13/24 04:43
Total/NA	Prep	3050B			721473	ET	EET BUF	08/12/24 14:53
Total/NA	Analysis	6010C		1	721715	NZG	EET BUF	08/13/24 17:34
Total/NA	Prep	7471B			721446	ESB	EET BUF	08/13/24 08:15
Total/NA	Analysis	7471B		1	721606	ESB	EET BUF	08/13/24 10:17
Total/NA	Prep	9012B			722127	CG	EET BUF	08/16/24 11:20
Total/NA	Analysis	9012B		1	722470	IMZ	EET BUF	08/20/24 10:25

Client Sample ID: SB-02-10.0-11.0

Lab Sample ID: 480-222440-5
Date Collected: 08/08/24 12:25
Matrix: Solid
Date Received: 08/08/24 17:09

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	721298	AF	EET BUF	08/09/24 15:30

Client Sample ID: SB-02-10.0-11.0

Lab Sample ID: 480-222440-5
Date Collected: 08/08/24 12:25
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 83.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			721517	CDC	EET BUF	08/09/24 15:00
Total/NA	Analysis	8260C		1	721513	LCH	EET BUF	08/13/24 03:30
Total/NA	Prep	3550C			721348	DP	EET BUF	08/11/24 07:25
Total/NA	Analysis	8270D		10	721404	JMM	EET BUF	08/12/24 17:10
Total/NA	Prep	3550C			721530	DP	EET BUF	08/13/24 07:15
Total/NA	Analysis	8081B		50	721873	JLS	EET BUF	08/15/24 12:42
Total/NA	Prep	3550C			721346	DP	EET BUF	08/11/24 07:13
Total/NA	Analysis	8082A		1	721438	W1T	EET BUF	08/13/24 05:01
Total/NA	Prep	3050B			721473	ET	EET BUF	08/12/24 14:53
Total/NA	Analysis	6010C		1	721715	NZG	EET BUF	08/13/24 17:36
Total/NA	Prep	7471B			721446	ESB	EET BUF	08/13/24 08:15
Total/NA	Analysis	7471B		1	721606	ESB	EET BUF	08/13/24 10:23
Total/NA	Prep	9012B			722127	CG	EET BUF	08/16/24 11:20
Total/NA	Analysis	9012B		1	722470	IMZ	EET BUF	08/20/24 10:25

Client Sample ID: SB-02-28.0-30.0

Lab Sample ID: 480-222440-6
Date Collected: 08/08/24 12:35
Matrix: Solid
Date Received: 08/08/24 17:09

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	721298	AF	EET BUF	08/09/24 15:30

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 - Soil Analysis

Job ID: 480-222440-1

Client Sample ID: SB-02-28.0-30.0

Lab Sample ID: 480-222440-6

Date Collected: 08/08/24 12:35
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 75.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			721517	CDC	EET BUF	08/09/24 15:00
Total/NA	Analysis	8260C		1	721513	LCH	EET BUF	08/13/24 03:54
Total/NA	Prep	3550C			721348	DP	EET BUF	08/11/24 07:25
Total/NA	Analysis	8270D		1	721404	JMM	EET BUF	08/12/24 17:39
Total/NA	Prep	3550C			721530	DP	EET BUF	08/13/24 07:15
Total/NA	Analysis	8081B		1	721873	JLS	EET BUF	08/15/24 13:02
Total/NA	Prep	3550C			721346	DP	EET BUF	08/11/24 07:13
Total/NA	Analysis	8082A		1	721438	W1T	EET BUF	08/13/24 05:18
Total/NA	Prep	3050B			721473	ET	EET BUF	08/12/24 14:53
Total/NA	Analysis	6010C		1	721715	NZG	EET BUF	08/13/24 17:37
Total/NA	Prep	3050B			721473	ET	EET BUF	08/12/24 14:53
Total/NA	Analysis	6010C		1	721845	NZG	EET BUF	08/14/24 15:41
Total/NA	Prep	7471B			721446	ESB	EET BUF	08/13/24 08:15
Total/NA	Analysis	7471B		1	721606	ESB	EET BUF	08/13/24 10:27
Total/NA	Prep	9012B			722127	CG	EET BUF	08/16/24 11:20
Total/NA	Analysis	9012B		1	722470	IMZ	EET BUF	08/20/24 10:25

Client Sample ID: SB-09-0.0-0.2

Lab Sample ID: 480-222440-7

Date Collected: 08/08/24 12:50
Matrix: Solid
Date Received: 08/08/24 17:09

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	721298	AF	EET BUF	08/09/24 15:30

Client Sample ID: SB-09-0.0-0.2

Lab Sample ID: 480-222440-7

Date Collected: 08/08/24 12:50
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 81.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			721348	DP	EET BUF	08/11/24 07:25
Total/NA	Analysis	8270D		10	721404	JMM	EET BUF	08/12/24 18:08
Total/NA	Prep	3550C			721530	DP	EET BUF	08/13/24 07:15
Total/NA	Analysis	8081B		20	721873	JLS	EET BUF	08/15/24 13:21
Total/NA	Prep	3550C			721346	DP	EET BUF	08/11/24 07:13
Total/NA	Analysis	8082A		1	721438	W1T	EET BUF	08/13/24 05:36
Total/NA	Prep	3050B			721473	ET	EET BUF	08/12/24 14:53
Total/NA	Analysis	6010C		1	721715	NZG	EET BUF	08/13/24 17:47
Total/NA	Prep	7471B			721446	ESB	EET BUF	08/13/24 08:15
Total/NA	Analysis	7471B		1	721606	ESB	EET BUF	08/13/24 10:28
Total/NA	Prep	9012B			722127	CG	EET BUF	08/16/24 11:20
Total/NA	Analysis	9012B		1	722470	IMZ	EET BUF	08/20/24 10:29

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 - Soil Analysis

Job ID: 480-222440-1

Client Sample ID: SB-09-4.0-5.0
Date Collected: 08/08/24 14:50
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	721298	AF	EET BUF	08/09/24 15:30

Client Sample ID: SB-09-4.0-5.0
Date Collected: 08/08/24 14:50
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-8
Matrix: Solid
Percent Solids: 75.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			721517	CDC	EET BUF	08/09/24 15:00
Total/NA	Analysis	8260C		1	721513	LCH	EET BUF	08/13/24 04:17
Total/NA	Prep	3550C			721348	DP	EET BUF	08/11/24 07:25
Total/NA	Analysis	8270D		1	721404	JMM	EET BUF	08/12/24 18:36
Total/NA	Prep	3550C			721530	DP	EET BUF	08/13/24 07:15
Total/NA	Analysis	8081B		1	721873	JLS	EET BUF	08/15/24 13:41
Total/NA	Prep	3550C			721346	DP	EET BUF	08/11/24 07:13
Total/NA	Analysis	8082A		1	721438	W1T	EET BUF	08/13/24 05:53
Total/NA	Prep	3050B			721473	ET	EET BUF	08/12/24 14:53
Total/NA	Analysis	6010C		1	721715	NZG	EET BUF	08/13/24 17:49
Total/NA	Prep	7471B			721446	ESB	EET BUF	08/13/24 08:15
Total/NA	Analysis	7471B		1	721606	ESB	EET BUF	08/13/24 10:29
Total/NA	Prep	9012B			722129	CG	EET BUF	08/16/24 12:10
Total/NA	Analysis	9012B		1	722470	IMZ	EET BUF	08/20/24 10:32

Client Sample ID: SB-09-28.0-30.0
Date Collected: 08/08/24 15:00
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	721298	AF	EET BUF	08/09/24 15:30

Client Sample ID: SB-09-28.0-30.0
Date Collected: 08/08/24 15:00
Date Received: 08/08/24 17:09

Lab Sample ID: 480-222440-9
Matrix: Solid
Percent Solids: 70.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			721517	CDC	EET BUF	08/09/24 15:00
Total/NA	Analysis	8260C		1	721513	LCH	EET BUF	08/13/24 04:41
Total/NA	Prep	3550C			721348	DP	EET BUF	08/11/24 07:25
Total/NA	Analysis	8270D		1	721404	JMM	EET BUF	08/12/24 19:04
Total/NA	Prep	3550C			721530	DP	EET BUF	08/13/24 07:15
Total/NA	Analysis	8081B		1	721873	JLS	EET BUF	08/15/24 14:01
Total/NA	Prep	3550C			721346	DP	EET BUF	08/11/24 07:13
Total/NA	Analysis	8082A		1	721438	W1T	EET BUF	08/13/24 06:11
Total/NA	Prep	3050B			721473	ET	EET BUF	08/12/24 14:53
Total/NA	Analysis	6010C		1	721715	NZG	EET BUF	08/13/24 17:51

Lab Chronicle

Client: Ashland LLC
Job ID: 480-222440-1
Project/Site: Tank 75 - Soil Analysis

Client Sample ID: SB-09-28.0-30.0
Lab Sample ID: 480-222440-9
Date Collected: 08/08/24 15:00
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 70.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			721473	ET	EET BUF	08/12/24 14:53
Total/NA	Analysis	6010C		1	721845	NZG	EET BUF	08/14/24 15:43
Total/NA	Prep	7471B			721446	ESB	EET BUF	08/13/24 08:15
Total/NA	Analysis	7471B		1	721606	ESB	EET BUF	08/13/24 10:30
Total/NA	Prep	9012B			722129	CG	EET BUF	08/16/24 12:10
Total/NA	Analysis	9012B		1	722470	IMZ	EET BUF	08/20/24 10:33

Client Sample ID: SB-08-0.0-0.2
Lab Sample ID: 480-222440-10
Date Collected: 08/08/24 15:10
Matrix: Solid
Date Received: 08/08/24 17:09

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	721298	AF	EET BUF	08/09/24 15:30

Client Sample ID: SB-08-0.0-0.2
Lab Sample ID: 480-222440-10
Date Collected: 08/08/24 15:10
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 90.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			721348	DP	EET BUF	08/11/24 07:25
Total/NA	Analysis	8270D		10	721404	JMM	EET BUF	08/12/24 19:33
Total/NA	Prep	3550C			721530	DP	EET BUF	08/13/24 07:15
Total/NA	Analysis	8081B		50	721873	JLS	EET BUF	08/15/24 14:20
Total/NA	Prep	3550C			721346	DP	EET BUF	08/11/24 07:13
Total/NA	Analysis	8082A		1	721438	W1T	EET BUF	08/13/24 06:29
Total/NA	Prep	3050B			721473	ET	EET BUF	08/12/24 14:53
Total/NA	Analysis	6010C		1	721715	NZG	EET BUF	08/13/24 17:53
Total/NA	Prep	7471B			721446	ESB	EET BUF	08/13/24 08:15
Total/NA	Analysis	7471B		1	721606	ESB	EET BUF	08/13/24 10:32
Total/NA	Prep	9012B			722129	CG	EET BUF	08/16/24 12:10
Total/NA	Analysis	9012B		1	722470	IMZ	EET BUF	08/20/24 10:34

Client Sample ID: SB-07-0.0-0.2
Lab Sample ID: 480-222440-11
Date Collected: 08/08/24 15:25
Matrix: Solid
Date Received: 08/08/24 17:09

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	721298	AF	EET BUF	08/09/24 15:30

Client Sample ID: SB-07-0.0-0.2
Lab Sample ID: 480-222440-11
Date Collected: 08/08/24 15:25
Matrix: Solid
Date Received: 08/08/24 17:09
Percent Solids: 88.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			721348	DP	EET BUF	08/11/24 07:25
Total/NA	Analysis	8270D		10	721404	JMM	EET BUF	08/12/24 20:01

Lab Chronicle

Client: Ashland LLC
Job ID: 480-222440-1
Project/Site: Tank 75 - Soil Analysis

Client Sample ID: SB-07-0.0-0.2
Lab Sample ID: 480-222440-11

Date Collected: 08/08/24 15:25
Matrix: Solid

Date Received: 08/08/24 17:09
Percent Solids: 88.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			721530	DP	EET BUF	08/13/24 07:15
Total/NA	Analysis	8081B		10	722116	JLS	EET BUF	08/16/24 16:23
Total/NA	Prep	3550C			721346	DP	EET BUF	08/11/24 07:13
Total/NA	Analysis	8082A		1	721438	W1T	EET BUF	08/13/24 06:46
Total/NA	Prep	1633 Shake			623299	WJW	EET CLE	08/14/24 08:25
Total/NA	Analysis	1633		1	623401	MRL	EET CLE	08/14/24 23:30
Total/NA	Prep	3050B			721473	ET	EET BUF	08/12/24 14:53
Total/NA	Analysis	6010C		1	721715	NZG	EET BUF	08/13/24 17:54
Total/NA	Prep	3050B			721473	ET	EET BUF	08/12/24 14:53
Total/NA	Analysis	6010C		1	721845	NZG	EET BUF	08/14/24 15:45
Total/NA	Prep	7471B			721446	ESB	EET BUF	08/13/24 08:15
Total/NA	Analysis	7471B		1	721606	ESB	EET BUF	08/13/24 10:33
Total/NA	Prep	9012B			722129	CG	EET BUF	08/16/24 12:10
Total/NA	Analysis	9012B		1	722470	IMZ	EET BUF	08/20/24 10:36

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Ashland LLC
Job ID: 480-222440-1
Project/Site: Tank 75 - Soil Analysis

Laboratory: Eurofins Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Method Summary

Client: Ashland LLC
Job ID: 480-222440-1
Project/Site: Tank 75 - Soil Analysis

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET BUF
8081B	Organochlorine Pesticides (GC)	SW846	EET BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET BUF
1633	Per- and Polyfluoroalkyl Substances by LC/MS/MS	EPA	EET CLE
6010C	Metals (ICP)	SW846	EET BUF
7471B	Mercury (CVAA)	SW846	EET BUF
9012B	Cyanide, Total andor Amenable	SW846	EET BUF
Moisture	Percent Moisture	EPA	EET BUF
1633 Shake	Shake Extraction with SPE	EPA	EET CLE
3050B	Preparation, Metals	SW846	EET BUF
3550C	Ultrasonic Extraction	SW846	EET BUF
5035A_L	Closed System Purge and Trap	SW846	EET BUF
7471B	Preparation, Mercury	SW846	EET BUF
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	EET BUF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Ashland LLC
Job ID: 480-222440-1
Project/Site: Tank 75 - Soil Analysis

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-222440-1	SB-03-5.0-7.0	Solid	08/08/24 10:05	08/08/24 17:09
480-222440-2	SB-03-28.0-30.0	Solid	08/08/24 10:15	08/08/24 17:09
480-222440-3	SB-02-0.0-0.2	Solid	08/08/24 10:50	08/08/24 17:09
480-222440-4	SB-02-0.0-0.2-FD	Solid	08/08/24 10:50	08/08/24 17:09
480-222440-5	SB-02-10.0-11.0	Solid	08/08/24 12:25	08/08/24 17:09
480-222440-6	SB-02-28.0-30.0	Solid	08/08/24 12:35	08/08/24 17:09
480-222440-7	SB-09-0.0-0.2	Solid	08/08/24 12:50	08/08/24 17:09
480-222440-8	SB-09-4.0-5.0	Solid	08/08/24 14:50	08/08/24 17:09
480-222440-9	SB-09-28.0-30.0	Solid	08/08/24 15:00	08/08/24 17:09
480-222440-10	SB-08-0.0-0.2	Solid	08/08/24 15:10	08/08/24 17:09
480-222440-11	SB-07-0.0-0.2	Solid	08/08/24 15:25	08/08/24 17:09

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins Environment Testing

Client Information	Sampler: E. Smith / C. Horrocks / C. Finn	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-197590-40883.5
Client Contact: Ethan Smith	Phone: (716)912-4456	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin:	Page: ~~Page 5 of 11~~ 1 of 1
Company: AECOM	PWSID:			Job #:

Address: 50 Lakefront Boulevard Suite 111	Due Date Requested: Standard	Preservation Codes: N - None; A - HCL; D - HNO3; B - NaOH
City: Buffalo	TAT Requested (days): Standard	
State, Zip: NY, 14202	Compliance Project: Δ Yes Δ No	
Phone: 614-790-2274(Tel) / (716)912-4456	PO #: 1120269 Task 300	
Email: ethan.smith@aecom.com / edyta.charostkowska@aecom.com	WO #: Ann Marie.Kropovitch@aecom.com	Other:
Project Name: Tank 75 - Soil Analysis	Project #: 48027595	
Site: Tank 75 Site, Tonawanda, NY	SSOW#:	

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL VOCs + TICs	8081B, 8082A, 8270D	6010C, 7471B, 9012B	8270D - TCL SVOCs + 1,4 Dioxane, TICs	1633 - 1633 Standard List	8260C - TCL VOCs + TICs	8270D - TCL SVOCs +TICs	1633_DRAFT_TSS - Percent Suspend Solids PFAS	8082A - TCL PCBs	8081B - TCL Pesticides	6010C, 7470A	9012B_NP - Cyanide, Total	8270D_SIM_MS_ID - 1,4 Dioxane	Total Number of containers	Special Instructions/Note:
Preservation Code:							N	N	N	N	N	A	N	N	N	N	D	B	N		
SB-03-5.0-7.0	8-8-24	1005	G	Solid			X	X	X											7	
SB-03-28.0-30.0	8-8-24	1015	G	Solid			X	X	X											7	
SB-02-0.0-0.2	8-8-24	1050	G	Solid				X	X											2	
SB-02-0.0-0.2-FD	8-8-24	1050	G	Solid				X	X												
SB-02-10.0-11.0	8-8-24	1225	G	Solid			X	X	X												
SB-02-28.0-30.0	8-8-24	1235	G	Solid			X	X	X												
SB-09-0.0-0.2	8-8-24	1250	G	Solid				X	X												
SB-09-4.0-5.0	8-8-24	1450	G	Solid			X	X	X												
SB-09-28.0-30.0	8-8-24	1500	G	Solid			X	X	X												
SB-08-0.0-0.2	8-8-24	1510	G	Solid				X	X											3	
SB-07-0.0-0.2	8-8-24	1525	G	Solid				X	X	X	X									5	

480-222440 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
	Relinquished by:	8-8-24 1707	AECOM	Ben Sollner	8/8/24 5:09 pm	Eurofins Buffalo
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 5.7 6.2 3.9 # IR

Ver: 04/02/2024

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

1.0/2.0

Chain of Custody Record

eurofins Environment Testing

Client Information (Sub Contract Lab)	Sampler	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-88889.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note): NELAP New York		Job #: 480-222440-1
Address: 180 S. Van Buren Avenue,	Due Date Requested: 8/21/2024			
City: Barberton	TAT Requested (days):			
State, Zip: OH, 44203				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Soil Analysis	Project #: 48027595			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

Other

PFAS-081-09

Special Instructions/Note:

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633/1633_Shake 1633 Standard List	Total Number of containers
			Preservation Code:					
SB-07-0.0-0.2 (480-222440-11)	8/8/24	15:25 Eastern		Solid			X	1

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If al requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*
Deliverable Requested: I II, III IV Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements:
Empty Kit Relinquished by:	Date: Time: Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	8/12/24 1600	TA	JESSICA RIGDON	8 13 24 0900	EBTNC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver: 04/02/2024

Eurofins - Cleveland Sample Receipt Form/Narrative **Login # :**
Barberton Facility

Client Eurofins - Buffalo Site Name

Cooler unpacked by: JESSICA RIGDON

Cooler Received on 8.13.24 Opened on 8.13.24

FedEx: 1st Grd (Exp) UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other

COOLANT (Wet Ice) Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 19 (CF +1.0 °C) Observed Cooler Temp. 1.0 °C Corrected Cooler Temp. 2.0 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
-Were tamper/custody seals intact and uncompromised?	(Yes)	No NA
3 Shippers' packing slip attached to the cooler(s)?	(Yes)	No
4. Did custody papers accompany the sample(s)?	(Yes)	No
5 Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	(No)
7 Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes)	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp(Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
11 Sufficient quantity received to perform indicated analyses?	(Yes)	No
12. Are these work share samples and all listed on the COC?	(Yes)	No
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA
14 Were VOAs on the COC?	Yes	No
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this	Yes	No NA
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	No
17 Was a LL Hg or Me Hg trip blank present?	Yes	No

pH Strip Lot# HC442471

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.

Sample(s) were received in a broken container

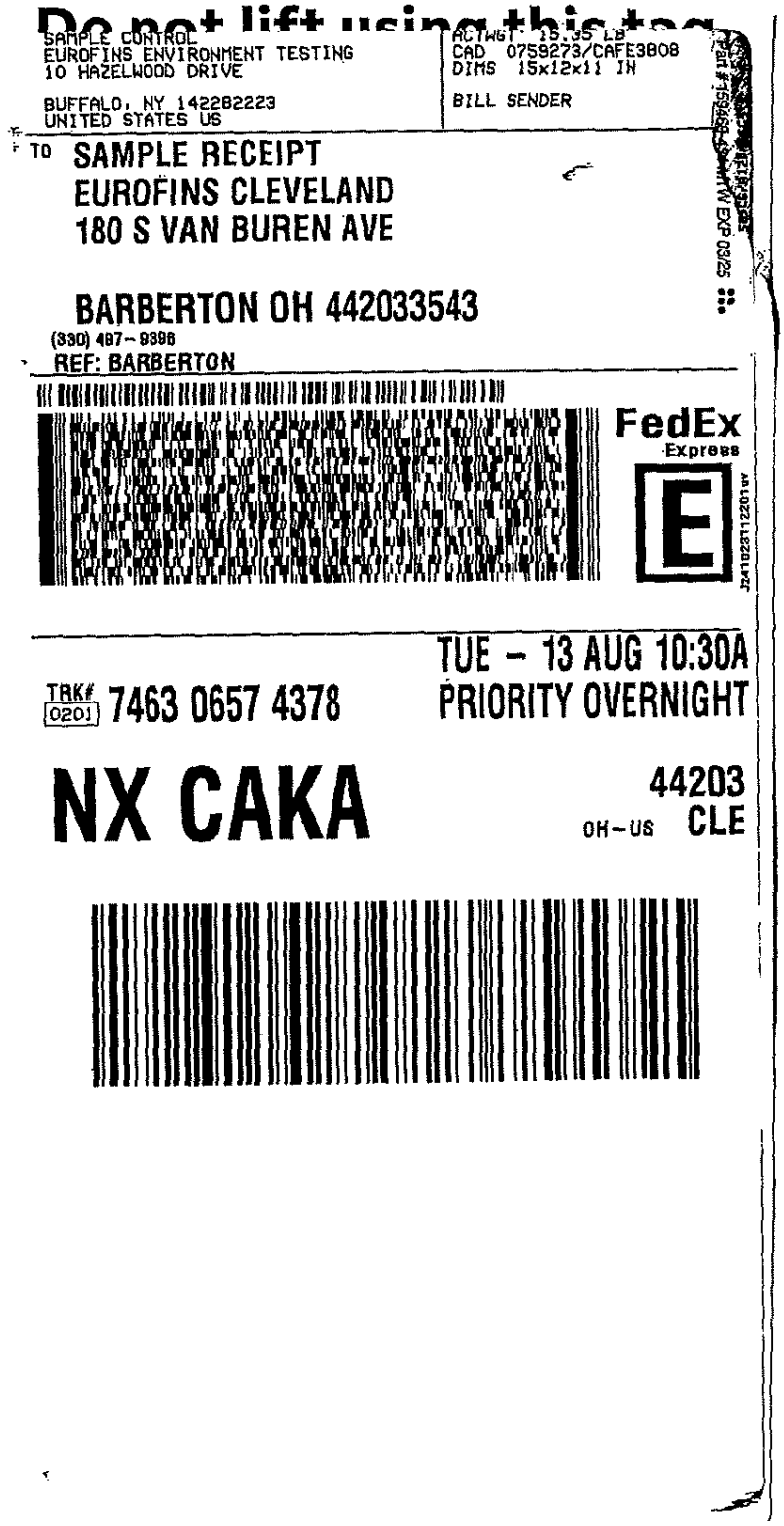
Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory

Time preserved. Preservative(s) added/Lot number(s)

VOA Sample Preservation - Date/Time VOAs Frozen.



Do not lift using this tag

SAMPLE CONTROL
EUROFINS ENVIRONMENT TESTING
10 HAZELWOOD DRIVE

BUFFALO, NY 142282223
UNITED STATES US

ACTWGT: 15.95 LB
CAD 0759273/CAFE3808
DIMS 15x12x11 IN

BILL SENDER

Part # 156856-MTW EXP 03/25

TO SAMPLE RECEIPT
EUROFINS CLEVELAND
180 S VAN BUREN AVE

BARBERTON OH 442033543
(330) 497-9396
REF: BARBERTON

FedEx Express

JZ41023112201sr

TUE - 13 AUG 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7463 0657 4378

NX CAKA

44203
OH-US CLE

Login Sample Receipt Checklist

Client: Ashland LLC

Job Number: 480-222440-1

Login Number: 222440
List Number: 1
Creator: Stapleton, Kaitlyn

List Source: Eurofins Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.7, 6.2, 3.9 #1 ice
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	Terracores put in freezer on 8/9 at 1500
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	AECOM
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Shannon Lloyd
Ashland LLC
PO BOX 2219
Columbus, Ohio 43216

Generated 8/22/2024 11:28:16 AM

JOB DESCRIPTION

Tank 75 Analysis - Soil Analysis

JOB NUMBER

480-222473-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

See page two for job notes and contact information.

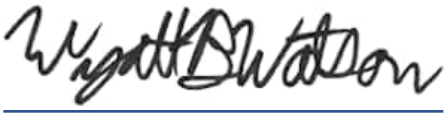
Eurofins Buffalo

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

Authorization



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(716)504-9874

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

LCMS

Qualifier	Qualifier Description
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 480-222473-1 Eurofins Buffalo

Job Narrative
480-222473-1

Receipt
The samples were received on 8/9/2024 1:27 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 5.9º C and 6.7º C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA
Method 8270D: The following compound has been spiked at a level above the upper range of the initial calibration: Benzaldehyde and Caprolactam. The laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) associated with preparation batch 480-721531 and analytical batch 480-721937 recovered within acceptable limits for this analyte and has been qualified with an "E" flag.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method 8081B: The method blank for preparation batch 480-721994 and analytical batch 480-722116 contained gamma-BHC (Lindane) above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method 6010C: The low level continuing calibration verification (CCVL) associated with batch 480-721848 recovered above the upper control limit for Copper. The samples associated with this CCVL were 10x for the affected analytes; therefore, the data have been reported.

Method 6010C: The low level continuing calibration verification (CCVL) associated with batch 480-722016 recovered above the upper control limit for Lead. The samples associated with this CCVL were 10x for the affected analytes; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

LCMS
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ashland LLC
Job ID: 480-222473-1
Project/Site: Tank 75 Analysis - Soil Analysis

Client Sample ID: SB-08-26.0-28.0 — Lab Sample ID: 480-222473-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	19200		11.7	10.1	mg/Kg	1	☼	6010C	Total/NA
Arsenic	3.6		2.3	1.0	mg/Kg	1	☼	6010C	Total/NA
Barium	124		0.58	0.16	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.85		0.23	0.047	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.22	J	0.23	0.082	mg/Kg	1	☼	6010C	Total/NA
Calcium	41900		58.4	31.5	mg/Kg	1	☼	6010C	Total/NA
Chromium	24.5		0.58	0.42	mg/Kg	1	☼	6010C	Total/NA
Cobalt	13.2		0.58	0.12	mg/Kg	1	☼	6010C	Total/NA
Copper	18.2	^+ B	1.2	0.67	mg/Kg	1	☼	6010C	Total/NA
Iron	20300		11.7	9.9	mg/Kg	1	☼	6010C	Total/NA
Lead	10.0		1.2	0.54	mg/Kg	1	☼	6010C	Total/NA
Magnesium	14800		23.4	9.9	mg/Kg	1	☼	6010C	Total/NA
Manganese	488		1.2	0.33	mg/Kg	1	☼	6010C	Total/NA
Nickel	25.2		5.8	0.29	mg/Kg	1	☼	6010C	Total/NA
Potassium	6320		35.0	28.3	mg/Kg	1	☼	6010C	Total/NA
Silver	0.29	J	0.70	0.23	mg/Kg	1	☼	6010C	Total/NA
Sodium	287		163	71.6	mg/Kg	1	☼	6010C	Total/NA
Vanadium	36.3		0.58	0.15	mg/Kg	1	☼	6010C	Total/NA
Zinc	55.5		2.3	1.2	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.016	J	0.023	0.0053	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SB-08-28.0-30.0 — Lab Sample ID: 480-222473-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	22		21	3.6	ug/Kg	1	☼	8260C	Total/NA
Aluminum	25500		13.5	11.6	mg/Kg	1	☼	6010C	Total/NA
Arsenic	9.1		2.7	1.2	mg/Kg	1	☼	6010C	Total/NA
Barium	101		0.68	0.19	mg/Kg	1	☼	6010C	Total/NA
Beryllium	1.1		0.27	0.054	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.23	J	0.27	0.095	mg/Kg	1	☼	6010C	Total/NA
Calcium	34100		67.6	36.5	mg/Kg	1	☼	6010C	Total/NA
Chromium	32.5		0.68	0.49	mg/Kg	1	☼	6010C	Total/NA
Cobalt	15.9		0.68	0.14	mg/Kg	1	☼	6010C	Total/NA
Copper	24.5	^+ B	1.4	0.77	mg/Kg	1	☼	6010C	Total/NA
Iron	25200		13.5	11.5	mg/Kg	1	☼	6010C	Total/NA
Lead	12.8		1.4	0.62	mg/Kg	1	☼	6010C	Total/NA
Magnesium	17500		27.0	11.5	mg/Kg	1	☼	6010C	Total/NA
Manganese	440		1.4	0.38	mg/Kg	1	☼	6010C	Total/NA
Nickel	33.1		6.8	0.34	mg/Kg	1	☼	6010C	Total/NA
Potassium	8150		40.5	32.8	mg/Kg	1	☼	6010C	Total/NA
Silver	0.37	J	0.81	0.27	mg/Kg	1	☼	6010C	Total/NA
Sodium	365		189	82.9	mg/Kg	1	☼	6010C	Total/NA
Vanadium	47.9		0.68	0.18	mg/Kg	1	☼	6010C	Total/NA
Zinc	71.0		2.7	1.4	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.020	J	0.026	0.0060	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SB-07-1.0-2.0 — Lab Sample ID: 480-222473-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	30	J	200	29	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	41	J	200	31	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	30	J	200	21	ug/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Client Sample ID: SB-07-1.0-2.0 (Continued)
Lab Sample ID: 480-222473-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	36	J	200	21	ug/Kg	1	☼	8270D	Total/NA
Pyrene	29	J	200	23	ug/Kg	1	☼	8270D	Total/NA
gamma-BHC (Lindane)	0.55	J B	2.0	0.36	ug/Kg	1	☼	8081B	Total/NA
Aluminum	13200		12.4	10.7	mg/Kg	1	☼	6010C	Total/NA
Arsenic	5.1	F1	2.5	1.1	mg/Kg	1	☼	6010C	Total/NA
Barium	102	F1	0.62	0.17	mg/Kg	1	☼	6010C	Total/NA
Beryllium	3.3	F1	0.25	0.049	mg/Kg	1	☼	6010C	Total/NA
Calcium	66100		61.8	33.4	mg/Kg	1	☼	6010C	Total/NA
Chromium	8.7	F1	0.62	0.45	mg/Kg	1	☼	6010C	Total/NA
Cobalt	4.5		0.62	0.12	mg/Kg	1	☼	6010C	Total/NA
Copper	3.8	^+ B F1	1.2	0.70	mg/Kg	1	☼	6010C	Total/NA
Iron	6580		12.4	10.5	mg/Kg	1	☼	6010C	Total/NA
Lead	5.8		1.2	0.57	mg/Kg	1	☼	6010C	Total/NA
Magnesium	12200	F1	24.7	10.5	mg/Kg	1	☼	6010C	Total/NA
Manganese	919		1.2	0.35	mg/Kg	1	☼	6010C	Total/NA
Nickel	2.1	J F1	6.2	0.31	mg/Kg	1	☼	6010C	Total/NA
Potassium	625	F1	37.1	30.0	mg/Kg	1	☼	6010C	Total/NA
Silver	0.38	J F1	0.74	0.25	mg/Kg	1	☼	6010C	Total/NA
Sodium	861	F1	173	75.8	mg/Kg	1	☼	6010C	Total/NA
Vanadium	2.8	F1	0.62	0.16	mg/Kg	1	☼	6010C	Total/NA
Zinc	6.6	F1	2.5	1.3	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.013	J	0.023	0.0054	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SB-07-33.0-35.0
Lab Sample ID: 480-222473-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	20	J	26	4.4	ug/Kg	1	☼	8260C	Total/NA
Aluminum	23900		13.3	11.4	mg/Kg	1	☼	6010C	Total/NA
Arsenic	5.6		2.7	1.2	mg/Kg	1	☼	6010C	Total/NA
Barium	132		0.66	0.19	mg/Kg	1	☼	6010C	Total/NA
Beryllium	1.1		0.27	0.053	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.22	J	0.27	0.093	mg/Kg	1	☼	6010C	Total/NA
Calcium	42100		66.3	35.8	mg/Kg	1	☼	6010C	Total/NA
Chromium	32.1		0.66	0.48	mg/Kg	1	☼	6010C	Total/NA
Cobalt	14.9		0.66	0.13	mg/Kg	1	☼	6010C	Total/NA
Copper	29.3	B	1.3	0.76	mg/Kg	1	☼	6010C	Total/NA
Iron	24100		13.3	11.2	mg/Kg	1	☼	6010C	Total/NA
Lead	13.4	^+	1.3	0.61	mg/Kg	1	☼	6010C	Total/NA
Magnesium	17700		26.5	11.2	mg/Kg	1	☼	6010C	Total/NA
Manganese	484		1.3	0.37	mg/Kg	1	☼	6010C	Total/NA
Nickel	31.0		6.6	0.33	mg/Kg	1	☼	6010C	Total/NA
Potassium	7540		39.8	32.1	mg/Kg	1	☼	6010C	Total/NA
Silver	0.34	J	0.80	0.27	mg/Kg	1	☼	6010C	Total/NA
Sodium	374		186	81.3	mg/Kg	1	☼	6010C	Total/NA
Vanadium	44.4		0.66	0.17	mg/Kg	1	☼	6010C	Total/NA
Zinc	69.3		2.7	1.4	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.021	J	0.027	0.0062	mg/Kg	1	☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Ashland LLC
Job ID: 480-222473-1
Project/Site: Tank 75 Analysis - Soil Analysis

Client Sample ID: SB-08-26.0-28.0
Lab Sample ID: 480-222473-1
Date Collected: 08/09/24 08:50
Matrix: Solid
Date Received: 08/09/24 13:27
Percent Solids: 82.2

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		3.9	0.29	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
1,1,2,2-Tetrachloroethane	ND		3.9	0.64	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.9	0.90	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
1,1,2-Trichloroethane	ND		3.9	0.51	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
1,1-Dichloroethane	ND		3.9	0.48	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
1,1-Dichloroethene	ND		3.9	0.48	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
1,2,4-Trichlorobenzene	ND		3.9	0.24	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
1,2-Dibromo-3-Chloropropane	ND		3.9	2.0	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
1,2-Dibromoethane	ND		3.9	0.51	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
1,2-Dichlorobenzene	ND		3.9	0.31	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
1,2-Dichloroethane	ND		3.9	0.20	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
1,2-Dichloropropane	ND		3.9	2.0	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
1,3-Dichlorobenzene	ND		3.9	0.20	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
1,4-Dichlorobenzene	ND		3.9	0.55	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
2-Butanone (MEK)	ND		20	1.4	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
2-Hexanone	ND		20	2.0	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
4-Methyl-2-pentanone (MIBK)	ND		20	1.3	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Acetone	ND		20	3.3	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Benzene	ND		3.9	0.19	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Bromodichloromethane	ND		3.9	0.53	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Bromoform	ND		3.9	2.0	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Bromomethane	ND		3.9	0.35	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Carbon disulfide	ND		3.9	2.0	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Carbon tetrachloride	ND		3.9	0.38	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Chlorobenzene	ND		3.9	0.52	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Chloroethane	ND		3.9	0.89	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Chloroform	ND		3.9	0.24	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Chloromethane	ND		3.9	0.24	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
cis-1,2-Dichloroethene	ND		3.9	0.50	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
cis-1,3-Dichloropropene	ND		3.9	0.57	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Cyclohexane	ND		3.9	0.55	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Dibromochloromethane	ND		3.9	0.50	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Dichlorodifluoromethane	ND		3.9	0.33	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Ethylbenzene	ND		3.9	0.27	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Isopropylbenzene	ND		3.9	0.59	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Methyl acetate	ND		20	2.4	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Methyl tert-butyl ether	ND		3.9	0.39	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Methylcyclohexane	ND		3.9	0.60	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Methylene Chloride	ND		3.9	1.8	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Styrene	ND		3.9	0.20	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Tetrachloroethene	ND		3.9	0.53	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Toluene	ND		3.9	0.30	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
trans-1,2-Dichloroethene	ND		3.9	0.41	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
trans-1,3-Dichloropropene	ND		3.9	1.7	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Trichloroethene	ND		3.9	0.87	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Trichlorofluoromethane	ND		3.9	0.37	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Vinyl chloride	ND		3.9	0.48	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1
Xylenes, Total	ND		7.9	0.66	ug/Kg	☼	08/09/24 17:45	08/13/24 16:24	1

Client Sample ID: SB-08-26.0-28.0
Date Collected: 08/09/24 08:50
Date Received: 08/09/24 13:27

Lab Sample ID: 480-222473-1
Matrix: Solid
Percent Solids: 82.2

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/Kg	☼		N/A	08/09/24 17:45	08/13/24 16:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		64 - 126	08/09/24 17:45	08/13/24 16:24	1
4-Bromofluorobenzene (Surr)	95		72 - 126	08/09/24 17:45	08/13/24 16:24	1
Dibromofluoromethane (Surr)	103		60 - 140	08/09/24 17:45	08/13/24 16:24	1
Toluene-d8 (Surr)	96		71 - 125	08/09/24 17:45	08/13/24 16:24	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		200	55	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
2,4,6-Trichlorophenol	ND		200	41	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
2,4-Dichlorophenol	ND		200	22	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
2,4-Dimethylphenol	ND		200	49	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
2,4-Dinitrophenol	ND		2000	940	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
2,4-Dinitrotoluene	ND		200	42	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
2,6-Dinitrotoluene	ND		200	24	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
2-Chloronaphthalene	ND		200	34	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
2-Chlorophenol	ND		400	37	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
2-Methylnaphthalene	ND		200	41	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
2-Methylphenol	ND		200	24	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
2-Nitroaniline	ND		400	30	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
2-Nitrophenol	ND		200	58	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
3,3'-Dichlorobenzidine	ND		400	240	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
3-Nitroaniline	ND		400	57	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
4,6-Dinitro-2-methylphenol	ND		400	200	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
4-Bromophenyl phenyl ether	ND		200	29	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
4-Chloro-3-methylphenol	ND		200	51	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
4-Chloroaniline	ND		200	51	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
4-Chlorophenyl phenyl ether	ND		200	25	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
4-Methylphenol	ND		400	24	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
4-Nitroaniline	ND		400	110	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
4-Nitrophenol	ND		400	140	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Acenaphthene	ND		200	30	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Acenaphthylene	ND		200	26	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Acetophenone	ND		200	28	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Anthracene	ND		200	51	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Atrazine	ND		200	71	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Benzaldehyde	ND		200	160	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Benzo[a]anthracene	ND		200	20	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Benzo[a]pyrene	ND		200	30	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Benzo[b]fluoranthene	ND		200	32	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Benzo[g,h,i]perylene	ND		200	22	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Benzo[k]fluoranthene	ND		200	26	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Biphenyl	ND		200	30	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
bis (2-chloroisopropyl) ether	ND		200	41	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Bis(2-chloroethoxy)methane	ND		200	43	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Bis(2-chloroethyl)ether	ND		200	26	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Bis(2-ethylhexyl) phthalate	ND		200	70	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Butyl benzyl phthalate	ND		200	34	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1

Client Sample ID: SB-08-26.0-28.0
Lab Sample ID: 480-222473-1
Date Collected: 08/09/24 08:50
Matrix: Solid
Date Received: 08/09/24 13:27
Percent Solids: 82.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Caprolactam	ND		200	61	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Carbazole	ND		200	24	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Chrysene	ND		200	46	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Dibenz(a,h)anthracene	ND		200	36	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Dibenzofuran	ND		200	24	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Diethyl phthalate	ND		200	26	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Dimethyl phthalate	ND		200	24	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Di-n-butyl phthalate	ND		200	35	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Di-n-octyl phthalate	ND		200	24	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Fluoranthene	ND		200	22	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Fluorene	ND		200	24	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Hexachlorobenzene	ND		200	28	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Hexachlorobutadiene	ND		200	30	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Hexachlorocyclopentadiene	ND		200	28	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Hexachloroethane	ND		200	26	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Indeno[1,2,3-cd]pyrene	ND		200	25	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Isophorone	ND		200	43	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Naphthalene	ND		200	26	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Nitrobenzene	ND		200	23	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
N-Nitrosodi-n-propylamine	ND		200	35	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
N-Nitrosodiphenylamine	ND		200	170	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Pentachlorophenol	ND		400	200	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Phenanthrene	ND		200	30	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Phenol	ND		200	31	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1
Pyrene	ND		200	24	ug/Kg	☼	08/13/24 07:23	08/16/24 03:45	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*3000*	*T J*	*ug/Kg*	☼	*1.92*	*N/A*	*08/13/24 07:23*	*08/16/24 03:45*	*1*
Unknown	*4700*	*T J*	*ug/Kg*	☼	*3.30*	*N/A*	*08/13/24 07:23*	*08/16/24 03:45*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*94*		*26 - 143*	*08/13/24 07:23*	*08/16/24 03:45*	*1*
2-Fluorobiphenyl	*81*		*50 - 121*	*08/13/24 07:23*	*08/16/24 03:45*	*1*
2-Fluorophenol	*73*		*36 - 120*	*08/13/24 07:23*	*08/16/24 03:45*	*1*
Nitrobenzene-d5	*80*		*40 - 121*	*08/13/24 07:23*	*08/16/24 03:45*	*1*
Phenol-d5	*82*		*41 - 120*	*08/13/24 07:23*	*08/16/24 03:45*	*1*
p-Terphenyl-d14	*87*		*46 - 143*	*08/13/24 07:23*	*08/16/24 03:45*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.0	0.38	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
4,4'-DDE	ND		2.0	0.41	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
4,4'-DDT	ND		2.0	0.46	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
Aldrin	ND		2.0	0.49	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
alpha-BHC	ND		2.0	0.36	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
cis-Chlordane	ND		2.0	0.98	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
beta-BHC	ND		2.0	0.36	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
delta-BHC	ND		2.0	0.37	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
Dieldrin	ND		2.0	0.47	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
Endosulfan I	ND		2.0	0.38	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1

Client Sample ID: SB-08-26.0-28.0
Lab Sample ID: 480-222473-1
Date Collected: 08/09/24 08:50
Matrix: Solid
Date Received: 08/09/24 13:27
Percent Solids: 82.2

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan II	ND		2.0	0.36	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
Endosulfan sulfate	ND		2.0	0.37	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
Endrin	ND		2.0	0.39	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
Endrin aldehyde	ND		2.0	0.50	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
Endrin ketone	ND		2.0	0.49	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
gamma-BHC (Lindane)	ND		2.0	0.36	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
trans-Chlordane	ND		2.0	0.63	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
Heptachlor	ND		2.0	0.43	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
Heptachlor epoxide	ND		2.0	0.51	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
Methoxychlor	ND		2.0	0.40	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1
Toxaphene	ND		20	11	ug/Kg	☼	08/15/24 15:16	08/16/24 18:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*94*		*45 - 120*	*08/15/24 15:16*	*08/16/24 18:41*	*1*
DCB Decachlorobiphenyl	*104*		*45 - 120*	*08/15/24 15:16*	*08/16/24 18:41*	*1*
Tetrachloro-m-xylene	*70*		*30 - 124*	*08/15/24 15:16*	*08/16/24 18:41*	*1*
Tetrachloro-m-xylene	*84*		*30 - 124*	*08/15/24 15:16*	*08/16/24 18:41*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.25	0.049	mg/Kg	☼	08/14/24 07:38	08/15/24 23:32	1
PCB-1221	ND		0.25	0.049	mg/Kg	☼	08/14/24 07:38	08/15/24 23:32	1
PCB-1232	ND		0.25	0.049	mg/Kg	☼	08/14/24 07:38	08/15/24 23:32	1
PCB-1242	ND		0.25	0.049	mg/Kg	☼	08/14/24 07:38	08/15/24 23:32	1
PCB-1248	ND		0.25	0.049	mg/Kg	☼	08/14/24 07:38	08/15/24 23:32	1
PCB-1254	ND		0.25	0.12	mg/Kg	☼	08/14/24 07:38	08/15/24 23:32	1
PCB-1260	ND		0.25	0.12	mg/Kg	☼	08/14/24 07:38	08/15/24 23:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*108*		*60 - 154*	*08/14/24 07:38*	*08/15/24 23:32*	*1*
Tetrachloro-m-xylene	*91*		*60 - 154*	*08/14/24 07:38*	*08/15/24 23:32*	*1*
DCB Decachlorobiphenyl	*98*		*65 - 174*	*08/14/24 07:38*	*08/15/24 23:32*	*1*
DCB Decachlorobiphenyl	*104*		*65 - 174*	*08/14/24 07:38*	*08/15/24 23:32*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**19200**		11.7	10.1	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Antimony	ND		17.5	0.62	mg/Kg	☼	08/13/24 13:33	08/15/24 13:28	1
Arsenic	**3.6**		2.3	1.0	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Barium	**124**		0.58	0.16	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Beryllium	**0.85**		0.23	0.047	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Cadmium	**0.22**	**J**	0.23	0.082	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Calcium	**41900**		58.4	31.5	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Chromium	**24.5**		0.58	0.42	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Cobalt	**13.2**		0.58	0.12	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Copper	**18.2**	**^+ B**	1.2	0.67	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Iron	**20300**		11.7	9.9	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Lead	**10.0**		1.2	0.54	mg/Kg	☼	08/13/24 13:33	08/15/24 13:28	1
Magnesium	**14800**		23.4	9.9	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Manganese	**488**		1.2	0.33	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1

Client Sample ID: SB-08-26.0-28.0
Lab Sample ID: 480-222473-1

Date Collected: 08/09/24 08:50
Matrix: Solid
Date Received: 08/09/24 13:27
Percent Solids: 82.2

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	**25.2**		5.8	0.29	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Potassium	**6320**		35.0	28.3	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Selenium	ND		4.7	0.93	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Silver	**0.29**	**J**	0.70	0.23	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Sodium	**287**		163	71.6	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Thallium	ND		7.0	0.89	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Vanadium	**36.3**		0.58	0.15	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1
Zinc	**55.5**		2.3	1.2	mg/Kg	☼	08/13/24 13:33	08/14/24 15:05	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.016**	**J**	0.023	0.0053	mg/Kg	☼	08/13/24 08:15	08/13/24 11:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.58	mg/Kg	☼	08/16/24 12:10	08/20/24 10:37	1

Client Sample ID: SB-08-28.0-30.0
Lab Sample ID: 480-222473-2

Date Collected: 08/09/24 09:00
Matrix: Solid
Date Received: 08/09/24 13:27
Percent Solids: 73.9

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.3	0.31	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
1,1,2,2-Tetrachloroethane	ND		4.3	0.69	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.3	0.97	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
1,1,2-Trichloroethane	ND		4.3	0.55	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
1,1-Dichloroethane	ND		4.3	0.52	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
1,1-Dichloroethene	ND		4.3	0.52	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
1,2,4-Trichlorobenzene	ND		4.3	0.26	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
1,2-Dibromo-3-Chloropropane	ND		4.3	2.1	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
1,2-Dibromoethane	ND		4.3	0.55	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
1,2-Dichlorobenzene	ND		4.3	0.33	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
1,2-Dichloroethane	ND		4.3	0.21	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
1,2-Dichloropropane	ND		4.3	2.1	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
1,3-Dichlorobenzene	ND		4.3	0.22	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
1,4-Dichlorobenzene	ND		4.3	0.60	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
2-Butanone (MEK)	ND		21	1.6	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
2-Hexanone	ND		21	2.1	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
4-Methyl-2-pentanone (MIBK)	ND		21	1.4	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Acetone	**22**		21	3.6	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Benzene	ND		4.3	0.21	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Bromodichloromethane	ND		4.3	0.57	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Bromoform	ND		4.3	2.1	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Bromomethane	ND		4.3	0.38	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Carbon disulfide	ND		4.3	2.1	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Carbon tetrachloride	ND		4.3	0.41	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Chlorobenzene	ND		4.3	0.56	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Chloroethane	ND		4.3	0.96	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Chloroform	ND		4.3	0.26	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis - Soil Analysis

Job ID: 480-222473-1

Client Sample ID: SB-08-28.0-30.0
Date Collected: 08/09/24 09:00
Date Received: 08/09/24 13:27

Lab Sample ID: 480-222473-2
Matrix: Solid
Percent Solids: 73.9

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		4.3	0.26	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
cis-1,2-Dichloroethene	ND		4.3	0.54	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
cis-1,3-Dichloropropene	ND		4.3	0.61	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Cyclohexane	ND		4.3	0.60	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Dibromochloromethane	ND		4.3	0.54	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Dichlorodifluoromethane	ND		4.3	0.35	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Ethylbenzene	ND		4.3	0.29	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Isopropylbenzene	ND		4.3	0.64	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Methyl acetate	ND		21	2.6	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Methyl tert-butyl ether	ND		4.3	0.42	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Methylcyclohexane	ND		4.3	0.65	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Methylene Chloride	ND		4.3	2.0	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Styrene	ND		4.3	0.21	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Tetrachloroethene	ND		4.3	0.57	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Toluene	ND		4.3	0.32	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
trans-1,2-Dichloroethene	ND		4.3	0.44	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
trans-1,3-Dichloropropene	ND		4.3	1.9	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Trichloroethene	ND		4.3	0.94	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Trichlorofluoromethane	ND		4.3	0.40	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Vinyl chloride	ND		4.3	0.52	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1
Xylenes, Total	ND		8.5	0.71	ug/Kg	☼	08/09/24 17:45	08/13/24 16:48	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*08/09/24 17:45*	*08/13/24 16:48*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*64 - 126*	*08/09/24 17:45*	*08/13/24 16:48*	*1*
4-Bromofluorobenzene (Surr)	*95*		*72 - 126*	*08/09/24 17:45*	*08/13/24 16:48*	*1*
Dibromofluoromethane (Surr)	*109*		*60 - 140*	*08/09/24 17:45*	*08/13/24 16:48*	*1*
Toluene-d8 (Surr)	*97*		*71 - 125*	*08/09/24 17:45*	*08/13/24 16:48*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		230	61	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
2,4,6-Trichlorophenol	ND		230	45	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
2,4-Dichlorophenol	ND		230	24	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
2,4-Dimethylphenol	ND		230	54	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
2,4-Dinitrophenol	ND		2200	1000	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
2,4-Dinitrotoluene	ND		230	46	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
2,6-Dinitrotoluene	ND		230	27	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
2-Chloronaphthalene	ND		230	37	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
2-Chlorophenol	ND		440	41	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
2-Methylnaphthalene	ND		230	45	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
2-Methylphenol	ND		230	27	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
2-Nitroaniline	ND		440	33	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
2-Nitrophenol	ND		230	64	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
3,3'-Dichlorobenzidine	ND		440	270	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
3-Nitroaniline	ND		440	62	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
4,6-Dinitro-2-methylphenol	ND		440	230	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
4-Bromophenyl phenyl ether	ND		230	32	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1

Client: Ashland LLC
Project/Site: Tank 75 Analysis - Soil Analysis

Job ID: 480-222473-1

Client Sample ID: SB-08-28.0-30.0
Date Collected: 08/09/24 09:00
Date Received: 08/09/24 13:27

Lab Sample ID: 480-222473-2
Matrix: Solid
Percent Solids: 73.9

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chloro-3-methylphenol	ND		230	56	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
4-Chloroaniline	ND		230	56	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
4-Chlorophenyl phenyl ether	ND		230	28	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
4-Methylphenol	ND		440	27	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
4-Nitroaniline	ND		440	120	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
4-Nitrophenol	ND		440	160	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Acenaphthene	ND		230	33	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Acenaphthylene	ND		230	29	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Acetophenone	ND		230	30	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Anthracene	ND		230	56	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Atrazine	ND		230	78	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Benzaldehyde	ND		230	180	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Benzo[a]anthracene	ND		230	23	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Benzo[a]pyrene	ND		230	33	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Benzo[b]fluoranthene	ND		230	36	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Benzo[g,h,i]perylene	ND		230	24	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Benzo[k]fluoranthene	ND		230	29	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Biphenyl	ND		230	33	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
bis (2-chloroisopropyl) ether	ND		230	45	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Bis(2-chloroethoxy)methane	ND		230	48	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Bis(2-chloroethyl)ether	ND		230	29	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Bis(2-ethylhexyl) phthalate	ND		230	77	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Butyl benzyl phthalate	ND		230	37	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Caprolactam	ND		230	68	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Carbazole	ND		230	27	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Chrysene	ND		230	50	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Dibenz(a,h)anthracene	ND		230	40	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Dibenzofuran	ND		230	27	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Diethyl phthalate	ND		230	29	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Dimethyl phthalate	ND		230	27	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Di-n-butyl phthalate	ND		230	38	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Di-n-octyl phthalate	ND		230	27	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Fluoranthene	ND		230	24	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Fluorene	ND		230	27	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Hexachlorobenzene	ND		230	30	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Hexachlorobutadiene	ND		230	33	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Hexachlorocyclopentadiene	ND		230	30	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Hexachloroethane	ND		230	29	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Indeno[1,2,3-cd]pyrene	ND		230	28	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Isophorone	ND		230	48	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Naphthalene	ND		230	29	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Nitrobenzene	ND		230	25	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
N-Nitrosodi-n-propylamine	ND		230	38	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
N-Nitrosodiphenylamine	ND		230	180	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Pentachlorophenol	ND		440	230	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Phenanthrene	ND		230	33	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Phenol	ND		230	34	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1
Pyrene	ND		230	27	ug/Kg	☼	08/13/24 07:23	08/16/24 04:13	1

Client Sample ID: SB-08-28.0-30.0
Date Collected: 08/09/24 09:00
Date Received: 08/09/24 13:27

Lab Sample ID: 480-222473-2
Matrix: Solid
Percent Solids: 73.9

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	660	T J	ug/Kg	☼	1.72	N/A	08/13/24 07:23	08/16/24 04:13	1
Unknown	4300	T J	ug/Kg	☼	1.92	N/A	08/13/24 07:23	08/16/24 04:13	1
Unknown	5500	T J	ug/Kg	☼	3.30	N/A	08/13/24 07:23	08/16/24 04:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	95		26 - 143	08/13/24 07:23	08/16/24 04:13	1
2-Fluorobiphenyl	81		50 - 121	08/13/24 07:23	08/16/24 04:13	1
2-Fluorophenol	78		36 - 120	08/13/24 07:23	08/16/24 04:13	1
Nitrobenzene-d5	81		40 - 121	08/13/24 07:23	08/16/24 04:13	1
Phenol-d5	86		41 - 120	08/13/24 07:23	08/16/24 04:13	1
p-Terphenyl-d14	90		46 - 143	08/13/24 07:23	08/16/24 04:13	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.2	0.44	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
4,4'-DDE	ND		2.2	0.47	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
4,4'-DDT	ND		2.2	0.52	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
Aldrin	ND		2.2	0.55	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
alpha-BHC	ND		2.2	0.40	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
cis-Chlordane	ND		2.2	1.1	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
beta-BHC	ND		2.2	0.40	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
delta-BHC	ND		2.2	0.42	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
Dieldrin	ND		2.2	0.54	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
Endosulfan I	ND		2.2	0.43	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
Endosulfan II	ND		2.2	0.40	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
Endosulfan sulfate	ND		2.2	0.42	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
Endrin	ND		2.2	0.44	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
Endrin aldehyde	ND		2.2	0.57	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
Endrin ketone	ND		2.2	0.55	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
gamma-BHC (Lindane)	ND		2.2	0.41	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
trans-Chlordane	ND		2.2	0.71	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
Heptachlor	ND		2.2	0.49	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
Heptachlor epoxide	ND		2.2	0.58	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
Methoxychlor	ND		2.2	0.46	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1
Toxaphene	ND		22	13	ug/Kg	☼	08/15/24 15:16	08/16/24 19:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	87		45 - 120	08/15/24 15:16	08/16/24 19:00	1
DCB Decachlorobiphenyl	100		45 - 120	08/15/24 15:16	08/16/24 19:00	1
Tetrachloro-m-xylene	68		30 - 124	08/15/24 15:16	08/16/24 19:00	1
Tetrachloro-m-xylene	80		30 - 124	08/15/24 15:16	08/16/24 19:00	1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.28	0.055	mg/Kg	☼	08/14/24 07:38	08/15/24 23:50	1
PCB-1221	ND		0.28	0.055	mg/Kg	☼	08/14/24 07:38	08/15/24 23:50	1
PCB-1232	ND		0.28	0.055	mg/Kg	☼	08/14/24 07:38	08/15/24 23:50	1
PCB-1242	ND		0.28	0.055	mg/Kg	☼	08/14/24 07:38	08/15/24 23:50	1
PCB-1248	ND		0.28	0.055	mg/Kg	☼	08/14/24 07:38	08/15/24 23:50	1
PCB-1254	ND		0.28	0.13	mg/Kg	☼	08/14/24 07:38	08/15/24 23:50	1
PCB-1260	ND		0.28	0.13	mg/Kg	☼	08/14/24 07:38	08/15/24 23:50	1

Client Sample ID: SB-08-28.0-30.0
Lab Sample ID: 480-222473-2

Date Collected: 08/09/24 09:00
Matrix: Solid
Date Received: 08/09/24 13:27
Percent Solids: 73.9

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*99*		*60 - 154*	*08/14/24 07:38*	*08/15/24 23:50*	*1*
Tetrachloro-m-xylene	*81*		*60 - 154*	*08/14/24 07:38*	*08/15/24 23:50*	*1*
DCB Decachlorobiphenyl	*90*		*65 - 174*	*08/14/24 07:38*	*08/15/24 23:50*	*1*
DCB Decachlorobiphenyl	*95*		*65 - 174*	*08/14/24 07:38*	*08/15/24 23:50*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**25500**		13.5	11.6	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Antimony	ND		20.3	0.72	mg/Kg	☼	08/13/24 13:33	08/15/24 13:29	1
Arsenic	**9.1**		2.7	1.2	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Barium	**101**		0.68	0.19	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Beryllium	**1.1**		0.27	0.054	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Cadmium	**0.23**	**J**	0.27	0.095	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Calcium	**34100**		67.6	36.5	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Chromium	**32.5**		0.68	0.49	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Cobalt	**15.9**		0.68	0.14	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Copper	**24.5**	**^+ B**	1.4	0.77	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Iron	**25200**		13.5	11.5	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Lead	**12.8**		1.4	0.62	mg/Kg	☼	08/13/24 13:33	08/15/24 13:29	1
Magnesium	**17500**		27.0	11.5	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Manganese	**440**		1.4	0.38	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Nickel	**33.1**		6.8	0.34	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Potassium	**8150**		40.5	32.8	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Selenium	ND		5.4	1.1	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Silver	**0.37**	**J**	0.81	0.27	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Sodium	**365**		189	82.9	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Thallium	ND		8.1	1.0	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Vanadium	**47.9**		0.68	0.18	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1
Zinc	**71.0**		2.7	1.4	mg/Kg	☼	08/13/24 13:33	08/14/24 15:07	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.020**	**J**	0.026	0.0060	mg/Kg	☼	08/13/24 08:15	08/13/24 11:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.2	0.56	mg/Kg	☼	08/16/24 12:10	08/20/24 10:38	1

Client Sample ID: SB-07-1.0-2.0
Lab Sample ID: 480-222473-3

Date Collected: 08/09/24 09:20
Matrix: Solid
Date Received: 08/09/24 13:27
Percent Solids: 84.5

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		8.6	0.62	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
1,1,2,2-Tetrachloroethane	ND		8.6	1.4	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		8.6	2.0	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
1,1,2-Trichloroethane	ND		8.6	1.1	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
1,1-Dichloroethane	ND		8.6	1.1	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
1,1-Dichloroethene	ND		8.6	1.1	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
1,2,4-Trichlorobenzene	ND		8.6	0.52	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1

Client Sample ID: SB-07-1.0-2.0
Date Collected: 08/09/24 09:20
Date Received: 08/09/24 13:27

Lab Sample ID: 480-222473-3
Matrix: Solid
Percent Solids: 84.5

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		8.6	4.3	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
1,2-Dibromoethane	ND		8.6	1.1	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
1,2-Dichlorobenzene	ND		8.6	0.67	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
1,2-Dichloroethane	ND		8.6	0.43	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
1,2-Dichloropropane	ND		8.6	4.3	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
1,3-Dichlorobenzene	ND		8.6	0.44	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
1,4-Dichlorobenzene	ND		8.6	1.2	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
2-Butanone (MEK)	ND		43	3.2	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
2-Hexanone	ND		43	4.3	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
4-Methyl-2-pentanone (MIBK)	ND		43	2.8	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Acetone	ND		43	7.2	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Benzene	ND		8.6	0.42	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Bromodichloromethane	ND		8.6	1.2	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Bromoform	ND		8.6	4.3	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Bromomethane	ND		8.6	0.77	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Carbon disulfide	ND		8.6	4.3	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Carbon tetrachloride	ND		8.6	0.83	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Chlorobenzene	ND		8.6	1.1	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Chloroethane	ND		8.6	1.9	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Chloroform	ND		8.6	0.53	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Chloromethane	ND		8.6	0.52	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
cis-1,2-Dichloroethene	ND		8.6	1.1	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
cis-1,3-Dichloropropene	ND		8.6	1.2	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Cyclohexane	ND		8.6	1.2	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Dibromochloromethane	ND		8.6	1.1	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Dichlorodifluoromethane	ND		8.6	0.71	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Ethylbenzene	ND		8.6	0.59	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Isopropylbenzene	ND		8.6	1.3	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Methyl acetate	ND		43	5.2	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Methyl tert-butyl ether	ND		8.6	0.85	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Methylcyclohexane	ND		8.6	1.3	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Methylene Chloride	ND		8.6	4.0	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Styrene	ND		8.6	0.43	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Tetrachloroethene	ND		8.6	1.2	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Toluene	ND		8.6	0.65	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
trans-1,2-Dichloroethene	ND		8.6	0.89	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
trans-1,3-Dichloropropene	ND		8.6	3.8	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Trichloroethene	ND		8.6	1.9	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Trichlorofluoromethane	ND		8.6	0.81	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Vinyl chloride	ND		8.6	1.1	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1
Xylenes, Total	ND		17	1.4	ug/Kg	☼	08/09/24 17:45	08/13/24 17:11	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*08/09/24 17:45*	*08/13/24 17:11*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*64 - 126*	*08/09/24 17:45*	*08/13/24 17:11*	*1*
4-Bromofluorobenzene (Surr)	*94*		*72 - 126*	*08/09/24 17:45*	*08/13/24 17:11*	*1*
Dibromofluoromethane (Surr)	*107*		*60 - 140*	*08/09/24 17:45*	*08/13/24 17:11*	*1*
Toluene-d8 (Surr)	*95*		*71 - 125*	*08/09/24 17:45*	*08/13/24 17:11*	*1*

Client: Ashland LLC
Project/Site: Tank 75 Analysis - Soil Analysis

Job ID: 480-222473-1

Client Sample ID: SB-07-1.0-2.0
Date Collected: 08/09/24 09:20
Date Received: 08/09/24 13:27

Lab Sample ID: 480-222473-3
Matrix: Solid
Percent Solids: 84.5

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		200	53	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
2,4,6-Trichlorophenol	ND		200	40	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
2,4-Dichlorophenol	ND		200	21	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
2,4-Dimethylphenol	ND		200	48	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
2,4-Dinitrophenol	ND		1900	910	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
2,4-Dinitrotoluene	ND		200	41	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
2,6-Dinitrotoluene	ND		200	23	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
2-Chloronaphthalene	ND		200	33	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
2-Chlorophenol	ND		380	36	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
2-Methylnaphthalene	ND		200	40	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
2-Methylphenol	ND		200	23	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
2-Nitroaniline	ND		380	29	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
2-Nitrophenol	ND		200	56	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
3,3'-Dichlorobenzidine	ND		380	230	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
3-Nitroaniline	ND		380	55	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
4,6-Dinitro-2-methylphenol	ND		380	200	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
4-Bromophenyl phenyl ether	ND		200	28	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
4-Chloro-3-methylphenol	ND		200	49	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
4-Chloroaniline	ND		200	49	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
4-Chlorophenyl phenyl ether	ND		200	24	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
4-Methylphenol	ND		380	23	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
4-Nitroaniline	ND		380	100	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
4-Nitrophenol	ND		380	140	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Acenaphthene	ND		200	29	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Acenaphthylene	ND		200	26	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Acetophenone	ND		200	27	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Anthracene	ND		200	49	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Atrazine	ND		200	69	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Benzaldehyde	ND		200	160	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Benzo[a]anthracene	ND		200	20	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Benzo[a]pyrene	**30**	**J**	200	29	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Benzo[b]fluoranthene	**41**	**J**	200	31	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Benzo[g,h,i]perylene	**30**	**J**	200	21	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Benzo[k]fluoranthene	ND		200	26	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Biphenyl	ND		200	29	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
bis (2-chloroisopropyl) ether	ND		200	40	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Bis(2-chloroethoxy)methane	ND		200	42	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Bis(2-chloroethyl)ether	ND		200	26	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Bis(2-ethylhexyl) phthalate	ND		200	67	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Butyl benzyl phthalate	ND		200	33	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Caprolactam	ND		200	59	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Carbazole	ND		200	23	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Chrysene	ND		200	44	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Dibenz(a,h)anthracene	ND		200	35	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Dibenzofuran	ND		200	23	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Diethyl phthalate	ND		200	26	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Dimethyl phthalate	ND		200	23	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Di-n-butyl phthalate	ND		200	34	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Di-n-octyl phthalate	ND		200	23	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1

Client Sample ID: SB-07-1.0-2.0
Lab Sample ID: 480-222473-3
Date Collected: 08/09/24 09:20
Matrix: Solid
Date Received: 08/09/24 13:27
Percent Solids: 84.5

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	**36**	**J**	200	21	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Fluorene	ND		200	23	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Hexachlorobenzene	ND		200	27	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Hexachlorobutadiene	ND		200	29	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Hexachlorocyclopentadiene	ND		200	27	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Hexachloroethane	ND		200	26	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Indeno[1,2,3-cd]pyrene	ND		200	24	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Isophorone	ND		200	42	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Naphthalene	ND		200	26	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Nitrobenzene	ND		200	22	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
N-Nitrosodi-n-propylamine	ND		200	34	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
N-Nitrosodiphenylamine	ND		200	160	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Pentachlorophenol	ND		380	200	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Phenanthrene	ND		200	29	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Phenol	ND		200	30	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1
Pyrene	**29**	**J**	200	23	ug/Kg	☼	08/13/24 07:23	08/16/24 04:41	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*1000*	*T J*	*ug/Kg*	☼	*1.77*	*N/A*	*08/13/24 07:23*	*08/16/24 04:41*	*1*
Unknown	*3200*	*T J*	*ug/Kg*	☼	*1.92*	*N/A*	*08/13/24 07:23*	*08/16/24 04:41*	*1*
Unknown	*3900*	*T J*	*ug/Kg*	☼	*3.31*	*N/A*	*08/13/24 07:23*	*08/16/24 04:41*	*1*
Unknown	*210*	*T J*	*ug/Kg*	☼	*4.65*	*N/A*	*08/13/24 07:23*	*08/16/24 04:41*	*1*
Unknown	*380*	*T J*	*ug/Kg*	☼	*9.48*	*N/A*	*08/13/24 07:23*	*08/16/24 04:41*	*1*
Unknown	*510*	*T J*	*ug/Kg*	☼	*13.80*	*N/A*	*08/13/24 07:23*	*08/16/24 04:41*	*1*
Unknown	*290*	*T J*	*ug/Kg*	☼	*15.59*	*N/A*	*08/13/24 07:23*	*08/16/24 04:41*	*1*
Unknown	*360*	*T J*	*ug/Kg*	☼	*16.07*	*N/A*	*08/13/24 07:23*	*08/16/24 04:41*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*70*		*26 - 143*	*08/13/24 07:23*	*08/16/24 04:41*	*1*
2-Fluorobiphenyl	*85*		*50 - 121*	*08/13/24 07:23*	*08/16/24 04:41*	*1*
2-Fluorophenol	*61*		*36 - 120*	*08/13/24 07:23*	*08/16/24 04:41*	*1*
Nitrobenzene-d5	*84*		*40 - 121*	*08/13/24 07:23*	*08/16/24 04:41*	*1*
Phenol-d5	*78*		*41 - 120*	*08/13/24 07:23*	*08/16/24 04:41*	*1*
p-Terphenyl-d14	*90*		*46 - 143*	*08/13/24 07:23*	*08/16/24 04:41*	*1*

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.0	0.38	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
4,4'-DDE	ND		2.0	0.41	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
4,4'-DDT	ND		2.0	0.46	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
Aldrin	ND		2.0	0.48	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
alpha-BHC	ND		2.0	0.35	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
cis-Chlordane	ND		2.0	0.97	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
beta-BHC	ND		2.0	0.35	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
delta-BHC	ND		2.0	0.36	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
Dieldrin	ND		2.0	0.47	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
Endosulfan I	ND		2.0	0.37	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
Endosulfan II	ND		2.0	0.35	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
Endosulfan sulfate	ND		2.0	0.36	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
Endrin	ND		2.0	0.39	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1

Client Sample ID: SB-07-1.0-2.0
Date Collected: 08/09/24 09:20
Date Received: 08/09/24 13:27

Lab Sample ID: 480-222473-3
Matrix: Solid
Percent Solids: 84.5

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin aldehyde	ND		2.0	0.50	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
Endrin ketone	ND		2.0	0.48	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
gamma-BHC (Lindane)	**0.55**	**J B**	2.0	0.36	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
trans-Chlordane	ND		2.0	0.62	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
Heptachlor	ND		2.0	0.42	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
Heptachlor epoxide	ND		2.0	0.50	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
Methoxychlor	ND		2.0	0.40	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1
Toxaphene	ND		20	11	ug/Kg	☼	08/15/24 15:16	08/16/24 19:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*75*		*45 - 120*	*08/15/24 15:16*	*08/16/24 19:20*	*1*
DCB Decachlorobiphenyl	*104*		*45 - 120*	*08/15/24 15:16*	*08/16/24 19:20*	*1*
Tetrachloro-m-xylene	*73*		*30 - 124*	*08/15/24 15:16*	*08/16/24 19:20*	*1*
Tetrachloro-m-xylene	*83*		*30 - 124*	*08/15/24 15:16*	*08/16/24 19:20*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.29	0.056	mg/Kg	☼	08/14/24 07:38	08/16/24 00:43	1
PCB-1221	ND		0.29	0.056	mg/Kg	☼	08/14/24 07:38	08/16/24 00:43	1
PCB-1232	ND		0.29	0.056	mg/Kg	☼	08/14/24 07:38	08/16/24 00:43	1
PCB-1242	ND		0.29	0.056	mg/Kg	☼	08/14/24 07:38	08/16/24 00:43	1
PCB-1248	ND		0.29	0.056	mg/Kg	☼	08/14/24 07:38	08/16/24 00:43	1
PCB-1254	ND		0.29	0.13	mg/Kg	☼	08/14/24 07:38	08/16/24 00:43	1
PCB-1260	ND		0.29	0.13	mg/Kg	☼	08/14/24 07:38	08/16/24 00:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*112*		*60 - 154*	*08/14/24 07:38*	*08/16/24 00:43*	*1*
Tetrachloro-m-xylene	*95*		*60 - 154*	*08/14/24 07:38*	*08/16/24 00:43*	*1*
DCB Decachlorobiphenyl	*101*		*65 - 174*	*08/14/24 07:38*	*08/16/24 00:43*	*1*
DCB Decachlorobiphenyl	*108*		*65 - 174*	*08/14/24 07:38*	*08/16/24 00:43*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**13200**		12.4	10.7	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Antimony	ND	F2 F1	18.6	0.66	mg/Kg	☼	08/13/24 13:33	08/15/24 13:31	1
Arsenic	**5.1**	**F1**	2.5	1.1	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Barium	**102**	**F1**	0.62	0.17	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Beryllium	**3.3**	**F1**	0.25	0.049	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Cadmium	ND	F1	0.25	0.087	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Calcium	**66100**		61.8	33.4	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Chromium	**8.7**	**F1**	0.62	0.45	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Cobalt	**4.5**		0.62	0.12	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Copper	**3.8**	**^+ B F1**	1.2	0.70	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Iron	**6580**		12.4	10.5	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Lead	**5.8**		1.2	0.57	mg/Kg	☼	08/13/24 13:33	08/15/24 13:31	1
Magnesium	**12200**	**F1**	24.7	10.5	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Manganese	**919**		1.2	0.35	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Nickel	**2.1**	**J F1**	6.2	0.31	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Potassium	**625**	**F1**	37.1	30.0	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Selenium	ND	F1	4.9	0.99	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1

Client Sample ID: SB-07-1.0-2.0

Lab Sample ID: 480-222473-3
Date Collected: 08/09/24 09:20
Matrix: Solid
Date Received: 08/09/24 13:27
Percent Solids: 84.5

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.38	J F1	0.74	0.25	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Sodium	861	F1	173	75.8	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Thallium	ND		7.4	0.94	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Vanadium	2.8	F1	0.62	0.16	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1
Zinc	6.6	F1	2.5	1.3	mg/Kg	☼	08/13/24 13:33	08/14/24 15:08	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.013	J	0.023	0.0054	mg/Kg	☼	08/13/24 08:15	08/13/24 11:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.0	0.49	mg/Kg	☼	08/16/24 12:10	08/20/24 10:40	1

Client Sample ID: SB-07-33.0-35.0

Lab Sample ID: 480-222473-4
Date Collected: 08/09/24 11:25
Matrix: Solid
Date Received: 08/09/24 13:27
Percent Solids: 76.0

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.2	0.38	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
1,1,2,2-Tetrachloroethane	ND		5.2	0.85	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.2	1.2	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
1,1,2-Trichloroethane	ND		5.2	0.68	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
1,1-Dichloroethane	ND		5.2	0.64	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
1,1-Dichloroethene	ND		5.2	0.64	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
1,2,4-Trichlorobenzene	ND		5.2	0.32	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
1,2-Dibromo-3-Chloropropane	ND		5.2	2.6	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
1,2-Dibromoethane	ND		5.2	0.67	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
1,2-Dichlorobenzene	ND		5.2	0.41	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
1,2-Dichloroethane	ND		5.2	0.26	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
1,2-Dichloropropane	ND		5.2	2.6	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
1,3-Dichlorobenzene	ND		5.2	0.27	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
1,4-Dichlorobenzene	ND		5.2	0.73	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
2-Butanone (MEK)	ND		26	1.9	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
2-Hexanone	ND		26	2.6	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
4-Methyl-2-pentanone (MIBK)	ND		26	1.7	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Acetone	20	J	26	4.4	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Benzene	ND		5.2	0.26	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Bromodichloromethane	ND		5.2	0.70	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Bromoform	ND		5.2	2.6	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Bromomethane	ND		5.2	0.47	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Carbon disulfide	ND		5.2	2.6	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Carbon tetrachloride	ND		5.2	0.51	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Chlorobenzene	ND		5.2	0.69	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Chloroethane	ND		5.2	1.2	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Chloroform	ND		5.2	0.32	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Chloromethane	ND		5.2	0.32	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
cis-1,2-Dichloroethene	ND		5.2	0.67	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
cis-1,3-Dichloropropene	ND		5.2	0.75	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1

Client Sample ID: SB-07-33.0-35.0
Date Collected: 08/09/24 11:25
Date Received: 08/09/24 13:27

Lab Sample ID: 480-222473-4
Matrix: Solid
Percent Solids: 76.0

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	ND		5.2	0.73	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Dibromochloromethane	ND		5.2	0.67	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Dichlorodifluoromethane	ND		5.2	0.43	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Ethylbenzene	ND		5.2	0.36	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Isopropylbenzene	ND		5.2	0.79	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Methyl acetate	ND		26	3.2	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Methyl tert-butyl ether	ND		5.2	0.51	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Methylcyclohexane	ND		5.2	0.80	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Methylene Chloride	ND		5.2	2.4	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Styrene	ND		5.2	0.26	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Tetrachloroethene	ND		5.2	0.70	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Toluene	ND		5.2	0.40	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
trans-1,2-Dichloroethene	ND		5.2	0.54	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
trans-1,3-Dichloropropene	ND		5.2	2.3	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Trichloroethene	ND		5.2	1.2	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Trichlorofluoromethane	ND		5.2	0.50	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Vinyl chloride	ND		5.2	0.64	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1
Xylenes, Total	ND		10	0.88	ug/Kg	☼	08/09/24 17:45	08/13/24 17:35	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/Kg*	☼		*N/A*	*08/09/24 17:45*	*08/13/24 17:35*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*64 - 126*	*08/09/24 17:45*	*08/13/24 17:35*	*1*
4-Bromofluorobenzene (Surr)	*94*		*72 - 126*	*08/09/24 17:45*	*08/13/24 17:35*	*1*
Dibromofluoromethane (Surr)	*106*		*60 - 140*	*08/09/24 17:45*	*08/13/24 17:35*	*1*
Toluene-d8 (Surr)	*96*		*71 - 125*	*08/09/24 17:45*	*08/13/24 17:35*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		130	71	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
2,4,5-Trichlorophenol	ND		220	59	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
2,4,6-Trichlorophenol	ND		220	44	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
2,4-Dichlorophenol	ND		220	23	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
2,4-Dimethylphenol	ND		220	53	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
2,4-Dinitrophenol	ND		2100	1000	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
2,4-Dinitrotoluene	ND		220	45	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
2,6-Dinitrotoluene	ND		220	26	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
2-Chloronaphthalene	ND		220	36	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
2-Chlorophenol	ND		430	40	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
2-Methylnaphthalene	ND		220	44	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
2-Methylphenol	ND		220	26	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
2-Nitroaniline	ND		430	32	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
2-Nitrophenol	ND		220	62	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
3,3'-Dichlorobenzidine	ND		430	260	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
3-Nitroaniline	ND		430	61	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
4,6-Dinitro-2-methylphenol	ND		430	220	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
4-Bromophenyl phenyl ether	ND		220	31	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
4-Chloro-3-methylphenol	ND		220	54	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
4-Chloroaniline	ND		220	54	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1

Client Sample ID: SB-07-33.0-35.0
Lab Sample ID: 480-222473-4
Date Collected: 08/09/24 11:25
Matrix: Solid
Date Received: 08/09/24 13:27
Percent Solids: 76.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	ND		220	27	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
4-Methylphenol	ND		430	26	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
4-Nitroaniline	ND		430	110	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
4-Nitrophenol	ND		430	150	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Acenaphthene	ND		220	32	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Acenaphthylene	ND		220	28	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Acetophenone	ND		220	30	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Anthracene	ND		220	54	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Atrazine	ND		220	76	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Benzaldehyde	ND		220	170	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Benzo[a]anthracene	ND		220	22	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Benzo[a]pyrene	ND		220	32	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Benzo[b]fluoranthene	ND		220	35	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Benzo[g,h,i]perylene	ND		220	23	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Benzo[k]fluoranthene	ND		220	28	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Biphenyl	ND		220	32	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
bis (2-chloroisopropyl) ether	ND		220	44	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Bis(2-chloroethoxy)methane	ND		220	46	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Bis(2-chloroethyl)ether	ND		220	28	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Bis(2-ethylhexyl) phthalate	ND		220	75	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Butyl benzyl phthalate	ND		220	36	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Caprolactam	ND		220	66	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Carbazole	ND		220	26	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Chrysene	ND		220	49	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Dibenz(a,h)anthracene	ND		220	39	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Dibenzofuran	ND		220	26	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Diethyl phthalate	ND		220	28	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Dimethyl phthalate	ND		220	26	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Di-n-butyl phthalate	ND		220	37	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Di-n-octyl phthalate	ND		220	26	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Fluoranthene	ND		220	23	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Fluorene	ND		220	26	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Hexachlorobenzene	ND		220	30	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Hexachlorobutadiene	ND		220	32	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Hexachlorocyclopentadiene	ND		220	30	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Hexachloroethane	ND		220	28	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Indeno[1,2,3-cd]pyrene	ND		220	27	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Isophorone	ND		220	46	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Naphthalene	ND		220	28	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Nitrobenzene	ND		220	25	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
N-Nitrosodi-n-propylamine	ND		220	37	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
N-Nitrosodiphenylamine	ND		220	180	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Pentachlorophenol	ND		430	220	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Phenanthrene	ND		220	32	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Phenol	ND		220	34	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1
Pyrene	ND		220	26	ug/Kg	☼	08/13/24 07:23	08/16/24 05:09	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*480*	*T J*	*ug/Kg*	☼	*1.69*	*N/A*	*08/13/24 07:23*	*08/16/24 05:09*	*1*
Unknown	*4300*	*T J*	*ug/Kg*	☼	*1.92*	*N/A*	*08/13/24 07:23*	*08/16/24 05:09*	*1*

Client Sample ID: SB-07-33.0-35.0
Lab Sample ID: 480-222473-4

Date Collected: 08/09/24 11:25
Matrix: Solid
Date Received: 08/09/24 13:27
Percent Solids: 76.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	6000	T J	ug/Kg	☼	3.30	N/A	08/13/24 07:23	08/16/24 05:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	98		26 - 143	08/13/24 07:23	08/16/24 05:09	1
2-Fluorobiphenyl	88		50 - 121	08/13/24 07:23	08/16/24 05:09	1
2-Fluorophenol	89		36 - 120	08/13/24 07:23	08/16/24 05:09	1
Nitrobenzene-d5	91		40 - 121	08/13/24 07:23	08/16/24 05:09	1
Phenol-d5	95		41 - 120	08/13/24 07:23	08/16/24 05:09	1
p-Terphenyl-d14	92		46 - 143	08/13/24 07:23	08/16/24 05:09	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.2	0.42	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
4,4'-DDE	ND		2.2	0.45	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
4,4'-DDT	ND		2.2	0.50	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
Aldrin	ND		2.2	0.53	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
alpha-BHC	ND		2.2	0.39	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
cis-Chlordane	ND		2.2	1.1	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
beta-BHC	ND		2.2	0.39	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
delta-BHC	ND		2.2	0.40	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
Dieldrin	ND		2.2	0.52	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
Endosulfan I	ND		2.2	0.41	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
Endosulfan II	ND		2.2	0.39	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
Endosulfan sulfate	ND		2.2	0.40	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
Endrin	ND		2.2	0.43	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
Endrin aldehyde	ND		2.2	0.55	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
Endrin ketone	ND		2.2	0.53	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
gamma-BHC (Lindane)	ND		2.2	0.40	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
trans-Chlordane	ND		2.2	0.69	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
Heptachlor	ND		2.2	0.47	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
Heptachlor epoxide	ND		2.2	0.56	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
Methoxychlor	ND		2.2	0.44	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1
Toxaphene	ND		22	13	ug/Kg	☼	08/15/24 15:16	08/16/24 19:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	95		45 - 120	08/15/24 15:16	08/16/24 19:40	1
DCB Decachlorobiphenyl	106		45 - 120	08/15/24 15:16	08/16/24 19:40	1
Tetrachloro-m-xylene	80		30 - 124	08/15/24 15:16	08/16/24 19:40	1
Tetrachloro-m-xylene	90		30 - 124	08/15/24 15:16	08/16/24 19:40	1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.28	0.054	mg/Kg	☼	08/14/24 07:38	08/16/24 01:00	1
PCB-1221	ND		0.28	0.054	mg/Kg	☼	08/14/24 07:38	08/16/24 01:00	1
PCB-1232	ND		0.28	0.054	mg/Kg	☼	08/14/24 07:38	08/16/24 01:00	1
PCB-1242	ND		0.28	0.054	mg/Kg	☼	08/14/24 07:38	08/16/24 01:00	1
PCB-1248	ND		0.28	0.054	mg/Kg	☼	08/14/24 07:38	08/16/24 01:00	1
PCB-1254	ND		0.28	0.13	mg/Kg	☼	08/14/24 07:38	08/16/24 01:00	1
PCB-1260	ND		0.28	0.13	mg/Kg	☼	08/14/24 07:38	08/16/24 01:00	1

Client Sample ID: SB-07-33.0-35.0

Date Collected: 08/09/24 11:25
Date Received: 08/09/24 13:27

Lab Sample ID: 480-222473-4

Matrix: Solid
Percent Solids: 76.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*108*		*60 - 154*	*08/14/24 07:38*	*08/16/24 01:00*	*1*
Tetrachloro-m-xylene	*94*		*60 - 154*	*08/14/24 07:38*	*08/16/24 01:00*	*1*
DCB Decachlorobiphenyl	*97*		*65 - 174*	*08/14/24 07:38*	*08/16/24 01:00*	*1*
DCB Decachlorobiphenyl	*103*		*65 - 174*	*08/14/24 07:38*	*08/16/24 01:00*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.91	0.23	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluoropentanoic acid (PFPeA)	ND		0.45	0.11	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluorohexanoic acid (PFHxA)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluoroheptanoic acid (PFHpA)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluorooctanoic acid (PFOA)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluorononanoic acid (PFNA)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluorodecanoic acid (PFDA)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluoroundecanoic acid (PFUnA)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluorododecanoic acid (PFDoA)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluorononanesulfonic acid (PFNS)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		0.91	0.23	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		0.91	0.23	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		0.91	0.23	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		2.3	0.57	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		2.3	0.57	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.91	0.23	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.91	0.23	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.45	0.11	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1

Client Sample ID: SB-07-33.0-35.0
Lab Sample ID: 480-222473-4
Date Collected: 08/09/24 11:25
Matrix: Solid
Date Received: 08/09/24 13:27
Percent Solids: 76.0

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.45	0.11	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		0.91	0.23	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		0.91	0.23	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.45	0.11	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1.1	0.28	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		5.7	1.4	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		5.7	1.4	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.23	0.057	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.45	0.11	ug/Kg	☼	08/14/24 08:25	08/14/24 23:43	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*78.9*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
13C5 PFPeA	*75.7*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
13C5 PFHxA	*75.6*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
13C4 PFHpA	*78.0*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
13C8 PFOA	*89.4*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
13C9 PFNA	*77.6*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
13C6 PFDA	*104*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
13C7 PFUnA	*113*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
13C2 PFTeDA	*73.9*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
13C3 PFBS	*90.2*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
13C3 PFHxS	*92.8*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
13C8 PFOS	*94.1*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
13C8 FOSA	*76.5*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
d3-NMeFOSAA	*78.0*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
d5-NEtFOSAA	*71.1*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
M2-4:2 FTS	*118*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
M2-6:2 FTS	*118*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
M2-8:2 FTS	*115*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
13C3 HFPO-DA	*80.0*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
d7-N-MeFOSE-M	*74.2*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
d9-N-EtFOSE-M	*79.3*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
d5-NEtPFOSA	*71.0*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
d3-NMePFOSA	*66.7*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*
13C2-PFDoDA	*82.1*		*20 - 150*	*08/14/24 08:25*	*08/14/24 23:43*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**23900**		13.3	11.4	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Antimony	ND		19.9	0.70	mg/Kg	☼	08/13/24 13:33	08/15/24 13:46	1
Arsenic	**5.6**		2.7	1.2	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Barium	**132**		0.66	0.19	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Beryllium	**1.1**		0.27	0.053	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Cadmium	**0.22**	**J**	0.27	0.093	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1

Client: Ashland LLC
Job ID: 480-222473-1
Project/Site: Tank 75 Analysis - Soil Analysis

Client Sample ID: SB-07-33.0-35.0
Lab Sample ID: 480-222473-4
Date Collected: 08/09/24 11:25
Matrix: Solid
Date Received: 08/09/24 13:27
Percent Solids: 76.0

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	42100		66.3	35.8	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Chromium	32.1		0.66	0.48	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Cobalt	14.9		0.66	0.13	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Copper	29.3	B	1.3	0.76	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Iron	24100		13.3	11.2	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Lead	13.4	^+	1.3	0.61	mg/Kg	☼	08/13/24 13:33	08/15/24 16:16	1
Magnesium	17700		26.5	11.2	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Manganese	484		1.3	0.37	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Nickel	31.0		6.6	0.33	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Potassium	7540		39.8	32.1	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Selenium	ND		5.3	1.1	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Silver	0.34	J	0.80	0.27	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Sodium	374		186	81.3	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Thallium	ND		8.0	1.0	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Vanadium	44.4		0.66	0.17	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1
Zinc	69.3		2.7	1.4	mg/Kg	☼	08/13/24 13:33	08/14/24 15:24	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.021	J	0.027	0.0062	mg/Kg	☼	08/13/24 08:15	08/13/24 11:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		1.1	0.55	mg/Kg	☼	08/16/24 12:10	08/20/24 10:41	1

Surrogate Summary

Client: Ashland LLC
Job ID: 480-222473-1
Project/Site: Tank 75 Analysis - Soil Analysis

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(64-126)	(72-126)	(60-140)	(71-125)
480-222473-1	SB-08-26.0-28.0	107	95	103	96
480-222473-2	SB-08-28.0-30.0	114	95	109	97
480-222473-3	SB-07-1.0-2.0	108	94	107	95
480-222473-4	SB-07-33.0-35.0	112	94	106	96
LCS 480-721629/1-A	Lab Control Sample	97	96	96	95
LCSD 480-721629/2-A	Lab Control Sample Dup	101	97	99	96
MB 480-721629/3-A	Method Blank	103	96	101	96

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPHd14
Lab Sample ID	Client Sample ID	(26-143)	(50-121)	(36-120)	(40-121)	(41-120)	(46-143)
480-222473-1	SB-08-26.0-28.0	94	81	73	80	82	87
480-222473-2	SB-08-28.0-30.0	95	81	78	81	86	90
480-222473-3	SB-07-1.0-2.0	70	85	61	84	78	90
480-222473-4	SB-07-33.0-35.0	98	88	89	91	95	92
LCS 480-721531/2-A	Lab Control Sample	107	94	86	94	97	95
MB 480-721531/1-A	Method Blank	103	91	85	91	93	96

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHd14 = p-Terphenyl-d14

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1	DCBP2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(45-120)	(45-120)	(30-124)	(30-124)
480-222473-1	SB-08-26.0-28.0	94	104	70	84
480-222473-1 MS	SB-08-26.0-28.0	83	93	66	74
480-222473-1 MSD	SB-08-26.0-28.0	86	98	73	79
480-222473-2	SB-08-28.0-30.0	87	100	68	80
480-222473-3	SB-07-1.0-2.0	75	104	73	83
480-222473-4	SB-07-33.0-35.0	95	106	80	90
LCS 480-721994/2-A	Lab Control Sample	67	93	68	75
MB 480-721994/1-A	Method Blank	67	90	64	69

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

Surrogate Summary

Client: Ashland LLC
Job ID: 480-222473-1
Project/Site: Tank 75 Analysis - Soil Analysis

TCX = Tetrachloro-m-xylene

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	TCX1 (60-154)	TCX2 (60-154)	DCBP1 (65-174)	DCBP2 (65-174)
480-222473-1	SB-08-26.0-28.0	108	91	98	104
480-222473-2	SB-08-28.0-30.0	99	81	90	95
480-222473-3	SB-07-1.0-2.0	112	95	101	108
480-222473-4	SB-07-33.0-35.0	108	94	97	103
LCS 480-721691/2-A	Lab Control Sample	126	104	113	121
MB 480-721691/1-A	Method Blank	112	100	104	110

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCBP = DCB Decachlorobiphenyl

Isotope Dilution Summary

Client: Ashland LLC
Job ID: 480-222473-1
Project/Site: Tank 75 Analysis - Soil Analysis

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (20-150)	PFPeA (20-150)	13C5PHA (20-150)	C4PFHA (20-150)	C8PFOA (20-150)	C9PFNA (20-150)	C6PFDA (20-150)	13C7PUA (20-150)
480-222473-4	SB-07-33.0-35.0	78.9	75.7	75.6	78.0	89.4	77.6	104	113
LCS 240-623299/3-A	Lab Control Sample	79.4	73.0	75.9	77.7	92.0	79.8	91.8	102
LLCS 240-623299/2-A	Lab Control Sample	81.0	72.3	73.2	79.4	91.9	87.3	102	99.4
MB 240-623299/1-A	Method Blank	80.6	76.2	75.0	78.8	82.8	76.9	104	111

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFTDA (20-150)	C3PFBS (20-150)	C3PFHS (20-150)	C8PFOS (20-150)	PFOSA (20-150)	d3NMFOS (20-150)	d5NEFOS (20-150)	M242FTS (20-150)
480-222473-4	SB-07-33.0-35.0	73.9	90.2	92.8	94.1	76.5	78.0	71.1	118
LCS 240-623299/3-A	Lab Control Sample	70.1	92.0	96.6	93.3	75.8	80.7	72.4	108
LLCS 240-623299/2-A	Lab Control Sample	70.5	97.5	94.5	94.3	79.3	84.1	69.9	114
MB 240-623299/1-A	Method Blank	73.0	97.0	96.8	93.7	74.7	83.4	71.3	109

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M262FTS (20-150)	M282FTS (20-150)	HFPODA (20-150)	NMFM (20-150)	NEFM (20-150)	d5NPFSA (20-150)	d3NMFSA (20-150)	PFDoDA (20-150)
480-222473-4	SB-07-33.0-35.0	118	115	80.0	74.2	79.3	71.0	66.7	82.1
LCS 240-623299/3-A	Lab Control Sample	115	112	79.8	76.8	79.7	63.0	62.4	79.2
LLCS 240-623299/2-A	Lab Control Sample	124	118	76.3	79.8	78.5	68.2	63.9	76.5
MB 240-623299/1-A	Method Blank	117	115	83.4	77.6	86.6	64.4	60.7	82.6

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoDA = 13C2-PFDoDA

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-721629/3-A
Matrix: Solid
Analysis Batch: 721592

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 721629

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
2-Hexanone	ND		25	2.5	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
Acetone	ND		25	4.2	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
Benzene	ND		5.0	0.25	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
Bromoform	ND		5.0	2.5	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
Bromomethane	ND		5.0	0.45	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
Carbon disulfide	ND		5.0	2.5	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
Chlorobenzene	ND		5.0	0.66	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
Chloroethane	ND		5.0	1.1	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
Chloroform	0.491	J	5.0	0.31	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
Chloromethane	ND		5.0	0.30	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
Cyclohexane	ND		5.0	0.70	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
Ethylbenzene	ND		5.0	0.35	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
Methyl acetate	ND		25	3.0	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
Methylene Chloride	ND		5.0	2.3	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
Styrene	ND		5.0	0.25	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
Tetrachloroethene	ND		5.0	0.67	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
Toluene	ND		5.0	0.38	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
trans-1,2-Dichloroethene	ND		5.0	0.52	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
Trichloroethene	ND		5.0	1.1	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
Vinyl chloride	ND		5.0	0.61	ug/Kg		08/13/24 14:21	08/13/24 14:41	1
Xylenes, Total	ND		10	0.84	ug/Kg		08/13/24 14:21	08/13/24 14:41	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-721629/3-A
Matrix: Solid
Analysis Batch: 721592

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 721629

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/Kg			N/A	08/13/24 14:21	08/13/24 14:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		64 - 126	08/13/24 14:21	08/13/24 14:41	1
4-Bromofluorobenzene (Surr)	96		72 - 126	08/13/24 14:21	08/13/24 14:41	1
Dibromofluoromethane (Surr)	101		60 - 140	08/13/24 14:21	08/13/24 14:41	1
Toluene-d8 (Surr)	96		71 - 125	08/13/24 14:21	08/13/24 14:41	1

Lab Sample ID: LCS 480-721629/1-A
Matrix: Solid
Analysis Batch: 721592

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 721629

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	50.0	45.2		ug/Kg		90	77 - 121
1,1,2,2-Tetrachloroethane	50.0	45.6		ug/Kg		91	80 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	45.4		ug/Kg		91	60 - 140
1,1,2-Trichloroethane	50.0	45.3		ug/Kg		91	78 - 122
1,1-Dichloroethane	50.0	44.6		ug/Kg		89	73 - 126
1,1-Dichloroethene	50.0	44.1		ug/Kg		88	59 - 125
1,2,4-Trichlorobenzene	50.0	44.1		ug/Kg		88	64 - 120
1,2-Dibromo-3-Chloropropane	50.0	44.0		ug/Kg		88	63 - 124
1,2-Dibromoethane	50.0	44.3		ug/Kg		89	78 - 120
1,2-Dichlorobenzene	50.0	45.4		ug/Kg		91	75 - 120
1,2-Dichloroethane	50.0	45.6		ug/Kg		91	77 - 122
1,2-Dichloropropane	50.0	44.4		ug/Kg		89	75 - 124
1,3-Dichlorobenzene	50.0	45.3		ug/Kg		91	74 - 120
1,4-Dichlorobenzene	50.0	46.7		ug/Kg		93	73 - 120
2-Butanone (MEK)	250	253		ug/Kg		101	70 - 134
2-Hexanone	250	242		ug/Kg		97	59 - 130
4-Methyl-2-pentanone (MIBK)	250	240		ug/Kg		96	65 - 133
Acetone	250	224		ug/Kg		90	61 - 137
Benzene	50.0	44.2		ug/Kg		88	79 - 127
Bromodichloromethane	50.0	42.8		ug/Kg		86	80 - 122
Bromoform	50.0	44.3		ug/Kg		89	68 - 126
Bromomethane	50.0	51.4		ug/Kg		103	37 - 149
Carbon disulfide	50.0	43.5		ug/Kg		87	64 - 131
Carbon tetrachloride	50.0	44.6		ug/Kg		89	75 - 135
Chlorobenzene	50.0	45.5		ug/Kg		91	76 - 124
Chloroethane	50.0	54.2		ug/Kg		108	69 - 135
Chloroform	50.0	43.0		ug/Kg		86	80 - 120
Chloromethane	50.0	55.0		ug/Kg		110	63 - 127
cis-1,2-Dichloroethene	50.0	42.5		ug/Kg		85	81 - 120
cis-1,3-Dichloropropene	50.0	43.4		ug/Kg		87	80 - 120
Cyclohexane	50.0	45.2		ug/Kg		90	65 - 120
Dibromochloromethane	50.0	44.3		ug/Kg		89	76 - 125
Dichlorodifluoromethane	50.0	49.2		ug/Kg		98	57 - 142
Ethylbenzene	50.0	45.9		ug/Kg		92	80 - 120

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-721629/1-A
Matrix: Solid
Analysis Batch: 721592

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 721629

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Isopropylbenzene			50.0	47.0		ug/Kg		94	72 - 120		
Methyl acetate			100	82.2		ug/Kg		82	55 - 136		
Methyl tert-butyl ether			50.0	41.3		ug/Kg		83	63 - 125		
Methylcyclohexane			50.0	42.0		ug/Kg		84	60 - 140		
Methylene Chloride			50.0	45.9		ug/Kg		92	61 - 127		
Styrene			50.0	45.0		ug/Kg		90	80 - 120		
Tetrachloroethene			50.0	45.2		ug/Kg		90	74 - 122		
Toluene			50.0	45.5		ug/Kg		91	74 - 128		
trans-1,2-Dichloroethene			50.0	42.8		ug/Kg		86	78 - 126		
Trichloroethene			50.0	44.1		ug/Kg		88	77 - 129		
Trichlorofluoromethane			50.0	53.5		ug/Kg		107	65 - 146		
Vinyl chloride			50.0	54.1		ug/Kg		108	61 - 133		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*64 - 126*
4-Bromofluorobenzene (Surr)	*96*		*72 - 126*
Dibromofluoromethane (Surr)	*96*		*60 - 140*
Toluene-d8 (Surr)	*95*		*71 - 125*

Lab Sample ID: LCSD 480-721629/2-A
Matrix: Solid
Analysis Batch: 721592

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 721629

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane			50.0	44.7		ug/Kg		89	77 - 121	1	20
1,1,2,2-Tetrachloroethane			50.0	46.0		ug/Kg		92	80 - 120	1	20
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	42.5		ug/Kg		85	60 - 140	7	20
1,1,2-Trichloroethane			50.0	47.2		ug/Kg		94	78 - 122	4	20
1,1-Dichloroethane			50.0	45.3		ug/Kg		91	73 - 126	2	20
1,1-Dichloroethene			50.0	43.6		ug/Kg		87	59 - 125	1	20
1,2,4-Trichlorobenzene			50.0	44.8		ug/Kg		90	64 - 120	2	20
1,2-Dibromo-3-Chloropropane			50.0	44.3		ug/Kg		89	63 - 124	1	20
1,2-Dibromoethane			50.0	45.6		ug/Kg		91	78 - 120	3	20
1,2-Dichlorobenzene			50.0	45.6		ug/Kg		91	75 - 120	0	20
1,2-Dichloroethane			50.0	44.9		ug/Kg		90	77 - 122	1	20
1,2-Dichloropropane			50.0	45.3		ug/Kg		91	75 - 124	2	20
1,3-Dichlorobenzene			50.0	46.0		ug/Kg		92	74 - 120	2	20
1,4-Dichlorobenzene			50.0	46.7		ug/Kg		93	73 - 120	0	20
2-Butanone (MEK)			250	262		ug/Kg		105	70 - 134	3	20
2-Hexanone			250	255		ug/Kg		102	59 - 130	5	20
4-Methyl-2-pentanone (MIBK)			250	246		ug/Kg		98	65 - 133	3	20
Acetone			250	255		ug/Kg		102	61 - 137	13	20
Benzene			50.0	44.4		ug/Kg		89	79 - 127	0	20
Bromodichloromethane			50.0	44.4		ug/Kg		89	80 - 122	4	20
Bromoform			50.0	44.9		ug/Kg		90	68 - 126	1	20
Bromomethane			50.0	48.2		ug/Kg		96	37 - 149	6	20
Carbon disulfide			50.0	41.3		ug/Kg		83	64 - 131	5	20
Carbon tetrachloride			50.0	44.6		ug/Kg		89	75 - 135	0	20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 480-721629/2-A
Matrix: Solid
Analysis Batch: 721592

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 721629

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chlorobenzene			50.0	45.7		ug/Kg		91	76 - 124	0	20
Chloroethane			50.0	49.7		ug/Kg		99	69 - 135	9	20
Chloroform			50.0	42.7		ug/Kg		85	80 - 120	1	20
Chloromethane			50.0	49.7		ug/Kg		99	63 - 127	10	20
cis-1,2-Dichloroethene			50.0	43.1		ug/Kg		86	81 - 120	2	20
cis-1,3-Dichloropropene			50.0	45.0		ug/Kg		90	80 - 120	4	20
Cyclohexane			50.0	43.8		ug/Kg		88	65 - 120	3	20
Dibromochloromethane			50.0	45.8		ug/Kg		92	76 - 125	3	20
Dichlorodifluoromethane			50.0	45.9		ug/Kg		92	57 - 142	7	20
Ethylbenzene			50.0	45.9		ug/Kg		92	80 - 120	0	20
Isopropylbenzene			50.0	46.7		ug/Kg		93	72 - 120	1	20
Methyl acetate			100	98.7		ug/Kg		99	55 - 136	18	20
Methyl tert-butyl ether			50.0	43.4		ug/Kg		87	63 - 125	5	20
Methylcyclohexane			50.0	41.7		ug/Kg		83	60 - 140	1	20
Methylene Chloride			50.0	46.8		ug/Kg		94	61 - 127	2	20
Styrene			50.0	45.7		ug/Kg		91	80 - 120	2	20
Tetrachloroethene			50.0	45.9		ug/Kg		92	74 - 122	2	20
Toluene			50.0	46.3		ug/Kg		93	74 - 128	2	20
trans-1,2-Dichloroethene			50.0	42.4		ug/Kg		85	78 - 126	1	20
Trichloroethene			50.0	43.7		ug/Kg		87	77 - 129	1	20
Trichlorofluoromethane			50.0	50.7		ug/Kg		101	65 - 146	5	20
Vinyl chloride			50.0	49.7		ug/Kg		99	61 - 133	9	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*64 - 126*
4-Bromofluorobenzene (Surr)	*97*		*72 - 126*
Dibromofluoromethane (Surr)	*99*		*60 - 140*
Toluene-d8 (Surr)	*96*		*71 - 125*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-721531/1-A
Matrix: Solid
Analysis Batch: 721937

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 721531

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		100	55	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
2,4,5-Trichlorophenol	ND		170	46	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
2,4,6-Trichlorophenol	ND		170	34	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
2,4-Dichlorophenol	ND		170	18	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
2,4-Dimethylphenol	ND		170	41	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
2,4-Dinitrophenol	ND		1700	780	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
2,4-Dinitrotoluene	ND		170	35	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
2,6-Dinitrotoluene	ND		170	20	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
2-Chloronaphthalene	ND		170	28	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
2-Chlorophenol	ND		330	31	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
2-Methylnaphthalene	ND		170	34	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
2-Methylphenol	ND		170	20	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
2-Nitroaniline	ND		330	25	ug/Kg		08/13/24 07:23	08/16/24 00:24	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-721531/1-A
Matrix: Solid
Analysis Batch: 721937

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 721531

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitrophenol	ND		170	48	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
3,3'-Dichlorobenzidine	ND		330	200	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
3-Nitroaniline	ND		330	47	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
4,6-Dinitro-2-methylphenol	ND		330	170	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
4-Bromophenyl phenyl ether	ND		170	24	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
4-Chloro-3-methylphenol	ND		170	42	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
4-Chloroaniline	ND		170	42	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
4-Chlorophenyl phenyl ether	ND		170	21	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
4-Methylphenol	ND		330	20	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
4-Nitroaniline	ND		330	89	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
4-Nitrophenol	ND		330	120	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Acenaphthene	ND		170	25	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Acenaphthylene	ND		170	22	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Acetophenone	ND		170	23	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Anthracene	ND		170	42	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Atrazine	ND		170	59	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Benzaldehyde	ND		170	140	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Benzo[a]anthracene	ND		170	17	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Benzo[a]pyrene	ND		170	25	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Benzo[b]fluoranthene	ND		170	27	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Benzo[g,h,i]perylene	ND		170	18	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Benzo[k]fluoranthene	ND		170	22	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Biphenyl	ND		170	25	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
bis (2-chloroisopropyl) ether	ND		170	34	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Bis(2-chloroethoxy)methane	ND		170	36	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Bis(2-chloroethyl)ether	ND		170	22	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Bis(2-ethylhexyl) phthalate	ND		170	58	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Butyl benzyl phthalate	ND		170	28	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Caprolactam	ND		170	51	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Carbazole	ND		170	20	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Chrysene	ND		170	38	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Dibenz(a,h)anthracene	ND		170	30	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Dibenzofuran	ND		170	20	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Diethyl phthalate	ND		170	22	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Dimethyl phthalate	ND		170	20	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Di-n-butyl phthalate	ND		170	29	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Di-n-octyl phthalate	ND		170	20	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Fluoranthene	ND		170	18	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Fluorene	ND		170	20	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Hexachlorobenzene	ND		170	23	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Hexachlorobutadiene	ND		170	25	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Hexachlorocyclopentadiene	ND		170	23	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Hexachloroethane	ND		170	22	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Indeno[1,2,3-cd]pyrene	ND		170	21	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Isophorone	ND		170	36	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Naphthalene	ND		170	22	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Nitrobenzene	ND		170	19	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
N-Nitrosodi-n-propylamine	ND		170	29	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
N-Nitrosodiphenylamine	ND		170	140	ug/Kg		08/13/24 07:23	08/16/24 00:24	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-721531/1-A
Matrix: Solid
Analysis Batch: 721937

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 721531

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		330	170	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Phenanthrene	ND		170	25	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Phenol	ND		170	26	ug/Kg		08/13/24 07:23	08/16/24 00:24	1
Pyrene	ND		170	20	ug/Kg		08/13/24 07:23	08/16/24 00:24	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*625*	*T J*	*ug/Kg*		*1.73*	*N/A*	*08/13/24 07:23*	*08/16/24 00:24*	*1*
Unknown	*3450*	*T J*	*ug/Kg*		*1.92*	*N/A*	*08/13/24 07:23*	*08/16/24 00:24*	*1*
Unknown	*3990*	*T J*	*ug/Kg*		*3.30*	*N/A*	*08/13/24 07:23*	*08/16/24 00:24*	*1*
Unknown	*151*	*T J*	*ug/Kg*		*3.96*	*N/A*	*08/13/24 07:23*	*08/16/24 00:24*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*103*		*26 - 143*	*08/13/24 07:23*	*08/16/24 00:24*	*1*
2-Fluorobiphenyl	*91*		*50 - 121*	*08/13/24 07:23*	*08/16/24 00:24*	*1*
2-Fluorophenol	*85*		*36 - 120*	*08/13/24 07:23*	*08/16/24 00:24*	*1*
Nitrobenzene-d5	*91*		*40 - 121*	*08/13/24 07:23*	*08/16/24 00:24*	*1*
Phenol-d5	*93*		*41 - 120*	*08/13/24 07:23*	*08/16/24 00:24*	*1*
p-Terphenyl-d14	*96*		*46 - 143*	*08/13/24 07:23*	*08/16/24 00:24*	*1*

Lab Sample ID: LCS 480-721531/2-A
Matrix: Solid
Analysis Batch: 721937

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 721531

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	1330	751		ug/Kg		56	23 - 120
2,4,5-Trichlorophenol	1330	1210		ug/Kg		90	59 - 126
2,4,6-Trichlorophenol	1330	1240		ug/Kg		93	59 - 123
2,4-Dichlorophenol	1330	1310		ug/Kg		98	61 - 120
2,4-Dimethylphenol	1330	1390		ug/Kg		104	59 - 120
2,4-Dinitrophenol	2670	2240		ug/Kg		84	41 - 146
2,4-Dinitrotoluene	1330	1310		ug/Kg		98	63 - 120
2,6-Dinitrotoluene	1330	1330		ug/Kg		100	66 - 120
2-Chloronaphthalene	1330	1290		ug/Kg		97	57 - 120
2-Chlorophenol	1330	1230		ug/Kg		93	53 - 120
2-Methylnaphthalene	1330	1220		ug/Kg		91	59 - 120
2-Methylphenol	1330	1330		ug/Kg		100	54 - 120
2-Nitroaniline	1330	1430		ug/Kg		107	61 - 120
2-Nitrophenol	1330	1210		ug/Kg		91	56 - 120
3,3'-Dichlorobenzidine	2670	2440		ug/Kg		92	54 - 120
3-Nitroaniline	1330	1190		ug/Kg		90	48 - 120
4,6-Dinitro-2-methylphenol	2670	2550		ug/Kg		95	49 - 122
4-Bromophenyl phenyl ether	1330	1320		ug/Kg		99	58 - 120
4-Chloro-3-methylphenol	1330	1400		ug/Kg		105	61 - 120
4-Chloroaniline	1330	1150		ug/Kg		86	38 - 120
4-Chlorophenyl phenyl ether	1330	1300		ug/Kg		98	63 - 124
4-Methylphenol	1330	1350		ug/Kg		102	55 - 120
4-Nitroaniline	1330	1410		ug/Kg		106	56 - 120
4-Nitrophenol	2670	2680		ug/Kg		101	43 - 147

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-721531/2-A
Matrix: Solid
Analysis Batch: 721937

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 721531

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	1330	1390		ug/Kg		104	62 - 120
Acenaphthylene	1330	1400		ug/Kg		105	58 - 121
Acetophenone	1330	1320		ug/Kg		99	54 - 120
Anthracene	1330	1380		ug/Kg		104	62 - 120
Atrazine	2670	2620		ug/Kg		98	60 - 127
Benzaldehyde	2670	2770	E	ug/Kg		104	10 - 150
Benzo[a]anthracene	1330	1230		ug/Kg		92	65 - 120
Benzo[a]pyrene	1330	1360		ug/Kg		102	64 - 120
Benzo[b]fluoranthene	1330	1320		ug/Kg		99	64 - 120
Benzo[g,h,i]perylene	1330	1340		ug/Kg		100	45 - 145
Benzo[k]fluoranthene	1330	1410		ug/Kg		106	65 - 120
Biphenyl	1330	1340		ug/Kg		100	59 - 120
bis (2-chloroisopropyl) ether	1330	1260		ug/Kg		94	44 - 120
Bis(2-chloroethoxy)methane	1330	1260		ug/Kg		94	55 - 120
Bis(2-chloroethyl)ether	1330	1260		ug/Kg		95	45 - 120
Bis(2-ethylhexyl) phthalate	1330	1320		ug/Kg		99	61 - 133
Butyl benzyl phthalate	1330	1350		ug/Kg		101	61 - 129
Caprolactam	2670	2960	E	ug/Kg		111	47 - 120
Carbazole	1330	1370		ug/Kg		103	65 - 120
Chrysene	1330	1290		ug/Kg		97	64 - 120
Dibenz(a,h)anthracene	1330	1340		ug/Kg		101	54 - 132
Dibenzofuran	1330	1320		ug/Kg		99	63 - 120
Diethyl phthalate	1330	1360		ug/Kg		102	66 - 120
Dimethyl phthalate	1330	1390		ug/Kg		104	65 - 124
Di-n-butyl phthalate	1330	1410		ug/Kg		106	58 - 130
Di-n-octyl phthalate	1330	1300		ug/Kg		97	57 - 133
Fluoranthene	1330	1390		ug/Kg		104	62 - 120
Fluorene	1330	1360		ug/Kg		102	63 - 120
Hexachlorobenzene	1330	1450		ug/Kg		108	60 - 120
Hexachlorobutadiene	1330	1110		ug/Kg		83	45 - 120
Hexachlorocyclopentadiene	1330	1070		ug/Kg		80	47 - 120
Hexachloroethane	1330	1110		ug/Kg		84	41 - 120
Indeno[1,2,3-cd]pyrene	1330	1320		ug/Kg		99	56 - 134
Isophorone	1330	1380		ug/Kg		103	56 - 120
Naphthalene	1330	1250		ug/Kg		94	55 - 120
Nitrobenzene	1330	1310		ug/Kg		98	54 - 120
N-Nitrosodi-n-propylamine	1330	1320		ug/Kg		99	52 - 120
Pentachlorophenol	2670	2180		ug/Kg		82	10 - 120
Phenanthrene	1330	1400		ug/Kg		105	60 - 120
Phenol	1330	1240		ug/Kg		93	53 - 120
Pyrene	1330	1370		ug/Kg		103	61 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*107*		*26 - 143*
2-Fluorobiphenyl	*94*		*50 - 121*
2-Fluorophenol	*86*		*36 - 120*
Nitrobenzene-d5	*94*		*40 - 121*
Phenol-d5	*97*		*41 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-721531/2-A
Matrix: Solid
Analysis Batch: 721937

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 721531

Surrogate	LCS %Recovery	LCS Qualifier	Limits
p-Terphenyl-d14	95		46 - 143

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 480-721994/1-A
Matrix: Solid
Analysis Batch: 722116

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 721994

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.630	J	1.7	0.32	ug/Kg		08/15/24 15:16	08/16/24 17:22	1
4,4'-DDE	ND		1.7	0.35	ug/Kg		08/15/24 15:16	08/16/24 17:22	1
4,4'-DDT	ND		1.7	0.39	ug/Kg		08/15/24 15:16	08/16/24 17:22	1
Aldrin	ND		1.7	0.41	ug/Kg		08/15/24 15:16	08/16/24 17:22	1
alpha-BHC	ND		1.7	0.30	ug/Kg		08/15/24 15:16	08/16/24 17:22	1
cis-Chlordane	ND		1.7	0.83	ug/Kg		08/15/24 15:16	08/16/24 17:22	1
beta-BHC	ND		1.7	0.30	ug/Kg		08/15/24 15:16	08/16/24 17:22	1
delta-BHC	ND		1.7	0.31	ug/Kg		08/15/24 15:16	08/16/24 17:22	1
Dieldrin	ND		1.7	0.40	ug/Kg		08/15/24 15:16	08/16/24 17:22	1
Endosulfan I	ND		1.7	0.32	ug/Kg		08/15/24 15:16	08/16/24 17:22	1
Endosulfan II	ND		1.7	0.30	ug/Kg		08/15/24 15:16	08/16/24 17:22	1
Endosulfan sulfate	ND		1.7	0.31	ug/Kg		08/15/24 15:16	08/16/24 17:22	1
Endrin	ND		1.7	0.33	ug/Kg		08/15/24 15:16	08/16/24 17:22	1
Endrin aldehyde	ND		1.7	0.43	ug/Kg		08/15/24 15:16	08/16/24 17:22	1
Endrin ketone	ND		1.7	0.41	ug/Kg		08/15/24 15:16	08/16/24 17:22	1
gamma-BHC (Lindane)	0.456	J	1.7	0.31	ug/Kg		08/15/24 15:16	08/16/24 17:22	1
trans-Chlordane	ND		1.7	0.53	ug/Kg		08/15/24 15:16	08/16/24 17:22	1
Heptachlor	ND		1.7	0.36	ug/Kg		08/15/24 15:16	08/16/24 17:22	1
Heptachlor epoxide	ND		1.7	0.43	ug/Kg		08/15/24 15:16	08/16/24 17:22	1
Methoxychlor	ND		1.7	0.34	ug/Kg		08/15/24 15:16	08/16/24 17:22	1
Toxaphene	ND		17	9.7	ug/Kg		08/15/24 15:16	08/16/24 17:22	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	67		45 - 120	08/15/24 15:16	08/16/24 17:22	1
DCB Decachlorobiphenyl	90		45 - 120	08/15/24 15:16	08/16/24 17:22	1
Tetrachloro-m-xylene	64		30 - 124	08/15/24 15:16	08/16/24 17:22	1
Tetrachloro-m-xylene	69		30 - 124	08/15/24 15:16	08/16/24 17:22	1

Lab Sample ID: LCS 480-721994/2-A
Matrix: Solid
Analysis Batch: 722116

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 721994

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	16.7	15.7		ug/Kg		94	56 - 120
4,4'-DDE	16.7	13.6		ug/Kg		82	44 - 120
4,4'-DDT	16.7	17.6		ug/Kg		106	38 - 120
Aldrin	16.7	13.5		ug/Kg		81	38 - 120
alpha-BHC	16.7	11.0		ug/Kg		66	39 - 120
cis-Chlordane	16.7	12.5		ug/Kg		75	47 - 120

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 480-721994/2-A
Matrix: Solid
Analysis Batch: 722116

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 721994

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
beta-BHC	16.7	13.4		ug/Kg		80	40 - 120
delta-BHC	16.7	12.1		ug/Kg		72	45 - 120
Dieldrin	16.7	15.5		ug/Kg		93	58 - 120
Endosulfan I	16.7	14.2		ug/Kg		85	49 - 120
Endosulfan II	16.7	14.4		ug/Kg		86	55 - 120
Endosulfan sulfate	16.7	13.1		ug/Kg		78	49 - 124
Endrin	16.7	16.0		ug/Kg		96	58 - 120
Endrin aldehyde	16.7	13.0		ug/Kg		78	37 - 121
Endrin ketone	16.7	16.1		ug/Kg		96	46 - 123
gamma-BHC (Lindane)	16.7	11.4		ug/Kg		69	50 - 120
trans-Chlordane	16.7	13.6		ug/Kg		81	48 - 120
Heptachlor	16.7	14.5		ug/Kg		87	50 - 120
Heptachlor epoxide	16.7	15.2		ug/Kg		91	50 - 120
Methoxychlor	16.7	17.7		ug/Kg		106	58 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*67*		*45 - 120*
DCB Decachlorobiphenyl	*93*		*45 - 120*
Tetrachloro-m-xylene	*68*		*30 - 124*
Tetrachloro-m-xylene	*75*		*30 - 124*

Lab Sample ID: 480-222473-1 MS
Matrix: Solid
Analysis Batch: 722116

Client Sample ID: SB-08-26.0-28.0
Prep Type: Total/NA
Prep Batch: 721994

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	ND		20.0	16.7		ug/Kg	☼	83	37 - 126
4,4'-DDE	ND		20.0	15.1		ug/Kg	☼	75	34 - 120
4,4'-DDT	ND		20.0	19.1		ug/Kg	☼	96	43 - 123
Aldrin	ND		20.0	15.1		ug/Kg	☼	75	37 - 125
alpha-BHC	ND		20.0	12.6		ug/Kg	☼	63	39 - 120
cis-Chlordane	ND		20.0	13.7		ug/Kg	☼	68	35 - 120
beta-BHC	ND		20.0	14.7		ug/Kg	☼	73	36 - 120
delta-BHC	ND		20.0	14.1		ug/Kg	☼	70	34 - 120
Dieldrin	ND		20.0	16.9		ug/Kg	☼	84	45 - 120
Endosulfan I	ND		20.0	15.4		ug/Kg	☼	77	39 - 120
Endosulfan II	ND		20.0	17.1		ug/Kg	☼	85	34 - 126
Endosulfan sulfate	ND		20.0	16.7		ug/Kg	☼	83	27 - 130
Endrin	ND		20.0	17.2		ug/Kg	☼	86	47 - 121
Endrin aldehyde	ND		20.0	15.5		ug/Kg	☼	78	33 - 123
Endrin ketone	ND		20.0	18.4		ug/Kg	☼	92	43 - 126
gamma-BHC (Lindane)	ND		20.0	13.1		ug/Kg	☼	65	50 - 120
trans-Chlordane	ND		20.0	14.1		ug/Kg	☼	70	31 - 120
Heptachlor	ND		20.0	16.0		ug/Kg	☼	80	42 - 120
Heptachlor epoxide	ND		20.0	16.9		ug/Kg	☼	84	40 - 120
Methoxychlor	ND		20.0	19.7		ug/Kg	☼	99	44 - 150

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 480-222473-1 MS
Matrix: Solid
Analysis Batch: 722116

Client Sample ID: SB-08-26.0-28.0
Prep Type: Total/NA
Prep Batch: 721994

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*83*		*45 - 120*
DCB Decachlorobiphenyl	*93*		*45 - 120*
Tetrachloro-m-xylene	*66*		*30 - 124*
Tetrachloro-m-xylene	*74*		*30 - 124*

Lab Sample ID: 480-222473-1 MSD
Matrix: Solid
Analysis Batch: 722116

Client Sample ID: SB-08-26.0-28.0
Prep Type: Total/NA
Prep Batch: 721994

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	ND		19.8	17.6		ug/Kg	☼	89	37 - 126	5	21
4,4'-DDE	ND		19.8	15.6		ug/Kg	☼	79	34 - 120	3	18
4,4'-DDT	ND		19.8	19.8		ug/Kg	☼	100	43 - 123	3	25
Aldrin	ND		19.8	16.0		ug/Kg	☼	81	37 - 125	6	12
alpha-BHC	ND		19.8	13.5		ug/Kg	☼	68	39 - 120	7	15
cis-Chlordane	ND		19.8	14.2		ug/Kg	☼	72	35 - 120	3	23
beta-BHC	ND		19.8	15.6		ug/Kg	☼	79	36 - 120	6	19
delta-BHC	ND		19.8	14.8		ug/Kg	☼	75	34 - 120	5	14
Dieldrin	ND		19.8	17.7		ug/Kg	☼	90	45 - 120	5	12
Endosulfan I	ND		19.8	16.2		ug/Kg	☼	82	39 - 120	5	18
Endosulfan II	ND		19.8	18.2		ug/Kg	☼	92	34 - 126	6	26
Endosulfan sulfate	ND		19.8	17.9		ug/Kg	☼	90	27 - 130	7	35
Endrin	ND		19.8	18.0		ug/Kg	☼	91	47 - 121	5	20
Endrin aldehyde	ND		19.8	16.9		ug/Kg	☼	85	33 - 123	8	47
Endrin ketone	ND		19.8	19.6		ug/Kg	☼	99	43 - 126	6	37
gamma-BHC (Lindane)	ND		19.8	13.8		ug/Kg	☼	70	50 - 120	5	12
trans-Chlordane	ND		19.8	14.8		ug/Kg	☼	75	31 - 120	5	15
Heptachlor	ND		19.8	17.1		ug/Kg	☼	86	42 - 120	6	22
Heptachlor epoxide	ND		19.8	17.5		ug/Kg	☼	89	40 - 120	4	15
Methoxychlor	ND		19.8	21.2		ug/Kg	☼	107	44 - 150	7	24

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*86*		*45 - 120*
DCB Decachlorobiphenyl	*98*		*45 - 120*
Tetrachloro-m-xylene	*73*		*30 - 124*
Tetrachloro-m-xylene	*79*		*30 - 124*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 480-721691/1-A
Matrix: Solid
Analysis Batch: 722007

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 721691

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.25	0.049	mg/Kg		08/14/24 07:38	08/15/24 22:04	1
PCB-1221	ND		0.25	0.049	mg/Kg		08/14/24 07:38	08/15/24 22:04	1
PCB-1232	ND		0.25	0.049	mg/Kg		08/14/24 07:38	08/15/24 22:04	1
PCB-1242	ND		0.25	0.049	mg/Kg		08/14/24 07:38	08/15/24 22:04	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 480-721691/1-A
Matrix: Solid
Analysis Batch: 722007

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 721691

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1248	ND		0.25	0.049	mg/Kg		08/14/24 07:38	08/15/24 22:04	1
PCB-1254	ND		0.25	0.12	mg/Kg		08/14/24 07:38	08/15/24 22:04	1
PCB-1260	ND		0.25	0.12	mg/Kg		08/14/24 07:38	08/15/24 22:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*112*		*60 - 154*	*08/14/24 07:38*	*08/15/24 22:04*	*1*
Tetrachloro-m-xylene	*100*		*60 - 154*	*08/14/24 07:38*	*08/15/24 22:04*	*1*
DCB Decachlorobiphenyl	*104*		*65 - 174*	*08/14/24 07:38*	*08/15/24 22:04*	*1*
DCB Decachlorobiphenyl	*110*		*65 - 174*	*08/14/24 07:38*	*08/15/24 22:04*	*1*

Lab Sample ID: LCS 480-721691/2-A
Matrix: Solid
Analysis Batch: 722007

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 721691

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016	2.50	2.79		mg/Kg		111	51 - 185
PCB-1260	2.50	2.75		mg/Kg		110	61 - 184

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*126*		*60 - 154*
Tetrachloro-m-xylene	*104*		*60 - 154*
DCB Decachlorobiphenyl	*113*		*65 - 174*
DCB Decachlorobiphenyl	*121*		*65 - 174*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Lab Sample ID: MB 240-623299/1-A
Matrix: Solid
Analysis Batch: 623401

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 623299

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.80	0.20	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluoropentanoic acid (PFPeA)	ND		0.40	0.10	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluorohexanoic acid (PFHxA)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluoroheptanoic acid (PFHpA)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluorooctanoic acid (PFOA)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluorononanoic acid (PFNA)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluorodecanoic acid (PFDA)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluoroundecanoic acid (PFUnA)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluorododecanoic acid (PFDoA)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 240-623299/1-A
Matrix: Solid
Analysis Batch: 623401

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 623299

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanesulfonic acid (PFNS)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		0.80	0.20	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		0.80	0.20	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		0.80	0.20	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		2.0	0.50	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		2.0	0.50	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		0.80	0.20	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.80	0.20	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.40	0.10	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.40	0.10	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		0.80	0.20	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		0.80	0.20	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.40	0.10	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1.0	0.25	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		5.0	1.3	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		5.0	1.3	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.20	0.050	ug/Kg		08/14/24 08:25	08/14/24 22:49	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.40	0.10	ug/Kg		08/14/24 08:25	08/14/24 22:49	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*80.6*		*20 - 150*	*08/14/24 08:25*	*08/14/24 22:49*	*1*
13C5 PFPeA	*76.2*		*20 - 150*	*08/14/24 08:25*	*08/14/24 22:49*	*1*
13C5 PFHxA	*75.0*		*20 - 150*	*08/14/24 08:25*	*08/14/24 22:49*	*1*
13C4 PFHpA	*78.8*		*20 - 150*	*08/14/24 08:25*	*08/14/24 22:49*	*1*
13C8 PFOA	*82.8*		*20 - 150*	*08/14/24 08:25*	*08/14/24 22:49*	*1*
13C9 PFNA	*76.9*		*20 - 150*	*08/14/24 08:25*	*08/14/24 22:49*	*1*
13C6 PFDA	*104*		*20 - 150*	*08/14/24 08:25*	*08/14/24 22:49*	*1*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 240-623299/1-A
Matrix: Solid
Analysis Batch: 623401

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 623299

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C7 PFUnA	111		20 - 150	08/14/24 08:25	08/14/24 22:49	1
13C2 PFTeDA	73.0		20 - 150	08/14/24 08:25	08/14/24 22:49	1
13C3 PFBS	97.0		20 - 150	08/14/24 08:25	08/14/24 22:49	1
13C3 PFHxS	96.8		20 - 150	08/14/24 08:25	08/14/24 22:49	1
13C8 PFOS	93.7		20 - 150	08/14/24 08:25	08/14/24 22:49	1
13C8 FOSA	74.7		20 - 150	08/14/24 08:25	08/14/24 22:49	1
d3-NMeFOSAA	83.4		20 - 150	08/14/24 08:25	08/14/24 22:49	1
d5-NEtFOSAA	71.3		20 - 150	08/14/24 08:25	08/14/24 22:49	1
M2-4:2 FTS	109		20 - 150	08/14/24 08:25	08/14/24 22:49	1
M2-6:2 FTS	117		20 - 150	08/14/24 08:25	08/14/24 22:49	1
M2-8:2 FTS	115		20 - 150	08/14/24 08:25	08/14/24 22:49	1
13C3 HFPO-DA	83.4		20 - 150	08/14/24 08:25	08/14/24 22:49	1
d7-N-MeFOSE-M	77.6		20 - 150	08/14/24 08:25	08/14/24 22:49	1
d9-N-EtFOSE-M	86.6		20 - 150	08/14/24 08:25	08/14/24 22:49	1
d5-NEtPFOSA	64.4		20 - 150	08/14/24 08:25	08/14/24 22:49	1
d3-NMePFOSA	60.7		20 - 150	08/14/24 08:25	08/14/24 22:49	1
13C2-PFDoDA	82.6		20 - 150	08/14/24 08:25	08/14/24 22:49	1

Lab Sample ID: LCS 240-623299/3-A
Matrix: Solid
Analysis Batch: 623401

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 623299

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	10.0	10.9		ug/Kg		109	40 - 150
Perfluoropentanoic acid (PFPeA)	5.00	5.40		ug/Kg		108	40 - 150
Perfluorohexanoic acid (PFHxA)	2.50	2.66		ug/Kg		107	40 - 150
Perfluoroheptanoic acid (PFHpA)	2.50	2.55		ug/Kg		102	40 - 150
Perfluorooctanoic acid (PFOA)	2.50	2.55		ug/Kg		102	40 - 150
Perfluorononanoic acid (PFNA)	2.50	2.77		ug/Kg		111	40 - 150
Perfluorodecanoic acid (PFDA)	2.50	2.27		ug/Kg		91	40 - 150
Perfluoroundecanoic acid (PFUnA)	2.50	2.78		ug/Kg		111	40 - 150
Perfluorododecanoic acid (PFDoA)	2.50	2.53		ug/Kg		101	40 - 150
Perfluorotridecanoic acid (PFTrDA)	2.50	2.47		ug/Kg		99	40 - 150
Perfluorotetradecanoic acid (PFTeDA)	2.50	2.62		ug/Kg		105	40 - 150
Perfluorobutanesulfonic acid (PFBS)	2.21	2.37		ug/Kg		107	40 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.35	2.36		ug/Kg		101	40 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.28	2.17		ug/Kg		95	40 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.38	2.12		ug/Kg		89	40 - 150
Perfluorooctanesulfonic acid (PFOS)	2.32	2.14		ug/Kg		92	40 - 150
Perfluorononanesulfonic acid (PFNS)	2.40	2.22		ug/Kg		93	40 - 150
Perfluorododecanesulfonic acid (PFDoS)	2.42	1.78		ug/Kg		74	40 - 150

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 240-623299/3-A
Client Sample ID: Lab Control Sample
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 623401
Prep Batch: 623299

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	9.34	9.69		ug/Kg		104	40 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	9.48	8.98		ug/Kg		95	40 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	9.58	8.86		ug/Kg		93	40 - 150
Perfluorooctanesulfonamide (PFOSA)	2.50	2.58		ug/Kg		103	40 - 150
N-methylperfluorooctane sulfonamide (NMeFOSA)	2.50	2.75		ug/Kg		110	40 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	2.50	2.69		ug/Kg		108	40 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.50	2.77		ug/Kg		111	40 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.50	2.34		ug/Kg		93	40 - 150
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	25.0	25.5		ug/Kg		102	40 - 150
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	25.0	24.9		ug/Kg		100	40 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	10.0	10.4		ug/Kg		104	40 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	9.42	9.46		ug/Kg		100	40 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	5.00	5.21		ug/Kg		104	40 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	5.00	5.01		ug/Kg		100	40 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	9.32	9.50		ug/Kg		102	40 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	9.42	9.11		ug/Kg		97	40 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	4.45	4.91		ug/Kg		110	40 - 150
3-Perfluoropropylpropanoic acid (3:3 FTCA)	12.5	13.4		ug/Kg		107	40 - 150
3-Perfluoropentylpropanoic acid (5:3 FTCA)	62.5	64.8		ug/Kg		104	40 - 150
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	62.5	58.9		ug/Kg		94	40 - 150
Perfluorodecanesulfonic acid (PFDS)	2.41	2.13		ug/Kg		88	40 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	5.00	5.15		ug/Kg		103	40 - 150

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*79.4*		*20 - 150*
13C5 PFPeA	*73.0*		*20 - 150*
13C5 PFHxA	*75.9*		*20 - 150*
13C4 PFHpA	*77.7*		*20 - 150*
13C8 PFOA	*92.0*		*20 - 150*
13C9 PFNA	*79.8*		*20 - 150*
13C6 PFDA	*91.8*		*20 - 150*
13C7 PFUnA	*102*		*20 - 150*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 240-623299/3-A
Matrix: Solid
Analysis Batch: 623401

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 623299

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C2 PFTeDA	*70.1*		*20 - 150*
13C3 PFBS	*92.0*		*20 - 150*
13C3 PFHxS	*96.6*		*20 - 150*
13C8 PFOS	*93.3*		*20 - 150*
13C8 FOSA	*75.8*		*20 - 150*
d3-NMeFOSAA	*80.7*		*20 - 150*
d5-NEtFOSAA	*72.4*		*20 - 150*
M2-4:2 FTS	*108*		*20 - 150*
M2-6:2 FTS	*115*		*20 - 150*
M2-8:2 FTS	*112*		*20 - 150*
13C3 HFPO-DA	*79.8*		*20 - 150*
d7-N-MeFOSE-M	*76.8*		*20 - 150*
d9-N-EtFOSE-M	*79.7*		*20 - 150*
d5-NEtPFOSA	*63.0*		*20 - 150*
d3-NMePFOSA	*62.4*		*20 - 150*
13C2-PFDoDA	*79.2*		*20 - 150*

Lab Sample ID: LLCS 240-623299/2-A
Matrix: Solid
Analysis Batch: 623401

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 623299

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	0.800	0.896		ug/Kg		112	40 - 150
Perfluoropentanoic acid (PFPeA)	0.400	0.482		ug/Kg		121	40 - 150
Perfluorohexanoic acid (PFHxA)	0.200	0.219		ug/Kg		110	40 - 150
Perfluoroheptanoic acid (PFHpA)	0.200	0.199	J	ug/Kg		100	40 - 150
Perfluorooctanoic acid (PFOA)	0.200	0.274		ug/Kg		137	40 - 150
Perfluorononanoic acid (PFNA)	0.200	0.283	I	ug/Kg		142	40 - 150
Perfluorodecanoic acid (PFDA)	0.200	0.188	J	ug/Kg		94	40 - 150
Perfluoroundecanoic acid (PFUnA)	0.200	0.230		ug/Kg		115	40 - 150
Perfluorododecanoic acid (PFDoA)	0.200	0.235		ug/Kg		118	40 - 150
Perfluorotridecanoic acid (PFTrDA)	0.200	0.223		ug/Kg		112	40 - 150
Perfluorotetradecanoic acid (PFTeDA)	0.200	0.256		ug/Kg		128	40 - 150
Perfluorobutanesulfonic acid (PFBS)	0.177	0.175	J	ug/Kg		99	40 - 150
Perfluoropentanesulfonic acid (PFPeS)	0.188	0.191	J	ug/Kg		102	40 - 150
Perfluorohexanesulfonic acid (PFHxS)	0.182	0.180	J	ug/Kg		99	40 - 150
Perfluoroheptanesulfonic acid (PFHpS)	0.190	0.182	J	ug/Kg		96	40 - 150
Perfluorooctanesulfonic acid (PFOS)	0.186	0.181	J	ug/Kg		97	40 - 150
Perfluorononanesulfonic acid (PFNS)	0.192	0.173	J	ug/Kg		90	40 - 150
Perfluorododecanesulfonic acid (PFDoS)	0.194	0.152	J	ug/Kg		78	40 - 150

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 240-623299/2-A
Matrix: Solid
Analysis Batch: 623401

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 623299

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	0.747	0.838		ug/Kg		112	40 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	0.758	0.750	J	ug/Kg		99	40 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	0.766	0.723	J	ug/Kg		94	40 - 150
Perfluorooctanesulfonamide (PFOSA)	0.200	0.211		ug/Kg		105	40 - 150
N-methylperfluorooctane sulfonamide (NMeFOSA)	0.200	0.239		ug/Kg		120	40 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	0.200	0.201		ug/Kg		100	40 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.200	0.234		ug/Kg		117	40 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.200	0.190	J	ug/Kg		95	40 - 150
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	2.00	2.02		ug/Kg		101	40 - 150
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	2.00	2.12		ug/Kg		106	40 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	0.800	0.918		ug/Kg		115	40 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	0.754	0.837		ug/Kg		111	40 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	0.400	0.436		ug/Kg		109	40 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	0.400	0.339	J	ug/Kg		85	40 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	0.746	0.807		ug/Kg		108	40 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	0.754	0.813		ug/Kg		108	40 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	0.356	0.409		ug/Kg		115	40 - 150
3-Perfluoropropylpropanoic acid (3:3 FTCA)	1.00	1.16		ug/Kg		116	40 - 150
3-Perfluoropentylpropanoic acid (5:3 FTCA)	5.00	5.31		ug/Kg		106	40 - 150
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	5.00	5.16		ug/Kg		103	40 - 150
Perfluorodecanesulfonic acid (PFDS)	0.193	0.181	J	ug/Kg		94	40 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	0.400	0.418		ug/Kg		104	40 - 150

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*81.0*		*20 - 150*
13C5 PFPeA	*72.3*		*20 - 150*
13C5 PFHxA	*73.2*		*20 - 150*
13C4 PFHpA	*79.4*		*20 - 150*
13C8 PFOA	*91.9*		*20 - 150*
13C9 PFNA	*87.3*		*20 - 150*
13C6 PFDA	*102*		*20 - 150*
13C7 PFUnA	*99.4*		*20 - 150*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 240-623299/2-A
Matrix: Solid
Analysis Batch: 623401

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 623299

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C2 PFTeDA	*70.5*		*20 - 150*
13C3 PFBS	*97.5*		*20 - 150*
13C3 PFHxS	*94.5*		*20 - 150*
13C8 PFOS	*94.3*		*20 - 150*
13C8 FOSA	*79.3*		*20 - 150*
d3-NMeFOSAA	*84.1*		*20 - 150*
d5-NEtFOSAA	*69.9*		*20 - 150*
M2-4:2 FTS	*114*		*20 - 150*
M2-6:2 FTS	*124*		*20 - 150*
M2-8:2 FTS	*118*		*20 - 150*
13C3 HFPO-DA	*76.3*		*20 - 150*
d7-N-MeFOSE-M	*79.8*		*20 - 150*
d9-N-EtFOSE-M	*78.5*		*20 - 150*
d5-NEtPFOSA	*68.2*		*20 - 150*
d3-NMePFOSA	*63.9*		*20 - 150*
13C2-PFDoDA	*76.5*		*20 - 150*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-721580/1-A
Matrix: Solid
Analysis Batch: 721848

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 721580

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		9.9	8.6	mg/Kg		08/13/24 13:33	08/14/24 15:01	1
Arsenic	ND		2.0	0.87	mg/Kg		08/13/24 13:33	08/14/24 15:01	1
Barium	ND		0.50	0.14	mg/Kg		08/13/24 13:33	08/14/24 15:01	1
Beryllium	ND		0.20	0.040	mg/Kg		08/13/24 13:33	08/14/24 15:01	1
Cadmium	ND		0.20	0.070	mg/Kg		08/13/24 13:33	08/14/24 15:01	1
Calcium	ND		49.7	26.8	mg/Kg		08/13/24 13:33	08/14/24 15:01	1
Chromium	ND		0.50	0.36	mg/Kg		08/13/24 13:33	08/14/24 15:01	1
Cobalt	ND		0.50	0.099	mg/Kg		08/13/24 13:33	08/14/24 15:01	1
Copper	2.06	^+	0.99	0.57	mg/Kg		08/13/24 13:33	08/14/24 15:01	1
Iron	ND		9.9	8.4	mg/Kg		08/13/24 13:33	08/14/24 15:01	1
Magnesium	ND		19.9	8.4	mg/Kg		08/13/24 13:33	08/14/24 15:01	1
Manganese	ND		0.99	0.28	mg/Kg		08/13/24 13:33	08/14/24 15:01	1
Nickel	ND		5.0	0.25	mg/Kg		08/13/24 13:33	08/14/24 15:01	1
Potassium	ND		29.8	24.1	mg/Kg		08/13/24 13:33	08/14/24 15:01	1
Selenium	ND		4.0	0.80	mg/Kg		08/13/24 13:33	08/14/24 15:01	1
Silver	ND		0.60	0.20	mg/Kg		08/13/24 13:33	08/14/24 15:01	1
Sodium	ND		139	60.9	mg/Kg		08/13/24 13:33	08/14/24 15:01	1
Thallium	ND		6.0	0.76	mg/Kg		08/13/24 13:33	08/14/24 15:01	1
Vanadium	ND		0.50	0.13	mg/Kg		08/13/24 13:33	08/14/24 15:01	1
Zinc	ND		2.0	1.0	mg/Kg		08/13/24 13:33	08/14/24 15:01	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 480-721580/1-A
Matrix: Solid
Analysis Batch: 721988

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 721580

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		14.9	0.53	mg/Kg		08/13/24 13:33	08/15/24 13:24	1
Lead	ND		0.99	0.46	mg/Kg		08/13/24 13:33	08/15/24 13:24	1

Lab Sample ID: LCSSRM 480-721580/2-A
Matrix: Solid
Analysis Batch: 721848

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 721580

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	10600	10070		mg/Kg		95.0	52.7 - 148.1
Arsenic	180	152.4		mg/Kg		84.7	70.0 - 130.0
Barium	431	339.6		mg/Kg		78.8	74.9 - 125.1
Beryllium	121	102.4		mg/Kg		84.6	74.8 - 124.8
Cadmium	199	169.4		mg/Kg		85.1	74.9 - 125.1
Calcium	5760	5006		mg/Kg		86.9	73.6 - 126.4
Chromium	210	184.3		mg/Kg		87.8	70.0 - 130.0
Cobalt	237	228.0		mg/Kg		96.2	75.1 - 124.9
Copper	229	188.3	^+	mg/Kg		82.2	75.1 - 124.9
Iron	9280	7500		mg/Kg		80.8	18.4 - 181.0
Magnesium	2520	2091		mg/Kg		83.0	63.5 - 136.5
Manganese	316	256.4		mg/Kg		81.1	74.7 - 125.0
Nickel	108	93.68		mg/Kg		86.7	69.8 - 129.6
Potassium	2100	1954		mg/Kg		93.0	70.0 - 130.0
Selenium	117	94.44		mg/Kg		80.7	65.8 - 133.3
Silver	65.5	59.18		mg/Kg		90.4	70.5 - 129.3
Sodium	442	380.9		mg/Kg		86.2	58.6 - 141.4
Thallium	144	136.9		mg/Kg		95.1	70.1 - 129.9
Vanadium	183	147.2		mg/Kg		80.4	68.9 - 119.1
Zinc	264	229.6		mg/Kg		87.0	69.7 - 129.5

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 480-721580/2-A
Matrix: Solid
Analysis Batch: 721988

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 721580

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony			59.8	65.10		mg/Kg		108.9	46.2 - 633.8		
Lead			261	242.4		mg/Kg		92.9	78.2 - 121.1		

Lab Sample ID: 480-222473-3 MS
Matrix: Solid
Analysis Batch: 721848

Client Sample ID: SB-07-1.0-2.0
Prep Type: Total/NA
Prep Batch: 721580

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Aluminum	13200		1260	14310	4	mg/Kg	☼	88	75 - 125		
Arsenic	5.1	F1	248	90.78	F1	mg/Kg	☼	35	75 - 125		
Barium	102	F1	248	221.5	F1	mg/Kg	☼	48	75 - 125		
Beryllium	3.3	F1	124	46.90	F1	mg/Kg	☼	35	75 - 125		
Cadmium	ND	F1	124	46.28	F1	mg/Kg	☼	37	75 - 125		
Calcium	66100		6190	77070	4	mg/Kg	☼	177	75 - 125		
Chromium	8.7	F1	124	53.85	F1	mg/Kg	☼	36	75 - 125		
Cobalt	4.5		124	127.8		mg/Kg	☼	100	75 - 125		
Copper	3.8	^+ B F1	124	59.97	^+ F1	mg/Kg	☼	45	75 - 125		
Iron	6580		1260	14360	4	mg/Kg	☼	616	75 - 125		
Magnesium	12200	F1	6190	15740	F1	mg/Kg	☼	57	75 - 125		
Manganese	919		124	963.4	4	mg/Kg	☼	36	75 - 125		
Nickel	2.1	J F1	124	44.72	F1	mg/Kg	☼	34	75 - 125		
Potassium	625	F1	6190	3121	F1	mg/Kg	☼	40	75 - 125		
Selenium	ND	F1	248	76.25	F1	mg/Kg	☼	31	75 - 125		
Silver	0.38	J F1	12.4	5.17	F1	mg/Kg	☼	39	75 - 125		
Sodium	861	F1	6190	3171	F1	mg/Kg	☼	37	75 - 125		
Thallium	ND		248	188.3		mg/Kg	☼	76	75 - 125		
Vanadium	2.8	F1	124	47.65	F1	mg/Kg	☼	36	75 - 125		
Zinc	6.6	F1	124	51.02	F1	mg/Kg	☼	36	75 - 125		

Lab Sample ID: 480-222473-3 MS
Matrix: Solid
Analysis Batch: 721988

Client Sample ID: SB-07-1.0-2.0
Prep Type: Total/NA
Prep Batch: 721580

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony	ND	F2 F1	124	13.08	J F1	mg/Kg	☼	11	75 - 125		

Lab Sample ID: 480-222473-3 MS
Matrix: Solid
Analysis Batch: 722016

Client Sample ID: SB-07-1.0-2.0
Prep Type: Total/NA
Prep Batch: 721580

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Lead	4.8	^+	124	126.8	^+	mg/Kg	☼	99	75 - 125		

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-222473-3 MSD
Matrix: Solid
Analysis Batch: 721848

Client Sample ID: SB-07-1.0-2.0
Prep Type: Total/NA
Prep Batch: 721580

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	13200		1230	13170	4	mg/Kg	☼	-2	75 - 125	8	20
Arsenic	5.1	F1	241	81.86	F1	mg/Kg	☼	32	75 - 125	10	20
Barium	102	F1	241	216.4	F1	mg/Kg	☼	48	75 - 125	2	20
Beryllium	3.3	F1	120	42.80	F1	mg/Kg	☼	33	75 - 125	9	20
Cadmium	ND	F1	120	42.70	F1	mg/Kg	☼	35	75 - 125	8	20
Calcium	66100		6020	69210	4	mg/Kg	☼	51	75 - 125	11	20
Chromium	8.7	F1	120	50.46	F1	mg/Kg	☼	35	75 - 125	7	20
Cobalt	4.5		120	117.9		mg/Kg	☼	94	75 - 125	8	20
Copper	3.8	^+ B F1	120	52.59	^+ F1	mg/Kg	☼	41	75 - 125	13	20
Iron	6580		1230	14490	4	mg/Kg	☼	644	75 - 125	1	20
Magnesium	12200	F1	6020	13770	F1	mg/Kg	☼	26	75 - 125	13	20
Manganese	919		120	1034	4	mg/Kg	☼	95	75 - 125	7	20
Nickel	2.1	J F1	120	40.38	F1	mg/Kg	☼	32	75 - 125	10	20
Potassium	625	F1	6020	2902	F1	mg/Kg	☼	38	75 - 125	7	20
Selenium	ND	F1	241	68.99	F1	mg/Kg	☼	29	75 - 125	10	20
Silver	0.38	J F1	12.0	4.86	F1	mg/Kg	☼	37	75 - 125	6	20
Sodium	861	F1	6020	2989	F1	mg/Kg	☼	35	75 - 125	6	20
Thallium	ND		241	212.1		mg/Kg	☼	88	75 - 125	12	20
Vanadium	2.8	F1	120	46.32	F1	mg/Kg	☼	36	75 - 125	3	20
Zinc	6.6	F1	120	41.66	F1	mg/Kg	☼	29	75 - 125	20	20

Lab Sample ID: 480-222473-3 MSD
Matrix: Solid
Analysis Batch: 721988

Client Sample ID: SB-07-1.0-2.0
Prep Type: Total/NA
Prep Batch: 721580

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND	F2 F1	120	8.13	J F2 F1	mg/Kg	☼	7	75 - 125	47	20

Lab Sample ID: 480-222473-3 MSD
Matrix: Solid
Analysis Batch: 722016

Client Sample ID: SB-07-1.0-2.0
Prep Type: Total/NA
Prep Batch: 721580

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	4.8	^+	120	122.0	^+	mg/Kg	☼	97	75 - 125	4	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 480-721447/1-A
Matrix: Solid
Analysis Batch: 721606

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 721447

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.0045	mg/Kg		08/13/24 08:15	08/13/24 10:49	1

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: LCSSRM 480-721447/2-A ^10
Matrix: Solid
Analysis Batch: 721606

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 721447

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	19.1	20.13		mg/Kg		105.4	59.7 - 139.8

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 480-722129/1-A
Matrix: Solid
Analysis Batch: 722470

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 722129

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.86	0.41	mg/Kg		08/16/24 12:10	08/20/24 10:29	1

Lab Sample ID: LCSSRM 480-722129/2-A
Matrix: Solid
Analysis Batch: 722470

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 722129

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	150	99.17		mg/Kg		66.1	38.9 - 138.7

GC/MS VOA

Analysis Batch: 721592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222473-1	SB-08-26.0-28.0	Total/NA	Solid	8260C	721629
480-222473-2	SB-08-28.0-30.0	Total/NA	Solid	8260C	721629
480-222473-3	SB-07-1.0-2.0	Total/NA	Solid	8260C	721629
480-222473-4	SB-07-33.0-35.0	Total/NA	Solid	8260C	721629
MB 480-721629/3-A	Method Blank	Total/NA	Solid	8260C	721629
LCS 480-721629/1-A	Lab Control Sample	Total/NA	Solid	8260C	721629
LCSD 480-721629/2-A	Lab Control Sample Dup	Total/NA	Solid	8260C	721629

Prep Batch: 721629

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222473-1	SB-08-26.0-28.0	Total/NA	Solid	5035A_L	
480-222473-2	SB-08-28.0-30.0	Total/NA	Solid	5035A_L	
480-222473-3	SB-07-1.0-2.0	Total/NA	Solid	5035A_L	
480-222473-4	SB-07-33.0-35.0	Total/NA	Solid	5035A_L	
MB 480-721629/3-A	Method Blank	Total/NA	Solid	5035A_L	
LCS 480-721629/1-A	Lab Control Sample	Total/NA	Solid	5035A_L	
LCSD 480-721629/2-A	Lab Control Sample Dup	Total/NA	Solid	5035A_L	

GC/MS Semi VOA

Prep Batch: 721531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222473-1	SB-08-26.0-28.0	Total/NA	Solid	3550C	
480-222473-2	SB-08-28.0-30.0	Total/NA	Solid	3550C	
480-222473-3	SB-07-1.0-2.0	Total/NA	Solid	3550C	
480-222473-4	SB-07-33.0-35.0	Total/NA	Solid	3550C	
MB 480-721531/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-721531/2-A	Lab Control Sample	Total/NA	Solid	3550C	

Analysis Batch: 721937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222473-1	SB-08-26.0-28.0	Total/NA	Solid	8270D	721531
480-222473-2	SB-08-28.0-30.0	Total/NA	Solid	8270D	721531
480-222473-3	SB-07-1.0-2.0	Total/NA	Solid	8270D	721531
480-222473-4	SB-07-33.0-35.0	Total/NA	Solid	8270D	721531
MB 480-721531/1-A	Method Blank	Total/NA	Solid	8270D	721531
LCS 480-721531/2-A	Lab Control Sample	Total/NA	Solid	8270D	721531

GC Semi VOA

Prep Batch: 721691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222473-1	SB-08-26.0-28.0	Total/NA	Solid	3550C	
480-222473-2	SB-08-28.0-30.0	Total/NA	Solid	3550C	
480-222473-3	SB-07-1.0-2.0	Total/NA	Solid	3550C	
480-222473-4	SB-07-33.0-35.0	Total/NA	Solid	3550C	
MB 480-721691/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-721691/2-A	Lab Control Sample	Total/NA	Solid	3550C	

Prep Batch: 721994

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222473-1	SB-08-26.0-28.0	Total/NA	Solid	3550C	

GC Semi VOA (Continued)

Prep Batch: 721994 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222473-2	SB-08-28.0-30.0	Total/NA	Solid	3550C	
480-222473-3	SB-07-1.0-2.0	Total/NA	Solid	3550C	
480-222473-4	SB-07-33.0-35.0	Total/NA	Solid	3550C	
MB 480-721994/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-721994/2-A	Lab Control Sample	Total/NA	Solid	3550C	
480-222473-1 MS	SB-08-26.0-28.0	Total/NA	Solid	3550C	
480-222473-1 MSD	SB-08-26.0-28.0	Total/NA	Solid	3550C	

Analysis Batch: 722007

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222473-1	SB-08-26.0-28.0	Total/NA	Solid	8082A	721691
480-222473-2	SB-08-28.0-30.0	Total/NA	Solid	8082A	721691
480-222473-3	SB-07-1.0-2.0	Total/NA	Solid	8082A	721691
480-222473-4	SB-07-33.0-35.0	Total/NA	Solid	8082A	721691
MB 480-721691/1-A	Method Blank	Total/NA	Solid	8082A	721691
LCS 480-721691/2-A	Lab Control Sample	Total/NA	Solid	8082A	721691

Analysis Batch: 722116

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222473-1	SB-08-26.0-28.0	Total/NA	Solid	8081B	721994
480-222473-2	SB-08-28.0-30.0	Total/NA	Solid	8081B	721994
480-222473-3	SB-07-1.0-2.0	Total/NA	Solid	8081B	721994
480-222473-4	SB-07-33.0-35.0	Total/NA	Solid	8081B	721994
MB 480-721994/1-A	Method Blank	Total/NA	Solid	8081B	721994
LCS 480-721994/2-A	Lab Control Sample	Total/NA	Solid	8081B	721994
480-222473-1 MS	SB-08-26.0-28.0	Total/NA	Solid	8081B	721994
480-222473-1 MSD	SB-08-26.0-28.0	Total/NA	Solid	8081B	721994

LCMS

Prep Batch: 623299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222473-4	SB-07-33.0-35.0	Total/NA	Solid	1633 Shake	
MB 240-623299/1-A	Method Blank	Total/NA	Solid	1633 Shake	
LCS 240-623299/3-A	Lab Control Sample	Total/NA	Solid	1633 Shake	
LLCS 240-623299/2-A	Lab Control Sample	Total/NA	Solid	1633 Shake	

Analysis Batch: 623401

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222473-4	SB-07-33.0-35.0	Total/NA	Solid	1633	623299
MB 240-623299/1-A	Method Blank	Total/NA	Solid	1633	623299
LCS 240-623299/3-A	Lab Control Sample	Total/NA	Solid	1633	623299
LLCS 240-623299/2-A	Lab Control Sample	Total/NA	Solid	1633	623299

Metals

Prep Batch: 721447

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222473-1	SB-08-26.0-28.0	Total/NA	Solid	7471B	
480-222473-2	SB-08-28.0-30.0	Total/NA	Solid	7471B	
480-222473-3	SB-07-1.0-2.0	Total/NA	Solid	7471B	
480-222473-4	SB-07-33.0-35.0	Total/NA	Solid	7471B	

Metals (Continued)

Prep Batch: 721447 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-721447/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 480-721447/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	

Prep Batch: 721580

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222473-1	SB-08-26.0-28.0	Total/NA	Solid	3050B	
480-222473-2	SB-08-28.0-30.0	Total/NA	Solid	3050B	
480-222473-3	SB-07-1.0-2.0	Total/NA	Solid	3050B	
480-222473-4	SB-07-33.0-35.0	Total/NA	Solid	3050B	
MB 480-721580/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 480-721580/2-A	Lab Control Sample	Total/NA	Solid	3050B	
480-222473-3 MS	SB-07-1.0-2.0	Total/NA	Solid	3050B	
480-222473-3 MSD	SB-07-1.0-2.0	Total/NA	Solid	3050B	

Analysis Batch: 721606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222473-1	SB-08-26.0-28.0	Total/NA	Solid	7471B	721447
480-222473-2	SB-08-28.0-30.0	Total/NA	Solid	7471B	721447
480-222473-3	SB-07-1.0-2.0	Total/NA	Solid	7471B	721447
480-222473-4	SB-07-33.0-35.0	Total/NA	Solid	7471B	721447
MB 480-721447/1-A	Method Blank	Total/NA	Solid	7471B	721447
LCSSRM 480-721447/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	721447

Analysis Batch: 721848

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222473-1	SB-08-26.0-28.0	Total/NA	Solid	6010C	721580
480-222473-2	SB-08-28.0-30.0	Total/NA	Solid	6010C	721580
480-222473-3	SB-07-1.0-2.0	Total/NA	Solid	6010C	721580
480-222473-4	SB-07-33.0-35.0	Total/NA	Solid	6010C	721580
MB 480-721580/1-A	Method Blank	Total/NA	Solid	6010C	721580
LCSSRM 480-721580/2-A	Lab Control Sample	Total/NA	Solid	6010C	721580
480-222473-3 MS	SB-07-1.0-2.0	Total/NA	Solid	6010C	721580
480-222473-3 MSD	SB-07-1.0-2.0	Total/NA	Solid	6010C	721580

Analysis Batch: 721988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222473-1	SB-08-26.0-28.0	Total/NA	Solid	6010C	721580
480-222473-2	SB-08-28.0-30.0	Total/NA	Solid	6010C	721580
480-222473-3	SB-07-1.0-2.0	Total/NA	Solid	6010C	721580
480-222473-4	SB-07-33.0-35.0	Total/NA	Solid	6010C	721580
MB 480-721580/1-A	Method Blank	Total/NA	Solid	6010C	721580
LCSSRM 480-721580/2-A	Lab Control Sample	Total/NA	Solid	6010C	721580
480-222473-3 MS	SB-07-1.0-2.0	Total/NA	Solid	6010C	721580
480-222473-3 MSD	SB-07-1.0-2.0	Total/NA	Solid	6010C	721580

Analysis Batch: 722016

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222473-4	SB-07-33.0-35.0	Total/NA	Solid	6010C	721580
480-222473-3 MS	SB-07-1.0-2.0	Total/NA	Solid	6010C	721580
480-222473-3 MSD	SB-07-1.0-2.0	Total/NA	Solid	6010C	721580

QC Association Summary

Client: Ashland LLC
Job ID: 480-222473-1
Project/Site: Tank 75 Analysis - Soil Analysis

General Chemistry

Analysis Batch: 721670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222473-1	SB-08-26.0-28.0	Total/NA	Solid	Moisture	
480-222473-2	SB-08-28.0-30.0	Total/NA	Solid	Moisture	
480-222473-3	SB-07-1.0-2.0	Total/NA	Solid	Moisture	
480-222473-4	SB-07-33.0-35.0	Total/NA	Solid	Moisture	

Prep Batch: 722129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222473-1	SB-08-26.0-28.0	Total/NA	Solid	9012B	
480-222473-2	SB-08-28.0-30.0	Total/NA	Solid	9012B	
480-222473-3	SB-07-1.0-2.0	Total/NA	Solid	9012B	
480-222473-4	SB-07-33.0-35.0	Total/NA	Solid	9012B	
MB 480-722129/1-A	Method Blank	Total/NA	Solid	9012B	
LCSSRM 480-722129/2-A	Lab Control Sample	Total/NA	Solid	9012B	

Analysis Batch: 722470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222473-1	SB-08-26.0-28.0	Total/NA	Solid	9012B	722129
480-222473-2	SB-08-28.0-30.0	Total/NA	Solid	9012B	722129
480-222473-3	SB-07-1.0-2.0	Total/NA	Solid	9012B	722129
480-222473-4	SB-07-33.0-35.0	Total/NA	Solid	9012B	722129
MB 480-722129/1-A	Method Blank	Total/NA	Solid	9012B	722129
LCSSRM 480-722129/2-A	Lab Control Sample	Total/NA	Solid	9012B	722129

Client Sample ID: SB-08-26.0-28.0
Lab Sample ID: 480-222473-1
Date Collected: 08/09/24 08:50
Matrix: Solid
Date Received: 08/09/24 13:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	721670	DSC	EET BUF	08/13/24 18:44

Client Sample ID: SB-08-26.0-28.0
Lab Sample ID: 480-222473-1
Date Collected: 08/09/24 08:50
Matrix: Solid
Date Received: 08/09/24 13:27
Percent Solids: 82.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			721629	LCH	EET BUF	08/09/24 17:45
Total/NA	Analysis	8260C		1	721592	CDC	EET BUF	08/13/24 16:24
Total/NA	Prep	3550C			721531	DP	EET BUF	08/13/24 07:23
Total/NA	Analysis	8270D		1	721937	EMD	EET BUF	08/16/24 03:45
Total/NA	Prep	3550C			721994	SJM	EET BUF	08/15/24 15:16
Total/NA	Analysis	8081B		1	722116	JLS	EET BUF	08/16/24 18:41
Total/NA	Prep	3550C			721691	DP	EET BUF	08/14/24 07:38
Total/NA	Analysis	8082A		1	722007	W1T	EET BUF	08/15/24 23:32
Total/NA	Prep	3050B			721580	ET	EET BUF	08/13/24 13:33
Total/NA	Analysis	6010C		1	721848	NZG	EET BUF	08/14/24 15:05
Total/NA	Prep	3050B			721580	ET	EET BUF	08/13/24 13:33
Total/NA	Analysis	6010C		1	721988	NZG	EET BUF	08/15/24 13:28
Total/NA	Prep	7471B			721447	ESB	EET BUF	08/13/24 08:15
Total/NA	Analysis	7471B		1	721606	ESB	EET BUF	08/13/24 11:27
Total/NA	Prep	9012B			722129	CG	EET BUF	08/16/24 12:10
Total/NA	Analysis	9012B		1	722470	IMZ	EET BUF	08/20/24 10:37

Client Sample ID: SB-08-28.0-30.0
Lab Sample ID: 480-222473-2
Date Collected: 08/09/24 09:00
Matrix: Solid
Date Received: 08/09/24 13:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	721670	DSC	EET BUF	08/13/24 18:44

Client Sample ID: SB-08-28.0-30.0
Lab Sample ID: 480-222473-2
Date Collected: 08/09/24 09:00
Matrix: Solid
Date Received: 08/09/24 13:27
Percent Solids: 73.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			721629	LCH	EET BUF	08/09/24 17:45
Total/NA	Analysis	8260C		1	721592	CDC	EET BUF	08/13/24 16:48
Total/NA	Prep	3550C			721531	DP	EET BUF	08/13/24 07:23
Total/NA	Analysis	8270D		1	721937	EMD	EET BUF	08/16/24 04:13
Total/NA	Prep	3550C			721994	SJM	EET BUF	08/15/24 15:16
Total/NA	Analysis	8081B		1	722116	JLS	EET BUF	08/16/24 19:00
Total/NA	Prep	3550C			721691	DP	EET BUF	08/14/24 07:38
Total/NA	Analysis	8082A		1	722007	W1T	EET BUF	08/15/24 23:50

Lab Chronicle

Client: Ashland LLC
Project/Site: Tank 75 Analysis - Soil Analysis

Job ID: 480-222473-1

Client Sample ID: SB-08-28.0-30.0
Date Collected: 08/09/24 09:00
Date Received: 08/09/24 13:27

Lab Sample ID: 480-222473-2
Matrix: Solid
Percent Solids: 73.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			721580	ET	EET BUF	08/13/24 13:33
Total/NA	Analysis	6010C		1	721848	NZG	EET BUF	08/14/24 15:07
Total/NA	Prep	3050B			721580	ET	EET BUF	08/13/24 13:33
Total/NA	Analysis	6010C		1	721988	NZG	EET BUF	08/15/24 13:29
Total/NA	Prep	7471B			721447	ESB	EET BUF	08/13/24 08:15
Total/NA	Analysis	7471B		1	721606	ESB	EET BUF	08/13/24 11:28
Total/NA	Prep	9012B			722129	CG	EET BUF	08/16/24 12:10
Total/NA	Analysis	9012B		1	722470	IMZ	EET BUF	08/20/24 10:38

Client Sample ID: SB-07-1.0-2.0
Date Collected: 08/09/24 09:20
Date Received: 08/09/24 13:27

Lab Sample ID: 480-222473-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	721670	DSC	EET BUF	08/13/24 18:44

Client Sample ID: SB-07-1.0-2.0
Date Collected: 08/09/24 09:20
Date Received: 08/09/24 13:27

Lab Sample ID: 480-222473-3
Matrix: Solid
Percent Solids: 84.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			721629	LCH	EET BUF	08/09/24 17:45
Total/NA	Analysis	8260C		1	721592	CDC	EET BUF	08/13/24 17:11
Total/NA	Prep	3550C			721531	DP	EET BUF	08/13/24 07:23
Total/NA	Analysis	8270D		1	721937	EMD	EET BUF	08/16/24 04:41
Total/NA	Prep	3550C			721994	SJM	EET BUF	08/15/24 15:16
Total/NA	Analysis	8081B		1	722116	JLS	EET BUF	08/16/24 19:20
Total/NA	Prep	3550C			721691	DP	EET BUF	08/14/24 07:38
Total/NA	Analysis	8082A		1	722007	W1T	EET BUF	08/16/24 00:43
Total/NA	Prep	3050B			721580	ET	EET BUF	08/13/24 13:33
Total/NA	Analysis	6010C		1	721848	NZG	EET BUF	08/14/24 15:08
Total/NA	Prep	3050B			721580	ET	EET BUF	08/13/24 13:33
Total/NA	Analysis	6010C		1	721988	NZG	EET BUF	08/15/24 13:31
Total/NA	Prep	7471B			721447	ESB	EET BUF	08/13/24 08:15
Total/NA	Analysis	7471B		1	721606	ESB	EET BUF	08/13/24 11:29
Total/NA	Prep	9012B			722129	CG	EET BUF	08/16/24 12:10
Total/NA	Analysis	9012B		1	722470	IMZ	EET BUF	08/20/24 10:40

Client Sample ID: SB-07-33.0-35.0
Date Collected: 08/09/24 11:25
Date Received: 08/09/24 13:27

Lab Sample ID: 480-222473-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	721670	DSC	EET BUF	08/13/24 18:44

Lab Chronicle

Client: Ashland LLC
Job ID: 480-222473-1
Project/Site: Tank 75 Analysis - Soil Analysis

Client Sample ID: SB-07-33.0-35.0
Lab Sample ID: 480-222473-4

Date Collected: 08/09/24 11:25
Matrix: Solid
Date Received: 08/09/24 13:27
Percent Solids: 76.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			721629	LCH	EET BUF	08/09/24 17:45
Total/NA	Analysis	8260C		1	721592	CDC	EET BUF	08/13/24 17:35
Total/NA	Prep	3550C			721531	DP	EET BUF	08/13/24 07:23
Total/NA	Analysis	8270D		1	721937	EMD	EET BUF	08/16/24 05:09
Total/NA	Prep	3550C			721994	SJM	EET BUF	08/15/24 15:16
Total/NA	Analysis	8081B		1	722116	JLS	EET BUF	08/16/24 19:40
Total/NA	Prep	3550C			721691	DP	EET BUF	08/14/24 07:38
Total/NA	Analysis	8082A		1	722007	W1T	EET BUF	08/16/24 01:00
Total/NA	Prep	1633 Shake			623299	WJW	EET CLE	08/14/24 08:25
Total/NA	Analysis	1633		1	623401	MRL	EET CLE	08/14/24 23:43
Total/NA	Prep	3050B			721580	ET	EET BUF	08/13/24 13:33
Total/NA	Analysis	6010C		1	722016	NZG	EET BUF	08/15/24 16:16
Total/NA	Prep	3050B			721580	ET	EET BUF	08/13/24 13:33
Total/NA	Analysis	6010C		1	721848	NZG	EET BUF	08/14/24 15:24
Total/NA	Prep	3050B			721580	ET	EET BUF	08/13/24 13:33
Total/NA	Analysis	6010C		1	721988	NZG	EET BUF	08/15/24 13:46
Total/NA	Prep	7471B			721447	ESB	EET BUF	08/13/24 08:15
Total/NA	Analysis	7471B		1	721606	ESB	EET BUF	08/13/24 11:31
Total/NA	Prep	9012B			722129	CG	EET BUF	08/16/24 12:10
Total/NA	Analysis	9012B		1	722470	IMZ	EET BUF	08/20/24 10:41

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Ashland LLC
Job ID: 480-222473-1
Project/Site: Tank 75 Analysis - Soil Analysis

Laboratory: Eurofins Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Method Summary

Client: Ashland LLC
Job ID: 480-222473-1
Project/Site: Tank 75 Analysis - Soil Analysis

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET BUF
8081B	Organochlorine Pesticides (GC)	SW846	EET BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET BUF
1633	Per- and Polyfluoroalkyl Substances by LC/MS/MS	EPA	EET CLE
6010C	Metals (ICP)	SW846	EET BUF
7471B	Mercury (CVAA)	SW846	EET BUF
9012B	Cyanide, Total andor Amenable	SW846	EET BUF
Moisture	Percent Moisture	EPA	EET BUF
1633 Shake	Shake Extraction with SPE	EPA	EET CLE
3050B	Preparation, Metals	SW846	EET BUF
3550C	Ultrasonic Extraction	SW846	EET BUF
5035A_L	Closed System Purge and Trap	SW846	EET BUF
7471B	Preparation, Mercury	SW846	EET BUF
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	EET BUF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Ashland LLC
Job ID: 480-222473-1
Project/Site: Tank 75 Analysis - Soil Analysis

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-222473-1	SB-08-26.0-28.0	Solid	08/09/24 08:50	08/09/24 13:27
480-222473-2	SB-08-28.0-30.0	Solid	08/09/24 09:00	08/09/24 13:27
480-222473-3	SB-07-1.0-2.0	Solid	08/09/24 09:20	08/09/24 13:27
480-222473-4	SB-07-33.0-35.0	Solid	08/09/24 11:25	08/09/24 13:27

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins Environment Testing

Client Information
Client Contact: Ethan Smith
Company: AECOM
Address: 50 Lakefront Boulevard Suite 111
City: Buffalo
State, Zip: NY, 14202
Phone: 614-790-2274(Tel) / (716)912-4456
Email: ethan.smith@aecom.com / lediyta.cherostkowska@aecom.com
Project Name: Tank 75 - Soil Analysis
Site: Tank 75 Site, Tonawanda, NY

Sampler: E. Smith / C. Horrocks / C. Finn
Phone: (716)912-4456
PWSID:
Due Date Requested: Standard
TAT Requested (days): Standard
Compliance Project: Δ Yes Δ No
PO #: 1120269 Task 300
WO #: Ann.Marie.Kropovitch@aecom.com
Project #: 48027595
SSOW#:

Lab PM: Beninati, John
E-Mail: John.Beninati@et.eurofinsus.com
Carrier Tracking No(s):
State of Origin:

COC No: 480-197590-40883.4
Page: ~~Page 1 of 11~~ 1 of 1
Job #:

Analysis Requested

Preservation Codes:
N - None
A - HCL
D - HNO3
B - NaOH
Other:

Special Instructions/Note:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL VOCs + TICs	8081B, 8082A, 8270D	6010C, 7471B, 9012B	8270D - TCL SVOCs + 1,4 Dioxane, TICs	1633 - 1633 Standard List	8260C - TCL VOCs + TICs	8270D - TCL SVOCs +TICs	1633_DRAFT_TSS - Percent Suspend Solids PFAS	8082A - TCL PCBs	8081B - TCL Pesticides	6010C, 7470A	9012B_NP - Cyanide, Total	8270D_SIM_MS_ID - 1,4 Dioxane	Total Number of containers
			Preservation Code:				N	N	N	N	N	A	N	N	N	N	D	B	N	
SB-08-26.0-28.0	8-9-24	0850	G	Solid			X	X	X											7
SB-08-28.0-30.0	8-9-24	0900	G	Solid			X	X	X											7
SB-07-1.0-2.0	8-9-24	0920	G	Solid			X	X	X											7
SB-07-33.0-35.0	8-9-24	1125	G	Solid			X	X	X	X	X									9
				Solid																
				Solid																
				Solid																
				Solid																
				Solid																
				Solid																
				Solid																
				Solid																

480-222473 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:
Date:
Time:
Method of Shipment:

	Date/Time	Company		Date/Time	Company
Relinquished by:	8-9-24 1327	AECOM	Received by:	8/9/24 1327	TA
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: S.R 6.7# 171

Ver: 04/02/2024

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

1.0/2.0

Chain of Custody Record

eurofins Environment Testing

Client Information (Sub Contract Lab)	Sampler	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-88907 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note): NELAP New York		Job #: 480-222473-1
Address: 180 S. Van Buren Avenue,	Due Date Requested: 8/22/2024			
City: Barberton	TAT Requested (days):			
State, Zip: OH, 44203				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: Tank 75 Analysis Soil Analysis	Project #: 48027595			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

Other

PFAS-081-09

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633/1633_Shake 1633 Standard List	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SB-07-33.0-35.0 (480-222473-4)	8/9/24	11.25 Eastern		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I II III IV Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	8/12/24 1600	TR	JESSICA RIGDON	8.13.24 0900	EETNC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Eurofins – Cleveland Sample Receipt Form/Narrative Login # :
Barberton Facility

Client Eurofins - Buffalo Site Name

Cooler Received on 8.13.24 Opened on 8.13.24

Cooler unpacked by: JESSICA RIGDON

FedEx: 1st Grd (Exp) UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 19 (CF +1.0 °C) Observed Cooler Temp. 1.0 °C Corrected Cooler Temp. 2.0 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
-Were tamper/custody seals intact and uncompromised?	(Yes)	No NA
3 Shippers' packing slip attached to the cooler(s)?	(Yes)	No
4 Did custody papers accompany the sample(s)?	(Yes)	No
5 Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	(No)
7 Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes)	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp(Y/N)?	(Y)	(N)
10 Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
11 Sufficient quantity received to perform indicated analyses?	(Yes)	No
12. Are these work share samples and all listed on the COC?	(Yes)	No
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA
14. Were VOAs on the COC?	Yes	No
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes	No NA
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	No
17 Was a LL Hg or Me Hg trip blank present?	Yes	No

pH Strip Lot# HC442471

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

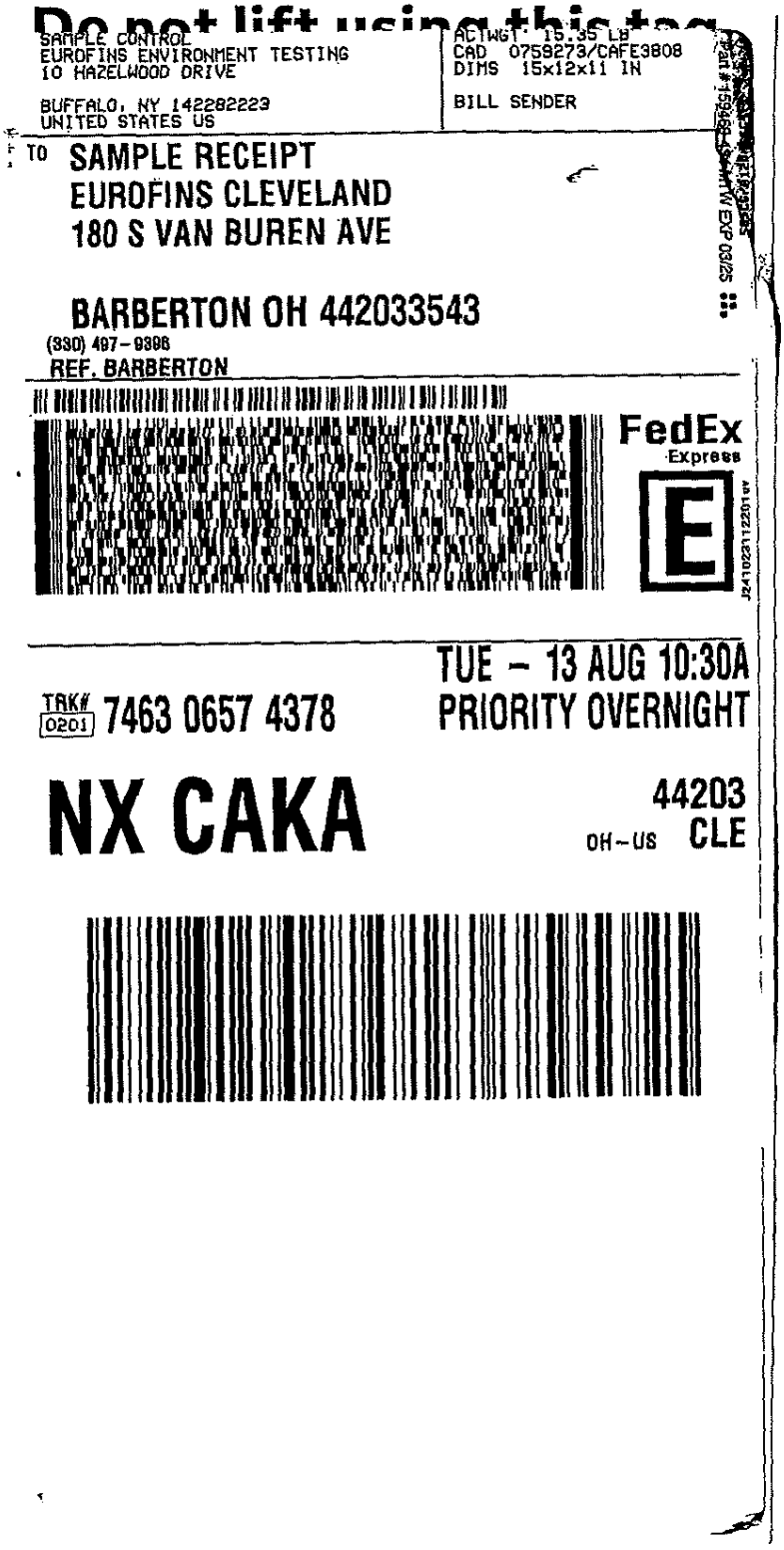
19 SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container
Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory
Time preserved. Preservative(s) added/Lot number(s):

VOA Sample Preservation - Date/Time VOAs Frozen.



Do not lift using this tag

SAMPLE CONTROL
EUROFINS ENVIRONMENT TESTING
10 HAZELWOOD DRIVE

BUFFALO, NY 142282223
UNITED STATES US

ACTWGT: 15.35 LB
CAD 0758273/CAFE3808
DIMS 15x12x11 IN

BILL SENDER

TO SAMPLE RECEIPT
EUROFINS CLEVELAND
180 S VAN BUREN AVE

BARBERTON OH 442033543
(330) 497-9396
REF. BARBERTON

FedEx Express

TUE - 13 AUG 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7463 0657 4378

NX CAKA

44203
OH-US CLE

Login Sample Receipt Checklist

Client: Ashland LLC

Job Number: 480-222473-1

Login Number: 222473
List Number: 1
Creator: Kolb, Chris M

List Source: Eurofins Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	TCORES PUT IN FREEZER 8/9 @ 1745 PRIOR TO PROCESSING
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	AECOM
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Appendix N Fish and Wildlife Impact Analysis

Appendix 3C Fish and Wildlife Resources Impact Analysis Decision Key	If YES Go to:	If NO Go to:
1. Is the site or area of concern a discharge or spill event?	13	2
2. Is the site or area of concern a point source of contamination to the groundwater which will be prevented from discharging to surface water? Soil contamination is not widespread, or if widespread, is confined under buildings and paved areas.	13	3
3. Is the site and all adjacent property a developed area with buildings, paved surfaces and little or no vegetation?	4	9
4. Does the site contain habitat of an endangered, threatened or special concern species?	Section 3.10.1	5
5. Has the contamination gone off-site?	6	14
6. Is there any discharge or erosion of contamination to surface water or the potential for discharge or erosion of contamination?	7	14
7. Are the site contaminants PCBs, pesticides or other persistent, bioaccumulable substances?	Section 3.10.1	8
8. Does contamination exist at concentrations that could exceed ecological impact SCGs or be toxic to aquatic life if discharged to surface water?	Section 3.10.1	14
9. Does the site or any adjacent or downgradient property contain any of the following resources? i. Any endangered, threatened or special concern species or rare plants or their habitat ii. Any DEC designated significant habitats or rare NYS Ecological Communities iii. Tidal or freshwater wetlands iv. Stream, creek or river v. Pond, lake, lagoon vi. Drainage ditch or channel vii. Other surface water feature viii. Other marine or freshwater habitat ix. Forest x. Grassland or grassy field xi. Parkland or woodland xii. Shrubby area xiii. Urban wildlife habitat xiv. Other terrestrial habitat	11	10
10. Is the lack of resources due to the contamination?	3.10.1	14
11. Is the contamination a localized source which has not migrated and will not migrate from the source to impact any on-site or off-site resources?	14	12
12. Does the site have widespread surface soil contamination that is not confined under and around buildings or paved areas?	Section 3.10.1	12
13. Does the contamination at the site or area of concern have the potential to migrate to, erode into or otherwise impact any on-site or off-site habitat of endangered, threatened or special concern species or other fish and wildlife resource? (See #9 for list of potential resources. Contact DEC for information regarding endangered species.)	Section 3.10.1	14
14. No Fish and Wildlife Resources Impact Analysis needed.		

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Environmental Resource Mapper

Base Map: Satellite with Labels — Using this map

Search

Tools

Layers and Legend

- All Layers
- Unique Geological Features
- Waterbody Classifications for Rivers/Streams
- Waterbody Classifications for Lakes
- Waterbody Inventory/Priority Waterbodies List
  - Lakes and Reservoirs
  - Estuaries
  - Rivers and Streams
  - Shorelines
- Previously Mapped Freshwater Wetlands (Outside of the Adirondack Park)

Wetland Layers

Reference Layers

Tell Me More...

Need A Permit?

Contacts