Niagara Mohawk Power Corporation d/b/a National Grid

DK-21 Storage Yard SWMU Assessment Report

Dewey/Kensington Service Center

Buffalo, New York

October 2023

DK-21 STORAGE YARD SWMU ASSESSMENT REPORT

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Acronyms and Abbreviations

Arcadis	Arcadis of New York, Inc.
bgs	below ground surface
CAMP	Generic Community Air Monitoring Plan
CAP	Corrective Acton Plan
COC	constituents of concern
CY	cubic yard
DCR	Declaration of Covenants and Restrictions
DER	Division of Environmental Remediation
DK-21	Dewey/Kensington Building 21 (Warehouse Building)
DUSR	Data Usability Summary Report
GZA	GZA GeoEnvironmental of New York
HASP	health and safety plan
IDW	Investigation Derived Waste
National Grid	National Grid Company
NYCRR	New York Code of Rules and Regulations
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PCBs	Polychlorinated Biphenyls
PFAS	per- and polyfluoroalkyl substances
ppm	parts per million
PRR	Periodic Review Report
RCRA	Resource Conservation and Recovery Act
SDG	Sample Delivery Group
St Mary's	St. Mary's Benevolent Society/Providence Retreat
SWMU	Solid Waste Management Unit
TSCA	Toxic Substances Control Act
USEPA	United States Environmental Protection Agency

1 Introduction

This Solid Waste Management Unit (SWMU) Assessment Report summarizes the results of investigation activities that have been implemented in order to evaluate the extent of polychlorinated biphenyl- (PCB)-containing soil in a storage yard area located northeast of the warehouse building (Building DK-21) at the Niagara Mohawk Power Corporation d/b/a National Grid (National Grid) Dewey/Kensington Service Center in Buffalo, New York. The DK-21 storage yard area (storage yard) was not originally identified as a SWMU in the 6NYCRR Part 373 Hazardous Waste Management Permit for a former Hazardous Waste Treatment, Storage and Disposal Facility (TSDF). Following the initial identification of PCBs in the storage yard area (as summarized below), National Grid submitted a June 24, 2021 letter to the NYSDEC which provided written notification regarding the discovery of a newly-identified SWMU at the facility pursuant to Paragraph XV of an existing Resource Conservation and Recovery Act (RCRA) Corrective Action Order on Consent between National Grid and the New York State Department of Environmental Conservation (NYSDEC) (Index No. R9-4407-96-09). In the June 24, 2021 letter, National Grid committed to preparing a SWMU Assessment Plan and implementing investigation efforts to evaluate the horizontal and vertical extent of PCB-containing soil in the DK-21 storage yard area.

Relevant background information is presented below, followed by a discussion of previous investigation activities implemented at the facility and the purpose and organization of this report.

1.1 Background Information

The Dewey/Kensington Service Center is located between Dewey and Kensington Avenues in Buffalo, New York. A site location map is presented as Figure 1. A city of Buffalo Atlas (tax map) from 1891 indicates that the current service center property was an undeveloped area located in the eastern portion of the St. Mary's Benevolent Society/Providence Retreat (St. Mary's) property. By the early 1900's, the property had been subdivided into two separate parcels, including a northern parcel located at 95 Dewey Avenue (Parcel 89.16-1-2) and a southern parcel located at 144 Kensington Avenue (Parcel 89.16-1-6). A facility layout plan is presented as Figure 2.

1.1.1 95 Dewey Avenue Parcel

The 95 Dewey Avenue Parcel is approximately 8.97 acres in size. Based upon available site history, the earliest recorded use of the parcel included several residential homes and a petroleum filling station that were located in the northeast corner of the parcel by the early 1900s. The Stewart Motor Car Company (Stewart) developed the remaining portion of the parcel beginning around 1912 and eventually displaced the homes and filling station. Stewart used the parcel for automobile and truck manufacturing from approximately 1912 to 1939, operating from three main buildings that continue to be used by National Grid (current buildings DK-1 through DK-3). Stewart ceased production in 1939 and later that year, the property and buildings were purchased by Buffalo Electric Corporation (predecessor to National Grid). National Grid and predecessor utility companies have continuously operated the parcel as a utility service center since 1939, with the three main buildings currently used as crew headquarters, office space, storage areas, and workshops.

1.1.2 144 Kensington Avenue Parcel

The 144 Kensington Avenue Parcel is approximately 12.23 acres in size. The parcel was initially developed as a warehousing facility by Cyphers Incubator Company in the early 1910's. Richards and Boynton Company (Richardson and Boynton), a manufacturer for home heating boilers acquired the parcel shortly after initial development. A Sanborn Fire Insurance Map from 1934 indicates that the current buildings located on the parcel were largely complete, with the following operations indicated:

- Machining/grinding and shipping (current Buildings DK-13, DK-15, and DK-17).
- Core Room and clay/pattern (current building DK-19).
- Foundry (current building DK-21).

Richardson and Boynton filed for bankruptcy in 1939, and Hewitt-Robins, Inc. (Hewitt-Robins) acquired the property and buildings in the mid-1940's. Hewitt-Robins used the parcel for manufacturing of latex and foam rubber products. Niagara Mohawk Power Corporation (predecessor to National Grid) purchased the parcel and buildings from Hewitt-Robins in 1975. Factory areas purchased from Hewitt-Robins (buildings DK-13, DK-15, DK-16, DK-17, DK-19, and DK-21) reportedly had dirt floors when the buildings were purchased by National Grid. Following purchase, National Grid modified the buildings to add concrete floors, partitions and office space, hydraulic lifts, etc. National Grid continues to use the buildings located on the southern parcel as offices, vehicle maintenance garage, workshops, and storage/warehouse areas.

1.1.3 Previous RCRA Corrective Action Activities

National Grid historically stored and handled PCB-containing electrical equipment and generated PCB-containing used oil at both the northern and southern property parcels. In 1982, National Grid submitted a Hazardous Waste TSDF Permit for a tank storage operation located in building DK-14. The permit submittal resulted in the Dewey/Kensington Service Center being designated as an interim-status TSDF. NYSDEC review of the permit application resulted in public hearings during 1989 where several community groups expressed opposition to approval of the permit. Pursuant to a decision by a New York Administrative Law Judge, the NYSDEC ultimately issued a Part 373 Hazardous Waste Management Permit (Part 373 Permit No. 9-1402-00397/00001-0) in late 1990 which allowed National Grid to continue to operate the TSDF for a period of 18 months. The TSDF was closed in December 1992 in accordance with a NYSDEC-approved Closure Plan and National Grid has continued to operate as a large quantity less-than 90-day hazardous waste generator since that time. The Hazardous Waste Permit identified existing SWMUs at the facility (mostly solid waste and petroleum storage related areas).

During 1989, National Grid collected soil samples in response to an oil spill at Building DK-4 located along the west side of the northern property parcel. Initial soil samples identified the presence of PCBs, and subsequent characterization efforts delineated PCBs at concentrations up to 230 parts per million (ppm) on National Grid's property. PCBs were also identified on the adjacent St. Mary's School athletic field immediately west of the northern parcel. Subsequent response measures were implemented which achieved the removal of PCBs exceeding 1 ppm on the St. Mary's athletic field, and removal of PCBs exceeding 10 ppm on National Grid's property. Following completion of the soil excavation activities (concurrent with the permit review efforts summarized above), the NYSDEC listed the service center property as a New York State Listed Inactive

Hazardous Waste Site (Site Code 915144) with a Site Classification Code of 5 (indicating no further action required). On October 3, 2011, National Grid received official notification that the site was deleted from the New York State Registry of Inactive Hazardous Waste Disposal Sites.

In September 1992, excavation activities at the facility in the vicinity of Building DK-13 (primarily utilized as a vehicle maintenance garage) revealed petroleum-impacted gravel and a broken vent line connected to an underground waste oil storage tank. The waste oil tank was subsequently removed, and four groundwater monitoring wells (ESI-1, ESI-2, ESI-3, and ESI-4) were installed in the vicinity of the former tank in order to supplement an existing monitoring well (MW-1), and in order to facilitate periodic groundwater monitoring in this area. During 1994, National Grid conducted soil and groundwater investigation activities which identified the presence of several volatile organic compounds (VOCs) and PCBs in groundwater at concentrations above NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1 – Ambient Water Quality Standards and Guidance Values (NYSDEC, 1998, amended 2000). The groundwater exceedances associated with the former DK-13 waste oil storage tank were designated as SWMU #7.

In November 1997, National Grid entered into an Order on Consent with NYSDEC in order to guide future site monitoring and to establish a framework for implementing additional site investigation or remediation. As mandated in the Consent Order, semi-annual (spring and fall) groundwater monitoring events were conducted for monitoring wells located in the western portion of the Kensington Avenue parcel. The monitoring frequency and list of wells sampled during each groundwater monitoring event has been modified through time by NYSDEC. Currently, groundwater monitoring is conducted during one annual event, and site inspections are conducted semi-annually.

1.2 Previous DK-21 Storage Yard Investigation Results

The DK-21 storage yard area is utilized for outdoor storage of electrical equipment and supplies prior to being deployed to support National Grid's electric distribution operations throughout Western New York. Equipment sored in the area includes pole-top and pad-mounted transformers of various sizes, a variety of spools of electrical conductor wire, electrical conduit, and other miscellaneous supplies. The entire storage yard is fenced from the remainder of the National Grid facility, and access to the area is restricted for inventory control purposes. The primary routine access of the storage yard area is by designated warehouse employees using lift trucks to stage and move equipment and other stored supplies.

As discussed in the June 24, 2021 notification letter, National Grid is planning to implement a paving project (the DK-21 Pavement Improvement Project) which will include the replacement of deteriorated pavement/concrete and subbase material in order to support the installation of new pavement in the storage yard area located northeast of Building DK-21 (shown on Figure 2). The planned work will also include the replacement of four catch basins in the area. In order to characterize soil proposed for removal within the pavement project area, GZA GeoEnvironmental of New York (GZA) completed 13 soil borings to depths of up to 8 feet below grade. PCB analytical results for samples collected from the GZA soil borings are shown on the Figure 3. PCBs were detected at 7 of the 13 borings at concentrations ranging from 5.69 ppm to 741 ppm. The laboratory analytical report for the analysis of the soil samples collected from the GZA soil borings is presented in Attachment A. Based upon the analytical results, National Grid submitted the June 24, 2021 letter to the NYSDEC which designated the DK-21 storage yard area as a newly-identified SWMU.

The DK-21 pavement project has been delayed until National Grid implements efforts to characterize and address the horizontal and vertical extent PCB-containing soil in the DK-21 storage yard area.

1.3 Report Organization

This SWMU Assessment Report is organized as presented in the Table below.

Section	Purpose
Section 1 – Introduction	Provides background information and outlines the purpose of the SWMU Assessment Report.
Section 2 – SWMU Assessment Activities	Summarizes SWMU Assessment Activities
Section 3 – SWMU Assessment Results	Presents the results for SWMU Assessment Activities
Section 4 – Proposed Corrective Action Approach and Pre-Design Investigation	Described the proposed corrective action approach for the DK-21 Storage Yard and presents proposed Pre-Design Investigation activities.
Section 5 – References	Provides a list of references utilized to prepare this SWMU Assessment Report.

2 SWMU Assessment Activities

In order to evaluate the horizontal and vertical extent of PCBs in the DK-21 storage yard area, two phases of field investigations were completed during February 2022 and December 2022. A summary of the investigation activities conducted during each field mobilization is presented below.

2.1 February 2022 Field Activities

Based upon the results of the initial investigation efforts conducted by GZA, National Grid submitted a SWMU Assessment Plan to the NYSDEC on July 27, 2021. The SWMU Assessment Plan was subsequently revised to address NYSDEC comments provided in an October 20, 2021 letter to National Grid. Based upon the NYSDEC comments, specific soil samples from the DK-21 storage yard area were analyzed for emerging contaminants, including per- and polyfluoroalkyl substances (PFAS) and 1,4-dioxane. The final SWMU Assessment Plan was submitted to the NYSDEC on January 24, 2022.

The SWMU assessment sampling activities were implemented by Arcadis of New York (Arcadis) during February 2022, and included the completion of 23 soil borings (borings B-1 through B-23)(Figure 4). Prior to mobilizing to the facility, Arcadis prepared a project-specific Health and Safety Plan (HASP) for the SWMU assessment field activities. The SWMU assessment activities were conducted using the New York State Department of Health (NYSDOH) Generic Community Air Monitoring Plan (CAMP) which is included as Appendix 1A to the NYSDEC Division of Environmental Remediation Technical Guidance for Site Investigation and Remediation (DER-10, May 2010). The Generic CAMP is included as Attachment B. CAMP monitoring data collected during the SWMU assessment field activities is presented in the sampling field notes included as Attachment C.

Prior to completing soil borings, Arcadis conducted a pre-mobilization field visit in order to identify proposed soil boring locations using Global Positioning System (GPS) methods and completing a geophysical survey in order to mark out utilities in the vicinity of proposed soil borings using ground penetrating radar and electroconductivity surveying methods. Concurrent with the geophysical survey, Arcadis also completed additional utility location efforts, including notifying Dig-Safe New York, visually observing aboveground and surface features at the site, and reviewing existing National Grid utility drawings.

Following completion of the geophysical survey, Arcadis completed 23 soil borings to refusal/bedrock using direct-push sampling methods. Prior to completing each soil boring, Arcadis saw cut the asphalt/pavement and removed subgrade material (which extended to depths of up to 1.9 feet below grade). Arcadis conducted utility clearance activities to a depth of at least 4 feet below ground surface (bgs) using soft dig excavation methods (compressed air). Subsequently, a soil boring was completed using a direct-push drill rig to advance 4-foot long macrocore samplers to the depth of refusal/ bedrock at depths ranging from 4.2 to 11.3 feet bgs. Soil boring logs for borings B-1 through B-23 are included in Attachment D.

The soft dig cuttings from each boring were segregated in to sample intervals, representing material from the first soil encountered below asphalt/pavement subbase material to a depth of approximately 0.5-feet, and from 0.5 to 2-feet, and 2 to 4-feet. The recovered soil cores at each location were also segregated into 2-foot sampling intervals. The soil samples recovered from each 2-foot sampling interval (for both the soft dig cuttings and the

recovered soil cores) were visually characterized. Observations relative to the soil type (e.g., gravel, coarse sand, fine sand, etc.) and grain size characteristics (e.g., size sorting, and texture) were noted. Other observations, including sedimentary structures, organic matter, and moisture were also documented. The soft dig soil cuttings and the recovered soil cores were also be screened for volatile organic compounds using a photoionization detector (PID).

The samples recovered from each sampling interval were containerized in clean laboratory-supplied glassware and submitted to Eurofins/TestAmerica Laboratories (Eurofins) in Amherst, New York. The recovered soil samples for the shallow interval (material from the first soil encountered beneath asphalt/pavement subgrade material to a depth of 0.5 feet) and at least one additional soil interval from each boring (selected based on the judgement of Arcadis' onsite geologist) were initially analyzed for PCBs using United States Environmental Protection Agency (USEPA) Method 8082. Additional samples from specific borings were selected for laboratory analysis for PCBs based upon elevated PID readings and/or visual evidence of potential impacts (e.g., staining or sheens). Samples that were not initially designated for PCB analysis were archived for potential latter analysis based upon the analytical results for the initial samples.

In addition to the samples selected for PCB analysis as specified above, a total of 12 soil samples (one soil sample from approximately every second boring) were submitted for laboratory analysis for PFAS by USEPA Modified Method 537 and 1,4-dioxane by USEAP Method 8270D.

Soil cuttings, disposable sampling equipment, used personal protective equipment, and decontamination water generated during the field sampling activities were containerized in 55-gallon drums. The drums were labeled appropriately based upon their contents, and staged onsite for subsequent waste profiling, transportation, and offsite disposal by National Grid's waste disposal Contractor. Disposal documentation for investigation derived waste (IDW) generated by the sampling activities is included in Attachment E.

2.2 December 2022 Field Activities

Based upon the results obtained for the samples that were collected during the February 2022 field activities, National Grid submitted a Supplemental SWMU Assessment Plan to the NYSDEC on April 21, 2022. The Supplemental SWMU Assessment Plan outlined proposed additional soil investigation efforts in order to address data gaps identified by previous soil sampling. NYSDEC comments on the Supplemental SWMU Assessment Plan were provided in a June 6, 2022 letter to National Grid, and discussed during a July 12, 2022 telephone conference call attended by personnel from the NYSDEC, National Grid, and Arcadis. NYSDEC approval of the Supplemental SWMU Assessment Plan was provided in an August 5, 2022 letter to National Grid.

Arcadis mobilized to the facility during December 2022 and completed eight additional soil borings (borings B-24 through B-31) (see Figure 4). CAMP monitoring data collected during the supplemental SWMU assessment field activities is presented in the sampling field notes included as Attachment C. One soil boring (B-24) was completed in order to further evaluate elevated PCB concentrations detected at soil boring location B-02 (as discussed in Section 3 below). The remaining borings (B-25 through B-31) were completed in order to further evaluate the horizonal and vertical extent of PCBs in the DK-21 storage yard area. Boring logs for soil borings B-24 through B-31 are included in Attachment D. The approach for completing the soil borings and collecting soil samples for laboratory analysis was consistent with previous field activities, with the exception that no soil

samples were collected for laboratory analysis of PFAS and 1,4-dioxane. Disposal documentation for IDW generated by the December 2022 field activities is included in Attachment E.

3 SWMU Assessment Results

Analytical results for soil samples that were analyzed for PCBs and emerging contaminants (including PFAS and 1,4-dioxane) are presented in Table 1 and PCB results are shown on Figure 4. Analytical results for samples that were analyzed for PCBs were reported using NYSDEC Analytical Services Protocol Category B data deliverables. The Category B deliverables were reviewed by an Arcadis data validator and a Data Usability Summary Report (DUSR) was prepared for each sample delivery group (SDG). DUSRs are included in Attachment F.

3.1 Soil Characterization

As indicated by the boring logs presented in Attachment D, overburden soil across the yard storage area ranges from 4.2 to 11.3 feet in depth. The shallowest soil is encountered in the northwest portion of the storage yard and the deepest soil is encountered to the southeast along the railroad right-of-way. Soil encountered immediately beneath the pavement subbase material generally consists of a dark grey sand with varying amounts of silt and subangular gravel. Increasing amounts of clay are present in deeper soils encountered above bedrock. Varying amounts of fill materials were encountered at several of the boring locations, including red brick, small pieces of concrete, slag, metals, and glass. Subgrade concrete slabs were encountered at depths of 2.7 to 3.2 feet bgs at boring location B-2, 0.7 to 1.0 feet bgs at boring location B-6, and 4.5 to 5.1 feet bgs at boring location B-23. No other foundations were encountered in the other borings completed across the storage yard.

3.2 Emerging Contaminant Results

New York-specific soil screening levels for PFAS are presented in the NYSDEC Guidance Document entitled Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances. Soil screening levels for 1,4-dioxane are presented in 6NYCRR Part 375-6. PFAS screening levels are presented for perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS). There were no detections of PFAS or 1,4 Dioxane at concentrations equal to or exceeding NYSDEC soil screening levels.

3.3 PCB Results

PCBs were detected at 30 of the 31 soil boring locations in the DK-21 storage yard area at estimated concentrations ranging from 0.073 ppm to 50,000 ppm. The overall distribution of PCB results from initial samples conducted by GZA and the SWMU assessment sampling conducted by Arcadis is shown on Figure 5. The most elevated PCB concentrations (concentrations exceeding 100 ppm) were identified in an area located in the northern portion of the DK-21 storage yard (including borings DK-21-7, B-02, B-24 and B-28) and in the vicinity of boring B-10 along the eastern edge of the storage yard. With the exception of the area in the northern portion of the storage yard (including borings DK-21-7, B-02, B-24, and B-28), elevated PCB concentrations are generally encountered at relatively shallow depths.

Other than a limited spatial area along the eastern side of the DK-21 storage yard (which is bounded by the railroad right-of-way to the east of the facility), the horizontal extent of soil exceeding NYSDEC industrial soil screening criteria has been delineated. Based upon the current and future use of the storage yard as a limited-

occupancy restricted-access area, the extent of PCBs within the transformer storage yard has been delineated and is sufficient for proposing corrective measures.

4 Proposed Corrective Action Approach and Pre-Design Investigation Activities

The section outlines National Grid's proposed approach for implementing a Pre-Design Investigation (PDI) to refine the extent of proposed remedial activities and for addressing PCBs in soil in the DK-21 storage yard area.

4.1 Corrective Action Approach

National Grid's proposed corrective action approach for the DK-21 storage yard area includes:

- Implementing a PDI in order to complete the delineation of PCBs in soil within the DK-21 storage yard area. Since slag was identified in borings completed within the DK-21 storage yard area, the PDI will also include a gamma walkover survey (GWS) in accordance with 6NYCRR Part 380-6.1. The primary purpose of the GWS is to evaluate whether or not elevated levels of radioactivity are present, which may indicate the existence of technologically-enhanced naturally-occurring radioactive materials (TENORM) in the soils. Since the GWS will only evaluate potential TENORM in soil to a depth of approximately one foot, a licensed radiation consultant will be retained to survey and collect samples if slag is observed in deeper subsurface soils during the corrective action activities.
- Preparing a Correction Action Plan (CAP) and Self-Implementing PCB Cleanup and Disposal Plan (SIP) for review and approval by the NYSDEC and USEPA, respectively.
- Excavation and offsite disposal of soil containing PCBs at concentrations exceeding 100 ppm. Soil containing PCBs at concentrations of less than 100 ppm will remain in place and will be capped by the asphalt and concrete pavement across the storage yard area. The 100 ppm PCB remediation goal is proposed based upon the applicable USEPA soil cleanup objectives for soil located below a cap in a low-occupancy area, as outlined in Title 40 of the Code of Federal Regulations (40 CFR) Part 761.61(a). The conceptual extent of proposed excavation activities (to be finalized based on the PDI results) is shown on Figure 5. All excavated soil will be managed as a Toxic Substances Control Act (TSCA)-regulated PCB waste/New York State Hazardous Waste (waste code B007) and National Grid will collect waste characterization samples to determine any additional applicable waste codes. If any obviously impacted soil or subsurface materials are encountered during excavation activities (based upon visible staining, strong odors, or elevated PID headspace screening results), then soil excavation efforts will continue until all impacted soil/materials are removed, where practicable.
- Filing a deed notice that will identify the location and extent of remaining PCB soil impacts and will restrict the storage yard area to low-occupancy future use. National Grid anticipates that the deed notice for the storage yard area will be implemented as a modification to the existing Declaration of Covenants and Restrictions (DCR) for the Kensington Avenue parcel recorded in the Erie County Clerk's office on January 30, 2013.
- Preparing a Site Management Plan (SMP) that will include procedures and safety measures that will be used for any future intrusive subsurface work in the storage yard area and establish a yearly inspection schedule for the asphalt/concrete pavement that forms the soil cap. National Grid anticipates that the yearly inspection for the cap in the storage yard area will be included as part of the Period Review Report (PRR) that is currently being prepared on an annual basis.

The approach for preparing design submittals and implementing the PDI is discussed below.

4.1.1 Corrective Action Plan

National Grid will prepare a CAP which will be equivalent to a remedial design under the NYSDEC DER-10 Guidance. The Corrective Action Plan will consist of the following components:

- Soil Excavation Design – plan view drawings showing the horizontal soil excavation limits, target excavation bottom elevations for each removal area, and typical soil excavation cross-sections. The corrective measures contractor will be required to bench/slope excavation areas or utilize pre-fabricated excavation support systems (e.g., slide rails).
- Restoration Design – plan view drawings and details showing the locations, elevations, and cross-sections of backfilled excavation areas, and final site cover. In general, soil excavation areas will be backfilled to match pre-existing lines and grades.

Submittals associated with the design will include the following:

- A *Draft (90%) CAP*
- A *Final (100%) CAP*

Remedial Design work to be completed for each submittal is summarized below.

Draft (90%) CAP

The *Draft (90%) CAP Report* will generally include the following:

- An overview of site background information, design report objectives, and report organization.
- A summary of the remedy, with a basis of design supporting the proposed remedial design.
- A description of project responsibilities, including site controls for protecting the public health, safety, welfare, and the environment during the implementation of the corrective measures; and in order to maintain the effectiveness of the remedial action.
- A preliminary list of regulatory and permitting requirements necessary in order to implement the corrective measure construction activities.
- A detailed description of the various components associated with completing the corrective measure construction activities including:
  - Soil excavation removal limits and target elevations.
  - Surface restoration design for the complete excavation areas, including the elevation and cross- sections for backfill, subgrade materials, and final cover system to support low occupancy future use of the storage yard area.

- A description of storm water best management practices (BMPs) that will be implemented to control potential impacts to site-related storm water run-off. Based upon the overall size for the disturbance area associated with the corrective measures, a Storm Water Pollution Prevention Plan (SWPPP) is not required for the corrective measure activities.
- A description of the post-remediation activities to be completed following the corrective measure activities, including establishment of institutional controls and requirements for post-remediation monitoring.
- An anticipated schedule for completing the *Draft Final (90%) CAP* and *Final (100%) CAP*, contractor procurement, and implementation of the remedial construction activities.
- Engineering design drawings presenting existing site conditions and the proposed remedial construction activities. Remedial Action Schedule (preliminary), which will present the preliminary anticipated schedule for implementation of the corrective measure construction activities.
- Technical Specifications.
- A Community Air Monitoring Plan (CAMP) which describes the monitoring activities that will be conducted in order to detect potential airborne releases of constituents of concern during the implementation of corrective measure activities.
- Contingency measures and procedures to be implemented at the site in the event of an emergency.
- A waste management plan (WMP) which describes the characterization, handling, treatment, and disposal requirements for various waste materials that are anticipated to be generated as a result of the corrective measure activities.

Final (100%) CAP

The *Final (100%) CAP* will incorporate NYSDEC comments on the *Draft Final (90%) CAP,* and will be stamped and signed by Professional Engineer licensed in the State of New York. National Grid will also prepare a letter summarizing the final modifications to the CAP.

4.1.2 Self-Implementing Cleanup Notification

National Grid will prepare a SIP for the corrective measure activities. The notification will be prepared in accordance with Toxic Substances Control Act (TSCA) regulations presented in 40 CFR Part 761.61(a). As detailed in the regulations, the notification will include:

- A summary of site background (e.g., past site uses and ownership, previous interim remedial measures conducted at the site, etc.), and current or proposed site uses.
- Description of the nature and source of the PCB releases identified at the site.

- A data summary presenting sampling procedures and laboratory extraction and analytical procedures used during the characterization of impacted areas, and a table or site map showing PCB concentrations in characterization samples. The summary will also include sample collection and analysis dates.

- The location and extent of the identified impacted area, including topographic maps with sample locations cross referenced to the sample identification numbers in the data summary.
- Laboratory analytical reports of the characterization sampling, including field and laboratory QA/QC samples.
- A cleanup plan for the site, including the proposed disposal technology and approach, and a cleanup schedule.
- A written certification, signed by the owner of the property where the cleanup site is located and the party conducting the cleanup, confirming that all sampling plans, sample collection procedures, sample preparation procedures, extraction procedures, and instrumental/chemical analysis procedures used to assess or characterize the PCB impacts at the site, are on file at the location designated in the certificate, and are available for USEPA inspection.
- QA/QC plan describing the procedures that will be conducted to document that the cleanup levels are achieved (e.g. confirmatory sampling/analysis QA/QC). The QA/QC plan will include, at a minimum, information regarding the types/numbers of samples, extraction/analytical methods, matrix spike/matrix spike duplicates (MS/MSDs) (both frequency and acceptance criteria), data validation, etc.

The Self-Implementing Cleanup and Disposal Notification will be submitted to USEPA Region 2 with copies provided to the NYSDEC and local agencies (Erie County Health Department) as required by 40 CFR Part 761.61(a).

4.2 Pre-Design Investigation

In order to refine the extent of proposed excavation areas and collect data to support the direct loadout of excavated soil for offsite transport and disposal, National Grid proposes to implement a PDI that will consist of completing 10 additional delineation soil borings (proposed borings B-32 through B-41 shown on Figure 5) and two waste characterization borings (proposed borings WC-1 and WC-1 shown on Figure 5). The actual location of the borings to be completed will be selected based upon access and the presence of existing underground or overhead utilities. The PDI will also include a GWS to evaluate whether or not the soils in the DK-21 storage area contain TENORM levels exceeding local background conditions.

The project-specific HASP that was previously prepared for the SWMU assessment field activities will be used for the PDI efforts. The PDI activities will be conducted using the New York State Department of Health Generic Community Air Monitoring Plan (CAMP). The Generic CAMP is included as Attachment B.

The PDI soil borings and GWS activities are described below:

PDI Soil Borings

Prior to completing the PDI soil borings, Arcadis will conduct a pre-mobilization field visit in order to identify proposed soil boring locations using Global Positioning System (GPS) methods, and completing a geophysical survey to mark out utilities in the vicinity of proposed soil borings using ground penetrating radar and electroconductivity surveying methods. Concurrent with the geophysical survey, Arcadis will complete additional

utility location efforts, including notifying Dig-Safe New York, visually observing aboveground and surface features at the site, and reviewing existing National Grid utility drawings.

Following completion of the geophysical survey, Arcadis will complete approximately 10 soil borings to refusal/bedrock using direct-push sampling methods. Prior to completing each soil boring, Arcadis will soft dig to a depth of approximately 4 feet below ground surface (bgs) using compressed air excavation methods. Arcadis will then advance a 4-foot long macrocore sampler by direct push methods to the depth of refusal.

The soft dig cuttings from the 10 delineation soil borings will be segregated into sample intervals, representing material from the first soil encountered below asphalt/pavement to a depth of approximately 0.5-feet, and from 0.5 to 2-feet, and 2 to 4-feet. The recovered soil cores at each location will also be segregated into 2-foot sampling intervals. The soil samples recovered from each 2-foot sampling interval (for both the soft dig cuttings and the recovered soil cores) will be visually characterized. Observations relative to the soil type (e.g., gravel, coarse sand, fine sand, etc.) and grain size characteristics (e.g., size sorting, and texture) will be noted. Other observations, including sedimentary structures, organic matter, and moisture will also be documented. The soft dig soil cuttings and the recovered soil cores will also be screened using a PID.

- The samples recovered from each sampling interval at the 10 delineation borings will be containerized in clean laboratory-supplied glassware and submitted to Eurofins in Amherst, New York. The recovered soil samples for the shallow interval (material from the first soil encountered beneath asphalt/pavement to a depth of 0.5 feet) and from at least one other interval at each boring location (selected by Arcadis' onsite geologist) will initially be analyzed for PCBs using USEPA Method 8082. Additional samples from each boring may also be selected for laboratory analysis for PCBs based on elevated PID readings and/or observed impacts [e.g., staining or sheens). Samples that are not initially designated for PCB analysis will be archived for potential latter analysis based on the analytical results for the initial samples.
- The waste characterization soil borings will also be completed to the depth of refusal. However, waste characterization soil samples will only be collected from grade to the anticipated depth of excavation at each location. Soil recovered at waste characterization boring WC-1 will used to form one composite sample from grade to a depth of approximately 7 feet. Soil from waste characterization soil boring WC-2 will be used to form a composite sample from grade to a depth of approximately 2 feet. Each waste characterization composite sample will be submitted to Eurofins for laboratory analysis of Toxicity Characteristic Leaching Procedure (TCLP) metals, TCLP volatile organic compounds (VOCs), TCLP semi-volatile organic compounds (SVOCs), reactivity, corrosivity, and ignitability.
- Soil cuttings, disposable sampling equipment, used personal protective equipment, and decontamination water generated during the field sampling activities will be containerized in 55-gallon drums. The drums will be labeled appropriately based on their contents and will be staged onsite for subsequent transportation and offsite disposal by National Grid's waste disposal Contractor.

Analytical results for samples that are analyzed for PCBs will be reported using NYSDEC Analytical Services Protocol Category B data deliverables. Following receipt of the PCB analytical results from the laboratory, An Arcadis data validator will review the results and prepare a DUSR for each SDG.

GWS Activities

Arcadis will conduct a GWS of the DK-21 storage yard area where excavation activities are proposed, including proposed PCB soil excavations, excavations for new storm sewer catch basins, and excavation of subbase material as part of the DK-21 paving project. The extent of the proposed GWS for the DK-21 storage yard area is shown on Figure 5. The GWS will be conducted under Arcadis' Nuclear Regulatory Commission (NRC) Radioactive Materials License No. 05-35250-1. Arcadis will apply to the New York State Department of Health (NSDOH) for a 30-day reciprocity approval of our NRC Radioactive Materials License at least one week prior to the planed start of the GWS. Arcadis will conduct the GWS using the following approach which has been implemented by Arcadis at other sites with known or suspected TENORM issues:

- The GWS will be conducted using a detection system consisting of a 2-inch by 2-inch sodium iodide scintillator (gamma probe Ludlum 44-10) coupled to a ratemeter/scaler (Ludlum-2221). The probe will be held from 5 to 15-centimeters above the ground while moving forward at 0.5 meters per second or less along a transect covering the transect area. The forward speed (0.5 meter per second) assures that the minimum detectable count rate is sufficient to meet regulatory limits for common gamma emitters such as Radium-226 from NORM. Transects will be approximately 1 meter apart across the entire newly-identified SWMU area (approximately 1.1-acre). Arcadis will also identify and survey at least two background areas (ranging between five and ten square meters in size) in close proximity to the newly-identified SWMU area.
- The detection system will be connected to a GPS (via Bluetooth) and computer tablet. The tablet uses an application developed by CoPhysics called SitePAD which records the coordinates and gamma count rate readings at 1 second intervals as the transects are traversed. SitePAD is preloaded with site data such as the boundaries and transects. While conducting the GWS, SitePAD displays the results in real time for accurate transect spacing, and allows field personnel to quickly identify areas with elevated gamma readings. The survey results in a real time color-coded map illustrating the spatial distribution of gamma exposure counts.

If the GWS identifies any areas in the DK-21 storage yard with TENORM levels exceeding 1.5 times the background screening results, then National Grid will coordinate with the NYSDEC to develop a radiological sampling plan for the soil to be excavated in the storage yard.

The results of the PDI soil borings and GWS will be included in a PDI Report attached to the CAP. The PDI Report will include a summary of the sampling efforts, data summary tables and figures, DUSRs, and waste disposal documentation.

Following receipt of NYSDEC approval of this SWMU Assessment Report, National Grid will proceed with the implementation of the PDI field activities described above. National Grid will notify the NYSDEC at least two weeks prior to initiating any onsite field activities.

5 References

G. M. Hopkins, C.E., 1891. Atlas of the Cit of Buffalo, New York. 1891.

NYSDEC, 2008. Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (TOGS 1.1.1), Reissued June 1998 and addended April 2000 and June 2004.

NYSDEC, 2010a. DER-10 Technical Guidance for Site Investigation and Remediation. May 3, 2010.

NYSDEC, 2022, Sampling, Analysis and Assessment of Per- and Polyfluoroalkyl Substations. November 2022. 2014.

NYSDOH, 2010. Generic Community Air Monitoring Plan (Appendix 1A to NYSDEC DER-10). May 3, 2010.

Tables

Table 1
Summary of Soil Sample Analytical Results

National Grid
Dewey/Kensington Avenue Service Center
Buffalo, New York

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	DER10 Commercial Use SCO	Units	B-1 1.2 - 1.7 02/16/22 B-1 (1.2-1.7)	B-1 1.7 - 3.7 02/16/22 B-1 (1.7-3.7)	B-2 1.3 - 1.8 02/15/22 B-2 (1.3-1.8)	B-2 1.8 - 3.8 02/15/22 B-2 (1.8-3.8)	B-2 3.8 - 5.87 02/15/22 B-2 (3.8-5.87)	B-2 5.8 - 7 02/15/22 B-2 (5.8-7.0)	B-3 0.4 - 1.9 02/10/22 B-3 (1.4-1.9)	B-3 3.9 - 5.9 02/10/22 B-3 (3.9-5.9)
PCBs (ppm)										
PCB-1016	- -	mg/kg	0.20 U	0.20 U	2.3 U	2.8 U	0.53 U	5,100 UJ	0.27 U	0.21 U
PCB-1221	- -	mg/kg	0.20 U	0.20 U	2.3 U	2.8 U	0.53 U	5,100 UJ	0.27 U	0.21 U
PCB-1232	- -	mg/kg	0.20 U	0.20 U	2.3 U	2.8 U	0.53 U	5,100 UJ	0.27 U	0.21 U
PCB-1242	- -	mg/kg	0.20 U	0.20 U	2.3 U	2.8 U	0.53 U	**50,000 J**	0.27 U	**0.13 J**
PCB-1248	- -	mg/kg	**4.7**	**0.24**	**35 J**	**15**	1.6	5,100 UJ	**9.0**	0.21 U
PCB-1254	- -	mg/kg	0.20 U	0.20 U	2.3 U	2.8 U	0.53 U	5,100 UJ	0.27 U	0.21 U
PCB-1260	- -	mg/kg	0.20 U	0.20 U	2.3 U	2.8 U	0.53 U	5,100 UJ	0.27 U	0.21 U
Total PCBs	1	mg/kg	**4.7**	**0.24**	**35 J**	**15**	**1.6**	**50,000 J**	**9.0**	**0.13 J**
PFAS (ppb)										
6:2 Fluorotelomer sulfonic acid	- -	ng/g	NA	NA	0.23 U	NA	NA	NA	NA	NA
8:2 Fluorotelomer sulfonic acid	- -	ng/g	NA	NA	0.23 U	NA	NA	NA	NA	NA
NEtFOSAA	- -	ng/g	NA	NA	0.23 U	NA	NA	NA	NA	NA
NMeFOSAA	- -	ng/g	NA	NA	0.23 U	NA	NA	NA	NA	NA
Perfluorobutanoic acid	- -	ng/g	NA	NA	0.23 U	NA	NA	NA	NA	NA
Perfluorodecanesulfonic acid	- -	ng/g	NA	NA	0.23 U	NA	NA	NA	NA	NA
Perfluorodecanoic acid	- -	ng/g	NA	NA	0.23 U	NA	NA	NA	NA	NA
Perfluorododecanoic acid	- -	ng/g	NA	NA	0.23 U	NA	NA	NA	NA	NA
Perfluoroheptanesulfonic acid	- -	ng/g	NA	NA	0.23 U	NA	NA	NA	NA	NA
Perfluoroheptanoic acid	- -	ng/g	NA	NA	0.23 U	NA	NA	NA	NA	NA
Perfluorohexanesulfonic acid	- -	ng/g	NA	NA	0.23 U	NA	NA	NA	NA	NA
Perfluorohexanoic acid	- -	ng/g	NA	NA	0.23 U	NA	NA	NA	NA	NA
Perfluorononanoic acid	- -	ng/g	NA	NA	0.23 U	NA	NA	NA	NA	NA
Perfluorooctanesulfonamide	- -	ng/g	NA	NA	0.23 U	NA	NA	NA	NA	NA
Perfluorooctanesulfonic acid	440	ng/g	NA	NA	**0.056 J**	NA	NA	NA	NA	NA
Perfluorooctanoic acid	500	ng/g	NA	NA	0.23 U	NA	NA	NA	NA	NA
Perfluoropentanoic acid	- -	ng/g	NA	NA	0.23 U	NA	NA	NA	NA	NA
Perfluorotetradecanoic acid	- -	ng/g	NA	NA	0.23 U	NA	NA	NA	NA	NA
Perfluorotridecanoic acid	- -	ng/g	NA	NA	0.23 U	NA	NA	NA	NA	NA
Perfluoroundecanoic acid	- -	ng/g	NA	NA	0.23 U	NA	NA	NA	NA	NA
Total PFAS	- -	ng/g	NA	NA	**0.056 J**	NA	NA	NA	NA	NA
SVOCs (ppb)										
1,4-Dioxane	130,000	ug/kg	NA	NA	550 U	NA	NA	NA	NA	NA

Table 1
Summary of Soil Sample Analytical Results

National Grid
Dewey/Kensington Avenue Service Center
Buffalo, New York

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	DER10 Commercial Use SCO	Units	B-4 1 - 1.5 02/10/22 B-4 (1.0-1.5)	B-4 1.5 - 3.5 02/10/22 B-4 (1.5-3.5)	B-4 3.5 - 5.5 02/10/22 B-4 (3.5-5.5)	B-5 0.7 - 1.2 02/08/22 B-5 (0.7-1.2)	B-5 3.2 - 5.2 02/08/22 B-5 (3.2-5.2)	B-6 1 - 1.5 02/16/22 B-6 (1.0-1.5)	B-6 1.5 - 3.5 02/16/22 B-6 (1.5-3.5)	B-7 1.2 - 1.7 02/15/22 B-7 (1.2-1.7)
PCBs (ppm)										
PCB-1016	- -	mg/kg	1.1 UJ	NA	0.25 U	11 UJ	0.27 U	0.24 U	0.28 U	0.24 U
PCB-1221	- -	mg/kg	1.1 UJ	NA	0.25 U	11 UJ	0.27 U	0.24 U	0.28 U	0.24 U
PCB-1232	- -	mg/kg	1.1 UJ	NA	0.25 U	11 UJ	0.27 U	0.24 U	0.28 U	0.24 U
PCB-1242	- -	mg/kg	**14 J**	NA	**0.66**	**62 J**	0.27 U	**0.34**	**0.28 J**	0.24 U
PCB-1248	- -	mg/kg	1.1 UJ	NA	0.25 U	11 UJ	0.27 U	0.24 U	0.28 U	**6.4**
PCB-1254	- -	mg/kg	1.1 UJ	NA	0.25 U	11 UJ	0.27 U	0.24 U	0.28 U	0.24 U
PCB-1260	- -	mg/kg	1.1 UJ	NA	0.25 U	11 UJ	0.27 U	0.24 U	0.28 U	0.24 U
Total PCBs	1	mg/kg	**14 J**	NA	**0.66**	62 J	0.27 U	**0.34**	**0.28 J**	**6.4**
PFAS (ppb)										
6:2 Fluorotelomer sulfonic acid	- -	ng/g	NA	**0.39 [0.35 U]**	NA	NA	0.25 U	0.24 U	NA	NA
8:2 Fluorotelomer sulfonic acid	- -	ng/g	NA	0.26 U [0.35 U]	NA	NA	0.25 U	0.24 U	NA	NA
NEtFOSAA	- -	ng/g	NA	**0.036 J [0.047 J]**	NA	NA	0.25 U	0.24 U	NA	NA
NMeFOSAA	- -	ng/g	NA	0.26 U [0.35 U]	NA	NA	0.25 U	0.24 U	NA	NA
Perfluorobutanoic acid	- -	ng/g	NA	0.26 U [0.35 U]	NA	NA	0.25 U	0.24 U	NA	NA
Perfluorodecanesulfonic acid	- -	ng/g	NA	0.26 U [0.35 U]	NA	NA	0.25 U	0.24 U	NA	NA
Perfluorodecanoic acid	- -	ng/g	NA	0.26 U [0.35 U]	NA	NA	0.25 U	0.24 U	NA	NA
Perfluorododecanoic acid	- -	ng/g	NA	0.26 U [0.35 U]	NA	NA	0.25 U	0.24 U	NA	NA
Perfluoroheptanesulfonic acid	- -	ng/g	NA	0.26 U [0.35 U]	NA	NA	0.25 U	0.24 U	NA	NA
Perfluoroheptanoic acid	- -	ng/g	NA	0.26 U [0.35 U]	NA	NA	0.25 U	0.24 U	NA	NA
Perfluorohexanesulfonic acid	- -	ng/g	NA	0.26 U [0.35 U]	NA	NA	0.25 U	0.24 U	NA	NA
Perfluorohexanoic acid	- -	ng/g	NA	0.26 U [0.35 U]	NA	NA	0.25 U	0.24 U	NA	NA
Perfluorononanoic acid	- -	ng/g	NA	0.26 U [0.35 U]	NA	NA	0.25 U	0.24 U	NA	NA
Perfluorooctanesulfonamide	- -	ng/g	NA	0.26 U [0.35 U]	NA	NA	0.25 U	0.24 U	NA	NA
Perfluorooctanesulfonic acid	440	ng/g	NA	**0.057 J [0.065 J]**	NA	NA	0.25 U	0.24 U	NA	NA
Perfluorooctanoic acid	500	ng/g	NA	0.26 U [0.35 U]	NA	NA	**0.030 J**	**0.033 J**	NA	NA
Perfluoropentanoic acid	- -	ng/g	NA	0.26 U [0.35 U]	NA	NA	0.25 U	0.24 U	NA	NA
Perfluorotetradecanoic acid	- -	ng/g	NA	0.26 U [0.35 U]	NA	NA	0.25 U	0.24 U	NA	NA
Perfluorotridecanoic acid	- -	ng/g	NA	0.26 U [0.35 U]	NA	NA	0.25 U	0.24 U	NA	NA
Perfluoroundecanoic acid	- -	ng/g	NA	0.26 U [0.35 U]	NA	NA	0.25 U	0.24 U	NA	NA
Total PFAS	- -	ng/g	NA	**0.48 J [0.46 J]**	NA	NA	**0.030 J**	**0.033 J**	NA	NA
SVOCs (ppb)										
1,4-Dioxane	130,000	ug/kg	NA	640 U [870 U]	NA	NA	120 U	120 U	NA	NA

Table 1
Summary of Soil Sample Analytical Results

National Grid
Dewey/Kensington Avenue Service Center
Buffalo, New York

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	DER10 Commercial Use SCO	Units	B-7 1.7 - 3.7 02/15/22 B-7 (1.7-3.7)	B-7 3.7 - 5.1 02/15/22 B-7 (3.7-5.1)	B-8 1.5 - 2 02/14/22 B-8 (1.5-2.0)	B-8 2 - 4 02/14/22 B-8 (2.0-4.0)	B-9 1 - 1.5 02/10/22 B-9 (1.0-1.5)	B-9 3.5 - 5.5 02/10/22 B-9 (3.5-5.5)	B-10 1.1 - 1.6 02/08/22 B-10 (1.1-1.6)	B-10 3.6 - 5.6 02/08/22 B-10 (3.6-5.6)
PCBs (ppm)										
PCB-1016	- -	mg/kg	NA	0.22 U	2.6 U	0.30 UJ	1.2 UJ	0.23 U	14 UJ [13 UJ]	0.29 U
PCB-1221	- -	mg/kg	NA	0.22 U	2.6 U	0.30 UJ	1.2 UJ	0.23 U	14 UJ [13 UJ]	0.29 U
PCB-1232	- -	mg/kg	NA	0.22 U	2.6 U	0.30 UJ	1.2 UJ	0.23 U	14 UJ [13 UJ]	0.29 U
PCB-1242	- -	mg/kg	NA	0.22 U	**41**	**3.3 J**	**14 J**	**0.15 J**	**110J [110J]**	**0.35 J**
PCB-1248	- -	mg/kg	NA	0.22 U	2.6 U	0.30 UJ	1.2 UJ	0.23 U	14 UJ [13 UJ]	0.29 U
PCB-1254	- -	mg/kg	NA	0.22 U	2.6 U	0.30 UJ	1.2 UJ	0.23 U	14 UJ [13 UJ]	0.29 U
PCB-1260	- -	mg/kg	NA	0.22 U	2.6 U	0.30 UJ	1.2 UJ	**0.29**	14 UJ [13 UJ]	0.29 U
Total PCBs	1	mg/kg	NA	0.22 U	**41**	**3.3 J**	**14 J**	**0.44 J**	**110J [110J]**	**0.35 J**
PFAS (ppb)										
6:2 Fluorotelomer sulfonic acid	- -	ng/g	0.25 U	NA	NA	NA	NA	NA	NA	NA
8:2 Fluorotelomer sulfonic acid	- -	ng/g	0.25 U	NA	NA	NA	NA	NA	NA	NA
NEtFOSAA	- -	ng/g	0.25 U	NA	NA	NA	NA	NA	NA	NA
NMeFOSAA	- -	ng/g	0.25 U	NA	NA	NA	NA	NA	NA	NA
Perfluorobutanoic acid	- -	ng/g	**0.031 J**	NA	NA	NA	NA	NA	NA	NA
Perfluorodecanesulfonic acid	- -	ng/g	0.25 U	NA	NA	NA	NA	NA	NA	NA
Perfluorodecanoic acid	- -	ng/g	**0.031 J**	NA	NA	NA	NA	NA	NA	NA
Perfluorododecanoic acid	- -	ng/g	0.25 U	NA	NA	NA	NA	NA	NA	NA
Perfluoroheptanesulfonic acid	- -	ng/g	0.25 U	NA	NA	NA	NA	NA	NA	NA
Perfluoroheptanoic acid	- -	ng/g	**0.039 J**	NA	NA	NA	NA	NA	NA	NA
Perfluorohexanesulfonic acid	- -	ng/g	0.25 U	NA	NA	NA	NA	NA	NA	NA
Perfluorohexanoic acid	- -	ng/g	**0.049 J**	NA	NA	NA	NA	NA	NA	NA
Perfluorononanoic acid	- -	ng/g	**0.10 J**	NA	NA	NA	NA	NA	NA	NA
Perfluorooctanesulfonamide	- -	ng/g	0.25 U	NA	NA	NA	NA	NA	NA	NA
Perfluorooctanesulfonic acid	440	ng/g	**0.22 J**	NA	NA	NA	NA	NA	NA	NA
Perfluorooctanoic acid	500	ng/g	**0.11 J**	NA	NA	NA	NA	NA	NA	NA
Perfluoropentanoic acid	- -	ng/g	**0.031 J**	NA	NA	NA	NA	NA	NA	NA
Perfluorotetradecanoic acid	- -	ng/g	0.25 U	NA	NA	NA	NA	NA	NA	NA
Perfluorotridecanoic acid	- -	ng/g	0.25 U	NA	NA	NA	NA	NA	NA	NA
Perfluoroundecanoic acid	- -	ng/g	0.25 U	NA	NA	NA	NA	NA	NA	NA
Total PFAS	- -	ng/g	**0.61 J**	NA	NA	NA	NA	NA	NA	NA
SVOCs (ppb)										
1,4-Dioxane	130,000	ug/kg	130 U	NA	NA	NA	NA	NA	NA	NA

Table 1
Summary of Soil Sample Analytical Results

National Grid
Dewey/Kensington Avenue Service Center
Buffalo, New York

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	DER10 Commercial Use SCO	Units	B-11 1.2 - 1.7 02/16/22 B-11 (1.2-1.7)	B-11 3.7 - 5.7 02/16/22 B-11 (3.7-5.7)	B-12 1.3 - 1.8 02/15/22 B-12 (1.3-1.8)	B-12 3.8 - 5.8 02/15/22 B-12 (3.8-5.8)	B-13 1.1 - 1.6 02/10/22 B-13 (1.1-1.6)	B-13 3.6 - 5.6 02/10/22 B-13 (3.6-5.6)	B-14 1.3 - 1.8 02/09/22 B-14 (1.3-1.8)
PCBs (ppm)									
PCB-1016	- -	mg/kg	0.23 U [0.21 U]	0.23 U	2.7 U	0.26 U	2.4 UJ	0.24 U	1.3 UJ
PCB-1221	- -	mg/kg	0.23 U [0.21 U]	0.23 U	2.7 U	0.26 U	2.4 UJ	0.24 U	1.3 UJ
PCB-1232	- -	mg/kg	0.23 U [0.21 U]	0.23 U	2.7 U	0.26 U	2.4 UJ	0.24 U	1.3 UJ
PCB-1242	- -	mg/kg	**0.41 [0.21 U]**	**0.50**	2.7 U	0.26 U	**1.9 J**	**0.24**	1.3 UJ
PCB-1248	- -	mg/kg	0.23 U [0.21 U]	0.23 U	**25 J**	0.26 U	2.4 UJ	0.24 U	**13 J**
PCB-1254	- -	mg/kg	0.23 U [0.21 U]	0.23 U	2.7 U	0.26 U	2.4 UJ	0.24 U	1.3 UJ
PCB-1260	- -	mg/kg	0.23 U [0.21 U]	0.23 U	2.7 U	0.26 U	**34J**	**0.16 J**	1.3 UJ
Total PCBs	1	mg/kg	**0.41 [ND]**	**0.50**	**25 J**	0.26 U	**36 J**	**0.40 J**	**13 J**
PFAS (ppb)									
6:2 Fluorotelomer sulfonic acid	- -	ng/g	NA	NA	NA	NA	NA	0.25 U	NA
8:2 Fluorotelomer sulfonic acid	- -	ng/g	NA	NA	NA	NA	NA	0.25 U	NA
NEtFOSAA	- -	ng/g	NA	NA	NA	NA	NA	0.25 U	NA
NMeFOSAA	- -	ng/g	NA	NA	NA	NA	NA	0.25 U	NA
Perfluorobutanoic acid	- -	ng/g	NA	NA	NA	NA	NA	0.25 U	NA
Perfluorodecanesulfonic acid	- -	ng/g	NA	NA	NA	NA	NA	0.25 U	NA
Perfluorodecanoic acid	- -	ng/g	NA	NA	NA	NA	NA	0.25 U	NA
Perfluorododecanoic acid	- -	ng/g	NA	NA	NA	NA	NA	0.25 U	NA
Perfluoroheptanesulfonic acid	- -	ng/g	NA	NA	NA	NA	NA	0.25 U	NA
Perfluoroheptanoic acid	- -	ng/g	NA	NA	NA	NA	NA	0.25 U	NA
Perfluorohexanesulfonic acid	- -	ng/g	NA	NA	NA	NA	NA	0.25 U	NA
Perfluorohexanoic acid	- -	ng/g	NA	NA	NA	NA	NA	0.25 U	NA
Perfluorononanoic acid	- -	ng/g	NA	NA	NA	NA	NA	0.25 U	NA
Perfluorooctanesulfonamide	- -	ng/g	NA	NA	NA	NA	NA	0.25 U	NA
Perfluorooctanesulfonic acid	440	ng/g	NA	NA	NA	NA	NA	0.25 U	NA
Perfluorooctanoic acid	500	ng/g	NA	NA	NA	NA	NA	0.25 U	NA
Perfluoropentanoic acid	- -	ng/g	NA	NA	NA	NA	NA	0.25 U	NA
Perfluorotetradecanoic acid	- -	ng/g	NA	NA	NA	NA	NA	0.25 U	NA
Perfluorotridecanoic acid	- -	ng/g	NA	NA	NA	NA	NA	0.25 U	NA
Perfluoroundecanoic acid	- -	ng/g	NA	NA	NA	NA	NA	0.25 U	NA
Total PFAS	- -	ng/g	NA	NA	NA	NA	NA	**0.51 U**	NA
SVOCs (ppb)									
1,4-Dioxane	130,000	ug/kg	NA	NA	NA	NA	NA	120 U	NA

Table 1
Summary of Soil Sample Analytical Results

National Grid
Dewey/Kensington Avenue Service Center
Buffalo, New York

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	DER10 Commercial Use SCO	Units	B-14 3.8 - 5.8 02/09/22 B-14 (3.8-5.8)	B-15 1 - 1.5 02/08/22 B-15 (1.0-1.5)	B-15 5.5 - 7.5 02/08/22 B-15 (5.5-7.5)	B-16 1.2 - 1.7 02/16/22 B-16 (1.2-1.7)	B-16 1.7 - 3.7 02/16/22 B-16 (1.7-3.7)	B-16 3.7 - 5.7 02/16/22 B-16 (3.7-5.7)	B-17 1.3 - 1.8 02/15/22 B-17 (1.3-1.8)
PCBs (ppm)									
PCB-1016	- -	mg/kg	2.8 UJ	1.4 U	2.5 U	0.22 U	NA	0.32 U	0.27 U
PCB-1221	- -	mg/kg	2.8 UJ	1.4 U	2.5 U	0.22 U	NA	0.32 U	0.27 U
PCB-1232	- -	mg/kg	2.8 UJ	1.4 U	2.5 U	0.22 U	NA	0.32 U	0.27 U
PCB-1242	- -	mg/kg	**29 J**	1.4 U	**36**	**1.5**	NA	**8.5**	0.27 U
PCB-1248	- -	mg/kg	2.8 UJ	**19 J**	2.5 U	0.22 U	NA	0.32 U	0.27 U
PCB-1254	- -	mg/kg	2.8 UJ	1.4 U	2.5 U	0.22 U	NA	0.32 U	0.27 U
PCB-1260	- -	mg/kg	2.8 UJ	1.4 U	2.5 U	0.22 U	NA	0.32 U	0.27 U
Total PCBs	1	mg/kg	**29 J**	**19 J**	**36**	**1.5**	NA	**8.5**	0.27 U
PFAS (ppb)									
6:2 Fluorotelomer sulfonic acid	- -	ng/g	**1.0**	NA	NA	NA	0.24 U	NA	NA
8:2 Fluorotelomer sulfonic acid	- -	ng/g	0.24 U	NA	NA	NA	0.24 U	NA	NA
NEtFOSAA	- -	ng/g	**0.035 J**	NA	NA	NA	0.24 U	NA	NA
NMeFOSAA	- -	ng/g	0.24 U	NA	NA	NA	0.24 U	NA	NA
Perfluorobutanoic acid	- -	ng/g	0.24 U	NA	NA	NA	0.24 U	NA	NA
Perfluorodecanesulfonic acid	- -	ng/g	0.24 U	NA	NA	NA	**0.13 J**	NA	NA
Perfluorodecanoic acid	- -	ng/g	0.24 U	NA	NA	NA	**0.038 J**	NA	NA
Perfluorododecanoic acid	- -	ng/g	0.24 U	NA	NA	NA	**0.15 J**	NA	NA
Perfluoroheptanesulfonic acid	- -	ng/g	0.24 U	NA	NA	NA	0.24 U	NA	NA
Perfluoroheptanoic acid	- -	ng/g	0.24 U	NA	NA	NA	0.24 U	NA	NA
Perfluorohexanesulfonic acid	- -	ng/g	0.24 U	NA	NA	NA	0.24 U	NA	NA
Perfluorohexanoic acid	- -	ng/g	0.24 U	NA	NA	NA	0.24 U	NA	NA
Perfluorononanoic acid	- -	ng/g	0.24 U	NA	NA	NA	0.24 U	NA	NA
Perfluorooctanesulfonamide	- -	ng/g	0.24 U	NA	NA	NA	0.24 U	NA	NA
Perfluorooctanesulfonic acid	440	ng/g	**0.12 J**	NA	NA	NA	**0.16 J**	NA	NA
Perfluorooctanoic acid	500	ng/g	0.24 U	NA	NA	NA	0.24 U	NA	NA
Perfluoropentanoic acid	- -	ng/g	0.24 U	NA	NA	NA	0.24 U	NA	NA
Perfluorotetradecanoic acid	- -	ng/g	0.24 U	NA	NA	NA	**0.029 J**	NA	NA
Perfluorotridecanoic acid	- -	ng/g	0.24 U	NA	NA	NA	0.24 U	NA	NA
Perfluoroundecanoic acid	- -	ng/g	0.24 U	NA	NA	NA	**0.067 J**	NA	NA
Total PFAS	- -	ng/g	**1.2 J**	NA	NA	NA	**0.57 J**	NA	NA
SVOCs (ppb)									
1,4-Dioxane	130,000	ug/kg	120 U	NA	NA	NA	120 U	NA	NA

Table 1
Summary of Soil Sample Analytical Results

National Grid
Dewey/Kensington Avenue Service Center
Buffalo, New York

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	DER10 Commercial Use SCO	Units	B-17 3.8 - 5.8 02/15/22 B-17 (3.8-5.8)	B-18 1.2 - 1.7 02/09/22 B-18 (1.2-1.7)	B-18 1.7 - 3.7 02/09/22 B-18 (1.7-3.7)	B-18 3.7 - 5.7 02/09/22 B-18 (3.7-5.7)	B-19 1.3 - 1.8 02/09/22 B-19 (1.3-1.8)	B-19 3.8 - 5.8 02/09/22 B-19 (3.8-5.8)	B-20 1.9 - 2.4 02/08/22 B-20 (1.9-2.4)
PCBs (ppm)									
PCB-1016	- -	mg/kg	NA	0.25 U	0.22 U	0.26 U	5.2 U	0.24 U	0.21 U
PCB-1221	- -	mg/kg	NA	0.25 U	0.22 U	0.26 U	5.2 U	0.24 U	0.21 U
PCB-1232	- -	mg/kg	NA	0.25 U	0.22 U	0.26 U	5.2 U	0.24 U	0.21 U
PCB-1242	- -	mg/kg	NA	0.25 U	0.22 U	0.26 U	5.2 U	**0.80**	0.21 U
PCB-1248	- -	mg/kg	NA	**4.0**	0.22 U	0.26 U	**83 J**	0.24 U	0.21 U
PCB-1254	- -	mg/kg	NA	0.25 U	**0.51**	0.26 U	5.2 U	0.24 U	0.21 U
PCB-1260	- -	mg/kg	NA	0.25 U	0.22 U	0.26 U	5.2 U	0.24 U	**0.17 J**
Total PCBs	1	mg/kg	NA	**4.0**	**0.51**	0.26 U	**83 J**	**0.80**	**0.17 J**
PFAS (ppb)									
6:2 Fluorotelomer sulfonic acid	- -	ng/g	0.26 U	NA	**0.61**	NA	NA	NA	NA
8:2 Fluorotelomer sulfonic acid	- -	ng/g	0.26 U	NA	0.22 U	NA	NA	NA	NA
NEtFOSAA	- -	ng/g	0.26 U	NA	0.22 U	NA	NA	NA	NA
NMeFOSAA	- -	ng/g	0.26 U	NA	0.22 U	NA	NA	NA	NA
Perfluorobutanoic acid	- -	ng/g	0.26 U	NA	0.22 U	NA	NA	NA	NA
Perfluorodecanesulfonic acid	- -	ng/g	0.26 U	NA	0.22 U	NA	NA	NA	NA
Perfluorodecanoic acid	- -	ng/g	0.26 U	NA	**0.077 J**	NA	NA	NA	NA
Perfluorododecanoic acid	- -	ng/g	0.26 U	NA	0.22 U	NA	NA	NA	NA
Perfluoroheptanesulfonic acid	- -	ng/g	0.26 U	NA	0.22 U	NA	NA	NA	NA
Perfluoroheptanoic acid	- -	ng/g	0.26 U	NA	0.22 U	NA	NA	NA	NA
Perfluorohexanesulfonic acid	- -	ng/g	0.26 U	NA	0.22 U	NA	NA	NA	NA
Perfluorohexanoic acid	- -	ng/g	0.26 U	NA	0.22 U	NA	NA	NA	NA
Perfluorononanoic acid	- -	ng/g	**0.032 J**	NA	0.22 U	NA	NA	NA	NA
Perfluorooctanesulfonamide	- -	ng/g	0.26 U	NA	0.22 U	NA	NA	NA	NA
Perfluorooctanesulfonic acid	440	ng/g	**0.061 J**	NA	**0.66**	NA	NA	NA	NA
Perfluorooctanoic acid	500	ng/g	**0.074 J**	NA	**0.033 J**	NA	NA	NA	NA
Perfluoropentanoic acid	- -	ng/g	0.26 U	NA	0.22 U	NA	NA	NA	NA
Perfluorotetradecanoic acid	- -	ng/g	0.26 U	NA	0.22 U	NA	NA	NA	NA
Perfluorotridecanoic acid	- -	ng/g	0.26 U	NA	0.22 U	NA	NA	NA	NA
Perfluoroundecanoic acid	- -	ng/g	0.26 U	NA	0.22 U	NA	NA	NA	NA
Total PFAS	- -	ng/g	**0.17 J**	NA	**1.4 J**	NA	NA	NA	NA
SVOCs (ppb)									
1,4-Dioxane	130,000	ug/kg	130 U	NA	110 U	NA	NA	NA	NA

Table 1
Summary of Soil Sample Analytical Results

National Grid
Dewey/Kensington Avenue Service Center
Buffalo, New York

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	DER10 Commercial Use SCO	Units	B-20 4.4 - 6.4 02/08/22 B-20 (4.4-6.4)	B-21 1.2 - 1.7 02/14/22 B-21 (1.2-1.7)	B-21 3.7 - 5.7 02/14/22 B-21 (3.7-5.7)	B-22 0.8 - 1.3 02/14/22 B-22 (0.8-1.3)	B-22 3.3 - 5.3 02/14/22 B-22 (3.3-5.3)	B-22 5.3 - 7.3 02/14/22 B-22 (5.3-7.3)	B-23 0.8 - 1.3 02/08/22 B-23 (0.8-1.3)
PCBs (ppm)									
PCB-1016	- -	mg/kg	0.26 U	0.21 UJ [0.27 UJ]	0.26 UJ	2.1 U	NA	0.23 UJ	1.4 U
PCB-1221	- -	mg/kg	0.26 U	0.21 UJ [0.27 UJ]	0.26 UJ	2.1 U	NA	0.23 UJ	1.4 U
PCB-1232	- -	mg/kg	0.26 U	0.21 UJ [0.27 UJ]	0.26 UJ	2.1 U	NA	0.23 UJ	1.4 U
PCB-1242	- -	mg/kg	**0.22 J**	0.21 UJ [0.27 UJ]	0.26 UJ	2.1 U	NA	0.23 UJ	1.4 U
PCB-1248	- -	mg/kg	0.26 U	0.21 UJ [**0.90J**]	0.26 UJ	2.1 U	NA	0.23 UJ	1.4 U
PCB-1254	- -	mg/kg	0.26 U	**0.58J [0.27 UJ]**	0.26 UJ	2.1 U	NA	0.23 UJ	1.4 U
PCB-1260	- -	mg/kg	0.26 U	0.21 UJ [**0.43J**]	0.26 UJ	**25**	NA	0.23 UJ	**12**
Total PCBs	1	mg/kg	**0.22 J**	**0.58J [1.3J]**	0.26 UJ	**25**	NA	0.23 UJ	**12**
PFAS (ppb)									
6:2 Fluorotelomer sulfonic acid	- -	ng/g	0.24 U	NA	NA	NA	0.21 U	NA	NA
8:2 Fluorotelomer sulfonic acid	- -	ng/g	0.24 U	NA	NA	NA	0.21 U	NA	NA
NEtFOSAA	- -	ng/g	0.24 U	NA	NA	NA	0.21 U	NA	NA
NMeFOSAA	- -	ng/g	0.24 U	NA	NA	NA	0.21 U	NA	NA
Perfluorobutanoic acid	- -	ng/g	**0.033 J**	NA	NA	NA	0.21 U	NA	NA
Perfluorodecanesulfonic acid	- -	ng/g	0.24 U	NA	NA	NA	0.21 U	NA	NA
Perfluorodecanoic acid	- -	ng/g	0.24 U	NA	NA	NA	0.21 U	NA	NA
Perfluorododecanoic acid	- -	ng/g	0.24 U	NA	NA	NA	0.21 U	NA	NA
Perfluoroheptanesulfonic acid	- -	ng/g	0.24 U	NA	NA	NA	0.21 U	NA	NA
Perfluoroheptanoic acid	- -	ng/g	0.24 U	NA	NA	NA	0.21 U	NA	NA
Perfluorohexanesulfonic acid	- -	ng/g	0.24 U	NA	NA	NA	0.21 U	NA	NA
Perfluorohexanoic acid	- -	ng/g	0.24 U	NA	NA	NA	0.21 U	NA	NA
Perfluorononanoic acid	- -	ng/g	0.24 U	NA	NA	NA	0.21 U	NA	NA
Perfluorooctanesulfonamide	- -	ng/g	0.24 U	NA	NA	NA	0.21 U	NA	NA
Perfluorooctanesulfonic acid	440	ng/g	0.24 U	NA	NA	NA	0.21 U	NA	NA
Perfluorooctanoic acid	500	ng/g	**0.047 J**	NA	NA	NA	**0.055 J**	NA	NA
Perfluoropentanoic acid	- -	ng/g	0.24 U	NA	NA	NA	0.21 U	NA	NA
Perfluorotetradecanoic acid	- -	ng/g	0.24 U	NA	NA	NA	0.21 U	NA	NA
Perfluorotridecanoic acid	- -	ng/g	0.24 U	NA	NA	NA	0.21 U	NA	NA
Perfluoroundecanoic acid	- -	ng/g	0.24 U	NA	NA	NA	0.21 U	NA	NA
Total PFAS	- -	ng/g	**0.080 J**	NA	NA	NA	**0.055 J**	NA	NA
SVOCs (ppb)									
1,4-Dioxane	130,000	ug/kg	120 U	NA	NA	NA	110 U	NA	NA

Table 1
Summary of Soil Sample Analytical Results

National Grid
Dewey/Kensington Avenue Service Center
Buffalo, New York

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	DER10 Commercial Use SCO	Units	B-23 5.3 - 7.3 02/08/22 B-23 (5.3-7.3)	B-24 1.2 - 1.7 12/21/22 B-24 (1.2-1.7)	B-24 3.2 - 5.0 12/21/22 B-24 (3.2-5.0)	B-25 1.0 - 1.5 21/21/22 B-25 (1.0-1.5)	B-25 3.0 - 4.2 12/21/22 B-25 (3.0-4.2)	B-26 1.0 - 1.5 12/20/22 B-26 (1.0-1.5)	B-26 3.0 - 4.2 12/20/22 B-26 (3.0-4.2)	B-27 0.75 - 1.25 12/19/22 B-27 (0.75-1.25)
PCBs (ppm)										
PCB-1016	- -	mg/kg	0.30 U	56 U	21 UJ [28 UJ]	1.8 U	0.23 U	0.30 U	0.27 U [0.23 U]	2.7 U
PCB-1221	- -	mg/kg	0.30 U	56 U	21 UJ [28 UJ]	1.8 U	0.23 U	0.30 U	0.27 U [0.23 U]	2.7 U
PCB-1232	- -	mg/kg	0.30 U	56 U	21 UJ [28 UJ]	1.8 U	0.23 U	0.30 U	0.27 U [0.23 U]	2.7 U
PCB-1242	- -	mg/kg	0.30 U	**1,600**	**600 J [300 J]**	**19**	0.23 U	**3.0**	**0.31** [0.023 U]	**27**
PCB-1248	- -	mg/kg	0.30 U	56 U	21 UJ [28 UJ]	1.8 U	0.23 U	0.30 U	0.27 U [0.23 U]	2.7 U
PCB-1254	- -	mg/kg	0.30 U	56 U	21 UJ [28 UJ]	1.8 U	0.23 U	0.30 U	0.27 U [0.23 U]	2.7 U
PCB-1260	- -	mg/kg	0.30 U	56 U	21 UJ [28 UJ]	**2.3**	0.23 U	0.30 U	0.27 U [0.23 U]	**2.4 J**
Total PCBs	1	mg/kg	0.30 U	**1,600**	**600 J [300 J]**	**21.3**	0.23 U	**3.0**	**0.31 [0.073 J]**	**29.4 J**
PFAS (ppb)										
6:2 Fluorotelomer sulfonic acid	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
8:2 Fluorotelomer sulfonic acid	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
NEtFOSAA	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
NMeFOSAA	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorobutanoic acid	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorodecanesulfonic acid	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorodecanoic acid	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorododecanoic acid	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
Perfluoroheptanesulfonic acid	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
Perfluoroheptanoic acid	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorohexanesulfonic acid	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorohexanoic acid	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorononanoic acid	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorooctanesulfonamide	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorooctanesulfonic acid	440	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorooctanoic acid	500	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
Perfluoropentanoic acid	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorotetradecanoic acid	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorotridecanoic acid	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
Perfluoroundecanoic acid	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
Total PFAS	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs (ppb)										
1,4-Dioxane	130,000	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA

Table 1
Summary of Soil Sample Analytical Results

National Grid
Dewey/Kensington Avenue Service Center
Buffalo, New York

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	DER10 Commercial Use SCO	Units	B-27 2.75 - 4.75 12/19/22 B-27 (2.75-4.75)	B-28 1.0 - 1.5 12/20/22 B-28 (1.0-1.5)	B-28 3.0 - 5.0 12/20/22 B-28 (3.0-5.0)	B-28 5.0 - 5.9 12/20/22 B-28 (5.0-5.9)	B-29 0.7 - 1.2 12/20/22 B-29 (0.7-1.2)	B-29 4.7 - 5.9 12/20/22 B-29 (4.7-5.9)	B-30 1.0 - 1.5 12/20/22 B-30 (1.0-1.5)	B-30 5.0 - 7.0 12/20/22 B-23 (5.0-7.0)
PCBs (ppm)										
PCB-1016	- -	mg/kg	0.23 U	22 UJ	0.23 U	21 UJ	5.9 U	0.21 U	5.6 UJ	0.24 U
PCB-1221	- -	mg/kg	0.23 U	22 UJ	0.23 U	21 UJ	5.9 U	0.21 U	5.6 UJ	0.24 U
PCB-1232	- -	mg/kg	0.23 U	22 UJ	0.23 U	21 UJ	5.9 U	0.21 U	5.6 UJ	0.24 U
PCB-1242	- -	mg/kg	0.23 U	**290 J**	**4.6**	**570 J**	**74**	0.21 U	**72 J**	0.24 U
PCB-1248	- -	mg/kg	0.23 U	22 UJ	0.23 U	21 UJ	5.9 U	0.21 U	5.6 UJ	0.24 U
PCB-1254	- -	mg/kg	0.23 U	22 UJ	0.23 U	21 UJ	5.9 U	0.21 U	5.6 UJ	0.24 U
PCB-1260	- -	mg/kg	0.23 U	22 UJ	0.23 U	21 UJ	5.9 U	0.21 U	5.6 UJ	0.24 U
Total PCBs	1	mg/kg	0.23 U	**290 J**	**4.6**	**570 J**	**74**	0.21 U	**72 J**	0.24 U
PFAS (ppb)										
6:2 Fluorotelomer sulfonic acid	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
8:2 Fluorotelomer sulfonic acid	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
NEtFOSAA	- -	ng/g	NA		NA	NA	NA	NA	NA	NA
NMeFOSAA	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorobutanoic acid	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorodecanesulfonic acid	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorodecanoic acid	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorododecanoic acid	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
Perfluoroheptanesulfonic acid	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
Perfluoroheptanoic acid	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorohexanesulfonic acid	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorohexanoic acid	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorononanoic acid	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorooctanesulfonamide	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorooctanesulfonic acid	440	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorooctanoic acid	500	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
Perfluoropentanoic acid	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorotetradecanoic acid	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorotridecanoic acid	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
Perfluoroundecanoic acid	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
Total PFAS	- -	ng/g	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs (ppb)										
1,4-Dioxane	130,000	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA

Table 1
Summary of Soil Sample Analytical Results

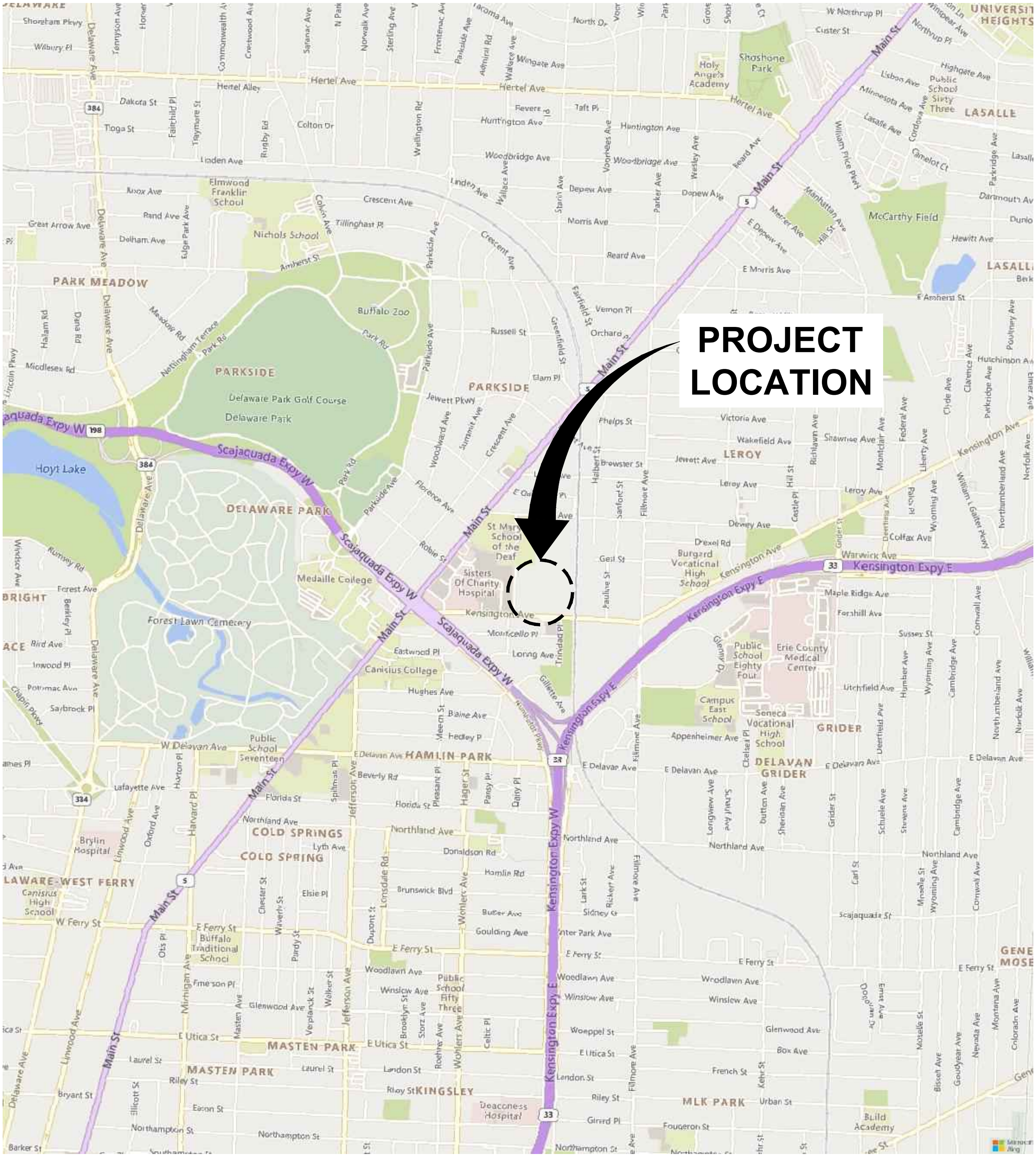
National Grid
Dewey/Kensington Avenue Service Center
Buffalo, New York

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	DER10 Commercial Use SCO	Units	B-31 1.0 - 1.5 12/20/22 B-31 (1.0-1.5)	B-31 5.0 - 7.0 12/20/22 B-31 (5.0-7.0)
PCBs (ppm)				
PCB-1016	- -	mg/kg	0.25 U	0.26 U
PCB-1221	- -	mg/kg	0.25 U	0.30 U
PCB-1232	- -	mg/kg	0.25 U	0.30 U
PCB-1242	- -	mg/kg	**18**	0.26 U
PCB-1248	- -	mg/kg	0.25 U	0.30 U
PCB-1254	- -	mg/kg	0.25 U	0.30 U
PCB-1260	- -	mg/kg	**1.4 J**	0.30 U
Total PCBs	1	mg/kg	**19.4 J**	0.26 U
PFAS (ppb)				
6:2 Fluorotelomer sulfonic acid	- -	ng/g	NA	NA
8:2 Fluorotelomer sulfonic acid	- -	ng/g	NA	NA
NEtFOSAA	- -	ng/g	NA	NA
NMeFOSAA	- -	ng/g	NA	NA
Perfluorobutanoic acid	- -	ng/g	NA	NA
Perfluorodecanesulfonic acid	- -	ng/g	NA	NA
Perfluorodecanoic acid	- -	ng/g	NA	NA
Perfluorododecanoic acid	- -	ng/g	NA	NA
Perfluoroheptanesulfonic acid	- -	ng/g	NA	NA
Perfluoroheptanoic acid	- -	ng/g	NA	NA
Perfluorohexanesulfonic acid	- -	ng/g	NA	NA
Perfluorohexanoic acid	- -	ng/g	NA	NA
Perfluorononanoic acid	- -	ng/g	NA	NA
Perfluorooctanesulfonamide	- -	ng/g	NA	NA
Perfluorooctanesulfonic acid	440	ng/g	NA	NA
Perfluorooctanoic acid	500	ng/g	NA	NA
Perfluoropentanoic acid	- -	ng/g	NA	NA
Perfluorotetradecanoic acid	- -	ng/g	NA	NA
Perfluorotridecanoic acid	- -	ng/g	NA	NA
Perfluoroundecanoic acid	- -	ng/g	NA	NA
Total PFAS	- -	ng/g	NA	NA
SVOCs (ppb)				
1,4-Dioxane	130,000	ug/kg	NA	NA

Table
Summary of Soil Sample Analytical Results

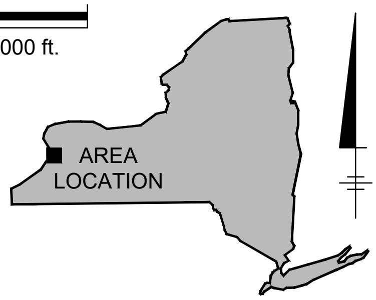
Notes:	
1.	Bold vaule means compound was detected in sample
2	Shaded value means the detected concentration exceeds the referenced NYSDEC soil cleanup criteria
3.	J = Estimated Value
2.	ND = Not Detected
3.	ppm = part per million
4.	ppb = parts per billion

Figures



0 2000' 4000'

Approximate Scale: 1 in. = 2000 ft.



NATIONAL GRID DEWEY/KENSINGTON SERVICE CENTER
CITY OF BUFFALO, ERIE COUNTY, NEW YORK

SWMU ASSESSMENT REPORT

SITE LOCATION MAP

ARCADIS

FIGURE **1**

C:\Users\bdeclercq\ACCDocs\Arcadis\AUS-NATIONAL GRID-KENSINGTON AVE-BUFFALO New York\Project Files\2023\01-In Progress\01-DWG\SWMU_Fig 1_Site Location Map.dwg SAVED: 3/24/2023 8:27 AM BY: DECLERCQ, BRIAN

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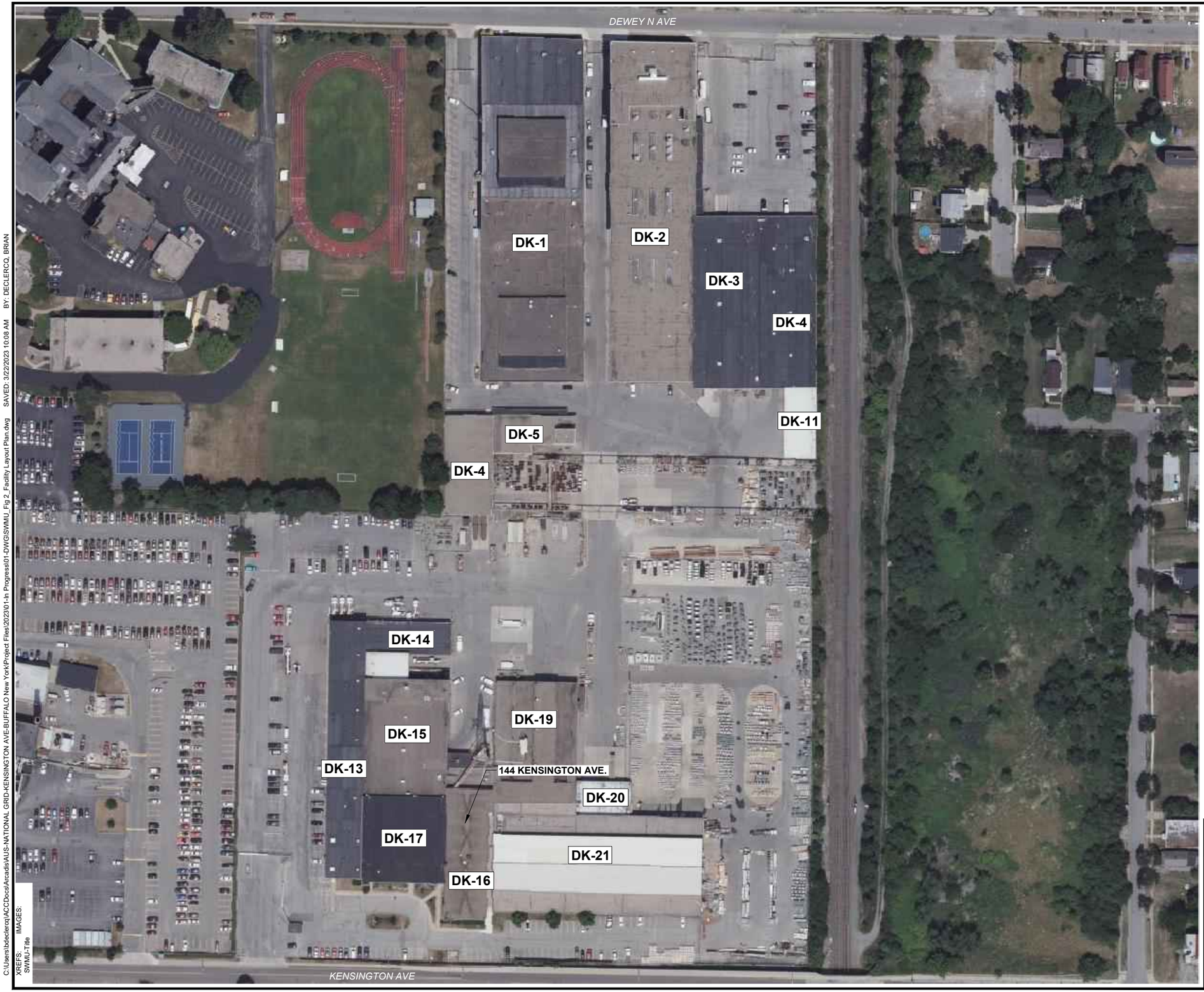

0 140' 280'

GRAPHIC SCALE

NATIONAL GRID DEWEY/KENSINGTON SERVICE CENTER
CITY OF BUFFALO, ERIE COUNTY, NEW YORK
SWMU ASSESSMENT REPORT

FACILITY LAYOUT PLAN

ARCADIS

FIGURE
2

C:\Users\bdeclercq\ACCDocs\Arcadis\AUS-NATIONAL GRID-KENSINGTON AVE-BUFFALO New York\Project Files\2023\01-In Progress\01-DWG\SWMU_Fig 2_Facility Layout Plan.dwg SAVED: 3/22/2023 10:08 AM BY: DECLERCQ, BRIAN
XREFS: IMAGES:
SWMU-Title

DK-21-2	
SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
1.2–2	ND

DK-21-6	
SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
1.1–2	5.69

DK-21-7	
SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
1.4–2	741

DK-21-13	
SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
1.5–2	96.3

TP-4 (DK6-WC-2)

TP-4 (DK6-WC-2)	
SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
0.5–6.8	7.47

DK-21-1	
SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
0.5–2	ND

DK-21-3	
SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
0.8–2	6.61

DK-21-5	
SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
1.2–8	ND

DK-21-4	
SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
0.8–8	ND

DK-21-9	
SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
1.1–8	ND

DK-21-10	
SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
1.2–2	ND

DK-21-12	
SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
1.9–8	6.43

DK-21-8	
SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
1.3–2	18.8

DK-21-11	
SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
0.8–2	45.7

B-01, B-02, B-03, B-04, B-05, B-06, B-07, B-08, B-09, B-10, B-11, B-12, B-13, B-14, B-15, B-16, B-17, B-18, B-19, B-20, B-21, B-22, B-23, B-24, B-25, B-26, B-27, B-28, B-29, B-30, B-31

DK-21-1, DK-21-2, DK-21-3, DK-21-4, DK-21-5, DK-21-6, DK-21-7, DK-21-8, DK-21-9, DK-21-10, DK-21-11, DK-21-12, DK-21-13

BLDG. #20

BLDG. #21

LEGEND:

- EXISTING SOIL SAMPLING LOCATION
- EXISTING TEST PIT
- NG KENSINGTON BORING LOCATION

NOTES:

1. SOIL PROBE LOCATIONS ARE APPROXIMATE.
2. IMAGERY OBTAINED FROM © 2023 MICROSOFT CORPORATION © 2023 MAXAR © CNES (2023) DISTRIBUTION AIRBUS DS © 2023 TOM TOM.
2, ND = NOT DETECTED.
4. ppm = PARTS PER MILLION.
5. EXISTING SOIL SAMPLES DK-21-1 THROUGH DK-21-13 COLLECTED IN MARCH 2021 BY GZA GEOENVIRONMENTAL SERVICES OF N.Y.
6. EXISTING SOIL SAMPLE DK-6 TEST PIT (TP-4) COLLECTED IN OCTOBER 2020 BY GZA GEOENVIRONMENTAL SERVICES OF N.Y.

0 30' 60'

GRAPHIC SCALE

NATIONAL GRID DEWEY/KENSINGTON SERVICE CENTE
RCITY OF BUFFALO, ERIE COUNTY, NEW YORK
SWMU ASSESSMENT REPORT

PREVIOUS SOIL ANALYTICAL DATA

ARCADIS

FIGURE
3

C:\Users\bdeclercq\ACCDocs\Arcadis\AUS-NATIONAL GRID-KENSINGTON AVE-BUFFALO New York\Project Files\2023\01-In Progress\01-DWG\SWMU_Fig 3_Prev Soil Data.dwg SAVED: 3/24/2023 9:00 AM BY: DECLERCQ, BRIAN

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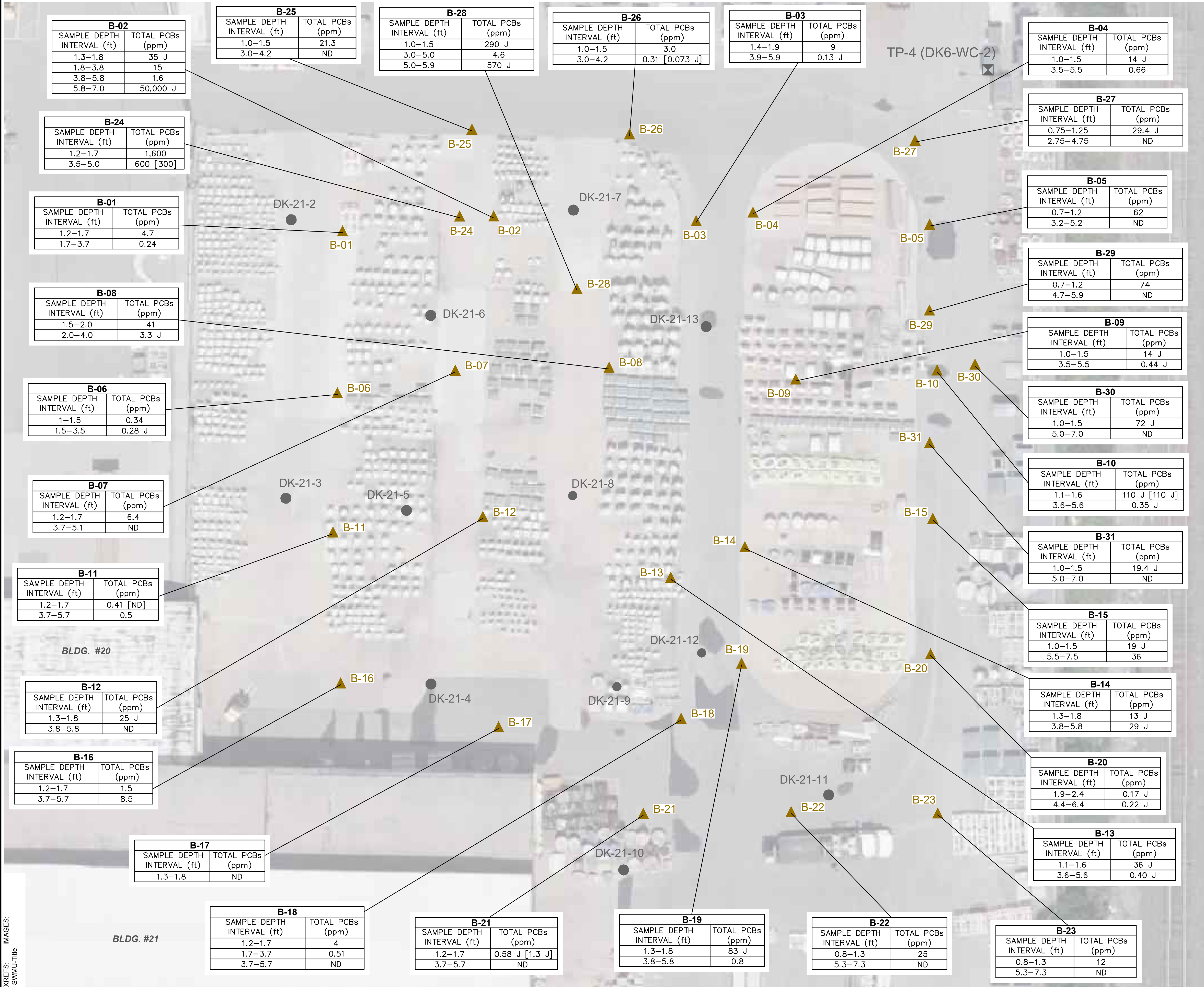
SWMU-Title



B-02

SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
1.3–1.8	35 J
1.8–3.8	15
3.8–5.8	1.6
5.8–7.0	50,000 J

B-25

SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
1.0–1.5	21.3
3.0–4.2	ND

B-28

SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
1.0–1.5	290 J
3.0–5.0	4.6
5.0–5.9	570 J

B-26

SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
1.0–1.5	3.0
3.0–4.2	0.31 [0.073 J]

B-03

SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
1.4–1.9	9
3.9–5.9	0.13 J

B-04

SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
1.0–1.5	14 J
3.5–5.5	0.66

B-24

SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
1.2–1.7	1,600
3.5–5.0	600 [300]

B-27

SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
0.75–1.25	29.4 J
2.75–4.75	ND

B-01

SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
1.2–1.7	4.7
1.7–3.7	0.24

B-05

SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
0.7–1.2	62
3.2–5.2	ND

B-29

SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
0.7–1.2	74
4.7–5.9	ND

B-08

SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
1.5–2.0	41
2.0–4.0	3.3 J

B-09

SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
1.0–1.5	14 J
3.5–5.5	0.44 J

B-06

SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
1–1.5	0.34
1.5–3.5	0.28 J

B-30

SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
1.0–1.5	72 J
5.0–7.0	ND

B-10

SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
1.1–1.6	110 J [110 J]
3.6–5.6	0.35 J

B-07

SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
1.2–1.7	6.4
3.7–5.1	ND

B-31

SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
1.0–1.5	19.4 J
5.0–7.0	ND

B-11

SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
1.2–1.7	0.41 [ND]
3.7–5.7	0.5

B-15

SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
1.0–1.5	19 J
5.5–7.5	36

B-12

SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
1.3–1.8	25 J
3.8–5.8	ND

B-14

SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
1.3–1.8	13 J
3.8–5.8	29 J

B-16

SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
1.2–1.7	1.5
3.7–5.7	8.5

B-20

SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
1.9–2.4	0.17 J
4.4–6.4	0.22 J

B-17

SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
1.3–1.8	ND

B-13

SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
1.1–1.6	36 J
3.6–5.6	0.40 J

B-18

SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
1.2–1.7	4
1.7–3.7	0.51
3.7–5.7	ND

B-21

SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
1.2–1.7	0.58 J [1.3 J]
3.7–5.7	ND

B-19

SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
1.3–1.8	83 J
3.8–5.8	0.8

B-22

SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
0.8–1.3	25
5.3–7.3	ND

B-23

SAMPLE DEPTH INTERVAL (ft)	TOTAL PCBs (ppm)
0.8–1.3	12
5.3–7.3	ND

LEGEND:

- EXISTING SOIL SAMPLING LOCATION
- EXISTING TEST PIT
- NG KENSINGTON BORING LOCATION

NOTES:

1. IMAGERY OBTAINED FROM © 2023 MICROSOFT CORPORATION © 2023 MAXAR © CNES (2023) DISTRIBUTION AIRBUS DS © 2023 TOM TOM.
2. PROPOSED SOIL BORING LOCATIONS ARE APPROXIMATE AND MAY BE ADJUSTED IN THE FIELD BASED ON FIELD CONDITIONS.
3. ND = NOT DETECTED.
4. ppm = PARTS PER MILLION.
5. J = INDICATES AN ESTIMATED VALUE.
6. BRACKETED VALUES INDICATE BLIND DUPLICATE SAMPLE RESULTS.

0 30' 60'
GRAPHIC SCALE

NATIONAL GRID DEWEY/KENSINGTON SERVICE CENTER
CITY OF BUFFALO, ERIE COUNTY, NEW YORK
SWMU ASSESSMENT REPORT

SOIL BORING DATA

ARCADIS

FIGURE
4

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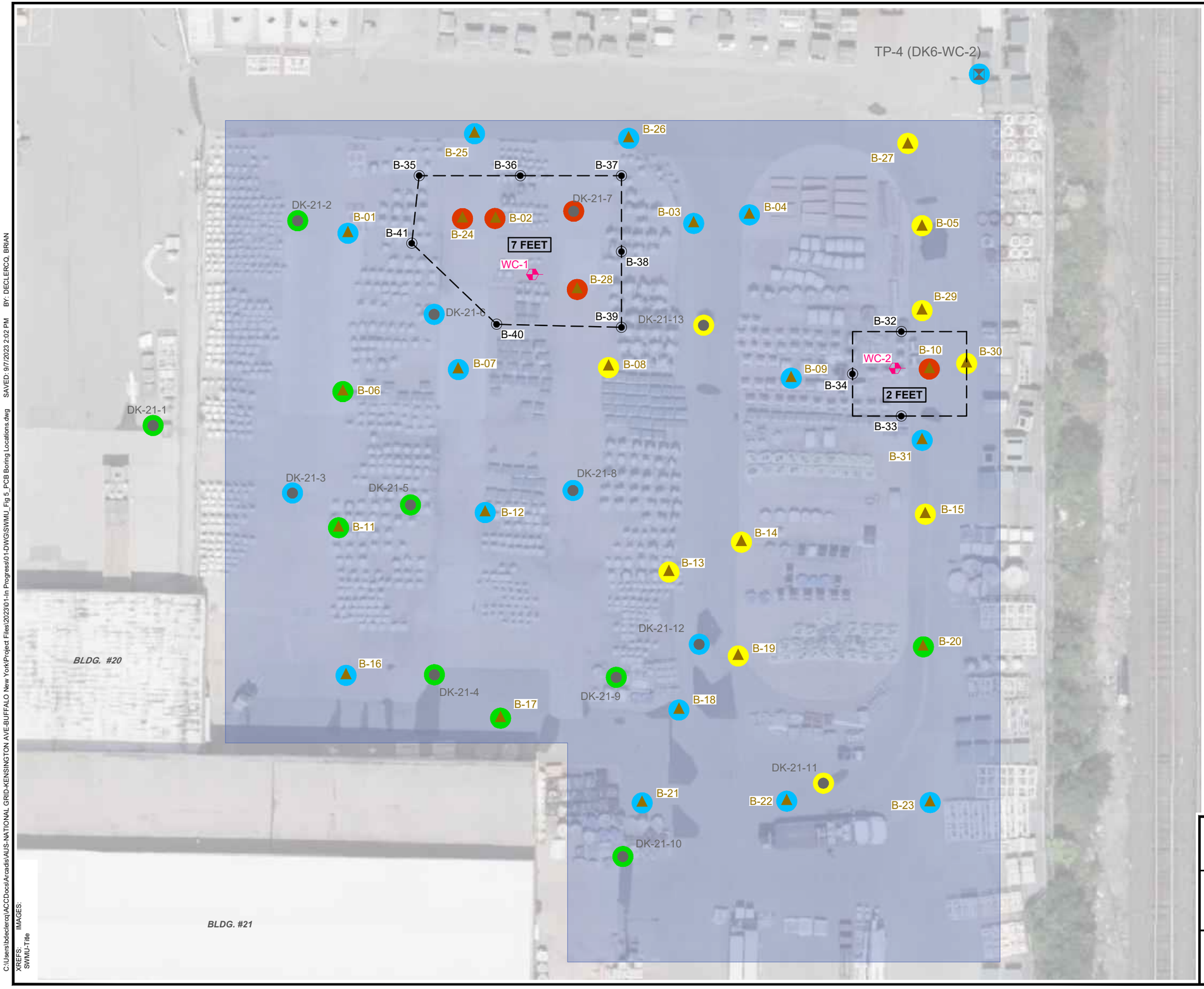

LEGEND:

- EXISTING SOIL SAMPLING LOCATION
- EXISTING TEST PIT
- NG KENSINGTON BORING LOCATION
- PROPOSED BORING LOCATION
- PROPOSED WASTE CHARACTERIZATION SAMPLE LOCATION
- < 1 PPM = GREEN
- > 1 PPM TO < 25 PPM = BLUE
- > 25 PPM TO < 100 PPM = YELLOW
- > 100 PPM = RED
- PROPOSED EXCAVATION AREA
- 2 FEET — PROPOSED EXCAVATION DEPTH
- BACKGROUND GAMMA SURVEY AREA

NOTES:

1. IMAGERY OBTAINED FROM © 2023 MICROSOFT CORPORATION © 2023 MAXAR © CNES (2023) DISTRIBUTION AIRBUS DS © 2023 TOM TOM.
2. PROPOSED SOIL BORING LOCATIONS ARE APPROXIMATE AND MAY BE ADJUSTED IN THE FIELD BASED ON FIELD CONDITIONS.

0 30' 60'

GRAPHIC SCALE

NATIONAL GRID DEWEY/KENSINGTON SERVICE CENTER
CITY OF BUFFALO, ERIE COUNTY, NEW YORK
SWMU ASSESSMENT PLAN

PCB DISTRIBUTION

ARCADIS

FIGURE 5

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XREFS: IMAGES:
SWMU-Title

Appendix A

Preliminary Investigation Analytical Results

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Analytical Report For

National Grid

For Lab Project ID

211229

Referencing

56912, Dewey-Kensington DK-21 WR#90000183727

Prepared

Tuesday, March 30, 2021

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 211229

Client: **National Grid**

Project Reference: 56912, Dewey-Kensington DK-21 WR#90000183727

Sample Identifier:	DK-21-1-032921		
Lab Sample ID:	211229-01	**Date Sampled:**	3/29/2021
Matrix:	Soil	**Date Received:**	3/29/2021

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 1.00	mg/Kg		3/30/2021 09:03
PCB-1221	< 1.00	mg/Kg		3/30/2021 09:03
PCB-1232	< 1.00	mg/Kg		3/30/2021 09:03
PCB-1242	< 1.00	mg/Kg		3/30/2021 09:03
PCB-1248	< 1.00	mg/Kg		3/30/2021 09:03
PCB-1254	< 1.00	mg/Kg		3/30/2021 09:03
PCB-1260	< 1.00	mg/Kg		3/30/2021 09:03
PCB-1262	< 1.00	mg/Kg		3/30/2021 09:03
PCB-1268	< 1.00	mg/Kg		3/30/2021 09:03

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Tetrachloro-m-xylene	**74.4**	18.8 - 97.4		3/30/2021 09:03

Method Reference(s): EPA 8082A
EPA 3546

Preparation Date: 3/29/2021

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 211229

Client: **National Grid**

Project Reference: 56912, Dewey-Kensington DK-21 WR#90000183727

Sample Identifier:	DK-21-2-032921		
Lab Sample ID:	211229-02	**Date Sampled:**	3/29/2021
Matrix:	Soil	**Date Received:**	3/29/2021

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 1.00	mg/Kg		3/30/2021 09:26
PCB-1221	< 1.00	mg/Kg		3/30/2021 09:26
PCB-1232	< 1.00	mg/Kg		3/30/2021 09:26
PCB-1242	< 1.00	mg/Kg		3/30/2021 09:26
PCB-1248	< 1.00	mg/Kg		3/30/2021 09:26
PCB-1254	< 1.00	mg/Kg		3/30/2021 09:26
PCB-1260	< 1.00	mg/Kg		3/30/2021 09:26
PCB-1262	< 1.00	mg/Kg		3/30/2021 09:26
PCB-1268	< 1.00	mg/Kg		3/30/2021 09:26

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Tetrachloro-m-xylene	**69.9**	18.8 - 97.4		3/30/2021 09:26

Method Reference(s): EPA 8082A
EPA 3546

Preparation Date: 3/29/2021

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 211229

Client: **National Grid**

Project Reference: 56912, Dewey-Kensington DK-21 WR#90000183727

Sample Identifier:	DK-21-3-032921		
Lab Sample ID:	211229-03	**Date Sampled:**	3/29/2021
Matrix:	Soil	**Date Received:**	3/29/2021

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 1.00	mg/Kg		3/30/2021 12:30
PCB-1221	< 1.00	mg/Kg		3/30/2021 12:30
PCB-1232	< 1.00	mg/Kg		3/30/2021 12:30
PCB-1242	< 1.00	mg/Kg		3/30/2021 12:30
PCB-1248	**6.61**	mg/Kg		3/30/2021 12:30
PCB-1254	< 1.00	mg/Kg		3/30/2021 12:30
PCB-1260	< 1.00	mg/Kg		3/30/2021 12:30
PCB-1262	< 1.00	mg/Kg		3/30/2021 12:30
PCB-1268	< 1.00	mg/Kg		3/30/2021 12:30

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Tetrachloro-m-xylene	**64.1**	18.8 - 97.4		3/30/2021 12:30

Method Reference(s): EPA 8082A
EPA 3546

Preparation Date: 3/29/2021

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 211229

Client: **National Grid**

Project Reference: 56912, Dewey-Kensington DK-21 WR#90000183727

Sample Identifier:	DK-21-4-032921		
Lab Sample ID:	211229-04	**Date Sampled:**	3/29/2021
Matrix:	Soil	**Date Received:**	3/29/2021

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 1.00	mg/Kg		3/30/2021 13:03
PCB-1221	< 1.00	mg/Kg		3/30/2021 13:03
PCB-1232	< 1.00	mg/Kg		3/30/2021 13:03
PCB-1242	< 1.00	mg/Kg		3/30/2021 13:03
PCB-1248	< 1.00	mg/Kg		3/30/2021 13:03
PCB-1254	< 1.00	mg/Kg		3/30/2021 13:03
PCB-1260	< 1.00	mg/Kg		3/30/2021 13:03
PCB-1262	< 1.00	mg/Kg		3/30/2021 13:03
PCB-1268	< 1.00	mg/Kg		3/30/2021 13:03

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Tetrachloro-m-xylene	**74.5**	18.8 - 97.4		3/30/2021 13:03

Method Reference(s): EPA 8082A
EPA 3546

Preparation Date: 3/29/2021

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 211229

Client: **National Grid**

Project Reference: 56912, Dewey-Kensington DK-21 WR#90000183727

Sample Identifier:	DK-21-5-032921		
Lab Sample ID:	211229-05	**Date Sampled:**	3/29/2021
Matrix:	Soil	**Date Received:**	3/29/2021

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 1.00	mg/Kg		3/30/2021 10:35
PCB-1221	< 1.00	mg/Kg		3/30/2021 10:35
PCB-1232	< 1.00	mg/Kg		3/30/2021 10:35
PCB-1242	< 1.00	mg/Kg		3/30/2021 10:35
PCB-1248	< 1.00	mg/Kg		3/30/2021 10:35
PCB-1254	< 1.00	mg/Kg		3/30/2021 10:35
PCB-1260	< 1.00	mg/Kg		3/30/2021 10:35
PCB-1262	< 1.00	mg/Kg		3/30/2021 10:35
PCB-1268	< 1.00	mg/Kg		3/30/2021 10:35

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Tetrachloro-m-xylene	**79.9**	18.8 - 97.4		3/30/2021 10:35

Method Reference(s): EPA 8082A
EPA 3546

Preparation Date: 3/29/2021

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 211229

Client: **National Grid**

Project Reference: 56912, Dewey-Kensington DK-21 WR#90000183727

Sample Identifier:	DK-21-6-032921		
Lab Sample ID:	211229-06	**Date Sampled:**	3/29/2021
Matrix:	Soil	**Date Received:**	3/29/2021

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 1.00	mg/Kg		3/30/2021 13:39
PCB-1221	< 1.00	mg/Kg		3/30/2021 13:39
PCB-1232	< 1.00	mg/Kg		3/30/2021 13:39
PCB-1242	< 1.00	mg/Kg		3/30/2021 13:39
PCB-1248	**5.69**	mg/Kg		3/30/2021 13:39
PCB-1254	< 1.00	mg/Kg		3/30/2021 13:39
PCB-1260	< 1.00	mg/Kg		3/30/2021 13:39
PCB-1262	< 1.00	mg/Kg		3/30/2021 13:39
PCB-1268	< 1.00	mg/Kg		3/30/2021 13:39

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Tetrachloro-m-xylene	**69.2**	18.8 - 97.4		3/30/2021 13:39

Method Reference(s): EPA 8082A
EPA 3546

Preparation Date: 3/29/2021

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 211229

Client: **National Grid**

Project Reference: 56912, Dewey-Kensington DK-21 WR#90000183727

Sample Identifier:	DK-21-7-032921		
Lab Sample ID:	211229-07	**Date Sampled:**	3/29/2021
Matrix:	Soil	**Date Received:**	3/29/2021

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 67.9	mg/Kg		3/30/2021 12:53
PCB-1221	< 67.9	mg/Kg		3/30/2021 12:53
PCB-1232	< 67.9	mg/Kg		3/30/2021 12:53
PCB-1242	< 67.9	mg/Kg		3/30/2021 12:53
PCB-1248	**741**	mg/Kg		3/30/2021 12:53
PCB-1254	< 67.9	mg/Kg		3/30/2021 12:53
PCB-1260	< 67.9	mg/Kg		3/30/2021 12:53
PCB-1262	< 67.9	mg/Kg		3/30/2021 12:53
PCB-1268	< 67.9	mg/Kg		3/30/2021 12:53

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Tetrachloro-m-xylene	NC	18.8 - 97.4		3/30/2021 12:53

Method Reference(s): EPA 8082A
EPA 3546

Preparation Date: 3/29/2021

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 211229

Client: **National Grid**

Project Reference: 56912, Dewey-Kensington DK-21 WR#90000183727

Sample Identifier:	DK-21-8-032921		
Lab Sample ID:	211229-08	**Date Sampled:**	3/29/2021
Matrix:	Soil	**Date Received:**	3/29/2021

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 1.73	mg/Kg		3/30/2021 13:16
PCB-1221	< 1.73	mg/Kg		3/30/2021 13:16
PCB-1232	< 1.73	mg/Kg		3/30/2021 13:16
PCB-1242	< 1.73	mg/Kg		3/30/2021 13:16
PCB-1248	**18.8**	mg/Kg		3/30/2021 13:16
PCB-1254	< 1.73	mg/Kg		3/30/2021 13:16
PCB-1260	< 1.73	mg/Kg		3/30/2021 13:16
PCB-1262	< 1.73	mg/Kg		3/30/2021 13:16
PCB-1268	< 1.73	mg/Kg		3/30/2021 13:16

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Tetrachloro-m-xylene	NC	18.8 - 97.4		3/30/2021 13:16

Method Reference(s): EPA 8082A
EPA 3546

Preparation Date: 3/29/2021

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 211229

Client: **National Grid**

Project Reference: 56912, Dewey-Kensington DK-21 WR#90000183727

Sample Identifier:	DK-21-9-032921		
Lab Sample ID:	211229-09	**Date Sampled:**	3/29/2021
Matrix:	Soil	**Date Received:**	3/29/2021

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 1.00	mg/Kg		3/30/2021 12:07
PCB-1221	< 1.00	mg/Kg		3/30/2021 12:07
PCB-1232	< 1.00	mg/Kg		3/30/2021 12:07
PCB-1242	< 1.00	mg/Kg		3/30/2021 12:07
PCB-1248	< 1.00	mg/Kg		3/30/2021 12:07
PCB-1254	< 1.00	mg/Kg		3/30/2021 12:07
PCB-1260	< 1.00	mg/Kg		3/30/2021 12:07
PCB-1262	< 1.00	mg/Kg		3/30/2021 12:07
PCB-1268	< 1.00	mg/Kg		3/30/2021 12:07

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Tetrachloro-m-xylene	**78.8**	18.8 - 97.4		3/30/2021 12:07

Method Reference(s): EPA 8082A
EPA 3546

Preparation Date: 3/29/2021

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 211229

Client: **National Grid**

Project Reference: 56912, Dewey-Kensington DK-21 WR#90000183727

Sample Identifier:	DK-21-10-032921		
Lab Sample ID:	211229-10	**Date Sampled:**	3/29/2021
Matrix:	Soil	**Date Received:**	3/29/2021

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 1.00	mg/Kg		3/30/2021 11:28
PCB-1221	< 1.00	mg/Kg		3/30/2021 11:28
PCB-1232	< 1.00	mg/Kg		3/30/2021 11:28
PCB-1242	< 1.00	mg/Kg		3/30/2021 11:28
PCB-1248	< 1.00	mg/Kg		3/30/2021 11:28
PCB-1254	< 1.00	mg/Kg		3/30/2021 11:28
PCB-1260	< 1.00	mg/Kg		3/30/2021 11:28
PCB-1262	< 1.00	mg/Kg		3/30/2021 11:28
PCB-1268	< 1.00	mg/Kg		3/30/2021 11:28

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Tetrachloro-m-xylene	**58.0**	18.8 - 97.4		3/30/2021 11:28

Method Reference(s): EPA 8082A
EPA 3546

Preparation Date: 3/29/2021

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 211229

Client: **National Grid**

Project Reference: 56912, Dewey-Kensington DK-21 WR#90000183727

Sample Identifier:	DK-21-11-032921		
Lab Sample ID:	211229-11	**Date Sampled:**	3/29/2021
Matrix:	Soil	**Date Received:**	3/29/2021

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 1.00	mg/Kg		3/30/2021 11:52
PCB-1221	< 1.00	mg/Kg		3/30/2021 11:52
PCB-1232	< 1.00	mg/Kg		3/30/2021 11:52
PCB-1242	< 1.00	mg/Kg		3/30/2021 11:52
PCB-1248	< 1.00	mg/Kg		3/30/2021 11:52
PCB-1254	< 1.00	mg/Kg		3/30/2021 11:52
PCB-1260	**45.7**	mg/Kg		3/30/2021 13:27
PCB-1262	< 6.48	mg/Kg		3/30/2021 13:27
PCB-1268	< 1.00	mg/Kg		3/30/2021 11:52

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Tetrachloro-m-xylene	**79.2**	18.8 - 97.4		3/30/2021 11:52

Aroclors 1260, 1262 analyzed at 1/50 dilution, data file PC102477.D

Method Reference(s): EPA 8082A
EPA 3546

Preparation Date: 3/29/2021

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 211229

Client: **National Grid**

Project Reference: 56912, Dewey-Kensington DK-21 WR#90000183727

Sample Identifier:	DK-21-12-032921		
Lab Sample ID:	211229-12	**Date Sampled:**	3/29/2021
Matrix:	Soil	**Date Received:**	3/29/2021

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 1.00	mg/Kg		3/30/2021 13:51
PCB-1221	< 1.00	mg/Kg		3/30/2021 13:51
PCB-1232	< 1.00	mg/Kg		3/30/2021 13:51
PCB-1242	< 1.00	mg/Kg		3/30/2021 13:51
PCB-1248	**6.43**	mg/Kg		3/30/2021 13:51
PCB-1254	< 1.00	mg/Kg		3/30/2021 13:51
PCB-1260	< 1.00	mg/Kg		3/30/2021 13:51
PCB-1262	< 1.00	mg/Kg		3/30/2021 13:51
PCB-1268	< 1.00	mg/Kg		3/30/2021 13:51

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Tetrachloro-m-xylene	**100**	18.8 - 97.4	*	3/30/2021 13:51

Method Reference(s): EPA 8082A
EPA 3546

Preparation Date: 3/29/2021

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 211229

Client: **National Grid**

Project Reference: 56912, Dewey-Kensington DK-21 WR#90000183727

Sample Identifier:	DK-21-13-032921		
Lab Sample ID:	211229-13	**Date Sampled:**	3/29/2021
Matrix:	Soil	**Date Received:**	3/29/2021

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 12.8	mg/Kg		3/30/2021 14:15
PCB-1221	< 12.8	mg/Kg		3/30/2021 14:15
PCB-1232	< 12.8	mg/Kg		3/30/2021 14:15
PCB-1242	< 12.8	mg/Kg		3/30/2021 14:15
PCB-1248	**96.3**	mg/Kg		3/30/2021 14:15
PCB-1254	< 12.8	mg/Kg		3/30/2021 14:15
PCB-1260	< 12.8	mg/Kg		3/30/2021 14:15
PCB-1262	< 12.8	mg/Kg		3/30/2021 14:15
PCB-1268	< 12.8	mg/Kg		3/30/2021 14:15

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Tetrachloro-m-xylene	NC	18.8 - 97.4		3/30/2021 14:15

Method Reference(s): EPA 8082A
EPA 3546

Preparation Date: 3/29/2021

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 211229

Client: **National Grid**

Project Reference: 56912, Dewey-Kensington DK-21 WR#90000183727

Sample Identifier:	DK-21-WC-1-032921		
Lab Sample ID:	211229-14	**Date Sampled:**	3/29/2021
Matrix:	TCLP Extract	**Date Received:**	3/29/2021

TCLP Mercury

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Mercury	< 0.00200	mg/L	0.2		3/30/2021 12:32

Method Reference(s): EPA 7470A
EPA 1311
Preparation Date: 3/30/2021
Data File: Hg210330D

TCLP RCRA Metals (ICP)

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Arsenic	< 0.500	mg/L	5		3/30/2021 11:59
Barium	**0.886**	mg/L	100		3/30/2021 11:59
Cadmium	< 0.0250	mg/L	1		3/30/2021 11:59
Chromium	< 0.500	mg/L	5		3/30/2021 11:59
Lead	< 0.500	mg/L	5		3/30/2021 11:59
Selenium	< 0.200	mg/L	1		3/30/2021 11:59
Silver	< 0.500	mg/L	5		3/30/2021 11:59

Method Reference(s): EPA 6010C
EPA 1311 / 3005A
Preparation Date: 3/30/2021
Data File: 210330B

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 211229

Client: **National Grid**

Project Reference: 56912, Dewey-Kensington DK-21 WR#90000183727

Sample Identifier:	DK-21-WC-2-032921		
Lab Sample ID:	211229-15	**Date Sampled:**	3/29/2021
Matrix:	TCLP Extract	**Date Received:**	3/29/2021

TCLP Mercury

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Mercury	< 0.00200	mg/L	0.2		3/30/2021 12:34

Method Reference(s): EPA 7470A
EPA 1311
Preparation Date: 3/30/2021
Data File: Hg210330D

TCLP RCRA Metals (ICP)

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Arsenic	< 0.500	mg/L	5		3/30/2021 12:04
Barium	**0.864**	mg/L	100		3/30/2021 12:04
Cadmium	< 0.0250	mg/L	1		3/30/2021 12:04
Chromium	< 0.500	mg/L	5		3/30/2021 12:04
Lead	< 0.500	mg/L	5		3/30/2021 12:04
Selenium	< 0.200	mg/L	1		3/30/2021 12:04
Silver	< 0.500	mg/L	5		3/30/2021 12:04

Method Reference(s): EPA 6010C
EPA 1311 / 3005A
Preparation Date: 3/30/2021
Data File: 210330B

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 211229

Client: **National Grid**

Project Reference: 56912, Dewey-Kensington DK-21 WR#90000183727

Sample Identifier:	DK-21-WC-3-032921		
Lab Sample ID:	211229-16	**Date Sampled:**	3/29/2021
Matrix:	TCLP Extract	**Date Received:**	3/29/2021

TCLP Mercury

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Mercury	< 0.00200	mg/L	0.2		3/30/2021 12:36

Method Reference(s): EPA 7470A
EPA 1311
Preparation Date: 3/30/2021
Data File: Hg210330D

TCLP RCRA Metals (ICP)

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Arsenic	< 0.500	mg/L	5		3/30/2021 12:09
Barium	< 0.500	mg/L	100		3/30/2021 12:09
Cadmium	< 0.0250	mg/L	1		3/30/2021 12:09
Chromium	< 0.500	mg/L	5		3/30/2021 12:09
Lead	< 0.500	mg/L	5		3/30/2021 12:09
Selenium	< 0.200	mg/L	1		3/30/2021 12:09
Silver	< 0.500	mg/L	5		3/30/2021 12:09

Method Reference(s): EPA 6010C
EPA 1311 / 3005A
Preparation Date: 3/30/2021
Data File: 210330B

Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

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All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

"<" = Analyzed for but not detected at or above the quantitation limit.
"E" = Result has been estimated, calibration limit exceeded.
"Z" = See case narrative.
"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.
"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.
"B" = Method blank contained trace levels of analyte. Refer to included method blank report.
"J" = Result estimated between the quantitation limit and half the quantitation limit.
"L" = Laboratory Control Sample recovery outside accepted QC limits.
"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.
"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.
"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*
"(1)" = Indicates data from primary column used for QC calculation.
"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.
"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

GENERAL TERMS AND CONDITIONS
LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, tern or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty. Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

Scope and Compensation. LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB wi use LAB default method for all tests unless specified otherwise on the Work Order.
Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

Prices. Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

Limitations of Liability. In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.
LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.
All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.
Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure. Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

Sample Handling. Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.
Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on th final report.
Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.
LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility. LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment. LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure. LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law. This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

PARADIGM ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue
Rochester, NY 14608
(585) 647-2530 * (800) 724-1997

CHAIN OF CUSTODY

Sheet 1 of 2

REPORT TO:	INVOICE TO:	
COMPANY: Niagara Mohawk Power Corp	COMPANY: Niagara Mohawk Power Corp	LAB PROJECT #: 211229 / CLIENT PROJECT #: 56912
ADDRESS: 144 Kensington Ave.	ADDRESS: 300 Erie Blvd. West	
CITY: Buffalo STATE: NY ZIP: 14214	CITY: Syracuse STATE: NY ZIP: 13202	TURNAROUND TIME: (WORKING DAYS) STD / OTHER
PHONE: (716) 831-7209 FAX:	PHONE: FAX:	[X] 1 [ ] 2 [ ] 3 [ ] 5 [ ]
PROJECT NAME/SITE NAME: Dewey - Kensington DK-21 WR# 90000183727	ATTN: Lisa Montesano	ATTN: Accounts Payable
COMMENTS: Results to: Lisa.Montesano@nationalgrid.com, daniel.troy@nationalgrid.com, linda.parker@gza.com, Linda.Scott@usecology.com		

REQUESTED ANALYSIS

DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	NUMBER OF CONTAINERS	PCB	1,000ppm oil									REMARKS	PARADIGM LAB SAMPLE NUMBER
1 3/29/21	0900		X	DK-21-1-032921	Soil	1	X											01
2	0915		X	DK-21-2-032921			X											02
3	1000		X	DK-21-3-032921			X											03
4	1015		X	DK-21-4-032921			X											04
5	1020		X	DK-21-5-032921			X											05
6	1030		X	DK-21-6-032921			X											06
7	1040		X	DK-21-7-032921			X											07
8	1055		X	DK-21-8-032921			X											08
9	1105		X	DK-21-9-032921			X											09
10	1115		X	DK-21-10-032921			X											10

****LAB USE ONLY****

SAMPLE CONDITION: Check box if acceptable or note deviation: CONTAINER TYPE: [ ] PRESERVATIONS: [ ] HOLDING TIME: [ ] TEMPERATURE: [ ] 11 °C iced stated in Field 3/29/21

Sampled By: Mike Kress	Date/Time: 3/29/21	Relinquished By:	Date/Time:
Relinquished By:	Date/Time: 3/29/21	Received By:	Date/Time:
Received By:	Date/Time: 3/29/21 12:50	Received @ Lab By:	Date/Time: 3/29/21 1430

Total Cost: 141.25

P.I.F.

PARADIGM ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue
Rochester, NY 14608
(585) 647-2530 * (800) 724-1997

CHAIN OF CUSTODY

REPORT TO:	INVOICE TO:
COMPANY: Niagara Mohawk Power Corp	COMPANY: Niagara Mohawk Power Corp
ADDRESS: 144 Kensington Ave.	ADDRESS: 300 Erie Blvd. West
CITY: Buffalo STATE: NY ZIP: 14214	CITY: Syracuse STATE: NY ZIP: 13202
PHONE: (716) 831-7209 FAX:	PHONE: FAX:
ATTN: Lisa Montesano	ATTN: Accounts Payable

LAB PROJECT #: 211229 | CLIENT PROJECT #: 56912

TURNAROUND TIME: (WORKING DAYS): [X] 1 [ ] 2 [ ] 3 [ ] STD 5 [ ] OTHER

PROJECT NAME/SITE NAME: Dewey - Kensington (DK-21) ~~Mortimer Station~~

WR# 90000~~88158~~ 183727

COMMENTS: Results to: Lisa.Montesano@nationalgrid.com, daniel.troy@nationalgrid.com, linda.Parker@GZA.com, linda.scott@USecology.com

REQUESTED ANALYSIS

	DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	NUMBER CONTAINERS	~~VOC 8260~~	~~SVOC 8270~~	PCB	~~TPH~~	TCLP RCRA 8 Metals					REMARKS	PARADIGM LAB SAMPLE NUMBER
1	3/29/21	11:25		X	DK-21-11-032921	Soil	1			X								11
2		9:50		X	DK-21-12-032921		1			X								12
3		9:40		X	DK-21-13-032921		1			X								13
4		11 30	X		DK-21-WC-1-032921		1					X						14
5		11 35	X		DK-21-WC-2-032921		1					X						15
6	↓	11 40	X		DK-21-WC-3-032921	↓	1					X						16
7																		
8																		
9																		
10																		

LAB USE ONLY

SAMPLE CONDITION: Check box if acceptable or note deviation: CONTAINER TYPE: [ ] PRESERVATIONS: [ ] HOLDING TIME: [ ] TEMPERATURE: [ ]

Sampled By: Mica Kress	Date/Time: 3/29/21	Relinquished By:	Date/Time:
Relinquished By:	Date/Time: 3/29/21	Received By:	Date/Time:
Received By:	Date/Time: 3/29/21 12:50	Received @ Lab By: Molly Nail 3/29/21	Date/Time: 1430

Total Cost:

P.I.F.

PARADIGM

Chain of Custody Supplement

Client: National Grid **Completed by:** Molly Gail

Lab Project ID: 211229 **Date:** 3/29/21

Sample Condition Requirements

Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt: Yes	No	N/A
Container Type	X		
Comments			
Transferred to method-compliant container			X
Headspace (<1 mL)			X
Comments			
Preservation			X
Comments			
Chlorine Absent (<0.10 ppm per test strip)			X
Comments			
Holding Time	X		
Comments			
Temperature	X		met
Comments	11°C iced starting field		
Compliant Sample Quantity/Type	X		
Comments			

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Appendix B

NYSDEC Generic Community Air Monitoring Plan

Appendix 1A
New York State Department of Health
Generic Community Air Monitoring Plan

Overview

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate DEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. “Periodic” monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or

overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

3. All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

December 2009

Appendix C

Field Sampling Notes

JM

National Grid
Buffalo, NY

2/7/22

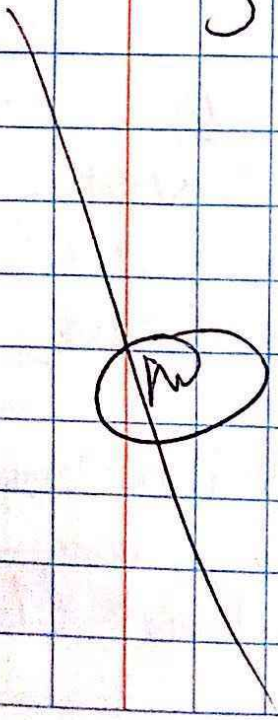
Weather: 30°F, Partly Sunny, Light Wind

0700 - Arcads arrive @ Syracuse Warehouse to load equipment for mobilization (CDR, DC, TP, JM, JMM)

0900 - Mobilize to site

1130 - Arcads arrive on site, meet w/ TOR & RW (Arcads) / Steve Neeley National Grid

1500 - • Completed GPR/EM clearance @ 7 locations
• Layed out 23 boring locations
• Set up processing trailer



National Grid

Boring B-23
Date 2/8/22
Driller DR/TP Geologist JMM
Rig AMS 9520 VTR Power Auger Method Direct Push

Interval	Recovery	Time	PID / Notes
0-4'	NM	0900	2.3 ppm @ 0.8-1.3'
	* HAND CLEARED 0-4 *		
4-8'	3.0'	1110	ND
8-11.3'	2.4	1120	ND

Description
0-0.2' ASPHALT

0.2-0.8' 10YR 3/3 Dark brown fine to medium subangular GRAVEL, some to little coarse Gravel, fine Sand, little to trace Silt, moist, loose. [SUB-BASE]

0.8-4.5' 10YR 3/3 Dark brown fine SAND and fine to coarse subang GRAVEL some Silt, little to trace Clay, moist, loose.

-2-

Buffalo, NY

4.6-5.1' CONCRETE

5.1-11.3' 10YR 4/3 Brown Silty CLAY, little fine Sand, trace fine to mod. subang. Gravel, moist, stiff, slightly plastic.

REFUSAL @ 11.3' bgs
-EOB-

PCB Samples collected @

0.8-1.3 @ 0900 Analyze 9.3-11.3 @ 1121 (HOLD)

1.3-3.3 @ 0910 (HOLD)

3.3-5.3 @ 1110 (HOLD)

5.3-7.3 @ 1111 Analyze

7.3-9.7 @ 1120 (HOLD)

-3-

(SW) National Grid Buffalo, NY

Boring B-20
Date 2/8/22
Drillers DR/AP Geologist JM
Rig AMS 9520 VTR PowerProbe Method Direct Push

Interval	Recovery	Time	PID/Notes
0-4	NM	0950	0.6ppm @ 1.1-2.6
	* HAND CLEARED 0-4' *		
4-8	3.4	1250	ND
8-9	1.0'	1300	ND

PCB samples collected (2)

1.9-2.4 @ 0950 Analyze
2.4-4.4 @ 0955 (HOLD)
4.4-6.4 @ 1250 (1,4 Dioxane & PFAs) Analyze
6.4-8.4 @ 1251 (HOLD)
8.4-9.0 @ 1300 (HOLD)

-4-

Description
0-0.45' ASPHALT

0.45-1.9' 10YR 3/3 Dark brown fine to med. subang. GRAVEL, some to little coarse Gravel, fine Sand, little to trace Silt, moist, loose to med firm. [SUB-BASE]

1.9-4.9 10YR 3/3 Dark brown fine SAND and fine to med. subang. GRAVEL, some Silt, little Clay, moist, firm

4.9-9.0' 10YR 4/3 Brown Silty CLAY, trace fine subang. to subround embedded Gravel, Wood, moist, stiff, non-plastic.

* REFUSAL ENCOUNTERED @ 9.0' *
- EOB -

-5-

(pw) National Grid

Boring B-15
Date 2/8/22
Drillers DR/TP Geologist JM
Rig AMS 7520VTR Power Probe Method Direct Push

Interval	Recovery	Time	PID / Notes
0-4	NM	1020	4.3 ppm @ 1.5'
	* HAND CLEARED 0-4' bgs *		
4-8		1340	
8-8.3		1350	

PCB samples collected @:

1-1.5 @ 1020 Analyze

1.5-3.5 @ 1021 Hold

3.5-5.5 @ 1340 ~~Hold~~ (Jm) ~~Analyze~~ (Hold)

5.5-7.5 @ 1341 ~~Analyze~~ ~~Hold~~ Analyze

7.5-8.3 @ 1350 Hold

-6-

Buffalo NY

Description
0-0.4' ASPHALT

0.4-1.0' 10YR 3/3 Dark brown fine to med. angular to subangular GRAVEL, some to little fine Sand, loose, moist.
[SUB-BASE]

1.0-3.3' 10YR 3/3 Dark brown fine SAND and fine to med subang. GRAVEL, some Coarse Gravel, little Silt, little to trace Clay, moist, firm.

3.3-7.5' 10YR 3/3 ~~Dark~~ to 10YR 3/2 Dark brown to very dark greyish brown fine SAND, some Silt, fine subang. Gravel, little med. Gravel, little to trace Clay moist, firm.

7.5-8.3 10YR 4/3 Brown S.Ly CLAY, little to trace fine Sand, fine subang. to subround embedded Gravel, moist, stiff.
Refusal @ 8.3' bgs
-EOB-

-7-

Boring B-10
Date 2/8/22
Driller DR/JP Geologist JM
Rig AMS 9520 VTR Power Probe Method Direct Push

Interval	Recovery	Time	PID/Notes
0-4	NM	1045	3.5ppm @ 1.1-1.6'
HAND CLEARED 0-4' bgs			
4-7'	3.0'	1400	ND

PCB samples collected @

1.1-1.6 @ 1045 Analyze
FD-02082022
1.6-3.6 @ 1046 Hold

3.6-5.6 @ 1400 Analyze

5.6-7.0 @ 1401 Hold

Description
0-0.5' ASPHALT

0.5-1.1 10YR 3/2 Very dark greyish brown fine to med. subang. to ang. GRAVEL, little fine Sand trace Silt, moist, loose. [SUB-BASE]

1.1-4.7' 10YR 3/2 Very dark greyish brown fine SAND, some fine to med. subang. Gravel, little Silt, moist becoming wet @ 4.0' bgs.

4.7-5.6' 10YR 3/2 Very dark greyish brown Silty fine SAND, little Clay, moist, firm.

5.6-7.0' 10YR 4/3 Brown Silty CLAY, little fine subround(embedded) Gravel, moist stiff.

REFUSAL @ 7.0'
- EOB -

National Grid Buffalo, NY

2/8/22

Weather: 28°F, Lt Wind, L. Snow, Overcast

0630 - Arcadis arrive on site

0700 - TGS meeting

0730 - Set up core machine, core asphalt
① SB-23, SB-20, SB-15, SB-10, SB-5

0900 - Begin hand clearing

1130 - Completed hand clearing ②
B-23, B-20, B-15, B-10, B-5

1400 - Completed sampling ③
B-23, B-20, B-15, B-10, B-5

1445 - Completed sample processing ④
B-23, B-20, B-15, B-10
Store eq. for overnight in trailer
Secure trailer

1500 - Arcadis off-site

-10-

National Grid Buffalo, NY

DAILY AIR MONITORING 2/8/2022

TIME	PID READING		DUST TRACK READING
0900	0.0 ppm	Upwind	0.031 mg/m³
	0.0 ppm	Downwind	0.033
1005	0.0 ppm	Upwind	0.028 mg/m³
	0.0 ppm	Downwind	0.029
1123	0.0 ppm	Upwind	0.019 mg/m³
	0.0 ppm	Downwind	0.019
1247	0.0 ppm	Upwind	0.018 mg/m³
	0.0 ppm	Downwind	0.019
1351	0.0 ppm	Upwind	0.019 mg/m³
	0.0 ppm	Downwind	0.022
1422	0.0 ppm	Upwind	0.020 mg/m³
	0.0 ppm	Downwind	0.021

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National Grid

Buffalo, NY

Boring B-5
Date 2/8/22
Drillers DR/TP Geologist JM
Rig AMS 9520 VTR Power Probe Method Direct Push

Interval	Recovery	Time	PID / Notes
0-4	NR	1100	1.5ppm (0.2-2.2' bgs)
	* Hand cleared 0-4 4 bgs *		
4-5.7'	1.4'	1420	ND

PCB Analysis @

0.7-1.2' @ 1100 (MS/MSD)

1.2-3.2' @ 1101 HOLD

3.2-5.2' @ 1420 1,4 Dioxane & PFAs

5.2-5.7' @ 1421 HOLD

-12-

Description

0-0.3' ASPHALT

0.3-0.7' 10YR 3/2 Very dark grayish brown fine to med. angular to subangular GRAVEL, Little fine Sand, trace Silt, moist, loose, [SUB-BASE]

0.7-4.3' 10YR 3/2 Very dark grayish brown fine SAND, some fine to med. ang. to subang. Gravel, some to Little Silt, Little to trace Clay, moist, firm.

4.3-5.7' 10YR 3/2 to 10YR 3/3 Very dark grayish brown to dark brown Silty fine SAND, some Clay, Little fine subag. Gravel, moist, firm.

- REFUSAL @ 5.7' bgs -

- EOB -

-13-

National Grid

Boring B-18
Date 2/9/2022
Drillers DR/TP/TO/JM Geologist JM
Rig AMS 9520 VTR Power Probe Method Direct Push

Interval	Recovery	Time	PID/Notes
0-4	NM	0930	3.2ppm @ 1.2-1.7'
	* HAND CLEARED 0-4' bgs *		
4-8	3.0'	1310	ND
8-9.5'	1.5	1315	ND

PCB samples collected

1.2-1.7	@ 0930	(1,4 Dioxane + PFAs)
1.7-3.7	@ 0940	HOLD
3.7-5.7	@ 1310	
5.7-7.7	@ 1311	HOLD
7.7-9.5	@ 1315	HOLD

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Buffalo, NY

Description
0-0.4' ASPHALT
1.2'
0.4-0.8' @ 10YR 3/3 Dark brown fine to medium subangular GRAVEL, Little fine Sand, trace Silt, moist, loose [SUB-BASE]

@ 1.2-5.1' 10YR 3/2 Very dark grey to brown Fine SAND, some Silt fine to medium Gravel, Little coarse Gravel, little to trace Anthropogenics (Concrete), moist loose to firm. Red Brick

5.1-9.5 2.5Y 5/3 Light olive brown Silty CLAY, trace fine to med. Subround embedded Gravel, fine Sand, Moist, slightly stiff, Slightly plastic.

- Refusal @ 9.5' bgs -
- EOB -

-15-

(jul) National Grid

Buffalo, NY

Boring B-19
Date 2/19/2022
Drillers DR/TP/TO/JM Geologist
Rig AMS 9520 VTR Power Probe Method Direct Push

Interval	Recovery	Time	PID/Nitro
0-4	NM	1010	2.7ppm @ 1.3-1.8'
HAND CLEARED 0-4' bgs			
4-8	3.4	1330	ND
8-9.5	1.5	1345	ND

PCB Samples Collected @:

1.3-1.8 @ 1010

1.8-3.8 @ 1011 HOLD

3.8-5.8 @ 1330

5.8-7.8 @ 1331 HOLD

7.8-9.5 @ 1345 HOLD

Description

0-0.3 ASPHALT

0.3-1.3' 10YR 3/2 Very dark greyish brown med. to coarse subangular GRAVEL, some fine Sand, little Silt, moist, loose.

1.3-4.9' 10YR 3/2 Very dark greyish brown fine SAND w/ fine to med. subang. GRAVEL, some Silt, little medium to coarse Sand, trace Clay, moist, firm. Becoming wet and loose @ ~4 ft. bgs Red Brick

4.9-6.4' 10YR 3/3 Dark brown Silty CLAY, trace fine subang. Gravel, moist, med. firm, non-plastic.

6.4-9.5 10YR 5/3 Brown Silty CLAY, trace fine to med. subround embedded Gravel, fine Sand, moist, stiff, non-plastic.

(JM) National Grid

Boring B-14
Date 2/9/2022
Driller DR/TP / TO/JM Geologist SMM
Rig AMS 9520VTR Power-Probe Method Direct Push

Interval	Recovery	Time	PID/Notes
0-4	NM	1200	1.3ppm @ 1.3-1.8'
	* HAND CLEARED from 0-4' bgs *		
4-7.9	2.8'	1410	2.2ppm @ 4.2'

PCB samples collected @:

1.3-1.8 @ 1200

1.8-3.8 @ 1201 HOLD

3.8-5.8 @ 1410 (1,4 Dioxane, PFAs)

5.8-7.8 @ 1411 HOLD

Buffalo, NY

Description

0-0.4' ASPHALT

0.4-1.3' 10YR 3/2 Very dark grayish brown fine to med. Subangular GRAVEL, little fine Sand, med. Sand, Silt, moist, loose.

1.3-4.6' 10YR 3/2 Very dark grayish brown fine to med. subang. GRAVEL and fine Sand, some Silt, med. Sand, wet, loose.

4.6-7.1' 10YR 4/3 Brown Silty CLAY, trace fine Sand, fine to med. subang. to subround embedded Gravel, moist, firm to slightly stiff, non-plastic

7.1-7.9' 10YR 5/1 Grey fine to med. angular GRAVEL, some Silty Clay, trace fine Sand, wet, loose.

- Refusal @ 7.9' bgs -

- EOB -

(14) National Grid

Boring B-4
Date 2/10/22
Driller DR/TP/TO/SM Geologist SMM
Rig AMS 9520 VTR PowerProbe Method Direct Push

Interval	Recovery	Time	PID/Notes
0-4.0	NM	0920	2.3ppm @ 1.0-1.5
	* Hand Cleared	0-4' bgs *	
4-6.0	2.0'	1310	ND

PCB samples collected @

1.0-1.5 @ 0920

1.5-3.5 @ 0921 Analyze 1,4 Dioxane/PFAS/HOLD PCBs
FD-02102022 (1,4 Dioxane/PFAS)

3.5-5.5 @ 1310

5.5-6 @ 1311 HOLD

-20-

Buffalo, NY

Description

0-0.4' ASPHALT

0.4-1.0' 10YR 3/2 Very dark greyish brown medium to coarse subang. GRAVEL, little fine subang. Gravel, fine Sand, trace Silt moist, loose.

1.0-3.7' 10YR 3/2 Very dark greyish brown Fine SAND and fine to med. subang. GRAVEL, some coarse Gravel, little Silt Anthropogenics (Red Brick, Concrete, Wood), wet, firm.

3.7-4.4' 10YR 3/3 Dark brown Silty CLAY, Soft, wet, slightly plastic.

4.4-6.0' 10YR 5/3 Brown Silty CLAY, little fine to med. subang. to subround Gravel, trace fine Sand, moist, stiff, non-plastic
+ Refusal encountered @ 6.0' bgs *

-EOB-

-21-

(JM) NG - Buffalo, NY 2/9/22

Weather 36°F, Sunny

0630 - Arcadis arrive on site.

0700 - TGS meeting

0730 - Resume hand clearing, asphalt coring, sampling, sample processing activities

1430 - • Completed borings:
B-18 (EOB @ 9.5' bgs)
B-19 (EOB @ 9.5' bgs)
B-14 (EOB @ 7.9' bgs)
• Hand cleared B-3 ~ 1.8' bgs.
• Secure trailer & equipment for overnight
• Completed surface restoration @ B-18, B-19, & B-14.

1445 - Arcadis off site SM to lab to deliver samples

-22-

(JM) NG - Buffalo, NY

DAILY AIR MONITORING 2.9.2022

TIME	PID READINGS		DUSTRAK READING (mg/m³)
0800	U	0.0 ppm	0.042
	D	0.0 ppm	0.039
0857	U	0.0 ppm	0.037
	D	0.0 ppm	0.041
0944	U	0.0 ppm	0.031
	D	0.0 ppm	0.033
1022	U	0.0 ppm	0.034
	D	0.0 ppm	0.037
1057	U	0.0 ppm	0.029
	D	0.0 ppm	0.029
1129	U	0.0 ppm	0.029
	D	0.0 ppm	0.030
1237	U	0.0 ppm	0.031
	D	0.0 ppm	0.034
1324	U	0.0 ppm	0.027
	D	0.0 ppm	0.031
1353	U	0.0 ppm	0.024
	D	0.0 ppm	0.029
1412	U	0.0 ppm	0.024
	D	0.0 ppm	0.027
1433	U	0.0 ppm	0.021
	D	0.0 ppm	0.024

-23-

(jw) National Grid

Boring B-3
Date 2/10/2022
Driller DR/TP/TO/JM Geologist JRM
Rig AMS 9520 VTR Power Probe Method Direct Push

Interval	Recovery	Time	PID//Notes
0-4	NM	0845	27ppm @ (1.4-1.9)
4-5.9	1.3	1215	NA

PCB samples collected @ :

1.4-1.9 @ 0845

1.9-3.9 HOLD @ 0846

3.9-5.9 @ 1215

Buffalo, NY

Description
0-0.5' ASPHALT

0.5-1.4' 10YR 3/2 Very dark greyish brown fine to med. subangular to angular GRAVEL some coarse Gravel, Little fine Sand Silt moist becoming wet @ ~ 1.1 ft. bgs., loose to med. firm.

1.4-3.9' 10YR 3/2 Very dark greyish brown med to coarse subang. GRAVEL and fine SAND, some fine subang. Gravel, Little Silt, wet, med. firm.

3.9-4.3' 10YR 3/3 Dark brown Silty CLAY, moist, soft to slightly firm, slightly plastic.

4.3-5.9' 10YR 4/3 Brown Silty CLAY, some med. to coarse subang. embedded Gravel, moist, stiff.
— Refusal @ 5.9' bgs —
— EOB —

National Grid

Buffalo, NY

Boring B-13
Date 2/10/2022
Drillers DR/TP/TO/JM Geologist JMM
Rig AMS 9520 VTR Power Probe Method Direct Push

Interval	Recovery	Time	PID / Notes
0-4	NM *Hand cleared 0-4' bgs	0945	1.8 ppm @ (1.1-1.6') *
4-7.9	3.4	1330	ND

PCB samples collected ①

1.1-1.6 ① 0945

1.6-3.6 ② 0946 HOLD

3.6-5.6 ③ @ 1330 (1,4 Dichlorobenzene, PFAS)

5.6-7.6 ④ 1331 HOLD

Description
0-0.7' CONCRETE

0.7-1.1' 10YR 3/3 Dark brown fine to med. subangular GRAVEL, little fine Sand, trace Silt, moist, loose.

1.1-3.5' 10YR 3/3 to 10YR 3/2 Dark brown to very dark grayish brown fine SAND, some fine to med. subang. Gravel, little Coarse Gravel, Silt, wet, med. firm.

3.5-4.9' 10YR 3/3 Dark brown Silty CLAY, trace fine Sand, moist, soft to slightly firm, non-plastic.

4.9-7.9' 10YR 4/3 to 10YR 5/3 Brown Silty CLAY, little fine to med. Subang. to Subround embedded Gravel, moist, firm becoming stiff, non-plastic.

- Refusal @ 7.9' -
- EOB -

(yes) National Grid — Buffalo, NY

Boring B-9
Date 2/10/2022
Drillers DR/TP/TO/JM Geologist JMM
Rig AMS 9520 VTR Power Method Direct Push Probe

Interval	Recovery	Time	PID / Notes
0-4	NM	1040	2.7 ppm (1.0-1.5')
	* Hand cleared 0-4' bgs *		
4-6.9	2.9'	1400	ND

PCB samples collected @:

1-1.5 @ 1040

1.5-3.5 @ 1041 HOLD

3.5-5.5 @ 1400

5.5-6.9 @ 1401 HOLD

Description
0-0.7' CONCRETE

0.7-1.0' 10YR 3/3 Dark brown fine to medium subangular GRAVEL, Little fine Sand, trace Silt, moist, loose

1.0-5.9 10YR 3/2 Very dark greyish brown fine SAND and fine to med subang GRAVEL, some Coarse Gravel, Little Silt, Little to trace Clay, moist, firm. Concrete encountered from 3.6'-4.0' bgs.

5.9-6.9 10YR 4/3 Brown Silty CLAY little fine to med. subang to subround embedded Gravel, trace fine Sand, moist, slight to med. firm, slightly plastic.

— Refusal @ 6.9' bgs —
— EOB —

National Grid

Boring B-21
Date 2/14/22 / 2/11/22 (Hand Cleared)
Drillers DR/TP/TO Geologist JMM
Rig AMS 9520 VTR Power Method Direct Push Probe

Interval	Recovery	Time	PID/Notes
0-4	NM	0900	ND
	* Hand Cleared 0-4' bgs *		
4-8	3.6	1145	ND
8-9.8	1.8	1210	ND

PCB samples collected @:

1.2-1.7 @ 0900 (FD-02142022)
1.7-3.7 @ 0901 HOLD
3.7-5.7 @ 1145
5.7-7.7 @ 1146 HOLD
7.7-9.7 @ 1210 HOLD

Buffalo, NY

2/14/22

Description

0-0.3 ASPHALT

0.3-1.2' 10YR 3/2 Very dark grey/3L brown fine to medium subangular GRAVEL little fine Sand, trace Silt, moist, loose.

1.2-4.9 10YR 3/3 Dark brown fine to med. SAND, some fine to med. subangular Gravel, little coarse Sand, Silt, moist, firm.

4.9-8.0' 10YR 3/3 to 10YR 4/3 Dark brown to brown Silty CLAY, moist, firm becoming slightly stiff, slightly plastic.

8.0-9.0' 10YR 5/3 Brown Silty CLAY, little fine Sand fine to med. subang to subrnd embedded Gravel, moist, stiff.

- Refusal @ 9.8' bgs -
-EOB-

(JW) National Grid

Boring B-22
Date 2/14/2022
Drillers DR/TP/DD Geologist JMM
Rig AMS 9520 VTR PowerProbe Method Direct Push

Interval	Recovery	Time	PID/NDs
0-4	NM	1050	ND
	* Hand Cleared 0-4' bgs *		
4-8	3.9	1315	ND
8-10.4	2.2	1330	ND

PCB samples collected @:

0.8-1.3' @ 1050

1.3-3.3 @ 1051 HOLD (FD-02142022_B)

3.3-5.3 @ 1315 HOLD except (1,4 Dioxane & PFAS)

5.3-7.3 @ 1316

7.3-9.3 @ 1330 HOLD

9.3-10.4 @ 1331 HOLD

Buffalo, NY

Description

0-0.2 ASPHALT

0.2-0.8' 10YR 3/2 Very dark grayish brown fine to medium subangular GRAVEL, little fine Sand, trace Silt, moist, loose.

0.8-3.3' 10YR3/2 Very dark grayish brown fine SAND, some Silt little fine to mid. subang. Gravel, yellow Brick, red Brick, firm, moist,

3.3-4.7' 10YR 3/2 Very dark grayish brown fine to very fine SAND, moist, loose.

4.7-8.1 10YR 4/3 Brown Silty CLAY, moist, stiff, non-plastic.

8.1-10.4' 10YR5/3 Brown Silty CLAY, some fine to mid. subang. Gravel, fine Sand little loose Gravel, moist becoming wet @ 9.3' bgs, stiff becoming loose.

Refusal @ 10.4' bgs

-EOB-

Boring B-8
Date 2/14/22
Drillers DR/TP/TC Geologist JWM
Rig 4HS 9520VTR Power Probe Method Direct Push.

Interval	Recovery	Time	PID/Notes
0-4	NM	1230	3.2ppm (1.5-2.0)
	* Hand Cleared 0-4' bgs *		
4-5.7	1.6'	1405	ND

PCB samples collected @:

1.5-2.0 @ 1230

2.0-4.0 @ 1231 (MS/MSD)

4.0-5.7 @ 1405 HOLD

Description
0-0.8' ~~ASPHALT~~ CONCRETE

0.8-1.5' 10YR 3/2 Very dark greyish brown fine to med. Subang. GRAVEL, Little fine Sand trace Silt, moist becoming wet @ 1.3 ft. bgs.

1.5-3.7' 10YR 3/2 Very dark greyish brown fine SAND and fine to med. subang. GRAVEL, Little coarse Subang. Gravel, Red Brick, Glass, Silt, wet, loose.

3.7-5.7 10YR 3/3 to 10YR 4/3 Brown Silty CLAY, Little fine to med Subang. embedded Gravel, moist, med. firm, slightly plastic.

— Refusal @ 5.7' bgs —
- EOB -

(KW) National Grid Buffalo, NY 2/10/22

Weather: 39°F Sunny

0630 - Arrived onsite

0700 - TGS meeting.

0810 - Begin drilling & hand clearing activities

Borings completed:

- B-13 EOB @ 7.6 ft. bgs
- B-9 EOB @ 6.7 ft bgs
- B-4 EOB @ 6.0 ft. bgs
- B-3 EOB @ 5.9 ft bgs

1445 - Stage tooling & equipment in & around gang trailer, secure work area for departure

1500 - Arrived off-site.

(M)

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(M) National Grid

Daily Air Monitoring 2.10.2022

Time	PID Readings U/D	Dusttrack Readings U/D
0807	0.0/0.0 ppm	0.033 / 0.034 mg/m³
0911	0.0/0.0	0.028 / 0.028
1002	0.0 / 0.0	0.026 / 0.029
1059	0.0/0.0	0.028 / 0.027
1147	0.0/0.0	0.024 / 0.024
1303	0.0 / 0.0	0.021 / 0.023
1347	0.0 / 0.0	0.019 / 0.017
1422	0.0/0.0	0.021 / 0.022

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National Grid
Buffalo, NY

2/11/22

Weather 34°F, Sunny

0630 - Arcadis arrive on site.

0700 - TGS meeting

0705 - Begin hand clearing activities
- DR spoke w/ Steve McNulty about locations B-21 & B-22. Steve OK w/ hand clearing locations today & drilling locations Monday.

1045 - Completed hand clearing @:

- B-21
- B-22 (clearing only)
- B-8 (clearing only)

1100 - Secure trailer for weekend Arcadis traveling home. TOR to lab to drop off samples & pick up supplies for next week

-39-

National Grid
Buffalo, NY

2/11/22

Daily Air Monitoring 2.11.22

Time	PID Reading U/D (ppm)	Dust/Particle Reading U/D (mg/m³)
0801	0.0 / 0.0	0.029 / 0.031
0848	0.0 / 0.0	0.027 / 0.025
0927	0.0 / 0.0	0.024 / 0.024
0949	0.0 / 0.0	0.025 / 0.026
1012	0.0 / 0.0	0.023 / 0.023
1032	0.0 / 0.0	0.029 / 0.030

-40-

(41) National Grid
Buffalo, NY

2/14/22

Weather 11°F, Partly Cloudy

0900 - Arnold's arrive on site begin warming up trailer, refueling generators, warming up drilling

1000 - TGS meeting begin hand clearing @ B-22

1430 - Completed hand clearing @ B-22 & B-8

Completed borings @:
B-21 EOB @ 9.8 ft. bgs
B-22 EOB @ 10.4 ft bgs
B-8 EOB @ 5.7 ft. bgs

1500 - Site secured. Arnolds off-site

(42) National Grid Buffalo, NY

Daily Air Monitoring 2.14.22

Time	PID Readings U/D (ppm)	Dust track readings U/D (mg/m³)
1019	0.0 / 0.0	0.024 / 0.023
1057	0.0 / 0.0	0.022 / 0.023
1122	0.0 / 0.0	0.020 / 0.023
1149	0.0 / 0.0	0.024 / 0.026
1251	0.0 / 0.0	0.027 / 0.027
1328	0.0 / 0.0	0.031 / 0.033
1404	0.0 / 0.0	0.029 / 0.030

Boring B-17
Date 2/15/22
Driller DR/JM/TO Geologist JKMM
Rig AMS 9520 VTR Geoprobe Method Direct Push

Interval	Recovery	Time	PID/Notes
0-4	NM	0910	54.3 ppm @ 1.8'
* Hand Cleared 0-4' bgs *			
4-8	3.1'	1150	ND
8-8.7	1.3'	1205	ND

PCB samples collected @.

1.3-1.8 @ 0910

1.8-3.8 (MS/MSD) HOLD @ 0911

3.8-5.8 1,4 Dioxane / PFAs @ 1150

5.8-7.8 @ 1151 HOLD

7.8-8.7 @ 1205 HOLD

Description
0-0.5' ASPHALT

0.5-1.3 10YR 3/2 Very dark grayish brown fine to med, ang. to sub ang. GRAVEL, trace fine Sand, Silt, loose, moist,

1.3-4.9' 10YR 3/3 Dark brown fine SAND, some Silt, some to Little Slag fragments, Little fine sub ang. Gravel, moist, loose, faint solvent-like odor.

4.9-5.6' 10YR 2/2 Very dark brown SILT, little Clay, moist, firm.

5.6-8.7 10YR 3/3 to 10YR 4/3 Dark brown to brown Silty CLAY, trace fine sub ang. to subround (embedded) Gravel, moist, stiff.

Refusal @ 8.7' bgs
-EOB-

Boring B-7
Date 2/15/22
Drillers DC/JM/TO Geologist JMM
Rig AMS 9520 VTR Power Probe Method Direct Push

Interval	Recovery	Time	PID/Notes
0-4	NM	0950	7.1 ppm @ 1.2-1.7
	* Hand Cleared 0-4' bgs *		
4-5.1	0.9	1345	ND

PCBs Samples collected @:

1.2-1.7 @ 0950

1.7-3.7 (PFAS, 1,4 Dioxane) @ 0951 Hold

3.7-5.1 ~~Hold~~ @ 1345

Description

0-0.7 CONCRETE

0.7-1.2' 10YR 3/2 Very dark greyish brown fine to medium ang. to subang. GRAVEL, trace fine Sand, Silt, moist, loose.

1.2-3.7 10YR 3/2 to 10YR 3/3 Very dark greyish brown to dark brown fine SAND, some fine to med. subang. Gravel, little Silt, Slag fragments, Metal, Glass, moist, loose to med. firm.

3.7-5.1 10YR 4/3 Brown Silty CLAY, trace fine Sand, moist, firm becoming stiff, non-plastic.

- Refusal @ 5.1' bgs -
- EOB -

(initials) Natural Grid Buffalo, NY

Boring B-12
Date 2/15/22
Driller DR/JM/TO Geologist SM/M
Rig AMS 9520 VTR Power Probe Method Direct Push

Interval	Recovery	Time	PID / Notes
0-4	NM	1035	3.3 ppm @ 1.3-1.8
	+ Hand Cleared 0-4' bgs *		
4-7'	3.0'	1315	ND

PCB samples collected @:

1.3-1.8 @ 1035

1.8-3.8 @ 1034 HOLD MS/MSD

3.8-5.8 @ 1315

5.8-7.0' @ 1316 HOLD

Description
0-0.7 CONCRETE

0.7-1.3' 10YR 3/2 Very dark greyish brown fine to medium Subang. GRAVEL, Little fine Sand, trace Silt, moist, loose

1.3-3.8' 10YR 3/2 to 10YR 3/3 Very dark greyish brown to dark brown fine SAND and fine to med. Subang. GRAVEL, some Silt, Little to trace Clay, moist, firm.

3.8-7.0' 10YR 4/3 to 10YR 5/2 Brown Silty CLAY, trace fine to med subround embedded Gravel, fine Sand, moist, stiff.

- Refusal @ 7.0' bgs -
- EOB -

Boring B-2
Date 2/15/2022
Driller DR/JM/TO Geologist JMM
Rig 6MS 9520 VTR Method Direct Push
PowerProbe

Interval	Recovery	Time	PID/Notes
0-4	NM	1105	7.3ppm @ 1.3-1.8
	* HAND CLEARED 0-4' bgs "		
4-7	3.0'	1400	2.7ppm @ 6.7'

PCB samples collected @:

1.3-1.8 @ 1105 (1,4Dioxane/PFAs MS/MSD)

1.8-3.8 @ 1106 HOLD

3.8-5.8 @ 1400 HOLD

5.8-7.0 @ 1401 ~~HOLD~~ (JM)

Description
0-0.7 CONCRETE

0.7-1.3' 10YR 3/2 Very dark greyish brown fine to medium subang. to ang. GRAVEL, trace fine Sand, Silt, moist, loose.

1.3-7.0' 10YR 3/2 Very dark greyish brown fine to med. subang. GRAVEL, some fine Sand, Little Silt, Little to trace Slag, Redbrick, moist, loose to med. firm... Glass, Concrete Slab from 2.7-3.2' bgs, becoming wet @ 6.7' bgs.

- Refusal @ 7.0' bgs -
- EOB -

National Grid Buffalo, NY 2/15/22

Weather- 18° F, Overcast

0630 - Arrives onsite

0700 - TGS meeting.

0745 - Resume coring, hand-clearing, drilling activities.

Completed Borings

- SB-17 EOB @ 8.7' bgs
- SB-12 EOB @ 7.0' bgs
- PB-7 EOB @ 5.1' bgs
- SB-2 EOB @ 7.0' bgs

1430 - Pack up & secure trailer & equipment.

1500 - Departs off-site.

National Grid Buffalo, NY

Daily Air Monitoring 2.15.2022

Time	PID Reading U/D (ppm)	Dusttrack Reading U/D (mg/m³)
0809	0.0/0.0	0.019 / 0.017
0842	0.0/0.0	0.018 / 0.018
0927	0.0/0.0	0.016 / 0.015
0951	0.0/0.0	0.015 / 0.017
1013	0.0/0.0	0.012 / 0.013
1041	0.0/0.0	0.012 / 0.012
1123	0.0/0.0	0.013 / 0.014
1302	0.0/0.0	0.011 / 0.012
1353	0.0/0.0	0.012 / 0.012
1410	0.0/0.0	0.013 / 0.013

(JW) National Grid | Buffalo, NY

Boring B-11
Date 2/16/22
Drillers DR/TD/JM/TF Geologist JMM
Rig AMS 1520VTR Power Probe Method Direct Push

Interval	Recovery	Time	PID/Notes
0-4'	NM	0905	60.6ppm @ 1.2-1.7'
* Hand Cleared 0-4' bgs *			
4-6.5	1.4	1140	ND

PCB samples collected @

1.2-1.7 @ 0905 FD-02162022

1.7-3.7 @ 0906 HOLD

3.7-5.7 @ 1140

5.7-6.5 @ 1141 HOLD

Description

0-0.7 CONCRETE

0.7-1.2 - 10YR 3/2 Very dark greyish brown fine to med. subang. GRAVEL, little fine Sand, trace Silt, moist, loose.

1.2-1.7' 10YR 3/2 Very dark greyish brown fine SAND, little fine to med. subang. Gravel, Silt, moist, loose.. trace Slag
* Faint solvent-like odor *

1.7-3.7 10YR 3/2 Very dark greyish brown fine SAND, moist, loose.

3.7-4.1 10YR 2/2 V.Dark brown SILT, moist, soft.

4.1-6.5 10YR 4/2 Brown Silty CLAY, little fine to med. subround embedded Gravel, trace fine Sand, moist firm becoming stiff, non-plastic.
- Refusal @ 6.5' bgs -
- EOB -

National Grid

Boring B-16
Date 2/16/22
Drillers DR/TP/TO/Jm Geologist JMM
Rig ems 9520 VTR Power Method Direct Push Probe

Interval	Recovery	Time	PID (ppm)
0-4	NM	0940	7.0 ppm 1.2-1.7
	Hand Cleared 0-4' bgs		4.9 ppm (1.7-3.7)
4-7.7	3.7'	1125	NO

PCB samples collected @:

1.2-1.7 @ 0940 (1,4 Dioxane/PFAs)
- MS/MSD PCBs -
1.7-3.7 @ 0941 HOLD
3.7-5.7 @ 1125
5.7-7.7 @ 1126 HOLD

Buffalo, NY

Description
0-0.7' ASPHALT

0.7-1.2' 10YR 3/2 Very dark grayish brown org. to suborg. GRAVEL, trace fine Sand, Silt, moist, loose.

1.2-1.7' 10YR 3/3 Dark brown fine SAND, moist, loose.

1.7-4.4 10YR 3/2 to 10YR 3/3 Very dark grayish brown to dark brown fine SAND, some Silt little fine to med subang Gravel, Rd Brick, trace Clay moist, loose to med firm.

4.4-4.8 10YR 3/2 Very dark brown SILT, soft, moist.

4.8-7.7' 10YR 3/3 to 10YR 4/3 Dark brown to brown Silty CLAY trace fine to med subang. embedded Gravel, fine Sand, moist, stiff non-plastic
- Refusal @ 7.7 bgs -
- EOB -

Boring B-6
Date 2/16/22
Rig AMS 9500VTR Power Probe Method Direct Push
Drillers DR/TP/TO/JM Geologist JMM

Interval	Recovery	Time	PID/Notes
0-4	NM	1040	ND
- Hand Cleared 0-4' bgs -			
4-5.3	1.1	1210	ND

PCB samples collected @

1.0-1.5 @ 1040 (1,4 Dioxane, PFAs)

1.5-3.5 @ 1041

3.5-5.3 @ 1210 HOLD
FD-02162022-B

Description
0-0.6' CONCRETE

0.6-0.7 10YR 3/2 Very dark grayish brown fine to med. ang. to subang. Gravel, trace fine Sand, Silt, moist, loose.

0.7-1.0' CONCRETE

1.0-3.5' 10YR 3/3 to 10YR 4/3 Dark brown to brown Silty CLAY, trace fine to med. subang. to subround Gravel, moist, stiff. - trace Red Brick -

3.5-4.0' 10YR 2/2 Dark brown SILT, moist, stiff

4.0-5.3 10YR 4/3 Brown Silty CLAY, trace fine subround Gravel, trace fine Sand moist firm
- Refusal @ 5.3' bgs -
- EOB -

Boring B-1
Date 2/16/22
Drillers DR/TP/TC/SM   Geologist JMM
Rig AMS 9500 VTR Power Probe   Method Direct Push

Interval	Recovery	Time	PID/Notes
0-4'	NM	1305	22 ppm @ 1.2-1.7
4-5.1	1.1'	1320	ND

PCB samples collected @:

1.2-1.7 @ 1305

1.7-3.7 @ 1306

3.7-5.1 @ 1320   HOLD

Description
0-0.9 CONCRETE

0.9-1.2' 10YR 3/2 Very dark greyish brown fine to medium subangular GRAVEL, trace fine Sand, Silt, moist, loose

1.7-3.7' 10YR 3/2 Very dark greyish brown fine SAND, some fine to med subang. Gravel, Silt, little coarse Gravel, moist, loose to med. firm,

3.7-4.0 10YR 2/2 Dark brown SILT, moist, soft.

4.0-5.1 10YR 4/3 to 10YR 5/3 Brown Silty CLAY, little fine to med subang. cobble Gravel, trace fine Sand, moist, firm to med. stiff, non-plastic,

- Refusal @ 5.1' bgs -
- EOB -

Scanned with CamScanner

National Grid Buffalo, NY 2/16/22

Weather- 40°F, Partly Sunny

0630 - Arcadis arrive on site.

0700 - TGS meeting

0740 - Begin coring / Hand Clearing / Drilling remaining locations

1330 - Completed borings:
- B-16
- B-11
- B-6
- B-1

1445 - Completed processing of remaining borings. Secure tools & equipment.

1500 - Arcadis off-site, DMM to Amherst lab to deliver samples.

National Grid, Buffalo, NY

DAILY AIR MONITORING 2.16.22

TIME	PID READING U/D (PPM)	DUST TRACK READING U/D (mg/m³)
0801	0.0 / 0.0	0.033 / 0.023
0847	0.0 / 0.0	0.035 / 0.039
0933	0.0 / 0.0	0.037 / 0.039
1011	0.0 / 0.0	0.035 / 0.038
1053	0.0 / 0.0	0.034 / 0.034
1127	0.0 / 0.0	0.031 / 0.030
1219	0.0 / 0.0	0.030 / 0.031
1306	0.0 / 0.0	0.029 / 0.028

(JM) National Grid Buffalo NY

Weather: 38°F, Rain

0630 - Arrives on site. TGS meeting

0900 - Pack up toolings & equipment for demobilization. Leaves off-site

Boring B-27
Date 12/19/22
Driller DR Geologist JM
Rig AMS 9520 XP Method Direct Push
Power Probe

Interval	Recovery	Time	PID/Notes
0-4	NM	1400	0.7ppm
	-Hand Cleared 0-4' bgs-		
4-5'	1.0	NM	0.0 ppm

PCB samples CO relative to bottom of sleeve

B-27 (0-0.5) @ 1300 B-27 (0.75-1.25)

B-27 (0.5-2.0) @ 1330 B-27 (1.25-2.75) ARCHIVE

B-27 (2.0-4.0) @ 1400 B-27 (2.75-4.75)

B-27 (4.0-5.0) @ 1430

(M)

Description

0-0.25' ASPHALT.

0.25-0.7 10YR 3/1 Very dark grey fine to medium angular to subangular GRAVEL, moist, loose. [SUBBASE]

0.7-1.25 10YR 3/1 Very dark grey fine to medium subangular GRAVEL, some fine Sand, Little Silt, Anthropogenics (Red Brick), trace Clay, moist, firm.

1.25-3.6 10YR 3/2 Very dark grey-dark brown Silty CLAY, some to Little Anthropogenics (Red Brick, Concrete, Slag, Metal, Asphalt P. pcs), Cobbles, moist, firm, NP.
* Solvent-like odor

3.6-4.8 10YR 4/3 Brown Silty CLAY, some fine Sand, Little medium subangular Gravel, moist, firm.

4.8-5.0' 10YR 4/1 Dark grey ROCK FRAGMENTS
- Refusal @ 5.0' bgs -
- EOB -

Boring B-31
Date 12/20/22
Driller DR Geologist JM
Rig 4MS 9520 VOR Method Direct Push
Power Probe

Interval	Recovery	Time	PID/Notes
0.4	NM	0905	0.8ppm
	- HAND CLEARED -		
4-7.5	3.4	1435	0.0ppm

PCB samples:

B-31 (1.0-1.5) @ 0820
B-31 (1.5-3.0) @ 0905 Archive
B-31 (3.0-5.0) @ 1430 Archive
B-31 (5.0-7.0) @ 1434 ~~MS/MSD~~
B-31 (7.0-7.5) @ 1435 Archive

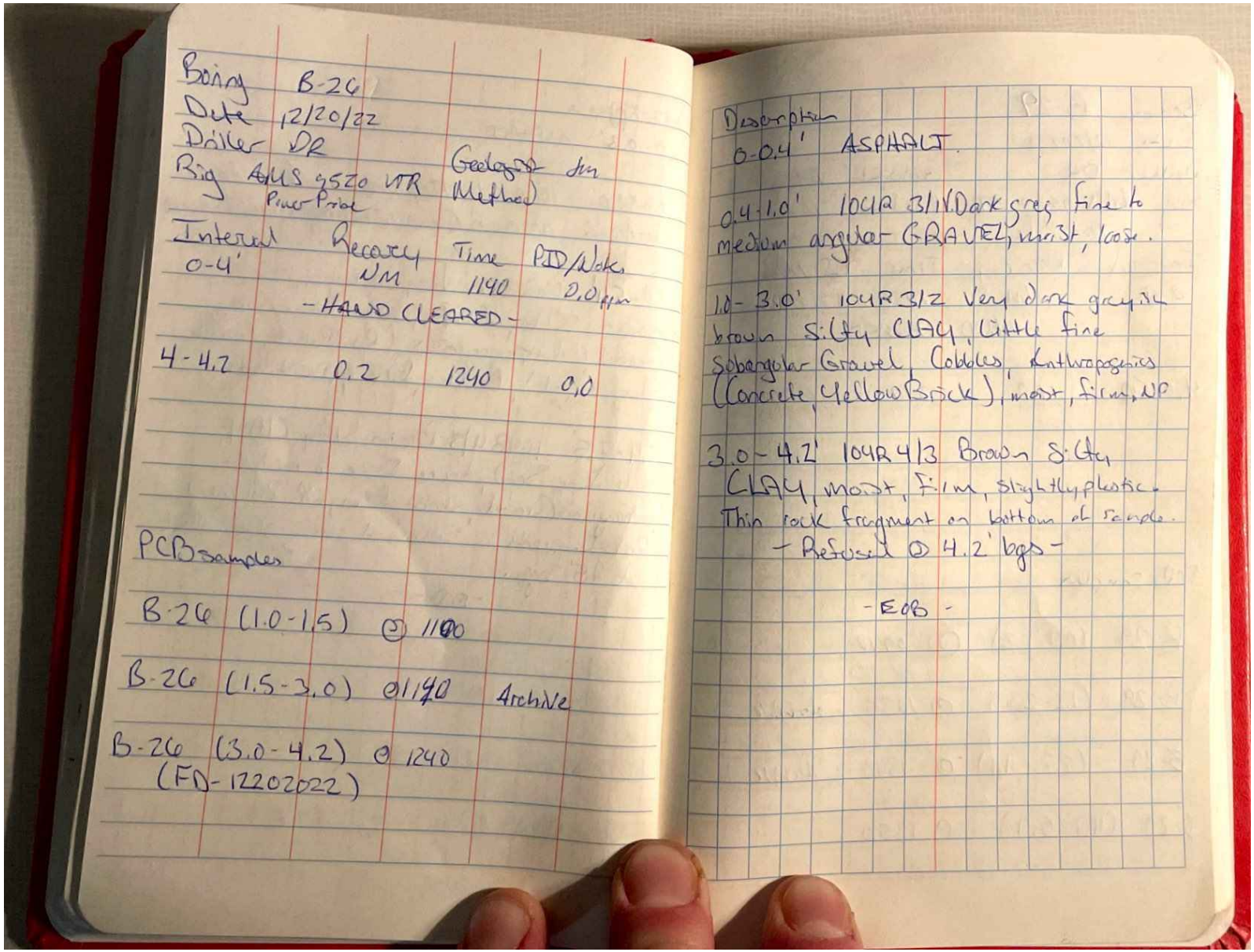
Description
0-0.3' ASPHALT

0.3-1.0' 10YR 3/1 Very dark grey fine to medium angular GRAVEL, moist, loose SUBBASE

1.0-5.4' 10YR 3/2 Very dark grayish brown Silty CLAY, little fine subang Gravel Anthropogenics (Red Brick, Concrete, Slag, Metal), Cobbles, firm, moist.

5.4-7.5' 10YR 4/3 Brown Silty CLAY, little fine Sand, trace fine to medium subangular Gravel, moist, firm, NP. Polurized Rock fragments in bottom of cutting shoe Refusal at 7.5' bgs.

EOB -



Boring B-26
Date 12/20/22
Driller DR Geologist Jm
Rig AMS 9520 VTR (Method)
Power Probe

Interval	Recovery	Time	PID/Woks
0-4'	NM	1140	0.0 ppm

- HAND CLEARED -

4-4.2	0.2	1240	0.0

PCB samples

B-26 (1.0-1.5) @ 1140

B-26 (1.5-3.0) @ 1140 Archive

B-26 (3.0-4.2) @ 1240
(FD-12202022)

Description
0-0.4' ASPHALT.

0.4-1.0' 10YR 3/1 Dark grey, fine to medium angular GRAVEL, moist, loose.

1.0-3.0' 10YR 3/2 Very dark grayish brown Silty CLAY, little fine Subangular Gravel, Cobbles, Anthropogenics (Concrete, Yellow Brick), moist, firm, NP

3.0-4.2' 10YR 4/3 Brown Silty CLAY, moist, firm, slightly plastic. Thin rock fragment on bottom of sample.
- Refusal @ 4.2' bgs -

- EOB -

Boring B-29
Date 12/20/22
Driller DR Geologist HM
Rig AMS 7520 VTR Method) DirectPush
Power Probe

Interval	Recovery	Time	PID/Nob
0-4	NM	1035	0.8ppm
	-HAND CLEARED-		
4.0-5.9	1.9	1340	0.0ppm

PCB Samples

B-29 (0.7-1.2) @ 0940

B-29 (1.2-2.7) @ 1035 Archive

B-29 (2.7-4.7) @ 1340 Archive

B-29 (4.7-5.9) @ 1350

Description

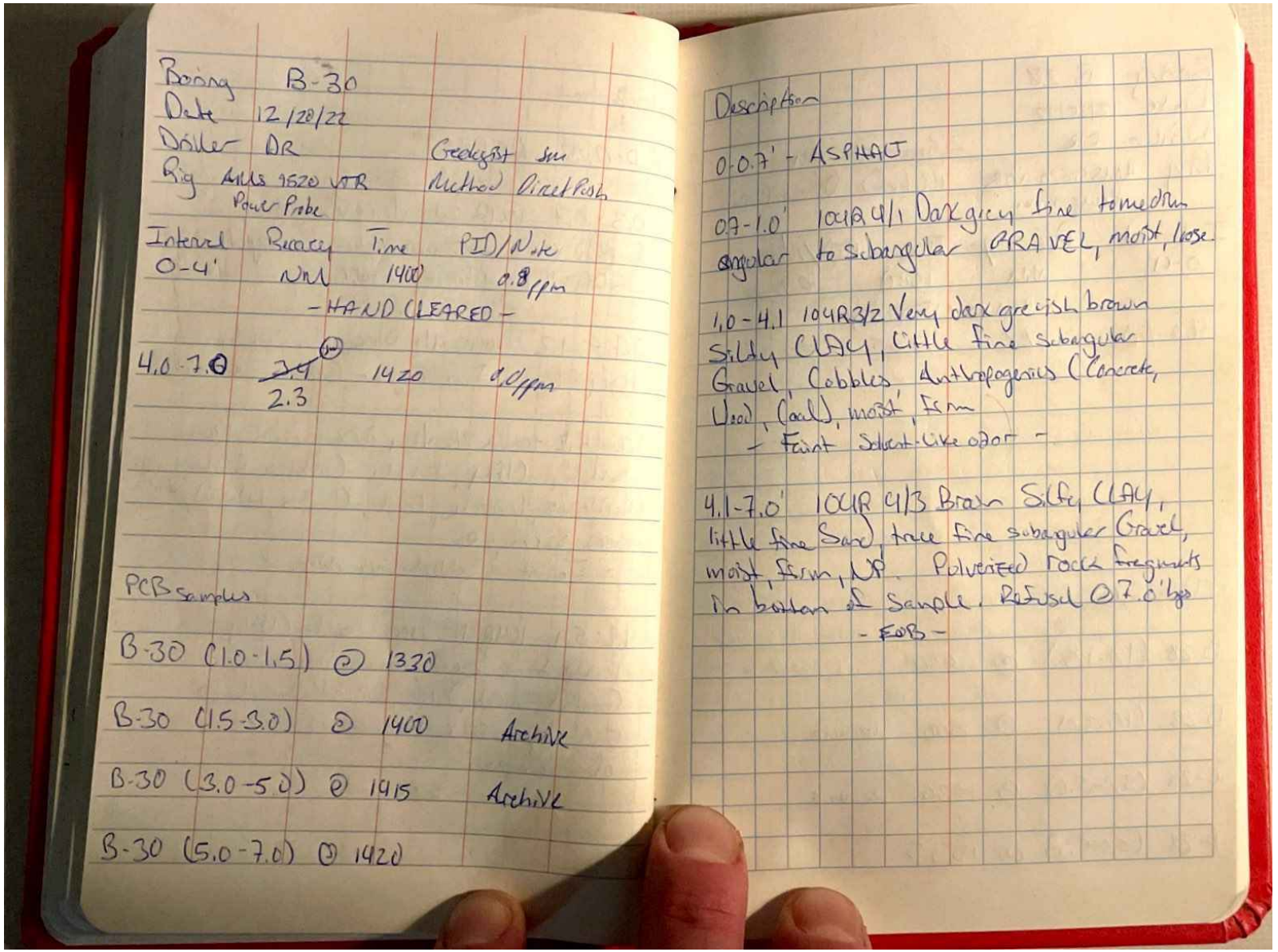
0-0.3' ASPHALT.

0.3-0.7 10YR 3/1 Very dark gray fine to medium subangular to angular GRAVEL, Moist, Loose.

0.7-1.2' 10YR 4/1 Dark gray Silty CLAY, Little fine angular Gravel, wet, soft.

1.2-4.2 10YR 3/2 Very dark grayish brown Silty CLAY, Little Cobbles, Anthropogenic (Red Brick, Concrete, Coal, Cinders, Wood), Moist, firm, NP.
- Faint 'Solvent-like odor. -

4.2-5.9 10YR 4/3 Brown Silty CLAY little fine Sand, trace fine subang. Gravel, moist, firm, NP. Refusal @ 5.9' bgs, rock fragments in bottom of Sample.
-EOB-



Boring B-30
Date 12/28/22
Driller DR
Rig Mills 9520 VTR Power Probe
Geologist SM
Method Direct Push

Interval	Recovery	Time	PID/Note
0-4'	NM	1400	0.8 ppm
	- HAND CLEARED -		
4.0-7.0	~~3.4~~ 2.3	1420	0.0 ppm

PCB samples

B-30 (1.0-1.5) @ 1330

B-30 (1.5-3.0) @ 1400 Archive

B-30 (3.0-5.0) @ 1415 Archive

B-30 (5.0-7.0) @ 1420

Description

0-0.7' - ASPHALT

0.7-1.0' 10YR 4/1 Dark grey fine to medium angular to subangular GRAVEL, moist, loose

1.0-4.1 10YR 3/2 Very dark greyish brown Silty CLAY, Little fine subangular Gravel, Cobbles, Anthropogenics (Concrete, Wood, Coal), moist, firm
- Faint solvent-like odor -

4.1-7.0' 10YR 4/3 Brown Silty CLAY, little fine Sand, trace fine subangular Gravel, moist, firm, NP. Pulverized rocks fragments in bottom of Sample. Refusal @ 7.0' bgs
- EOB -

Boring B-28
Date 12/20/22
Driller DR Geologist SM
Rig 4MS9520 VTR Method Direct Push
Power Probe

Interval	Recovery	Time	PID/Notes
0-4'	NM	1500	0.9ppm
	- HAND CLEARED		
4.0-5.9	1.8	1535	0.0

PCB samples

B-28 (1.0-1.5) @ 1450

B-28 (1.5-3.0) @ 1520 ARCHIVE

0-28 (3.0-5.0) @ 1530 ARCHIVE

B-28 (5.0-5.9) @ 1535

Description

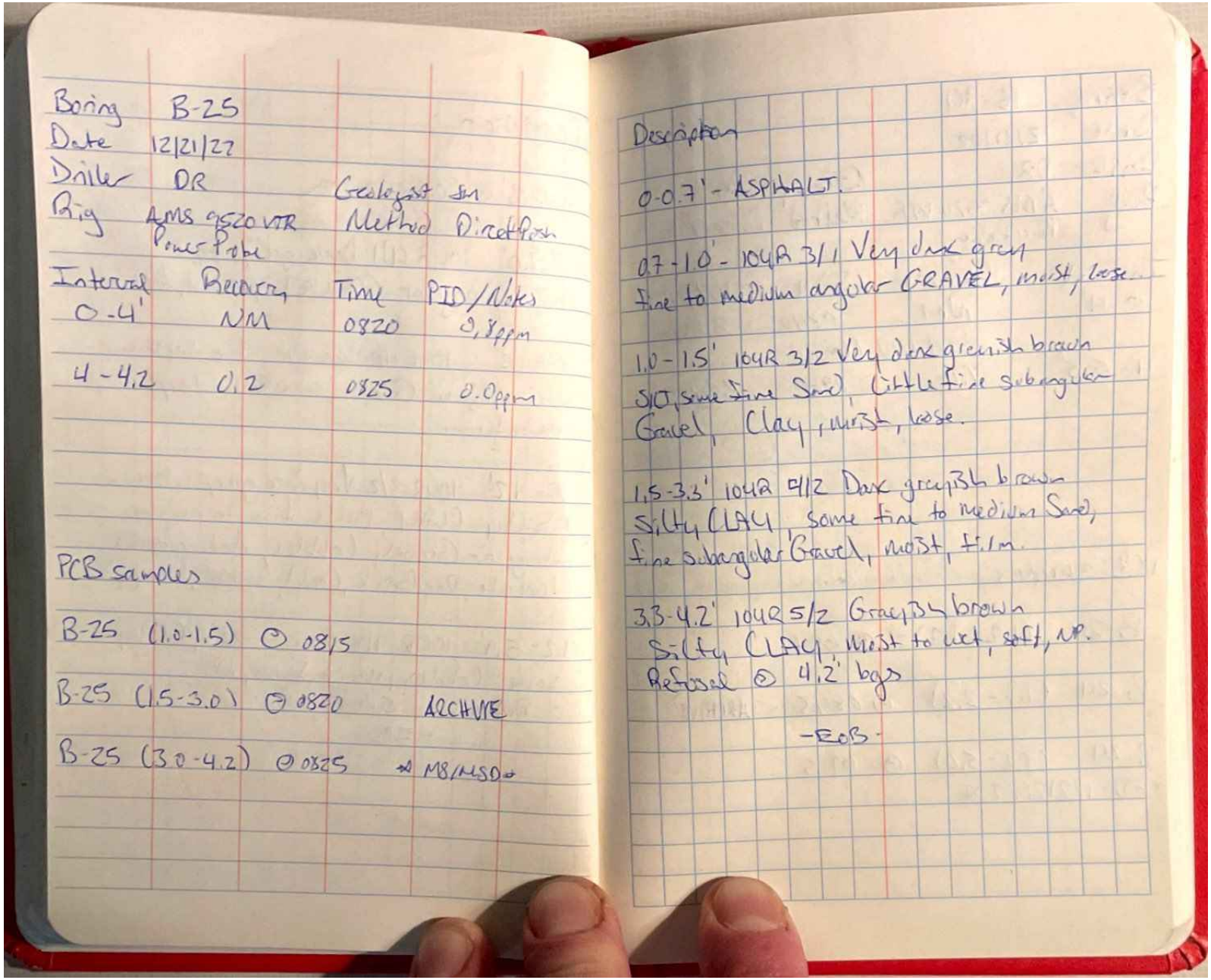
0-0.8' CONCRETE.

0.8-1.0' 10YR 4/1 Dark gray fine to medium angular GRAVEL, moist, loose.

1.0-1.5' 10YR 4/1 Dark gray fine SAND and fine subangular GRAVEL, some Silt, Clay, soft, loose to firm.

1.5-4.2' 10YR 3/2 Very dark grayish brown Silty CLAY, little fine to medium subangular Gravel, Cobbles, Anthropogenics (Concrete, RedBrick, Coal), moist, firm, NP.

4.2-5.9' 10YR 4/3 Brown Silty CLAY, some Cobbles, moist, firm, NP.
- Refusal @ 5.9' bgs -
-EOB-



Boring B-25
Date 12/21/22
Driller DR Geologist SH
Rig AMS 9520 VTR Method Direct Push
Power Probe

Interval	Recovery	Time	PID/Notes
0-4'	NM	0820	0.8 ppm
4-4.2	0.2	0825	0.0 ppm

PCB samples

B-25 (1.0-1.5) @ 0815

B-25 (1.5-3.0) @ 0820 ARCHIVE

B-25 (3.0-4.2) @ 0825 * MS/MSD

Description

0-0.7' - ASPHALT.

0.7-1.0' - 10YR 3/1 Very dark gray fine to medium angular GRAVEL, moist, loose.

1.0-1.5' 10YR 3/2 Very dark grayish brown SILT, some fine Sand, Little fine subangular Gravel, Clay, moist, loose.

1.5-3.3' 10YR 4/2 Dark grayish brown Silty CLAY, some fine to medium Sand, fine subangular Gravel, moist, firm.

3.3-4.2' 10YR 5/2 Grayish brown Silty CLAY, moist to wet, soft, NP. Refusal @ 4.2' bgs

-EOB-

Boring B-24
Date 12/21/22
Driller DR Geologist SM
Rig AMS 7520 VTR Method DirectPush
PowerProbe

Interval	Recovery	Time	PID / Notes
0-4'	NM - HAND Cleared -	0840	3.8ppm
4-5.0'	1.0'	0915	0.0ppm

PCB samples

B-24 (1.2-1.7) @ 0840

B-24 (1.7-3.2) @ 0845 ARCHIVE

B-24 (3.2-5.0) @ 0915
FD-12212022

Description-

0-0.8 CONCRETE.

0.8-1.2' 10YR 3/1 Very dark gray fine to medium Subangular to angular GRAVEL, moist, loose.

1.2-4.2' 10YR 4/1 Dark gray Silty CLAY, some fine subangular Gravel, fine to medium Sand, Wet, soft to loose. Iri. Iridescent sheen and degraded petroleum like odor.

4.2-4.7' 10YR 5/3 Brown Silty CLAY, little Fine subangular Gravel, fine Sand, moist, firm.

4.7-5.0' PULVERIZED ROCK.
Refusal @ 5.0' bgs

-EOB-

Appendix D

Soil Boring Logs

Date Start/Finish:	2/16/2022	**Northing:**	1067188.3256	**Well/Boring ID:**	**B-1**
Drilling Company:	Arcadis	**Easting:**	1078554.3332	**Client:**	National Grid
Driller's Name:	Douglas Richmond	**Casing Elevation:**	NA	**Location:**	Dewey/Kensington Service Center 114 Kensington Avenue Buffalo, NY 14203
Drilling Method:	Direct push	**Surface Elevation:**	651.92		
Sampling Method:	2 inch by 4 foot core barrel	**Borehole Depth:**	5.1 feet bgs		
Rig Type:	AMS 9520 VTR Power Probe	**Descriptions By:**	Joshua Miller		

Depth (feet bgs) / Elevation (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0							CONCRETE	Asphalt patch
1							Very dark greyish brown fine to medium subangular GRAVEL, trace fine Sand, Silt, moist, loose.	
650	1	0-4	4.0	2.2			Very dark greyish brown fine SAND, some fine to medium subangular Gravel, Silt, little coarse subangular Gravel, moist, loose to medium firm.	Borehole backfilled with bentonite
							Dark brown SILT, moist, soft.	
	2	4-5.1	1.1	0.0			Brown Silty CLAY, little fine to medium subangular embedded Gravel, trace fine Sand, moist, firm to medium stiff, non-plastic.	
5							Refusal encountered at 5.1 feet bgs.	

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Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL= Above Mean Sea Level; PID = photoionization detector; ppm = parts per million

Soils screened using 10.6eV lamp photoionization detector.

Borings hand cleared from 0 to 4 ft bgs using soft dig methods, prior to drilling.

Date Start/Finish:	2/15/2022	**Northing:**	1067192.8427	**Well/Boring ID:**	**B-2**
Drilling Company:	Arcadis	**Easting:**	1078600.5135	**Client:**	National Grid
Driller's Name:	Douglas Richmond	**Casing Elevation:**	NA	**Location:**	Dewey/Kensington Service Center 114 Kensington Avenue Buffalo, NY 14203
Drilling Method:	Direct push	**Surface Elevation:**	651.92		
Sampling Method:	2 inch by 4 foot core barrel	**Borehole Depth:**	7.0 feet bgs		
Rig Type:	AMS 9520 VTR Power Probe	**Descriptions By:**	Joshua Miller		

Depth (feet bgs) / Elevation (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
650	1	0-4	4.0	7.3			CONCRETE.	Asphalt patch
							Very dark greyish brown fine to medium subangular to angular GRAVEL, trace fine Sand Silt, moist, loose	
							Very dark greyish brown fine to medium subangular GRAVEL, some fine Sand, little Silt, little to trace Slag, red Brick, Glass, moist becoming wet at 6.7 feet bgs, loose to medium firm. Concrete slab encountered from 2.7 to 3.2 feet bgs	Borehole backfilled with bentonite
5	2	4-7	3.0	2.7				
645							Refusal encountered at 7.0 feet bgs.	

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Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL= Above Mean Sea Level; PID = photoionization detector; ppm = parts per million.

Soils screened using 10.6eV lamp photoionization detector.

Borings hand cleared from 0 to 4 ft. bgs using soft dig methods, prior to drilling.

Date Start/Finish:	2/10/2022	**Northing:**	1067191.3898	**Well/Boring ID:**	**B-3**
Drilling Company:	Arcadis	**Easting:**	1078662.3970	**Client:**	National Grid
Driller's Name:	Douglas Richmond	**Casing Elevation:**	NA	**Location:**	Dewey/Kensington Service Center 114 Kensington Avenue Buffalo, NY 14203
Drilling Method:	Direct push	**Surface Elevation:**	651.89		
Sampling Method:	2 inch by 4 foot core barrel	**Borehole Depth:**	5.9 feet bgs		
Rig Type:	AMS 9520 VTR Power Probe	**Descriptions By:**	Joshua Miller		

Depth (feet bgs) / Elevation (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0							ASPHALT.	Asphalt patch
							Very dark greyish brown fine to medium subangular to angular GRAVEL, some coarse subangular Gravel, little fine Sand, Silt, moist becoming wet at 1.1 feet bgs, loose to medium firm.	
650	1	0-4	4.0	2.7			Very dark greyish brown medium to coarse subangular GRAVEL and fine SAND, some fine subangular Gravel, little Silt, wet, medium firm.	Borehole backfilled with bentonite
							Dark brown Silty CLAY, moist, soft to slightly firm, slighlly plastic.	
							Brown Silty CLAY, some medium to coarse subangular embedded Gravel, moist, stiff.	
5	2	4-5.9	1.3	0.0			Refusal encountered at 5.9 feet bgs.	

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Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL= Above Mean Sea Level; PID = photoionization detector; ppm = parts per million

Soils screened using 10.6eV lamp photoionization detector.

Borings hand cleared from 0 to 4 ft bgs using soft dig methods, prior to drilling.

Date Start/Finish:	2/10/2022	**Northing:**	1067194.0659	**Well/Boring ID:**	B-4
Drilling Company:	Arcadis	**Easting:**	1078679.8274	**Client:**	National Grid
Driller's Name:	Douglas Richmond	**Casing Elevation:**	NA	**Location:**	Dewey/Kensington Service Center 114 Kensington Avenue Buffalo, NY 14203
Drilling Method:	Direct push	**Surface Elevation:**	651.94		
Sampling Method:	2 inch by 4 foot core barrel	**Borehole Depth:**	6.0 feet bgs		
Rig Type:	AMS 9520 VTR Power Probe	**Descriptions By:**	Joshua Miller		

Depth (feet bgs) / Elevation (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0							ASPHALT.	Asphalt patch
							Very dark greyish brown medium to coarse subangular GRAVEL, little fine subangular Gravel, fine Sand, trace Silt, moist, loose.	
650	1	0-4	4.0	2.3			Very dark greyish brown fine SAND and fine to medium subangular GRAVEL, some coarse Gravel, little Silt, red Brick, Concrete, Wood, wet, firm.	Borehole backfilled with bentonite
							Dark brown Silty CLAY, soft, wet, slightly plastic.	
5	2	4-6	2.0	0.0			Brown Silty CLAY, little fine to medium subangular to subround embedded Gravel, trace fine Sand, moist, stiff, non-plastic.	
							Refusal encountered at 6.0 feet bgs.	

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Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL= Above Mean Sea Level; PID = photoionization detector; ppm = parts per million

Soils screened using 10.6eV lamp photoionization detector.

Borings hand cleared from 0 to 4 ft bgs using soft dig methods, prior to drilling.

Date Start/Finish:	2/8/2022	**Northing:**	1067190.3196	**Well/Boring ID:**	**B-5**
Drilling Company:	Arcadis	**Easting:**	1078733.8171	**Client:**	National Grid
Driller's Name:	Douglas Richmond	**Casing Elevation:**	NA	**Location:**	Dewey/Kensington Service Center 114 Kensington Avenue Buffalo, NY 14203
Drilling Method:	Direct push	**Surface Elevation:**	652.11		
Sampling Method:	2 inch by 4 foot core barrel	**Borehole Depth:**	5.7 feet bgs		
Rig Type:	AMS 9520 VTR Power Probe	**Descriptions By:**	Joshua Miller		

Depth (feet bgs) / Elevation (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
650	1	0-4	4.0	1.5			ASPHALT.	Asphalt patch
							Very dark greyish brown fine to medium angular to subangular GRAVEL, little fine Sand, trace Silt, moist, loose	
							Very dark greyish brown fine SAND, some fine to medium angular to subangular Gravel, some to little Silt, little to trace Clay, moist, firm.	Borehole backfilled with bentonite
5	2	4-5.7	1.4	0.0			Very dark greyish brown to dark brown Silty CLAY, little fine subangular embedded Gravel, moist, firm.	
							Refusal encountered at 5.7 feet bgs.	

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Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL= Above Mean Sea Level; PID = photoionization detector; ppm = parts per million

Soils screened using 10.6eV lamp photoionization detector.

Borings hand cleared from 0 to 4 ft bgs using soft dig methods, prior to drilling.

Date Start/Finish:	2/16/2022	**Northing:**	1067138.8284	**Well/Boring ID:**	**B-6**
Drilling Company:	Arcadis	**Easting:**	1078552.7485	**Client:**	National Grid
Driller's Name:	Douglas Richmond	**Casing Elevation:**	NA	**Location:**	Dewey/Kensington Service Center 114 Kensington Avenue Buffalo, NY 14203
Drilling Method:	Direct push	**Surface Elevation:**	651.57		
Sampling Method:	2 inch by 4 foot core barrel	**Borehole Depth:**	5.3 feet bgs		
Rig Type:	AMS 9520 VTR Power Probe	**Descriptions By:**	Joshua Miller		

Depth (feet bgs) / Elevation (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0							CONCRETE.	Asphalt patch
							Very dark greyish brown fine to medium angular to subangular GRAVEL, trace fine Sand, Silt, moist, loose	
							CONCRETE.	
							Dark brown to brown Silty CLAY, trace fine to medium subangular to subround Gravel, red Brick, moist, stiff	
650								
	1	0-4	4.0	0.0				Borehole backfilled with bentonite
							Dark brown SILT, moist, soft.	
							Brown Silty CLAY, trace fine subround Gravel, fine Sand, moist, firm.	
	2	4-5.3	1.1	0.0				
-5							Refusal encountered at 5.3 feet bgs.	

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Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL= Above Mean Sea Level; PID = photoionization detector; ppm = parts per million

Soils screened using 10.6eV lamp photoionization detector.

Borings hand cleared from 0 to 4 ft bgs using soft dig methods, prior to drilling.

Date Start/Finish:	2/15/2022	**Northing:**	1067145.732	**Well/Boring ID:**	**B-7**
Drilling Company:	Arcadis	**Easting:**	1078588.794	**Client:**	National Grid
Driller's Name:	Douglas Richmond	**Casing Elevation:**	NA	**Location:**	Dewey/Kensington Service Center 114 Kensington Avenue Buffalo, NY 14203
Drilling Method:	Direct push	**Surface Elevation:**	651.78		
Sampling Method:	2 inch by 4 foot core barrel	**Borehole Depth:**	5.1 feet bgs		
Rig Type:	AMS 9520 VTR Power Probe	**Descriptions By:**	Joshua Miller		

Depth (feet bgs) / Elevation (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0							CONCRETE.	Asphalt patch
							Very dark greyish brown fine to medium angular to subangular GRAVEL, trace fine Sand, Silt, moist, loose	
650							Very dark greyish brown to dark brown fine SAND, some fine to medium subangular Gravel, little Silt, Slag fragments, Metal, Glass, moist, loose to medium firm	
	1	0-4	4.0	7.9				Borehole backfilled with bentonite
							Brown Silty CLAY, trace fine Sand, moist, firm becoming stiff, non-plastic.	
	2	4-5.1	0.9	0.0				
5							Refusal encountered at 5.1 feet bgs.	

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Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL= Above Mean Sea Level; PID = photoionization detector; ppm = parts per million

Soils screened using 10.6eV lamp photoionization detector.

Borings hand cleared from 0 to 4 ft bgs using soft dig methods, prior to drilling.

Date Start/Finish:	2/14/2022	**Northing:**	1067146.6375	**Well/Boring ID:**	**B-8**
Drilling Company:	Arcadis	**Easting:**	1078635.8156	**Client:**	National Grid
Driller's Name:	Douglas Richmond	**Casing Elevation:**	NA	**Location:**	Dewey/Kensington Service Center 114 Kensington Avenue Buffalo, NY 14203
Drilling Method:	Direct push	**Surface Elevation:**	651.54		
Sampling Method:	2 inch by 4 foot core barrel	**Borehole Depth:**	5.7 feet bgs		
Rig Type:	AMS 9520 VTR Power Probe	**Descriptions By:**	Joshua Miller		

Depth (feet bgs) / Elevation (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
650		0-4	4.0	3.2			CONCRETE. Very dark greyish brown fine to medium subangular GRAVEL, little fine Sand, trace Silt Very dark greyish brown fine SAND and fine to medium subangular GRAVEL, little coarse subangular Gravel, Silt, red Brick, Glas, wet, loose Brown Silty CLAY, little fine to medium subangular embedded Gravel, moist, medium firm, slightly plastic. Refusal encountered at 5.7 feet bgs.	Asphalt patch Borehole backfilled with bentonite
645		4-5.7	1.6	0.0				

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Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL= Above Mean Sea Level; PID = photoionization detector; ppm = parts per million

Soils screened using 10.6eV lamp photoionization detector.

Borings hand cleared from 0 to 4 ft bgs using soft dig methods, prior to drilling.

Date Start/Finish:	2/10/2022	**Northing:**	1067143.0108	**Well/Boring ID:**	**B-9**
Drilling Company:	Arcadis	**Easting:**	1078692.8912	**Client:**	National Grid
Driller's Name:	Douglas Richmond	**Casing Elevation:**	NA	**Location:**	Dewey/Kensington Service Center 114 Kensington Avenue Buffalo, NY 14203
Drilling Method:	Direct push	**Surface Elevation:**	651.97		
Sampling Method:	2 inch by 4 foot core barrel	**Borehole Depth:**	6.9 feet bgs		
Rig Type:	AMS 9520 VTR Power Probe	**Descriptions By:**	Joshua Miller		

Depth (feet bgs) / Elevation (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
650	1	0-4	4.0	2.7			CONCRETE.	Asphalt patch
							Dark brown fine to medium subangular **GRAVEL**, little fine Sand, trace Silt, moist, loose	
							Very dark greyish brown fine SAND and fine to medium subangular **GRAVEL**, some coarse Gravel, little Silt, little to trace Clay, moist, firm. Concrete encountered from 3.6-4.0 feet bgs	Borehole backfilled with bentonite
5	2	4-6.9	2.9	0.0			Brown Silty **CLAY**, little fine to medium subangular to subround embedded Gravel, trace fine Sand, moist, slight to medium firm, slightly plastic.	
							Refusal encountered at 6.9 feet bgs.	

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Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL= Above Mean Sea Level; PID = photoionization detector; ppm = parts per million

Soils screened using 10.6eV lamp photoionization detector.

Borings hand cleared from 0 to 4 ft bgs using soft dig methods, prior to drilling.

Date Start/Finish: 2/8/2022	**Northing:** 1067145.7994	**Well/Boring ID:** B-10	
Drilling Company: Arcadis	**Easting:** 1078736.1250	**Client:** National Grid	
Driller's Name: Douglas Richmond	**Casing Elevation:** NA		
Drilling Method: Direct push	**Surface Elevation:** 652.18	**Location:**	
Sampling Method: 2 inch by 4 foot core barrel	**Borehole Depth:** 7.0 feet bgs	Dewey/Kensington Service Center 114 Kensington Avenue Buffalo, NY 14203	
Rig Type: AMS 9520 VTR Power Probe Delete if not used	**Descriptions By:** Joshua Miller		

Depth (feet bgs) / Elevation (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0							ASPHALT.	Asphalt patch
							Very dark greyish brown fine to medium subangular to angular GRAVEL, little fine Sand, trace Silt, moist, loose.	
650	1	0-4	4.0	3.5			Very dark greyish brown fine SAND, some fine to medium subangular Gravel, little Silt, moist becoming wet at 4.0 feet bgs.	Borehole backfilled with bentonite
5	2	4-7	3.0	0.0			Very dark greyish brown Silty fine SAND, little Clay, moist, firm.	
							Brown Silty CLAY, little fine subround embedded Gravel, moist, stiff, non-plastic.	
							Refusal encountered at 7.0 feet bgs.	

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL= Above Mean Sea Level; PID = photoionization detector; ppm = parts per million

Soils screened using 10.6eV lamp photoionization detector.

Borings hand cleared from 0 to 4 ft bgs using soft dig methods, prior to drilling.

Date Start/Finish:	2/16/2022	**Northing:**	1067096.2569	**Well/Boring ID:**	**B-11**
Drilling Company:	Arcadis	**Easting:**	1078551.4071	**Client:**	National Grid
Driller's Name:	Douglas Richmond	**Casing Elevation:**	NA	**Location:**	Dewey/Kensington Service Center 114 Kensington Avenue Buffalo, NY 14203
Drilling Method:	Direct push	**Surface Elevation:**	651.62		
Sampling Method:	2 inch by 4 foot core barrel	**Borehole Depth:**	6.5 feet bgs		
Rig Type:	AMS 9520 VTR Power Probe	**Descriptions By:**	Joshua Miller		

Depth (feet bgs) / Elevation (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
650	1	0-4	4.0	60.6			CONCRETE.	Asphalt patch
							Very dark greyish brown fine to medium subangular GRAVEL, little fine Sand, trace Silt, moist, loose.	
							Very dark greyish brown fine SAND, little fine to medium subangular Gravel, Silt, trace Slag fragments, moist, loose. Faint solvent-like odor.	
							Very dark greyish brown fine SAND, moist, loose.	Borehole backfilled with bentonite
							Dark brown SILT, moist, soft.	
5	2	4-6.5	1.4	0.0			Brown Silty CLAY, little fine to medium embedded Gravel, trace fine Sand, moist, firm becoming stiff, non-plastic	
							Refusal encountered at 6.5 feet bgs.	

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL= Above Mean Sea Level; PID = photoionization detector; ppm = parts per million

Soils screened using 10.6eV lamp photoionization detector.

Borings hand cleared from 0 to 4 ft bgs using soft dig methods, prior to drilling.

Date Start/Finish:	2/15/2022	**Northing:**	1067101.0184	**Well/Boring ID:**	**B-12**
Drilling Company:	Arcadis	**Easting:**	1078597.2192	**Client:**	National Grid
Driller's Name:	Douglas Richmond	**Casing Elevation:**	NA	**Location:**	Dewey/Kensington Service Center 114 Kensington Avenue Buffalo, NY 14203
Drilling Method:	Direct push	**Surface Elevation:**	651.67		
Sampling Method:	2 inch by 4 foot core barrel	**Borehole Depth:**	7.0 feet bgs		
Rig Type:	AMS 9520 VTR Power Probe	**Descriptions By:**	Joshua Miller		

Depth (feet bgs) / Elevation (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0							CONCRETE.	Asphalt patch
							Very dark greyish brown fine to medium subangular GRAVEL, little fine Sand, trace Silt, moist, loose.	
650							Very dark greyish brown to dark brown fine SAND and fine to medium subangular GRAVEL, some Silt, little to trace Clay, moist, firm	
	1	0-4	4.0	3.3				
								Borehole backfilled with bentonite
5							Brown Silty CLAY, trace fine to medium subround embedded Gravel, fine Sand, moist, stiff.	
	2	4-7	3.0	0.0				
645							Refusal encountered at 7.0 feet bgs.	

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL= Above Mean Sea Level; PID = photoionization detector; ppm = parts per million

Soils screened using 10.6eV lamp photoionization detector.

Borings hand cleared from 0 to 4 ft bgs using soft dig methods, prior to drilling.

Date Start/Finish:	2/10/2022	**Northing:**	1067082.4120	**Well/Boring ID:**	**B-13**
Drilling Company:	Arcadis	**Easting:**	1078654.6787	**Client:**	National Grid
Driller's Name:	Douglas Richmond	**Casing Elevation:**	NA	**Location:**	Dewey/Kensington Service Center 114 Kensington Avenue Buffalo, NY 14203
Drilling Method:	Direct push	**Surface Elevation:**	651.51		
Sampling Method:	2 inch by 4 foot core barrel	**Borehole Depth:**	7.9 feet bgs		
Rig Type:	AMS 9520 VTR Power Probe	**Descriptions By:**	Joshua Miller		

Depth (feet bgs) / Elevation (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
650	1	0-4	4.0	1.8			CONCTETE.	Asphalt patch
							Dark brown fine to medium subangular GRAVEL, little fine Sand, trace Silt, moist, loose.	
							Dark brown to very dark greyish brown fine SAND, some fine to medium subangular Gravel, little coarse Gravel, Silt, wet, medium firm.	
							Dark brown Silty CLAY, trace fine Sand, moist, soft to slightly firm, non-plastic	Borehole backfilled with bentonite
5							Brown Silty CLAY, little fine to medium subangular to subround embedded Gravel, moist, firm becoming stiff, non-plastic.	
645	2	4-7.9	3.4	0.0			Refusal encountered at 7.9 feet bgs.	

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL= Above Mean Sea Level; PID = photoionization detector; ppm = parts per million

Soils screened using 10.6eV lamp photoionization detector.

Borings hand cleared from 0 to 4 ft bgs using soft dig methods, prior to drilling.

Date Start/Finish:	2/9/2022	**Northing:**	1067091.7535	**Well/Boring ID:**	**B-14**
Drilling Company:	Arcadis	**Easting:**	1078677.3252	**Client:**	National Grid
Driller's Name:	Douglas Richmond	**Casing Elevation:**	NA	**Location:**	Dewey/Kensington Service Center 114 Kensington Avenue Buffalo, NY 14203
Drilling Method:	Direct push	**Surface Elevation:**	651.73		
Sampling Method:	2 inch by 4 foot core barrel	**Borehole Depth:**	7.9 feet bgs		
Rig Type:	AMS 9520 VTR Power Probe	**Descriptions By:**	Joshua Miller		

Depth (feet bgs) / Elevation (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
650	1	0-4	4.0	1.3			ASPHALT.	Asphalt patch
							Very dark greyish brown fine to medium subangular GRAVEL, little fine Sand, medium Sand, Silt, moist, loose.	
							Very dark greyish brown fine to medium subangular GRAVEL and fine SAND, some Silt, medium Sand, wet, loose.	
645	2	4-7.9	2.8	0.0			Brown Silty CLAY, trace fine Sand, fine to medium subangualr to subround embedded Gravel, moist, firm to slightly stiff, non-plastic	Borehole backfilled with bentonite
							Grey fine to medium angular GRAVEL, some Silty Clay, trace fine Sand, wet, loose.	
							Refusal encountered at 7.9 feet bgs.	

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Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL= Above Mean Sea Level; PID = photoionization detector; ppm = parts per million

Soils screened using 10.6eV lamp photoionization detector.

Borings hand cleared from 0 to 4 ft bgs using soft dig methods, prior to drilling.

Date Start/Finish:	2/8/2022	**Northing:**	1067100.4853	**Well/Boring ID:**	**B-15**
Drilling Company:	Arcadis	**Easting:**	1078734.8137	**Client:**	National Grid
Driller's Name:	Douglas Richmond	**Casing Elevation:**	NA	**Location:**	Dewey/Kensington Service Center 114 Kensington Avenue Buffalo, NY 14203
Drilling Method:	Direct push	**Surface Elevation:**	651.96		
Sampling Method:	2 inch by 4 foot core barrel	**Borehole Depth:**	8.3 feet bgs		
Rig Type:	AMS 9520 VTR Power Probe	**Descriptions By:**	Joshua Miller		

Depth (feet bgs) / Elevation (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0							ASPHALT	Asphalt patch
							Dark brown fine to medium angular to subangular GRAVEL, some to little fine Sand, loose, moist.	
							Dark brown fine SAND and fine to medium subangular GRAVEL, some coarse Gravel, little Silt, little to trace Clay, moist, firm.	
650	1	0-4	4.0	4.3				
							Dark brown to very dark greyish brown fine SAND, some Silt, fine subangular Gravel, little medium Gravel, little to trace Clay, moist, firm.	Borehole backfilled with bentonite
5								
	2	4-8	3.0	0.0				
645								
							Brown Silty CLAY, little to trace fine Sand, fine subangular to subround embedded Gravel, moist, stiff.	
	3	8-8.3	0.3	0.0			Refusal encountered at 8.3 feet bgs.	

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Soils screened using 10.6eV lamp photoionization detector.

Borings hand cleared from 0 to 4 ft bgs using soft dig methods, prior to drilling.

Date Start/Finish:	2/16/2022	**Northing:**	1067050.1079	**Well/Boring ID:**	**B-16**
Drilling Company:	Arcadis	**Easting:**	1078553.7387	**Client:**	National Grid
Driller's Name:	Douglas Richmond	**Casing Elevation:**	NA	**Location:**	Dewey/Kensington Service Center 114 Kensington Avenue Buffalo, NY 14203
Drilling Method:	Direct push	**Surface Elevation:**	651.68		
Sampling Method:	2 inch by 4 foot core barrel	**Borehole Depth:**	7.7 feet bgs		
Rig Type:	AMS 9520 VTR Power Probe	**Descriptions By:**	Joshua Miller		

Depth (feet bgs) / Elevation (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0 650	1	0-4	4.0	4.9			ASPHALT Very dark greyish brown angular to subangular GRAVEL, trace fine Sand, Silt, moist, loose Dark brown fine SAND, moist, loose. Very dark greyish brown to dark brown fine SAND, some Silt, little fine to medium subangular Gravel, red Brick, trace Clay, moist, loose to medium firm.	Asphalt patch Borehole backfilled with bentonite
5 645	2	4-7.7	3.7	0.0			Very dark brown SILT, soft, moist. Dark brown to brown Silty CLAY, trace fine to medium subangualr embedded Gravel, fine Sand, moist, stiff, non-plastic. Refusal encountered at 7.7 feet bgs.	

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Soils screened using 10.6eV lamp photoionization detector.

Borings hand cleared from 0 to 4 ft bgs using soft dig methods, prior to drilling.

Date Start/Finish:	2/15/2022	**Northing:**	1067036.7155	**Well/Boring ID:**	**B-17**
Drilling Company:	Arcadis	**Easting:**	1078602.0411	**Client:**	National Grid
Driller's Name:	Douglas Richmond	**Casing Elevation:**	NA	**Location:**	Dewey/Kensington Service Center 114 Kensington Avenue Buffalo, NY 14203
Drilling Method:	Direct push	**Surface Elevation:**	652.21		
Sampling Method:	2 inch by 4 foot core barrel	**Borehole Depth:**	8.7 feet bgs		
Rig Type:	AMS 9520 VTR Power Probe	**Descriptions By:**	Joshua Miller		

Depth (feet bgs) / Elevation (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
650	1	0-4	4.0	54.3			ASPHALT. Very dark greyish brown fine to medium subangular GRAVEL, trace fine Sand, Silt, moist, loose. Dark brown fine SAND, some Silt, some to little Slag fragments, little fine subangular Gravel, moist, loose. Faint solvent-like odor.	Asphalt patch Borehole backfilled with bentonite
5	2	4-8	3.1	0.0			Very dark brown SILT, little Clay, moist, firm. Dark brown to brown Silty CLAY, trace fine subangular to subround embedded Gravel, moist, stiff.	
645	3	8-8.7	0.7	0.0			Refusal encountered at 8.7 feet bgs.	

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Soils screened using 10.6eV lamp photoionization detector.

Borings hand cleared from 0 to 4 ft bgs using soft dig methods, prior to drilling.

Date Start/Finish:	2/9/2022	**Northing:**	1067039.3013	**Well/Boring ID:**	**B-18**
Drilling Company:	Arcadis	**Easting:**	1078657.8337	**Client:**	National Grid
Driller's Name:	Douglas Richmond	**Casing Elevation:**	NA	**Location:**	Dewey/Kensington Service Center 114 Kensington Avenue Buffalo, NY 14203
Drilling Method:	Direct push	**Surface Elevation:**	651.72		
Sampling Method:	2 inch by 4 foot core barrel	**Borehole Depth:**	9.5 feet bgs		
Rig Type:	AMS 9520 VTR Power Probe	**Descriptions By:**	Joshua Miller		

Depth (feet bgs) / Elevation (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0							ASPHALT.	Asphalt patch
							Dark brown fine to medium subangular GRAVEL, little fine Sand, trace Silt, moist, loose.	
							Very dark greyish brown fine SAND, some Silt, fine to medium subangular Gravel, little coarse Gravel, little to trace Concrete fragments, red Brick, loose to firm.	
	1	0-4	4.0	3.2				
								Borehole backfilled with bentonite
							Light olive brown Silty CLAY, trace fine to medium subround embedded Gravel, fine Sand, moist, slightly stiff, slightly plastic.	
	2	4-8	3.0	0.0				
	3	8-9.5	1.5	0.0				
9.5							Refusal encountered at 9.5 feet bgs.	

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Soils screened using 10.6eV lamp photoionization detector.

Borings hand cleared from 0 to 4 ft bgs using soft dig methods, prior to drilling.

Date Start/Finish:	2/9/2022	**Northing:**	1067056.1734	**Well/Boring ID:**	**B-19**
Drilling Company:	Arcadis	**Easting:**	1078676.3212	**Client:**	National Grid
Driller's Name:	Douglas Richmond	**Casing Elevation:**	NA	**Location:**	Dewey/Kensington Service Center 114 Kensington Avenue Buffalo, NY 14203
Drilling Method:	Direct push	**Surface Elevation:**	651.56		
Sampling Method:	2 inch by 4 foot core barrel	**Borehole Depth:**	9.5 feet bgs		
Rig Type:	AMS 9520 VTR Power Probe	**Descriptions By:**	Joshua Miller		

Depth (feet bgs) / Elevation (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0							ASPHALT.	Asphalt patch
							Very dark greyish brown medium to coarse subangular Gravel, some fine Sand, little Silt, moist, loose.	
650	1	0-4	4.0	2.7	X		Very dark greyish brown fine SAND and fine to medium subangular GRAVEL, some Silt, little medium to coarse Sand, trace Clay, red Brick, moist becoming wet at 4 feet bgs, firm.	
5							Dark brown Silty CLAY, trace fine subangular Gravel, moist, medium firm, non-plastic.	Borehole backfilled with bentonite
	2	4-8	3.4	0.0				
645							Brown Silty CLAY, trace fine to medium subround embedded Gravel, fine Sand, moist, stiff, non-plastic.	
	3	8-9.5	1.5	0.0			Refusal encountered at 9.5 feet bgs.	

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Soils screened using 10.6eV lamp photoionization detector.

Borings hand cleared from 0 to 4 ft. bgs using soft dig methods, prior to drilling.

Date Start/Finish:	2/8/2022	**Northing:**	1067010.2353	**Well/Boring ID:**	**B-20**
Drilling Company:	Arcadis	**Easting:**	1078646.2903	**Client:**	National Grid
Driller's Name:	Douglas Richmond	**Casing Elevation:**	NA	**Location:**	Dewey/Kensington Service Center 114 Kensington Avenue Buffalo, NY 14203
Drilling Method:	Direct push	**Surface Elevation:**	651.72		
Sampling Method:	2 inch by 4 foot core barrel	**Borehole Depth:**	9.0 feet bgs		
Rig Type:	AMS 9520 VTR Power Probe	**Descriptions By:**	Joshua Miller		

Depth (feet bgs) / Elevation (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0							ASPHALT.	Asphalt patch
							Dark brown fine to medium subangular GRAVEL, some to little coarse Gravel, fine Sand, little to trace Silt, moist, loose to medium firm.	
650	1	1	4.0	0.6			Dark brown fine SAND and fine to medium subangular GRAVEL, some Silt, little Clay, moist, firm	
5							Brown Silty CLAY, trace fine subangular to subround embedded Gravel, Wood, moist, stiff, non-plastic.	Borehole backfilled with bentonite
	2	2	3.4	0.0				
645								
	3	3	1.0	0.0			Refusal encountered at 9.0 feet bgs.	

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Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL= Above Mean Sea Level; PID = photoionization detector; ppm = parts per million

Soils screened using 10.6eV lamp photoionization detector.

Borings hand cleared from 0 to 4 ft bgs using soft dig methods, prior to drilling.

Date Start/Finish:	2/14/2022	**Northing:**	1067010.2353	**Well/Boring ID:**	**B-21**
Drilling Company:	Arcadis	**Easting:**	1078646.2903	**Client:**	National Grid
Driller's Name:	Douglas Richmond	**Casing Elevation:**	NA	**Location:**	Dewey/Kensington Service Center 114 Kensington Avenue Buffalo, NY 14203
Drilling Method:	Direct push	**Surface Elevation:**	651.72		
Sampling Method:	2 inch by 4 foot core barrel	**Borehole Depth:**	9.8 feet bgs		
Rig Type:	AMS 9520 VTR Power Probe	**Descriptions By:**	Joshua Miller		

Depth (feet bgs)	Elevation (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	650	1	0-4	4.0	0.0			ASPHALT.	Asphalt patch
								Very dark greyish brown fine to medium subangular GRAVEL, little fine Sand, trace Silt, moist, loose.	
								Dark brown fine to medium SAND, some fine to medium subangular Gravel, little coarse Sand, Silt, moist, firm.	
5	645	2	4-8	3.6	0.0			Dark brown to brown Silty CLAY, moist, firm becoming slightly stiff, slightly plastic.	Borehole backfilled with bentonite
		3	8-9.8	1.8	0.0			Brown Silty CLAY, little fine Sand, fine to medium subangular to subround embedded Gravel, moist, stiff.	
								Refusal encountered at 9.8 feet bgs.	

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Soils screened using 10.6eV lamp photoionization detector.

Borings hand cleared from 0 to 4 ft bgs using soft dig methods, prior to drilling.

Date Start/Finish:	2/14/2022	**Northing:**	1067010.7762	**Well/Boring ID:**	**B-22**
Drilling Company:	Arcadis	**Easting:**	1078691.4822	**Client:**	National Grid
Driller's Name:	Douglas Richmond	**Casing Elevation:**	NA	**Location:**	Dewey/Kensington Service Center 114 Kensington Avenue Buffalo, NY 14203
Drilling Method:	Direct push	**Surface Elevation:**	651.35		
Sampling Method:	2 inch by 4 foot core barrel	**Borehole Depth:**	10.4		
Rig Type:	AMS 9520 VTR Power Probe	**Descriptions By:**	Joshua Miller		

Depth (feet bgs) / Elevation (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0 / 650	1	0-4	4.0	0.0			ASPHALT.	Asphalt patch
							Very dark greyish brown fine to medium subangualr GRAVEL, little fine Sand, trace Silt, moist, loose.	
							Very dark greyish brown fine SAND, some Silt, little fine to medium subangular Gravel, yellow Brick, red Brick, firm, moist.	
5 / 645	2	4-8	3.9	0.0			Very dark greyish brown fine to very fine SAND, moist, loose.	Borehole backfilled with bentonite
							Brown Silty CLAY, moist, stiff, non-plastic.	
	3	8-10.4	2.2	0.0			Brown Silty CLAY, some fine to medium subangular Gravel, fine Sand, little coarse Gravel, moist becoming wet at 9.3 feet bgs, stiff becoming loose.	
10							Refusal encountered at 10.4 feet bgs.	

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Soils screened using 10.6eV lamp photoionization detector.

Borings hand cleared from 0 to 4 ft. bgs using soft dig methods, prior to drilling.

Date Start/Finish:	2/8/2022	**Northing:**	1078736.2933	**Well/Boring ID:**	**B-23**
Drilling Company:	Arcadis	**Easting:**	1078736.2933	**Client:**	National Grid
Driller's Name:	Douglas Richmond	**Casing Elevation:**	NA	**Location:**	Dewey/Kensington Service Center 114 Kensington Avenue Buffalo, NY 14203
Drilling Method:	Direct push	**Surface Elevation:**	651.37		
Sampling Method:	2 inch by 4 foot core barrel	**Borehole Depth:**	11.3 feet bgs		
Rig Type:	AMS 9520 VTR Power Probe	**Descriptions By:**	Joshua Miller		

Depth (feet bgs) / Elevation (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0							ASPHALT	Asphalt patch
							Dark brown fine to medium subangular GRAVEL, some to little coarse Gravel, fine Sand, little to trace Silt, moist, loose.	
650							Dark brown fine SAND and fine to coarse subangular GRAVEL, some Silt, little to trace Clay, moist, firm.	
	1	0-4	4.0	2.3				
							CONCRETE	
5							Brown Silty CLAY, little fine Sand, trace fine to medium subangular embedded Gravel, moist, stiff, slightly plastic.	Borehole backfilled with bentonite
645	2	4-8	3.0	0.0				
	3	8-11.3	2.4	0.0				
10							Refusal encountered at 11.3 feet bgs	

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Soils screened using 10.6eV lamp photoionization detector.

Borings hand cleared from 0 to 4 ft. bgs using soft dig methods, prior to drilling.

Date Start/Finish:	12/21/2022	**Northing:** 1067192.8860	**Well/Boring ID:** B-24
Drilling Company:	Arcadis	**Easting:** 1078590.1508	**Client:** National Grid
Driller's Name:	Douglas Richmond	**Casing Elevation:** NA	**Location:** Dewey/Kensington Service Center 114 Kensington Avenue Buffalo, NY 14203
Drilling Method:	Direct push	**Surface Elevation:** 651.69	
Sampling Method:	4 ft Macro-Core barrel	**Borehole Depth:** 5.0 feet bgs	
Rig Type:	AMS 9520 VTR Power Probe	**Descriptions By:** Joshua Miller	

Depth (feet bgs)	Elevation (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Columm	Stratigraphic Description	Well/Boring Construction
0	0							CONCRETE.	Asphalt patch
								10YR 3/1 Very dark gray fine to medium subangular to angular GRAVEL, moist, loose.	
		1	0-4	4.0	3.8			10YR 4/1 Dark gray Silty CLAY, some fine subangular Gravel, fine to mediums Sand, wet, soft to loose. Irridescent sheen and degraded petroleum-like odor.	Borehole backfilled with bentonite
		2	4-5	1.0	0.0			10YR 5/3 Brown Silty CLAY, little fine subangular Gravel, fine Sand, moist, firm.	
5	5							Pulverized ROCK.	

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Soils screened using photoionization detector.

Borings hand cleared from 0 to 4 ft. bgs using soft dig methods, prior to drilling.

Date Start/Finish:	12/21/2022	**Northing:** 1067219.4432	**Well/Boring ID:** B-25
Drilling Company:	Arcadis	**Easting:** 1078593.8987	**Client:** National Grid
Driller's Name:	Douglas Richmond	**Casing Elevation:** NA	**Location:** Dewey/Kensington Service Center 114 Kensington Avenue Buffalo, NY 14203
Drilling Method:	Direct push	**Surface Elevation:** 651.76	
Sampling Method:	4 ft Macro-Core barrel	**Borehole Depth:** 4.2 feet bgs	
Rig Type:	AMS 9520 VTR Power Probe	**Descriptions By:** Joshua Miller	

Depth (feet bgs)	Elevation (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Columm	Stratigraphic Description	Well/Boring Construction
0								ASPHALT.	Asphalt patch
								10YR 3/1 Very dark gray fine to medium angular GRAVEL, moist, loose.	
								10YR 3/2 Very dark grayish brown SILT, some fine Sand, little fine subangular Gravel, Clay, moist, loose.	
650								10YR 4/2 Dark grayish brown Silty CLAY, some fine to medium Sand, fine subangular Gravel, moist, firm.	
		1	0-4	4.0	0.8				Borehole backfilled with bentonite
								10YR 5/2 Grayish brown Silty CLAY, moist to wet, soft, non-plastic.	
		2	4-4.2	0.2	0.0				

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Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL= Above Mean Sea Level; PID = photoionization detector; ppm = parts per million.

Soils screened using photoionization detector.

Borings hand cleared from 0 to 4 ft. bgs using soft dig methods, prior to drilling.

Date Start/Finish:	12/20/2022
Drilling Company:	Arcadis
Driller's Name:	Douglas Richmond
Drilling Method:	Direct push
Sampling Method:	4 ft.Macro-Core barrel
Rig Type:	AMS 9520 VTR Power Probe

Northing:	1067217.9850
Easting:	1078642.0882
Casing Elevation:	NA
Surface Elevation:	651.79
Borehole Depth:	4.2 feet bgs
Descriptions By:	Joshua Miller

Well/Boring ID: B-26

Client: National Grid

Location:
Dewey/Kensington Service Center
114 Kensington Avenue
Buffalo, NY 14203

Depth (feet bgs)	Elevation (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0								ASPHALT.	Asphalt patch
								10YR 3/1 Very dark gray fine to medium angular GRAVEL, moist, loose.	
650		1	0-4	4.0	0.0			10YR 3/2 Very dark grayish brown Silty CLAY, little fine subangular Gravel, Cobbles, Anthropogenics (yellow brick, concrete), firm, moist, non-plastic.	Borehole backfilled with bentonite
		2	4-4.2	0.2	0.0			10YR 4/3 Brown Silty CLAY, moist, firm, slightly plastic. Thin rock fragments observed at 4.2 feet bgs.	

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Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL= Above Mean Sea Level; PID = photoionization detector; ppm = parts per million.

Soils screened using photoionization detector.

Borings hand cleared from 0 to 4 ft. bgs using soft dig methods, prior to drilling.

Date Start/Finish:	12/19/2022	**Northing:**	1067216.0375	**Well/Boring ID:**	**B-27**
Drilling Company:	Arcadis	**Easting:**	1078729.3558	**Client:**	National Grid
Driller's Name:	Douglas Richmond	**Casing Elevation:**	NA	**Location:**	Dewey/Kensington Service Center 114 Kensington Avenue Buffalo, NY 14203
Drilling Method:	Direct push	**Surface Elevation:**	651.93		
Sampling Method:	4 ft.Macro-Core barrel	**Borehole Depth:**	5 feet bgs		
Rig Type:	AMS 9520 VTR Power Probe	**Descriptions By:**	Joshua Miller		

Depth (feet bgs) / Elevation (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0 650	1	0-4	4.0	0.7			ASPHALT. 10YR 3/1 Very dark gray fine to medium angular to subangular GRAVEL, moist, loose. 10YR 3/1 Very dark gray fine to medium subangular GRAVEL, some fine Sand, little Silt, Anthropogenics (red brick), trace Clay, moist, firm. 10YR 3/2 Very dark grayish brown Silty CLAY, some to little Anthropogenics (red brick, concrete, slag, metal, roofing shingles), Cobbles, moist, firm.	Asphalt patch Borehole backfilled with bentonite
	2	4-5	1.0	0.0			10YR 4/3 Brown Silty CLAY, some fine Sand, little medium subangular Gravel, moist, firm. 10YR 4/1 Dark gray ROCK fragments.	
5								

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Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL= Above Mean Sea Level; PID = photoionization detector; ppm = parts per million.

Soils screened using photoionization detector.

Borings hand cleared from 0 to 4 ft. bgs using soft dig methods prior to drilling.

Date Start/Finish:	12/20/2022
Drilling Company:	Arcadis
Driller's Name:	Douglas Richmond
Drilling Method:	Direct push
Sampling Method:	4 ft.Macro-Core barrel
Rig Type:	AMS 9520 VTR Power Probe

Northing:	1067170.7545
Easting:	1078626.0099
Casing Elevation:	NA
Surface Elevation:	651.61
Borehole Depth:	5.9 feet bgs
Descriptions By:	Joshua Miller

Well/Boring ID: B-28

Client: National Grid

Location:

Dewey/Kensington Service Center
114 Kensington Avenue
Buffalo, NY 14203

Depth (feet bgs)	Elevation (feet AMSL)	Sample Rum Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Columm	Stratigraphic Description	Well/Boring Construction
0								CONCRETE.	Non-shrink grout
								10YR 4/1 Dark gray fine to medium angular GRAVEL, moist, loose.	
								10YR 4/1 Dark gray fine SAND and fine subangular GRAVEL, some Silt, Clay, wet, loose to firm.	
650								10YR 3/2 Very dark grayish brown Silty CLAY, little fine to medium subangular Gravel, Cobbles, Anthropogenics (concrete, red brick, coal), firm, moist, non-plastic.	
		1	0-4	4.0	0.9				Borehole backfilled with bentonite
								10YR 4/3 Brown Silty CLAY, some Cobbles, moist, firm, non-plastic.	
5		2	4-5.9	1.8	0.0				

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Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL= Above Mean Sea Level; PID = photoionization detector; ppm = parts per million.

Soils screened using photoionization detector.

Borings hand cleared from 0 to 4 ft. bgs using soft dig methods, prior to drilling.

Date Start/Finish:	12/20/2022
Drilling Company:	Arcadis
Driller's Name:	Douglas Richmond
Drilling Method:	Direct push
Sampling Method:	4 ft Macro-Core barrel
Rig Type:	AMS 9520 VTR Power Probe

Northing:	1067164.1237
Easting:	1078733.7856
Casing Elevation:	NA
Surface Elevation:	651.97
Borehole Depth:	5.9 feet bgs
Descriptions By:	Joshua Miller

Well/Boring ID: **B-29**

Client: National Grid

Location:

Dewey/Kensington Service Center
114 Kensington Avenue
Buffalo, NY 14203

Depth (feet bgs)	Elevation (feet AMSL)	Sample Rum Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Columm	Stratigraphic Description	Well/Boring Construction
0								ASPHALT.	Asphalt patch
								10YR 3/1 Very dark gray fine to medium subangular to angular GRAVEL, moist, loose.	
								10YR 4/1 Dark gray Silty CLAY, little fine angular Gravel, wet, soft.	
								10YR 3/2 Very dark grayish brown Silty CLAY, little Cobbles, Anthropogenics (red brick, concrete, coal, cinders, wood), moist, firm, non-plastic. Faint solvent-like odor.	
650		1	0-4	4.0	0.8				Borehole backfilled with bentonite
								10YR 4/3 Brown Silty CLAY, little fine Sand, trace fine subangular Gravel, moist, firm, non-plastic. Rock fragments observed at 5.9 feet bgs.	
5		2	4-5.9	1.9	0.0				

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL= Above Mean Sea Level; PID = photoionization detector; ppm = parts per million.

Soils screened using photoionization detector.

Borings hand cleared from 0 to 4 ft. bgs using soft dig methods, prior to drilling.

Date Start/Finish:	12/20/2022
Drilling Company:	Arcadis
Driller's Name:	Douglas Richmond
Drilling Method:	Direct push
Sampling Method:	4 ft.Macro-Core barrel
Rig Type:	AMS 9520 VTR Power Probe

Northing:	1067147.6078
Easting:	1078747.7158
Casing Elevation:	NA
Surface Elevation:	652.11
Borehole Depth:	7.0 feet bgs
Descriptions By:	Joshua Miller

Well/Boring ID: B-30

Client: National Grid

Location:

Dewey/Kensington Service Center
114 Kensington Avenue
Buffalo, NY 14203

Depth (feet bgs)	Elevation (feet AMSL)	Sample Run Number	Sample/Imt/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Columm	Stratigraphic Description	Well/Boring Construction
0								ASPHALT.	Asphalt patch
								10YR 3/1 Very dark gray fine to medium subangular to angular GRAVEL, moist, loose.	
								10YR 3/2 Very dark grayish brown Silty CLAY, little fine subangular Gravel, Cobbles, Anthropogenics (concrete, wood, coal), moist, firm, non-plastic. Faint solvent-like odor.	
650		1	0-4	4.0	0.8				
								10YR 4/3 Brown Silty CLAY, little fine Sand, trace fine subangular Gravel, moist, firm, non-plastic. Pulverized rock fragments observed at 7.0 feet bgs.	Borehole backfilled with bentonite
5		2	4-7	2.3	0.0				

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL= Above Mean Sea Level; PID = photoionization detector; ppm = parts per million.

Soils screened using photoionization detector.

Borings hand cleared from 0 to 4 ft. bgs using soft dig methods, prior to drilling.

Date Start/Finish:	12/20/2022
Drilling Company:	Arcadis
Driller's Name:	Douglas Richmond
Drilling Method:	Direct push
Sampling Method:	4 ft.Macro-Core barrel
Rig Type:	AMS 9520 VTR Power Probe

Northing:	1067123.5968
Easting:	1078733.8017
Casing Elevation:	NA
Surface Elevation:	651.82
Borehole Depth:	7.5 feet bgs
Descriptions By:	Joshua Miller

Well/Boring ID: **B-31**

Client: National Grid

Location:

Dewey/Kensington Service Center
114 Kensington Avenue
Buffalo, NY 14203

Depth (feet bgs)	Elevation (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0								ASPHALT.	Asphalt patch
								10YR 3/1 Very dark gray fine to medium angular GRAVEL, moist, loose.	
	650	1	0-4	4.0	0.8			10YR 3/2 Very dark grayish brown Silty CLAY, little fine subangular Gravel, Anthropogenics (red brick, concrete, slag, metal), Cobbles, firm, moist.	Borehole backfilled with bentonite
5									
		2	4-7.5	3.4	0.0			10YR 4/3 Brown Silty CLAY, little fine Sand, trace fine to medium subangular Gravel, moist, firm, non-plastic. Pulverized rock fragments observed in bottom of cutting shoe.	
	645								

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL= Above Mean Sea Level; PID = photoionization detector; ppm = parts per million.

Soils screened using photoionization detector.

Borings hand cleared from 0 to 4 ft. bgs using soft dig methods, prior to drilling.

Appendix E

IDW Disposal Documentation

D144465 BA6043

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NYD 000 ~~073~~ 390 730	1	(800) 424-9300	021523143 JJK

GENERATOR

5. Generator's Name and Mailing Address (AM)
Niagara Mohawk Power Corporation
300 Erie Blvd. West, Syracuse, NY 13202
Generator's Phone: (315) 247-6490 Att: Steve Stucker

Generator's Site Address (if different than mailing address)
SIR Site - 144 Kensington Ave., Buffalo, NY 14214

6. Transporter 1 Company Name
Sun Environmental Corporation
U.S. EPA ID Number: NYR 000 176 958

7. Transporter 2 Company Name
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Cycle Chem, Inc.
550 Industrial Dr., Lewisberry, PA 17339
Facility's Phone: 717-938-4700
U.S. EPA ID Number: PAD 067 098 822

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ, UN3432, Polychlorinated Biphenyls, Solid, 9, PG III (PCB Solids > 500 ppm)	2	DM	505	K	B007	L	
X	2. RQ, UN2315, Polychlorinated Biphenyls, Liquid, 9, PG III (PCB Liquid > 500 ppm)	1	DM	41	K	B003	B	
	3.							
	4.							

14. Special Handling Instructions and Additional Information
Unique ID #31431 31432 31433
1: App/Profile: 186029-PCB2 (TSCA solid >500ppm) ERG171 "Out of service date: 12/19/22 Container Size: 2 x 55g
2: App/Profile: 186031-TWI22 (TSCA water over 500 ppm) ERG171 "Out of service date: ~~12/20/22~~ 12/19/22 Container Size: 55g
EMERGENCY RESPONSE INFORMATION: CHEMTREC (800) 424-9300 Generator # 33698 CESI -MSCI
HAZ-454

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: ROBERT W. NOTARO ON BEHALF OF | Signature | Month 1 | Day 17 | Year 23

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: John Powers | Signature | Month 1 | Day 17 | Year 23
Transporter 2 Printed/Typed Name: | Signature | Month | Day | Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) | Month | Day | Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141	H141		

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Ashley Little | Signature | Month 01 | Day 19 | Year 23

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

LAND DISPOSAL RESTRICTION NOTIFICATION AND CERTIFICATION FORM FOR NEW YORK STATE REGULATED PCB WASTES

This form is required for wastes containing 50 ppm PCBs or greater. The profiled waste on the manifest number indicated below is listed hazardous waste (B-Coded) in NY State. Note: 50-499 ppm PCB drained articles and small capacitors (as defined in 40CFR 761.3) are not regulated by NY State. Please complete items 1- 9 and send with ALL shipments of waste.

1)	Generator Name : **Niagara Mohawk Power Corp (d.b.a., National Grid)**		
2)	Generator Location Name: SIR Site - 144 Kensington Ave., Buffalo, NY 14214		
3)	Manifest No.: 021523143JJK	**4)** Profile/Approval No.:	186029-PCB2

5) Please check *all* boxes that apply.

NYS WASTE CODE		IDENTIFY SPECIFIC TYPE OF PCB WASTE CHECK PROPER BOXES							
B001		Concentrated PCB Oil							
B002		Oil/liquid 50-499 ppm PCBs							
B003		Oil/liquid 500 ppm or greater PCBs							
Manufactured PCB Articles (50-499 ppm):									
B004		Transformers		Motors		Switches		Cable	
		Pipe		Lg. Capacitors		Bushings		Pumps	
		Other (specify):							
Manufactured PCB Articles (other than transformers) 500 ppm or greater:									
B005		Motors		Switches		Cable		Pumps	
		Lg. Capacitors		Bushings		Pipe			
		Other (specify):							
B006		PCB Transformers 500 ppm or greater							
Other PCB Wastes:									
B007	X	Soil		Sludge		Clothing		Rags	
		Wood	X	PPE		Coal Tar	X	Other (Specify): Plastic	

6.) Check *one* box as appropriate:

CERTIFICATION - WASTE MEETS LAND DISPOSAL TREATMENT STANDARDS

☐ I am the generator of the waste as identified above, that is restricted under 6 NYCRR Part 376. I have determined that this waste meets all applicable treatment standards set forth in 6 NYCRR 376 and, therefore, it can be landfilled without further treatment. Waste does not include solidified B002 material (liquid with PCBs 50-500 ppm).

I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 6 NYCRR Part 376, Section 376.4, and all applicable prohibitions set forth in 376.3(b) of Part 376 or RCRA section 3004(d). I believe that the information I submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

NOTIFICATION - WASTE DOES NOT MEET LAND DISPOSAL TREATMENT STANDARDS

☒ I am the generator of a waste restricted under 6 NYCRR Part 376 as identified above. I notify that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this notification that the waste does not comply with the treatment Standards specified in 6 NYCRR Part 376.4(f). This waste must be treated to the applicable standards set forth in 6 NYCRR 376.4(f) prior to land disposal.

7.) Signature: [signature]

8.) Title: Supervisor Joshua Barrett **9.) Date:** 1-17-23

ND DISPOSAL RESTRICTION NOTIFICATION
ND CERTIFICATION FORM
OR NEW YORK STATE REGULATED PCB WASTES

r m ls required for wastes containing 50 ppm PCBs or greater. The profiled waste on the manifest number indicated below d hazardous waste (B-Coded) in NY State. Note: 50-499 ppm PCB drained articles and small capacitors (as defined in 40CFR 761.3) are not regulated Y State. Please complete items 1- 9 and send with ALL shipments of waste.

1)	Generator Name : **Niagara Mohawk Power Corp (d.b.a., National Grid)**		
2)	Generator Location Name: SIR Site - 144 Kensington Ave., Buffalo, NY 14214		
3)	Manifest No.: 021523143JJK	**4)** Profile/Approval No.:	186031-TWI22

5) Please check *all* boxes that apply.

NYS WASTE CODE		IDENTIFY SPECIFIC TYPE OF PCB WASTE CHECK PROPER BOXES							
B001		Concentrated PCB Oil							
B002		Oil/liquid 50-499 ppm PCBs							
B003	X	Oil/liquid 500 ppm or greater PCBs							
Manufactured PCB Articles (50-499 ppm):									
B004		Transformers		Motors		Switches		Cable	
		Pipe		Lg. Capacitors		Bushings		Pumps	
		Other (specify):							
Manufactured PCB Articles (other than transformers) 500 ppm or greater:									
B005		Motors		Switches		Cable		Pumps	
		Lg. Capacitors		Bushings		Pipe			
		Other (specify):							
B006		PCB Transformers 500 ppm or greater							
Other PCB Wastes:									
B007		Soil		Sludge		Clothing		Rags	
		Wood		PPE		Coal Tar		Other (Specify):	

6.) Check *one* box as appropriate:

CERTIFICATION - WASTE MEETS LAND DISPOSAL TREATMENT STANDARDS

☐ I am the generator of the waste as identified above, that is restricted under 6 NYCRR Part 376. I have determined that this waste meets all applicable treatment standards set forth in 6 NYCRR 376 and, therefore, it can be landfilled without further treatment. Waste does not include solidified B002 material (liquid with PCBs 50-500 ppm).

I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 6 NYCRR Part 376, Section 376.4, and all applicable prohibitions set forth in 376.3(b) of Part 376 or RCRA section 3004(d). I believe that the information I submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

NOTIFICATION - WASTE DOES NOT MEET LAND DISPOSAL TREATMENT STANDARDS

☒ I am the generator of a waste restricted under 6 NYCRR Part 376 as identified above. I notify that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this notification that the waste does not comply with the treatment Standards specified in 6 NYCRR Part 376.4(f). This waste must be treated to the applicable standards set forth in 6 NYCRR 376.4(f) prior to land disposal.

7.) Signature: [signature]

8.) Title: On Behalf Generators, Joshua Bennett **9.) Date:** 1-17-23

NIAGARA MOHAWK POWER CORPORATION
PCB WASTE CONTINUATION SHEET

FACILITY ADDRESS:	SIR Site - 144 Kensington Ave., Buffalo, NY 14214				
EPA IDENTIFICATION NO.	NYD 000 073 390				
APPROVAL / PROFILE NO.	186029-PCB2 & 186031-TWI22	PAGE	1	OF	1
SIGNATURE OF GENERATOR:		SIGNATURE DATE:	1-17-23		

MANIFEST NO.	UNIT TYPE	MATERIAL TYPE	TSCA DESCRIPTION	GENERATOR UNIQUE ID No. OR SERIAL No.	MANIFEST LINE No.	QUANTITY	UNITS	PCB Conc. RANGE (ppm)	DOCK WEIGHT (KG)	OUT OF SERVICE DATE	DATE OFFSITE FOR STORAGE / DISPOSAL
021523143 JJK	DM	PCB Solid	PCB CONTAINER	3143-1	96.1	1	K	>500	151	12/19/22	1/17/23
021523143 JJK	DM	PCB Solid	PCB CONTAINER	3143-2	96.1	1	K	>500	254	12/19/22	1/17/23
021523143 JJK	DM	PCB Liquid	PCB CONTAINER	3143-3	96.2	1	K	>500	41	12/19/22	1/17/23

nationalgrid

D114106 S BAF230

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD 000 730 390	1	(800) 424-9300	022662738 JJK

GENERATOR

5. Generator's Name and Mailing Address
Niagara Mohawk Power Corporation
300 Erie Blvd. West, Syracuse, NY 13202
Generator's Phone: (315) 247-6490 Att: Steve Stucker

Generator's Site Address (if different than mailing address)
SIR Site - 93 Dewey Ave., Buffalo, NY 14214

6. Transporter 1 Company Name: Sun Environmental Corporation — U.S. EPA ID Number: NYR 000 176 958

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Cycle Chem, Inc.
550 Industrial Dr., Lewisberry, PA 17339
Facility's Phone: 717-938-4700
U.S. EPA ID Number: PAD 067 098 822

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ, UN3432, Polychlorinated Biphenyls, Solid, 9, PG III (PCB Solids > 500 ppm)	2	DM	547	K	B007	L	
X	2. RQ, UN2315, Polychlorinated Biphenyls, Liquid, 9, PG III (PCB Liquid > 500 ppm)	1	DM	24	K	B003	B	
	3.							
	4.							

14. Special Handling Instructions and Additional Information (CONTAINER ID - 2738-1, 2738-2, 2738-3)
1: App/Profile: 186029-PCB2 (TSCA solid >500ppm) ERG171 "Out of service date:" 3/3/22 Container Size: 55 gal.
2: App/Profile: 186031-TW22 (TSCA water over 500 ppm) ERG171 "Out of service date:" 3/3/22 Container Size: 55 gal
EMERGENCY RESPONSE INFORMATION: CHEMTREC (800) 424-9300 HA2-3643 Generator # 33698 CESI -MSCI

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Sean Smyth — Signature: [signature] — Month 3 Day 28 Year 22

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: William L Downing II — Signature: [signature] — Month 3 Day 28 Year 22

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141	H141		

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Ari Flynn — Signature: [signature] — Month 4 Day 1 Year 22

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

LAND DISPOSAL RESTRICTION NOTIFICATION AND CERTIFICATION FORM FOR NEW YORK STATE REGULATED PCB WASTES

This form is required for wastes containing 50 ppm PCBs or greater. The profiled waste on the manifest number indicated below is listed hazardous waste (B-Coded) in NY State. Note : 50-499 ppm PCB drained articles and small capacitors (as defined in 40CFR 761.3) are not regulated by NY State. Please complete items 1- 9 and send with ALL shipments of waste.

1)	Generator Name : **Niagara Mohawk Power Corp (d.b.a., National Grid)**		
2)	Generator Location Name: SIR Site 93 Dewey Ave., Buffalo NY 14214		
3)	Manifest No.: 022662738 JJK	4) Profile/Approval No.:	186029-PCB2

5) Please check *all* boxes that apply.

NYS WASTE CODE		IDENTIFY SPECIFIC TYPE OF PCB WASTE CHECK PROPER BOXES							
B001		Concentrated PCB Oil							
B002		Oil/liquid 50-499 ppm PCBs							
B003		Oil/liquid 500 ppm or greater PCBs							
Manufactured PCB Articles (50-499 ppm):									
B004		Transformers		Motors		Switches		Cable	
		Pipe		Lg. Capacitors		Bushings		Pumps	
		Other (specify):							
Manufactured PCB Articles (other than transformers) 500 ppm or greater:									
B005		Motors		Switches		Cable		Pumps	
		Lg. Capacitors		Bushings		Pipe			
		Other (specify):							
B006		PCB Transformers 500 ppm or greater							
Other PCB Wastes:									
B007	X	Soil		Sludge		Clothing		Rags	
		Wood	X	PPE		Coal Tar	X	Other (Specify): plastic	

6.) Check *one* box as appropriate:

CERTIFICATION - WASTE MEETS LAND DISPOSAL TREATMENT STANDARDS

☐ I am the generator of the waste as identified above, that is restricted under 6 NYCRR Part 376. I have determined that this waste meets all applicable treatment standards set forth in 6 NYCRR 376 and, therefore, it can be landfilled without further treatment. Waste does not include solidified B002 material (liquid with PCBs 50-500 ppm).

I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 6 NYCRR Part 376, Section 376.4, and all applicable prohibitions set forth in 376.3(b) of Part 376 or RCRA section 3004(d). I believe that the information I submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

NOTIFICATION - WASTE DOES NOT MEET LAND DISPOSAL TREATMENT STANDARDS

☒ I am the generator of a waste restricted under 6 NYCRR Part 376 as identified above. I notify that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this notification that the waste does not comply with the treatment Standards specified in 6 NYCRR Part 376.4(f). This waste must be treated to the applicable standards set forth in 6 NYCRR 376.4(f) prior to land disposal.

7.) Signature: S Scott

8.) Title: Agent for NMO **9.) Date:** 3/28/2022

LAND DISPOSAL RESTRICTION NOTIFICATION AND CERTIFICATION FORM FOR NEW YORK STATE REGULATED PCB WASTES

This fo r m is required for wastes containing 50 ppm PCBs or greater. The profiled waste on the manifest number indicated below is listed hazardous waste (B-Coded) in NY State. Note : 50-499 ppm PCB drained articles and small capacitors (as defined in 40CFR 761.3) are not regulated by NY State. Please complete items 1- 9 and send with ALL shipments of waste.

1)	Generator Name : **Niagara Mohawk Power Corp (d.b.a., National Grid)**		
2)	Generator Location Name: SIR Site 93 Dewey Ave., Buffalo NY 14214		
3)	Manifest No.: 022662738 JJK	**4)** Profile/Approval No.:	186031-TWI22

5) Please check *all* boxes that apply.

NYS WASTE CODE		IDENTIFY SPECIFIC TYPE OF PCB WASTE CHECK PROPER BOXES							
B001		Concentrated PCB Oil							
B002		Oil/liquid 50-499 ppm PCBs							
B003	X	Oil/liquid 500 ppm or greater PCBs							
Manufactured PCB Articles (50-499 ppm):									
B004		Transformers		Motors		Switches		Cable	
		Pipe		Lg. Capacitors		Bushings		Pumps	
		Other (specify):							
Manufactured PCB Articles (other than transformers) 500 ppm or greater:									
B005		Motors		Switches		Cable		Pumps	
		Lg. Capacitors		Bushings		Pipe			
		Other (specify):							
B006		PCB Transformers 500 ppm or greater							
Other PCB Wastes:									
B007		Soil		Sludge		Clothing		Rags	
		Wood		PPE		Coal Tar		Other (Specify):	

6.) Check *one* box as appropriate:

CERTIFICATION - WASTE MEETS LAND DISPOSAL TREATMENT STANDARDS

☐ I am the generator of the waste as identified above, that is restricted under 6 NYCRR Part 376. I have determined that this waste meets all applicable treatment standards set forth in 6 NYCRR 376 and, therefore, it can be landfilled without further treatment. Waste does not include solidified B002 material (liquid with PCBs 50-500 ppm).

I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 6 NYCRR Part 376, Section 376.4, and all applicable prohibitions set forth in 376.3(b) of Part 376 or RCRA section 3004(d). I believe that the information I submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

NOTIFICATION - WASTE DOES NOT MEET LAND DISPOSAL TREATMENT STANDARDS

☒ I am the generator of a waste restricted under 6 NYCRR Part 376 as identified above. I notify that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this notification that the waste does not comply with the treatment Standards specified in 6 NYCRR Part 376.4(f). This waste must be treated to the applicable standards set forth in 6 NYCRR 376.4(f) prior to land disposal.

7.) Signature: S Sut

8.) Title: Agent for NMO **9.) Date:** 3/28/2022

Appendix F

Data Usability Summary Reports

National Grid

Dewey Avenue

Data Review Report

Buffalo, New York

Polychlorinated Biphenlys (PCBs) Analyses

SDG # J194868

Analyses Performed By:

SGS Laboratories, Inc.
Dayton, New Jersey

Report #48971R
Review Level: Tier II
Project: 30094342 Task 04

Summary

This Data Review Report summarizes the review of Sample Delivery Group (SDG) # J194868 for samples collected in association with the National Grid Dewey/Kensington Avenue site in Buffalo, New York. The review was conducted as a Tier II evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis					
					VOC	SVOC	PCB	PEST	MET	MISC
B-23 (0.8-1.3)	480-194868-1	Solid	2/08/22				X			
B-23 (5.3-7.3)	480-194868-4	Solid	2/08/22				X			
B-20 (1.9-2.4)	480-194868-7	Solid	2/08/22				X			
B-20 (4.4-6.4)	480-194868-9	Solid	2/08/22				X			
B-15 (1.0-1.5)	480-194868-12	Solid	2/08/22				X			
B-15 (5.5-7.5)	480-194868-15	Solid	2/08/22				X			
B-10 (1.1-1.6)	480-194868-17	Solid	2/08/22				X			
B-10 (3.6-5.6)	480-194868-19	Solid	2/08/22				X			
FD-02082022	480-194868-21	Solid	2/08/22	B-10 (1.1-1.6)			X			
B-5 (0.7-1.2)	480-194868-22	Solid	2/08/22				X			
B-5 (3.2-5.2)	480-194868-24	Solid	2/08/22				X			
B-18 (1.2-1.7)	480-194868-26	Solid	2/08/22				X			
B-18 (1.7-3.7)	480-194868-27	Solid	2/09/22				X			
B-18 (3.7-5.7)	480-194868-28	Solid	2/09/22				X			
B-19 (1.3-1.8)	480-194868-31	Solid	2/09/22				X			
B-19 (3.8-5.8)	480-194868-33	Solid	2/09/22				X			

Note: This data review only included PCB analysis

Analytical Data Package Documentation

The table below evaluates the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed chain-of-custody form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data package completeness and compliance		X		X	

Note:
QA = quality assurance

Organic Analysis Introduction

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 8082A. Data were reviewed in accordance with USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review, EPA-540-R-20-005 (November 2020), and the USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Organic Data Review, EPA540/R-99/008, October 1999 (as applicable).

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
  - U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
  - B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- Quantitation (Q) Qualifiers
  - E The compound was quantitated above the calibration range.
  - D Concentration is based on a diluted sample analysis.
- Validation Qualifiers
  - J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
  - UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
  - JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
  - UB Compound is considered non-detect at the listed value due to associated blank contamination.
  - N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
  - R The sample results are rejected.

The "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second

fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Polychlorinated Biphenyls (PCBs) Analysis

1. Holding Times

The specified holding times for the following methods are presented in the table below.

Method	Matrix	Holding Time	Preservation
SW-846 8082	Water	One year from collection to analysis	Cool to <6 °C

Note:
s.u. = standard units

All samples were analyzed within the specified holding time criterion.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

3. System Performance

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

A maximum RSD of 20% is allowed or a correlation coefficient greater than 0.99. Multiple-point calibrations were performed for Aroclor 1016 and 1260 only. Single-point calibrations were performed for the remaining Aroclors.

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%).

All Aroclors associated with calibrations were within the specified control limits.

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. PCB analysis requires that one of the two PCB surrogate compounds exhibit recoveries within the laboratory-established acceptance limits.

Sample locations associated with surrogates exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Surrogate	Recovery
B-10 (1.1-1.6) FD-02082022 B-5 (0.7-1.2)	Tetrachloro-m-xylene	D
	Decachlorobiphenyl	D

Notes:
D = dilution

The criteria used to evaluate the surrogate recoveries are presented in the following table. In the case of a surrogate deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
One surrogate exhibiting recovery outside the control limits but > 10%	Non-detect	No Action
	Detect	
Surrogates diluted below the calibration curve due to the high concentration of a target compound.	Non-detect	UJ/J[1]
	Detect	

Note:

[1] A more concentrated analysis was not performed with surrogate compounds within the calibration range; therefore, no determination of extraction efficiency could be made.

6. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Compound	MS Recovery	MSD Recovery
B-5 (0.7-1.2)	PCB-1016	>UL	>UL

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Parent sample concentration > four times the MS/MSD spiking solution concentration (D).	Detect	No Action
	Non-detect	

7. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

8. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 50% for soil matrices is applied to the RPD between the parent sample and the field

duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of three times the RL is applied for soil.

Results for duplicate samples are summarized in the following table.

Sample ID/ Duplicate ID	Compound	Sample Result	Duplicate Result	RPD (%)
B-10 (1.1-1.6) / FD-02082022	PCB-1242	110	110	0.0

Note:
% = percent

The calculated RPDs between the parent sample and field duplicate were acceptable.

9. Compound Identification

Compounds are identified on the GC by using the analytes relative retention time.

The retention times of all quantitated peaks must fall within the calculated retention time windows for both the primary and confirmation columns. When dual column analysis is performed the percent difference (%D) of detected sample results must be less than 25%.

Sample locations associated with %D analysis exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Compound	%D
B-20 (4.4-6.4)	PCB-1242	33.6
B-10 (3.6-5.6)	PCB-1242	34.0

The criteria used to evaluate the %D are presented in the following table. In the case of a %D deviation, the sample results are qualified as documented in the table below.

Control Limit (%D)	Qualification
>25% to 70%	J
>70% to 100%	JN
>100% [1]	R
>100% to 200% (Interference detected)[2]	J or JN
>50% (pesticide) sample results less than the RL)	U

When the PCB sample results are less than the RL and the RPD greater than 50% the sample result are raised to the RL and reported as non-detect.

Note 1: If the pattern is confirmed sample results will be qualified as estimated (J). If pattern exhibits interference or if the PCB cannot be positively determined due to weathering the sample results will be qualified as tentative identification estimate (JN).

Note 2: If interference is detected in either column the sample results will be qualified as tentative identification estimate (JN).

Note:

- The following samples appears to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the sample do not closely match any of the laboratory's Aroclor standards used for instrument calibration: B-15 (1.0-1.5) (480-194868-12) and B-19 (1.3-1.8) (480-194868-31). The sample(s) has been quantified and reported as Aroclor PCB-1248. Due to the poor match with the Aroclor standard(s), there is increased qualitative and quantitative uncertainty associated with this result.

The detected sample results associated with sample locations B-4 (3.5-5.5) (480-194980-10) and B-3 (1-.4-1.9) (480-194980-5), were qualified as estimate (J).

10. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

Data Validation Checklist for Organochlorine PCBs

PCBs; SW-846 8082	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY (GC/ECD)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks	X				X
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate (LCSD) %R	X				X
LCS/LCSD Precision (RPD)	X				X
Matrix Spike (MS) %R		X	X		
Matrix Spike Duplicate (MSD) %R		X	X		
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
Surrogate Spike Recoveries		X	X		
Column (RPD)		X	X		
Dilution Factor		X		X	
Moisture Content	X				X
Tier III Validation					
Initial calibration %RSDs		X		X	
Continuing calibration %Ds		X		X	
System performance and column resolution		X		X	
Compound identification and quantitation					
A. Quantitation Reports		X		X	
B. RT of sample compounds within the established RT windows		X		X	
C. Pattern identification		X		X	
D. Transcription/calculation errors present		X		X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD – relative standard deviation, %R - percent recovery, RPD - relative percent difference,

PCBs; SW-846 8082	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY (GC/ECD)					
%D – difference					

SAMPLE COMPLIANCE REPORT

SAMPLE COMPLIANCE REPORT

Sample Delivery Group (SDG)	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB	MET	MISC	
480-194868-1	2/08/22	SW-846	B-23 (0.8-1.3)	Solids	--	--	No	--	--	
	2/08/22	SW-846	B-23 (5.3-7.3)	Solids	--	--	No	--	--	
	2/08/22	SW-846	B-20 (1.9-2.4)	Solids	--	--	No	--	--	
	2/08/22	SW-846	B-20 (4.4-6.4)	Solids	--	--	Yes	--	--	PCB – Column percent difference
	2/08/22	SW-846	B-15 (1.0-1.5)	Solids	--	--	Yes	--	--	PCB – increased qualitative and quantitative uncertainty
	2/08/22	SW-846	B-15 (5.5-7.5)	Solids	--	--	No	--	--	
	2/08/22	SW-846	B-10 (1.1-1.6)	Solids	--	--	Yes	--	--	PCB – surrogates diluted outside calibration range
	2/08/22	SW-846	B-10 (3.6-5.6)	Solids	--	--	Yes	--	--	PCB – Column percent difference
	2/08/22	SW-846	FD-02082022	Solids	--	--	Yes	--	--	PCB – surrogates diluted outside calibration range
	2/08/22	SW-846	B-5 (0.7-1.2)	Solids	--	--	Yes	--	--	PCB – surrogates diluted outside calibration range, Matrix spike/matrix spike duplicate percent recoveries
	2/08/22	SW-846	B-5 (3.2-5.2)	Solids	--	--	No	--	--	
	2/08/22	SW-846	B-18 (1.2-1.7)	Solids	--	--	No	--	--	
	2/09/22	SW-846	B-18 (1.7-3.7)	Solids	--	--	No	--	--	
	2/09/22	SW-846	B-18 (3.7-5.7)	Solids	--	--	No	--	--	
	2/09/22	SW-846	B-19 (1.3-1.8)	Solids	--	--	Yes	--	--	PCB – increased qualitative and quantitative uncertainty
	2/09/22	SW-846	B-19 (3.8-5.8)	Solids	--	--	No	--	--	

Note:

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

VALIDATION PERFORMED BY: Todd Church

SIGNATURE: 

DATE: March 16, 2023

PEER REVIEW: Dennis Capria

DATE: March 23, 2023

Chain of Custody Corrected Sample Analysis Data Sheets

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Syracuse #225

Client Information	Sampler: Joshua Miller	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-170470-37024.1
Client Contact: Mr. Michael Jones	Phone: (315) 486-1419	E-Mail: John.Schove@Eurofinset.com	State of Origin:	Page: Page 1 of 4
Company: ARCADIS U.S. Inc	PWSID:			Job #:
Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:	Analysis Requested		Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, M - Hexane, N - None, O - AsNaO2, P - Na2O4S
City: Syracuse	TAT Requested (days): STANDARD			
State, Zip: NY, 13202	Compliance Project: Δ Yes Δ No			
Phone: 315-671-9211(Tel)	PO #: Purchase Order Requested			
Email: michael.jones@arcadis.com	WO #:			
Project Name: National Grid - Dewey Avenue Site	Project #: 48024791			
Site: National Grid Dewey Avenue, Buffalo, NY	SSOW#:			

480-194868 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D - 1,4 Dioxane	PFC_IDA - PFAS - Standard New York List of 21	8082A - TCL PCBs																Total Number of	Special Instructions/Note:
			Preservation Code:				N	N	N																	
B-23 (0.8-1.3)	2/8/2022	0900	C	Solid					X																	Analyze
B-23 (1.3-3.3)		0910	C	Solid					X																	* HOLD *
B-23 (3.3-5.3)		1110	C	Solid					X																	* HOLD *
B-23 (5.3-7.3)		1111	C	Solid					X																	Analyze
B-23 (7.3-9.3)		1120	C	Solid					X																	* HOLD *
B-23 (9.3-11.3)		1121	C	Solid					X																	* HOLD *
B-20 (1.9-2.4)		0950	C	Solid					X																	Analyze
B-20 (2.4-4.4)		0955	C	Solid					X																	* HOLD *
B-20 (4.4-6.4)		1250	C	Solid			X	✓	X																	Analyze
B-20 (6.4-8.4)		1251	C	Solid					X																	* HOLD *
B-20 (8.4-9.0)		1300	C	Solid					X																	* HOLD *

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	2/9/22 / 1502	Arcadis			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 2/9/22 1502	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.3 2.7 #1 IR

Ver. 06/08/2021

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Joshua Miller	Lab PM: Schove, John R	Carrier Tracking No(s): Syracuse	COC No: 480-170470-37024.2
Client Contact: Mr. Michael Jones	Phone: (315) 486-1419	E-Mail: John.Schove@Eurofinset.com	State of Origin:	Page: Page 2 of 4
Company: ARCADIS U.S. Inc	PWSID:	Analysis Requested #225		Job #:
Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:			
City: Syracuse	TAT Requested (days): STANDARD			
State, Zip: NY, 13202	Compliance Project: Δ Yes Δ No			
Phone: 315-671-9211(Tel)	PO #: Purchase Order Requested			
Email: michael.jones@arcadis.com	WO #:			
Project Name: National Grid - Dewey Avenue Site	Project #: 48024791			
Site: National Grid - Dewey Avenue Site	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D - 1,4 Dioxane	PFC_IDA - PFAS - Standard New York List of 21	8082A - TCL PCBs	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N		
B-15 (1.0-1.5)	2/8/2022	1020	C	Solid					X		Analyze
B-15 (1.5-3.5)		1021	C	Solid					X		*Hold*
B-15 (3.5-5.5)		1340	C	Solid					X		*Hold*
B-15 (5.5-7.5)		1341	C	Solid					X		Analyze
B-15 (7.5-8.3)		1350	C	Solid					X		*Hold*
B-10 (1.1-1.6)		1045	C	Solid					X		Analyze
B-10 (1.6-3.6)		1046	C	Solid					X		*Hold*
B-10 (3.6-5.6)		1400	C	Solid					X		Analyze
B-10 (5.6-7.0)		1401	C	Solid					X		*Hold*
FD-02082022		—	C	Solid					X		Analyze
B-5 (0.7-1.2)		1100	C	Solid		X			X		Analyze

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 2/9/22 1502	Company Arcadis	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 9/2/22 1502	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

Ver: 06/08/2021

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information

Client Contact: Mr. Michael Jones	Sampler: Joshua Miller	Lab PM: Schove, John R	Carrier Tracking No(s): Syracuse #225	COC No: 480-170470-37024.3
Company: ARCADIS U.S. Inc	Phone: (315) 486-1419	E-Mail: John.Schove@Eurofinset.com	State of Origin:	Page: Page 3 of 3
Address: One Lincoln Center 110 West Fayette St, Suite 300	PWSID:	Due Date Requested:		Job #:
City: Syracuse		TAT Requested (days): STANDARD		
State, Zip: NY, 13202		Compliance Project: Δ Yes Δ No		
Phone: 315-671-9211(Tel)		PO #: Purchase Order Requested		
Email: michael.jones@arcadis.com		WO #:		
Project Name: National Grid - Dewey Avenue Site		Project #: 48024791		
Site: National Grid - Dewey Avenue Site		SSOW#:		

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D - 1,4 Dioxane	PFC_IDA - PFAS - Standard New York List of 21	8082A - TCL PCBs	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N		
B-5 (1.2-3.2)	2/8/22	1101	C	Solid					X		*HOLD*
B-5 (3.2-5.2)		1420	C	Solid			X	X	X		Analyze
B-5 (5.2-5.7)		1421	C	Solid					X		*HOLD*
B-18 (1.2-1.7)	2/9/22	0930	C	Solid			X	X	X		Analyze
B-18 (1.7-3.7)		0940	C	Solid					X		*Hold*
B-18 (3.7-5.7)		1310	C	Solid					X		Analyze
B-18 (5.7-7.7)		1311	C	Solid					X		*Hold*
B-18 (7.7-9.5)		1315	C	Solid					X		*Hold*
B-19 (1.3-1.8)		1010	C	Solid					X		Analyze
B-19 (1.8-3.8)		1011	C	Solid					X		*HOLD*
B-19 (3.8-5.8)		1330	C	Solid					X		Analyze

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

	Date/Time	Company	Received by:	Date/Time	Company
Relinquished by:	2/9/22 1502	Arcadis			
Relinquished by:			Received by:		
Relinquished by:			Received by:	2/10/22 1502	

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Syracuse #225

Client Information	Sampler: Joshua Miller	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-170470-37024.4
Client Contact: Mr. Michael Jones	Phone: (315) 486-1419	E-Mail: John.Schove@Eurofinset.com	State of Origin:	Page: Page 4 of 4
Company: ARCADIS U.S. Inc	PWSID:			Job #:
Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:			
City: Syracuse	TAT Requested (days): STANDARD			
State, Zip: NY, 13202	Compliance Project: Δ Yes Δ No			
Phone: 315-671-9211(Tel)	PO #: Purchase Order Requested			
Email: michael.jones@arcadis.com	WO #:			
Project Name: National Grid - Dewey Avenue Site	Project #: 48024791			
Site: National Grid - Dewey Avenue Site	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D - 1,4 Dioxane	PFC_IDA - PFAS - Standard New York List of 21	8082A - TCL PCBs	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N		
B-19 (5.8-7.8)	2/9/22	1331	C	Solid					X		*Hold*
B-19 (7.8-9.5)	↓	1345	C	Solid					X		*Hold*
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
		2/9/22 / 1502	Arcadis			
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 9/2/22 1502	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-69623.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Schove@Eurofinset.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Lancaster Laboratories Env, LLC		Accreditations Required (See note): NELAP - New York		Job #: 480-194868-1
Address: 2425 New Holland Pike, ,	Due Date Requested: 2/23/2022			
City: Lancaster	TAT Requested (days):			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #:			
Email:	WO #:			
Project Name: National Grid - Dewey Avenue Site	Project #: 48024791			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA_NY/Shake_Bath_14D PFAS - Standard New York List of 21	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
B-20 (4.4-6.4) (480-194868-9)	2/8/22	12:50 Eastern		Solid			X	1	
B-5 (3.2-5.2) (480-194868-24)	2/8/22	14:20 Eastern		Solid			X	1	
B-18 (1.7-3.7) (480-194868-27)	2/9/22	09:40 Eastern		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	2/11/22 1500	TAL			
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by [signature]	2/11/22 1014	[signature]

Custody Seals Intact: ☒ Yes ☐ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.9

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

LCMS

Qualifier	Qualifier Description
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample ID: B-23 (0.8-1.3)
Lab Sample ID: 480-194868-1

Date Collected: 02/08/22 09:00
Matrix: Solid
Date Received: 02/10/22 15:02
Percent Solids: 87.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	1.4	U	1.4	0.26	mg/Kg	☼	02/11/22 10:00	02/16/22 19:59	5
PCB-1221	1.4	U	1.4	0.26	mg/Kg	☼	02/11/22 10:00	02/16/22 19:59	5
PCB-1232	1.4	U	1.4	0.26	mg/Kg	☼	02/11/22 10:00	02/16/22 19:59	5
PCB-1242	1.4	U	1.4	0.26	mg/Kg	☼	02/11/22 10:00	02/16/22 19:59	5
PCB-1248	1.4	U	1.4	0.26	mg/Kg	☼	02/11/22 10:00	02/16/22 19:59	5
PCB-1254	1.4	U	1.4	0.63	mg/Kg	☼	02/11/22 10:00	02/16/22 19:59	5
PCB-1260	**12**		1.4	0.63	mg/Kg	☼	02/11/22 10:00	02/16/22 19:59	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*102*		*65 - 174*	*02/11/22 10:00*	*02/16/22 19:59*	*5*
DCB Decachlorobiphenyl	*109*		*65 - 174*	*02/11/22 10:00*	*02/16/22 19:59*	*5*
Tetrachloro-m-xylene	*91*		*60 - 154*	*02/11/22 10:00*	*02/16/22 19:59*	*5*
Tetrachloro-m-xylene	*102*		*60 - 154*	*02/11/22 10:00*	*02/16/22 19:59*	*5*

Client Sample ID: B-23 (5.3-7.3)
Lab Sample ID: 480-194868-4

Date Collected: 02/08/22 11:11
Matrix: Solid
Date Received: 02/10/22 15:02
Percent Solids: 79.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.30	U	0.30	0.059	mg/Kg	☼	02/11/22 10:00	02/13/22 19:01	1
PCB-1221	0.30	U	0.30	0.059	mg/Kg	☼	02/11/22 10:00	02/13/22 19:01	1
PCB-1232	0.30	U	0.30	0.059	mg/Kg	☼	02/11/22 10:00	02/13/22 19:01	1
PCB-1242	0.30	U	0.30	0.059	mg/Kg	☼	02/11/22 10:00	02/13/22 19:01	1
PCB-1248	0.30	U	0.30	0.059	mg/Kg	☼	02/11/22 10:00	02/13/22 19:01	1
PCB-1254	0.30	U	0.30	0.14	mg/Kg	☼	02/11/22 10:00	02/13/22 19:01	1
PCB-1260	0.30	U	0.30	0.14	mg/Kg	☼	02/11/22 10:00	02/13/22 19:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*82*		*65 - 174*	*02/11/22 10:00*	*02/13/22 19:01*	*1*
DCB Decachlorobiphenyl	*92*		*65 - 174*	*02/11/22 10:00*	*02/13/22 19:01*	*1*
Tetrachloro-m-xylene	*91*		*60 - 154*	*02/11/22 10:00*	*02/13/22 19:01*	*1*
Tetrachloro-m-xylene	*100*		*60 - 154*	*02/11/22 10:00*	*02/13/22 19:01*	*1*

Client Sample ID: B-20 (1.9-2.4)
Lab Sample ID: 480-194868-7

Date Collected: 02/08/22 09:50
Matrix: Solid
Date Received: 02/10/22 15:02
Percent Solids: 93.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.21	U	0.21	0.042	mg/Kg	☼	02/11/22 10:00	02/13/22 19:14	1
PCB-1221	0.21	U	0.21	0.042	mg/Kg	☼	02/11/22 10:00	02/13/22 19:14	1
PCB-1232	0.21	U	0.21	0.042	mg/Kg	☼	02/11/22 10:00	02/13/22 19:14	1
PCB-1242	0.21	U	0.21	0.042	mg/Kg	☼	02/11/22 10:00	02/13/22 19:14	1
PCB-1248	0.21	U	0.21	0.042	mg/Kg	☼	02/11/22 10:00	02/13/22 19:14	1
PCB-1254	0.21	U	0.21	0.10	mg/Kg	☼	02/11/22 10:00	02/13/22 19:14	1
PCB-1260	**0.17**	**J**	0.21	0.10	mg/Kg	☼	02/11/22 10:00	02/13/22 19:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*72*		*65 - 174*	*02/11/22 10:00*	*02/13/22 19:14*	*1*
DCB Decachlorobiphenyl	*81*		*65 - 174*	*02/11/22 10:00*	*02/13/22 19:14*	*1*

Client Sample ID: B-20 (1.9-2.4)
Lab Sample ID: 480-194868-7
Date Collected: 02/08/22 09:50
Matrix: Solid
Date Received: 02/10/22 15:02
Percent Solids: 93.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*80*		*60 - 154*	*02/11/22 10:00*	*02/13/22 19:14*	*1*
Tetrachloro-m-xylene	*84*		*60 - 154*	*02/11/22 10:00*	*02/13/22 19:14*	*1*

Client Sample ID: B-20 (4.4-6.4)
Lab Sample ID: 480-194868-9
Date Collected: 02/08/22 12:50
Matrix: Solid
Date Received: 02/10/22 15:02
Percent Solids: 83.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	120	U	120	65	ug/Kg	☼	02/11/22 12:24	02/14/22 20:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*108*		*54 - 120*	*02/11/22 12:24*	*02/14/22 20:43*	*1*
2-Fluorophenol (Surr)	*82*		*52 - 120*	*02/11/22 12:24*	*02/14/22 20:43*	*1*
p-Terphenyl-d14 (Surr)	*101*		*79 - 130*	*02/11/22 12:24*	*02/14/22 20:43*	*1*
Phenol-d5 (Surr)	*84*		*54 - 120*	*02/11/22 12:24*	*02/14/22 20:43*	*1*
Nitrobenzene-d5 (Surr)	*91*		*53 - 120*	*02/11/22 12:24*	*02/14/22 20:43*	*1*
2-Fluorobiphenyl (Surr)	*99*		*60 - 120*	*02/11/22 12:24*	*02/14/22 20:43*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.26	U	0.26	0.052	mg/Kg	☼	02/11/22 10:00	02/13/22 19:27	1
PCB-1221	0.26	U	0.26	0.052	mg/Kg	☼	02/11/22 10:00	02/13/22 19:27	1
PCB-1232	0.26	U	0.26	0.052	mg/Kg	☼	02/11/22 10:00	02/13/22 19:27	1
PCB-1242	**0.22**	**J**	0.26	0.052	mg/Kg	☼	02/11/22 10:00	02/13/22 19:27	1
PCB-1248	0.26	U	0.26	0.052	mg/Kg	☼	02/11/22 10:00	02/13/22 19:27	1
PCB-1254	0.26	U	0.26	0.12	mg/Kg	☼	02/11/22 10:00	02/13/22 19:27	1
PCB-1260	0.26	U	0.26	0.12	mg/Kg	☼	02/11/22 10:00	02/13/22 19:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*85*		*65 - 174*	*02/11/22 10:00*	*02/13/22 19:27*	*1*
DCB Decachlorobiphenyl	*96*		*65 - 174*	*02/11/22 10:00*	*02/13/22 19:27*	*1*
Tetrachloro-m-xylene	*91*		*60 - 154*	*02/11/22 10:00*	*02/13/22 19:27*	*1*
Tetrachloro-m-xylene	*103*		*60 - 154*	*02/11/22 10:00*	*02/13/22 19:27*	*1*

Method: 537 (Modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.24	U	0.24	0.023	ng/g	☼	02/21/22 07:37	02/24/22 00:40	1
Perfluoroheptanoic acid	0.24	U	0.24	0.029	ng/g	☼	02/21/22 07:37	02/24/22 00:40	1
Perfluorooctanoic acid	**0.047**	**J**	0.24	0.026	ng/g	☼	02/21/22 07:37	02/24/22 00:40	1
Perfluorononanoic acid	0.24	U	0.24	0.028	ng/g	☼	02/21/22 07:37	02/24/22 00:40	1
Perfluorodecanoic acid	0.24	U	0.24	0.029	ng/g	☼	02/21/22 07:37	02/24/22 00:40	1
Perfluorotridecanoic acid	0.24	U	0.24	0.025	ng/g	☼	02/21/22 07:37	02/24/22 00:40	1
Perfluorotetradecanoic acid	0.24	U	0.24	0.029	ng/g	☼	02/21/22 07:37	02/24/22 00:40	1
Perfluorobutanesulfonic acid	0.48	U	0.48	0.43	ng/g	☼	02/21/22 07:37	02/24/22 00:40	1
Perfluorohexanesulfonic acid	0.24	U	0.24	0.023	ng/g	☼	02/21/22 07:37	02/24/22 00:40	1
Perfluorooctanesulfonic acid	0.24	U	0.24	0.042	ng/g	☼	02/21/22 07:37	02/24/22 00:40	1
NEtFOSAA	0.24	U	0.24	0.026	ng/g	☼	02/21/22 07:37	02/24/22 00:40	1
NMeFOSAA	0.24	U	0.24	0.037	ng/g	☼	02/21/22 07:37	02/24/22 00:40	1
Perfluoroheptanesulfonic acid	0.24	U	0.24	0.024	ng/g	☼	02/21/22 07:37	02/24/22 00:40	1

Client Sample ID: B-20 (4.4-6.4)
Lab Sample ID: 480-194868-9

Date Collected: 02/08/22 12:50
Matrix: Solid
Date Received: 02/10/22 15:02
Percent Solids: 83.2

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorodecanesulfonic acid	0.24	U	0.24	0.025	ng/g	☼	02/21/22 07:37	02/24/22 00:40	1
Perfluorooctanesulfonamide	0.24	U	0.24	0.025	ng/g	☼	02/21/22 07:37	02/24/22 00:40	1
Perfluorobutanoic acid	**0.033**	**J**	0.24	0.029	ng/g	☼	02/21/22 07:37	02/24/22 00:40	1
Perfluoroundecanoic acid	0.24	U	0.24	0.067	ng/g	☼	02/21/22 07:37	02/24/22 00:40	1
Perfluorododecanoic acid	0.24	U	0.24	0.028	ng/g	☼	02/21/22 07:37	02/24/22 00:40	1
6:2 Fluorotelomer sulfonic acid	0.24	U	0.24	0.059	ng/g	☼	02/21/22 07:37	02/24/22 00:40	1
8:2 Fluorotelomer sulfonic acid	0.24	U	0.24	0.020	ng/g	☼	02/21/22 07:37	02/24/22 00:40	1
Perfluoropentanoic acid	0.24	U	0.24	0.029	ng/g	☼	02/21/22 07:37	02/24/22 00:40	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-8:2 FTS	*122*		*15 - 200*	*02/21/22 07:37*	*02/24/22 00:40*	*1*
M2-6:2 FTS	*131*		*10 - 200*	*02/21/22 07:37*	*02/24/22 00:40*	*1*
13C5 PFHxA	*91*		*10 - 174*	*02/21/22 07:37*	*02/24/22 00:40*	*1*
13C4 PFHpA	*93*		*10 - 178*	*02/21/22 07:37*	*02/24/22 00:40*	*1*
13C8 PFOA	*98*		*26 - 159*	*02/21/22 07:37*	*02/24/22 00:40*	*1*
13C9 PFNA	*100*		*26 - 165*	*02/21/22 07:37*	*02/24/22 00:40*	*1*
13C6 PFDA	*100*		*26 - 161*	*02/21/22 07:37*	*02/24/22 00:40*	*1*
13C7 PFUnA	*103*		*12 - 173*	*02/21/22 07:37*	*02/24/22 00:40*	*1*
13C2-PFDoDA	*95*		*11 - 166*	*02/21/22 07:37*	*02/24/22 00:40*	*1*
13C2 PFTeDA	*106*		*10 - 169*	*02/21/22 07:37*	*02/24/22 00:40*	*1*
13C3 PFBS	*111*		*27 - 179*	*02/21/22 07:37*	*02/24/22 00:40*	*1*
13C3 PFHxS	*103*		*24 - 171*	*02/21/22 07:37*	*02/24/22 00:40*	*1*
13C8 PFOS	*104*		*41 - 154*	*02/21/22 07:37*	*02/24/22 00:40*	*1*
d3-NMeFOSAA	*75*		*10 - 178*	*02/21/22 07:37*	*02/24/22 00:40*	*1*
d5-NEtFOSAA	*92*		*10 - 193*	*02/21/22 07:37*	*02/24/22 00:40*	*1*
13C8 FOSA	*90*		*14 - 163*	*02/21/22 07:37*	*02/24/22 00:40*	*1*
13C4 PFBA	*95*		*28 - 153*	*02/21/22 07:37*	*02/24/22 00:40*	*1*
13C5 PFPeA	*102*		*24 - 161*	*02/21/22 07:37*	*02/24/22 00:40*	*1*

Client Sample ID: B-15 (1.0-1.5)
Lab Sample ID: 480-194868-12

Date Collected: 02/08/22 10:20
Matrix: Solid
Date Received: 02/10/22 15:02
Percent Solids: 83.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	1.4	U	1.4	0.27	mg/Kg	☼	02/11/22 10:00	02/16/22 20:12	5
PCB-1221	1.4	U	1.4	0.27	mg/Kg	☼	02/11/22 10:00	02/16/22 20:12	5
PCB-1232	1.4	U	1.4	0.27	mg/Kg	☼	02/11/22 10:00	02/16/22 20:12	5
PCB-1242	1.4	U	1.4	0.27	mg/Kg	☼	02/11/22 10:00	02/16/22 20:12	5
PCB-1248	**19**	J	1.4	0.27	mg/Kg	☼	02/11/22 10:00	02/16/22 20:12	5
PCB-1254	1.4	U	1.4	0.64	mg/Kg	☼	02/11/22 10:00	02/16/22 20:12	5
PCB-1260	1.4	U	1.4	0.64	mg/Kg	☼	02/11/22 10:00	02/16/22 20:12	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*107*		*65 - 174*	*02/11/22 10:00*	*02/16/22 20:12*	*5*
DCB Decachlorobiphenyl	*113*		*65 - 174*	*02/11/22 10:00*	*02/16/22 20:12*	*5*
Tetrachloro-m-xylene	*97*		*60 - 154*	*02/11/22 10:00*	*02/16/22 20:12*	*5*
Tetrachloro-m-xylene	*106*		*60 - 154*	*02/11/22 10:00*	*02/16/22 20:12*	*5*

Client Sample ID: B-15 (5.5-7.5)
Lab Sample ID: 480-194868-15

Date Collected: 02/08/22 13:41
Matrix: Solid
Date Received: 02/10/22 15:02
Percent Solids: 86.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	2.5	U	2.5	0.49	mg/Kg	☼	02/11/22 10:00	02/16/22 20:25	10
PCB-1221	2.5	U	2.5	0.49	mg/Kg	☼	02/11/22 10:00	02/16/22 20:25	10
PCB-1232	2.5	U	2.5	0.49	mg/Kg	☼	02/11/22 10:00	02/16/22 20:25	10
PCB-1242	**36**		2.5	0.49	mg/Kg	☼	02/11/22 10:00	02/16/22 20:25	10
PCB-1248	2.5	U	2.5	0.49	mg/Kg	☼	02/11/22 10:00	02/16/22 20:25	10
PCB-1254	2.5	U	2.5	1.2	mg/Kg	☼	02/11/22 10:00	02/16/22 20:25	10
PCB-1260	2.5	U	2.5	1.2	mg/Kg	☼	02/11/22 10:00	02/16/22 20:25	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*124*		*65 - 174*	*02/11/22 10:00*	*02/16/22 20:25*	*10*
DCB Decachlorobiphenyl	*128*		*65 - 174*	*02/11/22 10:00*	*02/16/22 20:25*	*10*
Tetrachloro-m-xylene	*109*		*60 - 154*	*02/11/22 10:00*	*02/16/22 20:25*	*10*
Tetrachloro-m-xylene	*116*		*60 - 154*	*02/11/22 10:00*	*02/16/22 20:25*	*10*

Client Sample ID: B-10 (1.1-1.6)
Lab Sample ID: 480-194868-17

Date Collected: 02/08/22 10:45
Matrix: Solid
Date Received: 02/10/22 15:02
Percent Solids: 83.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	14	U J	14	2.8	mg/Kg	☼	02/11/22 10:00	02/16/22 20:39	50
PCB-1221	14	U J	14	2.8	mg/Kg	☼	02/11/22 10:00	02/16/22 20:39	50
PCB-1232	14	U J	14	2.8	mg/Kg	☼	02/11/22 10:00	02/16/22 20:39	50
PCB-1242	**110**	J	14	2.8	mg/Kg	☼	02/11/22 10:00	02/16/22 20:39	50
PCB-1248	14	U J	14	2.8	mg/Kg	☼	02/11/22 10:00	02/16/22 20:39	50
PCB-1254	14	U J	14	6.6	mg/Kg	☼	02/11/22 10:00	02/16/22 20:39	50
PCB-1260	14	U J	14	6.6	mg/Kg	☼	02/11/22 10:00	02/16/22 20:39	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*127*		*65 - 174*	*02/11/22 10:00*	*02/16/22 20:39*	*50*
DCB Decachlorobiphenyl	*142*		*65 - 174*	*02/11/22 10:00*	*02/16/22 20:39*	*50*
Tetrachloro-m-xylene	*115*		*60 - 154*	*02/11/22 10:00*	*02/16/22 20:39*	*50*
Tetrachloro-m-xylene	*123*		*60 - 154*	*02/11/22 10:00*	*02/16/22 20:39*	*50*

Client Sample ID: B-10 (3.6-5.6)
Lab Sample ID: 480-194868-19

Date Collected: 02/08/22 14:00
Matrix: Solid
Date Received: 02/10/22 15:02
Percent Solids: 79.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.29	U	0.29	0.056	mg/Kg	☼	02/11/22 10:00	02/13/22 20:20	1
PCB-1221	0.29	U	0.29	0.056	mg/Kg	☼	02/11/22 10:00	02/13/22 20:20	1
PCB-1232	0.29	U	0.29	0.056	mg/Kg	☼	02/11/22 10:00	02/13/22 20:20	1
PCB-1242	**0.35**	J	0.29	0.056	mg/Kg	☼	02/11/22 10:00	02/13/22 20:20	1
PCB-1248	0.29	U	0.29	0.056	mg/Kg	☼	02/11/22 10:00	02/13/22 20:20	1
PCB-1254	0.29	U	0.29	0.13	mg/Kg	☼	02/11/22 10:00	02/13/22 20:20	1
PCB-1260	0.29	U	0.29	0.13	mg/Kg	☼	02/11/22 10:00	02/13/22 20:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*83*		*65 - 174*	*02/11/22 10:00*	*02/13/22 20:20*	*1*
DCB Decachlorobiphenyl	*92*		*65 - 174*	*02/11/22 10:00*	*02/13/22 20:20*	*1*

Client Sample ID: B-10 (3.6-5.6)
Lab Sample ID: 480-194868-19
Date Collected: 02/08/22 14:00
Matrix: Solid
Date Received: 02/10/22 15:02
Percent Solids: 79.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	89		60 - 154	02/11/22 10:00	02/13/22 20:20	1
Tetrachloro-m-xylene	105		60 - 154	02/11/22 10:00	02/13/22 20:20	1

Client Sample ID: FD-02082022
Lab Sample ID: 480-194868-21
Date Collected: 02/08/22 00:00
Matrix: Solid
Date Received: 02/10/22 15:02
Percent Solids: 85.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	13	U J	13	2.5	mg/Kg	☼	02/11/22 10:00	02/16/22 20:52	50
PCB-1221	13	U J	13	2.5	mg/Kg	☼	02/11/22 10:00	02/16/22 20:52	50
PCB-1232	13	U J	13	2.5	mg/Kg	☼	02/11/22 10:00	02/16/22 20:52	50
PCB-1242	**110**	J	13	2.5	mg/Kg	☼	02/11/22 10:00	02/16/22 20:52	50
PCB-1248	13	U J	13	2.5	mg/Kg	☼	02/11/22 10:00	02/16/22 20:52	50
PCB-1254	13	U J	13	5.9	mg/Kg	☼	02/11/22 10:00	02/16/22 20:52	50
PCB-1260	13	U J	13	5.9	mg/Kg	☼	02/11/22 10:00	02/16/22 20:52	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	125		65 - 174	02/11/22 10:00	02/16/22 20:52	50
DCB Decachlorobiphenyl	135		65 - 174	02/11/22 10:00	02/16/22 20:52	50
Tetrachloro-m-xylene	113		60 - 154	02/11/22 10:00	02/16/22 20:52	50
Tetrachloro-m-xylene	117		60 - 154	02/11/22 10:00	02/16/22 20:52	50

Client Sample ID: B-5 (0.7-1.2)
Lab Sample ID: 480-194868-22
Date Collected: 02/08/22 11:00
Matrix: Solid
Date Received: 02/10/22 15:02
Percent Solids: 84.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	11	U F1 J	11	2.1	mg/Kg	☼	02/11/22 10:00	02/16/22 19:46	50
PCB-1221	11	U J	11	2.1	mg/Kg	☼	02/11/22 10:00	02/16/22 19:46	50
PCB-1232	11	U J	11	2.1	mg/Kg	☼	02/11/22 10:00	02/16/22 19:46	50
PCB-1242	**62**	J	11	2.1	mg/Kg	☼	02/11/22 10:00	02/16/22 19:46	50
PCB-1248	11	U J	11	2.1	mg/Kg	☼	02/11/22 10:00	02/16/22 19:46	50
PCB-1254	11	U J	11	5.1	mg/Kg	☼	02/11/22 10:00	02/16/22 19:46	50
PCB-1260	11	U J	11	5.1	mg/Kg	☼	02/11/22 10:00	02/16/22 19:46	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	114		65 - 174	02/11/22 10:00	02/16/22 19:46	50
DCB Decachlorobiphenyl	122		65 - 174	02/11/22 10:00	02/16/22 19:46	50
Tetrachloro-m-xylene	102		60 - 154	02/11/22 10:00	02/16/22 19:46	50
Tetrachloro-m-xylene	107		60 - 154	02/11/22 10:00	02/16/22 19:46	50

Client Sample ID: B-5 (3.2-5.2)
Lab Sample ID: 480-194868-24
Date Collected: 02/08/22 14:20
Matrix: Solid
Date Received: 02/10/22 15:02
Percent Solids: 79.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	120	U	120	67	ug/Kg	☼	02/11/22 12:24	02/14/22 21:07	1

Client Sample ID: B-5 (3.2-5.2)
Date Collected: 02/08/22 14:20
Date Received: 02/10/22 15:02

Lab Sample ID: 480-194868-24
Matrix: Solid
Percent Solids: 79.9

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	97		54 - 120	02/11/22 12:24	02/14/22 21:07	1
2-Fluorophenol (Surr)	75		52 - 120	02/11/22 12:24	02/14/22 21:07	1
p-Terphenyl-d14 (Surr)	97		79 - 130	02/11/22 12:24	02/14/22 21:07	1
Phenol-d5 (Surr)	77		54 - 120	02/11/22 12:24	02/14/22 21:07	1
Nitrobenzene-d5 (Surr)	84		53 - 120	02/11/22 12:24	02/14/22 21:07	1
2-Fluorobiphenyl (Surr)	94		60 - 120	02/11/22 12:24	02/14/22 21:07	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.27	U	0.27	0.053	mg/Kg	☼	02/11/22 10:00	02/13/22 20:47	1
PCB-1221	0.27	U	0.27	0.053	mg/Kg	☼	02/11/22 10:00	02/13/22 20:47	1
PCB-1232	0.27	U	0.27	0.053	mg/Kg	☼	02/11/22 10:00	02/13/22 20:47	1
PCB-1242	0.27	U	0.27	0.053	mg/Kg	☼	02/11/22 10:00	02/13/22 20:47	1
PCB-1248	0.27	U	0.27	0.053	mg/Kg	☼	02/11/22 10:00	02/13/22 20:47	1
PCB-1254	0.27	U	0.27	0.13	mg/Kg	☼	02/11/22 10:00	02/13/22 20:47	1
PCB-1260	0.27	U	0.27	0.13	mg/Kg	☼	02/11/22 10:00	02/13/22 20:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	87		65 - 174	02/11/22 10:00	02/13/22 20:47	1
DCB Decachlorobiphenyl	98		65 - 174	02/11/22 10:00	02/13/22 20:47	1
Tetrachloro-m-xylene	99		60 - 154	02/11/22 10:00	02/13/22 20:47	1
Tetrachloro-m-xylene	110		60 - 154	02/11/22 10:00	02/13/22 20:47	1

Method: 537 (Modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.25	U	0.25	0.024	ng/g	☼	02/21/22 07:37	02/24/22 00:51	1
Perfluoroheptanoic acid	0.25	U	0.25	0.030	ng/g	☼	02/21/22 07:37	02/24/22 00:51	1
Perfluorooctanoic acid	**0.030**	**J**	0.25	0.027	ng/g	☼	02/21/22 07:37	02/24/22 00:51	1
Perfluorononanoic acid	0.25	U	0.25	0.028	ng/g	☼	02/21/22 07:37	02/24/22 00:51	1
Perfluorodecanoic acid	0.25	U	0.25	0.030	ng/g	☼	02/21/22 07:37	02/24/22 00:51	1
Perfluorotridecanoic acid	0.25	U	0.25	0.026	ng/g	☼	02/21/22 07:37	02/24/22 00:51	1
Perfluorotetradecanoic acid	0.25	U	0.25	0.030	ng/g	☼	02/21/22 07:37	02/24/22 00:51	1
Perfluorobutanesulfonic acid	0.50	U	0.50	0.45	ng/g	☼	02/21/22 07:37	02/24/22 00:51	1
Perfluorohexanesulfonic acid	0.25	U	0.25	0.024	ng/g	☼	02/21/22 07:37	02/24/22 00:51	1
Perfluorooctanesulfonic acid	0.25	U	0.25	0.043	ng/g	☼	02/21/22 07:37	02/24/22 00:51	1
NEtFOSAA	0.25	U	0.25	0.027	ng/g	☼	02/21/22 07:37	02/24/22 00:51	1
NMeFOSAA	0.25	U	0.25	0.038	ng/g	☼	02/21/22 07:37	02/24/22 00:51	1
Perfluoroheptanesulfonic acid	0.25	U	0.25	0.025	ng/g	☼	02/21/22 07:37	02/24/22 00:51	1
Perfluorodecanesulfonic acid	0.25	U	0.25	0.026	ng/g	☼	02/21/22 07:37	02/24/22 00:51	1
Perfluorooctanesulfonamide	0.25	U	0.25	0.026	ng/g	☼	02/21/22 07:37	02/24/22 00:51	1
Perfluorobutanoic acid	0.25	U	0.25	0.030	ng/g	☼	02/21/22 07:37	02/24/22 00:51	1
Perfluoroundecanoic acid	0.25	U	0.25	0.069	ng/g	☼	02/21/22 07:37	02/24/22 00:51	1
Perfluorododecanoic acid	0.25	U	0.25	0.028	ng/g	☼	02/21/22 07:37	02/24/22 00:51	1
6:2 Fluorotelomer sulfonic acid	0.25	U	0.25	0.061	ng/g	☼	02/21/22 07:37	02/24/22 00:51	1
8:2 Fluorotelomer sulfonic acid	0.25	U	0.25	0.021	ng/g	☼	02/21/22 07:37	02/24/22 00:51	1
Perfluoropentanoic acid	0.25	U	0.25	0.030	ng/g	☼	02/21/22 07:37	02/24/22 00:51	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	119		15 - 200	02/21/22 07:37	02/24/22 00:51	1
M2-6:2 FTS	133		10 - 200	02/21/22 07:37	02/24/22 00:51	1
13C5 PFHxA	80		10 - 174	02/21/22 07:37	02/24/22 00:51	1

Client Sample ID: B-5 (3.2-5.2)
Lab Sample ID: 480-194868-24
Date Collected: 02/08/22 14:20
Matrix: Solid
Date Received: 02/10/22 15:02
Percent Solids: 79.9

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFHpA	*86*		*10 - 178*	*02/21/22 07:37*	*02/24/22 00:51*	*1*
13C8 PFOA	*84*		*26 - 159*	*02/21/22 07:37*	*02/24/22 00:51*	*1*
13C9 PFNA	*96*		*26 - 165*	*02/21/22 07:37*	*02/24/22 00:51*	*1*
13C6 PFDA	*90*		*26 - 161*	*02/21/22 07:37*	*02/24/22 00:51*	*1*
13C7 PFUnA	*86*		*12 - 173*	*02/21/22 07:37*	*02/24/22 00:51*	*1*
13C2-PFDoDA	*86*		*11 - 166*	*02/21/22 07:37*	*02/24/22 00:51*	*1*
13C2 PFTeDA	*89*		*10 - 169*	*02/21/22 07:37*	*02/24/22 00:51*	*1*
13C3 PFBS	*98*		*27 - 179*	*02/21/22 07:37*	*02/24/22 00:51*	*1*
13C3 PFHxS	*93*		*24 - 171*	*02/21/22 07:37*	*02/24/22 00:51*	*1*
13C8 PFOS	*93*		*41 - 154*	*02/21/22 07:37*	*02/24/22 00:51*	*1*
d3-NMeFOSAA	*74*		*10 - 178*	*02/21/22 07:37*	*02/24/22 00:51*	*1*
d5-NEtFOSAA	*87*		*10 - 193*	*02/21/22 07:37*	*02/24/22 00:51*	*1*
13C8 FOSA	*46*		*14 - 163*	*02/21/22 07:37*	*02/24/22 00:51*	*1*
13C4 PFBA	*84*		*28 - 153*	*02/21/22 07:37*	*02/24/22 00:51*	*1*
13C5 PFPeA	*90*		*24 - 161*	*02/21/22 07:37*	*02/24/22 00:51*	*1*

Client Sample ID: B-18 (1.2-1.7)
Lab Sample ID: 480-194868-26
Date Collected: 02/09/22 09:30
Matrix: Solid
Date Received: 02/10/22 15:02
Percent Solids: 88.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.25	U	0.25	0.049	mg/Kg	☼	02/11/22 10:00	02/13/22 21:00	1
PCB-1221	0.25	U	0.25	0.049	mg/Kg	☼	02/11/22 10:00	02/13/22 21:00	1
PCB-1232	0.25	U	0.25	0.049	mg/Kg	☼	02/11/22 10:00	02/13/22 21:00	1
PCB-1242	0.25	U	0.25	0.049	mg/Kg	☼	02/11/22 10:00	02/13/22 21:00	1
PCB-1248	**4.0**		0.25	0.049	mg/Kg	☼	02/11/22 10:00	02/13/22 21:00	1
PCB-1254	0.25	U	0.25	0.12	mg/Kg	☼	02/11/22 10:00	02/13/22 21:00	1
PCB-1260	0.25	U	0.25	0.12	mg/Kg	☼	02/11/22 10:00	02/13/22 21:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*80*		*65 - 174*	*02/11/22 10:00*	*02/13/22 21:00*	*1*
DCB Decachlorobiphenyl	*89*		*65 - 174*	*02/11/22 10:00*	*02/13/22 21:00*	*1*
Tetrachloro-m-xylene	*82*		*60 - 154*	*02/11/22 10:00*	*02/13/22 21:00*	*1*
Tetrachloro-m-xylene	*93*		*60 - 154*	*02/11/22 10:00*	*02/13/22 21:00*	*1*

Client Sample ID: B-18 (1.7-3.7)
Lab Sample ID: 480-194868-27
Date Collected: 02/09/22 09:40
Matrix: Solid
Date Received: 02/10/22 15:02
Percent Solids: 90.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	110	U	110	60	ug/Kg	☼	02/11/22 12:24	02/14/22 21:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*109*		*54 - 120*	*02/11/22 12:24*	*02/14/22 21:31*	*1*
2-Fluorophenol (Surr)	*81*		*52 - 120*	*02/11/22 12:24*	*02/14/22 21:31*	*1*
p-Terphenyl-d14 (Surr)	*102*		*79 - 130*	*02/11/22 12:24*	*02/14/22 21:31*	*1*
Phenol-d5 (Surr)	*83*		*54 - 120*	*02/11/22 12:24*	*02/14/22 21:31*	*1*
Nitrobenzene-d5 (Surr)	*87*		*53 - 120*	*02/11/22 12:24*	*02/14/22 21:31*	*1*
2-Fluorobiphenyl (Surr)	*99*		*60 - 120*	*02/11/22 12:24*	*02/14/22 21:31*	*1*

Client Sample ID: B-18 (1.7-3.7)
Date Collected: 02/09/22 09:40
Date Received: 02/10/22 15:02

Lab Sample ID: 480-194868-27
Matrix: Solid
Percent Solids: 90.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.22	U	0.22	0.042	mg/Kg	☼	02/11/22 10:00	02/13/22 21:13	1
PCB-1221	0.22	U	0.22	0.042	mg/Kg	☼	02/11/22 10:00	02/13/22 21:13	1
PCB-1232	0.22	U	0.22	0.042	mg/Kg	☼	02/11/22 10:00	02/13/22 21:13	1
PCB-1242	0.22	U	0.22	0.042	mg/Kg	☼	02/11/22 10:00	02/13/22 21:13	1
PCB-1248	0.22	U	0.22	0.042	mg/Kg	☼	02/11/22 10:00	02/13/22 21:13	1
PCB-1254	**0.51**		0.22	0.10	mg/Kg	☼	02/11/22 10:00	02/13/22 21:13	1
PCB-1260	0.22	U	0.22	0.10	mg/Kg	☼	02/11/22 10:00	02/13/22 21:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*86*		*65 - 174*	*02/11/22 10:00*	*02/13/22 21:13*	*1*
DCB Decachlorobiphenyl	*97*		*65 - 174*	*02/11/22 10:00*	*02/13/22 21:13*	*1*
Tetrachloro-m-xylene	*86*		*60 - 154*	*02/11/22 10:00*	*02/13/22 21:13*	*1*
Tetrachloro-m-xylene	*101*		*60 - 154*	*02/11/22 10:00*	*02/13/22 21:13*	*1*

Method: 537 (Modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.22	U	0.22	0.021	ng/g	☼	02/21/22 07:37	02/24/22 01:02	1
Perfluoroheptanoic acid	0.22	U	0.22	0.026	ng/g	☼	02/21/22 07:37	02/24/22 01:02	1
Perfluorooctanoic acid	**0.033**	**J**	0.22	0.024	ng/g	☼	02/21/22 07:37	02/24/22 01:02	1
Perfluorononanoic acid	0.22	U	0.22	0.025	ng/g	☼	02/21/22 07:37	02/24/22 01:02	1
Perfluorodecanoic acid	**0.077**	**J**	0.22	0.026	ng/g	☼	02/21/22 07:37	02/24/22 01:02	1
Perfluorotridecanoic acid	0.22	U	0.22	0.023	ng/g	☼	02/21/22 07:37	02/24/22 01:02	1
Perfluorotetradecanoic acid	0.22	U	0.22	0.026	ng/g	☼	02/21/22 07:37	02/24/22 01:02	1
Perfluorobutanesulfonic acid	0.44	U	0.44	0.40	ng/g	☼	02/21/22 07:37	02/24/22 01:02	1
Perfluorohexanesulfonic acid	0.22	U	0.22	0.021	ng/g	☼	02/21/22 07:37	02/24/22 01:02	1
Perfluorooctanesulfonic acid	**0.66**		0.22	0.039	ng/g	☼	02/21/22 07:37	02/24/22 01:02	1
NEtFOSAA	0.22	U	0.22	0.024	ng/g	☼	02/21/22 07:37	02/24/22 01:02	1
NMeFOSAA	0.22	U	0.22	0.034	ng/g	☼	02/21/22 07:37	02/24/22 01:02	1
Perfluoroheptanesulfonic acid	0.22	U	0.22	0.022	ng/g	☼	02/21/22 07:37	02/24/22 01:02	1
Perfluorodecanesulfonic acid	0.22	U	0.22	0.023	ng/g	☼	02/21/22 07:37	02/24/22 01:02	1
Perfluorooctanesulfonamide	0.22	U	0.22	0.023	ng/g	☼	02/21/22 07:37	02/24/22 01:02	1
Perfluorobutanoic acid	0.22	U	0.22	0.026	ng/g	☼	02/21/22 07:37	02/24/22 01:02	1
Perfluoroundecanoic acid	0.22	U	0.22	0.062	ng/g	☼	02/21/22 07:37	02/24/22 01:02	1
Perfluorododecanoic acid	0.22	U	0.22	0.025	ng/g	☼	02/21/22 07:37	02/24/22 01:02	1
6:2 Fluorotelomer sulfonic acid	**0.61**		0.22	0.054	ng/g	☼	02/21/22 07:37	02/24/22 01:02	1
8:2 Fluorotelomer sulfonic acid	0.22	U	0.22	0.019	ng/g	☼	02/21/22 07:37	02/24/22 01:02	1
Perfluoropentanoic acid	0.22	U	0.22	0.026	ng/g	☼	02/21/22 07:37	02/24/22 01:02	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-8:2 FTS	*134*		*15 - 200*	*02/21/22 07:37*	*02/24/22 01:02*	*1*
M2-6:2 FTS	*140*		*10 - 200*	*02/21/22 07:37*	*02/24/22 01:02*	*1*
13C5 PFHxA	*91*		*10 - 174*	*02/21/22 07:37*	*02/24/22 01:02*	*1*
13C4 PFHpA	*92*		*10 - 178*	*02/21/22 07:37*	*02/24/22 01:02*	*1*
13C8 PFOA	*93*		*26 - 159*	*02/21/22 07:37*	*02/24/22 01:02*	*1*
13C9 PFNA	*103*		*26 - 165*	*02/21/22 07:37*	*02/24/22 01:02*	*1*
13C6 PFDA	*101*		*26 - 161*	*02/21/22 07:37*	*02/24/22 01:02*	*1*
13C7 PFUnA	*100*		*12 - 173*	*02/21/22 07:37*	*02/24/22 01:02*	*1*
13C2-PFDoDA	*100*		*11 - 166*	*02/21/22 07:37*	*02/24/22 01:02*	*1*
13C2 PFTeDA	*96*		*10 - 169*	*02/21/22 07:37*	*02/24/22 01:02*	*1*
13C3 PFBS	*105*		*27 - 179*	*02/21/22 07:37*	*02/24/22 01:02*	*1*
13C3 PFHxS	*98*		*24 - 171*	*02/21/22 07:37*	*02/24/22 01:02*	*1*

Client Sample ID: B-18 (1.7-3.7)
Lab Sample ID: 480-194868-27

Date Collected: 02/09/22 09:40
Matrix: Solid
Date Received: 02/10/22 15:02
Percent Solids: 90.2

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C8 PFOS	*100*		*41 - 154*	*02/21/22 07:37*	*02/24/22 01:02*	*1*
d3-NMeFOSAA	*72*		*10 - 178*	*02/21/22 07:37*	*02/24/22 01:02*	*1*
d5-NEtFOSAA	*84*		*10 - 193*	*02/21/22 07:37*	*02/24/22 01:02*	*1*
13C8 FOSA	*70*		*14 - 163*	*02/21/22 07:37*	*02/24/22 01:02*	*1*
13C4 PFBA	*95*		*28 - 153*	*02/21/22 07:37*	*02/24/22 01:02*	*1*
13C5 PFPeA	*96*		*24 - 161*	*02/21/22 07:37*	*02/24/22 01:02*	*1*

Client Sample ID: B-18 (3.7-5.7)
Lab Sample ID: 480-194868-28

Date Collected: 02/09/22 13:10
Matrix: Solid
Date Received: 02/10/22 15:02
Percent Solids: 83.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.26	U	0.26	0.051	mg/Kg	☼	02/11/22 10:00	02/13/22 21:27	1
PCB-1221	0.26	U	0.26	0.051	mg/Kg	☼	02/11/22 10:00	02/13/22 21:27	1
PCB-1232	0.26	U	0.26	0.051	mg/Kg	☼	02/11/22 10:00	02/13/22 21:27	1
PCB-1242	0.26	U	0.26	0.051	mg/Kg	☼	02/11/22 10:00	02/13/22 21:27	1
PCB-1248	0.26	U	0.26	0.051	mg/Kg	☼	02/11/22 10:00	02/13/22 21:27	1
PCB-1254	0.26	U	0.26	0.12	mg/Kg	☼	02/11/22 10:00	02/13/22 21:27	1
PCB-1260	0.26	U	0.26	0.12	mg/Kg	☼	02/11/22 10:00	02/13/22 21:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*79*		*65 - 174*	*02/11/22 10:00*	*02/13/22 21:27*	*1*
DCB Decachlorobiphenyl	*89*		*65 - 174*	*02/11/22 10:00*	*02/13/22 21:27*	*1*
Tetrachloro-m-xylene	*86*		*60 - 154*	*02/11/22 10:00*	*02/13/22 21:27*	*1*
Tetrachloro-m-xylene	*96*		*60 - 154*	*02/11/22 10:00*	*02/13/22 21:27*	*1*

Client Sample ID: B-19 (1.3-1.8)
Lab Sample ID: 480-194868-31

Date Collected: 02/09/22 10:10
Matrix: Solid
Date Received: 02/10/22 15:02
Percent Solids: 84.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	5.2	U	5.2	1.0	mg/Kg	☼	02/11/22 10:00	02/16/22 21:05	20
PCB-1221	5.2	U	5.2	1.0	mg/Kg	☼	02/11/22 10:00	02/16/22 21:05	20
PCB-1232	5.2	U	5.2	1.0	mg/Kg	☼	02/11/22 10:00	02/16/22 21:05	20
PCB-1242	5.2	U	5.2	1.0	mg/Kg	☼	02/11/22 10:00	02/16/22 21:05	20
PCB-1248	**83**	J	5.2	1.0	mg/Kg	☼	02/11/22 10:00	02/16/22 21:05	20
PCB-1254	5.2	U	5.2	2.5	mg/Kg	☼	02/11/22 10:00	02/16/22 21:05	20
PCB-1260	5.2	U	5.2	2.5	mg/Kg	☼	02/11/22 10:00	02/16/22 21:05	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*123*		*65 - 174*	*02/11/22 10:00*	*02/16/22 21:05*	*20*
DCB Decachlorobiphenyl	*128*		*65 - 174*	*02/11/22 10:00*	*02/16/22 21:05*	*20*
Tetrachloro-m-xylene	*113*		*60 - 154*	*02/11/22 10:00*	*02/16/22 21:05*	*20*
Tetrachloro-m-xylene	*119*		*60 - 154*	*02/11/22 10:00*	*02/16/22 21:05*	*20*

Client Sample ID: B-19 (3.8-5.8)
Date Collected: 02/09/22 13:30
Date Received: 02/10/22 15:02

Lab Sample ID: 480-194868-33
Matrix: Solid
Percent Solids: 80.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.24	U	0.24	0.047	mg/Kg	☼	02/11/22 10:00	02/13/22 21:53	1
PCB-1221	0.24	U	0.24	0.047	mg/Kg	☼	02/11/22 10:00	02/13/22 21:53	1
PCB-1232	0.24	U	0.24	0.047	mg/Kg	☼	02/11/22 10:00	02/13/22 21:53	1
PCB-1242	**0.80**		0.24	0.047	mg/Kg	☼	02/11/22 10:00	02/13/22 21:53	1
PCB-1248	0.24	U	0.24	0.047	mg/Kg	☼	02/11/22 10:00	02/13/22 21:53	1
PCB-1254	0.24	U	0.24	0.11	mg/Kg	☼	02/11/22 10:00	02/13/22 21:53	1
PCB-1260	0.24	U	0.24	0.11	mg/Kg	☼	02/11/22 10:00	02/13/22 21:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*90*		*65 - 174*	*02/11/22 10:00*	*02/13/22 21:53*	*1*
DCB Decachlorobiphenyl	*100*		*65 - 174*	*02/11/22 10:00*	*02/13/22 21:53*	*1*
Tetrachloro-m-xylene	*98*		*60 - 154*	*02/11/22 10:00*	*02/13/22 21:53*	*1*
Tetrachloro-m-xylene	*115*		*60 - 154*	*02/11/22 10:00*	*02/13/22 21:53*	*1*

National Grid

Dewey Avenue

Data Review Report

Buffalo, New York

Polychlorinated Biphenlys (PCBs) Analyses

SDG # J194980

Analyses Performed By:

SGS Laboratories, Inc.
Dayton, New Jersey

Report #48972R
Review Level: Tier II
Project: 30094243 Task 04

Summary

This Data Review Report summarizes the review of Sample Delivery Group (SDG) # J194980 for samples collected in association with the National Grid Dewey/Kensington Avenue site in Buffalo, New York. The review was conducted as a Tier II evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis					
					VOC	SVOC	PCB	PEST	MET	MISC
B-14 (1.3 - 1.8)	480-194980-1	Solid	2/09/22				X			
B-14 (3.8-5.8)	480-194980-3	Solid	2/09/22				X			
B-3 (1-.4-1.9)	480-194980-5	Solid	2/10/22				X			
B-3 (3.9-5.9)	480-194980-7	Solid	2/10/22				X			
B-4 (1.0-1.5)	480-194980-8	Solid	2/10/22				X			
B-4 (3.5-5.5)	480-194980-10	Solid	2/10/22				X			
B-13 (1.1-1.6)	480-194980-14	Solid	2/10/22				X			
B-13 (3.6-5.6)	480-194980-16	Solid	2/10/22				X			
B-9 (1.0-1.5)	480-194980-18	Solid	2/10/22				X			
B-9 (3.5-5.5)	480-194980-20	Solid	2/10/22				X			

Note: This data review only included PCB analysis

Analytical Data Package Documentation

The table below evaluates the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limitss		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed chain-of-custody form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data package completeness and compliance		X		X	

Note:
QA = quality assurance

Organic Analysis Introduction

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 8082A. Data were reviewed in accordance with USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review, EPA-540-R-20-005 (November 2020), and the USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Organic Data Review, EPA540/R-99/008, October 1999 (as applicable).

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
  - U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
  - B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- Quantitation (Q) Qualifiers
  - E The compound was quantitated above the calibration range.
  - D Concentration is based on a diluted sample analysis.
- Validation Qualifiers
  - J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
  - UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
  - JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
  - UB Compound is considered non-detect at the listed value due to associated blank contamination.
  - N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
  - R The sample results are rejected.

The "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second

fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Polychlorinated Biphenyls (PCBs) Analysis

1. Holding Times

The specified holding times for the following methods are presented in the table below.

Method	Matrix	Holding Time	Preservation
SW-846 8082	Water	One year from collection to analysis	Cool to <6 °C

Note:
s.u. = standard units

All samples were analyzed within the specified holding time criterion.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

3. System Performance

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

A maximum RSD of 20% is allowed or a correlation coefficient greater than 0.99. Multiple-point calibrations were performed for Aroclor 1016 and 1260 only. Single-point calibrations were performed for the remaining Aroclors.

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%).

All Aroclors associated with calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/Continuing	Compound	Criteria
B-14 (1.3 - 1.8) B-14 (3.8-5.8) B-4 (1.0-1.5) B-13 (1.1-1.6) B-9 (1.0-1.5)	CCV %D	Aroclor 1016	22.2%
		Aroclor 1260	24.8%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification
Initial Calibration	%RSD > 20%or a correlation coefficient <0.99	Non-detect	UJ
		Detect	J
Continuing Calibration	%D >20%	Non-detect	UJ
		Detect	J

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. PCB analysis requires that one of the two PCB surrogate compounds exhibit recoveries within the laboratory-established acceptance limits.

The surrogate recoveries were within control limits.

Sample locations associated with surrogates exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Surrogate	Recovery
B-14 (3.8-5.8)	Tetrachloro-m-xylene	> UL
	Decachlorobiphenyl	AC

Note:
AC = acceptable

The criteria used to evaluate the surrogate recoveries are presented in the following table. In the case of a surrogate deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
One surrogate exhibiting recovery outside the control limits but > 10%	Non-detect	No Action
	Detect	
Surrogates diluted below the calibration curve due to the high concentration of a target compound.	Non-detect	UJ/J[1]
	Detect	

Note:

[1] A more concentrated analysis was not performed with surrogate compounds within the calibration range; therefore, no determination of extraction efficiency could be made.

6. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

The MS/MSD exhibited recoveries and RPDs within the control limits.

7. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

8. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 50% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of three times the RL is applied for soil.

Field duplicate analysis was not performed on a sample location within this SDG.

9. Compound Identification

Compounds are identified on the GC by using the analytes relative retention time.

The retention times of all quantitated peaks must fall within the calculated retention time windows for both the primary and confirmation columns. When dual column analysis is performed the percent difference (%D) of detected sample results must be less than 25%.

Sample locations associated with %D analysis exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Compound	%D
B-13 (1.1-1.6)	PCB-1242	36.8
B-9 (1.0-1.5)	PCB-1242	26.1

The criteria used to evaluate the %D are presented in the following table. In the case of a %D deviation, the sample results are qualified as documented in the table below.

Control Limit (%D)	Qualification
>25% to 70%	J
>70% to 100%	JN
>100% [1]	R
>100% to 200% (Interference detected)[2]	J or JN
>50% (pesticide) sample results less than the RL)	U

When the PCB sample results are less than the RL and the RPD greater than 50% the sample result are raised to the RL and reported as non-detect.

Note 1: If the pattern is confirmed sample results will be qualified as estimated (J). If pattern exhibits interference or if the PCB cannot be positively determined due to weathering the sample results will be qualified as tentative identification estimate (JN).

Note 2: If interference is detected in either column the sample results will be qualified as tentative identification estimate (JN).

The laboratory noted the following:

1. The following sample appears to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the sample do not closely match any of the laboratory's Aroclor standards used for instrument calibration: B-4 (3.5-5.5) (480-194980-10). The sample(s) has been quantified and reported as Aroclor PCB-1242. Due to the poor match with the Aroclor standard(s), there is increased qualitative and quantitative uncertainty associated with this result.
2. The following sample appears to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the sample do not closely match any of the laboratory's Aroclor standards used for instrument calibration: B-3 (1-.4-1.9) (480-194980-5). The sample(s) has been quantified and reported as Aroclor PCB-1248. Due to the poor match with the Aroclor standard(s), there is increased qualitative and quantitative uncertainty associated with this result.

The detected sample results associated with sample locations B-4 (3.5-5.5) (480-194980-10) and B-3 (1-.4-1.9) (480-194980-5), were qualified as estimate (J).

10. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

Data Validation Checklist for Organochlorine PCBs

PCBs; SW-846 8082	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY (GC/ECD)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks	X				X
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate (LCSD) %R	X				X
LCS/LCSD Precision (RPD)	X				X
Matrix Spike (MS) %R	X				X
Matrix Spike Duplicate (MSD) %R	X				X
MS/MSD Precision (RPD)	X				X
Field/Lab Duplicate (RPD)	X				X
Surrogate Spike Recoveries		X	X		
Column (RPD)		X	X		
Dilution Factor		X		X	
Moisture Content	X				X
Tier III Validation					
Initial calibration %RSDs		X		X	
Continuing calibration %Ds		X	X		
System performance and column resolution		X		X	
Compound identification and quantitation					
A. Quantitation Reports		X		X	
B. RT of sample compounds within the established RT windows		X		X	
C. Pattern identification		X		X	
D. Transcription/calculation errors present		X		X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD – relative standard deviation, %R - percent recovery, RPD - relative percent difference,

PCBs; SW-846 8082	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY (GC/ECD)					
%D – difference					

SAMPLE COMPLIANCE REPORT

SAMPLE COMPLIANCE REPORT

Sample Delivery Group (SDG)	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB	MET	MISC	
480-194980-1	2/09/22	SW-846	B-14 (1.3 - 1.8)	Solids	--	--	Yes	--	--	PCB – CCV
	2/09/22	SW-846	B-14 (3.8-5.8)	Solids	--	--	Yes	--	--	PCB – CCV
	2/10/22	SW-846	B-3 (1-.4-1.9)	Solids	--	--	Yes	--	--	PCB – increased qualitative and quantitative uncertainty
	2/10/22	SW-846	B-3 (3.9-5.9)	Solids	--	--	No	--	--	
	2/10/22	SW-846	B-4 (1.0-1.5)	Solids	--	--	Yes	--	--	PCB – CCV
	2/10/22	SW-846	B-4 (3.5-5.5)	Solids	--	--	Yes	--	--	PCB – increased qualitative and quantitative uncertainty
	2/10/22	SW-846	B-13 (1.1-1.6)	Solids	--	--	Yes	--	--	PCB – CCV, Column percent difference
	2/10/22	SW-846	B-13 (3.6-5.6)	Solids	--	--	No	--	--	
	2/10/22	SW-846	B-9 (1.0-1.5)	Solids	--	--	Yes	--	--	PCB – CCV, Column percent difference
	2/10/22	SW-846	B-9 (3.5-5.5)	Solids	--	--	No	--	--	

Note:

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as
2 "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

VALIDATION PERFORMED BY: Todd Church

SIGNATURE: 

DATE: March 15, 2023

PEER REVIEW: Dennis Capria

DATE: March 23, 2023

Chain of Custody Corrected Sample Analysis Data Sheets

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information

Client Contact: Mr. Michael Jones	Sampler: Joshua Miller	Lab PM: Schove, John R	Carrier Tracking No(s): Syracuse #225	COC No: 480-170470-37024.5
Company: ARCADIS U.S. Inc	Phone: (315) 486-1419	E-Mail: John.Schove@Eurofinset.com	State of Origin:	Page: 1 2 Page 5 of 30
Address: One Lincoln Center 110 West Fayette St, Suite 300	PWSID:	Due Date Requested:	Analysis Requested	Job #:
City: Syracuse		TAT Requested (days): STANDARD		Preservation Codes:
State, Zip: NY, 13202		Compliance Project: Δ Yes Δ No		A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify)
Phone: 315-671-9211(Tel)		PO #: Purchase Order Requested		
Email: michael.jones@arcadis.com		WO #:		
Project Name: National Grid - Dewey Avenue Site		Project #: 48024791		
Site: National Grid - Dewey Avenue Site		SSOW#:		Other:

480-194980 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D - 1,4 Dioxane	PFC_IDA - PFAS - Standard New York List of 21	8082A - TCL PCBs	Total Number of contain	Special Instructions/Note:
			Preservation Code:				N	N	N		
B-14 (1.3-1.8)	2/9/2022	1200	C	Solid					X		Analyze
B-14 (1.8-3.8)		1201	C	Solid					X		*HOLD*
B-14 (3.8-5.8)		1410	C	Solid			X	X	X		Analyze
B-14 (5.8-7.8)	↓	1411	C	Solid					X		*HOLD*
B-3 (1.4-1.9)	2/10/2022	0845	C	Solid					X		Analyze
B-3 (1.9-3.9)		0846	C	Solid					X		*HOLD*
B-3 (3.9-5.9)		1215	C	Solid					X		Analyze
B-4 (1.0-1.5)		0920	C	Solid					X		Analyze
B-4 (1.5-3.5)		0921	C	Solid					X		*HOLD*
B-4 (3.5-5.5)		1310	C	Solid					X		Analyze
B-4 (5.5-6.0)	↓	1311	C	Solid					X		*HOLD*

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:	
Relinquished by:	Date/Time: 2/10/22 1045	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 2/10/22 1045	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 5.7 3I8 #1 ICE

Ver: 06/08/2021

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Syracuse #225

Client Information	Sampler: Joshua Miller	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-170470-37024.6
Client Contact: Mr. Michael Jones	Phone: (315) 486-1419	E-Mail: John.Schove@Eurofinset.com	State of Origin:	Page: Page 2 of 2
Company: ARCADIS U.S. Inc	PWSID:			Job #:
Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:	Analysis Requested		
City: Syracuse	TAT Requested (days): STANDARD			
State, Zip: NY, 13202	Compliance Project: Δ Yes Δ No			
Phone: 315-671-9211(Tel)	PO #: Purchase Order Requested			
Email: michael.jones@arcadis.com	WO #:			
Project Name: National Grid - Dewey Avenue Site	Project #: 48024791			
Site: National Grid-Dewey Avenue Site	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D - 1,4 Dioxane	PFC_IDA - PFAS - Standard New York List of 21	8082A - TCL PCBs	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N		
B-4 (1.5-3.5)	2/10/22	0921	C	Solid			X	X			Analyze
FD-02102022	2/10/22	—	C	Solid			X	X			Analyze
B-13 (1.1-1.6)		0945	C	Solid					X		Analyze
B-13 (1.6-3.6)		0946	C	Solid					X		*HOLD*
B-13 (3.6-5.6)		1330	C	Solid			X	X	X		Analyze
B-13 (5.6-7.6)		1331	C	Solid					X		*HOLD*
B-9 (1.0-1.5)		1040	C	Solid					X		Analyze
B-9 (1.5-3.5)		1041	C	Solid					X		*HOLD*
B-9 (3.5-5.5)		1400	C	Solid					X		Analyze
B-9 (5.5-6.9)		1441	C	Solid					X		*HOLD*
				Solid							

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 2/11/22 1045	Company TAT

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

03/01/2022

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-69700.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Schove@Eurofinset.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Lancaster Laboratories Env, LLC		Accreditations Required (See note): NELAP - New York		Job #: 480-194980-1
Address: 2425 New Holland Pike, ,	Due Date Requested: 2/24/2022			
City: Lancaster	TAT Requested (days):			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #:			
Email:	WO #:			
Project Name: National Grid - Dewey Avenue Site	Project #: 48024791			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA_NY/Shake_Bath_14D PFAS - Standard New York List of 21	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
B-14 (3.8-5.8) (480-194980-3)	2/9/22	14:10 Eastern		Solid			X	1	
B-4 (1.5-3.5) (480-194980-12)	2/10/22	09:21 Eastern		Solid			X	1	
FD-02102022 (480-194980-13)	2/10/22	Eastern		Solid			X	1	
B-13 (3.6-5.6) (480-194980-16)	2/10/22	13:30 Eastern		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[illegible]	2/15/22 1700	TA			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 2/16/22 1107	Company EUF

Custody Seals Intact: ▲ Yes ▲ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.4

Ver: 06/08/2021

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

LCMS

Qualifier	Qualifier Description
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample ID: B-14 (1.3 - 1.8)
Lab Sample ID: 480-194980-1

Date Collected: 02/09/22 12:00
Matrix: Solid

Date Received: 02/11/22 10:45
Percent Solids: 85.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	1.3	U J	1.3	0.25	mg/Kg	☼	02/16/22 07:10	02/17/22 15:12	5
PCB-1221	1.3	U	1.3	0.25	mg/Kg	☼	02/16/22 07:10	02/17/22 15:12	5
PCB-1232	1.3	U	1.3	0.25	mg/Kg	☼	02/16/22 07:10	02/17/22 15:12	5
PCB-1242	1.3	U	1.3	0.25	mg/Kg	☼	02/16/22 07:10	02/17/22 15:12	5
PCB-1248	**13**		1.3	0.25	mg/Kg	☼	02/16/22 07:10	02/17/22 15:12	5
PCB-1254	1.3	U	1.3	0.59	mg/Kg	☼	02/16/22 07:10	02/17/22 15:12	5
PCB-1260	1.3	U	1.3	0.59	mg/Kg	☼	02/16/22 07:10	02/17/22 15:12	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*112*		*65 - 174*	*02/16/22 07:10*	*02/17/22 15:12*	*5*
DCB Decachlorobiphenyl	*120*		*65 - 174*	*02/16/22 07:10*	*02/17/22 15:12*	*5*
Tetrachloro-m-xylene	*101*		*60 - 154*	*02/16/22 07:10*	*02/17/22 15:12*	*5*
Tetrachloro-m-xylene	*117*		*60 - 154*	*02/16/22 07:10*	*02/17/22 15:12*	*5*

Client Sample ID: B-14 (3.8-5.8)
Lab Sample ID: 480-194980-3

Date Collected: 02/09/22 14:10
Matrix: Solid

Date Received: 02/11/22 10:45
Percent Solids: 82.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	120	U	120	65	ug/Kg	☼	02/15/22 08:27	02/16/22 20:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*96*		*54 - 120*	*02/15/22 08:27*	*02/16/22 20:02*	*1*
2-Fluorophenol (Surr)	*74*		*52 - 120*	*02/15/22 08:27*	*02/16/22 20:02*	*1*
p-Terphenyl-d14 (Surr)	*114*		*79 - 130*	*02/15/22 08:27*	*02/16/22 20:02*	*1*
Phenol-d5 (Surr)	*74*		*54 - 120*	*02/15/22 08:27*	*02/16/22 20:02*	*1*
Nitrobenzene-d5 (Surr)	*84*		*53 - 120*	*02/15/22 08:27*	*02/16/22 20:02*	*1*
2-Fluorobiphenyl (Surr)	*101*		*60 - 120*	*02/15/22 08:27*	*02/16/22 20:02*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	2.8	U J	2.8	0.55	mg/Kg	☼	02/16/22 07:10	02/17/22 15:25	10
PCB-1221	2.8	U	2.8	0.55	mg/Kg	☼	02/16/22 07:10	02/17/22 15:25	10
PCB-1232	2.8	U	2.8	0.55	mg/Kg	☼	02/16/22 07:10	02/17/22 15:25	10
PCB-1242	**29**		2.8	0.55	mg/Kg	☼	02/16/22 07:10	02/17/22 15:25	10
PCB-1248	2.8	U	2.8	0.55	mg/Kg	☼	02/16/22 07:10	02/17/22 15:25	10
PCB-1254	2.8	U	2.8	1.3	mg/Kg	☼	02/16/22 07:10	02/17/22 15:25	10
PCB-1260	2.8	U	2.8	1.3	mg/Kg	☼	02/16/22 07:10	02/17/22 15:25	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*159*		*65 - 174*	*02/16/22 07:10*	*02/17/22 15:25*	*10*
DCB Decachlorobiphenyl	*163*		*65 - 174*	*02/16/22 07:10*	*02/17/22 15:25*	*10*
Tetrachloro-m-xylene	*137*		*60 - 154*	*02/16/22 07:10*	*02/17/22 15:25*	*10*
Tetrachloro-m-xylene	*158*	*S1+*	*60 - 154*	*02/16/22 07:10*	*02/17/22 15:25*	*10*

Method: 537 (Modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.24	U	0.24	0.023	ng/g	☼	02/21/22 07:37	02/24/22 01:13	1
Perfluoroheptanoic acid	0.24	U	0.24	0.029	ng/g	☼	02/21/22 07:37	02/24/22 01:13	1
Perfluorooctanoic acid	0.24	U	0.24	0.027	ng/g	☼	02/21/22 07:37	02/24/22 01:13	1

Client Sample ID: B-14 (3.8-5.8)
Date Collected: 02/09/22 14:10
Date Received: 02/11/22 10:45

Lab Sample ID: 480-194980-3
Matrix: Solid
Percent Solids: 82.7

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanoic acid	0.24	U	0.24	0.028	ng/g	☼	02/21/22 07:37	02/24/22 01:13	1
Perfluorodecanoic acid	0.24	U	0.24	0.029	ng/g	☼	02/21/22 07:37	02/24/22 01:13	1
Perfluorotridecanoic acid	0.24	U	0.24	0.025	ng/g	☼	02/21/22 07:37	02/24/22 01:13	1
Perfluorotetradecanoic acid	0.24	U	0.24	0.029	ng/g	☼	02/21/22 07:37	02/24/22 01:13	1
Perfluorobutanesulfonic acid	0.48	U	0.48	0.44	ng/g	☼	02/21/22 07:37	02/24/22 01:13	1
Perfluorohexanesulfonic acid	0.24	U	0.24	0.023	ng/g	☼	02/21/22 07:37	02/24/22 01:13	1
Perfluorooctanesulfonic acid	**0.12**	**J**	0.24	0.042	ng/g	☼	02/21/22 07:37	02/24/22 01:13	1
NEtFOSAA	**0.035**	**J**	0.24	0.027	ng/g	☼	02/21/22 07:37	02/24/22 01:13	1
NMeFOSAA	0.24	U	0.24	0.037	ng/g	☼	02/21/22 07:37	02/24/22 01:13	1
Perfluoroheptanesulfonic acid	0.24	U	0.24	0.024	ng/g	☼	02/21/22 07:37	02/24/22 01:13	1
Perfluorodecanesulfonic acid	0.24	U	0.24	0.025	ng/g	☼	02/21/22 07:37	02/24/22 01:13	1
Perfluorooctanesulfonamide	0.24	U	0.24	0.025	ng/g	☼	02/21/22 07:37	02/24/22 01:13	1
Perfluorobutanoic acid	0.24	U	0.24	0.029	ng/g	☼	02/21/22 07:37	02/24/22 01:13	1
Perfluoroundecanoic acid	0.24	U	0.24	0.068	ng/g	☼	02/21/22 07:37	02/24/22 01:13	1
Perfluorododecanoic acid	0.24	U	0.24	0.028	ng/g	☼	02/21/22 07:37	02/24/22 01:13	1
6:2 Fluorotelomer sulfonic acid	**1.0**		0.24	0.059	ng/g	☼	02/21/22 07:37	02/24/22 01:13	1
8:2 Fluorotelomer sulfonic acid	0.24	U	0.24	0.021	ng/g	☼	02/21/22 07:37	02/24/22 01:13	1
Perfluoropentanoic acid	0.24	U	0.24	0.029	ng/g	☼	02/21/22 07:37	02/24/22 01:13	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-8:2 FTS	*179*		*15 - 200*	*02/21/22 07:37*	*02/24/22 01:13*	*1*
M2-6:2 FTS	*167*		*10 - 200*	*02/21/22 07:37*	*02/24/22 01:13*	*1*
13C5 PFHxA	*86*		*10 - 174*	*02/21/22 07:37*	*02/24/22 01:13*	*1*
13C4 PFHpA	*86*		*10 - 178*	*02/21/22 07:37*	*02/24/22 01:13*	*1*
13C8 PFOA	*87*		*26 - 159*	*02/21/22 07:37*	*02/24/22 01:13*	*1*
13C9 PFNA	*110*		*26 - 165*	*02/21/22 07:37*	*02/24/22 01:13*	*1*
13C6 PFDA	*99*		*26 - 161*	*02/21/22 07:37*	*02/24/22 01:13*	*1*
13C7 PFUnA	*98*		*12 - 173*	*02/21/22 07:37*	*02/24/22 01:13*	*1*
13C2-PFDoDA	*87*		*11 - 166*	*02/21/22 07:37*	*02/24/22 01:13*	*1*
13C2 PFTeDA	*89*		*10 - 169*	*02/21/22 07:37*	*02/24/22 01:13*	*1*
13C3 PFBS	*106*		*27 - 179*	*02/21/22 07:37*	*02/24/22 01:13*	*1*
13C3 PFHxS	*94*		*24 - 171*	*02/21/22 07:37*	*02/24/22 01:13*	*1*
13C8 PFOS	*103*		*41 - 154*	*02/21/22 07:37*	*02/24/22 01:13*	*1*
d3-NMeFOSAA	*76*		*10 - 178*	*02/21/22 07:37*	*02/24/22 01:13*	*1*
d5-NEtFOSAA	*88*		*10 - 193*	*02/21/22 07:37*	*02/24/22 01:13*	*1*
13C8 FOSA	*65*		*14 - 163*	*02/21/22 07:37*	*02/24/22 01:13*	*1*
13C4 PFBA	*95*		*28 - 153*	*02/21/22 07:37*	*02/24/22 01:13*	*1*
13C5 PFPeA	*102*		*24 - 161*	*02/21/22 07:37*	*02/24/22 01:13*	*1*

Client Sample ID: B-3 (1-.4-1.9)
Date Collected: 02/10/22 08:45
Date Received: 02/11/22 10:45

Lab Sample ID: 480-194980-5
Matrix: Solid
Percent Solids: 82.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.27	U	0.27	0.053	mg/Kg	☼	02/16/22 07:10	02/16/22 22:52	1
PCB-1221	0.27	U	0.27	0.053	mg/Kg	☼	02/16/22 07:10	02/16/22 22:52	1
PCB-1232	0.27	U	0.27	0.053	mg/Kg	☼	02/16/22 07:10	02/16/22 22:52	1
PCB-1242	0.27	U	0.27	0.053	mg/Kg	☼	02/16/22 07:10	02/16/22 22:52	1
PCB-1248	**9.0**		0.27	0.053	mg/Kg	☼	02/16/22 07:10	02/16/22 22:52	1
PCB-1254	0.27	U	0.27	0.13	mg/Kg	☼	02/16/22 07:10	02/16/22 22:52	1

Client Sample ID: B-3 (1-.4-1.9)
Lab Sample ID: 480-194980-5
Date Collected: 02/10/22 08:45
Matrix: Solid
Date Received: 02/11/22 10:45
Percent Solids: 82.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1260	0.27	U	0.27	0.13	mg/Kg	☼	02/16/22 07:10	02/16/22 22:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*77*		*65 - 174*	*02/16/22 07:10*	*02/16/22 22:52*	*1*
DCB Decachlorobiphenyl	*90*		*65 - 174*	*02/16/22 07:10*	*02/16/22 22:52*	*1*
Tetrachloro-m-xylene	*82*		*60 - 154*	*02/16/22 07:10*	*02/16/22 22:52*	*1*
Tetrachloro-m-xylene	*96*		*60 - 154*	*02/16/22 07:10*	*02/16/22 22:52*	*1*

Client Sample ID: B-3 (3.9-5.9)
Lab Sample ID: 480-194980-7
Date Collected: 02/10/22 12:15
Matrix: Solid
Date Received: 02/11/22 10:45
Percent Solids: 92.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.21	U	0.21	0.042	mg/Kg	☼	02/16/22 07:10	02/16/22 22:12	1
PCB-1221	0.21	U	0.21	0.042	mg/Kg	☼	02/16/22 07:10	02/16/22 22:12	1
PCB-1232	0.21	U	0.21	0.042	mg/Kg	☼	02/16/22 07:10	02/16/22 22:12	1
PCB-1242	**0.13**	**J**	0.21	0.042	mg/Kg	☼	02/16/22 07:10	02/16/22 22:12	1
PCB-1248	0.21	U	0.21	0.042	mg/Kg	☼	02/16/22 07:10	02/16/22 22:12	1
PCB-1254	0.21	U	0.21	0.10	mg/Kg	☼	02/16/22 07:10	02/16/22 22:12	1
PCB-1260	0.21	U	0.21	0.10	mg/Kg	☼	02/16/22 07:10	02/16/22 22:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*78*		*65 - 174*	*02/16/22 07:10*	*02/16/22 22:12*	*1*
DCB Decachlorobiphenyl	*90*		*65 - 174*	*02/16/22 07:10*	*02/16/22 22:12*	*1*
Tetrachloro-m-xylene	*83*		*60 - 154*	*02/16/22 07:10*	*02/16/22 22:12*	*1*
Tetrachloro-m-xylene	*92*		*60 - 154*	*02/16/22 07:10*	*02/16/22 22:12*	*1*

Client Sample ID: B-4 (1.0-1.5)
Lab Sample ID: 480-194980-8
Date Collected: 02/10/22 09:20
Matrix: Solid
Date Received: 02/11/22 10:45
Percent Solids: 84.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	1.1	U J	1.1	0.22	mg/Kg	☼	02/16/22 07:10	02/17/22 15:38	5
PCB-1221	1.1	U	1.1	0.22	mg/Kg	☼	02/16/22 07:10	02/17/22 15:38	5
PCB-1232	1.1	U	1.1	0.22	mg/Kg	☼	02/16/22 07:10	02/17/22 15:38	5
PCB-1242	**14**		1.1	0.22	mg/Kg	☼	02/16/22 07:10	02/17/22 15:38	5
PCB-1248	1.1	U	1.1	0.22	mg/Kg	☼	02/16/22 07:10	02/17/22 15:38	5
PCB-1254	1.1	U	1.1	0.53	mg/Kg	☼	02/16/22 07:10	02/17/22 15:38	5
PCB-1260	1.1	U	1.1	0.53	mg/Kg	☼	02/16/22 07:10	02/17/22 15:38	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*125*		*65 - 174*	*02/16/22 07:10*	*02/17/22 15:38*	*5*
DCB Decachlorobiphenyl	*134*		*65 - 174*	*02/16/22 07:10*	*02/17/22 15:38*	*5*
Tetrachloro-m-xylene	*113*		*60 - 154*	*02/16/22 07:10*	*02/17/22 15:38*	*5*
Tetrachloro-m-xylene	*131*		*60 - 154*	*02/16/22 07:10*	*02/17/22 15:38*	*5*

Client Sample ID: B-4 (3.5-5.5)
Lab Sample ID: 480-194980-10

Date Collected: 02/10/22 13:10
Matrix: Solid
Date Received: 02/11/22 10:45
Percent Solids: 79.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.25	U	0.25	0.049	mg/Kg	☼	02/16/22 07:10	02/16/22 23:18	1
PCB-1221	0.25	U	0.25	0.049	mg/Kg	☼	02/16/22 07:10	02/16/22 23:18	1
PCB-1232	0.25	U	0.25	0.049	mg/Kg	☼	02/16/22 07:10	02/16/22 23:18	1
PCB-1242	**0.66**		0.25	0.049	mg/Kg	☼	02/16/22 07:10	02/16/22 23:18	1
PCB-1248	0.25	U	0.25	0.049	mg/Kg	☼	02/16/22 07:10	02/16/22 23:18	1
PCB-1254	0.25	U	0.25	0.12	mg/Kg	☼	02/16/22 07:10	02/16/22 23:18	1
PCB-1260	0.25	U	0.25	0.12	mg/Kg	☼	02/16/22 07:10	02/16/22 23:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*75*		*65 - 174*	*02/16/22 07:10*	*02/16/22 23:18*	*1*
DCB Decachlorobiphenyl	*87*		*65 - 174*	*02/16/22 07:10*	*02/16/22 23:18*	*1*
Tetrachloro-m-xylene	*79*		*60 - 154*	*02/16/22 07:10*	*02/16/22 23:18*	*1*
Tetrachloro-m-xylene	*92*		*60 - 154*	*02/16/22 07:10*	*02/16/22 23:18*	*1*

Client Sample ID: B-4 (1.5-3.5)
Lab Sample ID: 480-194980-12

Date Collected: 02/10/22 09:21
Matrix: Solid
Date Received: 02/11/22 10:45
Percent Solids: 76.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	640	U	640	350	ug/Kg	☼	02/15/22 08:27	02/16/22 20:26	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*95*		*54 - 120*	*02/15/22 08:27*	*02/16/22 20:26*	*5*
2-Fluorophenol (Surr)	*84*		*52 - 120*	*02/15/22 08:27*	*02/16/22 20:26*	*5*
p-Terphenyl-d14 (Surr)	*106*		*79 - 130*	*02/15/22 08:27*	*02/16/22 20:26*	*5*
Phenol-d5 (Surr)	*91*		*54 - 120*	*02/15/22 08:27*	*02/16/22 20:26*	*5*
Nitrobenzene-d5 (Surr)	*95*		*53 - 120*	*02/15/22 08:27*	*02/16/22 20:26*	*5*
2-Fluorobiphenyl (Surr)	*100*		*60 - 120*	*02/15/22 08:27*	*02/16/22 20:26*	*5*

Method: 537 (Modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.26	U	0.26	0.025	ng/g	☼	02/21/22 07:37	02/24/22 01:24	1
Perfluoroheptanoic acid	0.26	U	0.26	0.031	ng/g	☼	02/21/22 07:37	02/24/22 01:24	1
Perfluorooctanoic acid	0.26	U	0.26	0.028	ng/g	☼	02/21/22 07:37	02/24/22 01:24	1
Perfluorononanoic acid	0.26	U	0.26	0.030	ng/g	☼	02/21/22 07:37	02/24/22 01:24	1
Perfluorodecanoic acid	0.26	U	0.26	0.031	ng/g	☼	02/21/22 07:37	02/24/22 01:24	1
Perfluorotridecanoic acid	0.26	U	0.26	0.027	ng/g	☼	02/21/22 07:37	02/24/22 01:24	1
Perfluorotetradecanoic acid	0.26	U	0.26	0.031	ng/g	☼	02/21/22 07:37	02/24/22 01:24	1
Perfluorobutanesulfonic acid	0.52	U	0.52	0.47	ng/g	☼	02/21/22 07:37	02/24/22 01:24	1
Perfluorohexanesulfonic acid	0.26	U	0.26	0.025	ng/g	☼	02/21/22 07:37	02/24/22 01:24	1
Perfluorooctanesulfonic acid	**0.057**	**J**	0.26	0.045	ng/g	☼	02/21/22 07:37	02/24/22 01:24	1
NEtFOSAA	**0.036**	**J**	0.26	0.028	ng/g	☼	02/21/22 07:37	02/24/22 01:24	1
NMeFOSAA	0.26	U	0.26	0.040	ng/g	☼	02/21/22 07:37	02/24/22 01:24	1
Perfluoroheptanesulfonic acid	0.26	U	0.26	0.026	ng/g	☼	02/21/22 07:37	02/24/22 01:24	1
Perfluorodecanesulfonic acid	0.26	U	0.26	0.027	ng/g	☼	02/21/22 07:37	02/24/22 01:24	1
Perfluorooctanesulfonamide	0.26	U	0.26	0.027	ng/g	☼	02/21/22 07:37	02/24/22 01:24	1
Perfluorobutanoic acid	0.26	U	0.26	0.031	ng/g	☼	02/21/22 07:37	02/24/22 01:24	1
Perfluoroundecanoic acid	0.26	U	0.26	0.072	ng/g	☼	02/21/22 07:37	02/24/22 01:24	1
Perfluorododecanoic acid	0.26	U	0.26	0.030	ng/g	☼	02/21/22 07:37	02/24/22 01:24	1
6:2 Fluorotelomer sulfonic acid	**0.39**		0.26	0.063	ng/g	☼	02/21/22 07:37	02/24/22 01:24	1

Client Sample ID: B-4 (1.5-3.5)
Lab Sample ID: 480-194980-12
Date Collected: 02/10/22 09:21
Matrix: Solid
Date Received: 02/11/22 10:45
Percent Solids: 76.6

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
8:2 Fluorotelomer sulfonic acid	0.26	U	0.26	0.022	ng/g	☼	02/21/22 07:37	02/24/22 01:24	1
Perfluoropentanoic acid	0.26	U	0.26	0.031	ng/g	☼	02/21/22 07:37	02/24/22 01:24	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-8:2 FTS	*159*		*15 - 200*	*02/21/22 07:37*	*02/24/22 01:24*	*1*
M2-6:2 FTS	*140*		*10 - 200*	*02/21/22 07:37*	*02/24/22 01:24*	*1*
13C5 PFHxA	*79*		*10 - 174*	*02/21/22 07:37*	*02/24/22 01:24*	*1*
13C4 PFHpA	*84*		*10 - 178*	*02/21/22 07:37*	*02/24/22 01:24*	*1*
13C8 PFOA	*84*		*26 - 159*	*02/21/22 07:37*	*02/24/22 01:24*	*1*
13C9 PFNA	*96*		*26 - 165*	*02/21/22 07:37*	*02/24/22 01:24*	*1*
13C6 PFDA	*91*		*26 - 161*	*02/21/22 07:37*	*02/24/22 01:24*	*1*
13C7 PFUnA	*92*		*12 - 173*	*02/21/22 07:37*	*02/24/22 01:24*	*1*
13C2-PFDoDA	*87*		*11 - 166*	*02/21/22 07:37*	*02/24/22 01:24*	*1*
13C2 PFTeDA	*86*		*10 - 169*	*02/21/22 07:37*	*02/24/22 01:24*	*1*
13C3 PFBS	*99*		*27 - 179*	*02/21/22 07:37*	*02/24/22 01:24*	*1*
13C3 PFHxS	*91*		*24 - 171*	*02/21/22 07:37*	*02/24/22 01:24*	*1*
13C8 PFOS	*91*		*41 - 154*	*02/21/22 07:37*	*02/24/22 01:24*	*1*
d3-NMeFOSAA	*80*		*10 - 178*	*02/21/22 07:37*	*02/24/22 01:24*	*1*
d5-NEtFOSAA	*94*		*10 - 193*	*02/21/22 07:37*	*02/24/22 01:24*	*1*
13C8 FOSA	*37*		*14 - 163*	*02/21/22 07:37*	*02/24/22 01:24*	*1*
13C4 PFBA	*89*		*28 - 153*	*02/21/22 07:37*	*02/24/22 01:24*	*1*
13C5 PFPeA	*92*		*24 - 161*	*02/21/22 07:37*	*02/24/22 01:24*	*1*

Client Sample ID: FD-02102022
Lab Sample ID: 480-194980-13
Date Collected: 02/10/22 00:00
Matrix: Solid
Date Received: 02/11/22 10:45
Percent Solids: 56.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	870	U	870	480	ug/Kg	☼	02/15/22 08:27	02/16/22 20:50	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*84*		*54 - 120*	*02/15/22 08:27*	*02/16/22 20:50*	*5*
2-Fluorophenol (Surr)	*74*		*52 - 120*	*02/15/22 08:27*	*02/16/22 20:50*	*5*
p-Terphenyl-d14 (Surr)	*107*		*79 - 130*	*02/15/22 08:27*	*02/16/22 20:50*	*5*
Phenol-d5 (Surr)	*81*		*54 - 120*	*02/15/22 08:27*	*02/16/22 20:50*	*5*
Nitrobenzene-d5 (Surr)	*87*		*53 - 120*	*02/15/22 08:27*	*02/16/22 20:50*	*5*
2-Fluorobiphenyl (Surr)	*95*		*60 - 120*	*02/15/22 08:27*	*02/16/22 20:50*	*5*

Method: 537 (Modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.35	U	0.35	0.033	ng/g	☼	02/21/22 07:37	02/24/22 01:35	1
Perfluoroheptanoic acid	0.35	U	0.35	0.042	ng/g	☼	02/21/22 07:37	02/24/22 01:35	1
Perfluorooctanoic acid	0.35	U	0.35	0.038	ng/g	☼	02/21/22 07:37	02/24/22 01:35	1
Perfluorononanoic acid	0.35	U	0.35	0.040	ng/g	☼	02/21/22 07:37	02/24/22 01:35	1
Perfluorodecanoic acid	0.35	U	0.35	0.042	ng/g	☼	02/21/22 07:37	02/24/22 01:35	1
Perfluorotridecanoic acid	0.35	U	0.35	0.037	ng/g	☼	02/21/22 07:37	02/24/22 01:35	1
Perfluorotetradecanoic acid	0.35	U	0.35	0.042	ng/g	☼	02/21/22 07:37	02/24/22 01:35	1
Perfluorobutanesulfonic acid	0.70	U	0.70	0.63	ng/g	☼	02/21/22 07:37	02/24/22 01:35	1
Perfluorohexanesulfonic acid	0.35	U	0.35	0.033	ng/g	☼	02/21/22 07:37	02/24/22 01:35	1
Perfluorooctanesulfonic acid	**0.065**	**J**	0.35	0.061	ng/g	☼	02/21/22 07:37	02/24/22 01:35	1

Client Sample ID: FD-02102022
Lab Sample ID: 480-194980-13
Date Collected: 02/10/22 00:00
Matrix: Solid
Date Received: 02/11/22 10:45
Percent Solids: 56.9

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
NEtFOSAA	**0.047**	**J**	0.35	0.038	ng/g	☼	02/21/22 07:37	02/24/22 01:35	1
NMeFOSAA	0.35	U	0.35	0.054	ng/g	☼	02/21/22 07:37	02/24/22 01:35	1
Perfluoroheptanesulfonic acid	0.35	U	0.35	0.035	ng/g	☼	02/21/22 07:37	02/24/22 01:35	1
Perfluorodecanesulfonic acid	0.35	U	0.35	0.037	ng/g	☼	02/21/22 07:37	02/24/22 01:35	1
Perfluorooctanesulfonamide	0.35	U	0.35	0.037	ng/g	☼	02/21/22 07:37	02/24/22 01:35	1
Perfluorobutanoic acid	0.35	U	0.35	0.042	ng/g	☼	02/21/22 07:37	02/24/22 01:35	1
Perfluoroundecanoic acid	0.35	U	0.35	0.098	ng/g	☼	02/21/22 07:37	02/24/22 01:35	1
Perfluorododecanoic acid	0.35	U	0.35	0.040	ng/g	☼	02/21/22 07:37	02/24/22 01:35	1
6:2 Fluorotelomer sulfonic acid	0.35	U	0.35	0.086	ng/g	☼	02/21/22 07:37	02/24/22 01:35	1
8:2 Fluorotelomer sulfonic acid	0.35	U	0.35	0.030	ng/g	☼	02/21/22 07:37	02/24/22 01:35	1
Perfluoropentanoic acid	0.35	U	0.35	0.042	ng/g	☼	02/21/22 07:37	02/24/22 01:35	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-8:2 FTS	*175*		*15 - 200*	*02/21/22 07:37*	*02/24/22 01:35*	*1*
M2-6:2 FTS	*143*		*10 - 200*	*02/21/22 07:37*	*02/24/22 01:35*	*1*
13C5 PFHxA	*82*		*10 - 174*	*02/21/22 07:37*	*02/24/22 01:35*	*1*
13C4 PFHpA	*86*		*10 - 178*	*02/21/22 07:37*	*02/24/22 01:35*	*1*
13C8 PFOA	*85*		*26 - 159*	*02/21/22 07:37*	*02/24/22 01:35*	*1*
13C9 PFNA	*101*		*26 - 165*	*02/21/22 07:37*	*02/24/22 01:35*	*1*
13C6 PFDA	*99*		*26 - 161*	*02/21/22 07:37*	*02/24/22 01:35*	*1*
13C7 PFUnA	*94*		*12 - 173*	*02/21/22 07:37*	*02/24/22 01:35*	*1*
13C2-PFDoDA	*92*		*11 - 166*	*02/21/22 07:37*	*02/24/22 01:35*	*1*
13C2 PFTeDA	*91*		*10 - 169*	*02/21/22 07:37*	*02/24/22 01:35*	*1*
13C3 PFBS	*101*		*27 - 179*	*02/21/22 07:37*	*02/24/22 01:35*	*1*
13C3 PFHxS	*96*		*24 - 171*	*02/21/22 07:37*	*02/24/22 01:35*	*1*
13C8 PFOS	*93*		*41 - 154*	*02/21/22 07:37*	*02/24/22 01:35*	*1*
d3-NMeFOSAA	*79*		*10 - 178*	*02/21/22 07:37*	*02/24/22 01:35*	*1*
d5-NEtFOSAA	*96*		*10 - 193*	*02/21/22 07:37*	*02/24/22 01:35*	*1*
13C8 FOSA	*40*		*14 - 163*	*02/21/22 07:37*	*02/24/22 01:35*	*1*
13C4 PFBA	*91*		*28 - 153*	*02/21/22 07:37*	*02/24/22 01:35*	*1*
13C5 PFPeA	*94*		*24 - 161*	*02/21/22 07:37*	*02/24/22 01:35*	*1*

Client Sample ID: B-13 (1.1-1.6)
Lab Sample ID: 480-194980-14
Date Collected: 02/10/22 09:45
Matrix: Solid
Date Received: 02/11/22 10:45
Percent Solids: 80.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	2.4	U J	2.4	0.47	mg/Kg	☼	02/16/22 07:10	02/17/22 15:51	10
PCB-1221	2.4	U	2.4	0.47	mg/Kg	☼	02/16/22 07:10	02/17/22 15:51	10
PCB-1232	2.4	U	2.4	0.47	mg/Kg	☼	02/16/22 07:10	02/17/22 15:51	10
PCB-1242	**1.9**	**J**	2.4	0.47	mg/Kg	☼	02/16/22 07:10	02/17/22 15:51	10
PCB-1248	2.4	U	2.4	0.47	mg/Kg	☼	02/16/22 07:10	02/17/22 15:51	10
PCB-1254	2.4	U	2.4	1.1	mg/Kg	☼	02/16/22 07:10	02/17/22 15:51	10
PCB-1260	**34**		2.4	1.1	mg/Kg	☼	02/16/22 07:10	02/17/22 15:51	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*145*		*65 - 174*	*02/16/22 07:10*	*02/17/22 15:51*	*10*
DCB Decachlorobiphenyl	*163*		*65 - 174*	*02/16/22 07:10*	*02/17/22 15:51*	*10*
Tetrachloro-m-xylene	*130*		*60 - 154*	*02/16/22 07:10*	*02/17/22 15:51*	*10*
Tetrachloro-m-xylene	*150*		*60 - 154*	*02/16/22 07:10*	*02/17/22 15:51*	*10*

Client Sample ID: B-13 (3.6-5.6)
Date Collected: 02/10/22 13:30
Date Received: 02/11/22 10:45

Lab Sample ID: 480-194980-16
Matrix: Solid
Percent Solids: 78.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	120	U	120	68	ug/Kg	☼	02/15/22 08:27	02/16/22 21:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*89*		*54 - 120*	*02/15/22 08:27*	*02/16/22 21:13*	*1*
2-Fluorophenol (Surr)	*79*		*52 - 120*	*02/15/22 08:27*	*02/16/22 21:13*	*1*
p-Terphenyl-d14 (Surr)	*119*		*79 - 130*	*02/15/22 08:27*	*02/16/22 21:13*	*1*
Phenol-d5 (Surr)	*84*		*54 - 120*	*02/15/22 08:27*	*02/16/22 21:13*	*1*
Nitrobenzene-d5 (Surr)	*87*		*53 - 120*	*02/15/22 08:27*	*02/16/22 21:13*	*1*
2-Fluorobiphenyl (Surr)	*102*		*60 - 120*	*02/15/22 08:27*	*02/16/22 21:13*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.24	U	0.24	0.046	mg/Kg	☼	02/16/22 07:10	02/17/22 00:11	1
PCB-1221	0.24	U	0.24	0.046	mg/Kg	☼	02/16/22 07:10	02/17/22 00:11	1
PCB-1232	0.24	U	0.24	0.046	mg/Kg	☼	02/16/22 07:10	02/17/22 00:11	1
PCB-1242	**0.24**		0.24	0.046	mg/Kg	☼	02/16/22 07:10	02/17/22 00:11	1
PCB-1248	0.24	U	0.24	0.046	mg/Kg	☼	02/16/22 07:10	02/17/22 00:11	1
PCB-1254	0.24	U	0.24	0.11	mg/Kg	☼	02/16/22 07:10	02/17/22 00:11	1
PCB-1260	**0.16**	**J**	0.24	0.11	mg/Kg	☼	02/16/22 07:10	02/17/22 00:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*75*		*65 - 174*	*02/16/22 07:10*	*02/17/22 00:11*	*1*
DCB Decachlorobiphenyl	*84*		*65 - 174*	*02/16/22 07:10*	*02/17/22 00:11*	*1*
Tetrachloro-m-xylene	*77*		*60 - 154*	*02/16/22 07:10*	*02/17/22 00:11*	*1*
Tetrachloro-m-xylene	*91*		*60 - 154*	*02/16/22 07:10*	*02/17/22 00:11*	*1*

Method: 537 (Modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.25	U	0.25	0.024	ng/g	☼	02/21/22 07:37	02/24/22 01:46	1
Perfluoroheptanoic acid	0.25	U	0.25	0.030	ng/g	☼	02/21/22 07:37	02/24/22 01:46	1
Perfluorooctanoic acid	0.25	U	0.25	0.028	ng/g	☼	02/21/22 07:37	02/24/22 01:46	1
Perfluorononanoic acid	0.25	U	0.25	0.029	ng/g	☼	02/21/22 07:37	02/24/22 01:46	1
Perfluorodecanoic acid	0.25	U	0.25	0.030	ng/g	☼	02/21/22 07:37	02/24/22 01:46	1
Perfluorotridecanoic acid	0.25	U	0.25	0.027	ng/g	☼	02/21/22 07:37	02/24/22 01:46	1
Perfluorotetradecanoic acid	0.25	U	0.25	0.030	ng/g	☼	02/21/22 07:37	02/24/22 01:46	1
Perfluorobutanesulfonic acid	0.51	U	0.51	0.46	ng/g	☼	02/21/22 07:37	02/24/22 01:46	1
Perfluorohexanesulfonic acid	0.25	U	0.25	0.024	ng/g	☼	02/21/22 07:37	02/24/22 01:46	1
Perfluorooctanesulfonic acid	0.25	U	0.25	0.044	ng/g	☼	02/21/22 07:37	02/24/22 01:46	1
NEtFOSAA	0.25	U	0.25	0.028	ng/g	☼	02/21/22 07:37	02/24/22 01:46	1
NMeFOSAA	0.25	U	0.25	0.039	ng/g	☼	02/21/22 07:37	02/24/22 01:46	1
Perfluoroheptanesulfonic acid	0.25	U	0.25	0.025	ng/g	☼	02/21/22 07:37	02/24/22 01:46	1
Perfluorodecanesulfonic acid	0.25	U	0.25	0.027	ng/g	☼	02/21/22 07:37	02/24/22 01:46	1
Perfluorooctanesulfonamide	0.25	U	0.25	0.027	ng/g	☼	02/21/22 07:37	02/24/22 01:46	1
Perfluorobutanoic acid	0.25	U	0.25	0.030	ng/g	☼	02/21/22 07:37	02/24/22 01:46	1
Perfluoroundecanoic acid	0.25	U	0.25	0.071	ng/g	☼	02/21/22 07:37	02/24/22 01:46	1
Perfluorododecanoic acid	0.25	U	0.25	0.029	ng/g	☼	02/21/22 07:37	02/24/22 01:46	1
6:2 Fluorotelomer sulfonic acid	0.25	U	0.25	0.062	ng/g	☼	02/21/22 07:37	02/24/22 01:46	1
8:2 Fluorotelomer sulfonic acid	0.25	U	0.25	0.022	ng/g	☼	02/21/22 07:37	02/24/22 01:46	1
Perfluoropentanoic acid	0.25	U	0.25	0.030	ng/g	☼	02/21/22 07:37	02/24/22 01:46	1

Client Sample ID: B-13 (3.6-5.6)
Lab Sample ID: 480-194980-16

Date Collected: 02/10/22 13:30
Matrix: Solid
Date Received: 02/11/22 10:45
Percent Solids: 78.3

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	131		15 - 200	02/21/22 07:37	02/24/22 01:46	1
M2-6:2 FTS	126		10 - 200	02/21/22 07:37	02/24/22 01:46	1
13C5 PFHxA	79		10 - 174	02/21/22 07:37	02/24/22 01:46	1
13C4 PFHpA	84		10 - 178	02/21/22 07:37	02/24/22 01:46	1
13C8 PFOA	86		26 - 159	02/21/22 07:37	02/24/22 01:46	1
13C9 PFNA	94		26 - 165	02/21/22 07:37	02/24/22 01:46	1
13C6 PFDA	95		26 - 161	02/21/22 07:37	02/24/22 01:46	1
13C7 PFUnA	93		12 - 173	02/21/22 07:37	02/24/22 01:46	1
13C2-PFDoDA	93		11 - 166	02/21/22 07:37	02/24/22 01:46	1
13C2 PFTeDA	96		10 - 169	02/21/22 07:37	02/24/22 01:46	1
13C3 PFBS	100		27 - 179	02/21/22 07:37	02/24/22 01:46	1
13C3 PFHxS	95		24 - 171	02/21/22 07:37	02/24/22 01:46	1
13C8 PFOS	102		41 - 154	02/21/22 07:37	02/24/22 01:46	1
d3-NMeFOSAA	74		10 - 178	02/21/22 07:37	02/24/22 01:46	1
d5-NEtFOSAA	90		10 - 193	02/21/22 07:37	02/24/22 01:46	1
13C8 FOSA	51		14 - 163	02/21/22 07:37	02/24/22 01:46	1
13C4 PFBA	83		28 - 153	02/21/22 07:37	02/24/22 01:46	1
13C5 PFPeA	84		24 - 161	02/21/22 07:37	02/24/22 01:46	1

Client Sample ID: B-9 (1.0-1.5)
Lab Sample ID: 480-194980-18

Date Collected: 02/10/22 10:40
Matrix: Solid
Date Received: 02/11/22 10:45
Percent Solids: 86.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	1.2	U J	1.2	0.23	mg/Kg	☼	02/16/22 07:10	02/17/22 16:04	5
PCB-1221	1.2	U	1.2	0.23	mg/Kg	☼	02/16/22 07:10	02/17/22 16:04	5
PCB-1232	1.2	U	1.2	0.23	mg/Kg	☼	02/16/22 07:10	02/17/22 16:04	5
PCB-1242	**14**		1.2	0.23	mg/Kg	☼	02/16/22 07:10	02/17/22 16:04	5
PCB-1248	1.2	U	1.2	0.23	mg/Kg	☼	02/16/22 07:10	02/17/22 16:04	5
PCB-1254	1.2	U	1.2	0.54	mg/Kg	☼	02/16/22 07:10	02/17/22 16:04	5
PCB-1260	1.2	U	1.2	0.54	mg/Kg	☼	02/16/22 07:10	02/17/22 16:04	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	143		65 - 174	02/16/22 07:10	02/17/22 16:04	5
DCB Decachlorobiphenyl	161		65 - 174	02/16/22 07:10	02/17/22 16:04	5
Tetrachloro-m-xylene	126		60 - 154	02/16/22 07:10	02/17/22 16:04	5
Tetrachloro-m-xylene	148		60 - 154	02/16/22 07:10	02/17/22 16:04	5

Client Sample ID: B-9 (3.5-5.5)
Lab Sample ID: 480-194980-20

Date Collected: 02/10/22 14:00
Matrix: Solid
Date Received: 02/11/22 10:45
Percent Solids: 80.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.23	U	0.23	0.045	mg/Kg	☼	02/16/22 07:10	02/17/22 00:38	1
PCB-1221	0.23	U	0.23	0.045	mg/Kg	☼	02/16/22 07:10	02/17/22 00:38	1
PCB-1232	0.23	U	0.23	0.045	mg/Kg	☼	02/16/22 07:10	02/17/22 00:38	1
PCB-1242	**0.15**	**J**	0.23	0.045	mg/Kg	☼	02/16/22 07:10	02/17/22 00:38	1
PCB-1248	0.23	U	0.23	0.045	mg/Kg	☼	02/16/22 07:10	02/17/22 00:38	1
PCB-1254	0.23	U	0.23	0.11	mg/Kg	☼	02/16/22 07:10	02/17/22 00:38	1
PCB-1260	**0.29**		0.23	0.11	mg/Kg	☼	02/16/22 07:10	02/17/22 00:38	1

Client Sample ID: B-9 (3.5-5.5)
Lab Sample ID: 480-194980-20
Date Collected: 02/10/22 14:00
Matrix: Solid
Date Received: 02/11/22 10:45
Percent Solids: 80.4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	74		65 - 174	02/16/22 07:10	02/17/22 00:38	1
DCB Decachlorobiphenyl	91		65 - 174	02/16/22 07:10	02/17/22 00:38	1
Tetrachloro-m-xylene	81		60 - 154	02/16/22 07:10	02/17/22 00:38	1
Tetrachloro-m-xylene	92		60 - 154	02/16/22 07:10	02/17/22 00:38	1

National Grid

Dewey Avenue

Data Review Report

Buffalo, New York

Polychlorinated Biphenlys (PCBs) Analyses

SDGs # J195076-1 and J1905076-3

Analyses Performed By:

SGS Laboratories, Inc.
Dayton, New Jersey

Report #48973R
Review Level: Tier II
Project: 30094243 Task 04

Summary

This Data Review Report summarizes the review of Sample Delivery Groups (SDGs) # J195076-1 and J1905076-3 for samples collected in association with the National Grid Dewey/Kensington Avenue site in Buffalo, New York. The review was conducted as a Tier II evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis					
					VOC	SVOC	PCB	PEST	MET	MISC
B-21 (1.2-1.7)	480-195076-1	Solid	2/11/22				X			
B-21 (3.7-5.7)	480-195076-3	Solid	2/14/22				X			
FD-02112022	480-195076-6	Solid	2/11/22				X			
B-22 (0.8-1.3)	480-195076-7	Solid	2/14/22				X			
B-22 (5.3-7.3)	480-195076-10	Solid	2/14/22				X			
B-8 (1.5-2.0)	480-195076-15	Solid	2/14/22				X			
B-8 (2.0-4.0)	480-195076-16	Solid	2/14/22				X			
B-17 (1.3-1.8)	480-195076-18	Solid	2/15/22				X			
B-7 (1.2-1.7)	480-195076-23	Solid	2/15/22				X			
B-7 (3.7-5.1)	480-195076-25	Solid	2/15/22				X			
B-12 (1.3-1.8)	480-195076-26	Solid	2/15/22				X			
B-12 (3.8-5.8)	480-195076-28	Solid	2/15/22				X			
B-2 (1.3-1.8)	480-195076-30	Solid	2/15/22				X			
B-2 (5.8-7.0)	480-195076-33	Solid	2/15/22				X			
B-16 (1.2-1.7)	480-195076-35	Solid	2/15/22				X			
B-16 (3.7-5.7)	480-195076-37	Solid	2/16/22				X			
B-11 (1.2-1.7)	480-195076-40	Solid	2/16/22				X			
B-11 (3.7-5.7)	480-195076-42	Solid	2/16/22				X			
FD-02162022	480-195076-44	Solid	2/16/22				X			
B-6 (1.0-1.5)	480-195076-45	Solid	2/16/22				X			

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis					
					VOC	SVOC	PCB	PEST	MET	MISC
B-6 (1.5-3.5)	480-195076-46	Solid	2/16/22				X			
B-1(1.2-1.7)	480-195076-50	Solid	2/16/22				X			
B-1(1.7-3.7)	480-195076-51	Solid	2/16/22				X			
B-2 (1.8-3.8)	480-195076-31	Solid	2/15/22				X			
B-2 (3.8-5.8)	480-195076-32	Solid	2/15/22				X			

Notes:
This data review only included PCB analysis.

1. The matrix spike/matrix spike duplicate (MS/MSD) analysis was performed on sample locations B-8 (2.0-4.0) and B-16 (1.2-1.7).

Analytical Data Package Documentation

The table below evaluates the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limitss		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed chain-of-custody form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data package completeness and compliance		X		X	

Note:
QA = quality assurance

Organic Analysis Introduction

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 8082A. Data were reviewed in accordance with USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review, EPA-540-R-20-005 (November 2020), and the USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Organic Data Review, EPA540/R-99/008, October 1999 (as applicable).

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
  - U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
  - B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- Quantitation (Q) Qualifiers
  - E The compound was quantitated above the calibration range.
  - D Concentration is based on a diluted sample analysis.
- Validation Qualifiers
  - J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
  - UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
  - JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
  - UB Compound is considered non-detect at the listed value due to associated blank contamination.
  - N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
  - R The sample results are rejected.

The "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second

fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Polychlorinated Biphenyls (PCBs) Analysis

1. Holding Times

The specified holding times for the following methods are presented in the table below.

Method	Matrix	Holding Time	Preservation
SW-846 8082	Water	One year from collection to analysis	Cool to <6 °C

Note:
s.u. = standard units

All samples were analyzed within the specified holding time criterion.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

3. System Performance

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

A maximum RSD of 20% is allowed or a correlation coefficient greater than 0.99. Multiple-point calibrations were performed for Aroclor 1016 and 1260 only. Single-point calibrations were performed for the remaining Aroclors.

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%).

All Aroclors associated with calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/Continuing	Compound	Criteria
B-21 (1.2-1.7) B-21 (3.7-5.7) FD-02112022 B-22 (5.3-7.3) B-8 (2.0-4.0)	CCV %D	Aroclor 1016	22.2%
		Aroclor 1260	24.8%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification
Initial Calibration	%RSD > 20%or a correlation coefficient <0.99	Non-detect	UJ
		Detect	J
Continuing Calibration	%D >20%	Non-detect	UJ
		Detect	J

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. PCB analysis requires that one of the two PCB surrogate compounds exhibit recoveries within the laboratory-established acceptance limits.

Sample locations associated with surrogates exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Surrogate	Recovery
B-2 (5.8-7.0)	Tetrachloro-m-xylene	D
	Decachlorobiphenyl	D

Note:
D = dilution

The criteria used to evaluate the surrogate recoveries are presented in the following table. In the case of a surrogate deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
One surrogate exhibiting recovery outside the control limits but > 10%	Non-detect	No Action
	Detect	
Surrogates diluted below the calibration curve due to the high concentration of a target compound.	Non-detect	UJ/J[1]
	Detect	

Note:

[1] A more concentrated analysis was not performed with surrogate compounds within the calibration range; therefore, no determination of extraction efficiency could be made.

6. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

The MS/MSD exhibited recoveries and RPDs within the control limits.

7. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits. The LCSD analysis was not performed.

8. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 50% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of three times the RL is applied for soil.

Results for duplicate samples are summarized in the following table.

Sample ID / Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
B-21 (1.2-1.7) / FD-02112022	PCB-1248	0.21 U	0.90	NC
	PCB-1254	0.58	0.27 U	AC
	PCB-1260	0.21 U	0.43	AC
B-11 (1.2-1.7) / FD-02162022	PCB-1242	0.41	0.21 U	AC

Notes:
AC = acceptable
NC = not compliant

The compound PCB-1248 associated with sample locations B-21 (1.2-1.7) and FD-02112022 exhibited a field duplicate RPD greater than the control limit. The associated sample results from sample locations for the listed analyte were qualified as estimated.

9. Compound Identification

Compounds are identified on the GC by using the analytes relative retention time.

The retention times of all quantitated peaks must fall within the calculated retention time windows for both the primary and confirmation columns. When dual column analysis is performed the percent difference (%D) of detected sample results must be less than 25%.

Sample locations associated with %D analysis exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Compound	%D
B-12 (3.8-5.8)	PCB-1242	51.2
B-11 (1.2-1.7)	PCB-1242	39.2
B-6 (1.5-3.5)	PCB-1242	42.1

The criteria used to evaluate the %D are presented in the following table. In the case of a %D deviation, the sample results are qualified as documented in the table below.

Control Limit (%D)	Qualification
>25% to 70%	J
>70% to 100%	JN
>100% [1]	R
>100% to 200% (Interference detected)[2]	J or JN
>50% (pesticide) sample results less than the RL)	U

When the PCB sample results are less than the RL and the RPD greater than 50% the sample result are raised to the RL and reported as non-detect.

Note 1: If the pattern is confirmed sample results will be qualified as estimated (J). If pattern exhibits interference or if the PCB cannot be positively determined due to weathering the sample results will be qualified as tentative identification estimate (JN).

Note 2: If interference is detected in either column the sample results will be qualified as tentative identification estimate (JN).

The laboratory noted the following:

1. The following sample appears to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the sample do not closely match any of the laboratory's Aroclor standards used for instrument calibration: B-7 (1.2-1.7) (480-195076-23). The sample(s) has been quantified and reported as Aroclor PCB-1248. Due to the poor match with the Aroclor standard(s), there is increased qualitative and quantitative uncertainty associated with this result.
2. The following samples appears to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the sample do not closely match any of the laboratory's Aroclor standards used for instrument calibration: B-11 (1.2-1.7) (480-195076-40) and B-6 (1.5-3.5) (480-195076-46). The sample(s) has been quantified and reported as Aroclor PCB-1242. Due to the poor match with the Aroclor standard(s), there is increased qualitative and quantitative uncertainty associated with this result.
3. The following samples appears to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the sample do not closely match any of the laboratory's Aroclor standards used for instrument calibration: B-12 (1.3-1.8) (480-195076-26) and B-2 (1.3-1.8) (480-195076-30). The sample(s) has been quantified and reported as Aroclor PCB-1248. Due to the poor match with the Aroclor standard(s), there is increased qualitative and quantitative uncertainty associated with this result.

The detected sample results associated with sample locations listed above, were qualified as estimate (J).

10. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR PCBs

PCBs; SW-846 8082	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY (GC/ECD)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks	X				X
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate (LCSD) %R		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS) %R	X				X
Matrix Spike Duplicate (MSD) %R	X				X
MS/MSD Precision (RPD)	X				X
Field/Lab Duplicate (RPD)		X	X		
Surrogate Spike Recoveries		X	X		
Column (RPD) (If dual column is performed-not confirmation purposes only)	X				X
Dilution Factor		X		X	
Moisture Content	X				X
Tier III Validation					
Initial calibration %RSDs		X		X	
Continuing calibration %Ds		X	X		
System performance and column resolution		X		X	
Compound identification and quantitation					
A. Quantitation Reports		X		X	
B. RT of sample compounds within the established RT windows		X		X	
C. Pattern identification		X		X	
D. Transcription/calculation errors present		X		X	
E. Reporting limits adjusted to reflect sample		X		X	

PCBs; SW-846 8082	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY (GC/ECD)					
dilutions					

%RSD – relative standard deviation, %R - percent recovery, RPD - relative percent difference, %D – difference

SAMPLE COMPLIANCE REPORT

SAMPLE COMPLIANCE REPORT

Sample Delivery Group (SDG)	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB	MET	MISC	
480-195076-1	2/11/22	SW-846	B-21 (1.2-1.7)	Solids	--	--	Yes	--	--	PCB – CCV, Field duplicate RPD
	2/14/22	SW-846	B-21 (3.7-5.7)	Solids	--	--	Yes	--	--	PCB – CCV, Field duplicate RPD
	2/11/22	SW-846	FD-02112022	Solids	--	--	Yes	--	--	PCB – CCV, Field duplicate RPD
	2/14/22	SW-846	B-22 (0.8-1.3)	Solids	--	--	No	--	--	
	2/14/22	SW-846	B-22 (5.3-7.3)	Solids	--	--	Yes	--	--	PCB – CCV
	2/14/22	SW-846	B-8 (1.5-2.0)	Solids	--	--	No	--	--	
	2/14/22	SW-846	B-8 (2.0-4.0)	Solids	--	--	Yes	--	--	PCB – CCV
	2/15/22	SW-846	B-17 (1.3-1.8)	Solids	--	--	No	--	--	
	2/15/22	SW-846	B-7 (1.2-1.7)	Solids	--	--	No	--	--	
	2/15/22	SW-846	B-7 (3.7-5.1)	Solids			No	--	--	
	2/15/22	SW-846	B-12 (1.3-1.8)	Solids	--	--	Yes	--	--	PCB – increased qualitative and quantitative uncertainty
	2/15/22	SW-846	B-12 (3.8-5.8)	Solids	--	--	Yes	--	--	PCB – Column percent difference
	2/15/22	SW-846	B-2 (1.3-1.8)	Solids	--	--	Yes	--	--	PCB – increased qualitative and quantitative uncertainty
	2/15/22	SW-846	B-2 (5.8-7.0)	Solids	--	--	Yes	--	--	PCB – Surrogates diluted out
	2/15/22	SW-846	B-16 (1.2-1.7)	Solids	--	--	No	--	--	
	2/16/22	SW-846	B-16 (3.7-5.7)	Solids	--	--	No	--	--	
	2/16/22	SW-846	B-11 (1.2-1.7)	Solids	--	--	Yes	--	--	PCB – Column percent difference
	2/16/22	SW-846	B-11 (3.7-5.7)	Solids	--	--	No	--	--	
	2/16/22	SW-846	FD-02162022	Solids	--	--	No	--	--	

Sample Delivery Group (SDG)	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB	MET	MISC	
	2/16/22	SW-846	B-6 (1.0-1.5)	Solids	--	--	No	--	--	
	2/16/22	SW-846	B-6 (1.5-3.5)	Solids	--	--	Yes	--	--	PCB – Column percent difference
	2/16/22	SW-846	B-1(1.2-1.7)	Solids	--	--	No	--	--	
	2/16/22	SW-846	B-1(1.7-3.7)	Solids	--	--	No	--	--	
480-195076-3	2/15/22	SW-846	B-2 (1.8-3.8)	Solids	--	--	No	--	--	
	2/15/22	SW-846	B-2 (3.8-5.8)	Solids	--	--	No	--	--	

Note:

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

VALIDATION PERFORMED BY: Todd Church

SIGNATURE: 

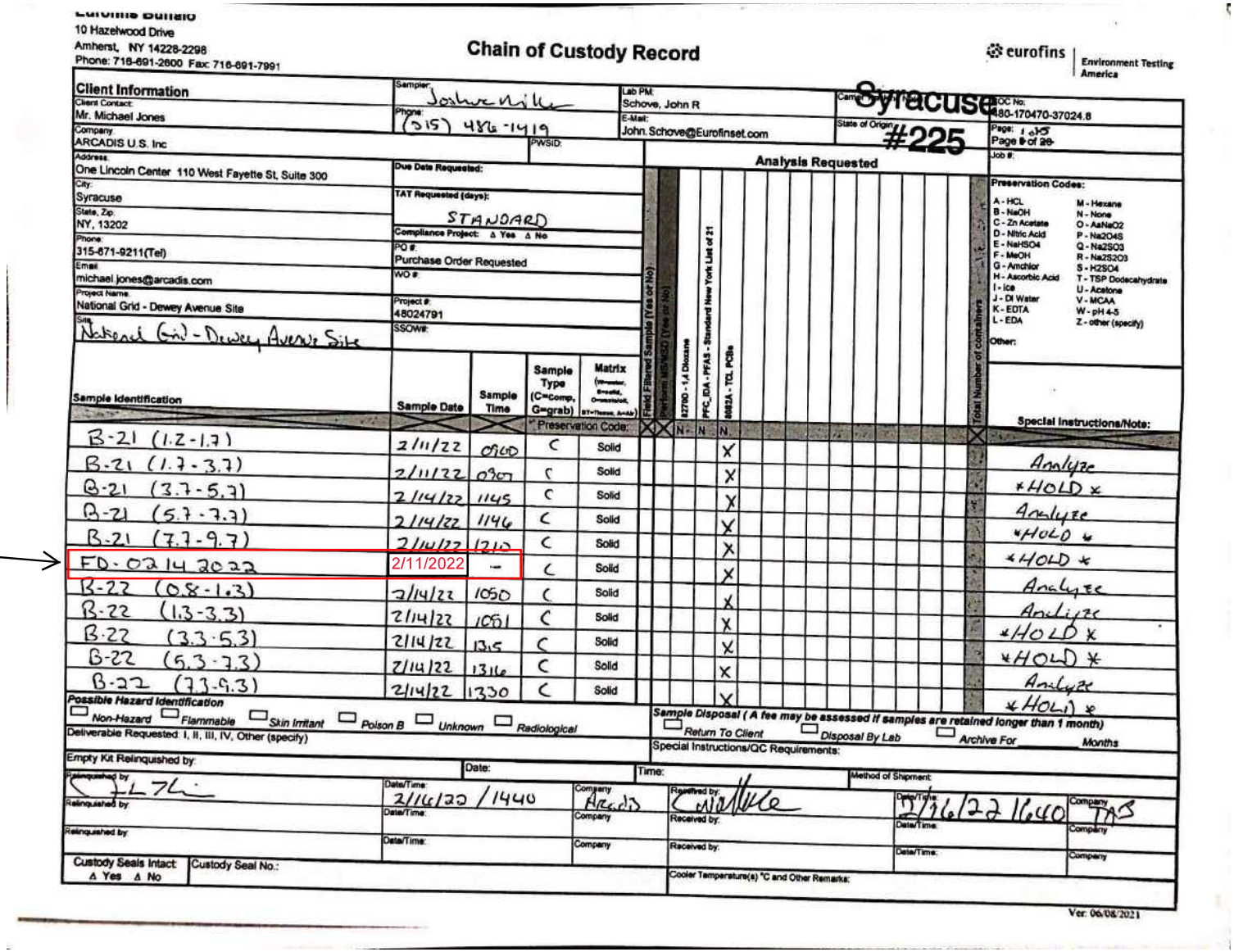
DATE: March 15, 2023

PEER REVIEW: Dennis Capria

DATE: March 23, 2023

Chain of Custody Corrected Sample Analysis Data Sheets

Change ID to: FD02112022 and change date to 02/11/2022



Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Syracuse #225

Client Information	Sampler: Joshua Nikle	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-170470-37024.8
Client Contact: Mr. Michael Jones	Phone: (315) 486-1419	E-Mail: John.Schove@Eurofinset.com	State of Origin:	Page: 1 of 25 Page 6 of 26
Company: ARCADIS U.S. Inc	PWSID:			Job #:
Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:	Analysis Requested		Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
City: Syracuse	TAT Requested (days): STANDARD			
State, Zip: NY, 13202	Compliance Project: Δ Yes Δ No			
Phone: 315-671-9211(Tel)	PO #: Purchase Order Requested			
Email: michael.jones@arcadis.com	WO #:			
Project Name: National Grid - Dewey Avenue Site	Project #: 48024791			
Site: National Grid - Dewey Avenue Site	SSOW#:			Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	537(0) - 1,4 Dioxane	PFC_DA - PFAS - Standard New York List of 21	8082A - TCL PCBs	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N		
B-21 (1.2-1.7)	2/11/22	0940	C	Solid					X		Analyze
B-21 (1.7-3.7)	2/11/22	0950	C	Solid					X		*HOLD *
B-21 (3.7-5.7)	2/14/22	1145	C	Solid					X		Analyze
B-21 (5.7-7.7)	2/14/22	1146	C	Solid					X		*HOLD *
B-21 (7.7-9.7)	2/14/22	1210	C	Solid					X		*HOLD *
FD-02142022	2/11/2022	-	C	Solid					X		Analyze
B-22 (0.8-1.3)	2/14/22	1050	C	Solid					X		Analyze
B-22 (1.3-3.3)	2/14/22	1051	C	Solid					X		*HOLD *
B-22 (3.3-5.3)	2/14/22	1315	C	Solid					X		*HOLD *
B-22 (5.3-7.3)	2/14/22	1316	C	Solid					X		Analyze
B-22 (7.3-9.3)	2/14/22	1330	C	Solid					X		*HOLD *

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ___ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: Date: Time: Method of Shipment:

Relinquished by:	Date/Time: 2/14/22 / 1440	Company: Arcadis	Received by:	Date/Time: 2/16/22 1640	Company: TAS
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Syracuse #225

Client Information	Sampler: Joshua Miller	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-170470-37024.9
Client Contact: Mr. Michael Jones	Phone: (315) 436-1417	E-Mail: John.Schove@Eurofinset.com	State of Origin:	Page: Page 2 of 5
Company: ARCADIS U.S. Inc	PWSID:			Job #:
Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:			
City: Syracuse	TAT Requested (days): STANDARD			
State, Zip: NY, 13202	Compliance Project: Δ Yes Δ No			
Phone: 315-671-9211(Tel)	PO #: Purchase Order Requested			
Email: michael.jones@arcadis.com	WO #:			
Project Name: National Grid - Dewey Avenue Site	Project #: 48024791			
Site: National Grid - Dewey Avenue Site	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	537(M) - 1,4 Dioxane	PFC_DA - PFAS - Standard New York List of 21	8082A - TCL PCBs	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N		
B-22 (9.3-10.4)	2/14/22	1351	C	Solid					X		*HOLD*
B-22 (3.3-5.3)	2/14/22	1315	C	Solid			X	X			Analyze
FD-02142022-B	2/14/22	—	C	Solid					X		*HOLD*
B-8 (1.5-2.0)	2/14/22	1230	C	Solid					X		Analyze
B-8 (2.0-4.0)	2/14/22	1231	C	Solid	X				X		Analyze
B-8 (4.0-5.7)	2/14/22	1405	C	Solid					X		*HOLD*
B-17 (1.3-1.6)	2/15/22	0910	C	Solid					X		Analyze
B-17 (1.8-3.8)	2/15/22	0911	C	Solid	X				X		*HOLD*
B-17 (3.8-5.8)	2/15/22	1150	C	Solid		X	X	X			Analyze
B-17 (5.8-7.8)	2/15/22	1151	C	Solid					X		*HOLD*
B-17 (7.8-8.7)	2/15/22	1205	C	Solid					X		*HOLD*

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by:	Date/Time: 2/16/22 / 1440	Company: Arcadis	Received by:	Date/Time: 2/16/22 1640	Company: TAS
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Syracuse #225

Client Information	Sampler: Joshua Miller	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-170470-37024.10
Client Contact: Mr. Michael Jones	Phone: (315) 486-1419	E-Mail: John.Schove@Eurofinset.com	State of Origin:	Page: Page 1 of 5
Company: ARCADIS U.S. Inc	PWSID:			Job #:
Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:	Analysis Requested		Preservation Codes:
City: Syracuse	TAT Requested (days): STANDARD			A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Z - other (specify); Other:
State, Zip: NY, 13202	Compliance Project: Δ Yes Δ No			
Phone: 315-671-9211(Tel)	PO #: Purchase Order Requested			
Email: michael.jones@arcadis.com	WO #:			
Project Name: National Grid - Dewey Avenue Site	Project #: 48024791			
Site: National Grid - Dewey Avenue Site	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D - 1,4 Dioxane	PFC_IDA - PFAS - Standard New York List of 21	8082A - TCL PCBs	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N		
B-7 (1.7-1.7)	2/15/22	0950	C	Solid					X		Analyze
B-7 (1.7-3.7)	2/15/22	0951	C	Solid					X		*HOLD*
B-7 (1.7-3.7)	2/15/22	0951	C	Solid				X	X		Analyze
B-7 (3.7-5.1)	2/15/22	1345	C	Solid					X		Analyze
B-12 (1.3-1.8)	2/15/22	1035	C	Solid					X		Analyze
B-12 (1.8-3.8)	2/15/22	1036	C	Solid	X				X		* HOLD *
B-12 (3.8-5.8)	2/15/22	1315	C	Solid					X		Analyze
B-12 (5.8-7.0)	2/15/22	1316	C	Solid					X		* HOLD *
B-2 (1.3-1.8)	2/15/22	1105	C	Solid					X		Analyze
B-2 (1.8-3.8)	2/15/22	1106	C	Solid					X		* HOLD *
B-2 (3.8-5.8)	2/15/22	1400	C	Solid					X		* HOLD *

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
	2/16/22 1440	Arcadis		2/16/22 1640	TAS
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Syracuse #225

Client Information	Sampler: Joshua Miller	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-170470-37024.11
Client Contact: Mr. Michael Jones	Phone: (315) 480-1419	E-Mail: John.Schove@Eurofinset.com	State of Origin:	Page: Page 4 of 5 ~~11 of 29~~
Company: ARCADIS U.S. Inc	PWSID:	Analysis Requested		Job #:
Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:			Preservation Codes:
City: Syracuse	TAT Requested (days): STANDARD			A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Z - other (specify)
State, Zip: NY, 13202	Compliance Project: Δ Yes Δ No			
Phone: 315-671-9211(Tel)	PO #: Purchase Order Requested			
Email: michael.jones@arcadis.com	WO #:			Other:
Project Name: National Grid - Dewey Avenue Site	Project #: 48024791			
Site: National Grid - Dewey Avenue Site	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D - 1,4 Dioxane	PFC_EDA - PFAS - Standard New York List of 21	8082A - TCL PCBs	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N		
B-2 (5.8-7.0)	2/15/22	1401	C	Solid					X		Analyze
B-2 (1.3-1.8)	2/15/22	1105	C	Solid			X	X	X		Analyze
B-16 (1.2-1.7)	2/16/22	0940	C	Solid			X				Analyze
B-16 (1.7-3.7)	2/16/22	0941	C	Solid					X		* HOLD *
B-16 (3.7-5.7)	2/16/22	1125	C	Solid					X		Analyze
B-16 (5.7-7.7)	2/16/22	1126	C	Solid					X		* HOLD *
B-16 (1.7-3.7)	2/16/22	0940	C	Solid			X	X			Analyze
B-11 (1.2-1.7)	2/16/22	0905	C	Solid					X		Analyze
B-11 (1.7-3.7)	2/16/22	0906	C	Solid					X		* HOLD *
B-11 (3.7-5.7)	2/16/22	1140	C	Solid					X		Analyze
B-11 (5.7-6.5)	2/16/22	1141	C	Solid					X		* HOLD *

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	2/16/22 1440	Arcadis		2/16/22 1640	TAB
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
		Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14226-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Syracuse #225

Client Information	Sampler: Joshua Miller	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-170470-37024.12
Client Contact: Mr. Michael Jones	Phone: (315) 486-1419	E-Mail: John.Schove@Eurofinset.com	State of Origin:	Page: Page 3 of 5
Company: ARCADIS U.S. Inc	PWSID:			Job #:
Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:	Analysis Requested		Preservation Codes:
City: Syracuse	TAT Requested (days): STANDARD			A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify) Other:
State, Zip: NY, 13202	Compliance Project: Δ Yes Δ No			
Phone: 315-671-9211(Tel)	PO #: Purchase Order Requested			
Email: michael.jones@arcadis.com	WO #:			
Project Name: National Grid - Dewey Avenue Site	Project #: 48024791			
Site: National Grid - Dewey Avenue Site	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D - 1,4 Dioxane	PFC_IDA - PFAS - Standard New York List of 21	8082A - TCL PCBs	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N		
FD-02162022	2/16/22	-	C	Solid					X		Analyze
B-6 (1.0-1.5)	2/16/22	1040	C	Solid					X		Analyze
B-6 (1.5-3.5)	2/16/22	1041	C	Solid					X		Analyze
B-6 (3.5-5.3)	2/16/22	1210	C	Solid					X		*HOLD*
B-6 (1.0-1.5)	2/16/22	1211	C	Solid			X	X			Analyze
FD-02162022-B	2/16/22	-	C	Solid					X		*HOLD*
B-1 (1.2-1.7)	2/16/22	1305	C	Solid					X		Analyze
B-1 (1.7-3.7)	2/16/22	1306	C	Solid					X		Analyze
B-1 (3.7-5.1)	2/16/22	1320	C	Solid					X		HOLD
				Solid							
				Solid							

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by:	Date/Time: 2/16/22 / 1440	Company: Arcadis	Received by:	Date/Time: 2/16/22 16:40	Company: TAS
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Syracuse #225

Client Information	Sampler: Joshua Mills	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-170470-37024.8
Client Contact: Mr. Michael Jones	Phone: (315) 486-1419	E-Mail: John.Schove@Eurofinset.com	State of Origin:	Page: 1 of 5 / Page 8 of 20
Company: ARCADIS U.S. Inc	PWSID:			Job #:
Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:	Analysis Requested		Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, M - Hexane, N - None, O - AsNaO2
City: Syracuse	TAT Requested (days): STANDARD			
State, Zip: NY, 13202	Compliance Project: Δ Yes Δ No			
Phone: 315-671-9211(Tel)	PO #: Purchase Order Requested			
Email: michael.jones@arcadis.com	WO #:			
Project Name: National Grid - Dewey Avenue Site	Project #: 48024791			
Site: National (Grid) - Dewey Avenue Site	SSOW#:			

480-195076 Chain of Custody

ahydrate

fy)

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D - 1,4 Dioxane	PFC_IDA - PFAS - Standard New York List of 21	8082A - TCL PCBs	Total Number of c	Special Instructions/Note:
			Preservation Code:				N	N	N		
B-21 (1.2-1.7)	2/11/22	0900	C	Solid					X		Analyze * HOLD *
B-21 (1.7-3.7)	2/11/22	0907	C	Solid					X		
B-21 (3.7-5.7)	2/14/22	1145	C	Solid					X		Analyze * HOLD *
B-21 (5.7-7.7)	2/14/22	1146	C	Solid					X		
B-21 (7.7-9.7)	2/14/22	1210	C	Solid					X		* HOLD *
FD-02142022	2/14/22	-	C	Solid					X		* HOLD *
B-22 (0.8-1.3)	2/14/22	1050	C	Solid					X		Analyte
B-22 (1.3-3.3)	2/14/22	1051	C	Solid					X		Analyze * HOLD *
B-22 (3.3-5.3)	2/14/22	1315	C	Solid					X		* HOLD *
B-22 (5.3-7.3)	2/14/22	1316	C	Solid					X		Analyze * HOLD *
B-22 (7.3-9.3)	2/14/22	1330	C	Solid					X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	2/16/22 1440	Arcadis	[signature]	2/16/22 1640	TAS
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: # 1 2.7, 3.1, 3.3

Ver: 06/08/2021

03/16/2022

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Syracuse #225

Client Information	Sampler: Joshua Miller	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-170470-37024.9
Client Contact: Mr. Michael Jones	Phone: (315) 436-1417	E-Mail: John.Schove@Eurofinset.com	State of Origin:	Page: Page 2 of 5
Company: ARCADIS U.S. Inc	PWSID:			Job #:
Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:			
City: Syracuse	TAT Requested (days): STANDARD			
State, Zip: NY, 13202	Compliance Project: Δ Yes Δ No			
Phone: 315-671-9211(Tel)	PO #: Purchase Order Requested			
Email: michael.jones@arcadis.com	WO #:			
Project Name: National Grid - Dewey Avenue Site	Project #: 48024791			
Site: National Grid - Dewey Avenue Site	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D - 1,4 Dioxane	PFC_IDA - PFAS - Standard New York List of 21	8082A - TCL PCBs	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N		
B-22 (9.3-10.4)	2/14/22	1331	C	Solid					X		*HOLD*
B-22 (3.3-5.3)	2/14/22	1315	C	Solid			X	X			Analyze
FD-02142022-B	2/14/22	—	C	Solid					X		*HOLD*
B-8 (1.5-2.0)	2/14/22	1230	C	Solid					X		Analyze
B-8 (2.0-4.0)	2/14/22	1231	C	Solid	X				X		Analyze
B-8 (4.0-5.7)	2/14/22	1405	C	Solid					X		*HOLD*
B-17 (1.3-1.8)	2/15/22	0910	C	Solid					X		Analyze
B-17 (1.8-3.8)	2/15/22	0911	C	Solid	X				X		*HOLD*
B-17 (3.8-5.8)	2/15/22	1150	C	Solid			X	X	X		Analyze
B-17 (5.8-7.8)	2/15/22	1151	C	Solid					X		*HOLD*
B-17 (7.8-8.7)	2/15/22	1205	C	Solid					X		*HOLD*

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	2/16/22 / 1440	Arcadis	[signature]	2/16/22 1640	TAB
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Syracuse #225

Client Information	Sampler: Joshua Miller	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-170470-37024.10
Client Contact: Mr. Michael Jones	Phone: (315) 486-1419	E-Mail: John.Schove@Eurofinset.com	State of Origin:	Page: 3 of 5
Company: ARCADIS U.S. Inc	PWSID:			Page ~~10 of 20~~
Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:			Job #:
City: Syracuse	TAT Requested (days): STANDARD			
State, Zip: NY, 13202	Compliance Project: Δ Yes Δ No			
Phone: 315-671-9211(Tel)	PO #: Purchase Order Requested			
Email: michael.jones@arcadis.com	WO #:			
Project Name: National Grid - Dewey Avenue Site	Project #: 48024791			
Site: National Grid - Dewey Avenue Site	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D - 1,4 Dioxane	PFC_IDA - PFAS - Standard New York List of 21	8082A - TCL PCBs	Total Number of containers	Special Instructions/Note:
Preservation Code:							N	N	N		
B-7 (1.2-1.7)	2/15/22	0950	C	Solid					X		Analyze
B-7 (1.7-3.7)	2/15/22	0951	C	Solid					X		* HOLD *
B-7 (1.7-3.7)	2/15/22	0951	C	Solid			X	X			Analyze
B-7 (3.7-5.1)	2/15/22	1345	C	Solid					X		Analyze
B-12 (1.3-1.8)	2/15/22	1035	C	Solid					X		Analyze
B-12 (1.8-3.8)	2/15/22	1036	C	Solid		X			X		* HOLD *
B-12 (3.8-5.8)	2/15/22	1315	C	Solid					X		Analyze
B-12 (5.8-7.0)	2/15/22	1316	C	Solid					X		* HOLD *
B-2 (1.3-1.8)	2/15/22	1105	C	Solid					X		Analyze
B-2 (1.8-3.8)	2/15/22	1106	C	Solid					X		* HOLD *
B-2 (3.8-5.8)	2/15/22	1400	C	Solid					X		* HOLD *

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	2/16/22 1440	Arcadis		2/16/22 1640	TAS
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Syracuse #225

Client Information	Sampler: Joshua Miller	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-170470-37024.11
Client Contact: Mr. Michael Jones	Phone: (315) 486-1419	E-Mail: John.Schove@Eurofinset.com	State of Origin:	Page: ~~4 of 5~~ Page ~~11 of 20~~
Company: ARCADIS U.S. Inc	PWSID:			Job #:
Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:			
City: Syracuse	TAT Requested (days): STANDARD			
State, Zip: NY, 13202	Compliance Project: Δ Yes Δ No			
Phone: 315-671-9211(Tel)	PO #: Purchase Order Requested			
Email: michael.jones@arcadis.com	WO #:			
Project Name: National Grid - Dewey Avenue Site	Project #: 48024791			
Site: National Grid - Dewey Avenue Site	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D - 1,4 Dioxane	PFC_IDA - PFAS - Standard New York List of 21	8082A - TCL PCBs	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N		
B-2 (5.8-7.0)	2/15/22	1401	C	Solid					X		Analyze
B-2 (1.3-1.8)	2/15/22	1105	C	Solid		X	X	X			Analyze
B-16 (1.2-1.7)	2/16/22	0940	C	Solid		X			X		Analyze
B-16 (1.7-3.7)	2/16/22	0941	C	Solid					X		* HOLD *
B-16 (3.7-5.7)	2/16/22	1125	C	Solid					X		Analyze
B-16 (5.7-7.7)	2/16/22	1126	C	Solid					X		* HOLD *
B-16 (1.7-3.7)	2/16/22	0940	C	Solid			X	X			Analyze
B-11 (1.2-1.7)	2/16/22	0905	C	Solid					X		Analyze
B-11 (1.7-3.7)	2/16/22	0906	C	Solid					X		* HOLD *
B-11 (3.7-5.7)	2/16/22	1140	C	Solid					X		Analyze
B-11 (5.7-6.5)	2/16/22	1141	C	Solid					X		* HOLD *

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	2/16/22 1440	Arcadis		2/16/22 1640	TAB
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

03/16/2022

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Syracuse #225

Client Information	Sampler: Joshua Miller	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-170470-37024.12
Client Contact: Mr. Michael Jones	Phone: (315) 486-1419	E-Mail: John.Schove@Eurofinset.com	State of Origin:	Page: Page 5 of 5 ~~Page 1 of 20~~
Company: ARCADIS U.S. Inc	PWSID:			Job #:
Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:			
City: Syracuse	TAT Requested (days): STANDARD			
State, Zip: NY, 13202	Compliance Project: Δ Yes Δ No			
Phone: 315-671-9211(Tel)	PO #: Purchase Order Requested			
Email: michael.jones@arcadis.com	WO #:			
Project Name: National Grid - Dewey Avenue Site	Project #: 48024791			
Site: National Grid - Dewey Avenue Site	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D - 1,4 Dioxane	PFC_IDA - PFAS - Standard New York List of 21	8082A - TCL PCBs	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N		
FD-02162022	2/16/22	-	C	Solid					X		Analyze
B-6 (1.0-1.5)	2/16/22	1040	C	Solid					X		Analyze
B-6 (1.5-3.5)	2/16/22	1041	C	Solid					X		Analyze
B-6 (3.5-5.3)	2/16/22	1210	C	Solid					X		*HOLD*
B-6 (1.0-1.5)	2/16/22	1211	C	Solid			X	X			Analyze
FD-02162022-B	2/16/22	-	C	Solid					X		*HOLD*
B-1 (1.2-1.7)	2/16/22	1305	C	Solid					X		Analyze
B-1 (1.7-3.7)	2/16/22	1306	C	Solid					X		Analyze
B-1 (3.7-5.1)	2/16/22	1320	C	Solid					X		HOLD
				Solid							
				Solid							

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	2/16/22 / 1440	Arcadis		2/16/22 1640	TAS
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

03/16/2022

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

LCMS

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample ID: B-21 (1.2-1.7)
Lab Sample ID: 480-195076-1

Date Collected: 02/11/22 09:00
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 91.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.21	U J	0.21	0.040	mg/Kg	☼	02/18/22 07:06	02/22/22 03:36	1
PCB-1221	0.21	U	0.21	0.040	mg/Kg	☼	02/18/22 07:06	02/22/22 03:36	1
PCB-1232	0.21	U	0.21	0.040	mg/Kg	☼	02/18/22 07:06	02/22/22 03:36	1
PCB-1242	0.21	U	0.21	0.040	mg/Kg	☼	02/18/22 07:06	02/22/22 03:36	1
PCB-1248	0.21	U	0.21	0.040	mg/Kg	☼	02/18/22 07:06	02/22/22 03:36	1
PCB-1254	**0.58**		0.21	0.097	mg/Kg	☼	02/18/22 07:06	02/22/22 03:36	1
PCB-1260	0.21	U	0.21	0.097	mg/Kg	☼	02/18/22 07:06	02/22/22 03:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*94*		*65 - 174*	*02/18/22 07:06*	*02/22/22 03:36*	*1*
DCB Decachlorobiphenyl	*110*		*65 - 174*	*02/18/22 07:06*	*02/22/22 03:36*	*1*
Tetrachloro-m-xylene	*100*		*60 - 154*	*02/18/22 07:06*	*02/22/22 03:36*	*1*
Tetrachloro-m-xylene	*114*		*60 - 154*	*02/18/22 07:06*	*02/22/22 03:36*	*1*

Client Sample ID: B-21 (3.7-5.7)
Lab Sample ID: 480-195076-3

Date Collected: 02/14/22 11:45
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 78.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.26	U J	0.26	0.050	mg/Kg	☼	02/18/22 07:06	02/22/22 03:50	1
PCB-1221	0.26	U	0.26	0.050	mg/Kg	☼	02/18/22 07:06	02/22/22 03:50	1
PCB-1232	0.26	U	0.26	0.050	mg/Kg	☼	02/18/22 07:06	02/22/22 03:50	1
PCB-1242	0.26	U	0.26	0.050	mg/Kg	☼	02/18/22 07:06	02/22/22 03:50	1
PCB-1248	0.26	U	0.26	0.050	mg/Kg	☼	02/18/22 07:06	02/22/22 03:50	1
PCB-1254	0.26	U	0.26	0.12	mg/Kg	☼	02/18/22 07:06	02/22/22 03:50	1
PCB-1260	0.26	U	0.26	0.12	mg/Kg	☼	02/18/22 07:06	02/22/22 03:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*89*		*65 - 174*	*02/18/22 07:06*	*02/22/22 03:50*	*1*
DCB Decachlorobiphenyl	*104*		*65 - 174*	*02/18/22 07:06*	*02/22/22 03:50*	*1*
Tetrachloro-m-xylene	*99*		*60 - 154*	*02/18/22 07:06*	*02/22/22 03:50*	*1*
Tetrachloro-m-xylene	*107*		*60 - 154*	*02/18/22 07:06*	*02/22/22 03:50*	*1*

Client Sample ID: FD-02112022
Lab Sample ID: 480-195076-6

Date Collected: 02/11/22 00:00
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 89.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.27	U J	0.27	0.053	mg/Kg	☼	02/18/22 07:06	02/22/22 04:03	1
PCB-1221	0.27	U	0.27	0.053	mg/Kg	☼	02/18/22 07:06	02/22/22 04:03	1
PCB-1232	0.27	U	0.27	0.053	mg/Kg	☼	02/18/22 07:06	02/22/22 04:03	1
PCB-1242	0.27	U	0.27	0.053	mg/Kg	☼	02/18/22 07:06	02/22/22 04:03	1
PCB-1248	**0.90**		0.27	0.053	mg/Kg	☼	02/18/22 07:06	02/22/22 04:03	1
PCB-1254	0.27	U	0.27	0.13	mg/Kg	☼	02/18/22 07:06	02/22/22 04:03	1
PCB-1260	**0.43**		0.27	0.13	mg/Kg	☼	02/18/22 07:06	02/22/22 04:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*98*		*65 - 174*	*02/18/22 07:06*	*02/22/22 04:03*	*1*
DCB Decachlorobiphenyl	*116*		*65 - 174*	*02/18/22 07:06*	*02/22/22 04:03*	*1*

Client Sample ID: FD-02112022
Lab Sample ID: 480-195076-6
Date Collected: 02/11/22 00:00
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 89.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	*100*		*60 - 154*	*02/18/22 07:06*	*02/22/22 04:03*	*1*
Tetrachloro-m-xylene	*120*		*60 - 154*	*02/18/22 07:06*	*02/22/22 04:03*	*1*

Client Sample ID: B-22 (0.8-1.3)
Lab Sample ID: 480-195076-7
Date Collected: 02/14/22 10:50
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 88.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	2.1	U	2.1	0.40	mg/Kg	☼	02/18/22 07:06	02/23/22 13:44	10
PCB-1221	2.1	U	2.1	0.40	mg/Kg	☼	02/18/22 07:06	02/23/22 13:44	10
PCB-1232	2.1	U	2.1	0.40	mg/Kg	☼	02/18/22 07:06	02/23/22 13:44	10
PCB-1242	2.1	U	2.1	0.40	mg/Kg	☼	02/18/22 07:06	02/23/22 13:44	10
PCB-1248	2.1	U	2.1	0.40	mg/Kg	☼	02/18/22 07:06	02/23/22 13:44	10
PCB-1254	2.1	U	2.1	0.96	mg/Kg	☼	02/18/22 07:06	02/23/22 13:44	10
PCB-1260	**25**		2.1	0.96	mg/Kg	☼	02/18/22 07:06	02/23/22 13:44	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	*121*		*65 - 174*	*02/18/22 07:06*	*02/23/22 13:44*	*10*
DCB Decachlorobiphenyl	*129*		*65 - 174*	*02/18/22 07:06*	*02/23/22 13:44*	*10*
Tetrachloro-m-xylene	*90*		*60 - 154*	*02/18/22 07:06*	*02/23/22 13:44*	*10*
Tetrachloro-m-xylene	*104*		*60 - 154*	*02/18/22 07:06*	*02/23/22 13:44*	*10*

Client Sample ID: B-22 (5.3-7.3)
Lab Sample ID: 480-195076-10
Date Collected: 02/14/22 13:16
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 82.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.23	U J	0.23	0.044	mg/Kg	☼	02/18/22 07:06	02/22/22 04:30	1
PCB-1221	0.23	U	0.23	0.044	mg/Kg	☼	02/18/22 07:06	02/22/22 04:30	1
PCB-1232	0.23	U	0.23	0.044	mg/Kg	☼	02/18/22 07:06	02/22/22 04:30	1
PCB-1242	0.23	U	0.23	0.044	mg/Kg	☼	02/18/22 07:06	02/22/22 04:30	1
PCB-1248	0.23	U	0.23	0.044	mg/Kg	☼	02/18/22 07:06	02/22/22 04:30	1
PCB-1254	0.23	U	0.23	0.11	mg/Kg	☼	02/18/22 07:06	02/22/22 04:30	1
PCB-1260	0.23	U	0.23	0.11	mg/Kg	☼	02/18/22 07:06	02/22/22 04:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	*96*		*65 - 174*	*02/18/22 07:06*	*02/22/22 04:30*	*1*
DCB Decachlorobiphenyl	*114*		*65 - 174*	*02/18/22 07:06*	*02/22/22 04:30*	*1*
Tetrachloro-m-xylene	*105*		*60 - 154*	*02/18/22 07:06*	*02/22/22 04:30*	*1*
Tetrachloro-m-xylene	*115*		*60 - 154*	*02/18/22 07:06*	*02/22/22 04:30*	*1*

Client Sample ID: B-22 (3.3-5.3)
Lab Sample ID: 480-195076-13
Date Collected: 02/14/22 13:15
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 92.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	110	U	110	59	ug/Kg	☼	02/21/22 08:20	02/22/22 17:52	1

Client Sample ID: B-22 (3.3-5.3)
Date Collected: 02/14/22 13:15
Date Received: 02/16/22 16:40

Lab Sample ID: 480-195076-13
Matrix: Solid
Percent Solids: 92.6

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	91		54 - 120	02/21/22 08:20	02/22/22 17:52	1
2-Fluorobiphenyl (Surr)	93		60 - 120	02/21/22 08:20	02/22/22 17:52	1
2-Fluorophenol (Surr)	78		52 - 120	02/21/22 08:20	02/22/22 17:52	1
Nitrobenzene-d5 (Surr)	85		53 - 120	02/21/22 08:20	02/22/22 17:52	1
Phenol-d5 (Surr)	79		54 - 120	02/21/22 08:20	02/22/22 17:52	1
p-Terphenyl-d14 (Surr)	99		79 - 130	02/21/22 08:20	02/22/22 17:52	1

Method: 537 (Modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.21	U	0.21	0.020	ng/g	☼	02/22/22 21:30	02/25/22 03:48	1
Perfluoroheptanoic acid	0.21	U	0.21	0.026	ng/g	☼	02/22/22 21:30	02/25/22 03:48	1
Perfluorooctanoic acid	**0.055**	**J**	0.21	0.024	ng/g	☼	02/22/22 21:30	02/25/22 03:48	1
Perfluorononanoic acid	0.21	U	0.21	0.025	ng/g	☼	02/22/22 21:30	02/25/22 03:48	1
Perfluorodecanoic acid	0.21	U	0.21	0.026	ng/g	☼	02/22/22 21:30	02/25/22 03:48	1
Perfluorotridecanoic acid	0.21	U	0.21	0.023	ng/g	☼	02/22/22 21:30	02/25/22 03:48	1
Perfluorotetradecanoic acid	0.21	U	0.21	0.026	ng/g	☼	02/22/22 21:30	02/25/22 03:48	1
Perfluorobutanesulfonic acid	0.43	U	0.43	0.39	ng/g	☼	02/22/22 21:30	02/25/22 03:48	1
Perfluorohexanesulfonic acid	0.21	U	0.21	0.020	ng/g	☼	02/22/22 21:30	02/25/22 03:48	1
Perfluorooctanesulfonic acid	0.21	U	0.21	0.038	ng/g	☼	02/22/22 21:30	02/25/22 03:48	1
NEtFOSAA	0.21	U	0.21	0.024	ng/g	☼	02/22/22 21:30	02/25/22 03:48	1
NMeFOSAA	0.21	U	0.21	0.033	ng/g	☼	02/22/22 21:30	02/25/22 03:48	1
Perfluoroheptanesulfonic acid	0.21	U	0.21	0.021	ng/g	☼	02/22/22 21:30	02/25/22 03:48	1
Perfluorodecanesulfonic acid	0.21	U	0.21	0.023	ng/g	☼	02/22/22 21:30	02/25/22 03:48	1
Perfluorooctanesulfonamide	0.21	U	0.21	0.023	ng/g	☼	02/22/22 21:30	02/25/22 03:48	1
Perfluorobutanoic acid	0.21	U	0.21	0.026	ng/g	☼	02/22/22 21:30	02/25/22 03:48	1
Perfluoroundecanoic acid	0.21	U	0.21	0.060	ng/g	☼	02/22/22 21:30	02/25/22 03:48	1
Perfluorododecanoic acid	0.21	U	0.21	0.025	ng/g	☼	02/22/22 21:30	02/25/22 03:48	1
6:2 Fluorotelomer sulfonic acid	0.21	U	0.21	0.053	ng/g	☼	02/22/22 21:30	02/25/22 03:48	1
8:2 Fluorotelomer sulfonic acid	0.21	U	0.21	0.018	ng/g	☼	02/22/22 21:30	02/25/22 03:48	1
Perfluoropentanoic acid	0.21	U	0.21	0.026	ng/g	☼	02/22/22 21:30	02/25/22 03:48	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	87		15 - 200	02/22/22 21:30	02/25/22 03:48	1
M2-6:2 FTS	98		10 - 200	02/22/22 21:30	02/25/22 03:48	1
13C5 PFHxA	84		10 - 174	02/22/22 21:30	02/25/22 03:48	1
13C4 PFHpA	80		10 - 178	02/22/22 21:30	02/25/22 03:48	1
13C8 PFOA	85		26 - 159	02/22/22 21:30	02/25/22 03:48	1
13C9 PFNA	83		26 - 165	02/22/22 21:30	02/25/22 03:48	1
13C6 PFDA	84		26 - 161	02/22/22 21:30	02/25/22 03:48	1
13C7 PFUnA	79		12 - 173	02/22/22 21:30	02/25/22 03:48	1
13C2-PFDoDA	78		11 - 166	02/22/22 21:30	02/25/22 03:48	1
13C2 PFTeDA	82		10 - 169	02/22/22 21:30	02/25/22 03:48	1
13C3 PFBS	88		27 - 179	02/22/22 21:30	02/25/22 03:48	1
13C3 PFHxS	89		24 - 171	02/22/22 21:30	02/25/22 03:48	1
13C8 PFOS	85		41 - 154	02/22/22 21:30	02/25/22 03:48	1
d3-NMeFOSAA	68		10 - 178	02/22/22 21:30	02/25/22 03:48	1
d5-NEtFOSAA	75		10 - 193	02/22/22 21:30	02/25/22 03:48	1
13C8 FOSA	62		14 - 163	02/22/22 21:30	02/25/22 03:48	1
13C4 PFBA	84		28 - 153	02/22/22 21:30	02/25/22 03:48	1
13C5 PFPeA	79		24 - 161	02/22/22 21:30	02/25/22 03:48	1

Client Sample ID: B-8 (1.5-2.0)
Lab Sample ID: 480-195076-15

Date Collected: 02/14/22 12:30
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 74.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	2.6	U	2.6	0.51	mg/Kg	☼	02/18/22 07:06	02/23/22 13:56	10
PCB-1221	2.6	U	2.6	0.51	mg/Kg	☼	02/18/22 07:06	02/23/22 13:56	10
PCB-1232	2.6	U	2.6	0.51	mg/Kg	☼	02/18/22 07:06	02/23/22 13:56	10
PCB-1242	**41**		2.6	0.51	mg/Kg	☼	02/18/22 07:06	02/23/22 13:56	10
PCB-1248	2.6	U	2.6	0.51	mg/Kg	☼	02/18/22 07:06	02/23/22 13:56	10
PCB-1254	2.6	U	2.6	1.2	mg/Kg	☼	02/18/22 07:06	02/23/22 13:56	10
PCB-1260	2.6	U	2.6	1.2	mg/Kg	☼	02/18/22 07:06	02/23/22 13:56	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*84*		*65 - 174*	*02/18/22 07:06*	*02/23/22 13:56*	*10*
DCB Decachlorobiphenyl	*91*		*65 - 174*	*02/18/22 07:06*	*02/23/22 13:56*	*10*
Tetrachloro-m-xylene	*78*		*60 - 154*	*02/18/22 07:06*	*02/23/22 13:56*	*10*
Tetrachloro-m-xylene	*85*		*60 - 154*	*02/18/22 07:06*	*02/23/22 13:56*	*10*

Client Sample ID: B-8 (2.0-4.0)
Lab Sample ID: 480-195076-16

Date Collected: 02/14/22 12:31
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 78.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.30	U J	0.30	0.059	mg/Kg	☼	02/18/22 07:06	02/22/22 03:23	1
PCB-1221	0.30	U	0.30	0.059	mg/Kg	☼	02/18/22 07:06	02/22/22 03:23	1
PCB-1232	0.30	U	0.30	0.059	mg/Kg	☼	02/18/22 07:06	02/22/22 03:23	1
PCB-1242	**3.3**		0.30	0.059	mg/Kg	☼	02/18/22 07:06	02/22/22 03:23	1
PCB-1248	0.30	U	0.30	0.059	mg/Kg	☼	02/18/22 07:06	02/22/22 03:23	1
PCB-1254	0.30	U	0.30	0.14	mg/Kg	☼	02/18/22 07:06	02/22/22 03:23	1
PCB-1260	0.30	U	0.30	0.14	mg/Kg	☼	02/18/22 07:06	02/22/22 03:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*66*		*65 - 174*	*02/18/22 07:06*	*02/22/22 03:23*	*1*
DCB Decachlorobiphenyl	*80*		*65 - 174*	*02/18/22 07:06*	*02/22/22 03:23*	*1*
Tetrachloro-m-xylene	*79*		*60 - 154*	*02/18/22 07:06*	*02/22/22 03:23*	*1*
Tetrachloro-m-xylene	*86*		*60 - 154*	*02/18/22 07:06*	*02/22/22 03:23*	*1*

Client Sample ID: B-17 (1.3-1.8)
Lab Sample ID: 480-195076-18

Date Collected: 02/15/22 09:10
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 91.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.27	U	0.27	0.052	mg/Kg	☼	02/18/22 07:06	02/22/22 05:23	1
PCB-1221	0.27	U	0.27	0.052	mg/Kg	☼	02/18/22 07:06	02/22/22 05:23	1
PCB-1232	0.27	U	0.27	0.052	mg/Kg	☼	02/18/22 07:06	02/22/22 05:23	1
PCB-1242	0.27	U	0.27	0.052	mg/Kg	☼	02/18/22 07:06	02/22/22 05:23	1
PCB-1248	0.27	U	0.27	0.052	mg/Kg	☼	02/18/22 07:06	02/22/22 05:23	1
PCB-1254	0.27	U	0.27	0.12	mg/Kg	☼	02/18/22 07:06	02/22/22 05:23	1
PCB-1260	0.27	U	0.27	0.12	mg/Kg	☼	02/18/22 07:06	02/22/22 05:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*84*		*65 - 174*	*02/18/22 07:06*	*02/22/22 05:23*	*1*
DCB Decachlorobiphenyl	*97*		*65 - 174*	*02/18/22 07:06*	*02/22/22 05:23*	*1*

Client Sample ID: B-17 (1.3-1.8)
Lab Sample ID: 480-195076-18
Date Collected: 02/15/22 09:10
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 91.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*81*		*60 - 154*	*02/18/22 07:06*	*02/22/22 05:23*	*1*
Tetrachloro-m-xylene	*92*		*60 - 154*	*02/18/22 07:06*	*02/22/22 05:23*	*1*

Client Sample ID: B-17 (3.8-5.8)
Lab Sample ID: 480-195076-20
Date Collected: 02/15/22 11:50
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 76.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	130	U	130	71	ug/Kg	☼	02/21/22 08:20	02/22/22 18:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*131*	*S1+*	*54 - 120*	*02/21/22 08:20*	*02/22/22 18:17*	*1*
2-Fluorobiphenyl (Surr)	*121*	*S1+*	*60 - 120*	*02/21/22 08:20*	*02/22/22 18:17*	*1*
2-Fluorophenol (Surr)	*106*		*52 - 120*	*02/21/22 08:20*	*02/22/22 18:17*	*1*
Nitrobenzene-d5 (Surr)	*107*		*53 - 120*	*02/21/22 08:20*	*02/22/22 18:17*	*1*
Phenol-d5 (Surr)	*109*		*54 - 120*	*02/21/22 08:20*	*02/22/22 18:17*	*1*
p-Terphenyl-d14 (Surr)	*134*	*S1+*	*79 - 130*	*02/21/22 08:20*	*02/22/22 18:17*	*1*

Method: 537 (Modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.26	U	0.26	0.025	ng/g	☼	02/22/22 21:30	02/25/22 03:59	1
Perfluoroheptanoic acid	0.26	U	0.26	0.031	ng/g	☼	02/22/22 21:30	02/25/22 03:59	1
Perfluorooctanoic acid	**0.074**	**J**	0.26	0.029	ng/g	☼	02/22/22 21:30	02/25/22 03:59	1
Perfluorononanoic acid	**0.032**	**J**	0.26	0.030	ng/g	☼	02/22/22 21:30	02/25/22 03:59	1
Perfluorodecanoic acid	0.26	U	0.26	0.031	ng/g	☼	02/22/22 21:30	02/25/22 03:59	1
Perfluorotridecanoic acid	0.26	U	0.26	0.027	ng/g	☼	02/22/22 21:30	02/25/22 03:59	1
Perfluorotetradecanoic acid	0.26	U	0.26	0.031	ng/g	☼	02/22/22 21:30	02/25/22 03:59	1
Perfluorobutanesulfonic acid	0.52	U	0.52	0.47	ng/g	☼	02/22/22 21:30	02/25/22 03:59	1
Perfluorohexanesulfonic acid	0.26	U	0.26	0.025	ng/g	☼	02/22/22 21:30	02/25/22 03:59	1
Perfluorooctanesulfonic acid	**0.061**	**J**	0.26	0.045	ng/g	☼	02/22/22 21:30	02/25/22 03:59	1
NEtFOSAA	0.26	U	0.26	0.029	ng/g	☼	02/22/22 21:30	02/25/22 03:59	1
NMeFOSAA	0.26	U	0.26	0.040	ng/g	☼	02/22/22 21:30	02/25/22 03:59	1
Perfluoroheptanesulfonic acid	0.26	U	0.26	0.026	ng/g	☼	02/22/22 21:30	02/25/22 03:59	1
Perfluorodecanesulfonic acid	0.26	U	0.26	0.027	ng/g	☼	02/22/22 21:30	02/25/22 03:59	1
Perfluorooctanesulfonamide	0.26	U	0.26	0.027	ng/g	☼	02/22/22 21:30	02/25/22 03:59	1
Perfluorobutanoic acid	0.26	U	0.26	0.031	ng/g	☼	02/22/22 21:30	02/25/22 03:59	1
Perfluoroundecanoic acid	0.26	U	0.26	0.073	ng/g	☼	02/22/22 21:30	02/25/22 03:59	1
Perfluorododecanoic acid	0.26	U	0.26	0.030	ng/g	☼	02/22/22 21:30	02/25/22 03:59	1
6:2 Fluorotelomer sulfonic acid	0.26	U	0.26	0.063	ng/g	☼	02/22/22 21:30	02/25/22 03:59	1
8:2 Fluorotelomer sulfonic acid	0.26	U	0.26	0.022	ng/g	☼	02/22/22 21:30	02/25/22 03:59	1
Perfluoropentanoic acid	0.26	U	0.26	0.031	ng/g	☼	02/22/22 21:30	02/25/22 03:59	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-8:2 FTS	*82*		*15 - 200*	*02/22/22 21:30*	*02/25/22 03:59*	*1*
M2-6:2 FTS	*96*		*10 - 200*	*02/22/22 21:30*	*02/25/22 03:59*	*1*
13C5 PFHxA	*76*		*10 - 174*	*02/22/22 21:30*	*02/25/22 03:59*	*1*
13C4 PFHpA	*75*		*10 - 178*	*02/22/22 21:30*	*02/25/22 03:59*	*1*
13C8 PFOA	*78*		*26 - 159*	*02/22/22 21:30*	*02/25/22 03:59*	*1*
13C9 PFNA	*79*		*26 - 165*	*02/22/22 21:30*	*02/25/22 03:59*	*1*
13C6 PFDA	*81*		*26 - 161*	*02/22/22 21:30*	*02/25/22 03:59*	*1*

Client Sample ID: B-17 (3.8-5.8)
Lab Sample ID: 480-195076-20
Date Collected: 02/15/22 11:50
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 76.5

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C7 PFUnA	*70*		*12 - 173*	*02/22/22 21:30*	*02/25/22 03:59*	*1*
13C2-PFDoDA	*78*		*11 - 166*	*02/22/22 21:30*	*02/25/22 03:59*	*1*
13C2 PFTeDA	*79*		*10 - 169*	*02/22/22 21:30*	*02/25/22 03:59*	*1*
13C3 PFBS	*84*		*27 - 179*	*02/22/22 21:30*	*02/25/22 03:59*	*1*
13C3 PFHxS	*85*		*24 - 171*	*02/22/22 21:30*	*02/25/22 03:59*	*1*
13C8 PFOS	*82*		*41 - 154*	*02/22/22 21:30*	*02/25/22 03:59*	*1*
d3-NMeFOSAA	*81*		*10 - 178*	*02/22/22 21:30*	*02/25/22 03:59*	*1*
d5-NEtFOSAA	*76*		*10 - 193*	*02/22/22 21:30*	*02/25/22 03:59*	*1*
13C8 FOSA	*66*		*14 - 163*	*02/22/22 21:30*	*02/25/22 03:59*	*1*
13C4 PFBA	*78*		*28 - 153*	*02/22/22 21:30*	*02/25/22 03:59*	*1*
13C5 PFPeA	*73*		*24 - 161*	*02/22/22 21:30*	*02/25/22 03:59*	*1*

Client Sample ID: B-7 (1.2-1.7)
Lab Sample ID: 480-195076-23
Date Collected: 02/15/22 09:50
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 83.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.24	U	0.24	0.047	mg/Kg	☼	02/18/22 07:06	02/22/22 05:36	1
PCB-1221	0.24	U	0.24	0.047	mg/Kg	☼	02/18/22 07:06	02/22/22 05:36	1
PCB-1232	0.24	U	0.24	0.047	mg/Kg	☼	02/18/22 07:06	02/22/22 05:36	1
PCB-1242	0.24	U	0.24	0.047	mg/Kg	☼	02/18/22 07:06	02/22/22 05:36	1
PCB-1248	**6.4**		0.24	0.047	mg/Kg	☼	02/18/22 07:06	02/22/22 05:36	1
PCB-1254	0.24	U	0.24	0.11	mg/Kg	☼	02/18/22 07:06	02/22/22 05:36	1
PCB-1260	0.24	U	0.24	0.11	mg/Kg	☼	02/18/22 07:06	02/22/22 05:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*91*		*65 - 174*	*02/18/22 07:06*	*02/22/22 05:36*	*1*
DCB Decachlorobiphenyl	*109*		*65 - 174*	*02/18/22 07:06*	*02/22/22 05:36*	*1*
Tetrachloro-m-xylene	*103*		*60 - 154*	*02/18/22 07:06*	*02/22/22 05:36*	*1*
Tetrachloro-m-xylene	*113*		*60 - 154*	*02/18/22 07:06*	*02/22/22 05:36*	*1*

Client Sample ID: B-7 (1.7-3.7)
Lab Sample ID: 480-195076-24
Date Collected: 02/15/22 09:51
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 78.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	130	U	130	69	ug/Kg	☼	02/21/22 08:20	02/22/22 18:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*109*		*54 - 120*	*02/21/22 08:20*	*02/22/22 18:41*	*1*
2-Fluorobiphenyl (Surr)	*113*		*60 - 120*	*02/21/22 08:20*	*02/22/22 18:41*	*1*
2-Fluorophenol (Surr)	*96*		*52 - 120*	*02/21/22 08:20*	*02/22/22 18:41*	*1*
Nitrobenzene-d5 (Surr)	*99*		*53 - 120*	*02/21/22 08:20*	*02/22/22 18:41*	*1*
Phenol-d5 (Surr)	*100*		*54 - 120*	*02/21/22 08:20*	*02/22/22 18:41*	*1*
p-Terphenyl-d14 (Surr)	*117*		*79 - 130*	*02/21/22 08:20*	*02/22/22 18:41*	*1*

Method: 537 (Modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	**0.049**	**J**	0.25	0.024	ng/g	☼	02/22/22 21:30	02/25/22 04:10	1

Client Sample ID: B-7 (1.7-3.7)
Lab Sample ID: 480-195076-24

Date Collected: 02/15/22 09:51
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 78.5

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanoic acid	**0.039**	**J**	0.25	0.031	ng/g	☼	02/22/22 21:30	02/25/22 04:10	1
Perfluorooctanoic acid	**0.11**	**J**	0.25	0.028	ng/g	☼	02/22/22 21:30	02/25/22 04:10	1
Perfluorononanoic acid	**0.10**	**J**	0.25	0.029	ng/g	☼	02/22/22 21:30	02/25/22 04:10	1
Perfluorodecanoic acid	**0.031**	**J**	0.25	0.031	ng/g	☼	02/22/22 21:30	02/25/22 04:10	1
Perfluorotridecanoic acid	0.25	U	0.25	0.027	ng/g	☼	02/22/22 21:30	02/25/22 04:10	1
Perfluorotetradecanoic acid	0.25	U	0.25	0.031	ng/g	☼	02/22/22 21:30	02/25/22 04:10	1
Perfluorobutanesulfonic acid	0.51	U	0.51	0.46	ng/g	☼	02/22/22 21:30	02/25/22 04:10	1
Perfluorohexanesulfonic acid	0.25	U	0.25	0.024	ng/g	☼	02/22/22 21:30	02/25/22 04:10	1
Perfluorooctanesulfonic acid	**0.22**	**J**	0.25	0.045	ng/g	☼	02/22/22 21:30	02/25/22 04:10	1
NEtFOSAA	0.25	U	0.25	0.028	ng/g	☼	02/22/22 21:30	02/25/22 04:10	1
NMeFOSAA	0.25	U	0.25	0.039	ng/g	☼	02/22/22 21:30	02/25/22 04:10	1
Perfluoroheptanesulfonic acid	0.25	U	0.25	0.025	ng/g	☼	02/22/22 21:30	02/25/22 04:10	1
Perfluorodecanesulfonic acid	0.25	U	0.25	0.027	ng/g	☼	02/22/22 21:30	02/25/22 04:10	1
Perfluorooctanesulfonamide	0.25	U	0.25	0.027	ng/g	☼	02/22/22 21:30	02/25/22 04:10	1
Perfluorobutanoic acid	**0.031**	**J**	0.25	0.031	ng/g	☼	02/22/22 21:30	02/25/22 04:10	1
Perfluoroundecanoic acid	0.25	U	0.25	0.071	ng/g	☼	02/22/22 21:30	02/25/22 04:10	1
Perfluorododecanoic acid	0.25	U	0.25	0.029	ng/g	☼	02/22/22 21:30	02/25/22 04:10	1
6:2 Fluorotelomer sulfonic acid	0.25	U	0.25	0.062	ng/g	☼	02/22/22 21:30	02/25/22 04:10	1
8:2 Fluorotelomer sulfonic acid	0.25	U	0.25	0.022	ng/g	☼	02/22/22 21:30	02/25/22 04:10	1
Perfluoropentanoic acid	**0.031**	**J**	0.25	0.031	ng/g	☼	02/22/22 21:30	02/25/22 04:10	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-8:2 FTS	*94*		*15 - 200*	*02/22/22 21:30*	*02/25/22 04:10*	*1*
M2-6:2 FTS	*96*		*10 - 200*	*02/22/22 21:30*	*02/25/22 04:10*	*1*
13C5 PFHxA	*80*		*10 - 174*	*02/22/22 21:30*	*02/25/22 04:10*	*1*
13C4 PFHpA	*78*		*10 - 178*	*02/22/22 21:30*	*02/25/22 04:10*	*1*
13C8 PFOA	*85*		*26 - 159*	*02/22/22 21:30*	*02/25/22 04:10*	*1*
13C9 PFNA	*82*		*26 - 165*	*02/22/22 21:30*	*02/25/22 04:10*	*1*
13C6 PFDA	*85*		*26 - 161*	*02/22/22 21:30*	*02/25/22 04:10*	*1*
13C7 PFUnA	*78*		*12 - 173*	*02/22/22 21:30*	*02/25/22 04:10*	*1*
13C2-PFDoDA	*78*		*11 - 166*	*02/22/22 21:30*	*02/25/22 04:10*	*1*
13C2 PFTeDA	*85*		*10 - 169*	*02/22/22 21:30*	*02/25/22 04:10*	*1*
13C3 PFBS	*92*		*27 - 179*	*02/22/22 21:30*	*02/25/22 04:10*	*1*
13C3 PFHxS	*89*		*24 - 171*	*02/22/22 21:30*	*02/25/22 04:10*	*1*
13C8 PFOS	*89*		*41 - 154*	*02/22/22 21:30*	*02/25/22 04:10*	*1*
d3-NMeFOSAA	*63*		*10 - 178*	*02/22/22 21:30*	*02/25/22 04:10*	*1*
d5-NEtFOSAA	*66*		*10 - 193*	*02/22/22 21:30*	*02/25/22 04:10*	*1*
13C8 FOSA	*44*		*14 - 163*	*02/22/22 21:30*	*02/25/22 04:10*	*1*
13C4 PFBA	*84*		*28 - 153*	*02/22/22 21:30*	*02/25/22 04:10*	*1*
13C5 PFPeA	*78*		*24 - 161*	*02/22/22 21:30*	*02/25/22 04:10*	*1*

Client Sample ID: B-7 (3.7-5.1)
Lab Sample ID: 480-195076-25

Date Collected: 02/15/22 13:45
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 78.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.22	U	0.22	0.042	mg/Kg	☼	02/18/22 07:06	02/22/22 05:49	1
PCB-1221	0.22	U	0.22	0.042	mg/Kg	☼	02/18/22 07:06	02/22/22 05:49	1
PCB-1232	0.22	U	0.22	0.042	mg/Kg	☼	02/18/22 07:06	02/22/22 05:49	1
PCB-1242	0.22	U	0.22	0.042	mg/Kg	☼	02/18/22 07:06	02/22/22 05:49	1

Client Sample ID: B-7 (3.7-5.1)
Lab Sample ID: 480-195076-25
Date Collected: 02/15/22 13:45
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 78.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1248	0.22	U	0.22	0.042	mg/Kg	☼	02/18/22 07:06	02/22/22 05:49	1
PCB-1254	0.22	U	0.22	0.10	mg/Kg	☼	02/18/22 07:06	02/22/22 05:49	1
PCB-1260	0.22	U	0.22	0.10	mg/Kg	☼	02/18/22 07:06	02/22/22 05:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*95*		*65 - 174*	*02/18/22 07:06*	*02/22/22 05:49*	*1*
DCB Decachlorobiphenyl	*106*		*65 - 174*	*02/18/22 07:06*	*02/22/22 05:49*	*1*
Tetrachloro-m-xylene	*106*		*60 - 154*	*02/18/22 07:06*	*02/22/22 05:49*	*1*
Tetrachloro-m-xylene	*116*		*60 - 154*	*02/18/22 07:06*	*02/22/22 05:49*	*1*

Client Sample ID: B-12 (1.3-1.8)
Lab Sample ID: 480-195076-26
Date Collected: 02/15/22 10:35
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 84.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	2.7	U	2.7	0.54	mg/Kg	☼	02/18/22 07:06	02/23/22 14:09	10
PCB-1221	2.7	U	2.7	0.54	mg/Kg	☼	02/18/22 07:06	02/23/22 14:09	10
PCB-1232	2.7	U	2.7	0.54	mg/Kg	☼	02/18/22 07:06	02/23/22 14:09	10
PCB-1242	2.7	U	2.7	0.54	mg/Kg	☼	02/18/22 07:06	02/23/22 14:09	10
PCB-1248	**25**	J	2.7	0.54	mg/Kg	☼	02/18/22 07:06	02/23/22 14:09	10
PCB-1254	2.7	U	2.7	1.3	mg/Kg	☼	02/18/22 07:06	02/23/22 14:09	10
PCB-1260	2.7	U	2.7	1.3	mg/Kg	☼	02/18/22 07:06	02/23/22 14:09	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*124*		*65 - 174*	*02/18/22 07:06*	*02/23/22 14:09*	*10*
DCB Decachlorobiphenyl	*132*		*65 - 174*	*02/18/22 07:06*	*02/23/22 14:09*	*10*
Tetrachloro-m-xylene	*104*		*60 - 154*	*02/18/22 07:06*	*02/23/22 14:09*	*10*
Tetrachloro-m-xylene	*116*		*60 - 154*	*02/18/22 07:06*	*02/23/22 14:09*	*10*

Client Sample ID: B-12 (3.8-5.8)
Lab Sample ID: 480-195076-28
Date Collected: 02/15/22 13:15
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 81.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.26	U	0.26	0.050	mg/Kg	☼	02/18/22 07:06	02/22/22 06:16	1
PCB-1221	0.26	U	0.26	0.050	mg/Kg	☼	02/18/22 07:06	02/22/22 06:16	1
PCB-1232	0.26	U	0.26	0.050	mg/Kg	☼	02/18/22 07:06	02/22/22 06:16	1
PCB-1242	0.26 ~~0.085~~	J U	0.26	0.050	mg/Kg	☼	02/18/22 07:06	02/22/22 06:16	1
PCB-1248	0.26	U	0.26	0.050	mg/Kg	☼	02/18/22 07:06	02/22/22 06:16	1
PCB-1254	0.26	U	0.26	0.12	mg/Kg	☼	02/18/22 07:06	02/22/22 06:16	1
PCB-1260	0.26	U	0.26	0.12	mg/Kg	☼	02/18/22 07:06	02/22/22 06:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*101*		*65 - 174*	*02/18/22 07:06*	*02/22/22 06:16*	*1*
DCB Decachlorobiphenyl	*118*		*65 - 174*	*02/18/22 07:06*	*02/22/22 06:16*	*1*
Tetrachloro-m-xylene	*109*		*60 - 154*	*02/18/22 07:06*	*02/22/22 06:16*	*1*
Tetrachloro-m-xylene	*118*		*60 - 154*	*02/18/22 07:06*	*02/22/22 06:16*	*1*

Client Sample ID: B-2 (1.3-1.8)
Lab Sample ID: 480-195076-30
Date Collected: 02/15/22 11:05
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 90.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	2.3	U	2.3	0.45	mg/Kg	☼	02/18/22 07:06	02/23/22 14:22	10
PCB-1221	2.3	U	2.3	0.45	mg/Kg	☼	02/18/22 07:06	02/23/22 14:22	10
PCB-1232	2.3	U	2.3	0.45	mg/Kg	☼	02/18/22 07:06	02/23/22 14:22	10
PCB-1242	2.3	U	2.3	0.45	mg/Kg	☼	02/18/22 07:06	02/23/22 14:22	10
PCB-1248	**35**	J	2.3	0.45	mg/Kg	☼	02/18/22 07:06	02/23/22 14:22	10
PCB-1254	2.3	U	2.3	1.1	mg/Kg	☼	02/18/22 07:06	02/23/22 14:22	10
PCB-1260	2.3	U	2.3	1.1	mg/Kg	☼	02/18/22 07:06	02/23/22 14:22	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*117*		*65 - 174*	*02/18/22 07:06*	*02/23/22 14:22*	*10*
DCB Decachlorobiphenyl	*112*		*65 - 174*	*02/18/22 07:06*	*02/23/22 14:22*	*10*
Tetrachloro-m-xylene	*97*		*60 - 154*	*02/18/22 07:06*	*02/23/22 14:22*	*10*
Tetrachloro-m-xylene	*107*		*60 - 154*	*02/18/22 07:06*	*02/23/22 14:22*	*10*

Client Sample ID: B-2 (5.8-7.0)
Lab Sample ID: 480-195076-33
Date Collected: 02/15/22 14:01
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 91.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	5100	U J	5100	990	mg/Kg	☼	02/22/22 08:21	02/23/22 20:28	20000
PCB-1221	5100	U J	5100	990	mg/Kg	☼	02/22/22 08:21	02/23/22 20:28	20000
PCB-1232	5100	U J	5100	990	mg/Kg	☼	02/22/22 08:21	02/23/22 20:28	20000
PCB-1242	**50000**	J	5100	990	mg/Kg	☼	02/22/22 08:21	02/23/22 20:28	20000
PCB-1248	5100	U J	5100	990	mg/Kg	☼	02/22/22 08:21	02/23/22 20:28	20000
PCB-1254	5100	U J	5100	2400	mg/Kg	☼	02/22/22 08:21	02/23/22 20:28	20000
PCB-1260	5100	U J	5100	2400	mg/Kg	☼	02/22/22 08:21	02/23/22 20:28	20000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*S1-*	*65 - 174*	*02/22/22 08:21*	*02/23/22 20:28*	*20000*
DCB Decachlorobiphenyl	*0*	*S1-*	*65 - 174*	*02/22/22 08:21*	*02/23/22 20:28*	*20000*
Tetrachloro-m-xylene	*0*	*S1-*	*60 - 154*	*02/22/22 08:21*	*02/23/22 20:28*	*20000*
Tetrachloro-m-xylene	*0*	*S1-*	*60 - 154*	*02/22/22 08:21*	*02/23/22 20:28*	*20000*

Client Sample ID: B-2 (1.3-1.8)
Lab Sample ID: 480-195076-34
Date Collected: 02/15/22 11:05
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 88.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	550	U	550	300	ug/Kg	☼	02/21/22 08:20	02/22/22 17:29	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*102*		*54 - 120*	*02/21/22 08:20*	*02/22/22 17:29*	*5*
2-Fluorobiphenyl (Surr)	*98*		*60 - 120*	*02/21/22 08:20*	*02/22/22 17:29*	*5*
2-Fluorophenol (Surr)	*75*		*52 - 120*	*02/21/22 08:20*	*02/22/22 17:29*	*5*
Nitrobenzene-d5 (Surr)	*90*		*53 - 120*	*02/21/22 08:20*	*02/22/22 17:29*	*5*
Phenol-d5 (Surr)	*88*		*54 - 120*	*02/21/22 08:20*	*02/22/22 17:29*	*5*
p-Terphenyl-d14 (Surr)	*105*		*79 - 130*	*02/21/22 08:20*	*02/22/22 17:29*	*5*

Client Sample ID: B-2 (1.3-1.8)
Lab Sample ID: 480-195076-34

Date Collected: 02/15/22 11:05
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 88.8

Method: 537 (Modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.23	U	0.23	0.021	ng/g	☼	02/22/22 21:30	02/25/22 04:21	1
Perfluoroheptanoic acid	0.23	U	0.23	0.027	ng/g	☼	02/22/22 21:30	02/25/22 04:21	1
Perfluorooctanoic acid	0.23	U	0.23	0.025	ng/g	☼	02/22/22 21:30	02/25/22 04:21	1
Perfluorononanoic acid	0.23	U	0.23	0.026	ng/g	☼	02/22/22 21:30	02/25/22 04:21	1
Perfluorodecanoic acid	0.23	U	0.23	0.027	ng/g	☼	02/22/22 21:30	02/25/22 04:21	1
Perfluorotridecanoic acid	0.23	U	0.23	0.024	ng/g	☼	02/22/22 21:30	02/25/22 04:21	1
Perfluorotetradecanoic acid	0.23	U	0.23	0.027	ng/g	☼	02/22/22 21:30	02/25/22 04:21	1
Perfluorobutanesulfonic acid	0.45	U	0.45	0.41	ng/g	☼	02/22/22 21:30	02/25/22 04:21	1
Perfluorohexanesulfonic acid	0.23	U	0.23	0.021	ng/g	☼	02/22/22 21:30	02/25/22 04:21	1
Perfluorooctanesulfonic acid	**0.056**	**J**	0.23	0.039	ng/g	☼	02/22/22 21:30	02/25/22 04:21	1
NEtFOSAA	0.23	U	0.23	0.025	ng/g	☼	02/22/22 21:30	02/25/22 04:21	1
NMeFOSAA	0.23	U	0.23	0.035	ng/g	☼	02/22/22 21:30	02/25/22 04:21	1
Perfluoroheptanesulfonic acid	0.23	U	0.23	0.023	ng/g	☼	02/22/22 21:30	02/25/22 04:21	1
Perfluorodecanesulfonic acid	0.23	U	0.23	0.024	ng/g	☼	02/22/22 21:30	02/25/22 04:21	1
Perfluorooctanesulfonamide	0.23	U	0.23	0.024	ng/g	☼	02/22/22 21:30	02/25/22 04:21	1
Perfluorobutanoic acid	0.23	U	0.23	0.027	ng/g	☼	02/22/22 21:30	02/25/22 04:21	1
Perfluoroundecanoic acid	0.23	U	0.23	0.063	ng/g	☼	02/22/22 21:30	02/25/22 04:21	1
Perfluorododecanoic acid	0.23	U	0.23	0.026	ng/g	☼	02/22/22 21:30	02/25/22 04:21	1
6:2 Fluorotelomer sulfonic acid	0.23	U	0.23	0.055	ng/g	☼	02/22/22 21:30	02/25/22 04:21	1
8:2 Fluorotelomer sulfonic acid	0.23	U	0.23	0.019	ng/g	☼	02/22/22 21:30	02/25/22 04:21	1
Perfluoropentanoic acid	0.23	U	0.23	0.027	ng/g	☼	02/22/22 21:30	02/25/22 04:21	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-8:2 FTS	*101*		*15 - 200*	*02/22/22 21:30*	*02/25/22 04:21*	*1*
M2-6:2 FTS	*99*		*10 - 200*	*02/22/22 21:30*	*02/25/22 04:21*	*1*
13C5 PFHxA	*83*		*10 - 174*	*02/22/22 21:30*	*02/25/22 04:21*	*1*
13C4 PFHpA	*82*		*10 - 178*	*02/22/22 21:30*	*02/25/22 04:21*	*1*
13C8 PFOA	*87*		*26 - 159*	*02/22/22 21:30*	*02/25/22 04:21*	*1*
13C9 PFNA	*83*		*26 - 165*	*02/22/22 21:30*	*02/25/22 04:21*	*1*
13C6 PFDA	*87*		*26 - 161*	*02/22/22 21:30*	*02/25/22 04:21*	*1*
13C7 PFUnA	*76*		*12 - 173*	*02/22/22 21:30*	*02/25/22 04:21*	*1*
13C2-PFDoDA	*80*		*11 - 166*	*02/22/22 21:30*	*02/25/22 04:21*	*1*
13C2 PFTeDA	*83*		*10 - 169*	*02/22/22 21:30*	*02/25/22 04:21*	*1*
13C3 PFBS	*91*		*27 - 179*	*02/22/22 21:30*	*02/25/22 04:21*	*1*
13C3 PFHxS	*93*		*24 - 171*	*02/22/22 21:30*	*02/25/22 04:21*	*1*
13C8 PFOS	*85*		*41 - 154*	*02/22/22 21:30*	*02/25/22 04:21*	*1*
d3-NMeFOSAA	*74*		*10 - 178*	*02/22/22 21:30*	*02/25/22 04:21*	*1*
d5-NEtFOSAA	*79*		*10 - 193*	*02/22/22 21:30*	*02/25/22 04:21*	*1*
13C8 FOSA	*63*		*14 - 163*	*02/22/22 21:30*	*02/25/22 04:21*	*1*
13C4 PFBA	*85*		*28 - 153*	*02/22/22 21:30*	*02/25/22 04:21*	*1*
13C5 PFPeA	*75*		*24 - 161*	*02/22/22 21:30*	*02/25/22 04:21*	*1*

Client Sample ID: B-16 (1.2-1.7)
Lab Sample ID: 480-195076-35

Date Collected: 02/16/22 09:40
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 87.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.22	U	0.22	0.043	mg/Kg	☼	02/22/22 08:21	02/23/22 10:32	1
PCB-1221	0.22	U	0.22	0.043	mg/Kg	☼	02/22/22 08:21	02/23/22 10:32	1
PCB-1232	0.22	U	0.22	0.043	mg/Kg	☼	02/22/22 08:21	02/23/22 10:32	1

Client Sample ID: B-16 (1.2-1.7)
Lab Sample ID: 480-195076-35
Date Collected: 02/16/22 09:40
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 87.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1242	**1.5**		0.22	0.043	mg/Kg	☼	02/22/22 08:21	02/23/22 10:32	1
PCB-1248	0.22	U	0.22	0.043	mg/Kg	☼	02/22/22 08:21	02/23/22 10:32	1
PCB-1254	0.22	U	0.22	0.10	mg/Kg	☼	02/22/22 08:21	02/23/22 10:32	1
PCB-1260	0.22	U	0.22	0.10	mg/Kg	☼	02/22/22 08:21	02/23/22 10:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*92*		*65 - 174*	*02/22/22 08:21*	*02/23/22 10:32*	*1*
DCB Decachlorobiphenyl	*165*		*65 - 174*	*02/22/22 08:21*	*02/23/22 10:32*	*1*
Tetrachloro-m-xylene	*90*		*60 - 154*	*02/22/22 08:21*	*02/23/22 10:32*	*1*
Tetrachloro-m-xylene	*105*		*60 - 154*	*02/22/22 08:21*	*02/23/22 10:32*	*1*

Client Sample ID: B-16 (3.7-5.7)
Lab Sample ID: 480-195076-37
Date Collected: 02/16/22 11:25
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 69.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.32	U	0.32	0.062	mg/Kg	☼	02/22/22 08:21	02/23/22 10:57	1
PCB-1221	0.32	U	0.32	0.062	mg/Kg	☼	02/22/22 08:21	02/23/22 10:57	1
PCB-1232	0.32	U	0.32	0.062	mg/Kg	☼	02/22/22 08:21	02/23/22 10:57	1
PCB-1242	**8.5**		0.32	0.062	mg/Kg	☼	02/22/22 08:21	02/23/22 10:57	1
PCB-1248	0.32	U	0.32	0.062	mg/Kg	☼	02/22/22 08:21	02/23/22 10:57	1
PCB-1254	0.32	U	0.32	0.15	mg/Kg	☼	02/22/22 08:21	02/23/22 10:57	1
PCB-1260	0.32	U	0.32	0.15	mg/Kg	☼	02/22/22 08:21	02/23/22 10:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*103*		*65 - 174*	*02/22/22 08:21*	*02/23/22 10:57*	*1*
DCB Decachlorobiphenyl	*142*		*65 - 174*	*02/22/22 08:21*	*02/23/22 10:57*	*1*
Tetrachloro-m-xylene	*97*		*60 - 154*	*02/22/22 08:21*	*02/23/22 10:57*	*1*
Tetrachloro-m-xylene	*113*		*60 - 154*	*02/22/22 08:21*	*02/23/22 10:57*	*1*

Client Sample ID: B-16 (1.7-3.7)
Lab Sample ID: 480-195076-39
Date Collected: 02/16/22 09:40
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 83.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	120	U	120	64	ug/Kg	☼	02/21/22 08:20	02/22/22 19:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*98*		*54 - 120*	*02/21/22 08:20*	*02/22/22 19:05*	*1*
2-Fluorobiphenyl (Surr)	*102*		*60 - 120*	*02/21/22 08:20*	*02/22/22 19:05*	*1*
2-Fluorophenol (Surr)	*82*		*52 - 120*	*02/21/22 08:20*	*02/22/22 19:05*	*1*
Nitrobenzene-d5 (Surr)	*88*		*53 - 120*	*02/21/22 08:20*	*02/22/22 19:05*	*1*
Phenol-d5 (Surr)	*87*		*54 - 120*	*02/21/22 08:20*	*02/22/22 19:05*	*1*
p-Terphenyl-d14 (Surr)	*106*		*79 - 130*	*02/21/22 08:20*	*02/22/22 19:05*	*1*

Method: 537 (Modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.24	U	0.24	0.023	ng/g	☼	02/22/22 21:30	02/25/22 04:54	1
Perfluoroheptanoic acid	0.24	U	0.24	0.028	ng/g	☼	02/22/22 21:30	02/25/22 04:54	1

Client Sample ID: B-16 (1.7-3.7)
Lab Sample ID: 480-195076-39
Date Collected: 02/16/22 09:40
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 83.9

Method: 537 (Modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid	0.24	U	0.24	0.026	ng/g	☼	02/22/22 21:30	02/25/22 04:54	1
Perfluorononanoic acid	0.24	U	0.24	0.027	ng/g	☼	02/22/22 21:30	02/25/22 04:54	1
Perfluorodecanoic acid	**0.038**	**J**	0.24	0.028	ng/g	☼	02/22/22 21:30	02/25/22 04:54	1
Perfluorotridecanoic acid	0.24	U	0.24	0.025	ng/g	☼	02/22/22 21:30	02/25/22 04:54	1
Perfluorotetradecanoic acid	**0.029**	**J**	0.24	0.028	ng/g	☼	02/22/22 21:30	02/25/22 04:54	1
Perfluorobutanesulfonic acid	0.47	U	0.47	0.43	ng/g	☼	02/22/22 21:30	02/25/22 04:54	1
Perfluorohexanesulfonic acid	0.24	U	0.24	0.023	ng/g	☼	02/22/22 21:30	02/25/22 04:54	1
Perfluorooctanesulfonic acid	**0.16**	**J**	0.24	0.042	ng/g	☼	02/22/22 21:30	02/25/22 04:54	1
NEtFOSAA	0.24	U	0.24	0.026	ng/g	☼	02/22/22 21:30	02/25/22 04:54	1
NMeFOSAA	0.24	U	0.24	0.037	ng/g	☼	02/22/22 21:30	02/25/22 04:54	1
Perfluoroheptanesulfonic acid	0.24	U	0.24	0.024	ng/g	☼	02/22/22 21:30	02/25/22 04:54	1
Perfluorodecanesulfonic acid	**0.13**	**J**	0.24	0.025	ng/g	☼	02/22/22 21:30	02/25/22 04:54	1
Perfluorooctanesulfonamide	0.24	U	0.24	0.025	ng/g	☼	02/22/22 21:30	02/25/22 04:54	1
Perfluorobutanoic acid	0.24	U	0.24	0.028	ng/g	☼	02/22/22 21:30	02/25/22 04:54	1
Perfluoroundecanoic acid	**0.067**	**J**	0.24	0.066	ng/g	☼	02/22/22 21:30	02/25/22 04:54	1
Perfluorododecanoic acid	**0.15**	**J**	0.24	0.027	ng/g	☼	02/22/22 21:30	02/25/22 04:54	1
6:2 Fluorotelomer sulfonic acid	0.24	U	0.24	0.058	ng/g	☼	02/22/22 21:30	02/25/22 04:54	1
8:2 Fluorotelomer sulfonic acid	0.24	U	0.24	0.020	ng/g	☼	02/22/22 21:30	02/25/22 04:54	1
Perfluoropentanoic acid	0.24	U	0.24	0.028	ng/g	☼	02/22/22 21:30	02/25/22 04:54	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-8:2 FTS	*100*		*15 - 200*	*02/22/22 21:30*	*02/25/22 04:54*	*1*
M2-6:2 FTS	*106*		*10 - 200*	*02/22/22 21:30*	*02/25/22 04:54*	*1*
13C5 PFHxA	*86*		*10 - 174*	*02/22/22 21:30*	*02/25/22 04:54*	*1*
13C4 PFHpA	*85*		*10 - 178*	*02/22/22 21:30*	*02/25/22 04:54*	*1*
13C8 PFOA	*89*		*26 - 159*	*02/22/22 21:30*	*02/25/22 04:54*	*1*
13C9 PFNA	*88*		*26 - 165*	*02/22/22 21:30*	*02/25/22 04:54*	*1*
13C6 PFDA	*90*		*26 - 161*	*02/22/22 21:30*	*02/25/22 04:54*	*1*
13C7 PFUnA	*87*		*12 - 173*	*02/22/22 21:30*	*02/25/22 04:54*	*1*
13C2-PFDoDA	*88*		*11 - 166*	*02/22/22 21:30*	*02/25/22 04:54*	*1*
13C2 PFTeDA	*89*		*10 - 169*	*02/22/22 21:30*	*02/25/22 04:54*	*1*
13C3 PFBS	*93*		*27 - 179*	*02/22/22 21:30*	*02/25/22 04:54*	*1*
13C3 PFHxS	*93*		*24 - 171*	*02/22/22 21:30*	*02/25/22 04:54*	*1*
13C8 PFOS	*90*		*41 - 154*	*02/22/22 21:30*	*02/25/22 04:54*	*1*
d3-NMeFOSAA	*62*		*10 - 178*	*02/22/22 21:30*	*02/25/22 04:54*	*1*
d5-NEtFOSAA	*67*		*10 - 193*	*02/22/22 21:30*	*02/25/22 04:54*	*1*
13C8 FOSA	*72*		*14 - 163*	*02/22/22 21:30*	*02/25/22 04:54*	*1*
13C4 PFBA	*87*		*28 - 153*	*02/22/22 21:30*	*02/25/22 04:54*	*1*
13C5 PFPeA	*79*		*24 - 161*	*02/22/22 21:30*	*02/25/22 04:54*	*1*

Client Sample ID: B-11 (1.2-1.7)
Lab Sample ID: 480-195076-40
Date Collected: 02/16/22 09:05
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 93.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.23	U	0.23	0.045	mg/Kg	☼	02/22/22 08:21	02/23/22 11:10	1
PCB-1221	0.23	U	0.23	0.045	mg/Kg	☼	02/22/22 08:21	02/23/22 11:10	1
PCB-1232	0.23	U	0.23	0.045	mg/Kg	☼	02/22/22 08:21	02/23/22 11:10	1
PCB-1242	**0.41**	J	0.23	0.045	mg/Kg	☼	02/22/22 08:21	02/23/22 11:10	1
PCB-1248	0.23	U	0.23	0.045	mg/Kg	☼	02/22/22 08:21	02/23/22 11:10	1

Client Sample ID: B-11 (1.2-1.7)
Lab Sample ID: 480-195076-40

Date Collected: 02/16/22 09:05
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 93.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1254	0.23	U	0.23	0.11	mg/Kg	☼	02/22/22 08:21	02/23/22 11:10	1
PCB-1260	0.23	U	0.23	0.11	mg/Kg	☼	02/22/22 08:21	02/23/22 11:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*93*		*65 - 174*	*02/22/22 08:21*	*02/23/22 11:10*	*1*
DCB Decachlorobiphenyl	*107*		*65 - 174*	*02/22/22 08:21*	*02/23/22 11:10*	*1*
Tetrachloro-m-xylene	*83*		*60 - 154*	*02/22/22 08:21*	*02/23/22 11:10*	*1*
Tetrachloro-m-xylene	*101*		*60 - 154*	*02/22/22 08:21*	*02/23/22 11:10*	*1*

Client Sample ID: B-11 (3.7-5.7)
Lab Sample ID: 480-195076-42

Date Collected: 02/16/22 11:40
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 77.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.23	U	0.23	0.045	mg/Kg	☼	02/22/22 08:21	02/23/22 11:23	1
PCB-1221	0.23	U	0.23	0.045	mg/Kg	☼	02/22/22 08:21	02/23/22 11:23	1
PCB-1232	0.23	U	0.23	0.045	mg/Kg	☼	02/22/22 08:21	02/23/22 11:23	1
PCB-1242	**0.50**		0.23	0.045	mg/Kg	☼	02/22/22 08:21	02/23/22 11:23	1
PCB-1248	0.23	U	0.23	0.045	mg/Kg	☼	02/22/22 08:21	02/23/22 11:23	1
PCB-1254	0.23	U	0.23	0.11	mg/Kg	☼	02/22/22 08:21	02/23/22 11:23	1
PCB-1260	0.23	U	0.23	0.11	mg/Kg	☼	02/22/22 08:21	02/23/22 11:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*93*		*65 - 174*	*02/22/22 08:21*	*02/23/22 11:23*	*1*
DCB Decachlorobiphenyl	*106*		*65 - 174*	*02/22/22 08:21*	*02/23/22 11:23*	*1*
Tetrachloro-m-xylene	*92*		*60 - 154*	*02/22/22 08:21*	*02/23/22 11:23*	*1*
Tetrachloro-m-xylene	*109*		*60 - 154*	*02/22/22 08:21*	*02/23/22 11:23*	*1*

Client Sample ID: FD-02162022
Lab Sample ID: 480-195076-44

Date Collected: 02/16/22 00:00
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 91.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.21	U	0.21	0.040	mg/Kg	☼	02/22/22 08:21	02/23/22 11:36	1
PCB-1221	0.21	U	0.21	0.040	mg/Kg	☼	02/22/22 08:21	02/23/22 11:36	1
PCB-1232	0.21	U	0.21	0.040	mg/Kg	☼	02/22/22 08:21	02/23/22 11:36	1
PCB-1242	0.21	U	0.21	0.040	mg/Kg	☼	02/22/22 08:21	02/23/22 11:36	1
PCB-1248	0.21	U	0.21	0.040	mg/Kg	☼	02/22/22 08:21	02/23/22 11:36	1
PCB-1254	0.21	U	0.21	0.097	mg/Kg	☼	02/22/22 08:21	02/23/22 11:36	1
PCB-1260	0.21	U	0.21	0.097	mg/Kg	☼	02/22/22 08:21	02/23/22 11:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*81*		*65 - 174*	*02/22/22 08:21*	*02/23/22 11:36*	*1*
DCB Decachlorobiphenyl	*92*		*65 - 174*	*02/22/22 08:21*	*02/23/22 11:36*	*1*
Tetrachloro-m-xylene	*76*		*60 - 154*	*02/22/22 08:21*	*02/23/22 11:36*	*1*
Tetrachloro-m-xylene	*87*		*60 - 154*	*02/22/22 08:21*	*02/23/22 11:36*	*1*

Client Sample ID: B-6 (1.0-1.5)
Lab Sample ID: 480-195076-45
Date Collected: 02/16/22 10:40
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 83.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.24	U	0.24	0.047	mg/Kg	☼	02/22/22 08:21	02/23/22 11:49	1
PCB-1221	0.24	U	0.24	0.047	mg/Kg	☼	02/22/22 08:21	02/23/22 11:49	1
PCB-1232	0.24	U	0.24	0.047	mg/Kg	☼	02/22/22 08:21	02/23/22 11:49	1
PCB-1242	**0.34**		0.24	0.047	mg/Kg	☼	02/22/22 08:21	02/23/22 11:49	1
PCB-1248	0.24	U	0.24	0.047	mg/Kg	☼	02/22/22 08:21	02/23/22 11:49	1
PCB-1254	0.24	U	0.24	0.11	mg/Kg	☼	02/22/22 08:21	02/23/22 11:49	1
PCB-1260	0.24	U	0.24	0.11	mg/Kg	☼	02/22/22 08:21	02/23/22 11:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*94*		*65 - 174*	*02/22/22 08:21*	*02/23/22 11:49*	*1*
DCB Decachlorobiphenyl	*111*		*65 - 174*	*02/22/22 08:21*	*02/23/22 11:49*	*1*
Tetrachloro-m-xylene	*88*		*60 - 154*	*02/22/22 08:21*	*02/23/22 11:49*	*1*
Tetrachloro-m-xylene	*103*		*60 - 154*	*02/22/22 08:21*	*02/23/22 11:49*	*1*

Client Sample ID: B-6 (1.5-3.5)
Lab Sample ID: 480-195076-46
Date Collected: 02/16/22 10:41
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 81.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.28	U	0.28	0.055	mg/Kg	☼	02/22/22 08:21	02/23/22 12:01	1
PCB-1221	0.28	U	0.28	0.055	mg/Kg	☼	02/22/22 08:21	02/23/22 12:01	1
PCB-1232	0.28	U	0.28	0.055	mg/Kg	☼	02/22/22 08:21	02/23/22 12:01	1
PCB-1242	**0.28**	J	0.28	0.055	mg/Kg	☼	02/22/22 08:21	02/23/22 12:01	1
PCB-1248	0.28	U	0.28	0.055	mg/Kg	☼	02/22/22 08:21	02/23/22 12:01	1
PCB-1254	0.28	U	0.28	0.13	mg/Kg	☼	02/22/22 08:21	02/23/22 12:01	1
PCB-1260	0.28	U	0.28	0.13	mg/Kg	☼	02/22/22 08:21	02/23/22 12:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*92*		*65 - 174*	*02/22/22 08:21*	*02/23/22 12:01*	*1*
DCB Decachlorobiphenyl	*102*		*65 - 174*	*02/22/22 08:21*	*02/23/22 12:01*	*1*
Tetrachloro-m-xylene	*87*		*60 - 154*	*02/22/22 08:21*	*02/23/22 12:01*	*1*
Tetrachloro-m-xylene	*104*		*60 - 154*	*02/22/22 08:21*	*02/23/22 12:01*	*1*

Client Sample ID: B-6 (1.0-1.5)
Lab Sample ID: 480-195076-48
Date Collected: 02/16/22 12:11
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 82.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	120	U	120	65	ug/Kg	☼	02/21/22 08:20	02/22/22 19:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*107*		*54 - 120*	*02/21/22 08:20*	*02/22/22 19:29*	*1*
2-Fluorobiphenyl (Surr)	*106*		*60 - 120*	*02/21/22 08:20*	*02/22/22 19:29*	*1*
2-Fluorophenol (Surr)	*89*		*52 - 120*	*02/21/22 08:20*	*02/22/22 19:29*	*1*
Nitrobenzene-d5 (Surr)	*93*		*53 - 120*	*02/21/22 08:20*	*02/22/22 19:29*	*1*
Phenol-d5 (Surr)	*92*		*54 - 120*	*02/21/22 08:20*	*02/22/22 19:29*	*1*
p-Terphenyl-d14 (Surr)	*115*		*79 - 130*	*02/21/22 08:20*	*02/22/22 19:29*	*1*

Client Sample ID: B-6 (1.0-1.5)
Lab Sample ID: 480-195076-48

Date Collected: 02/16/22 12:11
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 82.3

Method: 537 (Modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.24	U	0.24	0.023	ng/g	☼	02/22/22 21:30	02/25/22 05:05	1
Perfluoroheptanoic acid	0.24	U	0.24	0.029	ng/g	☼	02/22/22 21:30	02/25/22 05:05	1
Perfluorooctanoic acid	**0.033**	**J**	0.24	0.027	ng/g	☼	02/22/22 21:30	02/25/22 05:05	1
Perfluorononanoic acid	0.24	U	0.24	0.028	ng/g	☼	02/22/22 21:30	02/25/22 05:05	1
Perfluorodecanoic acid	0.24	U	0.24	0.029	ng/g	☼	02/22/22 21:30	02/25/22 05:05	1
Perfluorotridecanoic acid	0.24	U	0.24	0.026	ng/g	☼	02/22/22 21:30	02/25/22 05:05	1
Perfluorotetradecanoic acid	0.24	U	0.24	0.029	ng/g	☼	02/22/22 21:30	02/25/22 05:05	1
Perfluorobutanesulfonic acid	0.49	U	0.49	0.44	ng/g	☼	02/22/22 21:30	02/25/22 05:05	1
Perfluorohexanesulfonic acid	0.24	U	0.24	0.023	ng/g	☼	02/22/22 21:30	02/25/22 05:05	1
Perfluorooctanesulfonic acid	0.24	U	0.24	0.043	ng/g	☼	02/22/22 21:30	02/25/22 05:05	1
NEtFOSAA	0.24	U	0.24	0.027	ng/g	☼	02/22/22 21:30	02/25/22 05:05	1
NMeFOSAA	0.24	U	0.24	0.038	ng/g	☼	02/22/22 21:30	02/25/22 05:05	1
Perfluoroheptanesulfonic acid	0.24	U	0.24	0.024	ng/g	☼	02/22/22 21:30	02/25/22 05:05	1
Perfluorodecanesulfonic acid	0.24	U	0.24	0.026	ng/g	☼	02/22/22 21:30	02/25/22 05:05	1
Perfluorooctanesulfonamide	0.24	U	0.24	0.026	ng/g	☼	02/22/22 21:30	02/25/22 05:05	1
Perfluorobutanoic acid	0.24	U	0.24	0.029	ng/g	☼	02/22/22 21:30	02/25/22 05:05	1
Perfluoroundecanoic acid	0.24	U	0.24	0.068	ng/g	☼	02/22/22 21:30	02/25/22 05:05	1
Perfluorododecanoic acid	0.24	U	0.24	0.028	ng/g	☼	02/22/22 21:30	02/25/22 05:05	1
6:2 Fluorotelomer sulfonic acid	0.24	U	0.24	0.060	ng/g	☼	02/22/22 21:30	02/25/22 05:05	1
8:2 Fluorotelomer sulfonic acid	0.24	U	0.24	0.021	ng/g	☼	02/22/22 21:30	02/25/22 05:05	1
Perfluoropentanoic acid	0.24	U	0.24	0.029	ng/g	☼	02/22/22 21:30	02/25/22 05:05	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-8:2 FTS	*82*		*15 - 200*	*02/22/22 21:30*	*02/25/22 05:05*	*1*
M2-6:2 FTS	*80*		*10 - 200*	*02/22/22 21:30*	*02/25/22 05:05*	*1*
13C5 PFHxA	*73*		*10 - 174*	*02/22/22 21:30*	*02/25/22 05:05*	*1*
13C4 PFHpA	*75*		*10 - 178*	*02/22/22 21:30*	*02/25/22 05:05*	*1*
13C8 PFOA	*78*		*26 - 159*	*02/22/22 21:30*	*02/25/22 05:05*	*1*
13C9 PFNA	*82*		*26 - 165*	*02/22/22 21:30*	*02/25/22 05:05*	*1*
13C6 PFDA	*80*		*26 - 161*	*02/22/22 21:30*	*02/25/22 05:05*	*1*
13C7 PFUnA	*74*		*12 - 173*	*02/22/22 21:30*	*02/25/22 05:05*	*1*
13C2-PFDoDA	*79*		*11 - 166*	*02/22/22 21:30*	*02/25/22 05:05*	*1*
13C2 PFTeDA	*82*		*10 - 169*	*02/22/22 21:30*	*02/25/22 05:05*	*1*
13C3 PFBS	*80*		*27 - 179*	*02/22/22 21:30*	*02/25/22 05:05*	*1*
13C3 PFHxS	*80*		*24 - 171*	*02/22/22 21:30*	*02/25/22 05:05*	*1*
13C8 PFOS	*81*		*41 - 154*	*02/22/22 21:30*	*02/25/22 05:05*	*1*
d3-NMeFOSAA	*64*		*10 - 178*	*02/22/22 21:30*	*02/25/22 05:05*	*1*
d5-NEtFOSAA	*70*		*10 - 193*	*02/22/22 21:30*	*02/25/22 05:05*	*1*
13C8 FOSA	*43*		*14 - 163*	*02/22/22 21:30*	*02/25/22 05:05*	*1*
13C4 PFBA	*77*		*28 - 153*	*02/22/22 21:30*	*02/25/22 05:05*	*1*
13C5 PFPeA	*74*		*24 - 161*	*02/22/22 21:30*	*02/25/22 05:05*	*1*

Client Sample ID: B-1(1.2-1.7)
Lab Sample ID: 480-195076-50

Date Collected: 02/16/22 13:05
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 85.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.20	U	0.20	0.040	mg/Kg	☼	02/22/22 08:21	02/23/22 12:14	1
PCB-1221	0.20	U	0.20	0.040	mg/Kg	☼	02/22/22 08:21	02/23/22 12:14	1
PCB-1232	0.20	U	0.20	0.040	mg/Kg	☼	02/22/22 08:21	02/23/22 12:14	1

Client Sample ID: B-1(1.2-1.7)
Lab Sample ID: 480-195076-50

Date Collected: 02/16/22 13:05
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 85.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1242	0.20	U	0.20	0.040	mg/Kg	☼	02/22/22 08:21	02/23/22 12:14	1
PCB-1248	**4.7**		0.20	0.040	mg/Kg	☼	02/22/22 08:21	02/23/22 12:14	1
PCB-1254	0.20	U	0.20	0.095	mg/Kg	☼	02/22/22 08:21	02/23/22 12:14	1
PCB-1260	0.20	U	0.20	0.095	mg/Kg	☼	02/22/22 08:21	02/23/22 12:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*101*		*65 - 174*	*02/22/22 08:21*	*02/23/22 12:14*	*1*
DCB Decachlorobiphenyl	*112*		*65 - 174*	*02/22/22 08:21*	*02/23/22 12:14*	*1*
Tetrachloro-m-xylene	*93*		*60 - 154*	*02/22/22 08:21*	*02/23/22 12:14*	*1*
Tetrachloro-m-xylene	*108*		*60 - 154*	*02/22/22 08:21*	*02/23/22 12:14*	*1*

Client Sample ID: B-1(1.7-3.7)
Lab Sample ID: 480-195076-51

Date Collected: 02/16/22 13:06
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 90.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.20	U	0.20	0.039	mg/Kg	☼	02/22/22 08:21	02/23/22 08:36	1
PCB-1221	0.20	U	0.20	0.039	mg/Kg	☼	02/22/22 08:21	02/23/22 08:36	1
PCB-1232	0.20	U	0.20	0.039	mg/Kg	☼	02/22/22 08:21	02/23/22 08:36	1
PCB-1242	0.20	U	0.20	0.039	mg/Kg	☼	02/22/22 08:21	02/23/22 08:36	1
PCB-1248	**0.24**		0.20	0.039	mg/Kg	☼	02/22/22 08:21	02/23/22 08:36	1
PCB-1254	0.20	U	0.20	0.093	mg/Kg	☼	02/22/22 08:21	02/23/22 08:36	1
PCB-1260	0.20	U	0.20	0.093	mg/Kg	☼	02/22/22 08:21	02/23/22 08:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*96*		*65 - 174*	*02/22/22 08:21*	*02/23/22 08:36*	*1*
DCB Decachlorobiphenyl	*123*		*65 - 174*	*02/22/22 08:21*	*02/23/22 08:36*	*1*
Tetrachloro-m-xylene	*90*		*60 - 154*	*02/22/22 08:21*	*02/23/22 08:36*	*1*
Tetrachloro-m-xylene	*111*		*60 - 154*	*02/22/22 08:21*	*02/23/22 08:36*	*1*

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample ID: B-2 (1.8-3.8)
Lab Sample ID: 480-195076-31

Date Collected: 02/15/22 11:06
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 86.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	2.8	U	2.8	0.56	mg/Kg	☼	03/03/22 09:15	03/06/22 21:43	10
PCB-1221	2.8	U	2.8	0.56	mg/Kg	☼	03/03/22 09:15	03/06/22 21:43	10
PCB-1232	2.8	U	2.8	0.56	mg/Kg	☼	03/03/22 09:15	03/06/22 21:43	10
PCB-1242	2.8	U	2.8	0.56	mg/Kg	☼	03/03/22 09:15	03/06/22 21:43	10
PCB-1248	**15**		2.8	0.56	mg/Kg	☼	03/03/22 09:15	03/06/22 21:43	10
PCB-1254	2.8	U	2.8	1.3	mg/Kg	☼	03/03/22 09:15	03/06/22 21:43	10
PCB-1260	2.8	U	2.8	1.3	mg/Kg	☼	03/03/22 09:15	03/06/22 21:43	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*103*		*65 - 174*	*03/03/22 09:15*	*03/06/22 21:43*	*10*
DCB Decachlorobiphenyl	*127*		*65 - 174*	*03/03/22 09:15*	*03/06/22 21:43*	*10*
Tetrachloro-m-xylene	*121*		*60 - 154*	*03/03/22 09:15*	*03/06/22 21:43*	*10*
Tetrachloro-m-xylene	*123*		*60 - 154*	*03/03/22 09:15*	*03/06/22 21:43*	*10*

Client Sample ID: B-2 (3.8-5.8)
Lab Sample ID: 480-195076-32

Date Collected: 02/15/22 14:00
Matrix: Solid
Date Received: 02/16/22 16:40
Percent Solids: 85.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.53	U	0.53	0.10	mg/Kg	☼	03/03/22 09:15	03/06/22 21:57	2
PCB-1221	0.53	U	0.53	0.10	mg/Kg	☼	03/03/22 09:15	03/06/22 21:57	2
PCB-1232	0.53	U	0.53	0.10	mg/Kg	☼	03/03/22 09:15	03/06/22 21:57	2
PCB-1242	0.53	U	0.53	0.10	mg/Kg	☼	03/03/22 09:15	03/06/22 21:57	2
PCB-1248	**1.6**		0.53	0.10	mg/Kg	☼	03/03/22 09:15	03/06/22 21:57	2
PCB-1254	0.53	U	0.53	0.25	mg/Kg	☼	03/03/22 09:15	03/06/22 21:57	2
PCB-1260	0.53	U	0.53	0.25	mg/Kg	☼	03/03/22 09:15	03/06/22 21:57	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*65*		*65 - 174*	*03/03/22 09:15*	*03/06/22 21:57*	*2*
DCB Decachlorobiphenyl	*71*		*65 - 174*	*03/03/22 09:15*	*03/06/22 21:57*	*2*
Tetrachloro-m-xylene	*83*		*60 - 154*	*03/03/22 09:15*	*03/06/22 21:57*	*2*
Tetrachloro-m-xylene	*85*		*60 - 154*	*03/03/22 09:15*	*03/06/22 21:57*	*2*

National Grid

Dewey Avenue

Data Review Report

Buffalo, New York

Polychlorinated Biphenlys (PCBs) Analyses

SDG # J204973

Analyses Performed By:

SGS Laboratories, Inc.
Dayton, New Jersey

Report #48974R
Review Level: Tier II
Project: 30094243 Task 04

Summary

This Data Review Report summarizes the review of Sample Delivery Group (SDG) # J204973 for samples collected in association with the National Grid Dewey/kensington Avenue site in Buffalo, New York. The review was conducted as a Tier II evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis					
					VOC	SVOC	PCB	PEST	MET	MISC
B-27 (0.75-1.25)	480-204973-1	Solid	12/19/22				X			
B-27 (2.75-4.75	480-204973-3	Solid	12/19/22				X			
B-31 (1.0-1.5)	480-204973-4	Solid	12/20/22				X			
B-31 (5.0-7.0)	480-204973-7	Solid	12/20/22				X			
B-26 (1.0-1.5)	480-204973-9	Solid	12/20/22				X			
B-26 (3.0-4.2)	480-204973-11	Solid	12/20/22				X			
FD-12202022	480-204973-12	Solid	12/20/22				X			
B-29 (0.7-1.2)	480-204973-13	Solid	12/20/22				X			
B-29 (4.7-5.9)	480-204973-16	Solid	12/20/22				X			
B-30 (1.0-1.5)	480-204973-17	Solid	12/20/22				X			
B-30 (5.0-7.0)	480-204973-20	Solid	12/20/22				X			
B-28 (1.0-1.5)	480-204973-21	Solid	12/20/22				X			
B-28 (3.0-5.0)	480-204973-23	Solid	12/20/22				X			
B-28 (5.0-5.9)	480-204973-24	Solid	12/20/22				X			
B-25 (1.0-1.5)	480-204973-25	Solid	12/19/22				X			
B-25 (3.0-4.2)	480-204973-27	Solid	12/19/22				X			
B-24 (1.2-1.7)	480-204973-28	Solid	12/19/22				X			
B-24 (3.2-5.0)	480-204973-30	Solid	12/19/22				X			
FD-12212022	480-204973-31	Solid	12/19/22				X			

Note: This data review only included PCB analysis

Analytical Data Package Documentation

The table below evaluates the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limitss		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed chain-of-custody form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data package completeness and compliance		X		X	

Note:
QA = quality assurance

Organic Analysis Introduction

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 8082A. Data were reviewed in accordance with USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review, EPA-540-R-20-005 (November 2020), and the USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Organic Data Review, EPA540/R-99/008, October 1999 (as applicable).

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
  - U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
  - B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- Quantitation (Q) Qualifiers
  - E The compound was quantitated above the calibration range.
  - D Concentration is based on a diluted sample analysis.
- Validation Qualifiers
  - J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
  - UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
  - JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
  - UB Compound is considered non-detect at the listed value due to associated blank contamination.
  - N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
  - R The sample results are rejected.

The "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second

fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Polychlorinated Biphenyls (PCBs) Analysis

1. Holding Times

The specified holding times for the following methods are presented in the table below.

Method	Matrix	Holding Time	Preservation
SW-846 8082	Water	One year from collection to analysis	Cool to <6 °C

Note:
s.u. = standard units

All samples were analyzed within the specified holding time criterion.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

3. System Performance

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

A maximum RSD of 20% is allowed or a correlation coefficient greater than 0.99. Multiple-point calibrations were performed for Aroclor 1016 and 1260 only. Single-point calibrations were performed for the remaining Aroclors.

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%).

All Aroclors associated with calibrations were within the specified control limits.

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. PCB analysis requires that one of the two PCB surrogate compounds exhibit recoveries within the laboratory-established acceptance limits.

Sample locations associated with surrogates exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Surrogate	Recovery
B-28 (1.0-1.5) B-28 (5.0-5.9) B-24 (3.2-5.0) FD-12212022	Tetrachloro-m-xylene	D
	Decachlorobiphenyl	D
B-27 (2.75-4.75)	Tetrachloro-m-xylene	> UL
	Decachlorobiphenyl	AC
B-25 (1.0-1.5)	Tetrachloro-m-xylene	AC
	Decachlorobiphenyl	<LL but >10%
B-30 (1.0-1.5)	Tetrachloro-m-xylene	<LL but >10%
	Decachlorobiphenyl	<LL but >10%

Note:
AC = acceptable
D = diluted

The criteria used to evaluate the surrogate recoveries are presented in the following table. In the case of a surrogate deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
One surrogate exhibiting recovery outside the control limits but > 10%	Non-detect	No Action

Control Limit	Sample Result	Qualification
	Detect	
Surrogates diluted below the calibration curve due to the high concentration of a target compound.	Non-detect	UJ/J[1]
	Detect	

Note:

[1] A more concentrated analysis was not performed with surrogate compounds within the calibration range; therefore, no determination of extraction efficiency could be made.

6. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

The MS/MSD exhibited recoveries and RPDs within the control limits.

7. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

8. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 50% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of three times the RL is applied for soil.

Results for duplicate samples are summarized in the following table.

Sample ID/ Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
B-24 (3.2-5.0) / FD-12212022	PCB-1242	600	300	66.7

The compound PCB-1242 associated with sample locations B-24 (3.2-5.0) and FD-12212022 exhibited a field duplicate RPD greater than the control limit. The associated sample results from sample locations for the listed analyte were qualified as estimated.

9. Compound Identification

Compounds are identified on the GC by using the analytes relative retention time.

The retention times of all quantitated peaks must fall within the calculated retention time windows for both the primary and confirmation columns. When dual column analysis is performed the percent difference (%D) of detected sample results must be less than 25%.

Sample locations associated with %D analysis exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Compound	%D
B-27 (0.75-1.25) -1	PCB-1260	28.5
B-31 (5.0-7.0) -7	PCB-1242	61.1
FD-12202022 -12	PCB-1242	58.1

The criteria used to evaluate the %D are presented in the following table. In the case of a %D deviation, the sample results are qualified as documented in the table below.

Control Limit (%D)	Qualification
>25% to 70%	J
>70% to 100%	JN
>100% [1]	R
>100% to 200% (Interference detected)[2]	J or JN
>50% (pesticide) sample results less than the RL)	U

When the PCB sample results are less than the RL and the RPD greater than 50% the sample result are raised to the RL and reported as non-detect.

Note 1: If the pattern is confirmed sample results will be qualified as estimated (J). If pattern exhibits interference or if the PCB cannot be positively determined due to weathering the sample results will be qualified as tentative identification estimate (JN).

Note 2: If interference is detected in either column the sample results will be qualified as tentative identification estimate (JN).

10. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

Data Validation Checklist for Organochlorine PCBs

PCBs; SW-846 8082	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY (GC/ECD)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks	X				X
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate (LCSD) %R	X				X
LCS/LCSD Precision (RPD)	X				X
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate (MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X	X		
Surrogate Spike Recoveries		X	X		
Column (RPD)		X	X		
Dilution Factor		X		X	
Moisture Content	X				X
Tier III Validation					
Initial calibration %RSDs		X		X	
Continuing calibration %Ds		X		X	
System performance and column resolution		X		X	
Compound identification and quantitation					
A. Quantitation Reports		X		X	
B. RT of sample compounds within the established RT windows		X		X	
C. Pattern identification		X		X	
D. Transcription/calculation errors present		X		X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD – relative standard deviation, %R - percent recovery, RPD - relative percent difference,

PCBs; SW-846 8082	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY (GC/ECD)					
%D – difference					

SAMPLE COMPLIANCE REPORT

SAMPLE COMPLIANCE REPORT

Sample Delivery Group (SDG)	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB	MET	MISC	
480-204973-1	12/19/22	SW-846	B-27 (0.75-1.25)	Solids	--	--	No	--	--	
	12/19/22	SW-846	B-27 (2.75-4.75	Solids	--	--	No	--	--	
	12/20/22	SW-846	B-31 (1.0-1.5)	Solids	--	--	No	--	--	
	12/20/22	SW-846	B-31 (5.0-7.0)	Solids	--	--	Yes	--	--	PCB – Column percent difference
	12/20/22	SW-846	B-26 (1.0-1.5)	Solids	--	--	No	--	--	
	12/20/22	SW-846	B-26 (3.0-4.2)	Solids	--	--	No	--	--	
	12/20/22	SW-846	FD-12202022	Solids	--	--	Yes	--	--	PCB – Column percent difference
	12/20/22	SW-846	B-29 (0.7-1.2)	Solids	--	--	No	--	--	
	12/20/22	SW-846	B-29 (4.7-5.9)	Solids	--	--	No	--	--	
	12/20/22	SW-846	B-30 (1.0-1.5)	Solids	--	--	Yes	--	--	PCB – surrogate diluted out
	12/20/22	SW-846	B-30 (5.0-7.0)	Solids	--	--	No	--	--	
	12/20/22	SW-846	B-28 (1.0-1.5)	Solids	--	--	No	--	--	
	12/20/22	SW-846	B-28 (3.0-5.0)	Solids	--	--	Yes	--	--	PCB – surrogate diluted out
	12/20/22	SW-846	B-28 (5.0-5.9)	Solids	--	--	No	--	--	
	12/19/22	SW-846	B-25 (1.0-1.5)	Solids	--	--	Yes	--	--	PCB – surrogate diluted out
	12/19/22	SW-846	B-25 (3.0-4.2)	Solids	--	--	No	--	--	
	12/19/22	SW-846	B-24 (1.2-1.7)	Solids	--	--	No	--	--	
	12/19/22	SW-846	B-24 (3.2-5.0)	Solids	--	--	Yes	--	--	PCB – surrogate diluted out, Field duplicate RPD
	12/19/22	SW-846	FD-12212022	Solids	--	--	Yes	--	--	PCB – surrogate diluted out, Field duplicate RPD

Note:

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as
2 "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

VALIDATION PERFORMED BY: Todd Church

SIGNATURE: 

DATE: March 20, 2023

PEER REVIEW: Dennis Capria

DATE: March 23, 2023

Chain of Custody Corrected Sample Analysis Data Sheets

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: Joshua Miller	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-180040-38491.1
Client Contact: Mr. Michael Jones	Phone: (315) 486-1419	E-Mail: John.Schove@et.eurofinsus.com	State of Origin: NY	Page: Page 1 of 3
Company: ARCADIS U.S. Inc	PWSID:			Job #:
Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:			
City: Syracuse	TAT Requested (days): STANDARD			
State, Zip: NY, 13202	Compliance Project: Δ Yes Δ No			
Phone: 315-671-9211(Tel)	PO #: Purchase Order Requested			
Email: michael.jones@arcadis.com	WO #:			
Project Name: National Grid - Dewey Avenue Site	Project #: 48024791			
Site: National Grid - Dewey Avenue Site	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

480-204973 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - TCL PCBs	8082A - TCL PCBs * ARCHIVE	Total Numb	Special Instructions/Note:
			Preservation Code:				N			
B-27 (0.75 - 1.25)	12/19/22	1300	C	Solid			X			
B-27 (1.25 - 2.75)	12/19/22	1330	C	Solid				X		ARCHIVE
B-27 (2.75 - 4.75)	12/19/22	1400	C	Solid			X			
B-31 (1.0 - 1.5)	12/20/22	0820	C	Solid			X			
B-31 (1.5 - 3.0)		0905	C	Solid				X		ARCHIVE
B-31 (3.0 - 5.0)		1430	C	Solid				X		ARCHIVE
B-31 (5.0 - 7.0)		1434	C	Solid	X		X			* MS/MSD *
B-31 (7.0 - 7.5)		1435	C	Solid				X		ARCHIVE
B-26 (1.0 - 1.5)		1100	C	Solid			X			
B-26 (1.5 - 3.0)		1140	C	Solid				X		ARCHIVE
B-26 (3.0 - 4.2)		1240	C	Solid			X			

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	12/21/22 11:19	ARCADIS			
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by: [signature]	Date/Time: 12-21-22 1120	Company TMB

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.5 #1 ICE

Ver: 06/08/2021

10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins Environment Testing

Client Information	Sampler: Joshua Miller	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-180040-38491.2
Client Contact: Mr. Michael Jones	Phone: (315) 456-1419	E-Mail: John.Schove@et.eurofinsus.com	State of Origin: NY	Page: Page 2 of 3
Company: ARCADIS U.S. Inc	PWSID:			Job #:
Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:			
City: Syracuse	TAT Requested (days): STANDARD			
State, Zip: NY, 13202	Compliance Project: Δ Yes Δ No			
Phone: 315-671-9211(Tel)	PO #: Purchase Order Requested			
Email: michael.jones@arcadis.com	WO #:			
Project Name: National Grid - Dewey Avenue Site	Project #: 48024791			
Site: National Grid - Dewey Avenue Site	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - TCL PCBs	8082A-TCL PCBs *ARCHIVE	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N			
FD-12202022	12/20/22	—	C	Solid			X			
B-29 (0.7-1.2)		0740	C	Solid			X			
B-29 (1.2-2.7)		1035	C	Solid				X		ARCHIVE
B-29 (2.7-4.7)		1340	C	Solid				X		ARCHIVE
B-29 (4.7-5.7)		1350	C	Solid			X			
B-30 (1.0-1.5)		1330	C	Solid			X			
B-30 (1.5-3.0)		1400	C	Solid				X		ARCHIVE
B-30 (3.0-5.0)		1415	C	Solid				X		ARCHIVE
B-30 (5.0-7.0)		1420	C	Solid			X			
B-23 (1.0-1.5)		1450	C	Solid			X			
B-23 (1.5-3.0)		1500	C	Solid				X		ARCHIVE

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	[signature]	12/21/22 11:19	ARCADIS			
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by: [signature]	Date/Time: 12-21-22 1170	Company TAS

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing

Client Information

Client Contact: Mr. Michael Jones	Sampler: Joshua Miller	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-180040-38491.3
Company: ARCADIS U.S. Inc	Phone: (315) 480-1419	E-Mail: John.Schove@et.eurofinsus.com	State of Origin: NY	Page: Page 3 of 3
Address: One Lincoln Center 110 West Fayette St, Suite 300	PWSID:			Job #:
City: Syracuse	Due Date Requested:			
State, Zip: NY, 13202	TAT Requested (days): STANDARD			
Phone: 315-671-9211(Tel)	Compliance Project: Δ Yes Δ No			
Email: michael.jones@arcadis.com	PO #: Purchase Order Requested			
Project Name: National Grid - Dewey Avenue Site	WO #:			
Site: National Grid - Dewey Avenue Site	Project #: 48024791			
	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - TCL PCBs	X8082A - TCL PCBs * ARCHIVE *	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N			
B-28 (3.0-5.0)	12/20/22	1530	C	Solid				X		
B-28 (5.0-5.9)	12/20/22	1535	C	Solid			X			
B-25 (1.0-1.5)	12/21/22	0815	C	Solid			X			
B-25 (1.5-3.0)		0820	C	Solid				X		ARCHIVE
B-25 (3.0-4.2)		0825	C	Solid		X	X			* MS/MSD *
B-24 (1.2-1.7)		0840	C	Solid			X			
B-24 (1.7-3.2)		0845	C	Solid				X		ARCHIVE
B-24 (3.2-5.0)		0915	C	Solid			X			
FD-12212022		-	C	Solid			X			
				Solid						
				Solid						

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 12/21/22 11:19	Company ARCADIS	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 12-21-22 1120	Company TAL

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample ID: B-27 (0.75-1.25)
Lab Sample ID: 480-204973-1

Date Collected: 12/19/22 13:00
Matrix: Solid
Date Received: 12/21/22 11:20
Percent Solids: 87.9

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	2.7	U	2.7	0.52	mg/Kg	☼	12/22/22 09:05	12/29/22 18:49	10
PCB-1221	2.7	U	2.7	0.52	mg/Kg	☼	12/22/22 09:05	12/29/22 18:49	10
PCB-1232	2.7	U	2.7	0.52	mg/Kg	☼	12/22/22 09:05	12/29/22 18:49	10
PCB-1242	**27**		2.7	0.52	mg/Kg	☼	12/22/22 09:05	12/29/22 18:49	10
PCB-1248	2.7	U	2.7	0.52	mg/Kg	☼	12/22/22 09:05	12/29/22 18:49	10
PCB-1254	2.7	U	2.7	1.3	mg/Kg	☼	12/22/22 09:05	12/29/22 18:49	10
PCB-1260	**2.4**	**J**	2.7	1.3	mg/Kg	☼	12/22/22 09:05	12/29/22 18:49	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*90*		*65 - 174*	*12/22/22 09:05*	*12/29/22 18:49*	*10*
DCB Decachlorobiphenyl	*67*		*65 - 174*	*12/22/22 09:05*	*12/29/22 18:49*	*10*
Tetrachloro-m-xylene	*88*		*60 - 154*	*12/22/22 09:05*	*12/29/22 18:49*	*10*
Tetrachloro-m-xylene	*83*		*60 - 154*	*12/22/22 09:05*	*12/29/22 18:49*	*10*

Client Sample ID: B-27 (2.75-4.75)
Lab Sample ID: 480-204973-3

Date Collected: 12/19/22 14:00
Matrix: Solid
Date Received: 12/21/22 11:20
Percent Solids: 87.0

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.23	U	0.23	0.045	mg/Kg	☼	12/22/22 09:05	12/27/22 19:58	1
PCB-1221	0.23	U	0.23	0.045	mg/Kg	☼	12/22/22 09:05	12/27/22 19:58	1
PCB-1232	0.23	U	0.23	0.045	mg/Kg	☼	12/22/22 09:05	12/27/22 19:58	1
PCB-1242	0.23	U	0.23	0.045	mg/Kg	☼	12/22/22 09:05	12/27/22 19:58	1
PCB-1248	0.23	U	0.23	0.045	mg/Kg	☼	12/22/22 09:05	12/27/22 19:58	1
PCB-1254	0.23	U	0.23	0.11	mg/Kg	☼	12/22/22 09:05	12/27/22 19:58	1
PCB-1260	0.23	U	0.23	0.11	mg/Kg	☼	12/22/22 09:05	12/27/22 19:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*65*		*65 - 174*	*12/22/22 09:05*	*12/27/22 19:58*	*1*
DCB Decachlorobiphenyl	*67*		*65 - 174*	*12/22/22 09:05*	*12/27/22 19:58*	*1*
Tetrachloro-m-xylene	*45*	*S1-*	*60 - 154*	*12/22/22 09:05*	*12/27/22 19:58*	*1*
Tetrachloro-m-xylene	*71*		*60 - 154*	*12/22/22 09:05*	*12/27/22 19:58*	*1*

Client Sample ID: B-31 (1.0-1.5)
Lab Sample ID: 480-204973-4

Date Collected: 12/20/22 08:20
Matrix: Solid
Date Received: 12/21/22 11:20
Percent Solids: 87.1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	2.5	U	2.5	0.48	mg/Kg	☼	12/22/22 09:05	12/29/22 19:03	10
PCB-1221	2.5	U	2.5	0.48	mg/Kg	☼	12/22/22 09:05	12/29/22 19:03	10
PCB-1232	2.5	U	2.5	0.48	mg/Kg	☼	12/22/22 09:05	12/29/22 19:03	10
PCB-1242	**18**		2.5	0.48	mg/Kg	☼	12/22/22 09:05	12/29/22 19:03	10
PCB-1248	2.5	U	2.5	0.48	mg/Kg	☼	12/22/22 09:05	12/29/22 19:03	10
PCB-1254	2.5	U	2.5	1.2	mg/Kg	☼	12/22/22 09:05	12/29/22 19:03	10
PCB-1260	**1.4**	**J**	2.5	1.2	mg/Kg	☼	12/22/22 09:05	12/29/22 19:03	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*98*		*65 - 174*	*12/22/22 09:05*	*12/29/22 19:03*	*10*
DCB Decachlorobiphenyl	*76*		*65 - 174*	*12/22/22 09:05*	*12/29/22 19:03*	*10*

Client Sample ID: B-31 (1.0-1.5)
Lab Sample ID: 480-204973-4

Date Collected: 12/20/22 08:20
Matrix: Solid
Date Received: 12/21/22 11:20
Percent Solids: 87.1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	*92*		*60 - 154*	*12/22/22 09:05*	*12/29/22 19:03*	*10*
Tetrachloro-m-xylene	*93*		*60 - 154*	*12/22/22 09:05*	*12/29/22 19:03*	*10*

Client Sample ID: B-31 (5.0-7.0)
Lab Sample ID: 480-204973-7

Date Collected: 12/20/22 14:34
Matrix: Solid
Date Received: 12/21/22 11:20
Percent Solids: 81.2

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.26	U	0.26	0.051	mg/Kg	☼	12/22/22 09:05	12/27/22 19:18	1
PCB-1221	0.26	U	0.26	0.051	mg/Kg	☼	12/22/22 09:05	12/27/22 19:18	1
PCB-1232	0.26	U	0.26	0.051	mg/Kg	☼	12/22/22 09:05	12/27/22 19:18	1
PCB-1242	0.26 ~~0.077~~	~~J~~ U	0.26	0.051	mg/Kg	☼	12/22/22 09:05	12/27/22 19:18	1
PCB-1248	0.26	U	0.26	0.051	mg/Kg	☼	12/22/22 09:05	12/27/22 19:18	1
PCB-1254	0.26	U	0.26	0.12	mg/Kg	☼	12/22/22 09:05	12/27/22 19:18	1
PCB-1260	0.26	U	0.26	0.12	mg/Kg	☼	12/22/22 09:05	12/27/22 19:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	*102*		*65 - 174*	*12/22/22 09:05*	*12/27/22 19:18*	*1*
DCB Decachlorobiphenyl	*104*		*65 - 174*	*12/22/22 09:05*	*12/27/22 19:18*	*1*
Tetrachloro-m-xylene	*101*		*60 - 154*	*12/22/22 09:05*	*12/27/22 19:18*	*1*
Tetrachloro-m-xylene	*105*		*60 - 154*	*12/22/22 09:05*	*12/27/22 19:18*	*1*

Client Sample ID: B-26 (1.0-1.5)
Lab Sample ID: 480-204973-9

Date Collected: 12/20/22 11:00
Matrix: Solid
Date Received: 12/21/22 11:20
Percent Solids: 87.7

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.28	U	0.28	0.054	mg/Kg	☼	12/22/22 09:05	12/27/22 20:25	1
PCB-1221	0.28	U	0.28	0.054	mg/Kg	☼	12/22/22 09:05	12/27/22 20:25	1
PCB-1232	0.28	U	0.28	0.054	mg/Kg	☼	12/22/22 09:05	12/27/22 20:25	1
PCB-1242	**3.0**		0.28	0.054	mg/Kg	☼	12/22/22 09:05	12/27/22 20:25	1
PCB-1248	0.28	U	0.28	0.054	mg/Kg	☼	12/22/22 09:05	12/27/22 20:25	1
PCB-1254	0.28	U	0.28	0.13	mg/Kg	☼	12/22/22 09:05	12/27/22 20:25	1
PCB-1260	0.28	U	0.28	0.13	mg/Kg	☼	12/22/22 09:05	12/27/22 20:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	*102*		*65 - 174*	*12/22/22 09:05*	*12/27/22 20:25*	*1*
DCB Decachlorobiphenyl	*101*		*65 - 174*	*12/22/22 09:05*	*12/27/22 20:25*	*1*
Tetrachloro-m-xylene	*102*		*60 - 154*	*12/22/22 09:05*	*12/27/22 20:25*	*1*
Tetrachloro-m-xylene	*102*		*60 - 154*	*12/22/22 09:05*	*12/27/22 20:25*	*1*

Client Sample ID: B-26 (3.0-4.2)
Lab Sample ID: 480-204973-11

Date Collected: 12/20/22 12:40
Matrix: Solid
Date Received: 12/21/22 11:20
Percent Solids: 83.5

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.27	U	0.27	0.054	mg/Kg	☼	12/22/22 09:05	12/27/22 20:38	1
PCB-1221	0.27	U	0.27	0.054	mg/Kg	☼	12/22/22 09:05	12/27/22 20:38	1

Client Sample ID: B-26 (3.0-4.2)
Lab Sample ID: 480-204973-11

Date Collected: 12/20/22 12:40
Matrix: Solid
Date Received: 12/21/22 11:20
Percent Solids: 83.5

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1232	0.27	U	0.27	0.054	mg/Kg	☼	12/22/22 09:05	12/27/22 20:38	1
PCB-1242	**0.31**		0.27	0.054	mg/Kg	☼	12/22/22 09:05	12/27/22 20:38	1
PCB-1248	0.27	U	0.27	0.054	mg/Kg	☼	12/22/22 09:05	12/27/22 20:38	1
PCB-1254	0.27	U	0.27	0.13	mg/Kg	☼	12/22/22 09:05	12/27/22 20:38	1
PCB-1260	0.27	U	0.27	0.13	mg/Kg	☼	12/22/22 09:05	12/27/22 20:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*100*		*65 - 174*	*12/22/22 09:05*	*12/27/22 20:38*	*1*
DCB Decachlorobiphenyl	*104*		*65 - 174*	*12/22/22 09:05*	*12/27/22 20:38*	*1*
Tetrachloro-m-xylene	*97*		*60 - 154*	*12/22/22 09:05*	*12/27/22 20:38*	*1*
Tetrachloro-m-xylene	*100*		*60 - 154*	*12/22/22 09:05*	*12/27/22 20:38*	*1*

Client Sample ID: FD-12202022
Lab Sample ID: 480-204973-12

Date Collected: 12/20/22 00:00
Matrix: Solid
Date Received: 12/21/22 11:20
Percent Solids: 84.1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.23	U	0.23	0.046	mg/Kg	☼	12/22/22 09:05	12/27/22 20:51	1
PCB-1221	0.23	U	0.23	0.046	mg/Kg	☼	12/22/22 09:05	12/27/22 20:51	1
PCB-1232	0.23	U	0.23	0.046	mg/Kg	☼	12/22/22 09:05	12/27/22 20:51	1
PCB-1242	0.23 ~~0.073 J~~ U		0.23	0.046	mg/Kg	☼	12/22/22 09:05	12/27/22 20:51	1
PCB-1248	0.23	U	0.23	0.046	mg/Kg	☼	12/22/22 09:05	12/27/22 20:51	1
PCB-1254	0.23	U	0.23	0.11	mg/Kg	☼	12/22/22 09:05	12/27/22 20:51	1
PCB-1260	0.23	U	0.23	0.11	mg/Kg	☼	12/22/22 09:05	12/27/22 20:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*101*		*65 - 174*	*12/22/22 09:05*	*12/27/22 20:51*	*1*
DCB Decachlorobiphenyl	*102*		*65 - 174*	*12/22/22 09:05*	*12/27/22 20:51*	*1*
Tetrachloro-m-xylene	*101*		*60 - 154*	*12/22/22 09:05*	*12/27/22 20:51*	*1*
Tetrachloro-m-xylene	*96*		*60 - 154*	*12/22/22 09:05*	*12/27/22 20:51*	*1*

Client Sample ID: B-29 (0.7-1.2)
Lab Sample ID: 480-204973-13

Date Collected: 12/20/22 09:40
Matrix: Solid
Date Received: 12/21/22 11:20
Percent Solids: 81.7

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	5.9	U	5.9	1.2	mg/Kg	☼	12/22/22 09:05	12/29/22 19:29	20
PCB-1221	5.9	U	5.9	1.2	mg/Kg	☼	12/22/22 09:05	12/29/22 19:29	20
PCB-1232	5.9	U	5.9	1.2	mg/Kg	☼	12/22/22 09:05	12/29/22 19:29	20
PCB-1242	**74**		5.9	1.2	mg/Kg	☼	12/22/22 09:05	12/29/22 19:29	20
PCB-1248	5.9	U	5.9	1.2	mg/Kg	☼	12/22/22 09:05	12/29/22 19:29	20
PCB-1254	5.9	U	5.9	2.8	mg/Kg	☼	12/22/22 09:05	12/29/22 19:29	20
PCB-1260	5.9	U	5.9	2.8	mg/Kg	☼	12/22/22 09:05	12/29/22 19:29	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*112*		*65 - 174*	*12/22/22 09:05*	*12/29/22 19:29*	*20*
DCB Decachlorobiphenyl	*71*		*65 - 174*	*12/22/22 09:05*	*12/29/22 19:29*	*20*
Tetrachloro-m-xylene	*109*		*60 - 154*	*12/22/22 09:05*	*12/29/22 19:29*	*20*
Tetrachloro-m-xylene	*103*		*60 - 154*	*12/22/22 09:05*	*12/29/22 19:29*	*20*

Client Sample ID: B-29 (4.7-5.9)
Lab Sample ID: 480-204973-16

Date Collected: 12/20/22 13:50
Matrix: Solid
Date Received: 12/21/22 11:20
Percent Solids: 82.5

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.21	U	0.21	0.041	mg/Kg	☼	12/22/22 09:05	12/27/22 21:18	1
PCB-1221	0.21	U	0.21	0.041	mg/Kg	☼	12/22/22 09:05	12/27/22 21:18	1
PCB-1232	0.21	U	0.21	0.041	mg/Kg	☼	12/22/22 09:05	12/27/22 21:18	1
PCB-1242	0.21	U	0.21	0.041	mg/Kg	☼	12/22/22 09:05	12/27/22 21:18	1
PCB-1248	0.21	U	0.21	0.041	mg/Kg	☼	12/22/22 09:05	12/27/22 21:18	1
PCB-1254	0.21	U	0.21	0.097	mg/Kg	☼	12/22/22 09:05	12/27/22 21:18	1
PCB-1260	0.21	U	0.21	0.097	mg/Kg	☼	12/22/22 09:05	12/27/22 21:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*94*		*65 - 174*	*12/22/22 09:05*	*12/27/22 21:18*	*1*
DCB Decachlorobiphenyl	*96*		*65 - 174*	*12/22/22 09:05*	*12/27/22 21:18*	*1*
Tetrachloro-m-xylene	*92*		*60 - 154*	*12/22/22 09:05*	*12/27/22 21:18*	*1*
Tetrachloro-m-xylene	*96*		*60 - 154*	*12/22/22 09:05*	*12/27/22 21:18*	*1*

Client Sample ID: B-30 (1.0-1.5)
Lab Sample ID: 480-204973-17

Date Collected: 12/20/22 13:30
Matrix: Solid
Date Received: 12/21/22 11:20
Percent Solids: 85.0

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	5.6	U J	5.6	1.1	mg/Kg	☼	12/22/22 09:05	12/29/22 19:43	20
PCB-1221	5.6	U	5.6	1.1	mg/Kg	☼	12/22/22 09:05	12/29/22 19:43	20
PCB-1232	5.6	U	5.6	1.1	mg/Kg	☼	12/22/22 09:05	12/29/22 19:43	20
PCB-1242	**72**		5.6	1.1	mg/Kg	☼	12/22/22 09:05	12/29/22 19:43	20
PCB-1248	5.6	U	5.6	1.1	mg/Kg	☼	12/22/22 09:05	12/29/22 19:43	20
PCB-1254	5.6	U	5.6	2.6	mg/Kg	☼	12/22/22 09:05	12/29/22 19:43	20
PCB-1260	5.6	U	5.6	2.6	mg/Kg	☼	12/22/22 09:05	12/29/22 19:43	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*103*		*65 - 174*	*12/22/22 09:05*	*12/29/22 19:43*	*20*
DCB Decachlorobiphenyl	*64*	*S1-*	*65 - 174*	*12/22/22 09:05*	*12/29/22 19:43*	*20*
Tetrachloro-m-xylene	*99*		*60 - 154*	*12/22/22 09:05*	*12/29/22 19:43*	*20*
Tetrachloro-m-xylene	*164*	*S1+*	*60 - 154*	*12/22/22 09:05*	*12/29/22 19:43*	*20*

Client Sample ID: B-30 (5.0-7.0)
Lab Sample ID: 480-204973-20

Date Collected: 12/20/22 14:20
Matrix: Solid
Date Received: 12/21/22 11:20
Percent Solids: 88.8

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.24	U	0.24	0.047	mg/Kg	☼	12/22/22 09:05	12/27/22 21:44	1
PCB-1221	0.24	U	0.24	0.047	mg/Kg	☼	12/22/22 09:05	12/27/22 21:44	1
PCB-1232	0.24	U	0.24	0.047	mg/Kg	☼	12/22/22 09:05	12/27/22 21:44	1
PCB-1242	0.24	U	0.24	0.047	mg/Kg	☼	12/22/22 09:05	12/27/22 21:44	1
PCB-1248	0.24	U	0.24	0.047	mg/Kg	☼	12/22/22 09:05	12/27/22 21:44	1
PCB-1254	0.24	U	0.24	0.11	mg/Kg	☼	12/22/22 09:05	12/27/22 21:44	1
PCB-1260	0.24	U	0.24	0.11	mg/Kg	☼	12/22/22 09:05	12/27/22 21:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*108*		*65 - 174*	*12/22/22 09:05*	*12/27/22 21:44*	*1*
DCB Decachlorobiphenyl	*114*		*65 - 174*	*12/22/22 09:05*	*12/27/22 21:44*	*1*

Client Sample ID: B-30 (5.0-7.0)
Lab Sample ID: 480-204973-20

Date Collected: 12/20/22 14:20
Matrix: Solid
Date Received: 12/21/22 11:20
Percent Solids: 88.8

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	*105*		*60 - 154*	*12/22/22 09:05*	*12/27/22 21:44*	*1*
Tetrachloro-m-xylene	*109*		*60 - 154*	*12/22/22 09:05*	*12/27/22 21:44*	*1*

Client Sample ID: B-28 (1.0-1.5)
Lab Sample ID: 480-204973-21

Date Collected: 12/20/22 14:50
Matrix: Solid
Date Received: 12/21/22 11:20
Percent Solids: 95.7

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	22	U J	22	4.4	mg/Kg	☼	12/22/22 09:05	12/29/22 19:56	100
PCB-1221	22	U	22	4.4	mg/Kg	☼	12/22/22 09:05	12/29/22 19:56	100
PCB-1232	22	U	22	4.4	mg/Kg	☼	12/22/22 09:05	12/29/22 19:56	100
PCB-1242	**290**		22	4.4	mg/Kg	☼	12/22/22 09:05	12/29/22 19:56	100
PCB-1248	22	U	22	4.4	mg/Kg	☼	12/22/22 09:05	12/29/22 19:56	100
PCB-1254	22	U	22	10	mg/Kg	☼	12/22/22 09:05	12/29/22 19:56	100
PCB-1260	22	U	22	10	mg/Kg	☼	12/22/22 09:05	12/29/22 19:56	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	*0*	*S1-*	*65 - 174*	*12/22/22 09:05*	*12/29/22 19:56*	*100*
DCB Decachlorobiphenyl	*0*	*S1-*	*65 - 174*	*12/22/22 09:05*	*12/29/22 19:56*	*100*
Tetrachloro-m-xylene	*104*		*60 - 154*	*12/22/22 09:05*	*12/29/22 19:56*	*100*
Tetrachloro-m-xylene	*184*	*S1+*	*60 - 154*	*12/22/22 09:05*	*12/29/22 19:56*	*100*

Client Sample ID: B-28 (3.0-5.0)
Lab Sample ID: 480-204973-23

Date Collected: 12/20/22 15:30
Matrix: Solid
Date Received: 12/21/22 11:20
Percent Solids: 83.1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.23	U	0.23	0.045	mg/Kg	☼	12/22/22 09:05	12/27/22 22:11	1
PCB-1221	0.23	U	0.23	0.045	mg/Kg	☼	12/22/22 09:05	12/27/22 22:11	1
PCB-1232	0.23	U	0.23	0.045	mg/Kg	☼	12/22/22 09:05	12/27/22 22:11	1
PCB-1242	**4.6**		0.23	0.045	mg/Kg	☼	12/22/22 09:05	12/27/22 22:11	1
PCB-1248	0.23	U	0.23	0.045	mg/Kg	☼	12/22/22 09:05	12/27/22 22:11	1
PCB-1254	0.23	U	0.23	0.11	mg/Kg	☼	12/22/22 09:05	12/27/22 22:11	1
PCB-1260	0.23	U	0.23	0.11	mg/Kg	☼	12/22/22 09:05	12/27/22 22:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	*104*		*65 - 174*	*12/22/22 09:05*	*12/27/22 22:11*	*1*
DCB Decachlorobiphenyl	*92*		*65 - 174*	*12/22/22 09:05*	*12/27/22 22:11*	*1*
Tetrachloro-m-xylene	*103*		*60 - 154*	*12/22/22 09:05*	*12/27/22 22:11*	*1*
Tetrachloro-m-xylene	*105*		*60 - 154*	*12/22/22 09:05*	*12/27/22 22:11*	*1*

Client Sample ID: B-28 (5.0-5.9)
Lab Sample ID: 480-204973-24

Date Collected: 12/20/22 15:35
Matrix: Solid
Date Received: 12/21/22 11:20
Percent Solids: 84.3

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	21	U J	21	4.2	mg/Kg	☼	12/22/22 09:05	12/29/22 20:09	100
PCB-1221	21	U J	21	4.2	mg/Kg	☼	12/22/22 09:05	12/29/22 20:09	100

Client Sample ID: B-28 (5.0-5.9)
Lab Sample ID: 480-204973-24

Date Collected: 12/20/22 15:35
Matrix: Solid
Date Received: 12/21/22 11:20
Percent Solids: 84.3

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1232	21	U J	21	4.2	mg/Kg	☼	12/22/22 09:05	12/29/22 20:09	100
PCB-1242	**570**	J	21	4.2	mg/Kg	☼	12/22/22 09:05	12/29/22 20:09	100
PCB-1248	21	U J	21	4.2	mg/Kg	☼	12/22/22 09:05	12/29/22 20:09	100
PCB-1254	21	U J	21	10	mg/Kg	☼	12/22/22 09:05	12/29/22 20:09	100
PCB-1260	21	U J	21	10	mg/Kg	☼	12/22/22 09:05	12/29/22 20:09	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*S1-*	*65 - 174*	*12/22/22 09:05*	*12/29/22 20:09*	*100*
DCB Decachlorobiphenyl	*0*	*S1-*	*65 - 174*	*12/22/22 09:05*	*12/29/22 20:09*	*100*
Tetrachloro-m-xylene	*160*	*S1+*	*60 - 154*	*12/22/22 09:05*	*12/29/22 20:09*	*100*
Tetrachloro-m-xylene	*159*	*S1+*	*60 - 154*	*12/22/22 09:05*	*12/29/22 20:09*	*100*

Client Sample ID: B-25 (1.0-1.5)
Lab Sample ID: 480-204973-25

Date Collected: 12/19/22 08:15
Matrix: Solid
Date Received: 12/21/22 11:20
Percent Solids: 94.4

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	1.8	U	1.8	0.35	mg/Kg	☼	12/22/22 09:05	12/29/22 19:16	10
PCB-1221	1.8	U	1.8	0.35	mg/Kg	☼	12/22/22 09:05	12/29/22 19:16	10
PCB-1232	1.8	U	1.8	0.35	mg/Kg	☼	12/22/22 09:05	12/29/22 19:16	10
PCB-1242	**19**		1.8	0.35	mg/Kg	☼	12/22/22 09:05	12/29/22 19:16	10
PCB-1248	1.8	U	1.8	0.35	mg/Kg	☼	12/22/22 09:05	12/29/22 19:16	10
PCB-1254	1.8	U	1.8	0.84	mg/Kg	☼	12/22/22 09:05	12/29/22 19:16	10
PCB-1260	**2.3**		1.8	0.84	mg/Kg	☼	12/22/22 09:05	12/29/22 19:16	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*83*		*65 - 174*	*12/22/22 09:05*	*12/29/22 19:16*	*10*
DCB Decachlorobiphenyl	*57*	*S1-*	*65 - 174*	*12/22/22 09:05*	*12/29/22 19:16*	*10*
Tetrachloro-m-xylene	*74*		*60 - 154*	*12/22/22 09:05*	*12/29/22 19:16*	*10*
Tetrachloro-m-xylene	*74*		*60 - 154*	*12/22/22 09:05*	*12/29/22 19:16*	*10*

Client Sample ID: B-25 (3.0-4.2)
Lab Sample ID: 480-204973-27

Date Collected: 12/19/22 08:25
Matrix: Solid
Date Received: 12/21/22 11:20
Percent Solids: 82.7

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.23	U	0.23	0.046	mg/Kg	☼	12/22/22 09:05	12/27/22 19:32	1
PCB-1221	0.23	U	0.23	0.046	mg/Kg	☼	12/22/22 09:05	12/27/22 19:32	1
PCB-1232	0.23	U	0.23	0.046	mg/Kg	☼	12/22/22 09:05	12/27/22 19:32	1
PCB-1242	0.23	U	0.23	0.046	mg/Kg	☼	12/22/22 09:05	12/27/22 19:32	1
PCB-1248	0.23	U	0.23	0.046	mg/Kg	☼	12/22/22 09:05	12/27/22 19:32	1
PCB-1254	0.23	U	0.23	0.11	mg/Kg	☼	12/22/22 09:05	12/27/22 19:32	1
PCB-1260	0.23	U	0.23	0.11	mg/Kg	☼	12/22/22 09:05	12/27/22 19:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*94*		*65 - 174*	*12/22/22 09:05*	*12/27/22 19:32*	*1*
DCB Decachlorobiphenyl	*87*		*65 - 174*	*12/22/22 09:05*	*12/27/22 19:32*	*1*
Tetrachloro-m-xylene	*100*		*60 - 154*	*12/22/22 09:05*	*12/27/22 19:32*	*1*
Tetrachloro-m-xylene	*111*		*60 - 154*	*12/22/22 09:05*	*12/27/22 19:32*	*1*

Client Sample ID: B-24 (1.2-1.7)
Lab Sample ID: 480-204973-28

Date Collected: 12/19/22 08:40
Matrix: Solid
Date Received: 12/21/22 11:20
Percent Solids: 75.9

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	56	U	56	11	mg/Kg	☼	12/22/22 09:05	12/29/22 20:49	200
PCB-1221	56	U	56	11	mg/Kg	☼	12/22/22 09:05	12/29/22 20:49	200
PCB-1232	56	U	56	11	mg/Kg	☼	12/22/22 09:05	12/29/22 20:49	200
PCB-1242	**1600**		56	11	mg/Kg	☼	12/22/22 09:05	12/29/22 20:49	200
PCB-1248	56	U	56	11	mg/Kg	☼	12/22/22 09:05	12/29/22 20:49	200
PCB-1254	56	U	56	26	mg/Kg	☼	12/22/22 09:05	12/29/22 20:49	200
PCB-1260	56	U	56	26	mg/Kg	☼	12/22/22 09:05	12/29/22 20:49	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*S1-*	*65 - 174*	*12/22/22 09:05*	*12/29/22 20:49*	*200*
DCB Decachlorobiphenyl	*0*	*S1-*	*65 - 174*	*12/22/22 09:05*	*12/29/22 20:49*	*200*
Tetrachloro-m-xylene	*124*		*60 - 154*	*12/22/22 09:05*	*12/29/22 20:49*	*200*
Tetrachloro-m-xylene	*121*		*60 - 154*	*12/22/22 09:05*	*12/29/22 20:49*	*200*

Client Sample ID: B-24 (3.2-5.0)
Lab Sample ID: 480-204973-30

Date Collected: 12/19/22 09:15
Matrix: Solid
Date Received: 12/21/22 11:20
Percent Solids: 85.4

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	21	U J	21	4.1	mg/Kg	☼	12/22/22 09:05	12/29/22 20:22	100
PCB-1221	21	U	21	4.1	mg/Kg	☼	12/22/22 09:05	12/29/22 20:22	100
PCB-1232	21	U	21	4.1	mg/Kg	☼	12/22/22 09:05	12/29/22 20:22	100
PCB-1242	**600**		21	4.1	mg/Kg	☼	12/22/22 09:05	12/29/22 20:22	100
PCB-1248	21	U	21	4.1	mg/Kg	☼	12/22/22 09:05	12/29/22 20:22	100
PCB-1254	21	U	21	9.8	mg/Kg	☼	12/22/22 09:05	12/29/22 20:22	100
PCB-1260	21	U	21	9.8	mg/Kg	☼	12/22/22 09:05	12/29/22 20:22	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*S1-*	*65 - 174*	*12/22/22 09:05*	*12/29/22 20:22*	*100*
DCB Decachlorobiphenyl	*0*	*S1-*	*65 - 174*	*12/22/22 09:05*	*12/29/22 20:22*	*100*
Tetrachloro-m-xylene	*172*	*S1+*	*60 - 154*	*12/22/22 09:05*	*12/29/22 20:22*	*100*
Tetrachloro-m-xylene	*88*		*60 - 154*	*12/22/22 09:05*	*12/29/22 20:22*	*100*

Client Sample ID: FD-12212022
Lab Sample ID: 480-204973-31

Date Collected: 12/19/22 00:00
Matrix: Solid
Date Received: 12/21/22 11:20
Percent Solids: 84.1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	28	U J	28	5.6	mg/Kg	☼	12/22/22 09:05	12/29/22 20:36	100
PCB-1221	28	U	28	5.6	mg/Kg	☼	12/22/22 09:05	12/29/22 20:36	100
PCB-1232	28	U	28	5.6	mg/Kg	☼	12/22/22 09:05	12/29/22 20:36	100
PCB-1242	**300**		28	5.6	mg/Kg	☼	12/22/22 09:05	12/29/22 20:36	100
PCB-1248	28	U	28	5.6	mg/Kg	☼	12/22/22 09:05	12/29/22 20:36	100
PCB-1254	28	U	28	13	mg/Kg	☼	12/22/22 09:05	12/29/22 20:36	100
PCB-1260	28	U	28	13	mg/Kg	☼	12/22/22 09:05	12/29/22 20:36	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*0*	*S1-*	*65 - 174*	*12/22/22 09:05*	*12/29/22 20:36*	*100*
DCB Decachlorobiphenyl	*0*	*S1-*	*65 - 174*	*12/22/22 09:05*	*12/29/22 20:36*	*100*

Client: ARCADIS U.S. Inc
Job ID: 480-204973-1
Project/Site: National Grid - Dewey Avenue Site

Client Sample ID: FD-12212022
Lab Sample ID: 480-204973-31
Date Collected: 12/19/22 00:00
Matrix: Solid
Date Received: 12/21/22 11:20
Percent Solids: 84.1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	165	S1+	60 - 154	12/22/22 09:05	12/29/22 20:36	100
Tetrachloro-m-xylene	234	S1+	60 - 154	12/22/22 09:05	12/29/22 20:36	100

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