



INVENTUM ENGINEERING

Secondary Containment Closure Construction Completion Report

Light Oil Area - PT04, PT12, and PT13



**Riverview Innovation & Technology Campus
Brownfield Cleanup Program Site No. C915353**

**3875 River Road
Tonawanda, New York 14150**

October 21, 2025

**441 CARLISLE DRIVE
SUITE C
HERNDON, VA 20170
WWW.INVENTUMENG.COM**

Table of Contents

Background.....	3
Work Related to the Light Oil Area Under Separate IRMs	3
Inspection Summary	4
Sub-Slab Fill Sampling	4
Disposal Sampling	5
Sub-Slab Fill Management	6
Concrete Management	6
Community Air Monitoring Plan (CAMP).....	6
Engineering Certification.....	7
Photographic Log.....	8
Figures	9
Tables.....	10
Appendix A – Waste Manifest.....	11
Appendix B – Laboratory Reports	12
Appendix C – CAMP Data	13



Background

The Light Oil Area (LOA) secondary containment was located on the west side of the former production area just south of the Maintenance Building. The secondary containment was constructed of reinforced concrete. The concrete appeared to be comprised of structures of varying age and was visually older than other nearby secondary containment structures. The LOA secondary containment relied on a portion of former Building No. 10 for the western wall (circled in green in Photograph No. 1).

A section of the secondary containment north of Building 10 was missing (Photograph No. 4). The missing section had been replaced with an earthen fill berm, largely composed of construction rubble consisting of crushed brick, concrete, and limited amounts of typical site fill. During site management and demolition, the water level was maintained below the toe of the earthen berm by pumping the stormwater through granular activated carbon and discharging the treated effluent water to the Town of Tonawanda Publicly Owned Treatment Works (POTW) under Permit No. 331.

Work Related to the Light Oil Area Under Separate IRMs

The Light Oil Area secondary containment (along with the Weak Ammonia Liquor Tank Secondary Containment) was the subject of an earlier Interim Remedial Measure (IRM) to determine the water quality (Photograph No. 2) in the unit, Light Oil Storm Water Characterization Sampling Summary Report (Inventum, May 2020). The secondary containment structures below and around the Light Oil Area tanks (PT04, PT12, and PT13) were used by the Tonawanda Coke Corporation (TCC) for containing precipitation that may have come into contact with residual materials in these areas and were likely designed to be capable of containing the contents of the tanks in the event of a release. The secondary containment structures also surrounded a number of process pipes, pumps, electrical equipment, and the light oil heat exchangers (e.g., “chillers”, Photograph No.’s 1 to 3). Notably, several of the chillers ruptured at some point prior to the RITC acquisition.

Samples of the liquids and solids in the Light Oil Area Secondary Containment Structures were submitted to the NYSDEC in the Light Oil Area Storm Water Characterization Sampling Summary Report¹ (Inventum, May 2020). During the sampling effort, the two sump structures were identified extending below the slab elevation of the LOA secondary containment under the east end of PT04 and the east end of PT13. While completing activities under the approved Surface Water Management IRM (Inventum, 2020), seepage of a non-aqueous phase liquid (NAPL) from the direction of, and below the elevation of, the slab in the Light Oil Area was observed in the south wall of the box culvert. The seepage path was sealed with hydraulic cement. After sealing, the box culvert was reinspected in April 2021, and the seepage had resumed through an alternative flow path. The box culvert was cleaned, a fusion bonded high density polyethylene pipe (HDPE) was installed to convey stormwater through the box culvert to the west side of the main site road, and the box culvert was sealed with flowable fill.

Tanks PT04, PT12, and PT13 were emptied, decontaminated, and the shells were managed in accordance with the Aboveground Storage Tank Management Interim Remedial Measures Work Plan (“AST Work Plan”) (Inventum, 2021). Tank PT04 contained a liquid. There were solid materials at the bottom of PT12 and PT13. All tank contents in the Light Oil Area were classified as “Process Residues from the Recovery

¹ Inventum Engineering, 2020, Light Oil Area Storm Water Characterization Sampling Summary Report, Riverview Innovation & Technology Campus, Inc., Brownfield Cleanup Program Site No. C915353, Town of Tonawanda, New York, May 1.



of Light Oil,” listed Hazardous Waste K143. The secondary containment and the associated sumps contained accumulated soft, brown, sludge residuals (Photograph No. 2 through 6). The sludge was scraped from the walls and floor and consolidated from November 30, 2021, through December 2, 2021, after the PT12 and PT13 residuals had been removed from the tanks. Approximately 14 cubic yards of sludge residuals were removed and staged on and under polyethylene sheeting in the Thaw Shed. The residuals were ultimately added to the “K143 Residual Pile” in 2022, on the Tar Management Area Secondary Containment, which was comprised of residuals potentially from PT05, PT06, PT07, PT08, PT11, the tank heel of PT04, and Tar Management Area secondary containment solids. This residual pile was transported and disposed in November and December 2022 as K143 listed hazardous waste with RSI Environnemental of Quebec. The management and closure of the LOA tanks and the secondary containment residuals is documented under the Aboveground Storage Tank Management Construction Completion Report (“AST CCR” [Inventum, August 2025]).

Inspection Summary

The Light Oil Area secondary containment was approximately 35-feet wide, 90-feet long, with a slab area of approximately 3,200 square feet. Square sumps with solid concrete bottoms were located near the northeast and southeast corners, and a circular sump was located near the western edge of the PT12 tank foundation (Photograph No.’s 13 and 14). As previously noted, a portion of the western wall was missing. The secondary containment was decontaminated in April 2023 by Lake Effect using vapor blasting media.

The secondary containment was inspected in July 2023. Some spalling and surficial cracks were observed throughout the containment surface. Major cracks and unplanned penetrations through the concrete walls or slab were not observed. A segment of the southeastern wall separated after decontamination (Photograph No.’s 23 and 24). What appeared to be a grouted manhole was located on the west side of the containment and two pipe penetrations were observed near the bottom of the northwestern sidewall (Photograph No. 25).

In July 2023, following decontamination, a section of the northwestern containment floor was removed to inspect the underside of the concrete and collect material suitable for the Light Oil Area bench scale testing described in the approved Source Area Solidification IRM Work Plan (Solidification Work Plan) (Inventum, 2023). During concrete removal a drain (approximately 12-inches by 12-inches) containing a north-south oriented pipe was discovered that potentially communicated with the box culvert before it was sealed with flowable fill (Photograph No.’s 28 to 31). Green non-aqueous phase liquid (NAPL) was observed in the excavation.

Sub-Slab Fill Sampling

In accordance with the Secondary Containment Work Plan (Inventum, 2021) seven sub-slab samples were collected below the removed secondary containment. Samples were taken from material collected in an excavator bucket. This approach was implemented because the excavator provided safer access to the target intervals at depths in an area disturbed by concrete removal. A sample was collected from the fill below each sump (samples LOA-04 and LOA-07), near the northern secondary containment wall (sample LOA-03), and the northwest corner (sample LOA-01). Sample LOA-02 was collected from fill near the drain discovered below the concrete slab. Samples LOA-05 and LOA-06 were collected from the fill under the southern side of the secondary containment. Sample locations are provided on Figure 2.



Samples were collected from the fill at the fill-clay interface. The fill samples consisted of grey to black, coarse-grained sand and gravel with silty clay. Sheen and staining were observed at locations 01, 02, and 03. Green NAPL was observed in the fill at sample location 05, near the southern containment wall. Petroleum-like and/or ammonia-like odors were detected during sample collection. Samples were screened with a photoionization detector (PiD) and ranged from 17.6 ppm at location 06 to 204.1 ppm at location 07.

The fill samples were analyzed for:

- TCL VOCs [8260]
- TCL SVOCs [8270]
- Total Mercury [7471]
- Total Cyanide [9012]
- Total Ammonia [350.1]
- TCLP VOCs, SVOCs, Metals, Pesticides, and Herbicides
- Corrosivity, Ignitability, and Reactivity
- PFAS (Sample Location 01, below northwest corner)

The sample results were compared to 6 NYCRR Part 375 Commercial Soil Cleanup Objectives (SCOs) and EPA TCLP standards. Samples collected from locations 02 and 05 had concentrations of naphthalene of 540 mg/kg and 2,500 mg/kg respectively, exceeding the Commercial SCO². Samples collected from locations 01, 02, 03, and 05 had concentrations from 64 mg/kg to 360 mg/kg of benzene, exceeding the Commercial SCO of 44 mg/kg of benzene. SVOCs at each sample location exceeded Commercial SCOs including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and dibenzo(a,h)anthracene. Samples collected from all locations exceeded the Commercial SCO of 2.8 mg/kg for mercury, ranging from 4.3 mg/kg to 15.1 mg/kg. No samples exceeded the SCO for cyanide. The sample from location 01 was analyzed for PFAS and did not exceed the SCOs. While no SCO exists for ammonia, sample concentrations ranged from 22.3 mg/kg to 257 mg/kg.

Leachate concentrations from samples collected below the northwest corner (01), below the former chillers (02), and near the southern containment wall (05) indicated the characteristic of toxicity for benzene (D018). No samples were hazardous for ignitability, corrosivity, or reactivity.

The sample analysis is presented in Table 1.

Disposal Sampling

The vapor blasting performed by Lake Effect generated a silica-based media after decontamination of the secondary containment surfaces. The media was assigned the listed hazardous waste code K143 consistent with previous wastes from the Light Oil Area and sampled for disposal characterization. The sample did not exhibit characteristics of hazardous waste. The media was profiled and approved for disposal with Heritage Thermal Services. The media was approved to be added to the fines (<3-inches in the greatest dimension) from former process vessel PV10, also characterized as listed hazardous waste K143.

The analytical data is provided in Table 2, and the waste manifest is provided in Attachment A.

² Naphthalene was analyzed by both SW-846 Methods 8260 VOCs and 8270 SVOCs. The higher of the two reported results is presented and discussed in the report narrative.



Sub-Slab Fill Management

Three samples collected from locations 01, 02, and 05 contained benzene concentrations that indicated the characteristic of the toxicity (Figure 2). Based on this result, the fill below the Light Oil Area secondary containment was managed in accordance with the approved Source Area Solidification IRM Work Plan (Inventum, 2023) (“Solidification Work Plan”). The fill was solidified with the addition of coke breeze and lime kiln dust (LKD) to eliminate the characteristic of toxicity and mitigate mobility of the constituents that may impact shallow groundwater on site.

Concrete Management

The decontaminated concrete from the secondary containment walls, PT12 pedestal, and PT13 and PT04 cradles was crushed and stockpiled east adjacent to the Light Oil Area for potential reuse on site. The two piles of decontaminated Light Oil Area concrete are estimated to be 40 cubic yards and 80 cubic yards, totaling 120 cubic yards. The concrete from the secondary containment floor and sub-grade concrete was pulverized with an excavator mounted hammer and solidified with the grossly contaminated fill. A sample has not been collected from the piles, as the concrete has been decontaminated and a use has not yet been determined.

Community Air Monitoring Plan (CAMP)

Air monitoring was performed in accordance with the Community Air Monitoring Plan (CAMP) for all dates that work was completed. Daily summary graphs of particulate and volatile organic compound (VOC) monitoring are provided in Appendix C.

Work Completed	Dates
Cleaning (OSC)	11/30/2021 – 12/2/2021
Decontamination (Lake Effect)	4/24/2023 – 4/26/2023
Sub-Slab Fill Inspection (collect material for Solidification Bench Scale Testing)	7/13/2023
Secondary Containment Removal	1/26/2024*
Sub-Slab Fill Sampling	1/26/2024*

*CAMP equipment was not deployed on January 26, 2024, due to precipitation and fog. These conditions interfere with the proper operation of the monitoring equipment, resulting in false readings and frequent alarms that are not representative of actual site conditions.

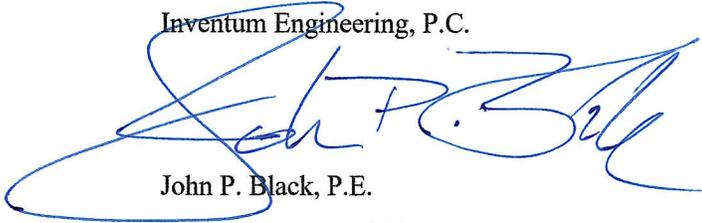


Engineering Certification

I, John P. Black, certify that I am currently a NYS registered professional engineer as defined in 6 NYCRR Part 375 and that this Construction Completion Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and DER Green Remediation (DER-31) and that all activities were performed in full accordance with the DER-approved work plan and any DER-approved modifications.

Respectfully Submitted,

Inventum Engineering, P.C.



John P. Black, P.E.

Date: October 21, 2025

License No: 062818-1



It is a violation of the laws of New York for any person, unless acting under the direction of a Licensed Professional Engineer, to alter any item or any portion of this document in any way. If an item bearing the seal of a Licensed Professional Engineer is altered, the altering Engineer shall affix to the item his/her seal and notation "altered by" followed by his/her signature and the date of such alternation, and a specific description of the alteration.



Photographic Log



Client Name: RITC	Date Photo was Taken: 2020	Project: RITC
-----------------------------	--------------------------------------	-------------------------

Photo No. 1
Direction Photo Taken:

View is aerial.



Description:

The Light Oil Area secondary containment.

Client Name: RITC	Date Photo was Taken: 5/7/2020	Project: RITC
-----------------------------	--	-------------------------

Photo No. 2
Direction Photo Taken:

View is southeast.



Description:

The typical condition of the secondary containment. Heat exchangers “chillers” and piping on the west end of the secondary containment.



Client Name: RITC	Date Photo was Taken: 5/7/2020	Project: RITC
Photo No. 3 Direction Photo Taken: View is southwest.		
Description: The typical condition of the secondary containment. Heat exchangers “chillers” and piping on the west end of the secondary containment.		
Client Name: RITC	Date Photo was Taken: 5/7/2020	Project: RITC
Photo No. 4 Direction Photo Taken: View is west.		
Description: The west end of the secondary containment was missing a wall and had an earthen berm constructed of site fill and rubble.		



Client Name: RITC	Date Photo was Taken: 5/7/2020	Project: RITC
-----------------------------	--	-------------------------

Photo No. 5
Direction Photo Taken:

View is east.



Description:

The typical condition of the secondary containment. Tank PT13 was on the south side of the containment.

Client Name: RITC	Date Photo was Taken: 5/7/2020	Project: RITC
-----------------------------	--	-------------------------

Photo No. 6
Direction Photo Taken:

View is north.



Description:

The typical condition of the secondary containment. Tank PT04 was on the north side of the containment.



Client Name: RITC	Date Photo was Taken: 4/26/2023	Project: RITC
-----------------------------	---	-------------------------

Photo No. 7
Direction Photo Taken:

View is west.



Description:

The concrete containment surfaces are decontaminated.

Client Name: RITC	Date Photo was Taken: 4/26/2023	Project: RITC
-----------------------------	---	-------------------------

Photo No. 8
Direction Photo Taken:

View is south.



Description:

The concrete containment surfaces are decontaminated.



Client Name: RITC	Date Photo was Taken: 4/26/2023	Project: RITC
-----------------------------	---	-------------------------

Photo No. 9
Direction Photo Taken:

View is west.



Description:

The concrete containment surfaces are decontaminated. The sump below former Tank PT12 is decontaminated.

Client Name: RITC	Date Photo was Taken: 4/26/2023	Project: RITC
-----------------------------	---	-------------------------

Photo No. 10
Direction Photo Taken:

View is west.



Description:

The concrete containment surfaces are decontaminated.



Client Name: RITC	Date Photo was Taken: 4/26/2023	Project: RITC
-----------------------------	---	-------------------------

Photo No. 11
Direction Photo Taken:

View is east.



Description:

The concrete containment surfaces are decontaminated. Note the remnant media from vapor blasting was consolidated and disposed.

Client Name: RITC	Date Photo was Taken: 4/26/2023	Project: RITC
-----------------------------	---	-------------------------

Photo No. 12
Direction Photo Taken:

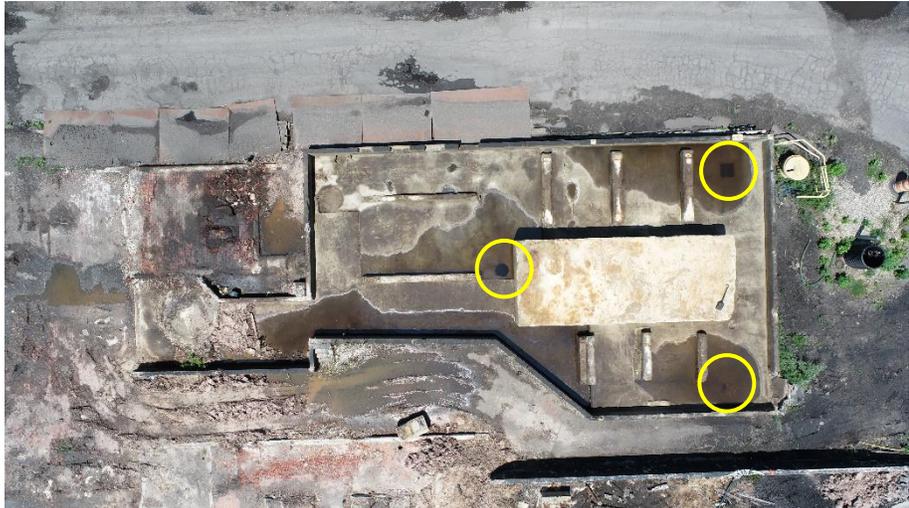
View is northeast.



Description:

The concrete containment surfaces are decontaminated. Note the remnant media from vapor blasting was consolidated and disposed.



Client Name: RITC	Date Photo was Taken: 4/26/2023	Project: RITC
Photo No. 13 Direction Photo Taken: View is east.		
Description: The circular sump west of PT12 base. The concrete containment surfaces are decontaminated. Note the remnant media from vapor blasting was consolidated and disposed.		
Client Name: RITC	Date Photo was Taken: 6/13/2023	Project: RITC
Photo No. 14 Direction Photo Taken: View is aerial.		
Description: The concrete containment surfaces are decontaminated. Sump locations are circled in yellow.		



Client Name: RITC	Date Photo was Taken: 7/10/2023	Project: RITC
-----------------------------	---	-------------------------

Photo No. 15
Direction Photo Taken:

View is west.



Description:

The secondary containment interior, south area with former Tank PT13 cradles.

Client Name: RITC	Date Photo was Taken: 7/10/2023	Project: RITC
-----------------------------	---	-------------------------

Photo No. 16
Direction Photo Taken:

View is east.



Description:

The secondary containment interior, south area with former Tank PT13 cradles.



Client Name: RITC	Date Photo was Taken:	Project: RITC
Photo No. 17 Direction Photo Taken: View is		
Description: The secondary containment interior, east area with former Tank PT12 concrete base.		
Client Name: RITC	Date Photo was Taken: 7/10/2023	Project: RITC
Photo No. 18 Direction Photo Taken: View is west.		
Description: The secondary containment interior, north area with former Tank PT04 cradles.		



Client Name: RITC	Date Photo was Taken: 7/10/2023	Project: RITC
-----------------------------	---	-------------------------

Photo No. 19
Direction Photo Taken:

View is north.



Description:

The secondary containment interior, northeast area with sump below former Tank PT12.

Client Name: RITC	Date Photo was Taken: 7/10/2023	Project: RITC
-----------------------------	---	-------------------------

Photo No. 20
Direction Photo Taken:

View is west.



Description:

The secondary containment interior, west area.



Client Name: RITC	Date Photo was Taken: 7/10/2023	Project: RITC
-----------------------------	---	-------------------------

Photo No. 21
Direction Photo Taken:

View is north.



Description:

The secondary containment interior, west area.

Client Name: RITC	Date Photo was Taken: 7/10/2023	Project: RITC
-----------------------------	---	-------------------------

Photo No. 22
Direction Photo Taken:

View is west.



Description:

The secondary containment interior, southwest area.



Client Name: RITC	Date Photo was Taken: 7/10/2023	Project: RITC
Photo No. 23 Direction Photo Taken: View is west.		
Description: The secondary containment exterior, southeast corner and stairs. (Separation occurred after decontamination).		
Client Name: RITC	Date Photo was Taken: 7/10/2023	Project: RITC
Photo No. 24 Direction Photo Taken: View is west.		
Description: The secondary containment exterior, southeast corner and stairs. (Separation occurred after decontamination).		



Client Name: RITC	Date Photo was Taken: 7/10/2023	Project: RITC
-----------------------------	---	-------------------------

Photo No. 25
Direction Photo Taken:

View is north.



Description:

The secondary containment interior, west area. Note the two pipe penetrations in the sidewall and a grouted manhole.

Client Name: RITC	Date Photo was Taken: 7/10/2023	Project: RITC
-----------------------------	---	-------------------------

Photo No. 26
Direction Photo Taken:

View is west.



Description:

The secondary containment interior, southwest area.



Client Name: RITC	Date Photo was Taken: 7/13/2023	Project: RITC
-----------------------------	---	-------------------------

Photo No. 27
Direction Photo Taken:

View is east.



Description:

The secondary containment concrete is removed.

Client Name: RITC	Date Photo was Taken: 7/13/2023	Project: RITC
-----------------------------	---	-------------------------

Photo No. 28
Direction Photo Taken:

View is west.



Description:

Secondary containment floor is removed. A drain is discovered below the slab (west area).



Client Name: RITC	Date Photo was Taken: 7/13/2023	Project: RITC
Photo No. 29 Direction Photo Taken: View is north.		
Description: The drain contains a pipe oriented north-south.		
Client Name: RITC	Date Photo was Taken: 7/13/2023	Project: RITC
Photo No. 30 Direction Photo Taken: View is north.		
Description: The fill below the secondary containment slab.		



Client Name: RITC	Date Photo was Taken: 7/13/2023	Project: RITC
-----------------------------	---	-------------------------

Photo No. 31
Direction Photo Taken:

View is north.



Description:

The fill below the secondary containment slab.

Client Name: RITC	Date Photo was Taken: 7/13/2023	Project: RITC
-----------------------------	---	-------------------------

Photo No. 32
Direction Photo Taken:

View is north.



Description:

The concrete secondary containment is removed.



Figures



D



DRAWING BY	RB
CHECKED	
APPROVED	

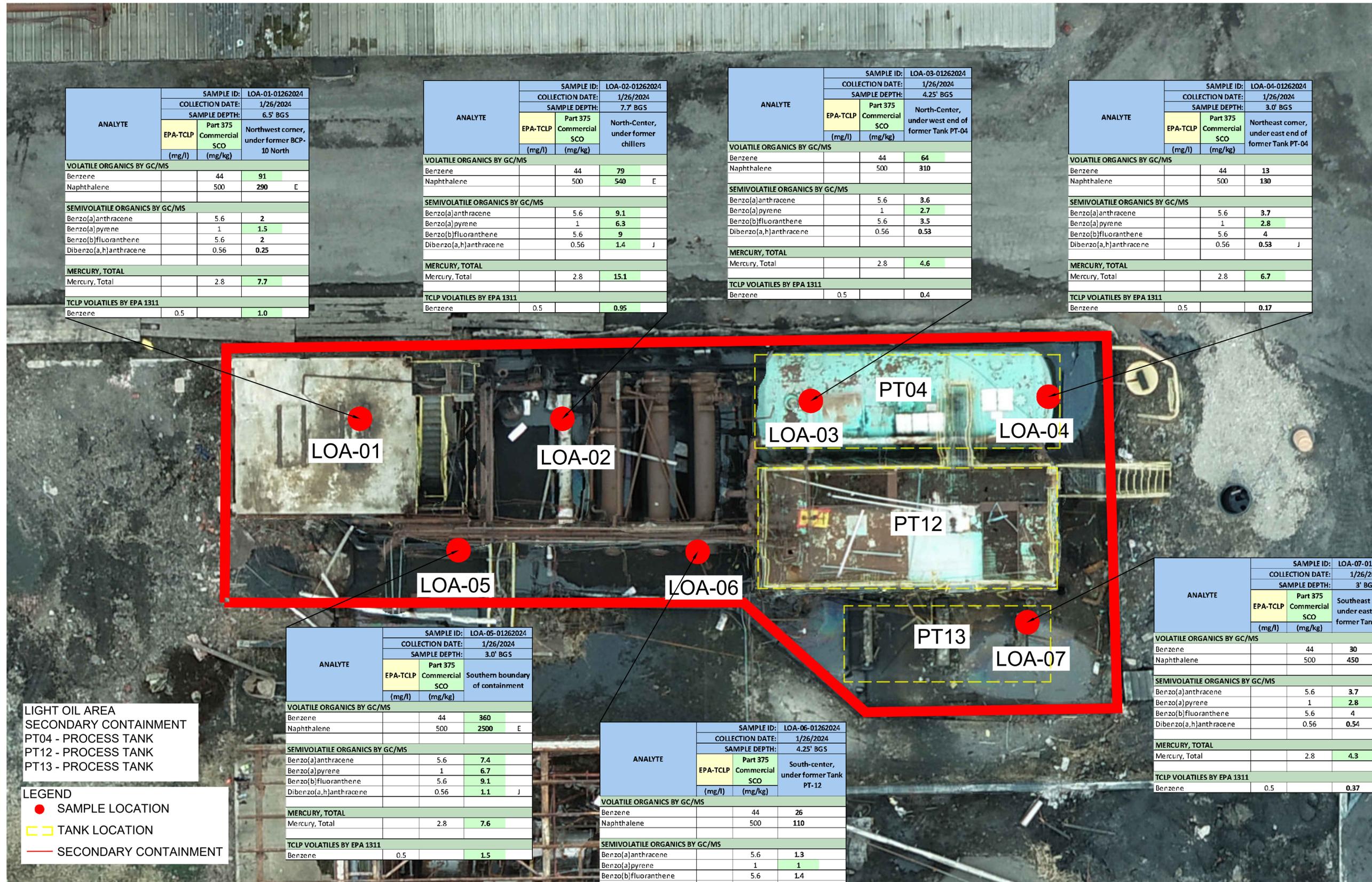
PROPERTY OF INVENTUM ENGINEERING
 IMPORTANT: THIS DRAWING PRINT IS LOANED FOR MUTUAL ASSISTANCE AND AS SUCH IS SUBJECT TO RECALL AT ANY TIME WITHOUT NOTICE. ANY REPRODUCTION OR TRANSMISSION OF THIS DRAWING TO ANY OTHER PARTY WITHOUT THE WRITTEN CONSENT OF INVENTUM ENGINEERING IS STRICTLY PROHIBITED.
 NOTICE: THIS DRAWING HAS BEEN PREPARED UNDER THE ASSURANCE OF A LICENSED PROFESSIONAL ENGINEER, IN ACCORDANCE WITH THE REQUIREMENTS OF THE REGULATION OF STATE LAW FOR ANY PERSONS UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER. TO ALTER THIS DOCUMENT IN ANY WAY.

SECONDARY CONTAINMENT LOCATIONS
 RIVERVIEW INNOVATION & TECHNOLOGY
 CAMPUS, INC.
 3875 RIVER ROAD
 TONAWANDA, NEW YORK 14150
 BCP SITE No. C915353

INVENTUM ENGINEERING
 441 CARLISLE DRIVE
 SUITE C
 HERNDON, VIRGINIA 20170
 (703) 722-6049
 www.InventumEng.com



FIGURE 1
 DRAWING NUMBER
 SECONDARY CONTAINMENT
 CLOSURE CCR



ANALYTE	SAMPLE ID: LOA-01-01262024		
	COLLECTION DATE: 1/26/2024		
	SAMPLE DEPTH: 6.5' BGS		
	EPA-TCLP (mg/l)	Part 375 Commercial SCO (mg/kg)	Northwest corner, under former BCP-10 North
VOLATILE ORGANICS BY GC/MS			
Benzene	44	91	
Naphthalene	500	290	E
SEMIVOLATILE ORGANICS BY GC/MS			
Benzo(a)anthracene	5.6	2	
Benzo(a)pyrene	1	1.5	
Benzo(b)fluoranthene	5.6	2	
Dibenzo(a,h)anthracene	0.56	0.25	
MERCURY, TOTAL			
Mercury, Total	2.8	7.7	
TCLP VOLATILES BY EPA 1311			
Benzene	0.5	1.0	

ANALYTE	SAMPLE ID: LOA-02-01262024		
	COLLECTION DATE: 1/26/2024		
	SAMPLE DEPTH: 7.7' BGS		
	EPA-TCLP (mg/l)	Part 375 Commercial SCO (mg/kg)	North-Center, under former chillers
VOLATILE ORGANICS BY GC/MS			
Benzene	44	79	
Naphthalene	500	540	E
SEMIVOLATILE ORGANICS BY GC/MS			
Benzo(a)anthracene	5.6	9.1	
Benzo(a)pyrene	1	6.3	
Benzo(b)fluoranthene	5.6	9	
Dibenzo(a,h)anthracene	0.56	1.4	J
MERCURY, TOTAL			
Mercury, Total	2.8	15.1	
TCLP VOLATILES BY EPA 1311			
Benzene	0.5	0.95	

ANALYTE	SAMPLE ID: LOA-03-01262024		
	COLLECTION DATE: 1/26/2024		
	SAMPLE DEPTH: 4.25' BGS		
	EPA-TCLP (mg/l)	Part 375 Commercial SCO (mg/kg)	North-Center, under west end of former Tank PT-04
VOLATILE ORGANICS BY GC/MS			
Benzene	44	64	
Naphthalene	500	310	
SEMIVOLATILE ORGANICS BY GC/MS			
Benzo(a)anthracene	5.6	3.6	
Benzo(a)pyrene	1	2.7	
Benzo(b)fluoranthene	5.6	3.5	
Dibenzo(a,h)anthracene	0.56	0.53	
MERCURY, TOTAL			
Mercury, Total	2.8	4.6	
TCLP VOLATILES BY EPA 1311			
Benzene	0.5	0.4	

ANALYTE	SAMPLE ID: LOA-04-01262024		
	COLLECTION DATE: 1/26/2024		
	SAMPLE DEPTH: 3.0' BGS		
	EPA-TCLP (mg/l)	Part 375 Commercial SCO (mg/kg)	Northeast corner, under east end of former Tank PT-04
VOLATILE ORGANICS BY GC/MS			
Benzene	44	13	
Naphthalene	500	130	
SEMIVOLATILE ORGANICS BY GC/MS			
Benzo(a)anthracene	5.6	3.7	
Benzo(a)pyrene	1	2.8	
Benzo(b)fluoranthene	5.6	4	
Dibenzo(a,h)anthracene	0.56	0.53	J
MERCURY, TOTAL			
Mercury, Total	2.8	6.7	
TCLP VOLATILES BY EPA 1311			
Benzene	0.5	0.17	

ANALYTE	SAMPLE ID: LOA-05-01262024		
	COLLECTION DATE: 1/26/2024		
	SAMPLE DEPTH: 3.0' BGS		
	EPA-TCLP (mg/l)	Part 375 Commercial SCO (mg/kg)	Southern boundary of containment
VOLATILE ORGANICS BY GC/MS			
Benzene	44	360	E
Naphthalene	500	2500	
SEMIVOLATILE ORGANICS BY GC/MS			
Benzo(a)anthracene	5.6	7.4	
Benzo(a)pyrene	1	6.7	
Benzo(b)fluoranthene	5.6	9.1	
Dibenzo(a,h)anthracene	0.56	1.1	J
MERCURY, TOTAL			
Mercury, Total	2.8	7.6	
TCLP VOLATILES BY EPA 1311			
Benzene	0.5	1.5	

ANALYTE	SAMPLE ID: LOA-06-01262024		
	COLLECTION DATE: 1/26/2024		
	SAMPLE DEPTH: 4.25' BGS		
	EPA-TCLP (mg/l)	Part 375 Commercial SCO (mg/kg)	South-center, under former Tank PT-12
VOLATILE ORGANICS BY GC/MS			
Benzene	44	26	
Naphthalene	500	110	
SEMIVOLATILE ORGANICS BY GC/MS			
Benzo(a)anthracene	5.6	1.3	
Benzo(a)pyrene	1	1	
Benzo(b)fluoranthene	5.6	1.4	
Dibenzo(a,h)anthracene	0.56	0.19	J
MERCURY, TOTAL			
Mercury, Total	2.8	4.6	
TCLP VOLATILES BY EPA 1311			
Benzene	0.5	0.13	

ANALYTE	SAMPLE ID: LOA-07-01262024		
	COLLECTION DATE: 1/26/2024		
	SAMPLE DEPTH: 3' BGS		
	EPA-TCLP (mg/l)	Part 375 Commercial SCO (mg/kg)	Southeast corner, under east end of former Tank PT-13
VOLATILE ORGANICS BY GC/MS			
Benzene	44	30	
Naphthalene	500	450	E
SEMIVOLATILE ORGANICS BY GC/MS			
Benzo(a)anthracene	5.6	3.7	
Benzo(a)pyrene	1	2.8	
Benzo(b)fluoranthene	5.6	4	
Dibenzo(a,h)anthracene	0.56	0.54	J
MERCURY, TOTAL			
Mercury, Total	2.8	4.3	
TCLP VOLATILES BY EPA 1311			
Benzene	0.5	0.37	

LIGHT OIL AREA
SECONDARY CONTAINMENT
PT04 - PROCESS TANK
PT12 - PROCESS TANK
PT13 - PROCESS TANK

LEGEND
● SAMPLE LOCATION
□ TANK LOCATION
— SECONDARY CONTAINMENT

D



DRAWING BY: RB
CHECKED: [blank]
APPROVED: [blank]

PROPERTY OF INVENTUM ENGINEERING
IMPORTANT: THIS DRAWING PRINT IS LOANED FOR MUTUAL ASSISTANCE AND AS SUCH IS SUBJECT TO RECALL AT ANY TIME WITHOUT NOTICE. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM FOR THE BENEFIT OF PARTIES OTHER THAN NECESSARY PARTNERS, FINANCIAL INSTITUTIONS, SUBCONTRACTORS, OR CONSULTANTS WITHOUT THE WRITTEN CONSENT OF INVENTUM ENGINEERING.
NOTICE: THIS DRAWING HAS BEEN PREPARED UNDER THE ASSISTANCE AND SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER. TO ALTER THIS DOCUMENT IN ANY WAY.

LIGHT OIL AREA SECONDARY CONTAINMENT SAMPLING
RIVERVIEW INNOVATION & TECHNOLOGY CAMPUS, INC.
3875 RIVER ROAD
TONAWANDA, NEW YORK 14150
BCP SITE No. C915333

INVENTUM ENGINEERING
441 CARLISLE DRIVE
SUITE C
HERNDON, VIRGINIA 20170
(703) 722-6049
www.inventumEng.com



FIGURE 2
DRAWING NUMBER
SECONDARY CONTAINMENT CLOSURE CCR

Tables





Table 1
 Secondary Containment Closure Construction Completion Report
 Light Oil Area Tanks PT04, PT12, and PT13
 Riverview Innovation & Technology Campus, Inc.,
 Tonawanda, New York

ANALYTE	SAMPLE ID:		LOA-01-01262024	LOA-02-01262024	LOA-03-01262024	LOA-04-01262024	LOA-05-01262024	LOA-06-01262024	LOA-07-01262024
	LAB REPORT:		480-216689	480-216689	480-216689	480-216689	480-216689	480-216689	480-216689
	COLLECTION DATE:		1/26/2024	1/26/2024	1/26/2024	1/26/2024	1/26/2024	1/26/2024	1/26/2024
	SAMPLE DEPTH:		6.5' BGS	7.7' BGS	4.25' BGS	3.0' BGS	3.0' BGS	4.25' BGS	3' BGS
	LOCATION:		Northwest corner, under former BCP-10 North, Light Oil Building.	North-Center, under former chillers.	North-Center, under west end of former Tank PT-04.	Northeast corner, under east end of former Tank PT-04.	Southern boundary of containment.	South-center, under former Tank PT-12.	Southeast corner, under east end of former Tank PT-13.
EPA-TCLP (mg/l)	Part 375 Commercial SCO (mg/kg)								
VOLATILE ORGANICS BY GC/MS									
1,1,1-Trichloroethane		500	<0.69 U	<0.550 U	<1.300 U	<1.100 U	<3.600 U	<1.500 U	<1.200 U
1,1,2,2-Tetrachloroethane			<0.41 U	<0.330 U	<0.730 U	<0.660 U	<2.100 U	<0.880 U	<0.680 U
1,1,2-Trichloro-1,2,2-trifluoroethane			<1.3 U	<1.00 U	<2.300 U	<2.000 U	<6.400 U	<2.700 U	<2.100 U
1,1,2-Trichloroethane			<0.53 U	<0.420 U	<0.950 U	<0.860 U	<2.700 U	<1.100 U	<0.880 U
1,1-Dichloroethane		240	<0.77 U	<0.620 U	<1.400 U	<1.300 U	<4.000 U	<1.700 U	<1.300 U
1,1-Dichloroethene		500	<0.87 U	<0.690 U	<1.600 U	<1.400 U	<4.400 U	<1.900 U	<1.400 U
1,2,4-Trichlorobenzene			<0.95 U	<0.760 U	<1.700 U	<1.500 U	<4.900 U	<2.100 U	<1.600 U
1,2,4-Trimethylbenzene		190	10	7	3.8 J	2.2 J	2.1	<1.5 U	8.1
1,2-Dibromo-3-chloropropane			<1.3 U	<1.000 U	<2.300 U	<2.000 U	<6.400 U	<2.700 U	<2.100 U
1,2-Dibromoethane			<0.44 U	<0.350 U	<0.790 U	<0.710 U	<2.200 U	<0.950 U	<0.730 U
1,2-Dichlorobenzene		500	<0.64 U	<0.510 U	<1.200 U	<1.000 U	<3.300 U	<1.400 U	<1.100 U
1,2-Dichloroethane		30	<1.0 U	<0.820 U	<1.800 U	<1.700 U	<5.300 U	<2.200 U	<1.700 U
1,2-Dichloropropane			<0.41 U	<0.320 U	<0.730 U	<0.660 U	<2.100 U	<0.880 U	<0.680 U
1,3-Dichlorobenzene		280	<0.67 U	<0.530 U	<1.200 U	<1.100 U	<3.400 U	<1.400 U	<1.100 U
1,3,5-Trimethylbenzene		190	4.5	4.2	1.9 J	1.3 J	1.5	<1.6 U	5.4
1,4-Dichlorobenzene		130	<0.35 U	<0.280 U	<0.630 U	<0.570 U	<1.800 U	<0.760 U	<0.500 U
2-Butanone (MEK)		500	<7.4 U	<5.900 U	<13.000 U	<12.000 U	<38.000 U	<16.000 U	<12.000 U
2-Hexanone			<5.1 U	<4.100 U	<9.300 U	<8.400 U	<26.000 U	<11.000 U	<8.600 U
4-Isopropyltoluene		390	<0.840 U	<0.670 U	<1.5 U	<1.4 U	<4.3 U	<1.8 U	<1.4 U
4-Methyl-2-pentanone			<0.8 U	<0.640 U	<1.400 U	<1.300 U	<4.100 U	<1.700 U	<1.300 U
Acetone		500	<10 U	<8.200 U	<19.000 U	<17.000 U	<53.000 U	<22.000 U	<17.000 U
Benzene		44	91	79	64	13	360	26	30
Bromodichloromethane			<0.5 U	<0.400 U	<0.900 U	<0.820 U	<2.600 U	<1.100 U	<0.840 U
Bromoform			<1.3 U	<1.000 U	<2.300 U	<2.000 U	<6.400 U	<2.700 U	<2.100 U
Bromomethane			<0.55 U	<0.440 U	<0.990 U	<0.900 U	<2.800 U	<1.200 U	<0.920 U
Carbon disulfide			<1.1 U	<0.910 U	<2.100 U	<1.900 U	<5.800 U	<2.500 U	<1.900 U
Carbon tetrachloride		22	<0.64 U	<0.510 U	<1.200 U	<1.000 U	<3.300 U	<1.400 U	<1.100 U
Chlorobenzene		500	<0.33 U	<0.260 U	<0.600 U	<0.540 U	<1.700 U	<0.720 U	<0.550 U
Chloroethane			<0.52 U	<0.420 U	<0.940 U	<0.850 U	<2.700 U	<1.100 U	<0.870 U
Chloroform		350	<1.7 U	<1.400 U	<3.100 U	<2.800 U	<8.800 U	<3.700 U	<2.900 U
Chloromethane			<0.6 U	<0.480 U	<1.100 U	<0.970 U	<3.100 U	<1.300 U	<0.990 U
cis-1,2-Dichloroethene		500	<0.69 U	<0.550 U	<1.200 U	<1.100 U	<3.500 U	<1.500 U	<1.200 U
cis-1,3-Dichloropropene			<0.6 U	<0.480 U	<1.100 U	<0.980 U	<3.100 U	<1.300 U	<1.000 U
Cyclohexane			<0.56 U	<0.440 U	<1.000 U	<0.910 U	<2.800 U	<1.200 U	<0.930 U
Dibromochloromethane			<1.2 U	<0.970 U	<2.200 U	<2.000 U	<6.200 U	<2.600 U	<2.000 U
Dichlorodifluoromethane			<1.1 U	<0.870 U	<2.000 U	<1.800 U	<5.600 U	<2.400 U	<1.800 U
Ethylbenzene		390	18	11	9.3	2.2 J	21	2.5 J	13
Isopropylbenzene			0.6 J	<0.300 U	<0.680 U	<0.610 U	<1.900 U	<0.810 U	<0.630 U
p/m-Xylene			52	49	14	7.8 J	180	7.7 J	27
Methyl Acetate			<1.2 U	<0.950 U	<2.200 U	<1.900 U	<6.100 U	<2.600 U	<2.000 U
Methyl tert butyl ether		500	<0.95 U	<0.760 U	<1.700 U	<1.500 U	<4.900 U	<2.000 U	<1.600 U
Methyl cyclohexane			<1.2 U	<0.940 U	<2.100 U	<1.900 U	<6.000 U	<2.500 U	<2.000 U
n-Butylbenzene		390	<0.730 U	<0.580 U	<1.3 U	<1.2 U	<3.7 U	<1.6 U	<1.2 U
N-Propylbenzene			<0.660 U	<0.520 U	<1.2 U	<1.1 U	<3.4 U	<1.4 U	<1.1 U
Methylene chloride		500	<500 U	<0.400 U	<0.900 U	<0.810 U	<2.500 U	<1.100 U	<0.830 U
Naphthalene		500	290 E	540 E	310	130	2500 E	110	450 E
o-Xylene			11	11	3.5 J	2 J	41	1.9 J	7.4
sec-Butylbenzene		390	<0.920 U	<0.740 U	<1.7 U	<1.5 U	<4.7 U	<2.0 U	<1.5 U
Styrene			5	12	<1.100 U	1.1 J	41	<1.300 U	1.3 J



Table 1
 Secondary Containment Closure Construction Completion Report
 Light Oil Area Tanks PT04, PT12, and PT13
 Riverview Innovation & Technology Campus, Inc.,
 Tonawanda, New York

ANALYTE	SAMPLE ID:		LOA-01-01262024	LOA-02-01262024	LOA-03-01262024	LOA-04-01262024	LOA-05-01262024	LOA-06-01262024	LOA-07-01262024
	LAB REPORT:		480-216689	480-216689	480-216689	480-216689	480-216689	480-216689	480-216689
	COLLECTION DATE:		1/26/2024	1/26/2024	1/26/2024	1/26/2024	1/26/2024	1/26/2024	1/26/2024
	SAMPLE DEPTH:		6.5' BGS	7.7' BGS	4.25' BGS	3.0' BGS	3.0' BGS	4.25' BGS	3' BGS
	LOCATION:		Northwest corner, under former BCP-10 North, Light Oil Building.	North-Center, under former chillers.	North-Center, under west end of former Tank PT-04.	Northeast corner, under east end of former Tank PT-04.	Southern boundary of containment.	South-center, under former Tank PT-12.	Southeast corner, under east end of former Tank PT-13.
EPA-TCLP (mg/l)	Part 375 Commercial SCO (mg/kg)								
tert-Butylbenzene	390	<0.700 U	<0.560 U	<1.3 U	<1.1 U	<3.6 U	<1.5 U	<1.2 U	
Tetrachloroethene	150	<0.34 U	<0.270 U	<0.610 U	<0.550 U	3.5 J	<0.730 U	<0.560 U	
Toluene	500	57	84	13	11	350	13	10	
trans-1,2-Dichloroethene	500	<0.59 U	<0.470 U	<1.100 U	<0.960 U	<3.000 U	<1.300 U	<0.990 U	
trans-1,3-Dichloropropene		<0.25 U	<0.200 U	<0.440 U	<0.400 U	<1.300 U	<0.530 U	<0.410 U	
Trichloroethene	200	<0.7 U	<0.560 U	<1.300 U	<1.100 U	<3.600 U	<1.500 U	<1.200 U	
Trichlorofluoromethane		<1.2 U	<0.940 U	<2.100 U	<1.900 U	<6.000 U	<2.500 U	<2.000 U	
Vinyl chloride	13	<0.84 U	<0.670 U	<1.500 U	<1.400 U	<4.300 U	<1.800 U	<1.400 U	
Xylenes, Total	500	63	60	18	9.8	220	9.6 J	34	
Total VOCs		539.1	797.2	419.5	170.6	3500.1	161.1	552.2	
SEMIVOLATILE ORGANICS BY GC/MS									
1,4-Dioxane	130	<0.075 U	<0.650 U	<0.070 U	<0.310 U	<0.700 U	<0.075 U	<0.650 U	
2,4,5-Trichlorophenol		<0.063 U	<0.540 U	<0.058 U	<0.260 U	<0.590 U	<0.063 U	<0.540 U	
2,4,6-Trichlorophenol		<0.046 U	<0.400 U	<0.043 U	<0.190 U	<0.430 U	<0.046 U	<0.400 U	
2,4-Dichlorophenol		<0.024 U	<0.210 U	<0.023 U	<0.100 U	<0.230 U	<0.025 U	<0.210 U	
2,4-Dimethylphenol		0.15 J	<0.490 U	<0.052 U	<0.230 U	<0.520 U	0.084 J	<0.480 U	
2,4-Dinitrophenol		<1.1 U	<9.300 U	<0.990 U	<4.500 U	<10.000 U	<1.100 U	<9.300 U	
2,4-Dinitrotoluene		<0.048 U	<0.410 U	<0.044 U	<0.200 U	<0.450 U	<0.046 U	<0.410 U	
2,6-Dinitrotoluene		<0.027 U	<0.240 U	<0.025 U	<0.110 U	<0.250 U	<0.027 U	<0.240 U	
2-Chloronaphthalene		<0.038 U	<0.330 U	<0.035 U	<0.160 U	<0.360 U	<0.038 U	<0.330 U	
2-Chlorophenol		<0.042 U	<0.370 U	<0.039 U	<0.180 U	<0.390 U	<0.042 U	<0.370 U	
2-Methylnaphthalene		2.5	19	7.8	6.6	16	1.9	10	
2-Methylphenol	500	15 J	<0.240 U	0.1 J	<0.110 U	<0.250 U	0.12 J	<0.240 U	
2-Nitroaniline		<0.034 U	<0.300 U	<0.032 U	<0.140 U	<0.320 U	<0.034 U	<0.290 U	
2-Nitrophenol		<0.065 U	<0.570 U	<0.061 U	<0.270 U	<0.610 U	<0.065 U	<0.570 U	
3,3'-Dichlorobenzidine		<0.27 U	<2.400 U	<0.250 U	<1.100 U	<2.500 U	<0.270 U	<2.400 U	
3-Nitroaniline		<0.064 U	<0.560 U	<0.060 U	<0.270 U	<0.600 U	<0.064 U	<0.550 U	
4,6-Dinitro-2-methylphenol		<0.230 U	<2.000 U	<0.220 U	<0.970 U	<2.200 U	<0.230 U	<2.000 U	
4-Bromophenyl phenyl ether		<0.033 U	<0.280 U	<0.030 U	<0.140 U	<0.310 U	<0.033 U	<0.280 U	
4-Chloro-3-methylphenol		<0.057 U	<0.500 U	<0.053 U	<0.240 U	<0.530 U	<0.057 U	<0.500 U	
4-Chloroaniline		<0.057 U	<0.500 U	<0.053 U	<0.240 U	<0.530 U	<0.057 U	<0.500 U	
4-Chlorophenyl phenyl ether		<0.029 U	<0.250 U	<0.027 U	<0.120 U	<0.270 U	<0.029 U	<0.250 U	
3-Methylphenol/4-Methylphenol	500	0.31 J	0.37 J	0.16 J	0.28 J	0.47 J	0.23 J	<0.240 U	
4-Nitroaniline		<0.120 U	<1.100 U	<0.110 U	<0.510 U	<1.100 U	<0.120 U	<1.100 U	
4-Nitrophenol		<0.160 U	<1.400 U	<0.150 U	<0.680 U	<1.500 U	<0.160 U	<1.400 U	
Acenaphthene	500	1.2	11	4.9	2.8	2.3	1	5.7	
Acenaphthylene	500	1.3	6.5	2.1	2.6	8.5	1	3.4	
Acetophenone		0.041 J	<0.270 U	0.06 J	<0.130 U	<0.290 U	<0.031 U	<0.270 U	
Anthracene	500	0.85	4.5	2.2	1.7	5.2	0.7	1.6 J	
Atrazine		<0.080 U	<0.700 U	<0.075 U	<0.340 U	<0.750 U	<0.080 U	<0.700 U	
Benzaldehyde		<0.180 U	<1.600 U	<0.170 U	<0.770 U	<1.700 U	<0.180 U	<1.600 U	
Benzo(a)anthracene	5.6	2	9.1	3.6	3.7	7.4	1.3	3.7	
Benzo(a)pyrene	1	1.5	6.3	2.7	2.8	6.7	1	2.8	
Benzo(b)fluoranthene	5.6	2	9	3.5	4	9.1	1.4	4	
Benzo(ghi)perylene	500	0.68	3.3	1.3	1.4	3.7	0.53	1.6 J	
Benzo(k)fluoranthene	56	1	5.3	2	2.1	3	0.66	2.2	
Biphenyl		0.35	2.2	0.99	0.69 J	2 J	0.25	1.1 J	
Bis(2-chloroisopropyl)ether		<0.046 U	<0.400 U	<0.043 U	<0.190 U	<0.430 U	<0.046 U	<0.400 U	
Bis(2-chloroethoxy)methane		<0.049 U	<0.430 U	<0.046 U	<0.210 U	<0.460 U	<0.049 U	<0.420 U	



Table 1
 Secondary Containment Closure Construction Completion Report
 Light Oil Area Tanks PT04, PT12, and PT13
 Riverview Innovation & Technology Campus, Inc.,
 Tonawanda, New York

ANALYTE	SAMPLE ID:		LOA-01-01262024	LOA-02-01262024	LOA-03-01262024	LOA-04-01262024	LOA-05-01262024	LOA-06-01262024	LOA-07-01262024
	LAB REPORT:		480-216689	480-216689	480-216689	480-216689	480-216689	480-216689	480-216689
	COLLECTION DATE:		1/26/2024	1/26/2024	1/26/2024	1/26/2024	1/26/2024	1/26/2024	1/26/2024
	SAMPLE DEPTH:		6.5' BGS	7.7' BGS	4.25' BGS	3.0' BGS	3.0' BGS	4.25' BGS	3' BGS
	LOCATION:		Northwest corner, under former BCP-10 North, Light Oil Building.	North-Center, under former chillers.	North-Center, under west end of former Tank PT-04.	Northeast corner, under east end of former Tank PT-04.	Southern boundary of containment.	South-center, under former Tank PT-12.	Southeast corner, under east end of former Tank PT-13.
EPA-TCLP (mg/l)	Part 375 Commercial SCO (mg/kg)								
Bis(2-chloroethyl)ether		<0.030 U	<0.260 U	<0.028 U	<0.130 U	<0.280 U	<0.030 U	<0.260 U	
Bis(2-ethylhexyl)phthalate		<0.079 U	<0.690 U	<0.073 U	<0.330 U	<0.740 U	<0.079 U	<0.680 U	
Butyl benzyl phthalate		<0.038 U	<0.330 U	<0.035 U	<0.160 U	<0.360 U	<0.038 U	<0.330 U	
Caprolactam		<0.069 U	<0.600 U	<0.065 U	<0.290 U	<0.650 U	<0.070 U	<0.600 U	
Carbazole		0.49	1.9 J	0.75	0.68 J	2 J	0.23	0.81 J	
Chrysene	56	1.9	9.9	3.8	4	7.8	1.3	4.1	
Dibenzo(a,h)anthracene	0.56	0.25	1.4 J	0.53	0.53 J	1.1 J	0.19 J	0.54 J	
Dibenzofuran	350	0.92	6.3	2.8	1.9	4.7	0.65	2.7	
Diethyl phthalate		<0.030 U	<0.260 U	<0.028 U	<0.130 U	<0.290 U	<0.030 U	<0.260 U	
Dimethyl phthalate		<0.027 U	<0.240 U	<0.025 U	<0.110 U	<0.320 U	<0.027 U	<0.240 U	
Di-n-butylphthalate		<0.039 U	<0.340 U	<0.037 U	<0.170 U	<0.290 U	<0.040 U	<0.340 U	
Di-n-octylphthalate		<0.027 U	<0.240 U	<0.025 U	<0.110 U	<0.280 U	<0.027 U	<0.240 U	
Fluoranthene	500	5.2	25	8.4	9.7	22	3.5	10	
Fluorene	500	1.3	7.9	3.8	2.7	6.6	0.95	3.3	
Hexachlorobenzene	6	<0.031 U	<0.270 U	<0.029 U	<0.130 U	<0.290 U	<0.031 U	<0.270 U	
Hexachlorobutadiene		<0.034 U	<0.300 U	<0.032 U	<0.140 U	<0.320 U	<0.034 U	<0.290 U	
Hexachlorocyclopentadiene		<0.031 U	<0.270 U	<0.029 U	<0.130 U	<0.290 U	<0.031 U	<0.270 U	
Hexachloroethane		<0.030 U	<0.260 U	<0.028 U	<0.130 U	<0.280 U	<0.030 U	<0.260 U	
Indeno(1,2,3-cd)pyrene	5.6	0.72	3.6	1.4	1.6	3.7	0.57	1.6 J	
Isophorone		<0.049 U	<0.430 U	<0.046 U	<0.210 U	<0.460 U	<0.049 U	<0.420 U	
Naphthalene	500	24	150	48	53	450	16	96	
Nitrobenzene		<0.026 U	<0.220 U	<0.024 U	<0.110 U	<0.240 U	<0.026 U	<0.220 U	
n-Nitrosodi-n-propylamine		<0.039 U	<0.340 U	<0.037 U	<0.170 U	<0.370 U	<0.040 U	<0.340 U	
n-Nitrosodiphenylamine		<0.19 U	<1.600 U	<0.170 U	<0.790 U	<1.800 U	<0.190 U	<1.600 U	
Pentachlorophenol	6.7	<0.23 U	<2.000 U	<0.220 U	<0.970 U	<2.200 U	<0.230 U	<2.000 U	
Phenanthrene	500	3.3	16	7.2	6.3	22	2.6	6	
Phenol	500	0.59	0.52 J	0.2 J	0.52 J	0.58 J	0.32	<0.310 U	
Pyrene	500	3.1	14	5.4	6	14	2	6.3	
Total SVOCs		70.65	313.1	113.69	115.60	598.85	38.48	167.45	
MERCURY, TOTAL									
Mercury, Total	2.8	7.7	15.1	4.6	6.7	7.6	4.6	4.3	
GENERAL CHEMISTRY									
Cyanide, Reactive		<9.5 U	<9.6 U	<9.4 U	<9.3 U	<9.2 U	<9.3 U	<9.2 U	
Sulfide, Reactive		133	<9.6 U	94.3	<9.3 U	55.3	93.2	92.5	
Ignitability (Degrees F)	<140	>180	>180	>180	>180	>180	>180	>180	
pH (H)	>12.5, <2	10.1 HF	11.3 HF	10.6	11.7	11.1 HF	9.7 HF	10.3	
Ammonia, as N		198	257	255	22.3	159	171	231	
Cyanide, Total	27	16.5	10.4	5	7.4	2.3	1.6	11.2	
Solids, Total		72.3	83.1	78.7	85.8	77.2	72.1	82.3	



Table 1
 Secondary Containment Closure Construction Completion Report
 Light Oil Area Tanks PT04, PT12, and PT13
 Riverview Innovation & Technology Campus, Inc.,
 Tonawanda, New York

ANALYTE	SAMPLE ID:		LOA-01-01262024	LOA-02-01262024	LOA-03-01262024	LOA-04-01262024	LOA-05-01262024	LOA-06-01262024	LOA-07-01262024
	LAB REPORT:		480-216689	480-216689	480-216689	480-216689	480-216689	480-216689	480-216689
	COLLECTION DATE:		1/26/2024	1/26/2024	1/26/2024	1/26/2024	1/26/2024	1/26/2024	1/26/2024
	SAMPLE DEPTH:		6.5' BGS	7.7' BGS	4.25' BGS	3.0' BGS	3.0' BGS	4.25' BGS	3' BGS
	LOCATION:		Northwest corner, under former BCP-10 North, Light Oil Building.	North-Center, under former chillers.	North-Center, under west end of former Tank PT-04.	Northeast corner, under east end of former Tank PT-04.	Southern boundary of containment.	South-center, under former Tank PT-12.	Southeast corner, under east end of former Tank PT-13.
EPA-TCLP (mg/l)	Part 375 Commercial SCO (mg/kg)								
TCLP VOLATILES BY EPA 1311									
1,1-Dichloroethene	0.7		<0.0029 U	<0.0029 U	<0.0029 U	<0.0029 U	<0.0029 U	<0.0029 U	<0.0029 U
1,2-Dichloroethane	0.5		<0.0021 U	<0.0021 U	<0.0021 U	<0.0021 U	<0.0021 U	<0.0021 U	<0.0021 U
2-Butanone	200		<0.013 U	<0.013 U	<0.013 U	<0.013 U	<0.013 U	<0.013 U	<0.013 U
Benzene	0.5		1.0	0.95	0.4	0.17	1.5	0.13	0.37
Carbon tetrachloride	0.5		<0.0027 U	<0.0027 U	<0.0027 U	<0.0027 U	<0.0027 U	<0.0027 U	<0.0027 U
Chlorobenzene	100		<0.0075 U	<0.0075 U	<0.0075 U	<0.0075 U	<0.0075 U	<0.0075 U	<0.0075 U
Chloroform	6		<0.0034 U	<0.0034 U	<0.0034 U	<0.0034 U	<0.0034 U	<0.0034 U	<0.0034 U
Tetrachloroethene	0.7		<0.0036 U	<0.0036 U	<0.0036 U	<0.0036 U	0.017	<0.0036 U	<0.0036 U
Trichloroethene	0.5		<0.0046 U	<0.0046 U	<0.0046 U	<0.0046 U	<0.0046 U	<0.0046 U	<0.0046 U
Vinyl chloride	0.2		<0.0090 U	<0.0090 U	<0.0090 U	<0.0090 U	<0.0090 U	<0.0090 U	<0.0090 U
SUM			1.0	0.95	0.4	0.17	1.5	0.13	0.37
TCLP SEMIVOLATILES BY EPA 1311									
2,4,5-Trichlorophenol	400		<0.0019 U	<0.0019 U	<0.0019 U	<0.0019 U	<0.0019 U	<0.0019 U	<0.0019 U
2,4,6-Trichlorophenol	2		<0.0024 U	<0.0024 U	<0.0024 U	<0.0024 U	<0.0024 U	<0.0024 U	<0.0024 U
2,4-Dinitrotoluene	0.13		<0.0017 U	<0.0017 U	<0.0017 U	<0.0017 U	<0.0017 U	<0.0017 U	<0.0017 U
2-Methylphenol	200		0.022 J	0.015 J	0.0072 J	0.0061 J	0.076	0.011 J	0.0061 J
3-Methylphenol	200		0.034 J	0.028 J	0.011 J	0.014 J	0.12	0.02 J	0.0065 J
4-Methylphenol	200		0.034 J	0.028 J	0.011 J	0.014 J	0.12	0.02 J	0.0065 J
Hexachlorobenzene	0.13		<0.0020 U	<0.0020 U	<0.0020 U	<0.0020 U	<0.0020 U	<0.0020 U	<0.0020 U
Hexachlorobutadiene	0.5		<0.0027 U	<0.0027 U	<0.0027 U	<0.0027 U	<0.0027 U	<0.0027 U	<0.0027 U
Hexachloroethane	3		<0.0023 U	<0.0023 U	<0.0023 U	<0.0023 U	<0.0023 U	<0.0023 U	<0.0023 U
Nitrobenzene	2		<0.0011 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0011 U
Pentachlorophenol	100		<0.0088 U	<0.0088 U	<0.0088 U	<0.0088 U	<0.0088 U	<0.0088 U	<0.0088 U
Pyridine	5		<0.0016 U	<0.0016 U	0.0024 J	<0.0016 U	<0.0016 U	<0.0016 U	<0.0016 U
SUM			0.0900	0.0710	0.0316	0.0341	0.316	0.051	0.0191
TCLP METALS BY EPA 1311									
Arsenic, TCLP	5		<0.0056 U	<0.0056 U	<0.0056 U	0.006 J	<0.0056 U	0.0056 J	<0.0056 U
Barium, TCLP	100		0.85 J	0.93 J	0.91 J	0.55 J	1	0.93 J	0.7 J
Cadmium, TCLP	1		<0.00050 U	<0.00050 U	<0.00050 U	<0.00050 U	<0.00050 U	<0.00050 U	<0.00050 U
Chromium, TCLP	5		<0.010 U	<0.010 U	<0.010 U	<0.010 U	<0.010 U	<0.010 U	<0.010 U
Lead, TCLP	5		0.019 JB	0.019 JB	0.017 JB	0.014 JB	0.029 B	0.022 B	0.021 B
Mercury, TCLP	0.2		<0.000043 U	0.0002	<0.000043 U	<0.000043 U	<0.000043 U	<0.000043 U	<0.000043 U
Selenium, TCLP	1		<0.0087 U	<0.0087 U	<0.0087 U	<0.0087 U	<0.0087 U	<0.0087 U	<0.0087 U
Silver, TCLP	5		<0.0017 U	<0.0017 U	<0.0017 U	<0.0017 U	<0.0017 U	<0.0017 U	<0.0017 U
TCLP PESTICIDES BY EPA 1311									
Chlordane	0.03		<0.000029 U	<0.000029 U	<0.000029 U	<0.000029 U	<0.000029 U	<0.000029 U	<0.000029 U
Endrin	0.02		<0.000014 U	<0.000014 U	<0.000014 U	0.000045 J	<0.000014 U	<0.000014 U	0.000069 J
Lindane	0.4		<0.0000060 U	<0.0000060 U	<0.0000060 U	<0.0000060 U	<0.0000060 U	<0.0000060 U	0.000093 J
Heptachlor	0.008		<0.0000085 U	<0.0000085 U	<0.0000085 U	<0.0000085 U	<0.0000085 U	<0.0000085 U	<0.0000085 U
Heptachlor epoxide	0.008		<0.0000053 U	<0.0000053 U	<0.0000053 U	<0.0000053 U	<0.0000053 U	<0.0000053 U	<0.0000053 U
Methoxychlor	10		<0.000014 U	<0.000014 U	<0.000014 U	<0.000014 U	<0.000014 U	<0.000014 U	<0.000014 U
Toxaphene	0.5		<0.00012 U	<0.00012 U	<0.00012 U	<0.00012 U	<0.00012 U	<0.00012 U	<0.00012 U



Table 1
 Secondary Containment Closure Construction Completion Report
 Light Oil Area Tanks PT04, PT12, and PT13
 Riverview Innovation & Technology Campus, Inc.,
 Tonawanda, New York

ANALYTE	SAMPLE ID:		LOA-01-01262024	LOA-02-01262024	LOA-03-01262024	LOA-04-01262024	LOA-05-01262024	LOA-06-01262024	LOA-07-01262024
	LAB REPORT:		480-216689	480-216689	480-216689	480-216689	480-216689	480-216689	480-216689
	COLLECTION DATE:		1/26/2024	1/26/2024	1/26/2024	1/26/2024	1/26/2024	1/26/2024	1/26/2024
	SAMPLE DEPTH:		6.5' BGS	7.7' BGS	4.25' BGS	3.0' BGS	3.0' BGS	4.25' BGS	3' BGS
	LOCATION:		Northwest corner, under former BCP-10 North, Light Oil Building.	North-Center, under former chillers.	North-Center, under west end of former Tank PT-04.	Northeast corner, under east end of former Tank PT-04.	Southern boundary of containment.	South-center, under former Tank PT-12.	Southeast corner, under east end of former Tank PT-13.
EPA-TCLP (mg/l)	Part 375 Commercial SCO (mg/kg)								
TCLP HERBICIDES BY EPA 1311									
2,4,5-TP (Silvex)	1		<0.00040 U	<0.00040 U	<0.00040 U	<0.00040 U	<0.00040 U	<0.00040 U	<0.00040 U
2,4-D	10		<0.00036 U	<0.00036 U	<0.00036 U	<0.00036 U	<0.00036 U	<0.00036 U	<0.00036 U
PFAS									
PERFLUOROCTANE SULFONIC ACID (PFOS)		0.44	<0.000076 U	-	-	-	-	-	-
Perfluorooctanoic acid (PFOA)		0.50	<0.000057 U	-	-	-	-	-	-

* Comparison is not performed on parameters with non-numeric criteria.

EPA-TCLP: EPA Toxicity Characteristic (TCLP) Regulatory Levels Criteria per 40CFR Part 261 as of September 10, 2015.

NY-RESC: New York NYCRR Part 375 Commercial Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

NY-RESI: New York NYCRR Part 375 Industrial Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

Qualifiers:

U - Not detected at the reported detection limit for the sample.

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

B - Compound was found in the blank and sample.

E - Result exceeded calibration range.

HF - Analyzed outside of hold time.

Bold - Compound is detected

Red Highlight - Exceeds NYS Part 375 Industrial SCOs

Green Highlight - Exceeds NYS Part 375 Commercial SCOs

Yellow Highlight - Exceeds EPA Toxicity Characteristic Regulatory Levels



Table 2
 Secondary Containment Closure Construction Completion Report
 Light Oil Area Tanks PT04, PT12, and PT13
 Riverview Innovation & Technology Campus, Inc.,
 Tonawanda, New York

ANALYTE	SAMPLE ID:		DRYICE-05042023	
	LAB REPORT:		231867	
	COLLECTION DATE:		5/4/2023	
	SAMPLE DEPTH:		NA	
	LOCATION:		Media generated from vapor blasting LOA secondary containment	
EPA-TCLP	UNITS			
VOLATILE ORGANICS BY GC/MS				
1,1,1-Trichloroethane		mg/kg	<3.2	U
1,1,2,2-Tetrachloroethane		mg/kg	<3.2	U
1,1,2-Trichloro-1,2,2-trifluoroethane		mg/kg	<3.2	U
1,1,2-Trichloroethane		mg/kg	<3.2	U
1,1-Dichloroethane		mg/kg	<3.2	U
1,1-Dichloroethene		mg/kg	<3.2	U
1,2,3-Trichlorobenzene		mg/kg	<8.0	U
1,2,4-Trichlorobenzene		mg/kg	<8.0	U
1,2,4-Trimethylbenzene		mg/kg	<3.2	U
1,2-Dibromo-3-chloropropane		mg/kg	<16.0	U
1,2-Dibromoethane		mg/kg	<3.2	U
1,2-Dichlorobenzene		mg/kg	<3.2	U
1,2-Dichloroethane		mg/kg	<3.2	U
1,2-Dichloropropane		mg/kg	<3.2	U
1,3-Dichlorobenzene		mg/kg	<3.2	U
1,3,5-Trimethylbenzene		mg/kg	<3.2	U
1,4-Dichlorobenzene		mg/kg	<3.2	U
1,4-Dioxane		mg/kg	<16.0	U
2-Butanone (MEK)		mg/kg	<16.0	U
2-Hexanone		mg/kg	<8.0	U
4-Chlorotoluene		mg/kg	<3.2	U
4-Isopropyltoluene/p-isopropyltoluene		mg/kg	<3.2	U
4-Methyl-2-pentanone		mg/kg	<8.0	U
Acetone		mg/kg	<16.0	U
Benzene		mg/kg	<3.2	U
Bromochloromethane		mg/kg	<8.0	U
Bromodichloromethane		mg/kg	<3.2	U
Bromoform		mg/kg	<8.0	U
Bromomethane		mg/kg	<3.2	U
Carbon disulfide		mg/kg	<3.2	U
Carbon tetrachloride		mg/kg	<3.2	U
Chlorobenzene		mg/kg	<3.2	U
Chloroethane		mg/kg	<3.2	U
Chloroform		mg/kg	<3.2	U
Chloromethane		mg/kg	<3.2	U
cis-1,2-Dichloroethene		mg/kg	<3.2	U
cis-1,3-Dichloropropene		mg/kg	<3.2	U
Cyclohexane		mg/kg	<16.0	U
Dibromochloromethane		mg/kg	<3.2	U
Dichlorodifluoromethane		mg/kg	<3.2	U
Ethylbenzene		mg/kg	<3.2	U
Isopropylbenzene		mg/kg	<3.2	U
p/m-Xylene		mg/kg	<3.2	U
Methyl Acetate		mg/kg	<3.2	U
Methyl tert butyl ether		mg/kg	<3.2	U
Methyl cyclohexane		mg/kg	<3.2	U
Methylene chloride		mg/kg	<8.0	U
Naphthalene		mg/kg	217	
n-Butylbenzene		mg/kg	<3.2	U
N-Propylbenzene		mg/kg	<3.2	U



Table 2
 Secondary Containment Closure Construction Completion Report
 Light Oil Area Tanks PT04, PT12, and PT13
 Riverview Innovation & Technology Campus, Inc.,
 Tonawanda, New York

ANALYTE	SAMPLE ID:		DRYICE-05042023	
	LAB REPORT:		231867	
	COLLECTION DATE:		5/4/2023	
	SAMPLE DEPTH:		NA	
	LOCATION:		Media generated from vapor blasting LOA secondary containment	
	EPA-TCLP	UNITS		
m-Xylene & p-Xylene		mg/kg	<3.2	U
o-Xylene		mg/kg	<3.2	U
Styrene		mg/kg	<8.0	U
sec-Butylbenzene		mg/kg	<3.2	U
tert-Butylbenzene		mg/kg	<3.2	U
Tetrachloroethene		mg/kg	<3.2	U
Toluene		mg/kg	<3.2	U
trans-1,2-Dichloroethene		mg/kg	<3.2	U
trans-1,3-Dichloropropene		mg/kg	<3.2	U
Trichloroethene		mg/kg	<3.2	U
Trichlorofluoromethane		mg/kg	<3.2	U
Vinyl chloride		mg/kg	<3.2	U
Xylenes, Total		mg/kg	<3.2	U
Total VOCs		mg/kg	<16.0	U
SEMIVOLATILE ORGANICS BY GC/MS				
1,2,4,5-Tetrachlorobenzene		mg/kg	<546	
1,2,4-Trichlorobenzene		mg/kg	<546	U
1,2-Dichlorobenzene		mg/kg	<546	U
1,3-Dichlorobenzene		mg/kg	<546	U
1,4-Dichlorobenzene		mg/kg	<546	U
2,2-Oxybis (1-chloropropane)		mg/kg	<546	U
2,3,4,6-Tetrachlorophenol		mg/kg	<546	U
2,4,5-Trichlorophenol		mg/kg	<546	U
2,4,6-Trichlorophenol		mg/kg	<546	U
2,4-Dichlorophenol		mg/kg	<546	U
2,4-Dimethylphenol		mg/kg	<546	U
2,4-Dinitrophenol		mg/kg	<2190	U
2,4-Dinitrotoluene		mg/kg	<546	U
2,6-Dinitrotoluene		mg/kg	<546	U
2-Chloronaphthalene		mg/kg	<546	U
2-Chlorophenol		mg/kg	<546	U
2-Methylnaphthalene		mg/kg	<546	U
2-Methylphenol		mg/kg	<546	U
2-Nitroaniline		mg/kg	<546	U
2-Nitrophenol		mg/kg	<546	U
3,3'-Dichlorobenzidine		mg/kg	<546	U
3-Nitroaniline		mg/kg	<546	U
4,6-Dinitro-2-methylphenol		mg/kg	<731	U
4-Bromophenyl phenyl ether		mg/kg	<546	U
4-Chloro-3-methylphenol		mg/kg	<546	U
4-Chloroaniline		mg/kg	<546	U
4-Chlorophenyl phenyl ether		mg/kg	<546	U
3-Methylphenol/4-Methylphenol		mg/kg	<546	U
4-Nitroaniline		mg/kg	<546	U
4-Nitrophenol		mg/kg	<546	U
Acenaphthene		mg/kg	<546	U
Acenaphthylene		mg/kg	<546	U
Acetophenone		mg/kg	<546	U
Anthracene		mg/kg	<546	U
Atrazine		mg/kg	<546	U



Table 2
 Secondary Containment Closure Construction Completion Report
 Light Oil Area Tanks PT04, PT12, and PT13
 Riverview Innovation & Technology Campus, Inc.,
 Tonawanda, New York

ANALYTE	SAMPLE ID:		DRYICE-05042023	
	LAB REPORT:		231867	
	COLLECTION DATE:		5/4/2023	
	SAMPLE DEPTH:		NA	
	LOCATION:		Media generated from vapor blasting LOA secondary containment	
	EPA-TCLP	UNITS		
Benzaldehyde		mg/kg	<546	U
Benzo(a)anthracene		mg/kg	<546	U
Benzo(a)pyrene		mg/kg	<546	U
Benzo(b)fluoranthene		mg/kg	<546	U
Benzo(ghi)perylene		mg/kg	<546	U
Benzo(k)fluoranthene		mg/kg	<546	U
Biphenyl		mg/kg	<546	U
Bis(2-chloroethoxy)methane		mg/kg	<546	U
Bis(2-chloroethyl)ether		mg/kg	<546	U
Bis(2-ethylhexyl)phthalate		mg/kg	<546	U
Butyl benzyl phthalate		mg/kg	<546	U
Caprolactam		mg/kg	<546	U
Carbazole		mg/kg	<546	U
Chrysene		mg/kg	670	U
Dibenzo(a,h)anthracene		mg/kg	<546	U
Dibenzofuran		mg/kg	<546	U
Diethyl phthalate		mg/kg	<546	U
Dimethyl phthalate		mg/kg	<546	U
Di-n-butylphthalate		mg/kg	<546	U
Di-n-octylphthalate		mg/kg	<546	U
Fluoranthene		mg/kg	1390	
Fluorene		mg/kg	<546	U
Hexachlorobenzene		mg/kg	<546	U
Hexachlorobutadiene		mg/kg	<546	U
Hexachlorocyclopentadiene		mg/kg	<2190	U
Hexachloroethane		mg/kg	<546	U
Indeno(1,2,3-cd)pyrene		mg/kg	<546	U
Isophorone		mg/kg	<546	U
Naphthalene		mg/kg	<546	U
Nitrobenzene		mg/kg	<546	U
n-Nitrosodi-n-propylamine		mg/kg	<546	U
n-Nitrosodiphenylamine		mg/kg	<546	U
Pentachlorophenol		mg/kg	<1090	U
Phenanthrene		mg/kg	1950	
Phenol		mg/kg	<546	U
Pyrene		mg/kg	943	
Total SVOCs		mg/kg	4953	
POLYCHLORINATED BIPHENYLS BY GC				
Aroclor 1016		mg/kg	<0.114	U
Aroclor 1221		mg/kg	<0.114	U
Aroclor 1232		mg/kg	<0.114	U
Aroclor 1242		mg/kg	<0.114	U
Aroclor 1248		mg/kg	<0.114	U
Aroclor 1254		mg/kg	<0.114	U
Aroclor 1260		mg/kg	<0.114	U
Aroclor 1262		mg/kg	<0.114	U
Aroclor 1268		mg/kg	<0.114	U
PCBs, Total		mg/kg	<0.114	U



Table 2
 Secondary Containment Closure Construction Completion Report
 Light Oil Area Tanks PT04, PT12, and PT13
 Riverview Innovation & Technology Campus, Inc.,
 Tonawanda, New York

ANALYTE	SAMPLE ID:		DRYICE-05042023
	LAB REPORT:		231867
	COLLECTION DATE:		5/4/2023
	SAMPLE DEPTH:		NA
	LOCATION:		Media generated from vapor blasting LOA secondary containment
EPA-TCLP	UNITS		
TOTAL METALS			
Aluminum, Total		mg/kg	3740
Antimony, Total		mg/kg	13.2
Arsenic, Total		mg/kg	5
Barium, Total		mg/kg	39.8
Beryllium, Total		mg/kg	<0.245 U
Cadmium, Total		mg/kg	0.721
Calcium, Total		mg/kg	44000
Chromium, Total		mg/kg	17.7
Cobalt, Total		mg/kg	2.8
Copper, Total		mg/kg	44.9
Iron, Total		mg/kg	27900
Lead, Total		mg/kg	97.4
Magnesium, Total		mg/kg	1810
Manganese, Total		mg/kg	207
Mercury, Total		mg/kg	14
Nickel, Total		mg/kg	7.27
Potassium, Total		mg/kg	360
Selenium, Total		mg/kg	1.34
Silver, Total		mg/kg	<0.490 U
Sodium, Total		mg/kg	359
Thallium, Total		mg/kg	<1.23 U
Vanadium, Total		mg/kg	7.04
Zinc, Total		mg/kg	146
MERCURY, TOTAL			
Mercury, Total		mg/kg	14
GENERAL CHEMISTRY			
Cyanide, Reactive		mg/kg	<1.0
Sulfide, Reactive		mg/kg	16
Ignitability	<140	°F	No Burn
pH	>12.5, <2	SU	7.87
BTU		BTU/Lb	2000
Percent Moisture		%	14.4
TCLP VOLATILES BY EPA 1311			
1,1-Dichloroethene	0.7	mg/L	<0.02
1,2-Dichloroethane	0.5	mg/L	<0.02
2-Butanone	200	mg/L	<0.10
Benzene	0.5	mg/L	<0.02
Carbon tetrachloride	0.5	mg/L	<0.02
Chlorobenzene	100	mg/L	<0.02
Chloroform	6	mg/L	<0.02
Tetrachloroethene	0.7	mg/L	<0.02
Trichloroethene	0.5	mg/L	<0.02
Vinyl chloride	0.2	mg/L	<0.02



Table 2
 Secondary Containment Closure Construction Completion Report
 Light Oil Area Tanks PT04, PT12, and PT13
 Riverview Innovation & Technology Campus, Inc.,
 Tonawanda, New York

ANALYTE	SAMPLE ID:		DRYICE-05042023
	LAB REPORT:		231867
	COLLECTION DATE:		5/4/2023
	SAMPLE DEPTH:		NA
	LOCATION:		Media generated from vapor blasting LOA secondary containment
	EPA-TCLP	UNITS	
TCLP SEMIVOLATILES BY EPA 1311			
1,4-Dichlorobenzene	7.5	mg/L	<0.04
2,4,5-Trichlorophenol	400	mg/L	<0.04
2,4,6-Trichlorophenol	2	mg/L	<0.04
2,4-Dinitrotoluene	0.13	mg/L	<0.04
2-Methylphenol	200	mg/L	<0.08
3-Methylphenol	200	mg/L	<0.08
4-Methylphenol	200	mg/L	<0.08
Hexachlorobenzene	0.13	mg/L	<0.04
Hexachlorobutadiene	0.5	mg/L	<0.04
Hexachloroethane	3	mg/L	<0.04
Nitrobenzene	2	mg/L	<0.04
Pentachlorophenol	100	mg/L	<0.08
Pyridine	5	mg/L	<0.04
TCLP METALS BY EPA 1311			
Arsenic, TCLP	5	mg/L	<0.500
Barium, TCLP	100	mg/L	<0.500
Cadmium, TCLP	1	mg/L	<0.0250
Chromium, TCLP	5	mg/L	<0.500
Lead, TCLP	5	mg/L	<0.500
Mercury, TCLP	0.2	mg/L	<0.00200
Selenium, TCLP	1	mg/L	<0.200
Silver, TCLP	5	mg/L	<0.500
TCLP PESTICIDES BY EPA 1311			
Chlordane	0.03	mg/L	<10
Endrin	0.02	mg/L	<2.0
Lindane	0.4	mg/L	<2.0
Heptachlor	0.008	mg/L	<2.0
Heptachlor epoxide	0.008	mg/L	<2.0
Methoxychlor	10	mg/L	<10
Toxaphene	0.5	mg/L	<20
TCLP HERBICIDES BY EPA 1311			
2,4,5-TP (Silvex)	1	mg/L	<0.05
2,4-D	10	mg/L	<0.05
* Comparison is not performed on parameters with non-numeric criteria.			
EPA-TCLP: EPA Toxicity Characteristic (TCLP) Regulatory Levels Criteria per 40CFR Part 261 as of			
Qualifiers:			
U - Not detected at the reported detection limit for the sample.			
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an a			
B - Compound was found in the blank and sample.			
HF - Analyzed outside of hold time.			
Bold - Compound is detected			
Yellow Highlight - Exceeds EPA Toxicity Characteristic Regulatory Levels			

Appendix A – Waste Manifest



UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number NYD08B413877	2. Page 1 of 1	3. Emergency Response Phone (800) 424-9300	4. Manifest Tracking Number 001315509 WAS		
5. Generator's Name and Mailing Address RIVERVIEW INNOVATION & TECHNOLOGY / JOHN YENS 140 LEE ST BUFFALO, NY 14210 Generator's Phone: (716)574-6936				Generator's Site Address (if different than mailing address) RIVERVIEW INNOVATION & TECHNOLOGY / JOHN Y 3875 RIVER RD TONAWANDA, NY 14150-6591 GEN: 127228			
6. Transporter 1 Company Name HERITAGE TRANSPORT LLC					U.S. EPA ID Number IND058484114		
7. Transporter 2 Company Name					U.S. EPA ID Number		
8. Designated Facility Name and Site Address HERITAGE THERMAL SERVICES, INC. 1250 SAINT GEORGE ST UNIT 1 EAST LIVERPOOL, OH 43920-3461 Facility's Phone: (800)545-7655					U.S. EPA ID Number OHD980613541		
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
		No.	Type				
X	1. RD, NA3077, HAZARDOUS WASTE, SOLID, N.O.S., P, PGIII, (NAPHTHALENE, MERCURY), (1 LB. MERCURY) ERG#171	1	CM	22	T	K143	
	2.						
	3.						
	4.						
14. Special Handling Instructions and Additional Information 1.001 W8 Q1655676 T#16565941 LDR WGT IN SECT 11 IS AN ESTIMATE TRUCK# 397 CONTAINER# Box#: HES4 48490ERI: CHEMTREC [18317389]G T163241							
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/Offoror's Printed/Typed Name Matt Reardon on behalf of RITC					Signature <i>[Signature]</i> on behalf of RITC		Month Day Year 6 14 23
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:							
17. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name PAUL STRICKER Signature <i>[Signature]</i> Month Day Year 6 14 23 Transporter 2 Printed/Typed Name Signature Month Day Year							
18. Discrepancy 18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> 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. H040		2.		3.		4.	
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 JOE BURKE					Signature <i>[Signature]</i>		Month Day Year 06 15 23

Appendix B – Laboratory Reports





ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. James Edwards
Inventum Engineering LLC
441 Carlisle Drive
Suite C
Herndon, Virginia 20170

Generated 8/6/2025 11:30:33 AM Revision 1

JOB DESCRIPTION

3875 River Road, Tonawanda NY

JOB NUMBER

480-216689-1

Eurofins Buffalo

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

Authorization



Authorized for release by
Kavya Boyina, Project Manager
kavya.boyina@et.eurofinsus.com
(716)504-9813

Generated
8/6/2025 11:30:33 AM
Revision 1

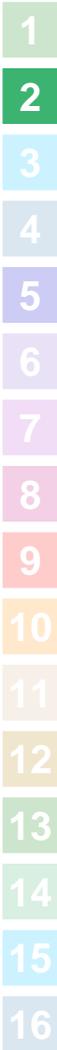


Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	6
Detection Summary	8
Client Sample Results	18
Surrogate Summary	68
Isotope Dilution Summary	72
QC Sample Results	73
QC Association Summary	100
Lab Chronicle	110
Certification Summary	118
Method Summary	120
Sample Summary	121
Chain of Custody	122
Receipt Checklists	124

Definitions/Glossary

Client: Inventum Engineering LLC
Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
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.

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.

LCMS

Qualifier	Qualifier Description
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL, and the absolute difference between results is < the upper reporting limits for both.
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

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

Definitions/Glossary

Client: Inventum Engineering LLC
Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Glossary (Continued)

Abbreviation **These commonly used abbreviations may or may not be present in this report.**

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Case Narrative

Client: Inventum Engineering LLC
Project: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Job ID: 480-216689-1

Eurofins Buffalo

Job Narrative 480-216689-1

Revision

The report being provided is a revision of the original report sent on 2/12/2024. The report (revision 1) is being revised to report additional analytes for method 8260.

Receipt

The samples were received on 1/26/2024 4:25 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 16.5° C and 17.0° C.

GC/MS VOA

Method 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: LOA-01-01262024 (480-216689-1), LOA-02-01262024 (480-216689-2), LOA-03-01262024 (480-216689-3), LOA-05-01262024 (480-216689-5) and LOA-07-01262024 (480-216689-7). Elevated reporting limits (RLs) are provided.

Method 8260C: The following samples were diluted due to the nature of the TCLP matrix: LOA-01-01262024 (480-216689-1), LOA-02-01262024 (480-216689-2), LOA-03-01262024 (480-216689-3), LOA-04-01262024 (480-216689-4), LOA-05-01262024 (480-216689-5), LOA-06-01262024 (480-216689-6), LOA-07-01262024 (480-216689-7) and (LB 480-699330/1-A). Elevated reporting limits (RLs) are provided.

Method 8260C: The following samples were analyzed using medium level soil analysis and diluted to bring the concentration of target analytes within the calibration range: LOA-01-01262024 (480-216689-1), LOA-02-01262024 (480-216689-2), LOA-03-01262024 (480-216689-3), LOA-04-01262024 (480-216689-4), LOA-05-01262024 (480-216689-5), LOA-06-01262024 (480-216689-6) and LOA-07-01262024 (480-216689-7). Elevated reporting limits (RLs) are provided.

Method 8260C: Naphthalene was detected in the following sample at a concentration above the linear range of the initial calibration curve. This analyte was requested after analysis, therefore, the value being reported is qualified with an E flag. The following samples were affected : LOA-01-01262024 (480-216689-1), LOA-02-01262024 (480-216689-2), LOA-05-01262024 (480-216689-5) and LOA-07-01262024 (480-216689-7).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-699396 recovered outside acceptance criteria, low biased, for bis (2-chloroisopropyl) ether. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D: The following samples were diluted due to color, appearance, and viscosity: LOA-02-01262024 (480-216689-2), LOA-04-01262024 (480-216689-4), LOA-05-01262024 (480-216689-5) and LOA-07-01262024 (480-216689-7). Elevated reporting limits (RL) are provided.

Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: LOA-03-01262024 (480-216689-3), LOA-04-01262024 (480-216689-4) and LOA-07-01262024 (480-216689-7). These results have been reported and qualified.

Method 8270D: The following samples were diluted to bring the concentration of target analytes within the calibration range: LOA-01-01262024 (480-216689-1), LOA-02-01262024 (480-216689-2), LOA-03-01262024 (480-216689-3), LOA-04-01262024 (480-216689-4), LOA-05-01262024 (480-216689-5), LOA-06-01262024 (480-216689-6) and LOA-07-01262024 (480-216689-7). Elevated reporting limits (RLs) are provided.

Method 8270D: The following samples were diluted due to the abundance of target analytes: LOA-02-01262024 (480-216689-2), LOA-04-01262024 (480-216689-4), LOA-05-01262024 (480-216689-5) and LOA-07-01262024 (480-216689-7). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-699482 recovered outside acceptance criteria, low biased, for 1,4-Dioxane, bis (2-chloroisopropyl) ether and Hexachlorocyclopentadiene. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Eurofins Buffalo

Case Narrative

Client: Inventum Engineering LLC
Project: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Job ID: 480-216689-1 (Continued)

Eurofins Buffalo

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

Method 6010C: The recovery of post spike, (480-216689-A-4-C PDS), associated with batch 480-699806, exhibited results outside quality control limits for Silver. However, the serial dilution (SD) of this sample was compliant, therefore no corrective action was necessary.

Method 6010C: The TCLP leachate blank for batch preparation batch 480-699469 contained a the target analyte Lead above the reporting limit (RL). None of the samples associated with this leachate blank contained this target analyte; therefore, re-extraction of the samples was not performed.

Method 6010C: The TCLP leachate blank for preparation batch 480-699469 contained Lead above the reporting limit (RL). This target analyte concentration was less than the TCLP Regulatory Limit. The associated samples were also below the TCLP Regulatory Limit for this analyte; therefore, re-extraction was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

LCMS

Method 1633: Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following sample: LOA-01-01262024 (480-216689-1). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 1633: The "I" qualifier means the transition mass ratio for the indicated analytes were outside of the established ratio limits. The qualitative identification of the analytes have some degree of uncertainty. However, analyst judgment was used to positively identify the analyte. The affected sample is LOA-01-01262024 (480-216689-1) in analytical batch (280-642314).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

Method 9045D: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples have been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: LOA-01-01262024 (480-216689-1), LOA-02-01262024 (480-216689-2), LOA-03-01262024 (480-216689-3), LOA-04-01262024 (480-216689-4), LOA-05-01262024 (480-216689-5), LOA-06-01262024 (480-216689-6) and LOA-07-01262024 (480-216689-7).

Method 9012B: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for preparation batch 480-699426 and analytical batch 480-699447 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Eurofins Buffalo

Detection Summary

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-01-01262024

Lab Sample ID: 480-216689-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.0	E	0.010	0.0041	mg/L	10		8260C	TCLP
Benzene - DL	1.0		0.020	0.0082	mg/L	20		8260C	TCLP
1,2,4-Trimethylbenzene	10000		2500	700	ug/Kg	40	*	8260C	Total/NA
1,3,5-Trimethylbenzene	4500		2500	760	ug/Kg	40	*	8260C	Total/NA
Benzene	91000		2500	480	ug/Kg	40	*	8260C	Total/NA
Ethylbenzene	18000		2500	730	ug/Kg	40	*	8260C	Total/NA
Isopropylbenzene	600	J	2500	380	ug/Kg	40	*	8260C	Total/NA
m,p-Xylene	52000		5000	1400	ug/Kg	40	*	8260C	Total/NA
Naphthalene	290000	E	2500	840	ug/Kg	40	*	8260C	Total/NA
o-Xylene	11000		2500	330	ug/Kg	40	*	8260C	Total/NA
Styrene	5000		2500	600	ug/Kg	40	*	8260C	Total/NA
Toluene	57000		2500	670	ug/Kg	40	*	8260C	Total/NA
Xylenes, Total	63000		5000	1400	ug/Kg	40	*	8260C	Total/NA
2,4-Dimethylphenol	150	J	230	56	ug/Kg	1	*	8270D	Total/NA
2-Methylnaphthalene	2500		230	46	ug/Kg	1	*	8270D	Total/NA
2-Methylphenol	150	J	230	27	ug/Kg	1	*	8270D	Total/NA
4-Methylphenol	310	J	450	27	ug/Kg	1	*	8270D	Total/NA
Acenaphthene	1200		230	34	ug/Kg	1	*	8270D	Total/NA
Acenaphthylene	1300		230	30	ug/Kg	1	*	8270D	Total/NA
Acetophenone	41	J	230	31	ug/Kg	1	*	8270D	Total/NA
Anthracene	850		230	57	ug/Kg	1	*	8270D	Total/NA
Benzo[a]anthracene	2000		230	23	ug/Kg	1	*	8270D	Total/NA
Benzo[a]pyrene	1500		230	34	ug/Kg	1	*	8270D	Total/NA
Benzo[b]fluoranthene	2000		230	37	ug/Kg	1	*	8270D	Total/NA
Benzo[g,h,i]perylene	680		230	24	ug/Kg	1	*	8270D	Total/NA
Benzo[k]fluoranthene	1000		230	30	ug/Kg	1	*	8270D	Total/NA
Biphenyl	350		230	34	ug/Kg	1	*	8270D	Total/NA
Carbazole	490		230	27	ug/Kg	1	*	8270D	Total/NA
Chrysene	1900		230	52	ug/Kg	1	*	8270D	Total/NA
Dibenz(a,h)anthracene	250		230	41	ug/Kg	1	*	8270D	Total/NA
Dibenzofuran	920		230	27	ug/Kg	1	*	8270D	Total/NA
Fluoranthene	5200		230	24	ug/Kg	1	*	8270D	Total/NA
Fluorene	1300		230	27	ug/Kg	1	*	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	720		230	29	ug/Kg	1	*	8270D	Total/NA
Naphthalene	16000	E	230	30	ug/Kg	1	*	8270D	Total/NA
Phenanthrene	3300		230	34	ug/Kg	1	*	8270D	Total/NA
Phenol	590		230	35	ug/Kg	1	*	8270D	Total/NA
Pyrene	3100		230	27	ug/Kg	1	*	8270D	Total/NA
2-Methylnaphthalene - DL	2500		1200	230	ug/Kg	5	*	8270D	Total/NA
2-Methylphenol - DL	240	J	1200	140	ug/Kg	5	*	8270D	Total/NA
4-Methylphenol - DL	390	J	2200	140	ug/Kg	5	*	8270D	Total/NA
Acenaphthene - DL	1200		1200	170	ug/Kg	5	*	8270D	Total/NA
Acenaphthylene - DL	1000	J	1200	150	ug/Kg	5	*	8270D	Total/NA
Anthracene - DL	860	J	1200	290	ug/Kg	5	*	8270D	Total/NA
Benzo[a]anthracene - DL	1900		1200	120	ug/Kg	5	*	8270D	Total/NA
Benzo[a]pyrene - DL	1500		1200	170	ug/Kg	5	*	8270D	Total/NA
Benzo[b]fluoranthene - DL	2000		1200	180	ug/Kg	5	*	8270D	Total/NA
Benzo[g,h,i]perylene - DL	930	J	1200	120	ug/Kg	5	*	8270D	Total/NA
Benzo[k]fluoranthene - DL	970	J	1200	150	ug/Kg	5	*	8270D	Total/NA
Biphenyl - DL	340	J	1200	170	ug/Kg	5	*	8270D	Total/NA
Carbazole - DL	540	J	1200	140	ug/Kg	5	*	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Detection Summary

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-01-01262024 (Continued)

Lab Sample ID: 480-216689-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chrysene - DL	2000		1200	260	ug/Kg	5	✳	8270D	Total/NA
Dibenz(a,h)anthracene - DL	310	J	1200	200	ug/Kg	5	✳	8270D	Total/NA
Dibenzofuran - DL	1000	J	1200	140	ug/Kg	5	✳	8270D	Total/NA
Fluoranthene - DL	4600		1200	120	ug/Kg	5	✳	8270D	Total/NA
Fluorene - DL	1400		1200	140	ug/Kg	5	✳	8270D	Total/NA
Indeno[1,2,3-cd]pyrene - DL	900	J	1200	140	ug/Kg	5	✳	8270D	Total/NA
Naphthalene - DL	24000		1200	150	ug/Kg	5	✳	8270D	Total/NA
Phenanthrene - DL	3300		1200	170	ug/Kg	5	✳	8270D	Total/NA
Phenol - DL	540	J	1200	180	ug/Kg	5	✳	8270D	Total/NA
Pyrene - DL	3500		1200	140	ug/Kg	5	✳	8270D	Total/NA
2-Methylphenol	0.022		0.020	0.0016	mg/L	1		8270D	TCLP
3-Methylphenol	0.034	J	0.040	0.0016	mg/L	1		8270D	TCLP
4-Methylphenol	0.034	J	0.040	0.0014	mg/L	1		8270D	TCLP
Perfluoropentanesulfonic acid (PFPeS)	0.064	J I	0.27	0.018	ug/Kg	1	✳	Draft 1633	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.045	J I	0.27	0.027	ug/Kg	1	✳	Draft 1633	Total/NA
Barium	0.85	J	1.0	0.10	mg/L	1		6010C	TCLP
Lead	0.019	J B	0.020	0.0030	mg/L	1		6010C	TCLP
Mercury	7.7		0.28	0.064	mg/Kg	10	✳	7471B	Total/NA
Flashpoint	>180		50.0	50.0	Degrees F	1		1010A	Total/NA
Cyanide, Total	16.5		6.7	3.2	mg/Kg	5	✳	9012B	Total/NA
Sulfide, Reactive	133		9.5	9.5	mg/Kg	1		9034	Total/NA
pH	10.1	HF	0.1	0.1	SU	1		9045D	Total/NA
Temperature	17.7	HF	0.001	0.001	Degrees C	1		9045D	Total/NA
Ammonia	198		33.2	16.6	mg/Kg	10		350.1	ASTM Leach

Client Sample ID: LOA-02-01262024

Lab Sample ID: 480-216689-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.95		0.010	0.0041	mg/L	10		8260C	TCLP
1,2,4-Trimethylbenzene	7000		2000	560	ug/Kg	40	✳	8260C	Total/NA
1,3,5-Trimethylbenzene	4200		2000	600	ug/Kg	40	✳	8260C	Total/NA
Benzene	79000		2000	380	ug/Kg	40	✳	8260C	Total/NA
Ethylbenzene	11000		2000	580	ug/Kg	40	✳	8260C	Total/NA
m,p-Xylene	49000		4000	1100	ug/Kg	40	✳	8260C	Total/NA
Naphthalene	540000	E	2000	670	ug/Kg	40	✳	8260C	Total/NA
o-Xylene	11000		2000	260	ug/Kg	40	✳	8260C	Total/NA
Styrene	12000		2000	480	ug/Kg	40	✳	8260C	Total/NA
Toluene	84000		2000	540	ug/Kg	40	✳	8260C	Total/NA
Xylenes, Total	60000		4000	1100	ug/Kg	40	✳	8260C	Total/NA
2-Methylnaphthalene	19000		2000	400	ug/Kg	10	✳	8270D	Total/NA
4-Methylphenol	370	J	3900	240	ug/Kg	10	✳	8270D	Total/NA
Acenaphthene	11000		2000	300	ug/Kg	10	✳	8270D	Total/NA
Acenaphthylene	6500		2000	260	ug/Kg	10	✳	8270D	Total/NA
Anthracene	4500		2000	500	ug/Kg	10	✳	8270D	Total/NA
Benzo[a]anthracene	9100		2000	200	ug/Kg	10	✳	8270D	Total/NA
Benzo[a]pyrene	6300		2000	300	ug/Kg	10	✳	8270D	Total/NA
Benzo[b]fluoranthene	9000		2000	320	ug/Kg	10	✳	8270D	Total/NA
Benzo[g,h,i]perylene	3300		2000	210	ug/Kg	10	✳	8270D	Total/NA
Benzo[k]fluoranthene	5300		2000	260	ug/Kg	10	✳	8270D	Total/NA
Biphenyl	2200		2000	300	ug/Kg	10	✳	8270D	Total/NA
Carbazole	1900	J	2000	240	ug/Kg	10	✳	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Detection Summary

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-02-01262024 (Continued)

Lab Sample ID: 480-216689-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chrysene	9900		2000	450	ug/Kg	10	✳	8270D	Total/NA
Dibenz(a,h)anthracene	1400	J	2000	360	ug/Kg	10	✳	8270D	Total/NA
Dibenzofuran	6300		2000	240	ug/Kg	10	✳	8270D	Total/NA
Fluoranthene	25000		2000	210	ug/Kg	10	✳	8270D	Total/NA
Fluorene	7900		2000	240	ug/Kg	10	✳	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	3600		2000	250	ug/Kg	10	✳	8270D	Total/NA
Naphthalene	120000	E	2000	260	ug/Kg	10	✳	8270D	Total/NA
Phenanthrene	16000		2000	300	ug/Kg	10	✳	8270D	Total/NA
Phenol	520	J	2000	310	ug/Kg	10	✳	8270D	Total/NA
Pyrene	14000		2000	240	ug/Kg	10	✳	8270D	Total/NA
2-Methylnaphthalene - DL	17000		10000	2000	ug/Kg	50	✳	8270D	Total/NA
Acenaphthene - DL	9300	J	10000	1500	ug/Kg	50	✳	8270D	Total/NA
Acenaphthylene - DL	4500	J	10000	1300	ug/Kg	50	✳	8270D	Total/NA
Anthracene - DL	4400	J	10000	2500	ug/Kg	50	✳	8270D	Total/NA
Benzo[a]anthracene - DL	8400	J	10000	1000	ug/Kg	50	✳	8270D	Total/NA
Benzo[a]pyrene - DL	6100	J	10000	1500	ug/Kg	50	✳	8270D	Total/NA
Benzo[b]fluoranthene - DL	10000		10000	1600	ug/Kg	50	✳	8270D	Total/NA
Benzo[g,h,i]perylene - DL	3600	J	10000	1100	ug/Kg	50	✳	8270D	Total/NA
Benzo[k]fluoranthene - DL	3100	J	10000	1300	ug/Kg	50	✳	8270D	Total/NA
Biphenyl - DL	2000	J	10000	1500	ug/Kg	50	✳	8270D	Total/NA
Carbazole - DL	2300	J	10000	1200	ug/Kg	50	✳	8270D	Total/NA
Chrysene - DL	9400	J	10000	2200	ug/Kg	50	✳	8270D	Total/NA
Dibenzofuran - DL	5800	J	10000	1200	ug/Kg	50	✳	8270D	Total/NA
Fluoranthene - DL	19000		10000	1100	ug/Kg	50	✳	8270D	Total/NA
Fluorene - DL	7800	J	10000	1200	ug/Kg	50	✳	8270D	Total/NA
Indeno[1,2,3-cd]pyrene - DL	4200	J	10000	1200	ug/Kg	50	✳	8270D	Total/NA
Naphthalene - DL	150000		10000	1300	ug/Kg	50	✳	8270D	Total/NA
Phenanthrene - DL	15000		10000	1500	ug/Kg	50	✳	8270D	Total/NA
Pyrene - DL	15000		10000	1200	ug/Kg	50	✳	8270D	Total/NA
2-Methylphenol	0.015	J	0.020	0.0016	mg/L	1		8270D	TCLP
3-Methylphenol	0.028	J	0.040	0.0016	mg/L	1		8270D	TCLP
4-Methylphenol	0.028	J	0.040	0.0014	mg/L	1		8270D	TCLP
Barium	0.93	J	1.0	0.10	mg/L	1		6010C	TCLP
Lead	0.019	J B	0.020	0.0030	mg/L	1		6010C	TCLP
Mercury	0.00020		0.00020	0.000043	mg/L	1		7470A	TCLP
Mercury	15.1		0.56	0.13	mg/Kg	25	✳	7471B	Total/NA
Flashpoint	>180		50.0	50.0	Degrees F	1		1010A	Total/NA
Cyanide, Total	10.4		5.7	2.8	mg/Kg	5	✳	9012B	Total/NA
pH	11.3	HF	0.1	0.1	SU	1		9045D	Total/NA
Temperature	18.3	HF	0.001	0.001	Degrees C	1		9045D	Total/NA
Ammonia	257		38.6	19.3	mg/Kg	10		350.1	ASTM Leach

Client Sample ID: LOA-03-01262024

Lab Sample ID: 480-216689-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.40		0.010	0.0041	mg/L	10		8260C	TCLP
1,2,4-Trimethylbenzene	3800	J	4500	1300	ug/Kg	80	✳	8260C	Total/NA
1,3,5-Trimethylbenzene	1900	J	4500	1400	ug/Kg	80	✳	8260C	Total/NA
Benzene	64000		4500	860	ug/Kg	80	✳	8260C	Total/NA
Ethylbenzene	9300		4500	1300	ug/Kg	80	✳	8260C	Total/NA
m,p-Xylene	14000		9000	2500	ug/Kg	80	✳	8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Detection Summary

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-03-01262024 (Continued)

Lab Sample ID: 480-216689-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	310000		4500	1500	ug/Kg	80	✳	8260C	Total/NA
o-Xylene	3500	J	4500	590	ug/Kg	80	✳	8260C	Total/NA
Toluene	13000		4500	1200	ug/Kg	80	✳	8260C	Total/NA
Xylenes, Total	18000		9000	2500	ug/Kg	80	✳	8260C	Total/NA
2-Methylnaphthalene	8700	E	220	43	ug/Kg	1	✳	8270D	Total/NA
2-Methylphenol	100	J	220	25	ug/Kg	1	✳	8270D	Total/NA
4-Methylphenol	160	J	420	25	ug/Kg	1	✳	8270D	Total/NA
Acenaphthene	4900		220	32	ug/Kg	1	✳	8270D	Total/NA
Acenaphthylene	2100		220	28	ug/Kg	1	✳	8270D	Total/NA
Acetophenone	60	J	220	29	ug/Kg	1	✳	8270D	Total/NA
Anthracene	2200		220	53	ug/Kg	1	✳	8270D	Total/NA
Benzo[a]anthracene	3600		220	22	ug/Kg	1	✳	8270D	Total/NA
Benzo[a]pyrene	2700		220	32	ug/Kg	1	✳	8270D	Total/NA
Benzo[b]fluoranthene	3500		220	34	ug/Kg	1	✳	8270D	Total/NA
Benzo[g,h,i]perylene	1300		220	23	ug/Kg	1	✳	8270D	Total/NA
Benzo[k]fluoranthene	2000		220	28	ug/Kg	1	✳	8270D	Total/NA
Biphenyl	990		220	32	ug/Kg	1	✳	8270D	Total/NA
Carbazole	750		220	25	ug/Kg	1	✳	8270D	Total/NA
Chrysene	3800		220	48	ug/Kg	1	✳	8270D	Total/NA
Dibenz(a,h)anthracene	530		220	38	ug/Kg	1	✳	8270D	Total/NA
Dibenzofuran	2800		220	25	ug/Kg	1	✳	8270D	Total/NA
Fluoranthene	8900	E	220	23	ug/Kg	1	✳	8270D	Total/NA
Fluorene	3800		220	25	ug/Kg	1	✳	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	1400		220	27	ug/Kg	1	✳	8270D	Total/NA
Naphthalene	28000	E	220	28	ug/Kg	1	✳	8270D	Total/NA
Phenanthrene	7300	E	220	32	ug/Kg	1	✳	8270D	Total/NA
Phenol	200	J	220	33	ug/Kg	1	✳	8270D	Total/NA
Pyrene	5400		220	25	ug/Kg	1	✳	8270D	Total/NA
2-Methylnaphthalene - DL	7800		2200	430	ug/Kg	10	✳	8270D	Total/NA
Acenaphthene - DL	4400		2200	320	ug/Kg	10	✳	8270D	Total/NA
Acenaphthylene - DL	1200	J	2200	280	ug/Kg	10	✳	8270D	Total/NA
Anthracene - DL	2100	J	2200	530	ug/Kg	10	✳	8270D	Total/NA
Benzo[a]anthracene - DL	3500		2200	220	ug/Kg	10	✳	8270D	Total/NA
Benzo[a]pyrene - DL	2500		2200	320	ug/Kg	10	✳	8270D	Total/NA
Benzo[b]fluoranthene - DL	3600		2200	340	ug/Kg	10	✳	8270D	Total/NA
Benzo[g,h,i]perylene - DL	1300	J	2200	230	ug/Kg	10	✳	8270D	Total/NA
Benzo[k]fluoranthene - DL	1300	J	2200	280	ug/Kg	10	✳	8270D	Total/NA
Biphenyl - DL	820	J	2200	320	ug/Kg	10	✳	8270D	Total/NA
Carbazole - DL	760	J	2200	250	ug/Kg	10	✳	8270D	Total/NA
Chrysene - DL	3300		2200	480	ug/Kg	10	✳	8270D	Total/NA
Dibenz(a,h)anthracene - DL	490	J	2200	380	ug/Kg	10	✳	8270D	Total/NA
Dibenzofuran - DL	2500		2200	250	ug/Kg	10	✳	8270D	Total/NA
Fluoranthene - DL	8400		2200	230	ug/Kg	10	✳	8270D	Total/NA
Fluorene - DL	3200		2200	250	ug/Kg	10	✳	8270D	Total/NA
Indeno[1,2,3-cd]pyrene - DL	1300	J	2200	270	ug/Kg	10	✳	8270D	Total/NA
Naphthalene - DL	48000		2200	280	ug/Kg	10	✳	8270D	Total/NA
Phenanthrene - DL	7200		2200	320	ug/Kg	10	✳	8270D	Total/NA
Pyrene - DL	6000		2200	250	ug/Kg	10	✳	8270D	Total/NA
2-Methylphenol	0.0072	J	0.020	0.0016	mg/L	1		8270D	TCLP
3-Methylphenol	0.011	J	0.040	0.0016	mg/L	1		8270D	TCLP
4-Methylphenol	0.011	J	0.040	0.0014	mg/L	1		8270D	TCLP

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Detection Summary

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-03-01262024 (Continued)

Lab Sample ID: 480-216689-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pyridine	0.0024	J	0.10	0.0016	mg/L	1		8270D	TCLP
Barium	0.91	J	1.0	0.10	mg/L	1		6010C	TCLP
Lead	0.017	J B	0.020	0.0030	mg/L	1		6010C	TCLP
Mercury	4.6		0.12	0.027	mg/Kg	5	✳	7471B	Total/NA
Flashpoint	>180		50.0	50.0	Degrees F	1		1010A	Total/NA
Cyanide, Total	5.0		1.2	0.58	mg/Kg	1	✳	9012B	Total/NA
Sulfide, Reactive	94.3		9.4	9.4	mg/Kg	1		9034	Total/NA
pH	10.6	HF	0.1	0.1	SU	1		9045D	Total/NA
Temperature	18.6	HF	0.001	0.001	Degrees C	1		9045D	Total/NA
Ammonia	255		34.0	17.0	mg/Kg	10		350.1	ASTM Leach

Client Sample ID: LOA-04-01262024

Lab Sample ID: 480-216689-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.17		0.010	0.0041	mg/L	10		8260C	TCLP
1,2,4-Trimethylbenzene	2200	J	4100	1100	ug/Kg	80	✳	8260C	Total/NA
1,3,5-Trimethylbenzene	1300	J	4100	1200	ug/Kg	80	✳	8260C	Total/NA
Benzene	13000		4100	780	ug/Kg	80	✳	8260C	Total/NA
Ethylbenzene	2200	J	4100	1200	ug/Kg	80	✳	8260C	Total/NA
m,p-Xylene	7800	J	8200	2300	ug/Kg	80	✳	8260C	Total/NA
Naphthalene	130000		4100	1400	ug/Kg	80	✳	8260C	Total/NA
o-Xylene	2000	J	4100	530	ug/Kg	80	✳	8260C	Total/NA
Styrene	1100	J	4100	980	ug/Kg	80	✳	8260C	Total/NA
Toluene	11000		4100	1100	ug/Kg	80	✳	8260C	Total/NA
Xylenes, Total	9800		8200	2300	ug/Kg	80	✳	8260C	Total/NA
2-Methylnaphthalene	6600		970	190	ug/Kg	5	✳	8270D	Total/NA
4-Methylphenol	280	J	1900	110	ug/Kg	5	✳	8270D	Total/NA
Acenaphthene	2800		970	140	ug/Kg	5	✳	8270D	Total/NA
Acenaphthylene	2600		970	130	ug/Kg	5	✳	8270D	Total/NA
Anthracene	1700		970	240	ug/Kg	5	✳	8270D	Total/NA
Benzo[a]anthracene	3700		970	97	ug/Kg	5	✳	8270D	Total/NA
Benzo[a]pyrene	2800		970	140	ug/Kg	5	✳	8270D	Total/NA
Benzo[b]fluoranthene	4000		970	150	ug/Kg	5	✳	8270D	Total/NA
Benzo[g,h,i]perylene	1400		970	100	ug/Kg	5	✳	8270D	Total/NA
Benzo[k]fluoranthene	2100		970	130	ug/Kg	5	✳	8270D	Total/NA
Biphenyl	690	J	970	140	ug/Kg	5	✳	8270D	Total/NA
Carbazole	680	J	970	110	ug/Kg	5	✳	8270D	Total/NA
Chrysene	4000		970	220	ug/Kg	5	✳	8270D	Total/NA
Dibenz(a,h)anthracene	530	J	970	170	ug/Kg	5	✳	8270D	Total/NA
Dibenzofuran	1900		970	110	ug/Kg	5	✳	8270D	Total/NA
Fluoranthene	9700		970	100	ug/Kg	5	✳	8270D	Total/NA
Fluorene	2700		970	110	ug/Kg	5	✳	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	1600		970	120	ug/Kg	5	✳	8270D	Total/NA
Naphthalene	42000	E	970	130	ug/Kg	5	✳	8270D	Total/NA
Phenanthrene	6300		970	140	ug/Kg	5	✳	8270D	Total/NA
Phenol	520	J	970	150	ug/Kg	5	✳	8270D	Total/NA
Pyrene	6000		970	110	ug/Kg	5	✳	8270D	Total/NA
2-Methylnaphthalene - DL	6500		3900	770	ug/Kg	20	✳	8270D	Total/NA
Acenaphthene - DL	2800	J	3900	570	ug/Kg	20	✳	8270D	Total/NA
Acenaphthylene - DL	1800	J	3900	500	ug/Kg	20	✳	8270D	Total/NA
Anthracene - DL	1800	J	3900	960	ug/Kg	20	✳	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Detection Summary

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-04-01262024 (Continued)

Lab Sample ID: 480-216689-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene - DL	3500	J	3900	390	ug/Kg	20	✱	8270D	Total/NA
Benzo[a]pyrene - DL	3100	J	3900	570	ug/Kg	20	✱	8270D	Total/NA
Benzo[b]fluoranthene - DL	4600		3900	620	ug/Kg	20	✱	8270D	Total/NA
Benzo[g,h,i]perylene - DL	1900	J	3900	410	ug/Kg	20	✱	8270D	Total/NA
Benzo[k]fluoranthene - DL	1600	J	3900	500	ug/Kg	20	✱	8270D	Total/NA
Biphenyl - DL	750	J	3900	570	ug/Kg	20	✱	8270D	Total/NA
Carbazole - DL	980	J	3900	460	ug/Kg	20	✱	8270D	Total/NA
Chrysene - DL	4300		3900	870	ug/Kg	20	✱	8270D	Total/NA
Dibenz(a,h)anthracene - DL	840	J	3900	680	ug/Kg	20	✱	8270D	Total/NA
Dibenzofuran - DL	2100	J	3900	460	ug/Kg	20	✱	8270D	Total/NA
Fluoranthene - DL	8700		3900	410	ug/Kg	20	✱	8270D	Total/NA
Fluorene - DL	2800	J	3900	460	ug/Kg	20	✱	8270D	Total/NA
Indeno[1,2,3-cd]pyrene - DL	2000	J	3900	480	ug/Kg	20	✱	8270D	Total/NA
Naphthalene - DL	53000		3900	500	ug/Kg	20	✱	8270D	Total/NA
Phenanthrene - DL	6600		3900	570	ug/Kg	20	✱	8270D	Total/NA
Pyrene - DL	6600		3900	460	ug/Kg	20	✱	8270D	Total/NA
2-Methylphenol	0.0061	J	0.020	0.0016	mg/L	1		8270D	TCLP
3-Methylphenol	0.014	J	0.040	0.0016	mg/L	1		8270D	TCLP
4-Methylphenol	0.014	J	0.040	0.0014	mg/L	1		8270D	TCLP
Endrin	0.000045	J	0.00020	0.000014	mg/L	1		8081B	TCLP
Arsenic	0.0060	J	0.015	0.0056	mg/L	1		6010C	TCLP
Barium	0.55	J	1.0	0.10	mg/L	1		6010C	TCLP
Lead	0.014	J B	0.020	0.0030	mg/L	1		6010C	TCLP
Mercury	6.7		0.23	0.053	mg/Kg	10	✱	7471B	Total/NA
Flashpoint	>180		50.0	50.0	Degrees F	1		1010A	Total/NA
Cyanide, Total	7.4		4.9	2.4	mg/Kg	5	✱	9012B	Total/NA
pH	11.7	HF	0.1	0.1	SU	1		9045D	Total/NA
Temperature	17.7	HF	0.001	0.001	Degrees C	1		9045D	Total/NA
Ammonia	22.3		3.5	1.7	mg/Kg	1		350.1	ASTM Leach

Client Sample ID: LOA-05-01262024

Lab Sample ID: 480-216689-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.4	E	0.010	0.0041	mg/L	10		8260C	TCLP
Tetrachloroethene	0.017		0.010	0.0036	mg/L	10		8260C	TCLP
Benzene - DL	1.5		0.020	0.0082	mg/L	20		8260C	TCLP
Tetrachloroethene - DL	0.020		0.020	0.0072	mg/L	20		8260C	TCLP
1,2,4-Trimethylbenzene	21000		13000	3600	ug/Kg	200	✱	8260C	Total/NA
1,3,5-Trimethylbenzene	15000		13000	3900	ug/Kg	200	✱	8260C	Total/NA
Benzene	360000		13000	2400	ug/Kg	200	✱	8260C	Total/NA
Ethylbenzene	21000		13000	3700	ug/Kg	200	✱	8260C	Total/NA
m,p-Xylene	180000		26000	7100	ug/Kg	200	✱	8260C	Total/NA
Naphthalene	2500000	E	13000	4300	ug/Kg	200	✱	8260C	Total/NA
o-Xylene	41000		13000	1700	ug/Kg	200	✱	8260C	Total/NA
Styrene	41000		13000	3100	ug/Kg	200	✱	8260C	Total/NA
Tetrachloroethene	3500	J	13000	1700	ug/Kg	200	✱	8260C	Total/NA
Toluene	350000		13000	3400	ug/Kg	200	✱	8260C	Total/NA
Xylenes, Total	220000		26000	7100	ug/Kg	200	✱	8260C	Total/NA
2-Methylnaphthalene	16000		2200	430	ug/Kg	10	✱	8270D	Total/NA
4-Methylphenol	470	J	4200	250	ug/Kg	10	✱	8270D	Total/NA
Acenaphthene	2300		2200	320	ug/Kg	10	✱	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Detection Summary

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-05-01262024 (Continued)

Lab Sample ID: 480-216689-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	8500		2200	280	ug/Kg	10	✳	8270D	Total/NA
Anthracene	5200		2200	530	ug/Kg	10	✳	8270D	Total/NA
Benzo[a]anthracene	7400		2200	220	ug/Kg	10	✳	8270D	Total/NA
Benzo[a]pyrene	6700		2200	320	ug/Kg	10	✳	8270D	Total/NA
Benzo[b]fluoranthene	9100		2200	340	ug/Kg	10	✳	8270D	Total/NA
Benzo[g,h,i]perylene	3700		2200	230	ug/Kg	10	✳	8270D	Total/NA
Benzo[k]fluoranthene	3000		2200	280	ug/Kg	10	✳	8270D	Total/NA
Biphenyl	2000	J	2200	320	ug/Kg	10	✳	8270D	Total/NA
Carbazole	2000	J	2200	250	ug/Kg	10	✳	8270D	Total/NA
Chrysene	7800		2200	480	ug/Kg	10	✳	8270D	Total/NA
Dibenz(a,h)anthracene	1100	J	2200	380	ug/Kg	10	✳	8270D	Total/NA
Dibenzofuran	4700		2200	250	ug/Kg	10	✳	8270D	Total/NA
Fluoranthene	22000		2200	230	ug/Kg	10	✳	8270D	Total/NA
Fluorene	6600		2200	250	ug/Kg	10	✳	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	3700		2200	270	ug/Kg	10	✳	8270D	Total/NA
Naphthalene	240000	E	2200	280	ug/Kg	10	✳	8270D	Total/NA
Phenanthrene	22000		2200	320	ug/Kg	10	✳	8270D	Total/NA
Phenol	580	J	2200	330	ug/Kg	10	✳	8270D	Total/NA
Pyrene	14000		2200	250	ug/Kg	10	✳	8270D	Total/NA
2-Methylnaphthalene - DL	15000	J	22000	4300	ug/Kg	100	✳	8270D	Total/NA
Acenaphthylene - DL	7900	J	22000	2800	ug/Kg	100	✳	8270D	Total/NA
Benzo[a]anthracene - DL	7700	J	22000	2200	ug/Kg	100	✳	8270D	Total/NA
Benzo[a]pyrene - DL	7500	J	22000	3200	ug/Kg	100	✳	8270D	Total/NA
Benzo[b]fluoranthene - DL	9900	J	22000	3400	ug/Kg	100	✳	8270D	Total/NA
Benzo[g,h,i]perylene - DL	4900	J	22000	2300	ug/Kg	100	✳	8270D	Total/NA
Benzo[k]fluoranthene - DL	3400	J	22000	2800	ug/Kg	100	✳	8270D	Total/NA
Carbazole - DL	2600	J	22000	2500	ug/Kg	100	✳	8270D	Total/NA
Chrysene - DL	8200	J	22000	4800	ug/Kg	100	✳	8270D	Total/NA
Dibenzofuran - DL	4800	J	22000	2500	ug/Kg	100	✳	8270D	Total/NA
Fluoranthene - DL	21000	J	22000	2300	ug/Kg	100	✳	8270D	Total/NA
Fluorene - DL	7700	J	22000	2500	ug/Kg	100	✳	8270D	Total/NA
Indeno[1,2,3-cd]pyrene - DL	4900	J	22000	2700	ug/Kg	100	✳	8270D	Total/NA
Naphthalene - DL	450000		22000	2800	ug/Kg	100	✳	8270D	Total/NA
Phenanthrene - DL	22000		22000	3200	ug/Kg	100	✳	8270D	Total/NA
Pyrene - DL	16000	J	22000	2500	ug/Kg	100	✳	8270D	Total/NA
2-Methylphenol	0.076		0.020	0.0016	mg/L	1		8270D	TCLP
3-Methylphenol	0.12		0.040	0.0016	mg/L	1		8270D	TCLP
4-Methylphenol	0.12		0.040	0.0014	mg/L	1		8270D	TCLP
Barium	1.0		1.0	0.10	mg/L	1		6010C	TCLP
Lead	0.029	B	0.020	0.0030	mg/L	1		6010C	TCLP
Mercury	7.6		0.22	0.051	mg/Kg	10	✳	7471B	Total/NA
Flashpoint	>180		50.0	50.0	Degrees F	1		1010A	Total/NA
Cyanide, Total	2.3		1.3	0.61	mg/Kg	1	✳	9012B	Total/NA
Sulfide, Reactive	55.3		9.2	9.2	mg/Kg	1		9034	Total/NA
pH	11.1	HF	0.1	0.1	SU	1		9045D	Total/NA
Temperature	17.7	HF	0.001	0.001	Degrees C	1		9045D	Total/NA
Ammonia	159		37.2	18.6	mg/Kg	10		350.1	ASTM Leach

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Detection Summary

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-06-01262024

Lab Sample ID: 480-216689-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.13		0.010	0.0041	mg/L	10		8260C	TCLP
Benzene	26000		5400	1000	ug/Kg	80	✳	8260C	Total/NA
Ethylbenzene	2500	J	5400	1600	ug/Kg	80	✳	8260C	Total/NA
m,p-Xylene	7700	J	11000	3000	ug/Kg	80	✳	8260C	Total/NA
Naphthalene	110000		5400	1800	ug/Kg	80	✳	8260C	Total/NA
o-Xylene	1900	J	5400	700	ug/Kg	80	✳	8260C	Total/NA
Toluene	13000		5400	1500	ug/Kg	80	✳	8260C	Total/NA
Xylenes, Total	9600	J	11000	3000	ug/Kg	80	✳	8260C	Total/NA
2,4-Dimethylphenol	84	J	230	56	ug/Kg	1	✳	8270D	Total/NA
2-Methylnaphthalene	1900		230	46	ug/Kg	1	✳	8270D	Total/NA
2-Methylphenol	120	J	230	27	ug/Kg	1	✳	8270D	Total/NA
4-Methylphenol	230	J	450	27	ug/Kg	1	✳	8270D	Total/NA
Acenaphthene	1000		230	34	ug/Kg	1	✳	8270D	Total/NA
Acenaphthylene	1000		230	30	ug/Kg	1	✳	8270D	Total/NA
Anthracene	700		230	57	ug/Kg	1	✳	8270D	Total/NA
Benzo[a]anthracene	1300		230	23	ug/Kg	1	✳	8270D	Total/NA
Benzo[a]pyrene	1000		230	34	ug/Kg	1	✳	8270D	Total/NA
Benzo[b]fluoranthene	1400		230	37	ug/Kg	1	✳	8270D	Total/NA
Benzo[g,h,i]perylene	530		230	25	ug/Kg	1	✳	8270D	Total/NA
Benzo[k]fluoranthene	660		230	30	ug/Kg	1	✳	8270D	Total/NA
Biphenyl	250		230	34	ug/Kg	1	✳	8270D	Total/NA
Carbazole	230		230	27	ug/Kg	1	✳	8270D	Total/NA
Chrysene	1300		230	52	ug/Kg	1	✳	8270D	Total/NA
Dibenz(a,h)anthracene	190	J	230	41	ug/Kg	1	✳	8270D	Total/NA
Dibenzofuran	650		230	27	ug/Kg	1	✳	8270D	Total/NA
Fluoranthene	3500		230	25	ug/Kg	1	✳	8270D	Total/NA
Fluorene	950		230	27	ug/Kg	1	✳	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	570		230	29	ug/Kg	1	✳	8270D	Total/NA
Naphthalene	13000	E	230	30	ug/Kg	1	✳	8270D	Total/NA
Phenanthrene	2600		230	34	ug/Kg	1	✳	8270D	Total/NA
Phenol	320		230	35	ug/Kg	1	✳	8270D	Total/NA
Pyrene	2000		230	27	ug/Kg	1	✳	8270D	Total/NA
2-Methylnaphthalene - DL	1900		1200	230	ug/Kg	5	✳	8270D	Total/NA
4-Methylphenol - DL	290	J	2300	140	ug/Kg	5	✳	8270D	Total/NA
Acenaphthene - DL	930	J	1200	170	ug/Kg	5	✳	8270D	Total/NA
Acenaphthylene - DL	760	J	1200	150	ug/Kg	5	✳	8270D	Total/NA
Anthracene - DL	620	J	1200	290	ug/Kg	5	✳	8270D	Total/NA
Benzo[a]anthracene - DL	1200		1200	120	ug/Kg	5	✳	8270D	Total/NA
Benzo[a]pyrene - DL	930	J	1200	170	ug/Kg	5	✳	8270D	Total/NA
Benzo[b]fluoranthene - DL	1500		1200	180	ug/Kg	5	✳	8270D	Total/NA
Benzo[g,h,i]perylene - DL	610	J	1200	120	ug/Kg	5	✳	8270D	Total/NA
Benzo[k]fluoranthene - DL	530	J	1200	150	ug/Kg	5	✳	8270D	Total/NA
Biphenyl - DL	240	J	1200	170	ug/Kg	5	✳	8270D	Total/NA
Carbazole - DL	280	J	1200	140	ug/Kg	5	✳	8270D	Total/NA
Chrysene - DL	1400		1200	260	ug/Kg	5	✳	8270D	Total/NA
Dibenz(a,h)anthracene - DL	220	J	1200	200	ug/Kg	5	✳	8270D	Total/NA
Dibenzofuran - DL	680	J	1200	140	ug/Kg	5	✳	8270D	Total/NA
Fluoranthene - DL	2900		1200	120	ug/Kg	5	✳	8270D	Total/NA
Fluorene - DL	970	J	1200	140	ug/Kg	5	✳	8270D	Total/NA
Indeno[1,2,3-cd]pyrene - DL	620	J	1200	140	ug/Kg	5	✳	8270D	Total/NA
Naphthalene - DL	16000		1200	150	ug/Kg	5	✳	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Detection Summary

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-06-01262024 (Continued)

Lab Sample ID: 480-216689-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene - DL	2400		1200	170	ug/Kg	5	✳	8270D	Total/NA
Phenol - DL	310	J	1200	180	ug/Kg	5	✳	8270D	Total/NA
Pyrene - DL	2100		1200	140	ug/Kg	5	✳	8270D	Total/NA
2-Methylphenol	0.011	J	0.020	0.0016	mg/L	1		8270D	TCLP
3-Methylphenol	0.020	J	0.040	0.0016	mg/L	1		8270D	TCLP
4-Methylphenol	0.020	J	0.040	0.0014	mg/L	1		8270D	TCLP
Arsenic	0.0056	J	0.015	0.0056	mg/L	1		6010C	TCLP
Barium	0.93	J	1.0	0.10	mg/L	1		6010C	TCLP
Lead	0.022	B	0.020	0.0030	mg/L	1		6010C	TCLP
Mercury	4.6		0.13	0.030	mg/Kg	5	✳	7471B	Total/NA
Flashpoint	>180		50.0	50.0	Degrees F	1		1010A	Total/NA
Cyanide, Total	1.6		1.4	0.66	mg/Kg	1	✳	9012B	Total/NA
Sulfide, Reactive	93.2		9.3	9.3	mg/Kg	1		9034	Total/NA
pH	9.7	HF	0.1	0.1	SU	1		9045D	Total/NA
Temperature	18.4	HF	0.001	0.001	Degrees C	1		9045D	Total/NA
Ammonia	171		36.6	18.3	mg/Kg	10		350.1	ASTM Leach

Client Sample ID: LOA-07-01262024

Lab Sample ID: 480-216689-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.37		0.010	0.0041	mg/L	10		8260C	TCLP
1,2,4-Trimethylbenzene	8100		4200	1200	ug/Kg	80	✳	8260C	Total/NA
1,3,5-Trimethylbenzene	5400		4200	1300	ug/Kg	80	✳	8260C	Total/NA
Benzene	30000		4200	790	ug/Kg	80	✳	8260C	Total/NA
Ethylbenzene	13000		4200	1200	ug/Kg	80	✳	8260C	Total/NA
m,p-Xylene	27000		8400	2300	ug/Kg	80	✳	8260C	Total/NA
Naphthalene	450000	E	4200	1400	ug/Kg	80	✳	8260C	Total/NA
o-Xylene	7400		4200	540	ug/Kg	80	✳	8260C	Total/NA
Styrene	1300	J	4200	1000	ug/Kg	80	✳	8260C	Total/NA
Toluene	10000		4200	1100	ug/Kg	80	✳	8260C	Total/NA
Xylenes, Total	34000		8400	2300	ug/Kg	80	✳	8260C	Total/NA
2-Methylnaphthalene	10000		2000	400	ug/Kg	10	✳	8270D	Total/NA
Acenaphthene	5700		2000	290	ug/Kg	10	✳	8270D	Total/NA
Acenaphthylene	3400		2000	260	ug/Kg	10	✳	8270D	Total/NA
Anthracene	1600	J	2000	500	ug/Kg	10	✳	8270D	Total/NA
Benzo[a]anthracene	3700		2000	200	ug/Kg	10	✳	8270D	Total/NA
Benzo[a]pyrene	2800		2000	290	ug/Kg	10	✳	8270D	Total/NA
Benzo[b]fluoranthene	4000		2000	320	ug/Kg	10	✳	8270D	Total/NA
Benzo[g,h,i]perylene	1600	J	2000	210	ug/Kg	10	✳	8270D	Total/NA
Benzo[k]fluoranthene	2200		2000	260	ug/Kg	10	✳	8270D	Total/NA
Biphenyl	1100	J	2000	290	ug/Kg	10	✳	8270D	Total/NA
Carbazole	810	J	2000	240	ug/Kg	10	✳	8270D	Total/NA
Chrysene	4100		2000	450	ug/Kg	10	✳	8270D	Total/NA
Dibenz(a,h)anthracene	540	J	2000	350	ug/Kg	10	✳	8270D	Total/NA
Dibenzofuran	2700		2000	240	ug/Kg	10	✳	8270D	Total/NA
Fluoranthene	10000		2000	210	ug/Kg	10	✳	8270D	Total/NA
Fluorene	3300		2000	240	ug/Kg	10	✳	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	1600	J	2000	250	ug/Kg	10	✳	8270D	Total/NA
Naphthalene	79000	E	2000	260	ug/Kg	10	✳	8270D	Total/NA
Phenanthrene	6000		2000	290	ug/Kg	10	✳	8270D	Total/NA
Pyrene	6300		2000	240	ug/Kg	10	✳	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Detection Summary

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-07-01262024 (Continued)

Lab Sample ID: 480-216689-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene - DL	11000		4000	800	ug/Kg	20	✳	8270D	Total/NA
Acenaphthene - DL	5700		4000	590	ug/Kg	20	✳	8270D	Total/NA
Acenaphthylene - DL	2600	J	4000	520	ug/Kg	20	✳	8270D	Total/NA
Anthracene - DL	1800	J	4000	990	ug/Kg	20	✳	8270D	Total/NA
Benzo[a]anthracene - DL	3800	J	4000	400	ug/Kg	20	✳	8270D	Total/NA
Benzo[a]pyrene - DL	3000	J	4000	590	ug/Kg	20	✳	8270D	Total/NA
Benzo[b]fluoranthene - DL	4900		4000	640	ug/Kg	20	✳	8270D	Total/NA
Benzo[g,h,i]perylene - DL	2000	J	4000	420	ug/Kg	20	✳	8270D	Total/NA
Benzo[k]fluoranthene - DL	1600	J	4000	520	ug/Kg	20	✳	8270D	Total/NA
Biphenyl - DL	1000	J	4000	590	ug/Kg	20	✳	8270D	Total/NA
Carbazole - DL	860	J	4000	470	ug/Kg	20	✳	8270D	Total/NA
Chrysene - DL	4200		4000	900	ug/Kg	20	✳	8270D	Total/NA
Dibenz(a,h)anthracene - DL	730	J	4000	710	ug/Kg	20	✳	8270D	Total/NA
Dibenzofuran - DL	2700	J	4000	470	ug/Kg	20	✳	8270D	Total/NA
Fluoranthene - DL	9200		4000	420	ug/Kg	20	✳	8270D	Total/NA
Fluorene - DL	3400	J	4000	470	ug/Kg	20	✳	8270D	Total/NA
Indeno[1,2,3-cd]pyrene - DL	2000	J	4000	500	ug/Kg	20	✳	8270D	Total/NA
Naphthalene - DL	96000		4000	520	ug/Kg	20	✳	8270D	Total/NA
Phenanthrene - DL	6400		4000	590	ug/Kg	20	✳	8270D	Total/NA
Pyrene - DL	6900		4000	470	ug/Kg	20	✳	8270D	Total/NA
2-Methylphenol	0.0061	J	0.020	0.0016	mg/L	1		8270D	TCLP
3-Methylphenol	0.0065	J	0.040	0.0016	mg/L	1		8270D	TCLP
4-Methylphenol	0.0065	J	0.040	0.0014	mg/L	1		8270D	TCLP
Endrin	0.000069	J	0.00020	0.000014	mg/L	1		8081B	TCLP
gamma-BHC (Lindane)	0.000093	J	0.00020	0.0000060	mg/L	1		8081B	TCLP
Barium	0.70	J	1.0	0.10	mg/L	1		6010C	TCLP
Lead	0.021	B	0.020	0.0030	mg/L	1		6010C	TCLP
Mercury	4.3		0.11	0.025	mg/Kg	5	✳	7471B	Total/NA
Flashpoint	>180		50.0	50.0	Degrees F	1		1010A	Total/NA
Cyanide, Total	11.2		5.8	2.8	mg/Kg	5	✳	9012B	Total/NA
Sulfide, Reactive	92.5		9.2	9.2	mg/Kg	1		9034	Total/NA
pH	10.3	HF	0.1	0.1	SU	1		9045D	Total/NA
Temperature	18.2	HF	0.001	0.001	Degrees C	1		9045D	Total/NA
Ammonia	231		39.9	20.0	mg/Kg	10		350.1	ASTM Leach

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-01-01262024

Lab Sample ID: 480-216689-1

Date Collected: 01/26/24 10:45

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 72.3

Method: SW846 8260C - TCLP Volatiles - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		0.010	0.0029	mg/L			01/31/24 16:21	10
1,2-Dichloroethane	ND		0.010	0.0021	mg/L			01/31/24 16:21	10
2-Butanone (MEK)	ND		0.050	0.013	mg/L			01/31/24 16:21	10
Benzene	1.0	E	0.010	0.0041	mg/L			01/31/24 16:21	10
Carbon tetrachloride	ND		0.010	0.0027	mg/L			01/31/24 16:21	10
Chlorobenzene	ND		0.010	0.0075	mg/L			01/31/24 16:21	10
Chloroform	ND		0.010	0.0034	mg/L			01/31/24 16:21	10
Tetrachloroethene	ND		0.010	0.0036	mg/L			01/31/24 16:21	10
Trichloroethene	ND		0.010	0.0046	mg/L			01/31/24 16:21	10
Vinyl chloride	ND		0.010	0.0090	mg/L			01/31/24 16:21	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		77 - 120					01/31/24 16:21	10
4-Bromofluorobenzene (Surr)	91		73 - 120					01/31/24 16:21	10
Dibromofluoromethane (Surr)	98		75 - 123					01/31/24 16:21	10
Toluene-d8 (Surr)	109		80 - 120					01/31/24 16:21	10

Method: SW846 8260C - TCLP Volatiles - TCLP - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		0.020	0.0058	mg/L			02/01/24 13:35	20
1,2-Dichloroethane	ND		0.020	0.0042	mg/L			02/01/24 13:35	20
2-Butanone (MEK)	ND		0.10	0.026	mg/L			02/01/24 13:35	20
Benzene	1.0		0.020	0.0082	mg/L			02/01/24 13:35	20
Carbon tetrachloride	ND		0.020	0.0054	mg/L			02/01/24 13:35	20
Chlorobenzene	ND		0.020	0.015	mg/L			02/01/24 13:35	20
Chloroform	ND		0.020	0.0068	mg/L			02/01/24 13:35	20
Tetrachloroethene	ND		0.020	0.0072	mg/L			02/01/24 13:35	20
Trichloroethene	ND		0.020	0.0092	mg/L			02/01/24 13:35	20
Vinyl chloride	ND		0.020	0.018	mg/L			02/01/24 13:35	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		77 - 120					02/01/24 13:35	20
4-Bromofluorobenzene (Surr)	91		73 - 120					02/01/24 13:35	20
Dibromofluoromethane (Surr)	97		75 - 123					02/01/24 13:35	20
Toluene-d8 (Surr)	105		80 - 120					02/01/24 13:35	20

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		2500	710	ug/Kg	⊛	01/31/24 08:18	01/31/24 13:15	40
1,1,1-Trichloroethane	ND		2500	690	ug/Kg	⊛	01/31/24 08:18	01/31/24 13:15	40
1,1,2,2-Tetrachloroethane	ND		2500	410	ug/Kg	⊛	01/31/24 08:18	01/31/24 13:15	40
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2500	1300	ug/Kg	⊛	01/31/24 08:18	01/31/24 13:15	40
1,1,2-Trichloroethane	ND		2500	530	ug/Kg	⊛	01/31/24 08:18	01/31/24 13:15	40
1,1-Dichloroethane	ND		2500	770	ug/Kg	⊛	01/31/24 08:18	01/31/24 13:15	40
1,1-Dichloroethene	ND		2500	870	ug/Kg	⊛	01/31/24 08:18	01/31/24 13:15	40
1,1-Dichloropropene	ND		2500	620	ug/Kg	⊛	01/31/24 08:18	01/31/24 13:15	40
1,2,3-Trichlorobenzene	ND		2500	1200	ug/Kg	⊛	01/31/24 08:18	01/31/24 13:15	40
1,2,3-Trichloropropane	ND		2500	560	ug/Kg	⊛	01/31/24 08:18	01/31/24 13:15	40
1,2,4-Trichlorobenzene	ND		2500	950	ug/Kg	⊛	01/31/24 08:18	01/31/24 13:15	40
1,2,4-Trimethylbenzene	10000		2500	700	ug/Kg	⊛	01/31/24 08:18	01/31/24 13:15	40

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-01-01262024

Lab Sample ID: 480-216689-1

Date Collected: 01/26/24 10:45

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 72.3

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		2500	1300	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
1,2-Dibromoethane	ND		2500	440	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
1,2-Dichlorobenzene	ND		2500	640	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
1,2-Dichloroethane	ND		2500	1000	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
1,2-Dichloropropane	ND		2500	410	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
1,3,5-Trimethylbenzene	4500		2500	760	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
1,3-Dichlorobenzene	ND		2500	670	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
1,3-Dichloropropane	ND		2500	460	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
1,4-Dichlorobenzene	ND		2500	350	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
2,2-Dichloropropane	ND		2500	570	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
2-Butanone (MEK)	ND		13000	7400	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
2-Chlorotoluene	ND		2500	960	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
2-Hexanone	ND		13000	5100	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
4-Chlorotoluene	ND		2500	510	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
4-Isopropyltoluene	ND		2500	840	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
4-Methyl-2-pentanone (MIBK)	ND		13000	800	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
Acetone	ND		13000	10000	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
Benzene	91000		2500	480	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
Bromobenzene	ND		2500	550	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
Bromodichloromethane	ND		2500	500	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
Bromoform	ND		2500	1300	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
Bromomethane	ND		2500	550	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
Carbon disulfide	ND		2500	1100	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
Carbon tetrachloride	ND		2500	640	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
Chlorobenzene	ND		2500	330	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
Chlorobromomethane	ND		2500	910	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
Chloroethane	ND		2500	520	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
Chloroform	ND		2500	1700	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
Chloromethane	ND		2500	600	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
cis-1,2-Dichloroethene	ND		2500	690	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
cis-1,3-Dichloropropene	ND		2500	600	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
Cyclohexane	ND		2500	560	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
Dibromochloromethane	ND		2500	1200	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
Dibromomethane	ND		2500	810	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
Dichlorodifluoromethane	ND		2500	1100	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
Dichlorofluoromethane	ND		2500	500	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
Ethylbenzene	18000		2500	730	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
Hexachlorobutadiene	ND		2500	990	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
Isopropylbenzene	600 J		2500	380	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
m,p-Xylene	52000		5000	1400	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
Methyl acetate	ND		13000	1200	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
Methyl tert-butyl ether	ND		2500	950	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
Methylcyclohexane	ND		2500	1200	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
Methylene Chloride	ND		2500	500	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
Naphthalene	290000 E		2500	840	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
n-Butylbenzene	ND		2500	730	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
N-Propylbenzene	ND		2500	660	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
o-Xylene	11000		2500	330	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40
sec-Butylbenzene	ND		2500	920	ug/Kg	☼	01/31/24 08:18	01/31/24 13:15	40

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-01-01262024

Lab Sample ID: 480-216689-1

Date Collected: 01/26/24 10:45

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 72.3

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	5000		2500	600	ug/Kg	✳	01/31/24 08:18	01/31/24 13:15	40
tert-Butylbenzene	ND		2500	700	ug/Kg	✳	01/31/24 08:18	01/31/24 13:15	40
Tetrachloroethene	ND		2500	340	ug/Kg	✳	01/31/24 08:18	01/31/24 13:15	40
Toluene	57000		2500	670	ug/Kg	✳	01/31/24 08:18	01/31/24 13:15	40
trans-1,2-Dichloroethene	ND		2500	590	ug/Kg	✳	01/31/24 08:18	01/31/24 13:15	40
trans-1,3-Dichloropropene	ND		2500	250	ug/Kg	✳	01/31/24 08:18	01/31/24 13:15	40
Trichloroethene	ND		2500	700	ug/Kg	✳	01/31/24 08:18	01/31/24 13:15	40
Trichlorofluoromethane	ND		2500	1200	ug/Kg	✳	01/31/24 08:18	01/31/24 13:15	40
Vinyl chloride	ND		2500	840	ug/Kg	✳	01/31/24 08:18	01/31/24 13:15	40
Xylenes, Total	63000		5000	1400	ug/Kg	✳	01/31/24 08:18	01/31/24 13:15	40
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		53 - 146				01/31/24 08:18	01/31/24 13:15	40
4-Bromofluorobenzene (Surr)	99		49 - 148				01/31/24 08:18	01/31/24 13:15	40
Dibromofluoromethane (Surr)	91		60 - 140				01/31/24 08:18	01/31/24 13:15	40
Toluene-d8 (Surr)	99		50 - 149				01/31/24 08:18	01/31/24 13:15	40

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		140	75	ug/Kg	✳	01/29/24 16:09	01/30/24 20:51	1
2,4,5-Trichlorophenol	ND		230	63	ug/Kg	✳	01/29/24 16:09	01/30/24 20:51	1
2,4,6-Trichlorophenol	ND		230	46	ug/Kg	✳	01/29/24 16:09	01/30/24 20:51	1
2,4-Dichlorophenol	ND		230	24	ug/Kg	✳	01/29/24 16:09	01/30/24 20:51	1
2,4-Dimethylphenol	150	J	230	56	ug/Kg	✳	01/29/24 16:09	01/30/24 20:51	1
2,4-Dinitrophenol	ND		2300	1100	ug/Kg	✳	01/29/24 16:09	01/30/24 20:51	1
2,4-Dinitrotoluene	ND		230	48	ug/Kg	✳	01/29/24 16:09	01/30/24 20:51	1
2,6-Dinitrotoluene	ND		230	27	ug/Kg	✳	01/29/24 16:09	01/30/24 20:51	1
2-Chloronaphthalene	ND		230	38	ug/Kg	✳	01/29/24 16:09	01/30/24 20:51	1
2-Chlorophenol	ND		450	42	ug/Kg	✳	01/29/24 16:09	01/30/24 20:51	1
2-Methylnaphthalene	2500		230	46	ug/Kg	✳	01/29/24 16:09	01/30/24 20:51	1
2-Methylphenol	150	J	230	27	ug/Kg	✳	01/29/24 16:09	01/30/24 20:51	1
2-Nitroaniline	ND		450	34	ug/Kg	✳	01/29/24 16:09	01/30/24 20:51	1
2-Nitrophenol	ND		230	65	ug/Kg	✳	01/29/24 16:09	01/30/24 20:51	1
3,3'-Dichlorobenzidine	ND		450	270	ug/Kg	✳	01/29/24 16:09	01/30/24 20:51	1
3-Nitroaniline	ND		450	64	ug/Kg	✳	01/29/24 16:09	01/30/24 20:51	1
4,6-Dinitro-2-methylphenol	ND		450	230	ug/Kg	✳	01/29/24 16:09	01/30/24 20:51	1
4-Bromophenyl phenyl ether	ND		230	33	ug/Kg	✳	01/29/24 16:09	01/30/24 20:51	1
4-Chloro-3-methylphenol	ND		230	57	ug/Kg	✳	01/29/24 16:09	01/30/24 20:51	1
4-Chloroaniline	ND		230	57	ug/Kg	✳	01/29/24 16:09	01/30/24 20:51	1
4-Chlorophenyl phenyl ether	ND		230	29	ug/Kg	✳	01/29/24 16:09	01/30/24 20:51	1
4-Methylphenol	310	J	450	27	ug/Kg	✳	01/29/24 16:09	01/30/24 20:51	1
4-Nitroaniline	ND		450	120	ug/Kg	✳	01/29/24 16:09	01/30/24 20:51	1
4-Nitrophenol	ND		450	160	ug/Kg	✳	01/29/24 16:09	01/30/24 20:51	1
Acenaphthene	1200		230	34	ug/Kg	✳	01/29/24 16:09	01/30/24 20:51	1
Acenaphthylene	1300		230	30	ug/Kg	✳	01/29/24 16:09	01/30/24 20:51	1
Acetophenone	41	J	230	31	ug/Kg	✳	01/29/24 16:09	01/30/24 20:51	1
Anthracene	850		230	57	ug/Kg	✳	01/29/24 16:09	01/30/24 20:51	1
Atrazine	ND		230	80	ug/Kg	✳	01/29/24 16:09	01/30/24 20:51	1
Benzaldehyde	ND		230	180	ug/Kg	✳	01/29/24 16:09	01/30/24 20:51	1
Benzo[a]anthracene	2000		230	23	ug/Kg	✳	01/29/24 16:09	01/30/24 20:51	1

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-01-01262024

Lab Sample ID: 480-216689-1

Date Collected: 01/26/24 10:45

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 72.3

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	1500		230	34	ug/Kg	☼	01/29/24 16:09	01/30/24 20:51	1
Benzo[b]fluoranthene	2000		230	37	ug/Kg	☼	01/29/24 16:09	01/30/24 20:51	1
Benzo[g,h,i]perylene	680		230	24	ug/Kg	☼	01/29/24 16:09	01/30/24 20:51	1
Benzo[k]fluoranthene	1000		230	30	ug/Kg	☼	01/29/24 16:09	01/30/24 20:51	1
Biphenyl	350		230	34	ug/Kg	☼	01/29/24 16:09	01/30/24 20:51	1
bis (2-chloroisopropyl) ether	ND		230	46	ug/Kg	☼	01/29/24 16:09	01/30/24 20:51	1
Bis(2-chloroethoxy)methane	ND		230	49	ug/Kg	☼	01/29/24 16:09	01/30/24 20:51	1
Bis(2-chloroethyl)ether	ND		230	30	ug/Kg	☼	01/29/24 16:09	01/30/24 20:51	1
Bis(2-ethylhexyl) phthalate	ND		230	79	ug/Kg	☼	01/29/24 16:09	01/30/24 20:51	1
Butyl benzyl phthalate	ND		230	38	ug/Kg	☼	01/29/24 16:09	01/30/24 20:51	1
Caprolactam	ND		230	69	ug/Kg	☼	01/29/24 16:09	01/30/24 20:51	1
Carbazole	490		230	27	ug/Kg	☼	01/29/24 16:09	01/30/24 20:51	1
Chrysene	1900		230	52	ug/Kg	☼	01/29/24 16:09	01/30/24 20:51	1
Dibenz(a,h)anthracene	250		230	41	ug/Kg	☼	01/29/24 16:09	01/30/24 20:51	1
Dibenzofuran	920		230	27	ug/Kg	☼	01/29/24 16:09	01/30/24 20:51	1
Diethyl phthalate	ND		230	30	ug/Kg	☼	01/29/24 16:09	01/30/24 20:51	1
Dimethyl phthalate	ND		230	27	ug/Kg	☼	01/29/24 16:09	01/30/24 20:51	1
Di-n-butyl phthalate	ND		230	39	ug/Kg	☼	01/29/24 16:09	01/30/24 20:51	1
Di-n-octyl phthalate	ND		230	27	ug/Kg	☼	01/29/24 16:09	01/30/24 20:51	1
Fluoranthene	5200		230	24	ug/Kg	☼	01/29/24 16:09	01/30/24 20:51	1
Fluorene	1300		230	27	ug/Kg	☼	01/29/24 16:09	01/30/24 20:51	1
Hexachlorobenzene	ND		230	31	ug/Kg	☼	01/29/24 16:09	01/30/24 20:51	1
Hexachlorobutadiene	ND		230	34	ug/Kg	☼	01/29/24 16:09	01/30/24 20:51	1
Hexachlorocyclopentadiene	ND		230	31	ug/Kg	☼	01/29/24 16:09	01/30/24 20:51	1
Hexachloroethane	ND		230	30	ug/Kg	☼	01/29/24 16:09	01/30/24 20:51	1
Indeno[1,2,3-cd]pyrene	720		230	29	ug/Kg	☼	01/29/24 16:09	01/30/24 20:51	1
Isophorone	ND		230	49	ug/Kg	☼	01/29/24 16:09	01/30/24 20:51	1
Naphthalene	16000	E	230	30	ug/Kg	☼	01/29/24 16:09	01/30/24 20:51	1
Nitrobenzene	ND		230	26	ug/Kg	☼	01/29/24 16:09	01/30/24 20:51	1
N-Nitrosodi-n-propylamine	ND		230	39	ug/Kg	☼	01/29/24 16:09	01/30/24 20:51	1
N-Nitrosodiphenylamine	ND		230	190	ug/Kg	☼	01/29/24 16:09	01/30/24 20:51	1
Pentachlorophenol	ND		450	230	ug/Kg	☼	01/29/24 16:09	01/30/24 20:51	1
Phenanthrene	3300		230	34	ug/Kg	☼	01/29/24 16:09	01/30/24 20:51	1
Phenol	590		230	35	ug/Kg	☼	01/29/24 16:09	01/30/24 20:51	1
Pyrene	3100		230	27	ug/Kg	☼	01/29/24 16:09	01/30/24 20:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	91		54 - 120	01/29/24 16:09	01/30/24 20:51	1
2-Fluorobiphenyl (Surr)	95		60 - 120	01/29/24 16:09	01/30/24 20:51	1
2-Fluorophenol (Surr)	88		52 - 120	01/29/24 16:09	01/30/24 20:51	1
Nitrobenzene-d5 (Surr)	84		53 - 120	01/29/24 16:09	01/30/24 20:51	1
Phenol-d5 (Surr)	86		54 - 120	01/29/24 16:09	01/30/24 20:51	1
p-Terphenyl-d14 (Surr)	105		79 - 130	01/29/24 16:09	01/30/24 20:51	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		680	370	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
2,4,5-Trichlorophenol	ND		1200	310	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
2,4,6-Trichlorophenol	ND		1200	230	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
2,4-Dichlorophenol	ND		1200	120	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-01-01262024

Lab Sample ID: 480-216689-1

Date Collected: 01/26/24 10:45

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 72.3

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	ND		1200	280	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
2,4-Dinitrophenol	ND		11000	5300	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
2,4-Dinitrotoluene	ND		1200	240	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
2,6-Dinitrotoluene	ND		1200	140	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
2-Chloronaphthalene	ND		1200	190	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
2-Chlorophenol	ND		2200	210	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
2-Methylnaphthalene	2500		1200	230	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
2-Methylphenol	240	J	1200	140	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
2-Nitroaniline	ND		2200	170	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
2-Nitrophenol	ND		1200	330	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
3,3'-Dichlorobenzidine	ND		2200	1400	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
3-Nitroaniline	ND		2200	320	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
4,6-Dinitro-2-methylphenol	ND		2200	1200	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
4-Bromophenyl phenyl ether	ND		1200	160	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
4-Chloro-3-methylphenol	ND		1200	290	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
4-Chloroaniline	ND		1200	290	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
4-Chlorophenyl phenyl ether	ND		1200	140	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
4-Methylphenol	390	J	2200	140	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
4-Nitroaniline	ND		2200	610	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
4-Nitrophenol	ND		2200	810	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Acenaphthene	1200		1200	170	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Acenaphthylene	1000	J	1200	150	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Acetophenone	ND		1200	160	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Anthracene	860	J	1200	290	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Atrazine	ND		1200	400	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Benzaldehyde	ND		1200	920	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Benzo[a]anthracene	1900		1200	120	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Benzo[a]pyrene	1500		1200	170	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Benzo[b]fluoranthene	2000		1200	180	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Benzo[g,h,i]perylene	930	J	1200	120	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Benzo[k]fluoranthene	970	J	1200	150	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Biphenyl	340	J	1200	170	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
bis (2-chloroisopropyl) ether	ND		1200	230	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Bis(2-chloroethoxy)methane	ND		1200	240	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Bis(2-chloroethyl)ether	ND		1200	150	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Bis(2-ethylhexyl) phthalate	ND		1200	390	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Butyl benzyl phthalate	ND		1200	190	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Caprolactam	ND		1200	350	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Carbazole	540	J	1200	140	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Chrysene	2000		1200	260	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Dibenz(a,h)anthracene	310	J	1200	200	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Dibenzofuran	1000	J	1200	140	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Diethyl phthalate	ND		1200	150	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Dimethyl phthalate	ND		1200	140	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Di-n-butyl phthalate	ND		1200	200	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Di-n-octyl phthalate	ND		1200	140	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Fluoranthene	4600		1200	120	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Fluorene	1400		1200	140	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Hexachlorobenzene	ND		1200	160	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-01-01262024

Lab Sample ID: 480-216689-1

Date Collected: 01/26/24 10:45

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 72.3

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND		1200	170	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Hexachlorocyclopentadiene	ND		1200	160	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Hexachloroethane	ND		1200	150	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Indeno[1,2,3-cd]pyrene	900	J	1200	140	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Isophorone	ND		1200	240	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Naphthalene	24000		1200	150	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Nitrobenzene	ND		1200	130	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
N-Nitrosodi-n-propylamine	ND		1200	200	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
N-Nitrosodiphenylamine	ND		1200	940	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Pentachlorophenol	ND		2200	1200	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Phenanthrene	3300		1200	170	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Phenol	540	J	1200	180	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5
Pyrene	3500		1200	140	ug/Kg	☼	01/29/24 16:09	01/31/24 12:19	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	84		54 - 120	01/29/24 16:09	01/31/24 12:19	5
2-Fluorobiphenyl (Surr)	95		60 - 120	01/29/24 16:09	01/31/24 12:19	5
2-Fluorophenol (Surr)	92		52 - 120	01/29/24 16:09	01/31/24 12:19	5
Nitrobenzene-d5 (Surr)	89		53 - 120	01/29/24 16:09	01/31/24 12:19	5
Phenol-d5 (Surr)	89		54 - 120	01/29/24 16:09	01/31/24 12:19	5
p-Terphenyl-d14 (Surr)	110		79 - 130	01/29/24 16:09	01/31/24 12:19	5

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.040	0.0018	mg/L		01/31/24 09:21	02/01/24 14:35	1
2,4,5-Trichlorophenol	ND		0.020	0.0019	mg/L		01/31/24 09:21	02/01/24 14:35	1
2,4,6-Trichlorophenol	ND		0.020	0.0024	mg/L		01/31/24 09:21	02/01/24 14:35	1
2,4-Dinitrotoluene	ND		0.020	0.0017	mg/L		01/31/24 09:21	02/01/24 14:35	1
2-Methylphenol	0.022		0.020	0.0016	mg/L		01/31/24 09:21	02/01/24 14:35	1
3-Methylphenol	0.034	J	0.040	0.0016	mg/L		01/31/24 09:21	02/01/24 14:35	1
4-Methylphenol	0.034	J	0.040	0.0014	mg/L		01/31/24 09:21	02/01/24 14:35	1
Hexachlorobenzene	ND		0.020	0.0020	mg/L		01/31/24 09:21	02/01/24 14:35	1
Hexachlorobutadiene	ND		0.020	0.0027	mg/L		01/31/24 09:21	02/01/24 14:35	1
Hexachloroethane	ND		0.020	0.0023	mg/L		01/31/24 09:21	02/01/24 14:35	1
Nitrobenzene	ND		0.020	0.0011	mg/L		01/31/24 09:21	02/01/24 14:35	1
Pentachlorophenol	ND		0.040	0.0088	mg/L		01/31/24 09:21	02/01/24 14:35	1
Pyridine	ND		0.10	0.0016	mg/L		01/31/24 09:21	02/01/24 14:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	89		41 - 120	01/31/24 09:21	02/01/24 14:35	1
2-Fluorobiphenyl (Surr)	93		48 - 120	01/31/24 09:21	02/01/24 14:35	1
2-Fluorophenol (Surr)	54		35 - 120	01/31/24 09:21	02/01/24 14:35	1
Nitrobenzene-d5 (Surr)	96		46 - 120	01/31/24 09:21	02/01/24 14:35	1
Phenol-d5 (Surr)	39		22 - 120	01/31/24 09:21	02/01/24 14:35	1
p-Terphenyl-d14 (Surr)	94		60 - 148	01/31/24 09:21	02/01/24 14:35	1

Method: SW846 8081B - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	ND		0.0020	0.000029	mg/L		01/31/24 09:17	01/31/24 15:55	1
Endrin	ND		0.00020	0.000014	mg/L		01/31/24 09:17	01/31/24 15:55	1

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-01-01262024

Lab Sample ID: 480-216689-1

Date Collected: 01/26/24 10:45

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 72.3

Method: SW846 8081B - Organochlorine Pesticides (GC) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
gamma-BHC (Lindane)	ND		0.00020	0.0000060	mg/L		01/31/24 09:17	01/31/24 15:55	1
Heptachlor	ND		0.00020	0.0000085	mg/L		01/31/24 09:17	01/31/24 15:55	1
Heptachlor epoxide	ND		0.00020	0.0000053	mg/L		01/31/24 09:17	01/31/24 15:55	1
Methoxychlor	ND		0.00020	0.000014	mg/L		01/31/24 09:17	01/31/24 15:55	1
Toxaphene	ND		0.0020	0.00012	mg/L		01/31/24 09:17	01/31/24 15:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	68		20 - 120	01/31/24 09:17	01/31/24 15:55	1
DCB Decachlorobiphenyl (Surr)	78		20 - 120	01/31/24 09:17	01/31/24 15:55	1
Tetrachloro-m-xylene (Surr)	57		44 - 120	01/31/24 09:17	01/31/24 15:55	1
Tetrachloro-m-xylene (Surr)	71		44 - 120	01/31/24 09:17	01/31/24 15:55	1

Method: SW846 8151 - TCLP Herbicides - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		0.0020	0.00040	mg/L		02/01/24 09:04	02/02/24 14:47	1
Silvex (2,4,5-TP)	ND		0.0020	0.00036	mg/L		02/01/24 09:04	02/02/24 14:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr)	34		21 - 143	02/01/24 09:04	02/02/24 14:47	1
2,4-Dichlorophenylacetic acid (Surr)	29		21 - 143	02/01/24 09:04	02/02/24 14:47	1

Method: EPA Draft 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.1	0.050	ug/Kg	✱	02/05/24 08:14	02/08/24 03:47	1
Perfluoropentanoic acid (PFPeA)	ND		0.54	0.028	ug/Kg	✱	02/05/24 08:14	02/08/24 03:47	1
Perfluorohexanoic acid (PFHxA)	ND		0.27	0.028	ug/Kg	✱	02/05/24 08:14	02/08/24 03:47	1
Perfluoroheptanoic acid (PFHpA)	ND		0.27	0.030	ug/Kg	✱	02/05/24 08:14	02/08/24 03:47	1
Perfluorooctanoic acid (PFOA)	ND		0.27	0.057	ug/Kg	✱	02/05/24 08:14	02/08/24 03:47	1
Perfluorononanoic acid (PFNA)	ND		0.27	0.016	ug/Kg	✱	02/05/24 08:14	02/08/24 03:47	1
Perfluorodecanoic acid (PFDA)	ND		0.27	0.10	ug/Kg	✱	02/05/24 08:14	02/08/24 03:47	1
Perfluoroundecanoic acid (PFUnA)	ND		0.27	0.038	ug/Kg	✱	02/05/24 08:14	02/08/24 03:47	1
Perfluorododecanoic acid (PFDoA)	ND		0.27	0.076	ug/Kg	✱	02/05/24 08:14	02/08/24 03:47	1
Perfluorotridecanoic acid (PFTriA)	ND		0.27	0.038	ug/Kg	✱	02/05/24 08:14	02/08/24 03:47	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.27	0.023	ug/Kg	✱	02/05/24 08:14	02/08/24 03:47	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.27	0.019	ug/Kg	✱	02/05/24 08:14	02/08/24 03:47	1
Perfluoropentanesulfonic acid (PFPeS)	0.064	J I	0.27	0.018	ug/Kg	✱	02/05/24 08:14	02/08/24 03:47	1
Perfluorohexanesulfonic acid (PFHxS)	0.045	J I	0.27	0.027	ug/Kg	✱	02/05/24 08:14	02/08/24 03:47	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.27	0.038	ug/Kg	✱	02/05/24 08:14	02/08/24 03:47	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.27	0.076	ug/Kg	✱	02/05/24 08:14	02/08/24 03:47	1
Perfluorononanesulfonic acid (PFNS)	ND		0.27	0.038	ug/Kg	✱	02/05/24 08:14	02/08/24 03:47	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.27	0.027	ug/Kg	✱	02/05/24 08:14	02/08/24 03:47	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.27	0.023	ug/Kg	✱	02/05/24 08:14	02/08/24 03:47	1
4:2 FTS	ND		1.1	0.10	ug/Kg	✱	02/05/24 08:14	02/08/24 03:47	1
6:2 FTS	ND		1.1	0.66	ug/Kg	✱	02/05/24 08:14	02/08/24 03:47	1
8:2 FTS	ND		1.1	0.16	ug/Kg	✱	02/05/24 08:14	02/08/24 03:47	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.27	0.016	ug/Kg	✱	02/05/24 08:14	02/08/24 03:47	1
NMeFOSA	ND		0.27	0.033	ug/Kg	✱	02/05/24 08:14	02/08/24 03:47	1

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-01-01262024

Lab Sample ID: 480-216689-1

Date Collected: 01/26/24 10:45

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 72.3

Method: EPA Draft 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
NEtFOSA	ND		0.27	0.042	ug/Kg	☼	02/05/24 08:14	02/08/24 03:47	1
NMeFOSAA	ND		0.27	0.034	ug/Kg	☼	02/05/24 08:14	02/08/24 03:47	1
NEtFOSAA	ND		0.27	0.033	ug/Kg	☼	02/05/24 08:14	02/08/24 03:47	1
NMeFOSE	ND		2.7	0.13	ug/Kg	☼	02/05/24 08:14	02/08/24 03:47	1
NEtFOSE	ND		2.7	0.15	ug/Kg	☼	02/05/24 08:14	02/08/24 03:47	1
HFPO-DA (GenX)	ND		1.1	0.13	ug/Kg	☼	02/05/24 08:14	02/08/24 03:47	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.1	0.11	ug/Kg	☼	02/05/24 08:14	02/08/24 03:47	1
PFMBA	ND		0.54	0.026	ug/Kg	☼	02/05/24 08:14	02/08/24 03:47	1
NFDHA	ND		0.54	0.065	ug/Kg	☼	02/05/24 08:14	02/08/24 03:47	1
PFMPA	ND		0.54	0.12	ug/Kg	☼	02/05/24 08:14	02/08/24 03:47	1
9CI-PF3ONS	ND		1.1	0.069	ug/Kg	☼	02/05/24 08:14	02/08/24 03:47	1
11CI-PF3OUdS	ND		1.1	0.16	ug/Kg	☼	02/05/24 08:14	02/08/24 03:47	1
PFEESA	ND		0.54	0.054	ug/Kg	☼	02/05/24 08:14	02/08/24 03:47	1
3:3 FTCA	ND		1.4	0.24	ug/Kg	☼	02/05/24 08:14	02/08/24 03:47	1
5:3 FTCA	ND		6.8	0.50	ug/Kg	☼	02/05/24 08:14	02/08/24 03:47	1
7:3 FTCA	ND		6.8	0.42	ug/Kg	☼	02/05/24 08:14	02/08/24 03:47	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	52		20 - 150	02/05/24 08:14	02/08/24 03:47	1
13C5 PFPeA	54		20 - 150	02/05/24 08:14	02/08/24 03:47	1
13C5 PFHxA	57		20 - 150	02/05/24 08:14	02/08/24 03:47	1
13C4 PFHpA	65		20 - 150	02/05/24 08:14	02/08/24 03:47	1
13C8 PFOA	65		20 - 150	02/05/24 08:14	02/08/24 03:47	1
13C9 PFNA	66		20 - 150	02/05/24 08:14	02/08/24 03:47	1
13C6 PFDA	62		20 - 150	02/05/24 08:14	02/08/24 03:47	1
13C7 PFUnA	63		20 - 150	02/05/24 08:14	02/08/24 03:47	1
13C2 PFDoA	57		20 - 150	02/05/24 08:14	02/08/24 03:47	1
13C2 PFTeDA	36		20 - 150	02/05/24 08:14	02/08/24 03:47	1
13C3 PFBS	63		20 - 150	02/05/24 08:14	02/08/24 03:47	1
13C3 PFHxS	63		20 - 150	02/05/24 08:14	02/08/24 03:47	1
13C8 PFOS	59		20 - 150	02/05/24 08:14	02/08/24 03:47	1
13C8 FOSA	77		20 - 150	02/05/24 08:14	02/08/24 03:47	1
d3-NMeFOSAA	85		20 - 150	02/05/24 08:14	02/08/24 03:47	1
d5-NEtFOSAA	102		20 - 150	02/05/24 08:14	02/08/24 03:47	1
M2-4:2 FTS	119		20 - 150	02/05/24 08:14	02/08/24 03:47	1
M2-6:2 FTS	134		20 - 150	02/05/24 08:14	02/08/24 03:47	1
M2-8:2 FTS	172	*5+	20 - 150	02/05/24 08:14	02/08/24 03:47	1
13C3 HFPO-DA	62		20 - 150	02/05/24 08:14	02/08/24 03:47	1
d7-N-MeFOSE-M	44		20 - 150	02/05/24 08:14	02/08/24 03:47	1
d9-N-EtFOSE-M	39		20 - 150	02/05/24 08:14	02/08/24 03:47	1
d5-NEtPFOSA	43		20 - 150	02/05/24 08:14	02/08/24 03:47	1
d3-NMePFOSA	46		20 - 150	02/05/24 08:14	02/08/24 03:47	1

Method: SW846 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		01/31/24 08:50	02/01/24 18:49	1
Barium	0.85	J	1.0	0.10	mg/L		01/31/24 08:50	02/01/24 18:49	1
Cadmium	ND		0.0020	0.00050	mg/L		01/31/24 08:50	02/01/24 18:49	1
Chromium	ND		0.020	0.010	mg/L		01/31/24 08:50	02/01/24 18:49	1
Lead	0.019	J B	0.020	0.0030	mg/L		01/31/24 08:50	02/01/24 18:49	1

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-01-01262024

Lab Sample ID: 480-216689-1

Date Collected: 01/26/24 10:45

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 72.3

Method: SW846 6010C - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		0.025	0.0087	mg/L		01/31/24 08:50	02/01/24 18:49	1
Silver	ND		0.0060	0.0017	mg/L		01/31/24 08:50	02/02/24 16:39	1

Method: SW846 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000043	mg/L		01/31/24 11:15	01/31/24 14:52	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	7.7		0.28	0.064	mg/Kg	☼	01/30/24 10:47	01/30/24 13:53	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		9.5	9.5	mg/Kg		01/30/24 12:00	01/31/24 15:41	1
Cyanide, Total (SW846 9012B)	16.5		6.7	3.2	mg/Kg	☼	01/30/24 13:10	01/30/24 16:27	5
Sulfide, Reactive (SW846 9034)	133		9.5	9.5	mg/Kg		01/30/24 12:00	01/31/24 16:00	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	>180		50.0	50.0	Degrees F			01/29/24 08:50	1
pH (SW846 9045D)	10.1	HF	0.1	0.1	SU			01/30/24 16:51	1
Temperature (SW846 9045D)	17.7	HF	0.001	0.001	Degrees C			01/30/24 16:51	1

General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	198		33.2	16.6	mg/Kg			01/30/24 10:43	10

Client Sample ID: LOA-02-01262024

Lab Sample ID: 480-216689-2

Date Collected: 01/26/24 11:10

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 83.1

Method: SW846 8260C - TCLP Volatiles - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		0.010	0.0029	mg/L			01/31/24 16:44	10
1,2-Dichloroethane	ND		0.010	0.0021	mg/L			01/31/24 16:44	10
2-Butanone (MEK)	ND		0.050	0.013	mg/L			01/31/24 16:44	10
Benzene	0.95		0.010	0.0041	mg/L			01/31/24 16:44	10
Carbon tetrachloride	ND		0.010	0.0027	mg/L			01/31/24 16:44	10
Chlorobenzene	ND		0.010	0.0075	mg/L			01/31/24 16:44	10
Chloroform	ND		0.010	0.0034	mg/L			01/31/24 16:44	10
Tetrachloroethene	ND		0.010	0.0036	mg/L			01/31/24 16:44	10
Trichloroethene	ND		0.010	0.0046	mg/L			01/31/24 16:44	10
Vinyl chloride	ND		0.010	0.0090	mg/L			01/31/24 16:44	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		01/31/24 16:44	10
4-Bromofluorobenzene (Surr)	94		73 - 120		01/31/24 16:44	10
Dibromofluoromethane (Surr)	95		75 - 123		01/31/24 16:44	10
Toluene-d8 (Surr)	105		80 - 120		01/31/24 16:44	10

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		2000	570	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-02-01262024

Lab Sample ID: 480-216689-2

Date Collected: 01/26/24 11:10

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 83.1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2000	550	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
1,1,2,2-Tetrachloroethane	ND		2000	330	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2000	1000	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
1,1,2-Trichloroethane	ND		2000	420	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
1,1-Dichloroethane	ND		2000	620	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
1,1-Dichloroethene	ND		2000	690	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
1,1-Dichloropropene	ND		2000	500	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
1,2,3-Trichlorobenzene	ND		2000	920	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
1,2,3-Trichloropropane	ND		2000	450	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
1,2,4-Trichlorobenzene	ND		2000	760	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
1,2,4-Trimethylbenzene	7000		2000	560	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
1,2-Dibromo-3-Chloropropane	ND		2000	1000	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
1,2-Dibromoethane	ND		2000	350	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
1,2-Dichlorobenzene	ND		2000	510	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
1,2-Dichloroethane	ND		2000	820	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
1,2-Dichloropropane	ND		2000	320	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
1,3,5-Trimethylbenzene	4200		2000	600	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
1,3-Dichlorobenzene	ND		2000	530	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
1,3-Dichloropropane	ND		2000	360	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
1,4-Dichlorobenzene	ND		2000	280	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
2,2-Dichloropropane	ND		2000	450	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
2-Butanone (MEK)	ND		10000	5900	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
2-Chlorotoluene	ND		2000	770	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
2-Hexanone	ND		10000	4100	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
4-Chlorotoluene	ND		2000	410	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
4-Isopropyltoluene	ND		2000	670	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
4-Methyl-2-pentanone (MIBK)	ND		10000	640	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
Acetone	ND		10000	8200	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
Benzene	79000		2000	380	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
Bromobenzene	ND		2000	440	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
Bromodichloromethane	ND		2000	400	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
Bromoform	ND		2000	1000	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
Bromomethane	ND		2000	440	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
Carbon disulfide	ND		2000	910	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
Carbon tetrachloride	ND		2000	510	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
Chlorobenzene	ND		2000	260	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
Chlorobromomethane	ND		2000	720	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
Chloroethane	ND		2000	420	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
Chloroform	ND		2000	1400	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
Chloromethane	ND		2000	480	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
cis-1,2-Dichloroethene	ND		2000	550	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
cis-1,3-Dichloropropene	ND		2000	480	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
Cyclohexane	ND		2000	440	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
Dibromochloromethane	ND		2000	970	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
Dibromomethane	ND		2000	650	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
Dichlorodifluoromethane	ND		2000	870	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
Dichlorofluoromethane	ND		2000	400	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
Ethylbenzene	11000		2000	580	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
Hexachlorobutadiene	ND		2000	790	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-02-01262024

Lab Sample ID: 480-216689-2

Date Collected: 01/26/24 11:10

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 83.1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		2000	300	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
m,p-Xylene	49000		4000	1100	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
Methyl acetate	ND		10000	950	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
Methyl tert-butyl ether	ND		2000	760	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
Methylcyclohexane	ND		2000	940	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
Methylene Chloride	ND		2000	400	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
Naphthalene	540000	E	2000	670	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
n-Butylbenzene	ND		2000	580	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
N-Propylbenzene	ND		2000	520	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
o-Xylene	11000		2000	260	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
sec-Butylbenzene	ND		2000	740	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
Styrene	12000		2000	480	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
tert-Butylbenzene	ND		2000	560	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
Tetrachloroethene	ND		2000	270	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
Toluene	84000		2000	540	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
trans-1,2-Dichloroethene	ND		2000	470	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
trans-1,3-Dichloropropene	ND		2000	200	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
Trichloroethene	ND		2000	560	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
Trichlorofluoromethane	ND		2000	940	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
Vinyl chloride	ND		2000	670	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40
Xylenes, Total	60000		4000	1100	ug/Kg	☼	01/31/24 08:18	01/31/24 13:39	40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		53 - 146	01/31/24 08:18	01/31/24 13:39	40
4-Bromofluorobenzene (Surr)	100		49 - 148	01/31/24 08:18	01/31/24 13:39	40
Dibromofluoromethane (Surr)	93		60 - 140	01/31/24 08:18	01/31/24 13:39	40
Toluene-d8 (Surr)	98		50 - 149	01/31/24 08:18	01/31/24 13:39	40

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		1200	650	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
2,4,5-Trichlorophenol	ND		2000	540	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
2,4,6-Trichlorophenol	ND		2000	400	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
2,4-Dichlorophenol	ND		2000	210	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
2,4-Dimethylphenol	ND		2000	490	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
2,4-Dinitrophenol	ND		20000	9300	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
2,4-Dinitrotoluene	ND		2000	410	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
2,6-Dinitrotoluene	ND		2000	240	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
2-Chloronaphthalene	ND		2000	330	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
2-Chlorophenol	ND		3900	370	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
2-Methylnaphthalene	19000		2000	400	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
2-Methylphenol	ND		2000	240	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
2-Nitroaniline	ND		3900	300	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
2-Nitrophenol	ND		2000	570	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
3,3'-Dichlorobenzidine	ND		3900	2400	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
3-Nitroaniline	ND		3900	560	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
4,6-Dinitro-2-methylphenol	ND		3900	2000	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
4-Bromophenyl phenyl ether	ND		2000	280	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
4-Chloro-3-methylphenol	ND		2000	500	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
4-Chloroaniline	ND		2000	500	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-02-01262024

Lab Sample ID: 480-216689-2

Date Collected: 01/26/24 11:10

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 83.1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	ND		2000	250	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
4-Methylphenol	370	J	3900	240	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
4-Nitroaniline	ND		3900	1100	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
4-Nitrophenol	ND		3900	1400	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Acenaphthene	11000		2000	300	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Acenaphthylene	6500		2000	260	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Acetophenone	ND		2000	270	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Anthracene	4500		2000	500	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Atrazine	ND		2000	700	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Benzaldehyde	ND		2000	1600	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Benzo[a]anthracene	9100		2000	200	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Benzo[a]pyrene	6300		2000	300	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Benzo[b]fluoranthene	9000		2000	320	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Benzo[g,h,i]perylene	3300		2000	210	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Benzo[k]fluoranthene	5300		2000	260	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Biphenyl	2200		2000	300	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
bis (2-chloroisopropyl) ether	ND		2000	400	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Bis(2-chloroethoxy)methane	ND		2000	430	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Bis(2-chloroethyl)ether	ND		2000	260	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Bis(2-ethylhexyl) phthalate	ND		2000	690	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Butyl benzyl phthalate	ND		2000	330	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Caprolactam	ND		2000	600	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Carbazole	1900	J	2000	240	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Chrysene	9900		2000	450	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Dibenz(a,h)anthracene	1400	J	2000	360	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Dibenzofuran	6300		2000	240	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Diethyl phthalate	ND		2000	260	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Dimethyl phthalate	ND		2000	240	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Di-n-butyl phthalate	ND		2000	340	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Di-n-octyl phthalate	ND		2000	240	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Fluoranthene	25000		2000	210	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Fluorene	7900		2000	240	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Hexachlorobenzene	ND		2000	270	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Hexachlorobutadiene	ND		2000	300	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Hexachlorocyclopentadiene	ND		2000	270	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Hexachloroethane	ND		2000	260	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Indeno[1,2,3-cd]pyrene	3600		2000	250	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Isophorone	ND		2000	430	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Naphthalene	120000	E	2000	260	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Nitrobenzene	ND		2000	220	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
N-Nitrosodi-n-propylamine	ND		2000	340	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
N-Nitrosodiphenylamine	ND		2000	1600	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Pentachlorophenol	ND		3900	2000	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Phenanthrene	16000		2000	300	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Phenol	520	J	2000	310	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10
Pyrene	14000		2000	240	ug/Kg	☼	01/29/24 16:09	01/30/24 21:16	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	88		54 - 120	01/29/24 16:09	01/30/24 21:16	10
2-Fluorobiphenyl (Surr)	82		60 - 120	01/29/24 16:09	01/30/24 21:16	10

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-02-01262024

Lab Sample ID: 480-216689-2

Date Collected: 01/26/24 11:10

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 83.1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	86		52 - 120	01/29/24 16:09	01/30/24 21:16	10
Nitrobenzene-d5 (Surr)	80		53 - 120	01/29/24 16:09	01/30/24 21:16	10
Phenol-d5 (Surr)	78		54 - 120	01/29/24 16:09	01/30/24 21:16	10
p-Terphenyl-d14 (Surr)	79		79 - 130	01/29/24 16:09	01/30/24 21:16	10

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		5900	3300	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
2,4,5-Trichlorophenol	ND		10000	2700	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
2,4,6-Trichlorophenol	ND		10000	2000	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
2,4-Dichlorophenol	ND		10000	1100	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
2,4-Dimethylphenol	ND		10000	2400	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
2,4-Dinitrophenol	ND		98000	46000	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
2,4-Dinitrotoluene	ND		10000	2100	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
2,6-Dinitrotoluene	ND		10000	1200	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
2-Chloronaphthalene	ND		10000	1700	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
2-Chlorophenol	ND		20000	1800	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
2-Methylnaphthalene	17000		10000	2000	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
2-Methylphenol	ND		10000	1200	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
2-Nitroaniline	ND		20000	1500	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
2-Nitrophenol	ND		10000	2800	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
3,3'-Dichlorobenzidine	ND		20000	12000	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
3-Nitroaniline	ND		20000	2800	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
4,6-Dinitro-2-methylphenol	ND		20000	10000	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
4-Bromophenyl phenyl ether	ND		10000	1400	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
4-Chloro-3-methylphenol	ND		10000	2500	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
4-Chloroaniline	ND		10000	2500	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
4-Chlorophenyl phenyl ether	ND		10000	1200	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
4-Methylphenol	ND		20000	1200	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
4-Nitroaniline	ND		20000	5300	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
4-Nitrophenol	ND		20000	7000	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
Acenaphthene	9300	J	10000	1500	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
Acenaphthylene	4500	J	10000	1300	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
Acetophenone	ND		10000	1400	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
Anthracene	4400	J	10000	2500	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
Atrazine	ND		10000	3500	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
Benzaldehyde	ND		10000	8000	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
Benzo[a]anthracene	8400	J	10000	1000	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
Benzo[a]pyrene	6100	J	10000	1500	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
Benzo[b]fluoranthene	10000		10000	1600	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
Benzo[g,h,i]perylene	3600	J	10000	1100	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
Benzo[k]fluoranthene	3100	J	10000	1300	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
Biphenyl	2000	J	10000	1500	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
bis (2-chloroisopropyl) ether	ND		10000	2000	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
Bis(2-chloroethoxy)methane	ND		10000	2100	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
Bis(2-chloroethyl)ether	ND		10000	1300	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
Bis(2-ethylhexyl) phthalate	ND		10000	3400	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
Butyl benzyl phthalate	ND		10000	1700	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50
Caprolactam	ND		10000	3000	ug/Kg	☆	01/29/24 16:09	01/31/24 12:44	50

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-02-01262024

Lab Sample ID: 480-216689-2

Date Collected: 01/26/24 11:10

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 83.1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbazole	2300	J	10000	1200	ug/Kg	☼	01/29/24 16:09	01/31/24 12:44	50
Chrysene	9400	J	10000	2200	ug/Kg	☼	01/29/24 16:09	01/31/24 12:44	50
Dibenz(a,h)anthracene	ND		10000	1800	ug/Kg	☼	01/29/24 16:09	01/31/24 12:44	50
Dibenzofuran	5800	J	10000	1200	ug/Kg	☼	01/29/24 16:09	01/31/24 12:44	50
Diethyl phthalate	ND		10000	1300	ug/Kg	☼	01/29/24 16:09	01/31/24 12:44	50
Dimethyl phthalate	ND		10000	1200	ug/Kg	☼	01/29/24 16:09	01/31/24 12:44	50
Di-n-butyl phthalate	ND		10000	1700	ug/Kg	☼	01/29/24 16:09	01/31/24 12:44	50
Di-n-octyl phthalate	ND		10000	1200	ug/Kg	☼	01/29/24 16:09	01/31/24 12:44	50
Fluoranthene	19000		10000	1100	ug/Kg	☼	01/29/24 16:09	01/31/24 12:44	50
Fluorene	7800	J	10000	1200	ug/Kg	☼	01/29/24 16:09	01/31/24 12:44	50
Hexachlorobenzene	ND		10000	1400	ug/Kg	☼	01/29/24 16:09	01/31/24 12:44	50
Hexachlorobutadiene	ND		10000	1500	ug/Kg	☼	01/29/24 16:09	01/31/24 12:44	50
Hexachlorocyclopentadiene	ND		10000	1400	ug/Kg	☼	01/29/24 16:09	01/31/24 12:44	50
Hexachloroethane	ND		10000	1300	ug/Kg	☼	01/29/24 16:09	01/31/24 12:44	50
Indeno[1,2,3-cd]pyrene	4200	J	10000	1200	ug/Kg	☼	01/29/24 16:09	01/31/24 12:44	50
Isophorone	ND		10000	2100	ug/Kg	☼	01/29/24 16:09	01/31/24 12:44	50
Naphthalene	150000		10000	1300	ug/Kg	☼	01/29/24 16:09	01/31/24 12:44	50
Nitrobenzene	ND		10000	1100	ug/Kg	☼	01/29/24 16:09	01/31/24 12:44	50
N-Nitrosodi-n-propylamine	ND		10000	1700	ug/Kg	☼	01/29/24 16:09	01/31/24 12:44	50
N-Nitrosodiphenylamine	ND		10000	8200	ug/Kg	☼	01/29/24 16:09	01/31/24 12:44	50
Pentachlorophenol	ND		20000	10000	ug/Kg	☼	01/29/24 16:09	01/31/24 12:44	50
Phenanthrene	15000		10000	1500	ug/Kg	☼	01/29/24 16:09	01/31/24 12:44	50
Phenol	ND		10000	1500	ug/Kg	☼	01/29/24 16:09	01/31/24 12:44	50
Pyrene	15000		10000	1200	ug/Kg	☼	01/29/24 16:09	01/31/24 12:44	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	197	S1+	54 - 120	01/29/24 16:09	01/31/24 12:44	50
2-Fluorobiphenyl (Surr)	99		60 - 120	01/29/24 16:09	01/31/24 12:44	50
2-Fluorophenol (Surr)	0	S1-	52 - 120	01/29/24 16:09	01/31/24 12:44	50
Nitrobenzene-d5 (Surr)	72		53 - 120	01/29/24 16:09	01/31/24 12:44	50
Phenol-d5 (Surr)	0	S1-	54 - 120	01/29/24 16:09	01/31/24 12:44	50
p-Terphenyl-d14 (Surr)	73	S1-	79 - 130	01/29/24 16:09	01/31/24 12:44	50

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.040	0.0018	mg/L		01/31/24 09:21	02/01/24 14:59	1
2,4,5-Trichlorophenol	ND		0.020	0.0019	mg/L		01/31/24 09:21	02/01/24 14:59	1
2,4,6-Trichlorophenol	ND		0.020	0.0024	mg/L		01/31/24 09:21	02/01/24 14:59	1
2,4-Dinitrotoluene	ND		0.020	0.0017	mg/L		01/31/24 09:21	02/01/24 14:59	1
2-Methylphenol	0.015	J	0.020	0.0016	mg/L		01/31/24 09:21	02/01/24 14:59	1
3-Methylphenol	0.028	J	0.040	0.0016	mg/L		01/31/24 09:21	02/01/24 14:59	1
4-Methylphenol	0.028	J	0.040	0.0014	mg/L		01/31/24 09:21	02/01/24 14:59	1
Hexachlorobenzene	ND		0.020	0.0020	mg/L		01/31/24 09:21	02/01/24 14:59	1
Hexachlorobutadiene	ND		0.020	0.0027	mg/L		01/31/24 09:21	02/01/24 14:59	1
Hexachloroethane	ND		0.020	0.0023	mg/L		01/31/24 09:21	02/01/24 14:59	1
Nitrobenzene	ND		0.020	0.0011	mg/L		01/31/24 09:21	02/01/24 14:59	1
Pentachlorophenol	ND		0.040	0.0088	mg/L		01/31/24 09:21	02/01/24 14:59	1
Pyridine	ND		0.10	0.0016	mg/L		01/31/24 09:21	02/01/24 14:59	1

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-02-01262024

Lab Sample ID: 480-216689-2

Date Collected: 01/26/24 11:10

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 83.1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	94		41 - 120	01/31/24 09:21	02/01/24 14:59	1
2-Fluorobiphenyl (Surr)	97		48 - 120	01/31/24 09:21	02/01/24 14:59	1
2-Fluorophenol (Surr)	56		35 - 120	01/31/24 09:21	02/01/24 14:59	1
Nitrobenzene-d5 (Surr)	100		46 - 120	01/31/24 09:21	02/01/24 14:59	1
Phenol-d5 (Surr)	42		22 - 120	01/31/24 09:21	02/01/24 14:59	1
p-Terphenyl-d14 (Surr)	96		60 - 148	01/31/24 09:21	02/01/24 14:59	1

Method: SW846 8081B - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	ND		0.0020	0.000029	mg/L		01/31/24 09:17	01/31/24 16:15	1
Endrin	ND		0.00020	0.000014	mg/L		01/31/24 09:17	01/31/24 16:15	1
gamma-BHC (Lindane)	ND		0.00020	0.0000060	mg/L		01/31/24 09:17	01/31/24 16:15	1
Heptachlor	ND		0.00020	0.0000085	mg/L		01/31/24 09:17	01/31/24 16:15	1
Heptachlor epoxide	ND		0.00020	0.0000053	mg/L		01/31/24 09:17	01/31/24 16:15	1
Methoxychlor	ND		0.00020	0.000014	mg/L		01/31/24 09:17	01/31/24 16:15	1
Toxaphene	ND		0.0020	0.00012	mg/L		01/31/24 09:17	01/31/24 16:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	66		20 - 120	01/31/24 09:17	01/31/24 16:15	1
DCB Decachlorobiphenyl (Surr)	76		20 - 120	01/31/24 09:17	01/31/24 16:15	1
Tetrachloro-m-xylene (Surr)	58		44 - 120	01/31/24 09:17	01/31/24 16:15	1
Tetrachloro-m-xylene (Surr)	78		44 - 120	01/31/24 09:17	01/31/24 16:15	1

Method: SW846 8151 - TCLP Herbicides - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		0.0020	0.00040	mg/L		02/01/24 09:04	02/02/24 15:06	1
Silvex (2,4,5-TP)	ND		0.0020	0.00036	mg/L		02/01/24 09:04	02/02/24 15:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr)	35		21 - 143	02/01/24 09:04	02/02/24 15:06	1
2,4-Dichlorophenylacetic acid (Surr)	31		21 - 143	02/01/24 09:04	02/02/24 15:06	1

Method: SW846 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		01/31/24 08:50	02/01/24 18:53	1
Barium	0.93	J	1.0	0.10	mg/L		01/31/24 08:50	02/01/24 18:53	1
Cadmium	ND		0.0020	0.00050	mg/L		01/31/24 08:50	02/01/24 18:53	1
Chromium	ND		0.020	0.010	mg/L		01/31/24 08:50	02/01/24 18:53	1
Lead	0.019	J B	0.020	0.0030	mg/L		01/31/24 08:50	02/01/24 18:53	1
Selenium	ND		0.025	0.0087	mg/L		01/31/24 08:50	02/01/24 18:53	1
Silver	ND		0.0060	0.0017	mg/L		01/31/24 08:50	02/02/24 16:43	1

Method: SW846 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020		0.00020	0.000043	mg/L		01/31/24 11:15	01/31/24 14:55	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	15.1		0.56	0.13	mg/Kg	✱	01/30/24 10:47	01/30/24 13:55	25

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-02-01262024

Lab Sample ID: 480-216689-2

Date Collected: 01/26/24 11:10

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 83.1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		9.6	9.6	mg/Kg		01/30/24 12:00	01/31/24 15:42	1
Cyanide, Total (SW846 9012B)	10.4		5.7	2.8	mg/Kg	⊛	01/30/24 13:10	01/30/24 16:31	5
Sulfide, Reactive (SW846 9034)	ND		9.6	9.6	mg/Kg		01/30/24 12:00	01/31/24 16:00	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	>180		50.0	50.0	Degrees F			01/29/24 08:50	1
pH (SW846 9045D)	11.3	HF	0.1	0.1	SU			01/30/24 16:51	1
Temperature (SW846 9045D)	18.3	HF	0.001	0.001	Degrees C			01/30/24 16:51	1

General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	257		38.6	19.3	mg/Kg			01/30/24 10:44	10

Client Sample ID: LOA-03-01262024

Lab Sample ID: 480-216689-3

Date Collected: 01/26/24 11:25

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 78.7

Method: SW846 8260C - TCLP Volatiles - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		0.010	0.0029	mg/L			01/31/24 17:07	10
1,2-Dichloroethane	ND		0.010	0.0021	mg/L			01/31/24 17:07	10
2-Butanone (MEK)	ND		0.050	0.013	mg/L			01/31/24 17:07	10
Benzene	0.40		0.010	0.0041	mg/L			01/31/24 17:07	10
Carbon tetrachloride	ND		0.010	0.0027	mg/L			01/31/24 17:07	10
Chlorobenzene	ND		0.010	0.0075	mg/L			01/31/24 17:07	10
Chloroform	ND		0.010	0.0034	mg/L			01/31/24 17:07	10
Tetrachloroethene	ND		0.010	0.0036	mg/L			01/31/24 17:07	10
Trichloroethene	ND		0.010	0.0046	mg/L			01/31/24 17:07	10
Vinyl chloride	ND		0.010	0.0090	mg/L			01/31/24 17:07	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		77 - 120					01/31/24 17:07	10
4-Bromofluorobenzene (Surr)	94		73 - 120					01/31/24 17:07	10
Dibromofluoromethane (Surr)	100		75 - 123					01/31/24 17:07	10
Toluene-d8 (Surr)	105		80 - 120					01/31/24 17:07	10

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		4500	1300	ug/Kg	⊛	01/31/24 08:18	01/31/24 14:02	80
1,1,1-Trichloroethane	ND		4500	1300	ug/Kg	⊛	01/31/24 08:18	01/31/24 14:02	80
1,1,2,2-Tetrachloroethane	ND		4500	730	ug/Kg	⊛	01/31/24 08:18	01/31/24 14:02	80
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4500	2300	ug/Kg	⊛	01/31/24 08:18	01/31/24 14:02	80
1,1,2-Trichloroethane	ND		4500	950	ug/Kg	⊛	01/31/24 08:18	01/31/24 14:02	80
1,1-Dichloroethane	ND		4500	1400	ug/Kg	⊛	01/31/24 08:18	01/31/24 14:02	80
1,1-Dichloroethene	ND		4500	1600	ug/Kg	⊛	01/31/24 08:18	01/31/24 14:02	80
1,1-Dichloropropene	ND		4500	1100	ug/Kg	⊛	01/31/24 08:18	01/31/24 14:02	80
1,2,3-Trichlorobenzene	ND		4500	2100	ug/Kg	⊛	01/31/24 08:18	01/31/24 14:02	80
1,2,3-Trichloropropane	ND		4500	1000	ug/Kg	⊛	01/31/24 08:18	01/31/24 14:02	80
1,2,4-Trichlorobenzene	ND		4500	1700	ug/Kg	⊛	01/31/24 08:18	01/31/24 14:02	80
1,2,4-Trimethylbenzene	3800	J	4500	1300	ug/Kg	⊛	01/31/24 08:18	01/31/24 14:02	80
1,2-Dibromo-3-Chloropropane	ND		4500	2300	ug/Kg	⊛	01/31/24 08:18	01/31/24 14:02	80

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-03-01262024

Lab Sample ID: 480-216689-3

Date Collected: 01/26/24 11:25

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 78.7

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		4500	790	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
1,2-Dichlorobenzene	ND		4500	1200	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
1,2-Dichloroethane	ND		4500	1800	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
1,2-Dichloropropane	ND		4500	730	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
1,3,5-Trimethylbenzene	1900	J	4500	1400	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
1,3-Dichlorobenzene	ND		4500	1200	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
1,3-Dichloropropane	ND		4500	820	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
1,4-Dichlorobenzene	ND		4500	630	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
2,2-Dichloropropane	ND		4500	1000	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
2-Butanone (MEK)	ND		23000	13000	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
2-Chlorotoluene	ND		4500	1700	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
2-Hexanone	ND		23000	9300	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
4-Chlorotoluene	ND		4500	920	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
4-Isopropyltoluene	ND		4500	1500	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
4-Methyl-2-pentanone (MIBK)	ND		23000	1400	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
Acetone	ND		23000	19000	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
Benzene	64000		4500	860	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
Bromobenzene	ND		4500	990	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
Bromodichloromethane	ND		4500	900	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
Bromoform	ND		4500	2300	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
Bromomethane	ND		4500	990	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
Carbon disulfide	ND		4500	2100	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
Carbon tetrachloride	ND		4500	1200	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
Chlorobenzene	ND		4500	600	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
Chlorobromomethane	ND		4500	1600	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
Chloroethane	ND		4500	940	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
Chloroform	ND		4500	3100	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
Chloromethane	ND		4500	1100	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
cis-1,2-Dichloroethene	ND		4500	1200	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
cis-1,3-Dichloropropene	ND		4500	1100	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
Cyclohexane	ND		4500	1000	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
Dibromochloromethane	ND		4500	2200	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
Dibromomethane	ND		4500	1500	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
Dichlorodifluoromethane	ND		4500	2000	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
Dichlorofluoromethane	ND		4500	900	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
Ethylbenzene	9300		4500	1300	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
Hexachlorobutadiene	ND		4500	1800	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
Isopropylbenzene	ND		4500	680	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
m,p-Xylene	14000		9000	2500	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
Methyl acetate	ND		23000	2200	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
Methyl tert-butyl ether	ND		4500	1700	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
Methylcyclohexane	ND		4500	2100	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
Methylene Chloride	ND		4500	900	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
Naphthalene	310000		4500	1500	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
n-Butylbenzene	ND		4500	1300	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
N-Propylbenzene	ND		4500	1200	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
o-Xylene	3500	J	4500	590	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
sec-Butylbenzene	ND		4500	1700	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80
Styrene	ND		4500	1100	ug/Kg	✳	01/31/24 08:18	01/31/24 14:02	80

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-03-01262024

Lab Sample ID: 480-216689-3

Date Collected: 01/26/24 11:25

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 78.7

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	ND		4500	1300	ug/Kg	☼	01/31/24 08:18	01/31/24 14:02	80
Tetrachloroethene	ND		4500	610	ug/Kg	☼	01/31/24 08:18	01/31/24 14:02	80
Toluene	13000		4500	1200	ug/Kg	☼	01/31/24 08:18	01/31/24 14:02	80
trans-1,2-Dichloroethene	ND		4500	1100	ug/Kg	☼	01/31/24 08:18	01/31/24 14:02	80
trans-1,3-Dichloropropene	ND		4500	440	ug/Kg	☼	01/31/24 08:18	01/31/24 14:02	80
Trichloroethene	ND		4500	1300	ug/Kg	☼	01/31/24 08:18	01/31/24 14:02	80
Trichlorofluoromethane	ND		4500	2100	ug/Kg	☼	01/31/24 08:18	01/31/24 14:02	80
Vinyl chloride	ND		4500	1500	ug/Kg	☼	01/31/24 08:18	01/31/24 14:02	80
Xylenes, Total	18000		9000	2500	ug/Kg	☼	01/31/24 08:18	01/31/24 14:02	80
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		53 - 146				01/31/24 08:18	01/31/24 14:02	80
4-Bromofluorobenzene (Surr)	99		49 - 148				01/31/24 08:18	01/31/24 14:02	80
Dibromofluoromethane (Surr)	95		60 - 140				01/31/24 08:18	01/31/24 14:02	80
Toluene-d8 (Surr)	100		50 - 149				01/31/24 08:18	01/31/24 14:02	80

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		130	70	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
2,4,5-Trichlorophenol	ND		220	58	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
2,4,6-Trichlorophenol	ND		220	43	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
2,4-Dichlorophenol	ND		220	23	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
2,4-Dimethylphenol	ND		220	52	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
2,4-Dinitrophenol	ND		2100	990	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
2,4-Dinitrotoluene	ND		220	44	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
2,6-Dinitrotoluene	ND		220	25	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
2-Chloronaphthalene	ND		220	35	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
2-Chlorophenol	ND		420	39	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
2-Methylnaphthalene	8700	E	220	43	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
2-Methylphenol	100	J	220	25	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
2-Nitroaniline	ND		420	32	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
2-Nitrophenol	ND		220	61	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
3,3'-Dichlorobenzidine	ND		420	250	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
3-Nitroaniline	ND		420	60	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
4,6-Dinitro-2-methylphenol	ND		420	220	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
4-Bromophenyl phenyl ether	ND		220	30	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
4-Chloro-3-methylphenol	ND		220	53	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
4-Chloroaniline	ND		220	53	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
4-Chlorophenyl phenyl ether	ND		220	27	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
4-Methylphenol	160	J	420	25	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
4-Nitroaniline	ND		420	110	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
4-Nitrophenol	ND		420	150	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Acenaphthene	4900		220	32	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Acenaphthylene	2100		220	28	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Acetophenone	60	J	220	29	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Anthracene	2200		220	53	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Atrazine	ND		220	75	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Benzaldehyde	ND		220	170	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Benzo[a]anthracene	3600		220	22	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Benzo[a]pyrene	2700		220	32	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-03-01262024

Lab Sample ID: 480-216689-3

Date Collected: 01/26/24 11:25

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 78.7

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	3500		220	34	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Benzo[g,h,i]perylene	1300		220	23	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Benzo[k]fluoranthene	2000		220	28	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Biphenyl	990		220	32	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
bis (2-chloroisopropyl) ether	ND		220	43	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Bis(2-chloroethoxy)methane	ND		220	46	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Bis(2-chloroethyl)ether	ND		220	28	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Bis(2-ethylhexyl) phthalate	ND		220	73	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Butyl benzyl phthalate	ND		220	35	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Caprolactam	ND		220	65	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Carbazole	750		220	25	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Chrysene	3800		220	48	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Dibenz(a,h)anthracene	530		220	38	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Dibenzofuran	2800		220	25	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Diethyl phthalate	ND		220	28	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Dimethyl phthalate	ND		220	25	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Di-n-butyl phthalate	ND		220	37	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Di-n-octyl phthalate	ND		220	25	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Fluoranthene	8900	E	220	23	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Fluorene	3800		220	25	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Hexachlorobenzene	ND		220	29	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Hexachlorobutadiene	ND		220	32	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Hexachlorocyclopentadiene	ND		220	29	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Hexachloroethane	ND		220	28	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Indeno[1,2,3-cd]pyrene	1400		220	27	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Isophorone	ND		220	46	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Naphthalene	28000	E	220	28	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Nitrobenzene	ND		220	24	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
N-Nitrosodi-n-propylamine	ND		220	37	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
N-Nitrosodiphenylamine	ND		220	170	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Pentachlorophenol	ND		420	220	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Phenanthrene	7300	E	220	32	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Phenol	200	J	220	33	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1
Pyrene	5400		220	25	ug/Kg	☼	01/29/24 16:09	01/30/24 21:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	66		54 - 120	01/29/24 16:09	01/30/24 21:40	1
2-Fluorobiphenyl (Surr)	81		60 - 120	01/29/24 16:09	01/30/24 21:40	1
2-Fluorophenol (Surr)	77		52 - 120	01/29/24 16:09	01/30/24 21:40	1
Nitrobenzene-d5 (Surr)	78		53 - 120	01/29/24 16:09	01/30/24 21:40	1
Phenol-d5 (Surr)	76		54 - 120	01/29/24 16:09	01/30/24 21:40	1
p-Terphenyl-d14 (Surr)	95		79 - 130	01/29/24 16:09	01/30/24 21:40	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		1300	700	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
2,4,5-Trichlorophenol	ND		2200	580	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
2,4,6-Trichlorophenol	ND		2200	430	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
2,4-Dichlorophenol	ND		2200	230	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
2,4-Dimethylphenol	ND		2200	520	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-03-01262024

Lab Sample ID: 480-216689-3

Date Collected: 01/26/24 11:25

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 78.7

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	ND		21000	9900	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
2,4-Dinitrotoluene	ND		2200	440	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
2,6-Dinitrotoluene	ND		2200	250	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
2-Chloronaphthalene	ND		2200	350	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
2-Chlorophenol	ND		4200	390	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
2-Methylnaphthalene	7800		2200	430	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
2-Methylphenol	ND		2200	250	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
2-Nitroaniline	ND		4200	320	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
2-Nitrophenol	ND		2200	610	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
3,3'-Dichlorobenzidine	ND		4200	2500	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
3-Nitroaniline	ND		4200	600	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
4,6-Dinitro-2-methylphenol	ND		4200	2200	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
4-Bromophenyl phenyl ether	ND		2200	300	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
4-Chloro-3-methylphenol	ND		2200	530	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
4-Chloroaniline	ND		2200	530	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
4-Chlorophenyl phenyl ether	ND		2200	270	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
4-Methylphenol	ND		4200	250	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
4-Nitroaniline	ND		4200	1100	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
4-Nitrophenol	ND		4200	1500	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Acenaphthene	4400		2200	320	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Acenaphthylene	1200 J		2200	280	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Acetophenone	ND		2200	290	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Anthracene	2100 J		2200	530	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Atrazine	ND		2200	750	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Benzaldehyde	ND		2200	1700	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Benzo[a]anthracene	3500		2200	220	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Benzo[a]pyrene	2500		2200	320	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Benzo[b]fluoranthene	3600		2200	340	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Benzo[g,h,i]perylene	1300 J		2200	230	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Benzo[k]fluoranthene	1300 J		2200	280	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Biphenyl	820 J		2200	320	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
bis (2-chloroisopropyl) ether	ND		2200	430	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Bis(2-chloroethoxy)methane	ND		2200	460	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Bis(2-chloroethyl)ether	ND		2200	280	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Bis(2-ethylhexyl) phthalate	ND		2200	730	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Butyl benzyl phthalate	ND		2200	350	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Caprolactam	ND		2200	650	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Carbazole	760 J		2200	250	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Chrysene	3300		2200	480	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Dibenz(a,h)anthracene	490 J		2200	380	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Dibenzofuran	2500		2200	250	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Diethyl phthalate	ND		2200	280	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Dimethyl phthalate	ND		2200	250	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Di-n-butyl phthalate	ND		2200	370	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Di-n-octyl phthalate	ND		2200	250	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Fluoranthene	8400		2200	230	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Fluorene	3200		2200	250	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Hexachlorobenzene	ND		2200	290	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Hexachlorobutadiene	ND		2200	320	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10

Euromins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-03-01262024

Lab Sample ID: 480-216689-3

Date Collected: 01/26/24 11:25

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 78.7

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorocyclopentadiene	ND		2200	290	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Hexachloroethane	ND		2200	280	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Indeno[1,2,3-cd]pyrene	1300	J	2200	270	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Isophorone	ND		2200	460	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Naphthalene	48000		2200	280	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Nitrobenzene	ND		2200	240	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
N-Nitrosodi-n-propylamine	ND		2200	370	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
N-Nitrosodiphenylamine	ND		2200	1700	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Pentachlorophenol	ND		4200	2200	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Phenanthrene	7200		2200	320	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Phenol	ND		2200	330	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10
Pyrene	6000		2200	250	ug/Kg	☼	01/29/24 16:09	01/31/24 13:08	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	74		54 - 120	01/29/24 16:09	01/31/24 13:08	10
2-Fluorobiphenyl (Surr)	72		60 - 120	01/29/24 16:09	01/31/24 13:08	10
2-Fluorophenol (Surr)	86		52 - 120	01/29/24 16:09	01/31/24 13:08	10
Nitrobenzene-d5 (Surr)	70		53 - 120	01/29/24 16:09	01/31/24 13:08	10
Phenol-d5 (Surr)	78		54 - 120	01/29/24 16:09	01/31/24 13:08	10
p-Terphenyl-d14 (Surr)	76	S1-	79 - 130	01/29/24 16:09	01/31/24 13:08	10

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.040	0.0018	mg/L		01/31/24 09:21	02/01/24 15:24	1
2,4,5-Trichlorophenol	ND		0.020	0.0019	mg/L		01/31/24 09:21	02/01/24 15:24	1
2,4,6-Trichlorophenol	ND		0.020	0.0024	mg/L		01/31/24 09:21	02/01/24 15:24	1
2,4-Dinitrotoluene	ND		0.020	0.0017	mg/L		01/31/24 09:21	02/01/24 15:24	1
2-Methylphenol	0.0072	J	0.020	0.0016	mg/L		01/31/24 09:21	02/01/24 15:24	1
3-Methylphenol	0.011	J	0.040	0.0016	mg/L		01/31/24 09:21	02/01/24 15:24	1
4-Methylphenol	0.011	J	0.040	0.0014	mg/L		01/31/24 09:21	02/01/24 15:24	1
Hexachlorobenzene	ND		0.020	0.0020	mg/L		01/31/24 09:21	02/01/24 15:24	1
Hexachlorobutadiene	ND		0.020	0.0027	mg/L		01/31/24 09:21	02/01/24 15:24	1
Hexachloroethane	ND		0.020	0.0023	mg/L		01/31/24 09:21	02/01/24 15:24	1
Nitrobenzene	ND		0.020	0.0011	mg/L		01/31/24 09:21	02/01/24 15:24	1
Pentachlorophenol	ND		0.040	0.0088	mg/L		01/31/24 09:21	02/01/24 15:24	1
Pyridine	0.0024	J	0.10	0.0016	mg/L		01/31/24 09:21	02/01/24 15:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	90		41 - 120	01/31/24 09:21	02/01/24 15:24	1
2-Fluorobiphenyl (Surr)	101		48 - 120	01/31/24 09:21	02/01/24 15:24	1
2-Fluorophenol (Surr)	54		35 - 120	01/31/24 09:21	02/01/24 15:24	1
Nitrobenzene-d5 (Surr)	100		46 - 120	01/31/24 09:21	02/01/24 15:24	1
Phenol-d5 (Surr)	37		22 - 120	01/31/24 09:21	02/01/24 15:24	1
p-Terphenyl-d14 (Surr)	97		60 - 148	01/31/24 09:21	02/01/24 15:24	1

Method: SW846 8081B - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	ND		0.0020	0.000029	mg/L		01/31/24 09:17	01/31/24 16:34	1
Endrin	ND		0.00020	0.000014	mg/L		01/31/24 09:17	01/31/24 16:34	1
gamma-BHC (Lindane)	ND		0.00020	0.0000060	mg/L		01/31/24 09:17	01/31/24 16:34	1

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-03-01262024

Lab Sample ID: 480-216689-3

Date Collected: 01/26/24 11:25

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 78.7

Method: SW846 8081B - Organochlorine Pesticides (GC) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor	ND		0.00020	0.0000085	mg/L		01/31/24 09:17	01/31/24 16:34	1
Heptachlor epoxide	ND		0.00020	0.0000053	mg/L		01/31/24 09:17	01/31/24 16:34	1
Methoxychlor	ND		0.00020	0.000014	mg/L		01/31/24 09:17	01/31/24 16:34	1
Toxaphene	ND		0.0020	0.00012	mg/L		01/31/24 09:17	01/31/24 16:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	70		20 - 120				01/31/24 09:17	01/31/24 16:34	1
DCB Decachlorobiphenyl (Surr)	82		20 - 120				01/31/24 09:17	01/31/24 16:34	1
Tetrachloro-m-xylene (Surr)	63		44 - 120				01/31/24 09:17	01/31/24 16:34	1
Tetrachloro-m-xylene (Surr)	96		44 - 120				01/31/24 09:17	01/31/24 16:34	1

Method: SW846 8151 - TCLP Herbicides - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		0.0020	0.00040	mg/L		02/01/24 09:04	02/02/24 15:24	1
Silvex (2,4,5-TP)	ND		0.0020	0.00036	mg/L		02/01/24 09:04	02/02/24 15:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr)	32		21 - 143				02/01/24 09:04	02/02/24 15:24	1
2,4-Dichlorophenylacetic acid (Surr)	28		21 - 143				02/01/24 09:04	02/02/24 15:24	1

Method: SW846 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		01/31/24 08:50	02/01/24 18:57	1
Barium	0.91	J	1.0	0.10	mg/L		01/31/24 08:50	02/01/24 18:57	1
Cadmium	ND		0.0020	0.00050	mg/L		01/31/24 08:50	02/01/24 18:57	1
Chromium	ND		0.020	0.010	mg/L		01/31/24 08:50	02/01/24 18:57	1
Lead	0.017	J B	0.020	0.0030	mg/L		01/31/24 08:50	02/01/24 18:57	1
Selenium	ND		0.025	0.0087	mg/L		01/31/24 08:50	02/01/24 18:57	1
Silver	ND		0.0060	0.0017	mg/L		01/31/24 08:50	02/02/24 16:47	1

Method: SW846 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000043	mg/L		01/31/24 11:15	01/31/24 14:57	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	4.6		0.12	0.027	mg/Kg	☼	01/30/24 10:47	01/30/24 13:56	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		9.4	9.4	mg/Kg		01/30/24 12:00	01/31/24 15:44	1
Cyanide, Total (SW846 9012B)	5.0		1.2	0.58	mg/Kg	☼	01/30/24 13:10	01/30/24 16:17	1
Sulfide, Reactive (SW846 9034)	94.3		9.4	9.4	mg/Kg		01/30/24 12:00	01/31/24 16:00	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	>180		50.0	50.0	Degrees F			01/30/24 08:43	1
pH (SW846 9045D)	10.6	HF	0.1	0.1	SU			01/30/24 16:51	1
Temperature (SW846 9045D)	18.6	HF	0.001	0.001	Degrees C			01/30/24 16:51	1

General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	255		34.0	17.0	mg/Kg			01/30/24 10:01	10

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-04-01262024

Lab Sample ID: 480-216689-4

Date Collected: 01/26/24 11:45

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 85.8

Method: SW846 8260C - TCLP Volatiles - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		0.010	0.0029	mg/L			01/31/24 17:30	10
1,2-Dichloroethane	ND		0.010	0.0021	mg/L			01/31/24 17:30	10
2-Butanone (MEK)	ND		0.050	0.013	mg/L			01/31/24 17:30	10
Benzene	0.17		0.010	0.0041	mg/L			01/31/24 17:30	10
Carbon tetrachloride	ND		0.010	0.0027	mg/L			01/31/24 17:30	10
Chlorobenzene	ND		0.010	0.0075	mg/L			01/31/24 17:30	10
Chloroform	ND		0.010	0.0034	mg/L			01/31/24 17:30	10
Tetrachloroethene	ND		0.010	0.0036	mg/L			01/31/24 17:30	10
Trichloroethene	ND		0.010	0.0046	mg/L			01/31/24 17:30	10
Vinyl chloride	ND		0.010	0.0090	mg/L			01/31/24 17:30	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		77 - 120					01/31/24 17:30	10
4-Bromofluorobenzene (Surr)	92		73 - 120					01/31/24 17:30	10
Dibromofluoromethane (Surr)	96		75 - 123					01/31/24 17:30	10
Toluene-d8 (Surr)	106		80 - 120					01/31/24 17:30	10

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		4100	1200	ug/Kg	✱	01/31/24 08:18	01/31/24 14:25	80
1,1,1-Trichloroethane	ND		4100	1100	ug/Kg	✱	01/31/24 08:18	01/31/24 14:25	80
1,1,2,2-Tetrachloroethane	ND		4100	660	ug/Kg	✱	01/31/24 08:18	01/31/24 14:25	80
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4100	2000	ug/Kg	✱	01/31/24 08:18	01/31/24 14:25	80
1,1,2-Trichloroethane	ND		4100	860	ug/Kg	✱	01/31/24 08:18	01/31/24 14:25	80
1,1-Dichloroethane	ND		4100	1300	ug/Kg	✱	01/31/24 08:18	01/31/24 14:25	80
1,1-Dichloroethene	ND		4100	1400	ug/Kg	✱	01/31/24 08:18	01/31/24 14:25	80
1,1-Dichloropropene	ND		4100	1000	ug/Kg	✱	01/31/24 08:18	01/31/24 14:25	80
1,2,3-Trichlorobenzene	ND		4100	1900	ug/Kg	✱	01/31/24 08:18	01/31/24 14:25	80
1,2,3-Trichloropropane	ND		4100	910	ug/Kg	✱	01/31/24 08:18	01/31/24 14:25	80
1,2,4-Trichlorobenzene	ND		4100	1500	ug/Kg	✱	01/31/24 08:18	01/31/24 14:25	80
1,2,4-Trimethylbenzene	2200	J	4100	1100	ug/Kg	✱	01/31/24 08:18	01/31/24 14:25	80
1,2-Dibromo-3-Chloropropane	ND		4100	2000	ug/Kg	✱	01/31/24 08:18	01/31/24 14:25	80
1,2-Dibromoethane	ND		4100	710	ug/Kg	✱	01/31/24 08:18	01/31/24 14:25	80
1,2-Dichlorobenzene	ND		4100	1000	ug/Kg	✱	01/31/24 08:18	01/31/24 14:25	80
1,2-Dichloroethane	ND		4100	1700	ug/Kg	✱	01/31/24 08:18	01/31/24 14:25	80
1,2-Dichloropropane	ND		4100	660	ug/Kg	✱	01/31/24 08:18	01/31/24 14:25	80
1,3,5-Trimethylbenzene	1300	J	4100	1200	ug/Kg	✱	01/31/24 08:18	01/31/24 14:25	80
1,3-Dichlorobenzene	ND		4100	1100	ug/Kg	✱	01/31/24 08:18	01/31/24 14:25	80
1,3-Dichloropropane	ND		4100	740	ug/Kg	✱	01/31/24 08:18	01/31/24 14:25	80
1,4-Dichlorobenzene	ND		4100	570	ug/Kg	✱	01/31/24 08:18	01/31/24 14:25	80
2,2-Dichloropropane	ND		4100	930	ug/Kg	✱	01/31/24 08:18	01/31/24 14:25	80
2-Butanone (MEK)	ND		20000	12000	ug/Kg	✱	01/31/24 08:18	01/31/24 14:25	80
2-Chlorotoluene	ND		4100	1600	ug/Kg	✱	01/31/24 08:18	01/31/24 14:25	80
2-Hexanone	ND		20000	8400	ug/Kg	✱	01/31/24 08:18	01/31/24 14:25	80
4-Chlorotoluene	ND		4100	830	ug/Kg	✱	01/31/24 08:18	01/31/24 14:25	80
4-Isopropyltoluene	ND		4100	1400	ug/Kg	✱	01/31/24 08:18	01/31/24 14:25	80
4-Methyl-2-pentanone (MIBK)	ND		20000	1300	ug/Kg	✱	01/31/24 08:18	01/31/24 14:25	80
Acetone	ND		20000	17000	ug/Kg	✱	01/31/24 08:18	01/31/24 14:25	80
Benzene	13000		4100	780	ug/Kg	✱	01/31/24 08:18	01/31/24 14:25	80
Bromobenzene	ND		4100	890	ug/Kg	✱	01/31/24 08:18	01/31/24 14:25	80

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-04-01262024

Lab Sample ID: 480-216689-4

Date Collected: 01/26/24 11:45

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 85.8

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		4100	820	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
Bromoform	ND		4100	2000	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
Bromomethane	ND		4100	900	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
Carbon disulfide	ND		4100	1900	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
Carbon tetrachloride	ND		4100	1000	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
Chlorobenzene	ND		4100	540	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
Chlorobromomethane	ND		4100	1500	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
Chloroethane	ND		4100	850	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
Chloroform	ND		4100	2800	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
Chloromethane	ND		4100	970	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
cis-1,2-Dichloroethene	ND		4100	1100	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
cis-1,3-Dichloropropene	ND		4100	980	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
Cyclohexane	ND		4100	910	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
Dibromochloromethane	ND		4100	2000	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
Dibromomethane	ND		4100	1300	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
Dichlorodifluoromethane	ND		4100	1800	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
Dichlorofluoromethane	ND		4100	820	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
Ethylbenzene	2200	J	4100	1200	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
Hexachlorobutadiene	ND		4100	1600	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
Isopropylbenzene	ND		4100	610	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
m,p-Xylene	7800	J	8200	2300	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
Methyl acetate	ND		20000	1900	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
Methyl tert-butyl ether	ND		4100	1500	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
Methylcyclohexane	ND		4100	1900	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
Methylene Chloride	ND		4100	810	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
Naphthalene	130000		4100	1400	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
n-Butylbenzene	ND		4100	1200	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
N-Propylbenzene	ND		4100	1100	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
o-Xylene	2000	J	4100	530	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
sec-Butylbenzene	ND		4100	1500	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
Styrene	1100	J	4100	980	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
tert-Butylbenzene	ND		4100	1100	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
Tetrachloroethene	ND		4100	550	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
Toluene	11000		4100	1100	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
trans-1,2-Dichloroethene	ND		4100	960	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
trans-1,3-Dichloropropene	ND		4100	400	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
Trichloroethene	ND		4100	1100	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
Trichlorofluoromethane	ND		4100	1900	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
Vinyl chloride	ND		4100	1400	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80
Xylenes, Total	9800		8200	2300	ug/Kg	✳	01/31/24 08:18	01/31/24 14:25	80

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		53 - 146	01/31/24 08:18	01/31/24 14:25	80
4-Bromofluorobenzene (Surr)	98		49 - 148	01/31/24 08:18	01/31/24 14:25	80
Dibromofluoromethane (Surr)	95		60 - 140	01/31/24 08:18	01/31/24 14:25	80
Toluene-d8 (Surr)	97		50 - 149	01/31/24 08:18	01/31/24 14:25	80

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		570	310	ug/Kg	✳	01/29/24 16:09	01/30/24 22:05	5

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-04-01262024

Lab Sample ID: 480-216689-4

Date Collected: 01/26/24 11:45

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 85.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		970	260	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
2,4,6-Trichlorophenol	ND		970	190	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
2,4-Dichlorophenol	ND		970	100	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
2,4-Dimethylphenol	ND		970	230	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
2,4-Dinitrophenol	ND		9500	4500	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
2,4-Dinitrotoluene	ND		970	200	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
2,6-Dinitrotoluene	ND		970	110	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
2-Chloronaphthalene	ND		970	160	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
2-Chlorophenol	ND		1900	180	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
2-Methylnaphthalene	6600		970	190	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
2-Methylphenol	ND		970	110	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
2-Nitroaniline	ND		1900	140	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
2-Nitrophenol	ND		970	270	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
3,3'-Dichlorobenzidine	ND		1900	1100	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
3-Nitroaniline	ND		1900	270	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
4,6-Dinitro-2-methylphenol	ND		1900	970	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
4-Bromophenyl phenyl ether	ND		970	140	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
4-Chloro-3-methylphenol	ND		970	240	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
4-Chloroaniline	ND		970	240	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
4-Chlorophenyl phenyl ether	ND		970	120	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
4-Methylphenol	280 J		1900	110	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
4-Nitroaniline	ND		1900	510	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
4-Nitrophenol	ND		1900	680	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
Acenaphthene	2800		970	140	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
Acenaphthylene	2600		970	130	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
Acetophenone	ND		970	130	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
Anthracene	1700		970	240	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
Atrazine	ND		970	340	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
Benzaldehyde	ND		970	770	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
Benzo[a]anthracene	3700		970	97	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
Benzo[a]pyrene	2800		970	140	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
Benzo[b]fluoranthene	4000		970	150	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
Benzo[g,h,i]perylene	1400		970	100	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
Benzo[k]fluoranthene	2100		970	130	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
Biphenyl	690 J		970	140	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
bis (2-chloroisopropyl) ether	ND		970	190	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
Bis(2-chloroethoxy)methane	ND		970	210	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
Bis(2-chloroethyl)ether	ND		970	130	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
Bis(2-ethylhexyl) phthalate	ND		970	330	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
Butyl benzyl phthalate	ND		970	160	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
Caprolactam	ND		970	290	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
Carbazole	680 J		970	110	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
Chrysene	4000		970	220	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
Dibenz(a,h)anthracene	530 J		970	170	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
Dibenzofuran	1900		970	110	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
Diethyl phthalate	ND		970	130	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
Dimethyl phthalate	ND		970	110	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
Di-n-butyl phthalate	ND		970	170	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5
Di-n-octyl phthalate	ND		970	110	ug/Kg	✱	01/29/24 16:09	01/30/24 22:05	5

Euromins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-04-01262024

Lab Sample ID: 480-216689-4

Date Collected: 01/26/24 11:45

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 85.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	9700		970	100	ug/Kg	☼	01/29/24 16:09	01/30/24 22:05	5
Fluorene	2700		970	110	ug/Kg	☼	01/29/24 16:09	01/30/24 22:05	5
Hexachlorobenzene	ND		970	130	ug/Kg	☼	01/29/24 16:09	01/30/24 22:05	5
Hexachlorobutadiene	ND		970	140	ug/Kg	☼	01/29/24 16:09	01/30/24 22:05	5
Hexachlorocyclopentadiene	ND		970	130	ug/Kg	☼	01/29/24 16:09	01/30/24 22:05	5
Hexachloroethane	ND		970	130	ug/Kg	☼	01/29/24 16:09	01/30/24 22:05	5
Indeno[1,2,3-cd]pyrene	1600		970	120	ug/Kg	☼	01/29/24 16:09	01/30/24 22:05	5
Isophorone	ND		970	210	ug/Kg	☼	01/29/24 16:09	01/30/24 22:05	5
Naphthalene	42000 E		970	130	ug/Kg	☼	01/29/24 16:09	01/30/24 22:05	5
Nitrobenzene	ND		970	110	ug/Kg	☼	01/29/24 16:09	01/30/24 22:05	5
N-Nitrosodi-n-propylamine	ND		970	170	ug/Kg	☼	01/29/24 16:09	01/30/24 22:05	5
N-Nitrosodiphenylamine	ND		970	790	ug/Kg	☼	01/29/24 16:09	01/30/24 22:05	5
Pentachlorophenol	ND		1900	970	ug/Kg	☼	01/29/24 16:09	01/30/24 22:05	5
Phenanthrene	6300		970	140	ug/Kg	☼	01/29/24 16:09	01/30/24 22:05	5
Phenol	520 J		970	150	ug/Kg	☼	01/29/24 16:09	01/30/24 22:05	5
Pyrene	6000		970	110	ug/Kg	☼	01/29/24 16:09	01/30/24 22:05	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	45	S1-	54 - 120	01/29/24 16:09	01/30/24 22:05	5
2-Fluorobiphenyl (Surr)	83		60 - 120	01/29/24 16:09	01/30/24 22:05	5
2-Fluorophenol (Surr)	77		52 - 120	01/29/24 16:09	01/30/24 22:05	5
Nitrobenzene-d5 (Surr)	75		53 - 120	01/29/24 16:09	01/30/24 22:05	5
Phenol-d5 (Surr)	82		54 - 120	01/29/24 16:09	01/30/24 22:05	5
p-Terphenyl-d14 (Surr)	94		79 - 130	01/29/24 16:09	01/30/24 22:05	5

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		2300	1300	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
2,4,5-Trichlorophenol	ND		3900	1000	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
2,4,6-Trichlorophenol	ND		3900	770	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
2,4-Dichlorophenol	ND		3900	410	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
2,4-Dimethylphenol	ND		3900	930	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
2,4-Dinitrophenol	ND		38000	18000	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
2,4-Dinitrotoluene	ND		3900	800	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
2,6-Dinitrotoluene	ND		3900	460	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
2-Chloronaphthalene	ND		3900	640	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
2-Chlorophenol	ND		7500	710	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
2-Methylnaphthalene	6500		3900	770	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
2-Methylphenol	ND		3900	460	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
2-Nitroaniline	ND		7500	570	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
2-Nitrophenol	ND		3900	1100	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
3,3'-Dichlorobenzidine	ND		7500	4600	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
3-Nitroaniline	ND		7500	1100	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
4,6-Dinitro-2-methylphenol	ND		7500	3900	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
4-Bromophenyl phenyl ether	ND		3900	550	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
4-Chloro-3-methylphenol	ND		3900	960	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
4-Chloroaniline	ND		3900	960	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
4-Chlorophenyl phenyl ether	ND		3900	480	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
4-Methylphenol	ND		7500	460	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
4-Nitroaniline	ND		7500	2000	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-04-01262024

Lab Sample ID: 480-216689-4

Date Collected: 01/26/24 11:45

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 85.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	ND		7500	2700	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Acenaphthene	2800	J	3900	570	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Acenaphthylene	1800	J	3900	500	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Acetophenone	ND		3900	520	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Anthracene	1800	J	3900	960	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Atrazine	ND		3900	1300	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Benzaldehyde	ND		3900	3100	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Benzo[a]anthracene	3500	J	3900	390	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Benzo[a]pyrene	3100	J	3900	570	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Benzo[b]fluoranthene	4600		3900	620	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Benzo[g,h,i]perylene	1900	J	3900	410	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Benzo[k]fluoranthene	1600	J	3900	500	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Biphenyl	750	J	3900	570	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
bis (2-chloroisopropyl) ether	ND		3900	770	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Bis(2-chloroethoxy)methane	ND		3900	820	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Bis(2-chloroethyl)ether	ND		3900	500	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Bis(2-ethylhexyl) phthalate	ND		3900	1300	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Butyl benzyl phthalate	ND		3900	640	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Caprolactam	ND		3900	1200	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Carbazole	980	J	3900	460	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Chrysene	4300		3900	870	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Dibenz(a,h)anthracene	840	J	3900	680	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Dibenzofuran	2100	J	3900	460	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Diethyl phthalate	ND		3900	500	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Dimethyl phthalate	ND		3900	460	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Di-n-butyl phthalate	ND		3900	660	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Di-n-octyl phthalate	ND		3900	460	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Fluoranthene	8700		3900	410	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Fluorene	2800	J	3900	460	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Hexachlorobenzene	ND		3900	520	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Hexachlorobutadiene	ND		3900	570	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Hexachlorocyclopentadiene	ND		3900	520	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Hexachloroethane	ND		3900	500	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Indeno[1,2,3-cd]pyrene	2000	J	3900	480	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Isophorone	ND		3900	820	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Naphthalene	53000		3900	500	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Nitrobenzene	ND		3900	430	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
N-Nitrosodi-n-propylamine	ND		3900	660	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
N-Nitrosodiphenylamine	ND		3900	3100	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Pentachlorophenol	ND		7500	3900	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Phenanthrene	6600		3900	570	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Phenol	ND		3900	590	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20
Pyrene	6600		3900	460	ug/Kg	☼	01/29/24 16:09	01/31/24 13:33	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	0	S1-	54 - 120	01/29/24 16:09	01/31/24 13:33	20
2-Fluorobiphenyl (Surr)	96		60 - 120	01/29/24 16:09	01/31/24 13:33	20
2-Fluorophenol (Surr)	104		52 - 120	01/29/24 16:09	01/31/24 13:33	20
Nitrobenzene-d5 (Surr)	90		53 - 120	01/29/24 16:09	01/31/24 13:33	20
Phenol-d5 (Surr)	102		54 - 120	01/29/24 16:09	01/31/24 13:33	20

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-04-01262024

Lab Sample ID: 480-216689-4

Date Collected: 01/26/24 11:45

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 85.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - DL (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
p-Terphenyl-d14 (Surr)	94		79 - 130	01/29/24 16:09	01/31/24 13:33	20

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.040	0.0018	mg/L		01/31/24 09:21	02/01/24 15:48	1
2,4,5-Trichlorophenol	ND		0.020	0.0019	mg/L		01/31/24 09:21	02/01/24 15:48	1
2,4,6-Trichlorophenol	ND		0.020	0.0024	mg/L		01/31/24 09:21	02/01/24 15:48	1
2,4-Dinitrotoluene	ND		0.020	0.0017	mg/L		01/31/24 09:21	02/01/24 15:48	1
2-Methylphenol	0.0061	J	0.020	0.0016	mg/L		01/31/24 09:21	02/01/24 15:48	1
3-Methylphenol	0.014	J	0.040	0.0016	mg/L		01/31/24 09:21	02/01/24 15:48	1
4-Methylphenol	0.014	J	0.040	0.0014	mg/L		01/31/24 09:21	02/01/24 15:48	1
Hexachlorobenzene	ND		0.020	0.0020	mg/L		01/31/24 09:21	02/01/24 15:48	1
Hexachlorobutadiene	ND		0.020	0.0027	mg/L		01/31/24 09:21	02/01/24 15:48	1
Hexachloroethane	ND		0.020	0.0023	mg/L		01/31/24 09:21	02/01/24 15:48	1
Nitrobenzene	ND		0.020	0.0011	mg/L		01/31/24 09:21	02/01/24 15:48	1
Pentachlorophenol	ND		0.040	0.0088	mg/L		01/31/24 09:21	02/01/24 15:48	1
Pyridine	ND		0.10	0.0016	mg/L		01/31/24 09:21	02/01/24 15:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	88		41 - 120	01/31/24 09:21	02/01/24 15:48	1
2-Fluorobiphenyl (Surr)	100		48 - 120	01/31/24 09:21	02/01/24 15:48	1
2-Fluorophenol (Surr)	55		35 - 120	01/31/24 09:21	02/01/24 15:48	1
Nitrobenzene-d5 (Surr)	98		46 - 120	01/31/24 09:21	02/01/24 15:48	1
Phenol-d5 (Surr)	38		22 - 120	01/31/24 09:21	02/01/24 15:48	1
p-Terphenyl-d14 (Surr)	84		60 - 148	01/31/24 09:21	02/01/24 15:48	1

Method: SW846 8081B - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	ND		0.0020	0.000029	mg/L		01/31/24 09:17	01/31/24 16:54	1
Endrin	0.000045	J	0.00020	0.000014	mg/L		01/31/24 09:17	01/31/24 16:54	1
gamma-BHC (Lindane)	ND		0.00020	0.0000060	mg/L		01/31/24 09:17	01/31/24 16:54	1
Heptachlor	ND		0.00020	0.0000085	mg/L		01/31/24 09:17	01/31/24 16:54	1
Heptachlor epoxide	ND		0.00020	0.0000053	mg/L		01/31/24 09:17	01/31/24 16:54	1
Methoxychlor	ND		0.00020	0.000014	mg/L		01/31/24 09:17	01/31/24 16:54	1
Toxaphene	ND		0.0020	0.00012	mg/L		01/31/24 09:17	01/31/24 16:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	68		20 - 120	01/31/24 09:17	01/31/24 16:54	1
DCB Decachlorobiphenyl (Surr)	75		20 - 120	01/31/24 09:17	01/31/24 16:54	1
Tetrachloro-m-xylene (Surr)	64		44 - 120	01/31/24 09:17	01/31/24 16:54	1
Tetrachloro-m-xylene (Surr)	69		44 - 120	01/31/24 09:17	01/31/24 16:54	1

Method: SW846 8151 - TCLP Herbicides - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		0.0020	0.00040	mg/L		02/01/24 09:04	02/02/24 15:43	1
Silvex (2,4,5-TP)	ND		0.0020	0.00036	mg/L		02/01/24 09:04	02/02/24 15:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr)	33		21 - 143	02/01/24 09:04	02/02/24 15:43	1
2,4-Dichlorophenylacetic acid (Surr)	28		21 - 143	02/01/24 09:04	02/02/24 15:43	1

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-04-01262024

Lab Sample ID: 480-216689-4

Date Collected: 01/26/24 11:45

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 85.8

Method: SW846 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0060	J	0.015	0.0056	mg/L		01/31/24 08:50	02/01/24 19:01	1
Barium	0.55	J	1.0	0.10	mg/L		01/31/24 08:50	02/01/24 19:01	1
Cadmium	ND		0.0020	0.00050	mg/L		01/31/24 08:50	02/01/24 19:01	1
Chromium	ND		0.020	0.010	mg/L		01/31/24 08:50	02/01/24 19:01	1
Lead	0.014	J B	0.020	0.0030	mg/L		01/31/24 08:50	02/01/24 19:01	1
Selenium	ND		0.025	0.0087	mg/L		01/31/24 08:50	02/01/24 19:01	1
Silver	ND		0.0060	0.0017	mg/L		01/31/24 08:50	02/02/24 16:51	1

Method: SW846 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000043	mg/L		01/31/24 11:15	01/31/24 14:58	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	6.7		0.23	0.053	mg/Kg	✱	01/30/24 10:47	01/30/24 13:57	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		9.3	9.3	mg/Kg		01/30/24 12:00	01/31/24 15:45	1
Cyanide, Total (SW846 9012B)	7.4		4.9	2.4	mg/Kg	✱	01/30/24 13:10	01/30/24 16:33	5
Sulfide, Reactive (SW846 9034)	ND		9.3	9.3	mg/Kg		01/30/24 12:00	01/31/24 16:00	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	>180		50.0	50.0	Degrees F			01/30/24 08:43	1
pH (SW846 9045D)	11.7	HF	0.1	0.1	SU			01/30/24 16:51	1
Temperature (SW846 9045D)	17.7	HF	0.001	0.001	Degrees C			01/30/24 16:51	1

General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	22.3		3.5	1.7	mg/Kg			01/30/24 10:46	1

Client Sample ID: LOA-05-01262024

Lab Sample ID: 480-216689-5

Date Collected: 01/26/24 12:10

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 77.2

Method: SW846 8260C - TCLP Volatiles - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		0.010	0.0029	mg/L			01/31/24 17:52	10
1,2-Dichloroethane	ND		0.010	0.0021	mg/L			01/31/24 17:52	10
2-Butanone (MEK)	ND		0.050	0.013	mg/L			01/31/24 17:52	10
Benzene	1.4	E	0.010	0.0041	mg/L			01/31/24 17:52	10
Carbon tetrachloride	ND		0.010	0.0027	mg/L			01/31/24 17:52	10
Chlorobenzene	ND		0.010	0.0075	mg/L			01/31/24 17:52	10
Chloroform	ND		0.010	0.0034	mg/L			01/31/24 17:52	10
Tetrachloroethene	0.017		0.010	0.0036	mg/L			01/31/24 17:52	10
Trichloroethene	ND		0.010	0.0046	mg/L			01/31/24 17:52	10
Vinyl chloride	ND		0.010	0.0090	mg/L			01/31/24 17:52	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		77 - 120		01/31/24 17:52	10
4-Bromofluorobenzene (Surr)	98		73 - 120		01/31/24 17:52	10
Dibromofluoromethane (Surr)	95		75 - 123		01/31/24 17:52	10

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-05-01262024

Lab Sample ID: 480-216689-5

Date Collected: 01/26/24 12:10

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 77.2

Method: SW846 8260C - TCLP Volatiles - TCLP (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		80 - 120		01/31/24 17:52	10

Method: SW846 8260C - TCLP Volatiles - TCLP - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		0.020	0.0058	mg/L			02/01/24 13:58	20
1,2-Dichloroethane	ND		0.020	0.0042	mg/L			02/01/24 13:58	20
2-Butanone (MEK)	ND		0.10	0.026	mg/L			02/01/24 13:58	20
Benzene	1.5		0.020	0.0082	mg/L			02/01/24 13:58	20
Carbon tetrachloride	ND		0.020	0.0054	mg/L			02/01/24 13:58	20
Chlorobenzene	ND		0.020	0.015	mg/L			02/01/24 13:58	20
Chloroform	ND		0.020	0.0068	mg/L			02/01/24 13:58	20
Tetrachloroethene	0.020		0.020	0.0072	mg/L			02/01/24 13:58	20
Trichloroethene	ND		0.020	0.0092	mg/L			02/01/24 13:58	20
Vinyl chloride	ND		0.020	0.018	mg/L			02/01/24 13:58	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		77 - 120		02/01/24 13:58	20
4-Bromofluorobenzene (Surr)	93		73 - 120		02/01/24 13:58	20
Dibromofluoromethane (Surr)	96		75 - 123		02/01/24 13:58	20
Toluene-d8 (Surr)	104		80 - 120		02/01/24 13:58	20

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		13000	3700	ug/Kg	✱	01/31/24 08:18	01/31/24 14:48	200
1,1,1-Trichloroethane	ND		13000	3600	ug/Kg	✱	01/31/24 08:18	01/31/24 14:48	200
1,1,2,2-Tetrachloroethane	ND		13000	2100	ug/Kg	✱	01/31/24 08:18	01/31/24 14:48	200
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		13000	6400	ug/Kg	✱	01/31/24 08:18	01/31/24 14:48	200
1,1,2-Trichloroethane	ND		13000	2700	ug/Kg	✱	01/31/24 08:18	01/31/24 14:48	200
1,1-Dichloroethane	ND		13000	4000	ug/Kg	✱	01/31/24 08:18	01/31/24 14:48	200
1,1-Dichloroethene	ND		13000	4400	ug/Kg	✱	01/31/24 08:18	01/31/24 14:48	200
1,1-Dichloropropene	ND		13000	3200	ug/Kg	✱	01/31/24 08:18	01/31/24 14:48	200
1,2,3-Trichlorobenzene	ND		13000	5900	ug/Kg	✱	01/31/24 08:18	01/31/24 14:48	200
1,2,3-Trichloropropane	ND		13000	2900	ug/Kg	✱	01/31/24 08:18	01/31/24 14:48	200
1,2,4-Trichlorobenzene	ND		13000	4900	ug/Kg	✱	01/31/24 08:18	01/31/24 14:48	200
1,2,4-Trimethylbenzene	21000		13000	3600	ug/Kg	✱	01/31/24 08:18	01/31/24 14:48	200
1,2-Dibromo-3-Chloropropane	ND		13000	6400	ug/Kg	✱	01/31/24 08:18	01/31/24 14:48	200
1,2-Dibromoethane	ND		13000	2200	ug/Kg	✱	01/31/24 08:18	01/31/24 14:48	200
1,2-Dichlorobenzene	ND		13000	3300	ug/Kg	✱	01/31/24 08:18	01/31/24 14:48	200
1,2-Dichloroethane	ND		13000	5300	ug/Kg	✱	01/31/24 08:18	01/31/24 14:48	200
1,2-Dichloropropane	ND		13000	2100	ug/Kg	✱	01/31/24 08:18	01/31/24 14:48	200
1,3,5-Trimethylbenzene	15000		13000	3900	ug/Kg	✱	01/31/24 08:18	01/31/24 14:48	200
1,3-Dichlorobenzene	ND		13000	3400	ug/Kg	✱	01/31/24 08:18	01/31/24 14:48	200
1,3-Dichloropropane	ND		13000	2300	ug/Kg	✱	01/31/24 08:18	01/31/24 14:48	200
1,4-Dichlorobenzene	ND		13000	1800	ug/Kg	✱	01/31/24 08:18	01/31/24 14:48	200
2,2-Dichloropropane	ND		13000	2900	ug/Kg	✱	01/31/24 08:18	01/31/24 14:48	200
2-Butanone (MEK)	ND		64000	38000	ug/Kg	✱	01/31/24 08:18	01/31/24 14:48	200
2-Chlorotoluene	ND		13000	4900	ug/Kg	✱	01/31/24 08:18	01/31/24 14:48	200
2-Hexanone	ND		64000	26000	ug/Kg	✱	01/31/24 08:18	01/31/24 14:48	200
4-Chlorotoluene	ND		13000	2600	ug/Kg	✱	01/31/24 08:18	01/31/24 14:48	200
4-Isopropyltoluene	ND		13000	4300	ug/Kg	✱	01/31/24 08:18	01/31/24 14:48	200

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-05-01262024

Lab Sample ID: 480-216689-5

Date Collected: 01/26/24 12:10

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 77.2

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	ND		64000	4100	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
Acetone	ND		64000	53000	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
Benzene	360000		13000	2400	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
Bromobenzene	ND		13000	2800	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
Bromodichloromethane	ND		13000	2600	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
Bromoform	ND		13000	6400	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
Bromomethane	ND		13000	2800	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
Carbon disulfide	ND		13000	5800	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
Carbon tetrachloride	ND		13000	3300	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
Chlorobenzene	ND		13000	1700	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
Chlorobromomethane	ND		13000	4600	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
Chloroethane	ND		13000	2700	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
Chloroform	ND		13000	8800	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
Chloromethane	ND		13000	3100	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
cis-1,2-Dichloroethene	ND		13000	3500	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
cis-1,3-Dichloropropene	ND		13000	3100	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
Cyclohexane	ND		13000	2800	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
Dibromochloromethane	ND		13000	6200	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
Dibromomethane	ND		13000	4200	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
Dichlorodifluoromethane	ND		13000	5600	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
Dichlorofluoromethane	ND		13000	2600	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
Ethylbenzene	21000		13000	3700	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
Hexachlorobutadiene	ND		13000	5100	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
Isopropylbenzene	ND		13000	1900	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
m,p-Xylene	180000		26000	7100	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
Methyl acetate	ND		64000	6100	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
Methyl tert-butyl ether	ND		13000	4900	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
Methylcyclohexane	ND		13000	6000	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
Methylene Chloride	ND		13000	2500	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
Naphthalene	2500000 E		13000	4300	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
n-Butylbenzene	ND		13000	3700	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
N-Propylbenzene	ND		13000	3400	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
o-Xylene	41000		13000	1700	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
sec-Butylbenzene	ND		13000	4700	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
Styrene	41000		13000	3100	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
tert-Butylbenzene	ND		13000	3600	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
Tetrachloroethene	3500 J		13000	1700	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
Toluene	350000		13000	3400	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
trans-1,2-Dichloroethene	ND		13000	3000	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
trans-1,3-Dichloropropene	ND		13000	1300	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
Trichloroethene	ND		13000	3600	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
Trichlorofluoromethane	ND		13000	6000	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
Vinyl chloride	ND		13000	4300	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
Xylenes, Total	220000		26000	7100	ug/Kg	☼	01/31/24 08:18	01/31/24 14:48	200
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		53 - 146				01/31/24 08:18	01/31/24 14:48	200
4-Bromofluorobenzene (Surr)	99		49 - 148				01/31/24 08:18	01/31/24 14:48	200
Dibromofluoromethane (Surr)	92		60 - 140				01/31/24 08:18	01/31/24 14:48	200
Toluene-d8 (Surr)	98		50 - 149				01/31/24 08:18	01/31/24 14:48	200

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-05-01262024

Lab Sample ID: 480-216689-5

Date Collected: 01/26/24 12:10

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 77.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		1300	700	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
2,4,5-Trichlorophenol	ND		2200	590	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
2,4,6-Trichlorophenol	ND		2200	430	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
2,4-Dichlorophenol	ND		2200	230	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
2,4-Dimethylphenol	ND		2200	520	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
2,4-Dinitrophenol	ND		21000	10000	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
2,4-Dinitrotoluene	ND		2200	450	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
2,6-Dinitrotoluene	ND		2200	250	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
2-Chloronaphthalene	ND		2200	360	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
2-Chlorophenol	ND		4200	390	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
2-Methylnaphthalene	16000		2200	430	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
2-Methylphenol	ND		2200	250	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
2-Nitroaniline	ND		4200	320	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
2-Nitrophenol	ND		2200	610	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
3,3'-Dichlorobenzidine	ND		4200	2500	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
3-Nitroaniline	ND		4200	600	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
4,6-Dinitro-2-methylphenol	ND		4200	2200	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
4-Bromophenyl phenyl ether	ND		2200	310	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
4-Chloro-3-methylphenol	ND		2200	530	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
4-Chloroaniline	ND		2200	530	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
4-Chlorophenyl phenyl ether	ND		2200	270	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
4-Methylphenol	470 J		4200	250	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
4-Nitroaniline	ND		4200	1100	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
4-Nitrophenol	ND		4200	1500	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Acenaphthene	2300		2200	320	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Acenaphthylene	8500		2200	280	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Acetophenone	ND		2200	290	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Anthracene	5200		2200	530	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Atrazine	ND		2200	750	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Benzaldehyde	ND		2200	1700	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Benzo[a]anthracene	7400		2200	220	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Benzo[a]pyrene	6700		2200	320	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Benzo[b]fluoranthene	9100		2200	340	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Benzo[g,h,i]perylene	3700		2200	230	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Benzo[k]fluoranthene	3000		2200	280	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Biphenyl	2000 J		2200	320	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
bis (2-chloroisopropyl) ether	ND		2200	430	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Bis(2-chloroethoxy)methane	ND		2200	460	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Bis(2-chloroethyl)ether	ND		2200	280	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Bis(2-ethylhexyl) phthalate	ND		2200	740	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Butyl benzyl phthalate	ND		2200	360	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Caprolactam	ND		2200	650	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Carbazole	2000 J		2200	250	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Chrysene	7800		2200	480	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Dibenz(a,h)anthracene	1100 J		2200	380	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Dibenzofuran	4700		2200	250	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Diethyl phthalate	ND		2200	280	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Dimethyl phthalate	ND		2200	250	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Di-n-butyl phthalate	ND		2200	370	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10

Euromins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-05-01262024

Lab Sample ID: 480-216689-5

Date Collected: 01/26/24 12:10

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 77.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate	ND		2200	250	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Fluoranthene	22000		2200	230	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Fluorene	6600		2200	250	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Hexachlorobenzene	ND		2200	290	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Hexachlorobutadiene	ND		2200	320	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Hexachlorocyclopentadiene	ND		2200	290	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Hexachloroethane	ND		2200	280	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Indeno[1,2,3-cd]pyrene	3700		2200	270	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Isophorone	ND		2200	460	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Naphthalene	240000 E		2200	280	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Nitrobenzene	ND		2200	240	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
N-Nitrosodi-n-propylamine	ND		2200	370	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
N-Nitrosodiphenylamine	ND		2200	1800	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Pentachlorophenol	ND		4200	2200	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Phenanthrene	22000		2200	320	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Phenol	580 J		2200	330	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10
Pyrene	14000		2200	250	ug/Kg	✱	01/29/24 16:09	01/30/24 22:30	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	83		54 - 120	01/29/24 16:09	01/30/24 22:30	10
2-Fluorobiphenyl (Surr)	89		60 - 120	01/29/24 16:09	01/30/24 22:30	10
2-Fluorophenol (Surr)	92		52 - 120	01/29/24 16:09	01/30/24 22:30	10
Nitrobenzene-d5 (Surr)	77		53 - 120	01/29/24 16:09	01/30/24 22:30	10
Phenol-d5 (Surr)	85		54 - 120	01/29/24 16:09	01/30/24 22:30	10
p-Terphenyl-d14 (Surr)	96		79 - 130	01/29/24 16:09	01/30/24 22:30	10

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		13000	7000	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
2,4,5-Trichlorophenol	ND		22000	5900	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
2,4,6-Trichlorophenol	ND		22000	4300	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
2,4-Dichlorophenol	ND		22000	2300	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
2,4-Dimethylphenol	ND		22000	5200	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
2,4-Dinitrophenol	ND		210000	100000	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
2,4-Dinitrotoluene	ND		22000	4500	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
2,6-Dinitrotoluene	ND		22000	2500	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
2-Chloronaphthalene	ND		22000	3600	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
2-Chlorophenol	ND		42000	3900	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
2-Methylnaphthalene	15000 J		22000	4300	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
2-Methylphenol	ND		22000	2500	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
2-Nitroaniline	ND		42000	3200	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
2-Nitrophenol	ND		22000	6100	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
3,3'-Dichlorobenzidine	ND		42000	25000	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
3-Nitroaniline	ND		42000	6000	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
4,6-Dinitro-2-methylphenol	ND		42000	22000	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
4-Bromophenyl phenyl ether	ND		22000	3100	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
4-Chloro-3-methylphenol	ND		22000	5300	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
4-Chloroaniline	ND		22000	5300	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
4-Chlorophenyl phenyl ether	ND		22000	2700	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
4-Methylphenol	ND		42000	2500	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-05-01262024

Lab Sample ID: 480-216689-5

Date Collected: 01/26/24 12:10

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 77.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitroaniline	ND		42000	11000	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
4-Nitrophenol	ND		42000	15000	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Acenaphthene	ND		22000	3200	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Acenaphthylene	7900	J	22000	2800	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Acetophenone	ND		22000	2900	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Anthracene	ND		22000	5300	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Atrazine	ND		22000	7500	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Benzaldehyde	ND		22000	17000	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Benzo[a]anthracene	7700	J	22000	2200	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Benzo[a]pyrene	7500	J	22000	3200	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Benzo[b]fluoranthene	9900	J	22000	3400	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Benzo[g,h,i]perylene	4900	J	22000	2300	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Benzo[k]fluoranthene	3400	J	22000	2800	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Biphenyl	ND		22000	3200	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
bis (2-chloroisopropyl) ether	ND		22000	4300	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Bis(2-chloroethoxy)methane	ND		22000	4600	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Bis(2-chloroethyl)ether	ND		22000	2800	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Bis(2-ethylhexyl) phthalate	ND		22000	7400	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Butyl benzyl phthalate	ND		22000	3600	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Caprolactam	ND		22000	6500	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Carbazole	2600	J	22000	2500	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Chrysene	8200	J	22000	4800	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Dibenz(a,h)anthracene	ND		22000	3800	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Dibenzofuran	4800	J	22000	2500	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Diethyl phthalate	ND		22000	2800	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Dimethyl phthalate	ND		22000	2500	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Di-n-butyl phthalate	ND		22000	3700	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Di-n-octyl phthalate	ND		22000	2500	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Fluoranthene	21000	J	22000	2300	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Fluorene	7700	J	22000	2500	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Hexachlorobenzene	ND		22000	2900	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Hexachlorobutadiene	ND		22000	3200	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Hexachlorocyclopentadiene	ND		22000	2900	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Hexachloroethane	ND		22000	2800	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Indeno[1,2,3-cd]pyrene	4900	J	22000	2700	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Isophorone	ND		22000	4600	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Naphthalene	450000		22000	2800	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Nitrobenzene	ND		22000	2400	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
N-Nitrosodi-n-propylamine	ND		22000	3700	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
N-Nitrosodiphenylamine	ND		22000	18000	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Pentachlorophenol	ND		42000	22000	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Phenanthrene	22000		22000	3200	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Phenol	ND		22000	3300	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100
Pyrene	16000	J	22000	2500	ug/Kg	✱	01/29/24 16:09	01/31/24 13:59	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	0	S1-	54 - 120	01/29/24 16:09	01/31/24 13:59	100
2-Fluorobiphenyl (Surr)	153	S1+	60 - 120	01/29/24 16:09	01/31/24 13:59	100
2-Fluorophenol (Surr)	0	S1-	52 - 120	01/29/24 16:09	01/31/24 13:59	100
Nitrobenzene-d5 (Surr)	0	S1-	53 - 120	01/29/24 16:09	01/31/24 13:59	100

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-05-01262024

Lab Sample ID: 480-216689-5

Date Collected: 01/26/24 12:10

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 77.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - DL (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5 (Surr)	0	S1-	54 - 120	01/29/24 16:09	01/31/24 13:59	100
p-Terphenyl-d14 (Surr)	62	S1-	79 - 130	01/29/24 16:09	01/31/24 13:59	100

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.040	0.0018	mg/L		01/31/24 09:21	02/01/24 16:12	1
2,4,5-Trichlorophenol	ND		0.020	0.0019	mg/L		01/31/24 09:21	02/01/24 16:12	1
2,4,6-Trichlorophenol	ND		0.020	0.0024	mg/L		01/31/24 09:21	02/01/24 16:12	1
2,4-Dinitrotoluene	ND		0.020	0.0017	mg/L		01/31/24 09:21	02/01/24 16:12	1
2-Methylphenol	0.076		0.020	0.0016	mg/L		01/31/24 09:21	02/01/24 16:12	1
3-Methylphenol	0.12		0.040	0.0016	mg/L		01/31/24 09:21	02/01/24 16:12	1
4-Methylphenol	0.12		0.040	0.0014	mg/L		01/31/24 09:21	02/01/24 16:12	1
Hexachlorobenzene	ND		0.020	0.0020	mg/L		01/31/24 09:21	02/01/24 16:12	1
Hexachlorobutadiene	ND		0.020	0.0027	mg/L		01/31/24 09:21	02/01/24 16:12	1
Hexachloroethane	ND		0.020	0.0023	mg/L		01/31/24 09:21	02/01/24 16:12	1
Nitrobenzene	ND		0.020	0.0011	mg/L		01/31/24 09:21	02/01/24 16:12	1
Pentachlorophenol	ND		0.040	0.0088	mg/L		01/31/24 09:21	02/01/24 16:12	1
Pyridine	ND		0.10	0.0016	mg/L		01/31/24 09:21	02/01/24 16:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	90		41 - 120	01/31/24 09:21	02/01/24 16:12	1
2-Fluorobiphenyl (Surr)	94		48 - 120	01/31/24 09:21	02/01/24 16:12	1
2-Fluorophenol (Surr)	54		35 - 120	01/31/24 09:21	02/01/24 16:12	1
Nitrobenzene-d5 (Surr)	101		46 - 120	01/31/24 09:21	02/01/24 16:12	1
Phenol-d5 (Surr)	40		22 - 120	01/31/24 09:21	02/01/24 16:12	1
p-Terphenyl-d14 (Surr)	89		60 - 148	01/31/24 09:21	02/01/24 16:12	1

Method: SW846 8081B - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	ND		0.0020	0.000029	mg/L		01/31/24 09:17	01/31/24 17:14	1
Endrin	ND		0.00020	0.000014	mg/L		01/31/24 09:17	01/31/24 17:14	1
gamma-BHC (Lindane)	ND		0.00020	0.0000060	mg/L		01/31/24 09:17	01/31/24 17:14	1
Heptachlor	ND		0.00020	0.0000085	mg/L		01/31/24 09:17	01/31/24 17:14	1
Heptachlor epoxide	ND		0.00020	0.0000053	mg/L		01/31/24 09:17	01/31/24 17:14	1
Methoxychlor	ND		0.00020	0.000014	mg/L		01/31/24 09:17	01/31/24 17:14	1
Toxaphene	ND		0.0020	0.00012	mg/L		01/31/24 09:17	01/31/24 17:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	62		20 - 120	01/31/24 09:17	01/31/24 17:14	1
DCB Decachlorobiphenyl (Surr)	69		20 - 120	01/31/24 09:17	01/31/24 17:14	1
Tetrachloro-m-xylene (Surr)	76		44 - 120	01/31/24 09:17	01/31/24 17:14	1
Tetrachloro-m-xylene (Surr)	94		44 - 120	01/31/24 09:17	01/31/24 17:14	1

Method: SW846 8151 - TCLP Herbicides - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		0.0020	0.00040	mg/L		02/01/24 09:04	02/02/24 16:01	1
Silvex (2,4,5-TP)	ND		0.0020	0.00036	mg/L		02/01/24 09:04	02/02/24 16:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr)	37		21 - 143	02/01/24 09:04	02/02/24 16:01	1

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-05-01262024

Lab Sample ID: 480-216689-5

Date Collected: 01/26/24 12:10

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 77.2

Method: SW846 8151 - TCLP Herbicides - TCLP (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr)	28		21 - 143	02/01/24 09:04	02/02/24 16:01	1

Method: SW846 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		01/31/24 08:50	02/01/24 19:29	1
Barium	1.0		1.0	0.10	mg/L		01/31/24 08:50	02/01/24 19:29	1
Cadmium	ND		0.0020	0.00050	mg/L		01/31/24 08:50	02/01/24 19:29	1
Chromium	ND		0.020	0.010	mg/L		01/31/24 08:50	02/01/24 19:29	1
Lead	0.029	B	0.020	0.0030	mg/L		01/31/24 08:50	02/01/24 19:29	1
Selenium	ND		0.025	0.0087	mg/L		01/31/24 08:50	02/01/24 19:29	1
Silver	ND		0.0060	0.0017	mg/L		01/31/24 08:50	02/02/24 17:19	1

Method: SW846 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000043	mg/L		01/31/24 11:15	01/31/24 15:06	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	7.6		0.22	0.051	mg/Kg	✱	01/30/24 10:47	01/30/24 13:59	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		9.2	9.2	mg/Kg		01/30/24 12:00	01/31/24 15:47	1
Cyanide, Total (SW846 9012B)	2.3		1.3	0.61	mg/Kg	✱	01/30/24 13:10	01/30/24 16:22	1
Sulfide, Reactive (SW846 9034)	55.3		9.2	9.2	mg/Kg		01/30/24 12:00	01/31/24 16:00	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	>180		50.0	50.0	Degrees F			01/30/24 08:43	1
pH (SW846 9045D)	11.1	HF	0.1	0.1	SU			01/30/24 16:51	1
Temperature (SW846 9045D)	17.7	HF	0.001	0.001	Degrees C			01/30/24 16:51	1

General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	159		37.2	18.6	mg/Kg			01/30/24 10:47	10

Client Sample ID: LOA-06-01262024

Lab Sample ID: 480-216689-6

Date Collected: 01/26/24 12:05

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 72.1

Method: SW846 8260C - TCLP Volatiles - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		0.010	0.0029	mg/L			01/31/24 18:15	10
1,2-Dichloroethane	ND		0.010	0.0021	mg/L			01/31/24 18:15	10
2-Butanone (MEK)	ND		0.050	0.013	mg/L			01/31/24 18:15	10
Benzene	0.13		0.010	0.0041	mg/L			01/31/24 18:15	10
Carbon tetrachloride	ND		0.010	0.0027	mg/L			01/31/24 18:15	10
Chlorobenzene	ND		0.010	0.0075	mg/L			01/31/24 18:15	10
Chloroform	ND		0.010	0.0034	mg/L			01/31/24 18:15	10
Tetrachloroethene	ND		0.010	0.0036	mg/L			01/31/24 18:15	10
Trichloroethene	ND		0.010	0.0046	mg/L			01/31/24 18:15	10
Vinyl chloride	ND		0.010	0.0090	mg/L			01/31/24 18:15	10

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-06-01262024

Lab Sample ID: 480-216689-6

Date Collected: 01/26/24 12:05

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 72.1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		77 - 120		01/31/24 18:15	10
4-Bromofluorobenzene (Surr)	92		73 - 120		01/31/24 18:15	10
Dibromofluoromethane (Surr)	97		75 - 123		01/31/24 18:15	10
Toluene-d8 (Surr)	109		80 - 120		01/31/24 18:15	10

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5400	1500	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
1,1,1-Trichloroethane	ND		5400	1500	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
1,1,2,2-Tetrachloroethane	ND		5400	880	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5400	2700	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
1,1,2-Trichloroethane	ND		5400	1100	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
1,1-Dichloroethane	ND		5400	1700	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
1,1-Dichloroethene	ND		5400	1900	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
1,1-Dichloropropene	ND		5400	1300	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
1,2,3-Trichlorobenzene	ND		5400	2500	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
1,2,3-Trichloropropane	ND		5400	1200	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
1,2,4-Trichlorobenzene	ND		5400	2100	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
1,2,4-Trimethylbenzene	ND		5400	1500	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
1,2-Dibromo-3-Chloropropane	ND		5400	2700	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
1,2-Dibromoethane	ND		5400	950	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
1,2-Dichlorobenzene	ND		5400	1400	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
1,2-Dichloroethane	ND		5400	2200	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
1,2-Dichloropropane	ND		5400	880	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
1,3,5-Trimethylbenzene	ND		5400	1600	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
1,3-Dichlorobenzene	ND		5400	1400	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
1,3-Dichloropropane	ND		5400	990	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
1,4-Dichlorobenzene	ND		5400	760	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
2,2-Dichloropropane	ND		5400	1200	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
2-Butanone (MEK)	ND		27000	16000	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
2-Chlorotoluene	ND		5400	2100	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
2-Hexanone	ND		27000	11000	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
4-Chlorotoluene	ND		5400	1100	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
4-Isopropyltoluene	ND		5400	1800	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
4-Methyl-2-pentanone (MIBK)	ND		27000	1700	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
Acetone	ND		27000	22000	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
Benzene	26000		5400	1000	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
Bromobenzene	ND		5400	1200	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
Bromodichloromethane	ND		5400	1100	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
Bromoform	ND		5400	2700	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
Bromomethane	ND		5400	1200	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
Carbon disulfide	ND		5400	2500	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
Carbon tetrachloride	ND		5400	1400	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
Chlorobenzene	ND		5400	720	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
Chlorobromomethane	ND		5400	2000	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
Chloroethane	ND		5400	1100	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
Chloroform	ND		5400	3700	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
Chloromethane	ND		5400	1300	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
cis-1,2-Dichloroethene	ND		5400	1500	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80
cis-1,3-Dichloropropene	ND		5400	1300	ug/Kg	☆	01/31/24 08:18	01/31/24 15:11	80

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-06-01262024

Lab Sample ID: 480-216689-6

Date Collected: 01/26/24 12:05

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 72.1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	ND		5400	1200	ug/Kg	☼	01/31/24 08:18	01/31/24 15:11	80
Dibromochloromethane	ND		5400	2600	ug/Kg	☼	01/31/24 08:18	01/31/24 15:11	80
Dibromomethane	ND		5400	1800	ug/Kg	☼	01/31/24 08:18	01/31/24 15:11	80
Dichlorodifluoromethane	ND		5400	2400	ug/Kg	☼	01/31/24 08:18	01/31/24 15:11	80
Dichlorofluoromethane	ND		5400	1100	ug/Kg	☼	01/31/24 08:18	01/31/24 15:11	80
Ethylbenzene	2500	J	5400	1600	ug/Kg	☼	01/31/24 08:18	01/31/24 15:11	80
Hexachlorobutadiene	ND		5400	2100	ug/Kg	☼	01/31/24 08:18	01/31/24 15:11	80
Isopropylbenzene	ND		5400	810	ug/Kg	☼	01/31/24 08:18	01/31/24 15:11	80
m,p-Xylene	7700	J	11000	3000	ug/Kg	☼	01/31/24 08:18	01/31/24 15:11	80
Methyl acetate	ND		27000	2600	ug/Kg	☼	01/31/24 08:18	01/31/24 15:11	80
Methyl tert-butyl ether	ND		5400	2000	ug/Kg	☼	01/31/24 08:18	01/31/24 15:11	80
Methylcyclohexane	ND		5400	2500	ug/Kg	☼	01/31/24 08:18	01/31/24 15:11	80
Methylene Chloride	ND		5400	1100	ug/Kg	☼	01/31/24 08:18	01/31/24 15:11	80
Naphthalene	110000		5400	1800	ug/Kg	☼	01/31/24 08:18	01/31/24 15:11	80
n-Butylbenzene	ND		5400	1600	ug/Kg	☼	01/31/24 08:18	01/31/24 15:11	80
N-Propylbenzene	ND		5400	1400	ug/Kg	☼	01/31/24 08:18	01/31/24 15:11	80
o-Xylene	1900	J	5400	700	ug/Kg	☼	01/31/24 08:18	01/31/24 15:11	80
sec-Butylbenzene	ND		5400	2000	ug/Kg	☼	01/31/24 08:18	01/31/24 15:11	80
Styrene	ND		5400	1300	ug/Kg	☼	01/31/24 08:18	01/31/24 15:11	80
tert-Butylbenzene	ND		5400	1500	ug/Kg	☼	01/31/24 08:18	01/31/24 15:11	80
Tetrachloroethene	ND		5400	730	ug/Kg	☼	01/31/24 08:18	01/31/24 15:11	80
Toluene	13000		5400	1500	ug/Kg	☼	01/31/24 08:18	01/31/24 15:11	80
trans-1,2-Dichloroethene	ND		5400	1300	ug/Kg	☼	01/31/24 08:18	01/31/24 15:11	80
trans-1,3-Dichloropropene	ND		5400	530	ug/Kg	☼	01/31/24 08:18	01/31/24 15:11	80
Trichloroethene	ND		5400	1500	ug/Kg	☼	01/31/24 08:18	01/31/24 15:11	80
Trichlorofluoromethane	ND		5400	2500	ug/Kg	☼	01/31/24 08:18	01/31/24 15:11	80
Vinyl chloride	ND		5400	1800	ug/Kg	☼	01/31/24 08:18	01/31/24 15:11	80
Xylenes, Total	9600	J	11000	3000	ug/Kg	☼	01/31/24 08:18	01/31/24 15:11	80

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		53 - 146	01/31/24 08:18	01/31/24 15:11	80
4-Bromofluorobenzene (Surr)	99		49 - 148	01/31/24 08:18	01/31/24 15:11	80
Dibromofluoromethane (Surr)	94		60 - 140	01/31/24 08:18	01/31/24 15:11	80
Toluene-d8 (Surr)	99		50 - 149	01/31/24 08:18	01/31/24 15:11	80

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		140	75	ug/Kg	☼	01/29/24 16:09	01/30/24 22:54	1
2,4,5-Trichlorophenol	ND		230	63	ug/Kg	☼	01/29/24 16:09	01/30/24 22:54	1
2,4,6-Trichlorophenol	ND		230	46	ug/Kg	☼	01/29/24 16:09	01/30/24 22:54	1
2,4-Dichlorophenol	ND		230	25	ug/Kg	☼	01/29/24 16:09	01/30/24 22:54	1
2,4-Dimethylphenol	84	J	230	56	ug/Kg	☼	01/29/24 16:09	01/30/24 22:54	1
2,4-Dinitrophenol	ND		2300	1100	ug/Kg	☼	01/29/24 16:09	01/30/24 22:54	1
2,4-Dinitrotoluene	ND		230	48	ug/Kg	☼	01/29/24 16:09	01/30/24 22:54	1
2,6-Dinitrotoluene	ND		230	27	ug/Kg	☼	01/29/24 16:09	01/30/24 22:54	1
2-Chloronaphthalene	ND		230	38	ug/Kg	☼	01/29/24 16:09	01/30/24 22:54	1
2-Chlorophenol	ND		450	42	ug/Kg	☼	01/29/24 16:09	01/30/24 22:54	1
2-Methylnaphthalene	1900		230	46	ug/Kg	☼	01/29/24 16:09	01/30/24 22:54	1
2-Methylphenol	120	J	230	27	ug/Kg	☼	01/29/24 16:09	01/30/24 22:54	1
2-Nitroaniline	ND		450	34	ug/Kg	☼	01/29/24 16:09	01/30/24 22:54	1

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-06-01262024

Lab Sample ID: 480-216689-6

Date Collected: 01/26/24 12:05

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 72.1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitrophenol	ND		230	65	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
3,3'-Dichlorobenzidine	ND		450	270	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
3-Nitroaniline	ND		450	64	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
4,6-Dinitro-2-methylphenol	ND		450	230	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
4-Bromophenyl phenyl ether	ND		230	33	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
4-Chloro-3-methylphenol	ND		230	57	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
4-Chloroaniline	ND		230	57	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
4-Chlorophenyl phenyl ether	ND		230	29	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
4-Methylphenol	230	J	450	27	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
4-Nitroaniline	ND		450	120	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
4-Nitrophenol	ND		450	160	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
Acenaphthene	1000		230	34	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
Acenaphthylene	1000		230	30	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
Acetophenone	ND		230	31	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
Anthracene	700		230	57	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
Atrazine	ND		230	80	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
Benzaldehyde	ND		230	180	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
Benzo[a]anthracene	1300		230	23	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
Benzo[a]pyrene	1000		230	34	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
Benzo[b]fluoranthene	1400		230	37	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
Benzo[g,h,i]perylene	530		230	25	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
Benzo[k]fluoranthene	660		230	30	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
Biphenyl	250		230	34	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
bis (2-chloroisopropyl) ether	ND		230	46	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
Bis(2-chloroethoxy)methane	ND		230	49	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
Bis(2-chloroethyl)ether	ND		230	30	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
Bis(2-ethylhexyl) phthalate	ND		230	79	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
Butyl benzyl phthalate	ND		230	38	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
Caprolactam	ND		230	70	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
Carbazole	230		230	27	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
Chrysene	1300		230	52	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
Dibenz(a,h)anthracene	190	J	230	41	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
Dibenzofuran	650		230	27	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
Diethyl phthalate	ND		230	30	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
Dimethyl phthalate	ND		230	27	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
Di-n-butyl phthalate	ND		230	40	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
Di-n-octyl phthalate	ND		230	27	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
Fluoranthene	3500		230	25	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
Fluorene	950		230	27	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
Hexachlorobenzene	ND		230	31	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
Hexachlorobutadiene	ND		230	34	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
Hexachlorocyclopentadiene	ND		230	31	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
Hexachloroethane	ND		230	30	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
Indeno[1,2,3-cd]pyrene	570		230	29	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
Isophorone	ND		230	49	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
Naphthalene	13000	E	230	30	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
Nitrobenzene	ND		230	26	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
N-Nitrosodi-n-propylamine	ND		230	40	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1
N-Nitrosodiphenylamine	ND		230	190	ug/Kg	✱	01/29/24 16:09	01/30/24 22:54	1

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-06-01262024

Lab Sample ID: 480-216689-6

Date Collected: 01/26/24 12:05

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 72.1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		450	230	ug/Kg	☼	01/29/24 16:09	01/30/24 22:54	1
Phenanthrene	2600		230	34	ug/Kg	☼	01/29/24 16:09	01/30/24 22:54	1
Phenol	320		230	35	ug/Kg	☼	01/29/24 16:09	01/30/24 22:54	1
Pyrene	2000		230	27	ug/Kg	☼	01/29/24 16:09	01/30/24 22:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	71		54 - 120	01/29/24 16:09	01/30/24 22:54	1
2-Fluorobiphenyl (Surr)	84		60 - 120	01/29/24 16:09	01/30/24 22:54	1
2-Fluorophenol (Surr)	81		52 - 120	01/29/24 16:09	01/30/24 22:54	1
Nitrobenzene-d5 (Surr)	75		53 - 120	01/29/24 16:09	01/30/24 22:54	1
Phenol-d5 (Surr)	78		54 - 120	01/29/24 16:09	01/30/24 22:54	1
p-Terphenyl-d14 (Surr)	91		79 - 130	01/29/24 16:09	01/30/24 22:54	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		680	380	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
2,4,5-Trichlorophenol	ND		1200	310	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
2,4,6-Trichlorophenol	ND		1200	230	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
2,4-Dichlorophenol	ND		1200	120	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
2,4-Dimethylphenol	ND		1200	280	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
2,4-Dinitrophenol	ND		11000	5300	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
2,4-Dinitrotoluene	ND		1200	240	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
2,6-Dinitrotoluene	ND		1200	140	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
2-Chloronaphthalene	ND		1200	190	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
2-Chlorophenol	ND		2300	210	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
2-Methylnaphthalene	1900		1200	230	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
2-Methylphenol	ND		1200	140	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
2-Nitroaniline	ND		2300	170	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
2-Nitrophenol	ND		1200	330	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
3,3'-Dichlorobenzidine	ND		2300	1400	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
3-Nitroaniline	ND		2300	320	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
4,6-Dinitro-2-methylphenol	ND		2300	1200	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
4-Bromophenyl phenyl ether	ND		1200	160	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
4-Chloro-3-methylphenol	ND		1200	290	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
4-Chloroaniline	ND		1200	290	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
4-Chlorophenyl phenyl ether	ND		1200	140	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
4-Methylphenol	290 J		2300	140	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
4-Nitroaniline	ND		2300	610	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
4-Nitrophenol	ND		2300	810	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Acenaphthene	930 J		1200	170	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Acenaphthylene	760 J		1200	150	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Acetophenone	ND		1200	160	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Anthracene	620 J		1200	290	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Atrazine	ND		1200	400	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Benzaldehyde	ND		1200	920	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Benzo[a]anthracene	1200		1200	120	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Benzo[a]pyrene	930 J		1200	170	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Benzo[b]fluoranthene	1500		1200	180	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Benzo[g,h,i]perylene	610 J		1200	120	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Benzo[k]fluoranthene	530 J		1200	150	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-06-01262024

Lab Sample ID: 480-216689-6

Date Collected: 01/26/24 12:05

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 72.1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	240	J	1200	170	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
bis (2-chloroisopropyl) ether	ND		1200	230	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Bis(2-chloroethoxy)methane	ND		1200	250	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Bis(2-chloroethyl)ether	ND		1200	150	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Bis(2-ethylhexyl) phthalate	ND		1200	400	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Butyl benzyl phthalate	ND		1200	190	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Caprolactam	ND		1200	350	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Carbazole	280	J	1200	140	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Chrysene	1400		1200	260	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Dibenz(a,h)anthracene	220	J	1200	200	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Dibenzofuran	680	J	1200	140	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Diethyl phthalate	ND		1200	150	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Dimethyl phthalate	ND		1200	140	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Di-n-butyl phthalate	ND		1200	200	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Di-n-octyl phthalate	ND		1200	140	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Fluoranthene	2900		1200	120	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Fluorene	970	J	1200	140	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Hexachlorobenzene	ND		1200	160	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Hexachlorobutadiene	ND		1200	170	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Hexachlorocyclopentadiene	ND		1200	160	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Hexachloroethane	ND		1200	150	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Indeno[1,2,3-cd]pyrene	620	J	1200	140	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Isophorone	ND		1200	250	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Naphthalene	16000		1200	150	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Nitrobenzene	ND		1200	130	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
N-Nitrosodi-n-propylamine	ND		1200	200	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
N-Nitrosodiphenylamine	ND		1200	940	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Pentachlorophenol	ND		2300	1200	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Phenanthrene	2400		1200	170	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Phenol	310	J	1200	180	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5
Pyrene	2100		1200	140	ug/Kg	☼	01/29/24 16:09	01/31/24 14:24	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	64		54 - 120	01/29/24 16:09	01/31/24 14:24	5
2-Fluorobiphenyl (Surr)	82		60 - 120	01/29/24 16:09	01/31/24 14:24	5
2-Fluorophenol (Surr)	81		52 - 120	01/29/24 16:09	01/31/24 14:24	5
Nitrobenzene-d5 (Surr)	70		53 - 120	01/29/24 16:09	01/31/24 14:24	5
Phenol-d5 (Surr)	80		54 - 120	01/29/24 16:09	01/31/24 14:24	5
p-Terphenyl-d14 (Surr)	85		79 - 130	01/29/24 16:09	01/31/24 14:24	5

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.040	0.0018	mg/L		01/31/24 09:21	02/01/24 16:36	1
2,4,5-Trichlorophenol	ND		0.020	0.0019	mg/L		01/31/24 09:21	02/01/24 16:36	1
2,4,6-Trichlorophenol	ND		0.020	0.0024	mg/L		01/31/24 09:21	02/01/24 16:36	1
2,4-Dinitrotoluene	ND		0.020	0.0017	mg/L		01/31/24 09:21	02/01/24 16:36	1
2-Methylphenol	0.011	J	0.020	0.0016	mg/L		01/31/24 09:21	02/01/24 16:36	1
3-Methylphenol	0.020	J	0.040	0.0016	mg/L		01/31/24 09:21	02/01/24 16:36	1
4-Methylphenol	0.020	J	0.040	0.0014	mg/L		01/31/24 09:21	02/01/24 16:36	1
Hexachlorobenzene	ND		0.020	0.0020	mg/L		01/31/24 09:21	02/01/24 16:36	1

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-06-01262024

Lab Sample ID: 480-216689-6

Date Collected: 01/26/24 12:05

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 72.1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND		0.020	0.0027	mg/L		01/31/24 09:21	02/01/24 16:36	1
Hexachloroethane	ND		0.020	0.0023	mg/L		01/31/24 09:21	02/01/24 16:36	1
Nitrobenzene	ND		0.020	0.0011	mg/L		01/31/24 09:21	02/01/24 16:36	1
Pentachlorophenol	ND		0.040	0.0088	mg/L		01/31/24 09:21	02/01/24 16:36	1
Pyridine	ND		0.10	0.0016	mg/L		01/31/24 09:21	02/01/24 16:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	91		41 - 120	01/31/24 09:21	02/01/24 16:36	1
2-Fluorobiphenyl (Surr)	93		48 - 120	01/31/24 09:21	02/01/24 16:36	1
2-Fluorophenol (Surr)	53		35 - 120	01/31/24 09:21	02/01/24 16:36	1
Nitrobenzene-d5 (Surr)	96		46 - 120	01/31/24 09:21	02/01/24 16:36	1
Phenol-d5 (Surr)	38		22 - 120	01/31/24 09:21	02/01/24 16:36	1
p-Terphenyl-d14 (Surr)	91		60 - 148	01/31/24 09:21	02/01/24 16:36	1

Method: SW846 8081B - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	ND		0.0020	0.000029	mg/L		01/31/24 09:17	01/31/24 17:33	1
Endrin	ND		0.00020	0.000014	mg/L		01/31/24 09:17	01/31/24 17:33	1
gamma-BHC (Lindane)	ND		0.00020	0.0000060	mg/L		01/31/24 09:17	01/31/24 17:33	1
Heptachlor	ND		0.00020	0.0000085	mg/L		01/31/24 09:17	01/31/24 17:33	1
Heptachlor epoxide	ND		0.00020	0.0000053	mg/L		01/31/24 09:17	01/31/24 17:33	1
Methoxychlor	ND		0.00020	0.000014	mg/L		01/31/24 09:17	01/31/24 17:33	1
Toxaphene	ND		0.0020	0.00012	mg/L		01/31/24 09:17	01/31/24 17:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	46		20 - 120	01/31/24 09:17	01/31/24 17:33	1
DCB Decachlorobiphenyl (Surr)	51		20 - 120	01/31/24 09:17	01/31/24 17:33	1
Tetrachloro-m-xylene (Surr)	45		44 - 120	01/31/24 09:17	01/31/24 17:33	1
Tetrachloro-m-xylene (Surr)	51		44 - 120	01/31/24 09:17	01/31/24 17:33	1

Method: SW846 8151 - TCLP Herbicides - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		0.0020	0.00040	mg/L		02/01/24 09:04	02/02/24 16:20	1
Silvex (2,4,5-TP)	ND		0.0020	0.00036	mg/L		02/01/24 09:04	02/02/24 16:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr)	35		21 - 143	02/01/24 09:04	02/02/24 16:20	1
2,4-Dichlorophenylacetic acid (Surr)	30		21 - 143	02/01/24 09:04	02/02/24 16:20	1

Method: SW846 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0056	J	0.015	0.0056	mg/L		01/31/24 08:50	02/01/24 19:33	1
Barium	0.93	J	1.0	0.10	mg/L		01/31/24 08:50	02/01/24 19:33	1
Cadmium	ND		0.0020	0.00050	mg/L		01/31/24 08:50	02/01/24 19:33	1
Chromium	ND		0.020	0.010	mg/L		01/31/24 08:50	02/01/24 19:33	1
Lead	0.022	B	0.020	0.0030	mg/L		01/31/24 08:50	02/01/24 19:33	1
Selenium	ND		0.025	0.0087	mg/L		01/31/24 08:50	02/01/24 19:33	1
Silver	ND		0.0060	0.0017	mg/L		01/31/24 08:50	02/02/24 17:23	1

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-06-01262024

Lab Sample ID: 480-216689-6

Date Collected: 01/26/24 12:05

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 72.1

Method: SW846 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000043	mg/L		01/31/24 11:15	01/31/24 15:07	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	4.6		0.13	0.030	mg/Kg	☆	01/30/24 10:47	01/30/24 14:00	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		9.3	9.3	mg/Kg		01/30/24 12:00	01/31/24 15:48	1
Cyanide, Total (SW846 9012B)	1.6		1.4	0.66	mg/Kg	☆	01/30/24 13:10	01/30/24 16:24	1
Sulfide, Reactive (SW846 9034)	93.2		9.3	9.3	mg/Kg		01/30/24 12:00	01/31/24 16:00	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	>180		50.0	50.0	Degrees F			01/30/24 08:43	1
pH (SW846 9045D)	9.7	HF	0.1	0.1	SU			01/30/24 16:51	1
Temperature (SW846 9045D)	18.4	HF	0.001	0.001	Degrees C			01/30/24 16:51	1

General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	171		36.6	18.3	mg/Kg			01/30/24 10:48	10

Client Sample ID: LOA-07-01262024

Lab Sample ID: 480-216689-7

Date Collected: 01/26/24 11:50

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 82.3

Method: SW846 8260C - TCLP Volatiles - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		0.010	0.0029	mg/L			01/31/24 18:37	10
1,2-Dichloroethane	ND		0.010	0.0021	mg/L			01/31/24 18:37	10
2-Butanone (MEK)	ND		0.050	0.013	mg/L			01/31/24 18:37	10
Benzene	0.37		0.010	0.0041	mg/L			01/31/24 18:37	10
Carbon tetrachloride	ND		0.010	0.0027	mg/L			01/31/24 18:37	10
Chlorobenzene	ND		0.010	0.0075	mg/L			01/31/24 18:37	10
Chloroform	ND		0.010	0.0034	mg/L			01/31/24 18:37	10
Tetrachloroethene	ND		0.010	0.0036	mg/L			01/31/24 18:37	10
Trichloroethene	ND		0.010	0.0046	mg/L			01/31/24 18:37	10
Vinyl chloride	ND		0.010	0.0090	mg/L			01/31/24 18:37	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		77 - 120		01/31/24 18:37	10
4-Bromofluorobenzene (Surr)	90		73 - 120		01/31/24 18:37	10
Dibromofluoromethane (Surr)	98		75 - 123		01/31/24 18:37	10
Toluene-d8 (Surr)	102		80 - 120		01/31/24 18:37	10

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		4200	1200	ug/Kg	☆	01/31/24 08:18	01/31/24 15:34	80
1,1,1-Trichloroethane	ND		4200	1200	ug/Kg	☆	01/31/24 08:18	01/31/24 15:34	80
1,1,2,2-Tetrachloroethane	ND		4200	680	ug/Kg	☆	01/31/24 08:18	01/31/24 15:34	80
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4200	2100	ug/Kg	☆	01/31/24 08:18	01/31/24 15:34	80
1,1,2-Trichloroethane	ND		4200	880	ug/Kg	☆	01/31/24 08:18	01/31/24 15:34	80
1,1-Dichloroethane	ND		4200	1300	ug/Kg	☆	01/31/24 08:18	01/31/24 15:34	80

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-07-01262024

Lab Sample ID: 480-216689-7

Date Collected: 01/26/24 11:50

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 82.3

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		4200	1400	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
1,1-Dichloropropene	ND		4200	1000	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
1,2,3-Trichlorobenzene	ND		4200	1900	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
1,2,3-Trichloropropane	ND		4200	930	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
1,2,4-Trichlorobenzene	ND		4200	1600	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
1,2,4-Trimethylbenzene	8100		4200	1200	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
1,2-Dibromo-3-Chloropropane	ND		4200	2100	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
1,2-Dibromoethane	ND		4200	730	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
1,2-Dichlorobenzene	ND		4200	1100	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
1,2-Dichloroethane	ND		4200	1700	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
1,2-Dichloropropane	ND		4200	680	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
1,3,5-Trimethylbenzene	5400		4200	1300	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
1,3-Dichlorobenzene	ND		4200	1100	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
1,3-Dichloropropane	ND		4200	760	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
1,4-Dichlorobenzene	ND		4200	590	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
2,2-Dichloropropane	ND		4200	950	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
2-Butanone (MEK)	ND		21000	12000	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
2-Chlorotoluene	ND		4200	1600	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
2-Hexanone	ND		21000	8600	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
4-Chlorotoluene	ND		4200	850	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
4-Isopropyltoluene	ND		4200	1400	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
4-Methyl-2-pentanone (MIBK)	ND		21000	1300	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
Acetone	ND		21000	17000	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
Benzene	30000		4200	790	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
Bromobenzene	ND		4200	920	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
Bromodichloromethane	ND		4200	840	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
Bromoform	ND		4200	2100	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
Bromomethane	ND		4200	920	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
Carbon disulfide	ND		4200	1900	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
Carbon tetrachloride	ND		4200	1100	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
Chlorobenzene	ND		4200	550	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
Chlorobromomethane	ND		4200	1500	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
Chloroethane	ND		4200	870	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
Chloroform	ND		4200	2900	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
Chloromethane	ND		4200	990	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
cis-1,2-Dichloroethene	ND		4200	1200	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
cis-1,3-Dichloropropene	ND		4200	1000	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
Cyclohexane	ND		4200	930	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
Dibromochloromethane	ND		4200	2000	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
Dibromomethane	ND		4200	1400	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
Dichlorodifluoromethane	ND		4200	1800	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
Dichlorofluoromethane	ND		4200	840	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
Ethylbenzene	13000		4200	1200	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
Hexachlorobutadiene	ND		4200	1700	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
Isopropylbenzene	ND		4200	630	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
m,p-Xylene	27000		8400	2300	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
Methyl acetate	ND		21000	2000	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
Methyl tert-butyl ether	ND		4200	1600	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
Methylcyclohexane	ND		4200	2000	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-07-01262024

Lab Sample ID: 480-216689-7

Date Collected: 01/26/24 11:50

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 82.3

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		4200	830	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
Naphthalene	450000	E	4200	1400	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
n-Butylbenzene	ND		4200	1200	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
N-Propylbenzene	ND		4200	1100	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
o-Xylene	7400		4200	540	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
sec-Butylbenzene	ND		4200	1500	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
Styrene	1300	J	4200	1000	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
tert-Butylbenzene	ND		4200	1200	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
Tetrachloroethene	ND		4200	560	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
Toluene	10000		4200	1100	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
trans-1,2-Dichloroethene	ND		4200	990	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
trans-1,3-Dichloropropene	ND		4200	410	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
Trichloroethene	ND		4200	1200	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
Trichlorofluoromethane	ND		4200	2000	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
Vinyl chloride	ND		4200	1400	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80
Xylenes, Total	34000		8400	2300	ug/Kg	☼	01/31/24 08:18	01/31/24 15:34	80

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		53 - 146	01/31/24 08:18	01/31/24 15:34	80
4-Bromofluorobenzene (Surr)	98		49 - 148	01/31/24 08:18	01/31/24 15:34	80
Dibromofluoromethane (Surr)	93		60 - 140	01/31/24 08:18	01/31/24 15:34	80
Toluene-d8 (Surr)	97		50 - 149	01/31/24 08:18	01/31/24 15:34	80

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		1200	650	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
2,4,5-Trichlorophenol	ND		2000	540	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
2,4,6-Trichlorophenol	ND		2000	400	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
2,4-Dichlorophenol	ND		2000	210	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
2,4-Dimethylphenol	ND		2000	480	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
2,4-Dinitrophenol	ND		20000	9300	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
2,4-Dinitrotoluene	ND		2000	410	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
2,6-Dinitrotoluene	ND		2000	240	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
2-Chloronaphthalene	ND		2000	330	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
2-Chlorophenol	ND		3900	370	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
2-Methylnaphthalene	10000		2000	400	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
2-Methylphenol	ND		2000	240	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
2-Nitroaniline	ND		3900	290	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
2-Nitrophenol	ND		2000	570	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
3,3'-Dichlorobenzidine	ND		3900	2400	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
3-Nitroaniline	ND		3900	550	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
4,6-Dinitro-2-methylphenol	ND		3900	2000	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
4-Bromophenyl phenyl ether	ND		2000	280	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
4-Chloro-3-methylphenol	ND		2000	500	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
4-Chloroaniline	ND		2000	500	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
4-Chlorophenyl phenyl ether	ND		2000	250	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
4-Methylphenol	ND		3900	240	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
4-Nitroaniline	ND		3900	1100	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
4-Nitrophenol	ND		3900	1400	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Acenaphthene	5700		2000	290	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-07-01262024

Lab Sample ID: 480-216689-7

Date Collected: 01/26/24 11:50

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 82.3

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthylene	3400		2000	260	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Acetophenone	ND		2000	270	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Anthracene	1600	J	2000	500	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Atrazine	ND		2000	700	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Benzaldehyde	ND		2000	1600	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Benzo[a]anthracene	3700		2000	200	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Benzo[a]pyrene	2800		2000	290	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Benzo[b]fluoranthene	4000		2000	320	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Benzo[g,h,i]perylene	1600	J	2000	210	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Benzo[k]fluoranthene	2200		2000	260	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Biphenyl	1100	J	2000	290	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
bis (2-chloroisopropyl) ether	ND		2000	400	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Bis(2-chloroethoxy)methane	ND		2000	420	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Bis(2-chloroethyl)ether	ND		2000	260	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Bis(2-ethylhexyl) phthalate	ND		2000	680	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Butyl benzyl phthalate	ND		2000	330	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Caprolactam	ND		2000	600	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Carbazole	810	J	2000	240	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Chrysene	4100		2000	450	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Dibenz(a,h)anthracene	540	J	2000	350	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Dibenzofuran	2700		2000	240	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Diethyl phthalate	ND		2000	260	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Dimethyl phthalate	ND		2000	240	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Di-n-butyl phthalate	ND		2000	340	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Di-n-octyl phthalate	ND		2000	240	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Fluoranthene	10000		2000	210	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Fluorene	3300		2000	240	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Hexachlorobenzene	ND		2000	270	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Hexachlorobutadiene	ND		2000	290	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Hexachlorocyclopentadiene	ND		2000	270	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Hexachloroethane	ND		2000	260	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Indeno[1,2,3-cd]pyrene	1600	J	2000	250	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Isophorone	ND		2000	420	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Naphthalene	79000	E	2000	260	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Nitrobenzene	ND		2000	220	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
N-Nitrosodi-n-propylamine	ND		2000	340	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
N-Nitrosodiphenylamine	ND		2000	1600	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Pentachlorophenol	ND		3900	2000	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Phenanthrene	6000		2000	290	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Phenol	ND		2000	310	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10
Pyrene	6300		2000	240	ug/Kg	☼	01/29/24 16:09	01/30/24 23:19	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	80		54 - 120	01/29/24 16:09	01/30/24 23:19	10
2-Fluorobiphenyl (Surr)	82		60 - 120	01/29/24 16:09	01/30/24 23:19	10
2-Fluorophenol (Surr)	87		52 - 120	01/29/24 16:09	01/30/24 23:19	10
Nitrobenzene-d5 (Surr)	74		53 - 120	01/29/24 16:09	01/30/24 23:19	10
Phenol-d5 (Surr)	78		54 - 120	01/29/24 16:09	01/30/24 23:19	10
p-Terphenyl-d14 (Surr)	77	S1-	79 - 130	01/29/24 16:09	01/30/24 23:19	10

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-07-01262024

Lab Sample ID: 480-216689-7

Date Collected: 01/26/24 11:50

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 82.3

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		2400	1300	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
2,4,5-Trichlorophenol	ND		4000	1100	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
2,4,6-Trichlorophenol	ND		4000	800	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
2,4-Dichlorophenol	ND		4000	420	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
2,4-Dimethylphenol	ND		4000	970	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
2,4-Dinitrophenol	ND		39000	19000	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
2,4-Dinitrotoluene	ND		4000	830	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
2,6-Dinitrotoluene	ND		4000	470	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
2-Chloronaphthalene	ND		4000	660	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
2-Chlorophenol	ND		7800	730	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
2-Methylnaphthalene	11000		4000	800	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
2-Methylphenol	ND		4000	470	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
2-Nitroaniline	ND		7800	590	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
2-Nitrophenol	ND		4000	1100	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
3,3'-Dichlorobenzidine	ND		7800	4700	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
3-Nitroaniline	ND		7800	1100	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
4,6-Dinitro-2-methylphenol	ND		7800	4000	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
4-Bromophenyl phenyl ether	ND		4000	570	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
4-Chloro-3-methylphenol	ND		4000	990	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
4-Chloroaniline	ND		4000	990	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
4-Chlorophenyl phenyl ether	ND		4000	500	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
4-Methylphenol	ND		7800	470	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
4-Nitroaniline	ND		7800	2100	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
4-Nitrophenol	ND		7800	2800	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
Acenaphthene	5700		4000	590	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
Acenaphthylene	2600 J		4000	520	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
Acetophenone	ND		4000	540	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
Anthracene	1800 J		4000	990	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
Atrazine	ND		4000	1400	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
Benzaldehyde	ND		4000	3200	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
Benzo[a]anthracene	3800 J		4000	400	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
Benzo[a]pyrene	3000 J		4000	590	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
Benzo[b]fluoranthene	4900		4000	640	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
Benzo[g,h,i]perylene	2000 J		4000	420	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
Benzo[k]fluoranthene	1600 J		4000	520	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
Biphenyl	1000 J		4000	590	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
bis (2-chloroisopropyl) ether	ND		4000	800	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
Bis(2-chloroethoxy)methane	ND		4000	850	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
Bis(2-chloroethyl)ether	ND		4000	520	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
Bis(2-ethylhexyl) phthalate	ND		4000	1400	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
Butyl benzyl phthalate	ND		4000	660	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
Caprolactam	ND		4000	1200	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
Carbazole	860 J		4000	470	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
Chrysene	4200		4000	900	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
Dibenz(a,h)anthracene	730 J		4000	710	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
Dibenzofuran	2700 J		4000	470	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
Diethyl phthalate	ND		4000	520	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
Dimethyl phthalate	ND		4000	470	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20
Di-n-butyl phthalate	ND		4000	680	ug/Kg	✳	01/29/24 16:09	01/31/24 14:49	20

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-07-01262024

Lab Sample ID: 480-216689-7

Date Collected: 01/26/24 11:50

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 82.3

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate	ND		4000	470	ug/Kg	☼	01/29/24 16:09	01/31/24 14:49	20
Fluoranthene	9200		4000	420	ug/Kg	☼	01/29/24 16:09	01/31/24 14:49	20
Fluorene	3400	J	4000	470	ug/Kg	☼	01/29/24 16:09	01/31/24 14:49	20
Hexachlorobenzene	ND		4000	540	ug/Kg	☼	01/29/24 16:09	01/31/24 14:49	20
Hexachlorobutadiene	ND		4000	590	ug/Kg	☼	01/29/24 16:09	01/31/24 14:49	20
Hexachlorocyclopentadiene	ND		4000	540	ug/Kg	☼	01/29/24 16:09	01/31/24 14:49	20
Hexachloroethane	ND		4000	520	ug/Kg	☼	01/29/24 16:09	01/31/24 14:49	20
Indeno[1,2,3-cd]pyrene	2000	J	4000	500	ug/Kg	☼	01/29/24 16:09	01/31/24 14:49	20
Isophorone	ND		4000	850	ug/Kg	☼	01/29/24 16:09	01/31/24 14:49	20
Naphthalene	96000		4000	520	ug/Kg	☼	01/29/24 16:09	01/31/24 14:49	20
Nitrobenzene	ND		4000	450	ug/Kg	☼	01/29/24 16:09	01/31/24 14:49	20
N-Nitrosodi-n-propylamine	ND		4000	680	ug/Kg	☼	01/29/24 16:09	01/31/24 14:49	20
N-Nitrosodiphenylamine	ND		4000	3300	ug/Kg	☼	01/29/24 16:09	01/31/24 14:49	20
Pentachlorophenol	ND		7800	4000	ug/Kg	☼	01/29/24 16:09	01/31/24 14:49	20
Phenanthrene	6400		4000	590	ug/Kg	☼	01/29/24 16:09	01/31/24 14:49	20
Phenol	ND		4000	610	ug/Kg	☼	01/29/24 16:09	01/31/24 14:49	20
Pyrene	6900		4000	470	ug/Kg	☼	01/29/24 16:09	01/31/24 14:49	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	0	S1-	54 - 120	01/29/24 16:09	01/31/24 14:49	20
2-Fluorobiphenyl (Surr)	99		60 - 120	01/29/24 16:09	01/31/24 14:49	20
2-Fluorophenol (Surr)	0	S1-	52 - 120	01/29/24 16:09	01/31/24 14:49	20
Nitrobenzene-d5 (Surr)	88		53 - 120	01/29/24 16:09	01/31/24 14:49	20
Phenol-d5 (Surr)	78		54 - 120	01/29/24 16:09	01/31/24 14:49	20
p-Terphenyl-d14 (Surr)	78	S1-	79 - 130	01/29/24 16:09	01/31/24 14:49	20

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.040	0.0018	mg/L		01/31/24 09:21	02/01/24 17:00	1
2,4,5-Trichlorophenol	ND		0.020	0.0019	mg/L		01/31/24 09:21	02/01/24 17:00	1
2,4,6-Trichlorophenol	ND		0.020	0.0024	mg/L		01/31/24 09:21	02/01/24 17:00	1
2,4-Dinitrotoluene	ND		0.020	0.0017	mg/L		01/31/24 09:21	02/01/24 17:00	1
2-Methylphenol	0.0061	J	0.020	0.0016	mg/L		01/31/24 09:21	02/01/24 17:00	1
3-Methylphenol	0.0065	J	0.040	0.0016	mg/L		01/31/24 09:21	02/01/24 17:00	1
4-Methylphenol	0.0065	J	0.040	0.0014	mg/L		01/31/24 09:21	02/01/24 17:00	1
Hexachlorobenzene	ND		0.020	0.0020	mg/L		01/31/24 09:21	02/01/24 17:00	1
Hexachlorobutadiene	ND		0.020	0.0027	mg/L		01/31/24 09:21	02/01/24 17:00	1
Hexachloroethane	ND		0.020	0.0023	mg/L		01/31/24 09:21	02/01/24 17:00	1
Nitrobenzene	ND		0.020	0.0011	mg/L		01/31/24 09:21	02/01/24 17:00	1
Pentachlorophenol	ND		0.040	0.0088	mg/L		01/31/24 09:21	02/01/24 17:00	1
Pyridine	ND		0.10	0.0016	mg/L		01/31/24 09:21	02/01/24 17:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	86		41 - 120	01/31/24 09:21	02/01/24 17:00	1
2-Fluorobiphenyl (Surr)	93		48 - 120	01/31/24 09:21	02/01/24 17:00	1
2-Fluorophenol (Surr)	34	S1-	35 - 120	01/31/24 09:21	02/01/24 17:00	1
Nitrobenzene-d5 (Surr)	94		46 - 120	01/31/24 09:21	02/01/24 17:00	1
Phenol-d5 (Surr)	25		22 - 120	01/31/24 09:21	02/01/24 17:00	1
p-Terphenyl-d14 (Surr)	88		60 - 148	01/31/24 09:21	02/01/24 17:00	1

Eurofins Buffalo

Client Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-07-01262024

Lab Sample ID: 480-216689-7

Date Collected: 01/26/24 11:50

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 82.3

Method: SW846 8081B - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	ND		0.0020	0.000029	mg/L		01/31/24 09:17	01/31/24 17:53	1
Endrin	0.000069	J	0.00020	0.000014	mg/L		01/31/24 09:17	01/31/24 17:53	1
gamma-BHC (Lindane)	0.000093	J	0.00020	0.0000060	mg/L		01/31/24 09:17	01/31/24 17:53	1
Heptachlor	ND		0.00020	0.0000085	mg/L		01/31/24 09:17	01/31/24 17:53	1
Heptachlor epoxide	ND		0.00020	0.0000053	mg/L		01/31/24 09:17	01/31/24 17:53	1
Methoxychlor	ND		0.00020	0.000014	mg/L		01/31/24 09:17	01/31/24 17:53	1
Toxaphene	ND		0.0020	0.00012	mg/L		01/31/24 09:17	01/31/24 17:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	64		20 - 120				01/31/24 09:17	01/31/24 17:53	1
DCB Decachlorobiphenyl (Surr)	79		20 - 120				01/31/24 09:17	01/31/24 17:53	1
Tetrachloro-m-xylene (Surr)	79		44 - 120				01/31/24 09:17	01/31/24 17:53	1
Tetrachloro-m-xylene (Surr)	85		44 - 120				01/31/24 09:17	01/31/24 17:53	1

Method: SW846 8151 - TCLP Herbicides - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		0.0020	0.00040	mg/L		02/01/24 09:04	02/02/24 16:38	1
Silvex (2,4,5-TP)	ND		0.0020	0.00036	mg/L		02/01/24 09:04	02/02/24 16:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr)	23		21 - 143				02/01/24 09:04	02/02/24 16:38	1
2,4-Dichlorophenylacetic acid (Surr)	21		21 - 143				02/01/24 09:04	02/02/24 16:38	1

Method: SW846 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		01/31/24 08:50	02/01/24 19:36	1
Barium	0.70	J	1.0	0.10	mg/L		01/31/24 08:50	02/01/24 19:36	1
Cadmium	ND		0.0020	0.00050	mg/L		01/31/24 08:50	02/01/24 19:36	1
Chromium	ND		0.020	0.010	mg/L		01/31/24 08:50	02/01/24 19:36	1
Lead	0.021	B	0.020	0.0030	mg/L		01/31/24 08:50	02/01/24 19:36	1
Selenium	ND		0.025	0.0087	mg/L		01/31/24 08:50	02/01/24 19:36	1
Silver	ND		0.0060	0.0017	mg/L		01/31/24 08:50	02/02/24 17:27	1

Method: SW846 7470A - TCLP Mercury - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000043	mg/L		01/31/24 11:15	01/31/24 15:08	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	4.3		0.11	0.025	mg/Kg	☼	01/30/24 10:47	01/30/24 14:01	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive (SW846 9012)	ND		9.2	9.2	mg/Kg		01/30/24 12:00	01/31/24 15:52	1
Cyanide, Total (SW846 9012B)	11.2		5.8	2.8	mg/Kg	☼	01/30/24 13:10	01/30/24 16:34	5
Sulfide, Reactive (SW846 9034)	92.5		9.2	9.2	mg/Kg		01/30/24 12:00	01/31/24 16:00	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint (SW846 1010A)	>180		50.0	50.0	Degrees F			01/30/24 08:43	1
pH (SW846 9045D)	10.3	HF	0.1	0.1	SU			01/30/24 16:51	1
Temperature (SW846 9045D)	18.2	HF	0.001	0.001	Degrees C			01/30/24 16:51	1

Client Sample Results

Client: Inventum Engineering LLC
Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-07-01262024

Lab Sample ID: 480-216689-7

Date Collected: 01/26/24 11:50

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 82.3

General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	231		39.9	20.0	mg/Kg			01/30/24 10:49	10

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Surrogate Summary

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Method: 8260C - TCLP Volatiles

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (77-120)	BFB (73-120)	DBFM (75-123)	TOL (80-120)
LCS 480-699471/6	Lab Control Sample	100	93	98	102
LCS 480-699604/6	Lab Control Sample	94	89	94	103
LCS 480-699471/18	Lab Control Sample Dup	101	98	99	104
MB 480-699471/8	Method Blank	104	94	101	109
MB 480-699604/8	Method Blank	101	96	101	108

Surrogate Legend
 DCA = 1,2-Dichloroethane-d4 (Surr)
 BFB = 4-Bromofluorobenzene (Surr)
 DBFM = Dibromofluoromethane (Surr)
 TOL = Toluene-d8 (Surr)

Method: 8260C - TCLP Volatiles

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (77-120)	BFB (73-120)	DBFM (75-123)	TOL (80-120)
480-216689-1	LOA-01-01262024	102	91	98	109
480-216689-1 - DL	LOA-01-01262024	102	91	97	105
480-216689-2	LOA-02-01262024	104	94	95	105
480-216689-3	LOA-03-01262024	101	94	100	105
480-216689-4	LOA-04-01262024	100	92	96	106
480-216689-5	LOA-05-01262024	96	98	95	101
480-216689-5 - DL	LOA-05-01262024	99	93	96	104
480-216689-6	LOA-06-01262024	102	92	97	109
480-216689-7	LOA-07-01262024	99	90	98	102
LB 480-699330/1-A	Method Blank	99	99	96	112

Surrogate Legend
 DCA = 1,2-Dichloroethane-d4 (Surr)
 BFB = 4-Bromofluorobenzene (Surr)
 DBFM = Dibromofluoromethane (Surr)
 TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (53-146)	BFB (49-148)	DBFM (60-140)	TOL (50-149)
480-216689-1	LOA-01-01262024	98	99	91	99
480-216689-2	LOA-02-01262024	98	100	93	98
480-216689-3	LOA-03-01262024	96	99	95	100
480-216689-4	LOA-04-01262024	100	98	95	97
480-216689-5	LOA-05-01262024	96	99	92	98
480-216689-6	LOA-06-01262024	100	99	94	99
480-216689-7	LOA-07-01262024	97	98	93	97
LCS 480-699468/1-A	Lab Control Sample	97	97	93	100
MB 480-699468/2-A	Method Blank	97	98	94	98

Surrogate Legend

Surrogate Summary

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

DCA = 1,2-Dichloroethane-d4 (Surr)
 BFB = 4-Bromofluorobenzene (Surr)
 DBFM = Dibromofluoromethane (Surr)
 TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (54-120)	FBP (60-120)	2FP (52-120)	NBZ (53-120)	PHL (54-120)	TPHd14 (79-130)
480-216689-1	LOA-01-01262024	91	95	88	84	86	105
480-216689-1 - DL	LOA-01-01262024	84	95	92	89	89	110
480-216689-2	LOA-02-01262024	88	82	86	80	78	79
480-216689-2 - DL	LOA-02-01262024	197 S1+	99	0 S1-	72	0 S1-	73 S1-
480-216689-3	LOA-03-01262024	66	81	77	78	76	95
480-216689-3 - DL	LOA-03-01262024	74	72	86	70	78	76 S1-
480-216689-4	LOA-04-01262024	45 S1-	83	77	75	82	94
480-216689-4 - DL	LOA-04-01262024	0 S1-	96	104	90	102	94
480-216689-5	LOA-05-01262024	83	89	92	77	85	96
480-216689-5 - DL	LOA-05-01262024	0 S1-	153 S1+	0 S1-	0 S1-	0 S1-	62 S1-
480-216689-6	LOA-06-01262024	71	84	81	75	78	91
480-216689-6 - DL	LOA-06-01262024	64	82	81	70	80	85
480-216689-7	LOA-07-01262024	80	82	87	74	78	77 S1-
480-216689-7 - DL	LOA-07-01262024	0 S1-	99	0 S1-	88	78	78 S1-
LCS 480-699288/2-A	Lab Control Sample	96	84	77	77	81	103
MB 480-699288/1-A	Method Blank	91	85	85	81	85	116

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
 FBP = 2-Fluorobiphenyl (Surr)
 2FP = 2-Fluorophenol (Surr)
 NBZ = Nitrobenzene-d5 (Surr)
 PHL = Phenol-d5 (Surr)
 TPHd14 = p-Terphenyl-d14 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (41-120)	FBP (48-120)	2FP (35-120)	NBZ (46-120)	PHL (22-120)	TPHd14 (60-148)
LCS 480-699487/2-A	Lab Control Sample	100	109	58	107	42	112
LCSD 480-699487/3-A	Lab Control Sample Dup	95	98	55	98	39	106
MB 480-699487/1-A	Method Blank	72	92	51	94	36	98

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
 FBP = 2-Fluorobiphenyl (Surr)
 2FP = 2-Fluorophenol (Surr)
 NBZ = Nitrobenzene-d5 (Surr)
 PHL = Phenol-d5 (Surr)
 TPHd14 = p-Terphenyl-d14 (Surr)

Surrogate Summary

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (41-120)	FBP (48-120)	2FP (35-120)	NBZ (46-120)	PHL (22-120)	TPHd14 (60-148)
480-216689-1	LOA-01-01262024	89	93	54	96	39	94
480-216689-2	LOA-02-01262024	94	97	56	100	42	96
480-216689-3	LOA-03-01262024	90	101	54	100	37	97
480-216689-4	LOA-04-01262024	88	100	55	98	38	84
480-216689-5	LOA-05-01262024	90	94	54	101	40	89
480-216689-6	LOA-06-01262024	91	93	53	96	38	91
480-216689-7	LOA-07-01262024	86	93	34 S1-	94	25	88
LB 480-699329/1-D	Method Blank	85	95	51	97	38	103

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)

FBP = 2-Fluorobiphenyl (Surr)

2FP = 2-Fluorophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

PHL = Phenol-d5 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (20-120)	DCBP2 (20-120)	TCX1 (44-120)	TCX2 (44-120)
LCS 480-699477/2-A	Lab Control Sample	54	61	68	73
LCSD 480-699477/3-A	Lab Control Sample Dup	53	61	61	66
MB 480-699477/1-A	Method Blank	52	60	68	72

Surrogate Legend

DCBP = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (20-120)	DCBP2 (20-120)	TCX1 (44-120)	TCX2 (44-120)
480-216689-1	LOA-01-01262024	68	78	57	71
480-216689-2	LOA-02-01262024	66	76	58	78
480-216689-3	LOA-03-01262024	70	82	63	96
480-216689-4	LOA-04-01262024	68	75	64	69
480-216689-5	LOA-05-01262024	62	69	76	94
480-216689-6	LOA-06-01262024	46	51	45	51
480-216689-7	LOA-07-01262024	64	79	79	85
LB 480-699329/1-C	Method Blank	54	59	51	48

Surrogate Legend

DCBP = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene (Surr)

Surrogate Summary

Client: Inventum Engineering LLC
Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Method: 8151 - TCLP Herbicides

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCPAA1 (21-143)	DCPAA2 (21-143)
LCS 480-699606/2-A	Lab Control Sample	87	83
LCSD 480-699606/3-A	Lab Control Sample Dup	96	80
MB 480-699606/1-A	Method Blank	87	81

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid (Surr)

Method: 8151 - TCLP Herbicides

Matrix: Solid

Prep Type: TCLP

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCPAA1 (21-143)	DCPAA2 (21-143)
480-216689-1	LOA-01-01262024	34	29
480-216689-2	LOA-02-01262024	35	31
480-216689-3	LOA-03-01262024	32	28
480-216689-4	LOA-04-01262024	33	28
480-216689-5	LOA-05-01262024	37	28
480-216689-6	LOA-06-01262024	35	30
480-216689-7	LOA-07-01262024	23	21
LB 480-699329/1-F	Method Blank	36	36

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid (Surr)

Isotope Dilution Summary

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Method: Draft 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Matrix: Solid

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFBA (20-150)	PFPeA (20-150)	13C5PHA (20-150)	C4PFHA (20-150)	C8PFOA (20-150)	C9PFNA (20-150)	C6PFDA (20-150)	13C7PUA (20-150)
480-216689-1	LOA-01-01262024	52	54	57	65	65	66	62	63
LCS 280-641730/3-A	Lab Control Sample	46	69	75	75	76	71	69	73
LCSD 280-641730/4-A	Lab Control Sample Dup	43	74	79	78	83	79	73	71
LLCS 280-641730/2-A	Lab Control Sample	51	75	78	78	78	78	78	73
MB 280-641730/1-A	Method Blank	79	75	77	81	80	74	77	70

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDaA (20-150)	PFTDA (20-150)	C3PFBS (20-150)	C3PFHS (20-150)	C8PFOS (20-150)	PFOSA (20-150)	d3NMFOS (20-150)	d5NEFOS (20-150)
480-216689-1	LOA-01-01262024	57	36	63	63	59	77	85	102
LCS 280-641730/3-A	Lab Control Sample	66	50	74	68	66	76	64	64
LCSD 280-641730/4-A	Lab Control Sample Dup	62	46	76	73	70	83	68	62
LLCS 280-641730/2-A	Lab Control Sample	62	40	75	70	68	77	61	57
MB 280-641730/1-A	Method Blank	63	52	76	78	64	70	60	56

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M242FTS (20-150)	M262FTS (20-150)	M282FTS (20-150)	HFPODA (20-150)	NMFM (20-150)	NEFM (20-150)	d5NPFSA (20-150)	d3NMFSA (20-150)
480-216689-1	LOA-01-01262024	119	134	172 *5+	62	44	39	43	46
LCS 280-641730/3-A	Lab Control Sample	85	82	82	75	51	59	47	49
LCSD 280-641730/4-A	Lab Control Sample Dup	84	87	96	80	53	57	50	54
LLCS 280-641730/2-A	Lab Control Sample	77	77	76	78	51	54	42	45
MB 280-641730/1-A	Method Blank	91	87	79	77	47	53	40	43

Surrogate Legend

- PFBA = 13C4 PFBA
- PFPeA = 13C5 PFPeA
- 13C5PHA = 13C5 PFHxA
- C4PFHA = 13C4 PFHpA
- C8PFOA = 13C8 PFOA
- C9PFNA = 13C9 PFNA
- C6PFDA = 13C6 PFDA
- 13C7PUA = 13C7 PFUnA
- PFDaA = 13C2 PFDaA
- PFTDA = 13C2 PFTeDA
- C3PFBS = 13C3 PFBS
- C3PFHS = 13C3 PFHxS
- C8PFOS = 13C8 PFOS
- PFOSA = 13C8 FOSA
- d3NMFOS = d3-NMeFOSAA
- d5NEFOS = d5-NEtFOSAA
- M242FTS = M2-4:2 FTS
- M262FTS = M2-6:2 FTS
- M282FTS = M2-8:2 FTS
- HFPODA = 13C3 HFPO-DA
- NMFM = d7-N-MeFOSE-M
- NEFM = d9-N-EtFOSE-M
- d5NPFSA = d5-NEtPFOSA
- d3NMFSA = d3-NMePFOSA

QC Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Method: 8260C - TCLP Volatiles

Lab Sample ID: MB 480-699471/8
Matrix: Solid
Analysis Batch: 699471

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		0.0010	0.00029	mg/L			01/31/24 14:51	1
1,2-Dichloroethane	ND		0.0010	0.00021	mg/L			01/31/24 14:51	1
2-Butanone (MEK)	ND		0.0050	0.0013	mg/L			01/31/24 14:51	1
Benzene	ND		0.0010	0.00041	mg/L			01/31/24 14:51	1
Carbon tetrachloride	ND		0.0010	0.00027	mg/L			01/31/24 14:51	1
Chlorobenzene	ND		0.0010	0.00075	mg/L			01/31/24 14:51	1
Chloroform	ND		0.0010	0.00034	mg/L			01/31/24 14:51	1
Tetrachloroethene	ND		0.0010	0.00036	mg/L			01/31/24 14:51	1
Trichloroethene	ND		0.0010	0.00046	mg/L			01/31/24 14:51	1
Vinyl chloride	ND		0.0010	0.00090	mg/L			01/31/24 14:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		01/31/24 14:51	1
4-Bromofluorobenzene (Surr)	94		73 - 120		01/31/24 14:51	1
Dibromofluoromethane (Surr)	101		75 - 123		01/31/24 14:51	1
Toluene-d8 (Surr)	109		80 - 120		01/31/24 14:51	1

Lab Sample ID: LCS 480-699471/6
Matrix: Solid
Analysis Batch: 699471

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	0.0250	0.0266		mg/L		106	66 - 127
1,2-Dichloroethane	0.0250	0.0244		mg/L		98	75 - 120
2-Butanone (MEK)	0.125	0.112		mg/L		89	57 - 140
Benzene	0.0250	0.0259		mg/L		104	71 - 124
Carbon tetrachloride	0.0250	0.0271		mg/L		109	72 - 134
Chlorobenzene	0.0250	0.0241		mg/L		96	80 - 120
Chloroform	0.0250	0.0234		mg/L		93	73 - 127
Tetrachloroethene	0.0250	0.0268		mg/L		107	74 - 122
Trichloroethene	0.0250	0.0255		mg/L		102	74 - 123
Vinyl chloride	0.0250	0.0250		mg/L		100	65 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		77 - 120
4-Bromofluorobenzene (Surr)	93		73 - 120
Dibromofluoromethane (Surr)	98		75 - 123
Toluene-d8 (Surr)	102		80 - 120

Lab Sample ID: LCSD 480-699471/18
Matrix: Solid
Analysis Batch: 699471

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethene	0.0250	0.0273		mg/L		109	66 - 127	3	16
1,2-Dichloroethane	0.0250	0.0261		mg/L		104	75 - 120	7	20
2-Butanone (MEK)	0.125	0.120		mg/L		96	57 - 140	7	20
Benzene	0.0250	0.0264		mg/L		105	71 - 124	2	13

Eurofins Buffalo

QC Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Method: 8260C - TCLP Volatiles (Continued)

Lab Sample ID: LCSD 480-699471/18
Matrix: Solid
Analysis Batch: 699471

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Carbon tetrachloride	0.0250	0.0256		mg/L		103	72 - 134	6	15
Chlorobenzene	0.0250	0.0257		mg/L		103	80 - 120	6	25
Chloroform	0.0250	0.0251		mg/L		100	73 - 127	7	20
Tetrachloroethene	0.0250	0.0268		mg/L		107	74 - 122	0	20
Trichloroethene	0.0250	0.0267		mg/L		107	74 - 123	5	16
Vinyl chloride	0.0250	0.0266		mg/L		106	65 - 133	6	15

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	101		77 - 120
4-Bromofluorobenzene (Surr)	98		73 - 120
Dibromofluoromethane (Surr)	99		75 - 123
Toluene-d8 (Surr)	104		80 - 120

Lab Sample ID: MB 480-699604/8
Matrix: Solid
Analysis Batch: 699604

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		0.0010	0.00029	mg/L			02/01/24 12:49	1
1,2-Dichloroethane	ND		0.0010	0.00021	mg/L			02/01/24 12:49	1
2-Butanone (MEK)	ND		0.0050	0.0013	mg/L			02/01/24 12:49	1
Benzene	ND		0.0010	0.00041	mg/L			02/01/24 12:49	1
Carbon tetrachloride	ND		0.0010	0.00027	mg/L			02/01/24 12:49	1
Chlorobenzene	ND		0.0010	0.00075	mg/L			02/01/24 12:49	1
Chloroform	ND		0.0010	0.00034	mg/L			02/01/24 12:49	1
Tetrachloroethene	ND		0.0010	0.00036	mg/L			02/01/24 12:49	1
Trichloroethene	ND		0.0010	0.00046	mg/L			02/01/24 12:49	1
Vinyl chloride	ND		0.0010	0.00090	mg/L			02/01/24 12:49	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		77 - 120		02/01/24 12:49	1
4-Bromofluorobenzene (Surr)	96		73 - 120		02/01/24 12:49	1
Dibromofluoromethane (Surr)	101		75 - 123		02/01/24 12:49	1
Toluene-d8 (Surr)	108		80 - 120		02/01/24 12:49	1

Lab Sample ID: LCS 480-699604/6
Matrix: Solid
Analysis Batch: 699604

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	0.0250	0.0226		mg/L		90	66 - 127
1,2-Dichloroethane	0.0250	0.0234		mg/L		94	75 - 120
2-Butanone (MEK)	0.125	0.103		mg/L		82	57 - 140
Benzene	0.0250	0.0239		mg/L		96	71 - 124
Carbon tetrachloride	0.0250	0.0223		mg/L		89	72 - 134
Chlorobenzene	0.0250	0.0234		mg/L		94	80 - 120
Chloroform	0.0250	0.0226		mg/L		91	73 - 127
Tetrachloroethene	0.0250	0.0242		mg/L		97	74 - 122

Eurofins Buffalo

QC Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Method: 8260C - TCLP Volatiles (Continued)

Lab Sample ID: LCS 480-699604/6
Matrix: Solid
Analysis Batch: 699604

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Trichloroethene	0.0250	0.0231		mg/L		92	74 - 123
Vinyl chloride	0.0250	0.0225		mg/L		90	65 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	94		77 - 120
4-Bromofluorobenzene (Surr)	89		73 - 120
Dibromofluoromethane (Surr)	94		75 - 123
Toluene-d8 (Surr)	103		80 - 120

Lab Sample ID: LB 480-699330/1-A
Matrix: Solid
Analysis Batch: 699471

Client Sample ID: Method Blank
Prep Type: TCLP

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		0.010	0.0029	mg/L			01/31/24 15:59	10
1,2-Dichloroethane	ND		0.010	0.0021	mg/L			01/31/24 15:59	10
2-Butanone (MEK)	ND		0.050	0.013	mg/L			01/31/24 15:59	10
Benzene	ND		0.010	0.0041	mg/L			01/31/24 15:59	10
Carbon tetrachloride	ND		0.010	0.0027	mg/L			01/31/24 15:59	10
Chlorobenzene	ND		0.010	0.0075	mg/L			01/31/24 15:59	10
Chloroform	ND		0.010	0.0034	mg/L			01/31/24 15:59	10
Tetrachloroethene	ND		0.010	0.0036	mg/L			01/31/24 15:59	10
Trichloroethene	ND		0.010	0.0046	mg/L			01/31/24 15:59	10
Vinyl chloride	ND		0.010	0.0090	mg/L			01/31/24 15:59	10

Surrogate	LB %Recovery	LB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		77 - 120		01/31/24 15:59	10
4-Bromofluorobenzene (Surr)	99		73 - 120		01/31/24 15:59	10
Dibromofluoromethane (Surr)	96		75 - 123		01/31/24 15:59	10
Toluene-d8 (Surr)	112		80 - 120		01/31/24 15:59	10

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-699468/2-A
Matrix: Solid
Analysis Batch: 699465

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 699468

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		100	29	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
1,1,1-Trichloroethane	ND		100	28	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
1,1,2,2-Tetrachloroethane	ND		100	16	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		100	50	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
1,1,2-Trichloroethane	ND		100	21	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
1,1-Dichloroethane	ND		100	31	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
1,1-Dichloroethene	ND		100	35	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
1,1-Dichloropropene	ND		100	25	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
1,2,3-Trichlorobenzene	ND		100	46	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
1,2,3-Trichloropropane	ND		100	22	ug/Kg		01/31/24 08:18	01/31/24 12:37	1

Euromins Buffalo

QC Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-699468/2-A
Matrix: Solid
Analysis Batch: 699465

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 699468

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2,4-Trichlorobenzene	ND		100	38	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
1,2,4-Trimethylbenzene	ND		100	28	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
1,2-Dibromo-3-Chloropropane	ND		100	50	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
1,2-Dibromoethane	ND		100	18	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
1,2-Dichlorobenzene	ND		100	26	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
1,2-Dichloroethane	ND		100	41	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
1,2-Dichloropropane	ND		100	16	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
1,3,5-Trimethylbenzene	ND		100	30	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
1,3-Dichlorobenzene	ND		100	27	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
1,3-Dichloropropane	ND		100	18	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
1,4-Dichlorobenzene	ND		100	14	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
2,2-Dichloropropane	ND		100	23	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
2-Butanone (MEK)	ND		500	300	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
2-Chlorotoluene	ND		100	38	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
2-Hexanone	ND		500	210	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
4-Chlorotoluene	ND		100	20	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
4-Isopropyltoluene	ND		100	34	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
4-Methyl-2-pentanone (MIBK)	ND		500	32	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
Acetone	ND		500	410	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
Benzene	ND		100	19	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
Bromobenzene	ND		100	22	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
Bromodichloromethane	ND		100	20	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
Bromoform	ND		100	50	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
Bromomethane	ND		100	22	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
Carbon disulfide	ND		100	46	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
Carbon tetrachloride	ND		100	26	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
Chlorobenzene	ND		100	13	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
Chlorobromomethane	ND		100	36	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
Chloroethane	ND		100	21	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
Chloroform	ND		100	69	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
Chloromethane	ND		100	24	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
cis-1,2-Dichloroethene	ND		100	28	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
cis-1,3-Dichloropropene	ND		100	24	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
Cyclohexane	ND		100	22	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
Dibromochloromethane	ND		100	48	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
Dibromomethane	ND		100	33	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
Dichlorodifluoromethane	ND		100	44	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
Dichlorofluoromethane	ND		100	20	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
Ethylbenzene	ND		100	29	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
Hexachlorobutadiene	ND		100	40	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
Isopropylbenzene	ND		100	15	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
m,p-Xylene	ND		200	55	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
Methyl acetate	ND		500	48	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
Methyl tert-butyl ether	ND		100	38	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
Methylcyclohexane	ND		100	47	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
Methylene Chloride	ND		100	20	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
Naphthalene	ND		100	34	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
n-Butylbenzene	ND		100	29	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
N-Propylbenzene	ND		100	26	ug/Kg		01/31/24 08:18	01/31/24 12:37	1

Eurofins Buffalo

QC Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-699468/2-A
Matrix: Solid
Analysis Batch: 699465

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 699468

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		100	13	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
sec-Butylbenzene	ND		100	37	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
Styrene	ND		100	24	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
tert-Butylbenzene	ND		100	28	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
Tetrachloroethene	ND		100	13	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
Toluene	ND		100	27	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
trans-1,2-Dichloroethene	ND		100	24	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
trans-1,3-Dichloropropene	ND		100	9.8	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
Trichloroethene	ND		100	28	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
Trichlorofluoromethane	ND		100	47	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
Vinyl chloride	ND		100	34	ug/Kg		01/31/24 08:18	01/31/24 12:37	1
Xylenes, Total	ND		200	55	ug/Kg		01/31/24 08:18	01/31/24 12:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		53 - 146	01/31/24 08:18	01/31/24 12:37	1
4-Bromofluorobenzene (Surr)	98		49 - 148	01/31/24 08:18	01/31/24 12:37	1
Dibromofluoromethane (Surr)	94		60 - 140	01/31/24 08:18	01/31/24 12:37	1
Toluene-d8 (Surr)	98		50 - 149	01/31/24 08:18	01/31/24 12:37	1

Lab Sample ID: LCS 480-699468/1-A
Matrix: Solid
Analysis Batch: 699465

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 699468

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,1,1,2-Tetrachloroethane	2500	2630		ug/Kg		105	78 - 120
1,1,1-Trichloroethane	2500	2410		ug/Kg		96	68 - 130
1,1,2,2-Tetrachloroethane	2500	2460		ug/Kg		98	73 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	2500	2180		ug/Kg		87	10 - 179
1,1,2-Trichloroethane	2500	2440		ug/Kg		98	80 - 120
1,1-Dichloroethane	2500	2440		ug/Kg		98	78 - 121
1,1-Dichloroethene	2500	2120		ug/Kg		85	48 - 133
1,1-Dichloropropene	2500	2450		ug/Kg		98	75 - 121
1,2,3-Trichlorobenzene	2500	2720		ug/Kg		109	57 - 150
1,2,3-Trichloropropane	2500	2280		ug/Kg		91	75 - 120
1,2,4-Trichlorobenzene	2500	2850		ug/Kg		114	70 - 140
1,2,4-Trimethylbenzene	2500	2770		ug/Kg		111	77 - 127
1,2-Dibromo-3-Chloropropane	2500	2050		ug/Kg		82	56 - 122
1,2-Dibromoethane	2500	2420		ug/Kg		97	80 - 120
1,2-Dichlorobenzene	2500	2540		ug/Kg		102	78 - 125
1,2-Dichloroethane	2500	2260		ug/Kg		90	74 - 127
1,2-Dichloropropane	2500	2440		ug/Kg		98	80 - 120
1,3,5-Trimethylbenzene	2500	2780		ug/Kg		111	79 - 120
1,3-Dichlorobenzene	2500	2580		ug/Kg		103	80 - 120
1,3-Dichloropropane	2500	2460		ug/Kg		99	80 - 120
1,4-Dichlorobenzene	2500	2520		ug/Kg		101	80 - 120
2,2-Dichloropropane	2500	2550		ug/Kg		102	58 - 142
2-Butanone (MEK)	12500	12700		ug/Kg		102	54 - 149
2-Chlorotoluene	2500	2690		ug/Kg		108	72 - 122

Eurofins Buffalo

QC Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-699468/1-A
Matrix: Solid
Analysis Batch: 699465

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 699468

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Hexanone	12500	12500		ug/Kg		100	59 - 127
4-Chlorotoluene	2500	2560		ug/Kg		102	73 - 124
4-Isopropyltoluene	2500	2840		ug/Kg		114	80 - 120
4-Methyl-2-pentanone (MIBK)	12500	11400		ug/Kg		92	74 - 120
Acetone	12500	12400		ug/Kg		99	47 - 141
Benzene	2500	2390		ug/Kg		96	77 - 125
Bromobenzene	2500	2500		ug/Kg		100	78 - 120
Bromodichloromethane	2500	2340		ug/Kg		94	71 - 121
Bromoform	2500	2770		ug/Kg		111	48 - 125
Bromomethane	2500	2060		ug/Kg		82	39 - 149
Carbon disulfide	2500	2120		ug/Kg		85	40 - 136
Carbon tetrachloride	2500	2470		ug/Kg		99	54 - 135
Chlorobenzene	2500	2480		ug/Kg		99	76 - 126
Chlorobromomethane	2500	2170		ug/Kg		87	79 - 120
Chloroethane	2500	2400		ug/Kg		96	23 - 150
Chloroform	2500	2310		ug/Kg		92	78 - 120
Chloromethane	2500	2410		ug/Kg		96	61 - 124
cis-1,2-Dichloroethene	2500	2380		ug/Kg		95	79 - 124
cis-1,3-Dichloropropene	2500	2380		ug/Kg		95	75 - 121
Cyclohexane	2500	2500		ug/Kg		100	49 - 129
Dibromochloromethane	2500	2520		ug/Kg		101	64 - 120
Dibromomethane	2500	2190		ug/Kg		88	79 - 120
Dichlorodifluoromethane	2500	2060		ug/Kg		82	10 - 150
Dichlorofluoromethane	2500	2340		ug/Kg		94	24 - 131
Ethylbenzene	2500	2580		ug/Kg		103	78 - 124
Hexachlorobutadiene	2500	2790		ug/Kg		112	61 - 149
Isopropylbenzene	2500	2780		ug/Kg		111	76 - 120
m,p-Xylene	2500	2500		ug/Kg		100	77 - 125
Methyl acetate	5000	4820		ug/Kg		96	71 - 123
Methyl tert-butyl ether	2500	2220		ug/Kg		89	67 - 137
Methylcyclohexane	2500	2330		ug/Kg		93	50 - 130
Methylene Chloride	2500	2280		ug/Kg		91	75 - 118
Naphthalene	2500	2600		ug/Kg		104	65 - 142
n-Butylbenzene	2500	2950		ug/Kg		118	80 - 120
N-Propylbenzene	2500	2800		ug/Kg		112	76 - 120
o-Xylene	2500	2540		ug/Kg		102	80 - 124
sec-Butylbenzene	2500	2830		ug/Kg		113	79 - 120
Styrene	2500	2590		ug/Kg		104	80 - 120
tert-Butylbenzene	2500	2740		ug/Kg		110	78 - 120
Tetrachloroethene	2500	2580		ug/Kg		103	73 - 133
Toluene	2500	2560		ug/Kg		102	75 - 124
trans-1,2-Dichloroethene	2500	2400		ug/Kg		96	74 - 129
trans-1,3-Dichloropropene	2500	2280		ug/Kg		91	73 - 120
Trichloroethene	2500	2400		ug/Kg		96	75 - 131
Trichlorofluoromethane	2500	2020		ug/Kg		81	29 - 158
Vinyl chloride	2500	2230		ug/Kg		89	59 - 124
Xylenes, Total	5000	5040		ug/Kg		101	78 - 125

QC Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-699468/1-A
Matrix: Solid
Analysis Batch: 699465

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 699468

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	97		53 - 146
4-Bromofluorobenzene (Surr)	97		49 - 148
Dibromofluoromethane (Surr)	93		60 - 140
Toluene-d8 (Surr)	100		50 - 149

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-699288/1-A
Matrix: Solid
Analysis Batch: 699396

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 699288

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,4-Dioxane	ND		97	53	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
2,4,5-Trichlorophenol	ND		170	45	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
2,4,6-Trichlorophenol	ND		170	33	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
2,4-Dichlorophenol	ND		170	17	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
2,4-Dimethylphenol	ND		170	40	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
2,4-Dinitrophenol	ND		1600	760	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
2,4-Dinitrotoluene	ND		170	34	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
2,6-Dinitrotoluene	ND		170	19	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
2-Chloronaphthalene	ND		170	27	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
2-Chlorophenol	ND		320	30	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
2-Methylnaphthalene	ND		170	33	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
2-Methylphenol	ND		170	19	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
2-Nitroaniline	ND		320	24	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
2-Nitrophenol	ND		170	47	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
3,3'-Dichlorobenzidine	ND		320	190	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
3-Nitroaniline	ND		320	46	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
4,6-Dinitro-2-methylphenol	ND		320	170	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
4-Bromophenyl phenyl ether	ND		170	23	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
4-Chloro-3-methylphenol	ND		170	41	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
4-Chloroaniline	ND		170	41	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
4-Chlorophenyl phenyl ether	ND		170	20	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
4-Methylphenol	ND		320	19	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
4-Nitroaniline	ND		320	86	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
4-Nitrophenol	ND		320	120	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Acenaphthene	ND		170	24	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Acenaphthylene	ND		170	21	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Acetophenone	ND		170	22	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Anthracene	ND		170	41	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Atrazine	ND		170	57	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Benzaldehyde	ND		170	130	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Benzo[a]anthracene	ND		170	17	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Benzo[a]pyrene	ND		170	24	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Benzo[b]fluoranthene	ND		170	26	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Benzo[g,h,i]perylene	ND		170	17	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Benzo[k]fluoranthene	ND		170	21	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Biphenyl	ND		170	24	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
bis (2-chloroisopropyl) ether	ND		170	33	ug/Kg		01/29/24 16:09	01/30/24 17:10	1

Eurofins Buffalo

QC Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-699288/1-A
Matrix: Solid
Analysis Batch: 699396

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 699288

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Bis(2-chloroethoxy)methane	ND		170	35	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Bis(2-chloroethyl)ether	ND		170	21	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Bis(2-ethylhexyl) phthalate	ND		170	56	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Butyl benzyl phthalate	ND		170	27	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Caprolactam	ND		170	50	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Carbazole	ND		170	19	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Chrysene	ND		170	37	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Dibenz(a,h)anthracene	ND		170	29	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Dibenzofuran	ND		170	19	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Diethyl phthalate	ND		170	21	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Dimethyl phthalate	ND		170	19	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Di-n-butyl phthalate	ND		170	28	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Di-n-octyl phthalate	ND		170	19	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Fluoranthene	ND		170	17	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Fluorene	ND		170	19	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Hexachlorobenzene	ND		170	22	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Hexachlorobutadiene	ND		170	24	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Hexachlorocyclopentadiene	ND		170	22	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Hexachloroethane	ND		170	21	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Indeno[1,2,3-cd]pyrene	ND		170	20	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Isophorone	ND		170	35	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Naphthalene	ND		170	21	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Nitrobenzene	ND		170	18	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
N-Nitrosodi-n-propylamine	ND		170	28	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
N-Nitrosodiphenylamine	ND		170	130	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Pentachlorophenol	ND		320	170	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Phenanthrene	ND		170	24	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Phenol	ND		170	25	ug/Kg		01/29/24 16:09	01/30/24 17:10	1
Pyrene	ND		170	19	ug/Kg		01/29/24 16:09	01/30/24 17:10	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2,4,6-Tribromophenol (Surr)	91		54 - 120	01/29/24 16:09	01/30/24 17:10	1
2-Fluorobiphenyl (Surr)	85		60 - 120	01/29/24 16:09	01/30/24 17:10	1
2-Fluorophenol (Surr)	85		52 - 120	01/29/24 16:09	01/30/24 17:10	1
Nitrobenzene-d5 (Surr)	81		53 - 120	01/29/24 16:09	01/30/24 17:10	1
Phenol-d5 (Surr)	85		54 - 120	01/29/24 16:09	01/30/24 17:10	1
p-Terphenyl-d14 (Surr)	116		79 - 130	01/29/24 16:09	01/30/24 17:10	1

Lab Sample ID: LCS 480-699288/2-A
Matrix: Solid
Analysis Batch: 699396

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 699288

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4,5-Trichlorophenol	1650	1310		ug/Kg		79	59 - 126
2,4,6-Trichlorophenol	1650	1370		ug/Kg		83	59 - 123
2,4-Dichlorophenol	1650	1310		ug/Kg		79	61 - 120
2,4-Dimethylphenol	1650	1140		ug/Kg		69	59 - 120

Eurofins Buffalo

QC Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-699288/2-A
Matrix: Solid
Analysis Batch: 699396

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 699288

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4-Dinitrophenol	3290	2350		ug/Kg		71	41 - 146
2,4-Dinitrotoluene	1650	1270		ug/Kg		77	63 - 120
2,6-Dinitrotoluene	1650	1360		ug/Kg		82	66 - 120
2-Chloronaphthalene	1650	1320		ug/Kg		80	57 - 120
2-Chlorophenol	1650	1210		ug/Kg		73	53 - 120
2-Methylnaphthalene	1650	1350		ug/Kg		82	59 - 120
2-Methylphenol	1650	1380		ug/Kg		84	54 - 120
2-Nitroaniline	1650	1290		ug/Kg		78	61 - 120
2-Nitrophenol	1650	1250		ug/Kg		76	56 - 120
3,3'-Dichlorobenzidine	3290	3030		ug/Kg		92	54 - 120
3-Nitroaniline	1650	1040		ug/Kg		63	48 - 120
4,6-Dinitro-2-methylphenol	3290	2700		ug/Kg		82	49 - 122
4-Bromophenyl phenyl ether	1650	1410		ug/Kg		86	58 - 120
4-Chloro-3-methylphenol	1650	1290		ug/Kg		79	61 - 120
4-Chloroaniline	1650	1060		ug/Kg		64	38 - 120
4-Chlorophenyl phenyl ether	1650	1350		ug/Kg		82	63 - 124
4-Methylphenol	1650	1280		ug/Kg		78	55 - 120
4-Nitroaniline	1650	1150		ug/Kg		70	56 - 120
4-Nitrophenol	3290	2250		ug/Kg		68	43 - 147
Acenaphthene	1650	1370		ug/Kg		83	62 - 120
Acenaphthylene	1650	1280		ug/Kg		78	58 - 121
Acetophenone	1650	1370		ug/Kg		83	54 - 120
Anthracene	1650	1420		ug/Kg		86	62 - 120
Atrazine	3290	2830		ug/Kg		86	60 - 127
Benzaldehyde	3290	2590		ug/Kg		79	10 - 150
Benzo[a]anthracene	1650	1480		ug/Kg		90	65 - 120
Benzo[a]pyrene	1650	1540		ug/Kg		93	64 - 120
Benzo[b]fluoranthene	1650	1460		ug/Kg		88	64 - 120
Benzo[g,h,i]perylene	1650	1260		ug/Kg		77	45 - 145
Benzo[k]fluoranthene	1650	1660		ug/Kg		100	65 - 120
Biphenyl	1650	1360		ug/Kg		82	59 - 120
bis (2-chloroisopropyl) ether	1650	1040		ug/Kg		63	44 - 120
Bis(2-chloroethoxy)methane	1650	1260		ug/Kg		76	55 - 120
Bis(2-chloroethyl)ether	1650	1220		ug/Kg		74	45 - 120
Bis(2-ethylhexyl) phthalate	1650	1610		ug/Kg		97	61 - 133
Butyl benzyl phthalate	1650	1530		ug/Kg		93	61 - 129
Caprolactam	3290	2570		ug/Kg		78	47 - 120
Carbazole	1650	1330		ug/Kg		81	65 - 120
Chrysene	1650	1470		ug/Kg		89	64 - 120
Dibenz(a,h)anthracene	1650	1430		ug/Kg		87	54 - 132
Dibenzofuran	1650	1340		ug/Kg		81	63 - 120
Diethyl phthalate	1650	1280		ug/Kg		78	66 - 120
Dimethyl phthalate	1650	1330		ug/Kg		81	65 - 124
Di-n-butyl phthalate	1650	1480		ug/Kg		90	58 - 130
Di-n-octyl phthalate	1650	1630		ug/Kg		99	57 - 133
Fluoranthene	1650	1350		ug/Kg		82	62 - 120
Fluorene	1650	1330		ug/Kg		81	63 - 120
Hexachlorobenzene	1650	1510		ug/Kg		92	60 - 120
Hexachlorobutadiene	1650	1290		ug/Kg		79	45 - 120

Eurofins Buffalo

QC Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-699288/2-A
Matrix: Solid
Analysis Batch: 699396

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 699288

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexachlorocyclopentadiene	1650	1270		ug/Kg		77	47 - 120
Hexachloroethane	1650	1230		ug/Kg		75	41 - 120
Indeno[1,2,3-cd]pyrene	1650	1460		ug/Kg		89	56 - 134
Isophorone	1650	1350		ug/Kg		82	56 - 120
Naphthalene	1650	1270		ug/Kg		77	55 - 120
Nitrobenzene	1650	1140		ug/Kg		69	54 - 120
N-Nitrosodi-n-propylamine	1650	1340		ug/Kg		81	52 - 120
N-Nitrosodiphenylamine	1650	1430		ug/Kg		87	51 - 128
Pentachlorophenol	3290	2560		ug/Kg		78	10 - 120
Phenanthrene	1650	1400		ug/Kg		85	60 - 120
Phenol	1650	1270		ug/Kg		77	53 - 120
Pyrene	1650	1590		ug/Kg		96	61 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	96		54 - 120
2-Fluorobiphenyl (Surr)	84		60 - 120
2-Fluorophenol (Surr)	77		52 - 120
Nitrobenzene-d5 (Surr)	77		53 - 120
Phenol-d5 (Surr)	81		54 - 120
p-Terphenyl-d14 (Surr)	103		79 - 130

Lab Sample ID: MB 480-699487/1-A
Matrix: Solid
Analysis Batch: 699589

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 699487

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.010	0.00045	mg/L		01/31/24 09:21	02/01/24 12:58	1
2,4,5-Trichlorophenol	ND		0.0050	0.00048	mg/L		01/31/24 09:21	02/01/24 12:58	1
2,4,6-Trichlorophenol	ND		0.0050	0.00060	mg/L		01/31/24 09:21	02/01/24 12:58	1
2,4-Dinitrotoluene	ND		0.0050	0.00043	mg/L		01/31/24 09:21	02/01/24 12:58	1
3-Methylphenol	ND		0.010	0.00040	mg/L		01/31/24 09:21	02/01/24 12:58	1
2-Methylphenol	ND		0.0050	0.00040	mg/L		01/31/24 09:21	02/01/24 12:58	1
Pyridine	ND		0.025	0.00040	mg/L		01/31/24 09:21	02/01/24 12:58	1
4-Methylphenol	ND		0.010	0.00035	mg/L		01/31/24 09:21	02/01/24 12:58	1
Hexachlorobenzene	ND		0.0050	0.00050	mg/L		01/31/24 09:21	02/01/24 12:58	1
Hexachlorobutadiene	ND		0.0050	0.00068	mg/L		01/31/24 09:21	02/01/24 12:58	1
Hexachloroethane	ND		0.0050	0.00058	mg/L		01/31/24 09:21	02/01/24 12:58	1
Nitrobenzene	ND		0.0050	0.00028	mg/L		01/31/24 09:21	02/01/24 12:58	1
Pentachlorophenol	ND		0.010	0.0022	mg/L		01/31/24 09:21	02/01/24 12:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	72		41 - 120	01/31/24 09:21	02/01/24 12:58	1
2-Fluorobiphenyl (Surr)	92		48 - 120	01/31/24 09:21	02/01/24 12:58	1
2-Fluorophenol (Surr)	51		35 - 120	01/31/24 09:21	02/01/24 12:58	1
Nitrobenzene-d5 (Surr)	94		46 - 120	01/31/24 09:21	02/01/24 12:58	1
Phenol-d5 (Surr)	36		22 - 120	01/31/24 09:21	02/01/24 12:58	1
p-Terphenyl-d14 (Surr)	98		60 - 148	01/31/24 09:21	02/01/24 12:58	1

Eurofins Buffalo

QC Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-699487/2-A

Matrix: Solid

Analysis Batch: 699589

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 699487

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dichlorobenzene	0.0500	0.0357		mg/L		71	42 - 120
2,4,5-Trichlorophenol	0.0500	0.0501		mg/L		100	65 - 126
2,4,6-Trichlorophenol	0.0500	0.0523		mg/L		105	64 - 120
2,4-Dinitrotoluene	0.0500	0.0516		mg/L		103	69 - 120
3-Methylphenol	0.0500	0.0394		mg/L		79	39 - 120
2-Methylphenol	0.0500	0.0413		mg/L		83	39 - 120
Pyridine	0.100	0.0378		mg/L		38	10 - 120
4-Methylphenol	0.0500	0.0394		mg/L		79	29 - 131
Hexachlorobenzene	0.0500	0.0510		mg/L		102	61 - 120
Hexachlorobutadiene	0.0500	0.0344		mg/L		69	35 - 120
Hexachloroethane	0.0500	0.0333		mg/L		67	33 - 120
Nitrobenzene	0.0500	0.0508		mg/L		102	53 - 123
Pentachlorophenol	0.100	0.0918		mg/L		92	10 - 136

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	100		41 - 120
2-Fluorobiphenyl (Surr)	109		48 - 120
2-Fluorophenol (Surr)	58		35 - 120
Nitrobenzene-d5 (Surr)	107		46 - 120
Phenol-d5 (Surr)	42		22 - 120
p-Terphenyl-d14 (Surr)	112		60 - 148

Lab Sample ID: LCSD 480-699487/3-A

Matrix: Solid

Analysis Batch: 699589

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 699487

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	
								RPD	Limit
1,4-Dichlorobenzene	0.0500	0.0344		mg/L		69	42 - 120	4	36
2,4,5-Trichlorophenol	0.0500	0.0484		mg/L		97	65 - 126	3	18
2,4,6-Trichlorophenol	0.0500	0.0484		mg/L		97	64 - 120	8	19
2,4-Dinitrotoluene	0.0500	0.0496		mg/L		99	69 - 120	4	20
3-Methylphenol	0.0500	0.0388		mg/L		78	39 - 120	2	30
2-Methylphenol	0.0500	0.0403		mg/L		81	39 - 120	2	27
Pyridine	0.100	0.0406		mg/L		41	10 - 120	7	49
4-Methylphenol	0.0500	0.0388		mg/L		78	29 - 131	1	24
Hexachlorobenzene	0.0500	0.0468		mg/L		94	61 - 120	9	15
Hexachlorobutadiene	0.0500	0.0313		mg/L		63	35 - 120	9	44
Hexachloroethane	0.0500	0.0305		mg/L		61	33 - 120	9	46
Nitrobenzene	0.0500	0.0475		mg/L		95	53 - 123	7	24
Pentachlorophenol	0.100	0.0873		mg/L		87	10 - 136	5	37

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	95		41 - 120
2-Fluorobiphenyl (Surr)	98		48 - 120
2-Fluorophenol (Surr)	55		35 - 120
Nitrobenzene-d5 (Surr)	98		46 - 120
Phenol-d5 (Surr)	39		22 - 120
p-Terphenyl-d14 (Surr)	106		60 - 148

Eurofins Buffalo

QC Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: LB 480-699329/1-D
Matrix: Solid
Analysis Batch: 699589

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 699487

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.040	0.0018	mg/L		01/31/24 09:21	02/01/24 14:10	1
2,4,5-Trichlorophenol	ND		0.020	0.0019	mg/L		01/31/24 09:21	02/01/24 14:10	1
2,4,6-Trichlorophenol	ND		0.020	0.0024	mg/L		01/31/24 09:21	02/01/24 14:10	1
2,4-Dinitrotoluene	ND		0.020	0.0017	mg/L		01/31/24 09:21	02/01/24 14:10	1
3-Methylphenol	ND		0.040	0.0016	mg/L		01/31/24 09:21	02/01/24 14:10	1
2-Methylphenol	ND		0.020	0.0016	mg/L		01/31/24 09:21	02/01/24 14:10	1
Pyridine	ND		0.10	0.0016	mg/L		01/31/24 09:21	02/01/24 14:10	1
4-Methylphenol	ND		0.040	0.0014	mg/L		01/31/24 09:21	02/01/24 14:10	1
Hexachlorobenzene	ND		0.020	0.0020	mg/L		01/31/24 09:21	02/01/24 14:10	1
Hexachlorobutadiene	ND		0.020	0.0027	mg/L		01/31/24 09:21	02/01/24 14:10	1
Hexachloroethane	ND		0.020	0.0023	mg/L		01/31/24 09:21	02/01/24 14:10	1
Nitrobenzene	ND		0.020	0.0011	mg/L		01/31/24 09:21	02/01/24 14:10	1
Pentachlorophenol	ND		0.040	0.0088	mg/L		01/31/24 09:21	02/01/24 14:10	1

Surrogate	LB %Recovery	LB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	85		41 - 120	01/31/24 09:21	02/01/24 14:10	1
2-Fluorobiphenyl (Surr)	95		48 - 120	01/31/24 09:21	02/01/24 14:10	1
2-Fluorophenol (Surr)	51		35 - 120	01/31/24 09:21	02/01/24 14:10	1
Nitrobenzene-d5 (Surr)	97		46 - 120	01/31/24 09:21	02/01/24 14:10	1
Phenol-d5 (Surr)	38		22 - 120	01/31/24 09:21	02/01/24 14:10	1
p-Terphenyl-d14 (Surr)	103		60 - 148	01/31/24 09:21	02/01/24 14:10	1

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 480-699477/1-A
Matrix: Solid
Analysis Batch: 699458

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 699477

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	ND		0.00050	0.0000073	mg/L		01/31/24 09:17	01/31/24 14:17	1
Endrin	ND		0.000050	0.0000035	mg/L		01/31/24 09:17	01/31/24 14:17	1
gamma-BHC (Lindane)	ND		0.000050	0.0000015	mg/L		01/31/24 09:17	01/31/24 14:17	1
Heptachlor	ND		0.000050	0.0000021	mg/L		01/31/24 09:17	01/31/24 14:17	1
Heptachlor epoxide	ND		0.000050	0.0000013	mg/L		01/31/24 09:17	01/31/24 14:17	1
Methoxychlor	ND		0.000050	0.0000035	mg/L		01/31/24 09:17	01/31/24 14:17	1
Toxaphene	ND		0.000050	0.0000030	mg/L		01/31/24 09:17	01/31/24 14:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	52		20 - 120	01/31/24 09:17	01/31/24 14:17	1
DCB Decachlorobiphenyl (Surr)	60		20 - 120	01/31/24 09:17	01/31/24 14:17	1
Tetrachloro-m-xylene (Surr)	68		44 - 120	01/31/24 09:17	01/31/24 14:17	1
Tetrachloro-m-xylene (Surr)	72		44 - 120	01/31/24 09:17	01/31/24 14:17	1

QC Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 480-699477/2-A
Matrix: Solid
Analysis Batch: 699458

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 699477

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Endrin	0.000500	0.000457		mg/L		91	65 - 135
gamma-BHC (Lindane)	0.000500	0.000381		mg/L		76	56 - 120
Heptachlor	0.000500	0.000375		mg/L		75	58 - 120
Heptachlor epoxide	0.000500	0.000445		mg/L		89	65 - 125
Methoxychlor	0.000500	0.000413		mg/L		83	50 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	54		20 - 120
DCB Decachlorobiphenyl (Surr)	61		20 - 120
Tetrachloro-m-xylene (Surr)	68		44 - 120
Tetrachloro-m-xylene (Surr)	73		44 - 120

Lab Sample ID: LCSD 480-699477/3-A
Matrix: Solid
Analysis Batch: 699458

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 699477

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Endrin	0.000500	0.000467		mg/L		93	65 - 135	2	24
gamma-BHC (Lindane)	0.000500	0.000388		mg/L		78	56 - 120	2	24
Heptachlor	0.000500	0.000378		mg/L		76	58 - 120	1	25
Heptachlor epoxide	0.000500	0.000452		mg/L		90	65 - 125	1	23
Methoxychlor	0.000500	0.000418		mg/L		84	50 - 150	1	26

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	53		20 - 120
DCB Decachlorobiphenyl (Surr)	61		20 - 120
Tetrachloro-m-xylene (Surr)	61		44 - 120
Tetrachloro-m-xylene (Surr)	66		44 - 120

Lab Sample ID: LB 480-699329/1-C
Matrix: Solid
Analysis Batch: 699458

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 699477

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	ND		0.0020	0.000029	mg/L		01/31/24 09:17	01/31/24 15:35	1
Endrin	ND		0.00020	0.000014	mg/L		01/31/24 09:17	01/31/24 15:35	1
gamma-BHC (Lindane)	ND		0.00020	0.0000060	mg/L		01/31/24 09:17	01/31/24 15:35	1
Heptachlor	ND		0.00020	0.0000085	mg/L		01/31/24 09:17	01/31/24 15:35	1
Heptachlor epoxide	ND		0.00020	0.0000053	mg/L		01/31/24 09:17	01/31/24 15:35	1
Methoxychlor	ND		0.00020	0.000014	mg/L		01/31/24 09:17	01/31/24 15:35	1
Toxaphene	ND		0.0020	0.00012	mg/L		01/31/24 09:17	01/31/24 15:35	1

Surrogate	LB %Recovery	LB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	54		20 - 120	01/31/24 09:17	01/31/24 15:35	1
DCB Decachlorobiphenyl (Surr)	59		20 - 120	01/31/24 09:17	01/31/24 15:35	1
Tetrachloro-m-xylene (Surr)	51		44 - 120	01/31/24 09:17	01/31/24 15:35	1
Tetrachloro-m-xylene (Surr)	48		44 - 120	01/31/24 09:17	01/31/24 15:35	1

Eurofins Buffalo

QC Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Method: 8151 - TCLP Herbicides

Lab Sample ID: MB 480-699606/1-A
Matrix: Solid
Analysis Batch: 699733

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 699606

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		0.00050	0.00010	mg/L		02/01/24 09:04	02/02/24 12:59	1
Silvex (2,4,5-TP)	ND		0.00050	0.000090	mg/L		02/01/24 09:04	02/02/24 12:59	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr)	87		21 - 143				02/01/24 09:04	02/02/24 12:59	1
2,4-Dichlorophenylacetic acid (Surr)	81		21 - 143				02/01/24 09:04	02/02/24 12:59	1

Lab Sample ID: LCS 480-699606/2-A
Matrix: Solid
Analysis Batch: 699733

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 699606

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4-D	0.00200	0.00179		mg/L		89	36 - 150
Silvex (2,4,5-TP)	0.00200	0.00164		mg/L		82	49 - 150
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
2,4-Dichlorophenylacetic acid (Surr)	87		21 - 143				
2,4-Dichlorophenylacetic acid (Surr)	83		21 - 143				

Lab Sample ID: LCSD 480-699606/3-A
Matrix: Solid
Analysis Batch: 699733

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 699606

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4-D	0.00200	0.00180		mg/L		90	36 - 150	1	50
Silvex (2,4,5-TP)	0.00200	0.00165		mg/L		83	49 - 150	1	50
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
2,4-Dichlorophenylacetic acid (Surr)	96		21 - 143						
2,4-Dichlorophenylacetic acid (Surr)	80		21 - 143						

Lab Sample ID: LB 480-699329/1-F
Matrix: Solid
Analysis Batch: 699733

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 699606

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		0.0020	0.00040	mg/L		02/01/24 09:04	02/02/24 14:29	1
Silvex (2,4,5-TP)	ND		0.0020	0.00036	mg/L		02/01/24 09:04	02/02/24 14:29	1
Surrogate	LB %Recovery	LB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr)	36		21 - 143				02/01/24 09:04	02/02/24 14:29	1
2,4-Dichlorophenylacetic acid (Surr)	36		21 - 143				02/01/24 09:04	02/02/24 14:29	1

Eurofins Buffalo

QC Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Method: Draft 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Lab Sample ID: MB 280-641730/1-A
Matrix: Solid
Analysis Batch: 642314

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 641730

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.73	0.034	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
Perfluoropentanoic acid (PFPeA)	ND		0.36	0.019	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
Perfluorohexanoic acid (PFHxA)	ND		0.18	0.019	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
Perfluoroheptanoic acid (PFHpA)	ND		0.18	0.020	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
Perfluorooctanoic acid (PFOA)	ND		0.18	0.038	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
Perfluorononanoic acid (PFNA)	ND		0.18	0.011	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
Perfluorodecanoic acid (PFDA)	ND		0.18	0.068	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
Perfluoroundecanoic acid (PFUnA)	ND		0.18	0.025	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
Perfluorododecanoic acid (PFDoA)	ND		0.18	0.051	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
Perfluorotridecanoic acid (PFTriA)	ND		0.18	0.025	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.18	0.015	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.18	0.013	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.18	0.012	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.18	0.018	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.18	0.025	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.18	0.051	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
Perfluorononanesulfonic acid (PFNS)	ND		0.18	0.025	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.18	0.018	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
Perfluorododecanesulfonic acid (PFDoS)	ND		0.18	0.015	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
4:2 FTS	ND		0.73	0.070	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
6:2 FTS	ND		0.73	0.44	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
8:2 FTS	ND		0.73	0.11	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.18	0.011	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
NMeFOSA	ND		0.18	0.022	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
NEtFOSA	ND		0.18	0.028	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
NMeFOSAA	ND		0.18	0.023	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
NEtFOSAA	ND		0.18	0.022	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
NMeFOSE	ND		1.8	0.090	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
NEtFOSE	ND		1.8	0.10	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
HFPO-DA (GenX)	ND		0.73	0.085	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.73	0.074	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
PFMBA	ND		0.36	0.017	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
NFDHA	ND		0.36	0.044	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
PFMPA	ND		0.36	0.083	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
9Cl-PF3ONS	ND		0.73	0.046	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
11Cl-PF3OUdS	ND		0.73	0.11	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
PFEESA	ND		0.36	0.036	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
3:3 FTCA	ND		0.91	0.16	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
5:3 FTCA	ND		4.5	0.33	ug/Kg		02/05/24 08:14	02/08/24 00:52	1
7:3 FTCA	ND		4.5	0.28	ug/Kg		02/05/24 08:14	02/08/24 00:52	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	79		20 - 150	02/05/24 08:14	02/08/24 00:52	1
13C5 PFPeA	75		20 - 150	02/05/24 08:14	02/08/24 00:52	1
13C5 PFHxA	77		20 - 150	02/05/24 08:14	02/08/24 00:52	1

Eurofins Buffalo

QC Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Method: Draft 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 280-641730/1-A
Matrix: Solid
Analysis Batch: 642314

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 641730

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C4 PFHpA	81		20 - 150	02/05/24 08:14	02/08/24 00:52	1
13C8 PFOA	80		20 - 150	02/05/24 08:14	02/08/24 00:52	1
13C9 PFNA	74		20 - 150	02/05/24 08:14	02/08/24 00:52	1
13C6 PFDA	77		20 - 150	02/05/24 08:14	02/08/24 00:52	1
13C7 PFUnA	70		20 - 150	02/05/24 08:14	02/08/24 00:52	1
13C2 PFDoA	63		20 - 150	02/05/24 08:14	02/08/24 00:52	1
13C2 PFTeDA	52		20 - 150	02/05/24 08:14	02/08/24 00:52	1
13C3 PFBS	76		20 - 150	02/05/24 08:14	02/08/24 00:52	1
13C3 PFHxS	78		20 - 150	02/05/24 08:14	02/08/24 00:52	1
13C8 PFOS	64		20 - 150	02/05/24 08:14	02/08/24 00:52	1
13C8 FOSA	70		20 - 150	02/05/24 08:14	02/08/24 00:52	1
d3-NMeFOSAA	60		20 - 150	02/05/24 08:14	02/08/24 00:52	1
d5-NEtFOSAA	56		20 - 150	02/05/24 08:14	02/08/24 00:52	1
M2-4:2 FTS	91		20 - 150	02/05/24 08:14	02/08/24 00:52	1
M2-6:2 FTS	87		20 - 150	02/05/24 08:14	02/08/24 00:52	1
M2-8:2 FTS	79		20 - 150	02/05/24 08:14	02/08/24 00:52	1
13C3 HFPO-DA	77		20 - 150	02/05/24 08:14	02/08/24 00:52	1
d7-N-MeFOSE-M	47		20 - 150	02/05/24 08:14	02/08/24 00:52	1
d9-N-EtFOSE-M	53		20 - 150	02/05/24 08:14	02/08/24 00:52	1
d5-NEtPFOSA	40		20 - 150	02/05/24 08:14	02/08/24 00:52	1
d3-NMePFOSA	43		20 - 150	02/05/24 08:14	02/08/24 00:52	1

Lab Sample ID: LCS 280-641730/3-A
Matrix: Solid
Analysis Batch: 642314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 641730

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanoic acid (PFPeA)	3.20	3.88		ug/Kg		121	40 - 150
Perfluorohexanoic acid (PFHxA)	3.20	3.60		ug/Kg		113	40 - 150
Perfluoroheptanoic acid (PFHpA)	3.20	3.57		ug/Kg		112	40 - 150
Perfluorooctanoic acid (PFOA)	3.20	3.65		ug/Kg		114	40 - 150
Perfluorononanoic acid (PFNA)	3.20	3.90		ug/Kg		122	40 - 150
Perfluorodecanoic acid (PFDA)	3.20	4.40		ug/Kg		138	40 - 150
Perfluoroundecanoic acid (PFUnA)	3.20	3.59		ug/Kg		112	40 - 150
Perfluorododecanoic acid (PFDoA)	3.20	4.03		ug/Kg		126	40 - 150
Perfluorotridecanoic acid (PFTriA)	3.20	3.83		ug/Kg		120	40 - 150
Perfluorotetradecanoic acid (PFTeDA)	3.20	4.36		ug/Kg		136	40 - 150
Perfluorobutanesulfonic acid (PFBS)	2.84	3.12		ug/Kg		110	40 - 150
Perfluoropentanesulfonic acid (PFPeS)	3.00	3.55		ug/Kg		118	40 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.92	3.41		ug/Kg		117	40 - 150
Perfluoroheptanesulfonic acid (PFHpS)	3.05	3.69		ug/Kg		121	40 - 150

QC Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Method: Draft 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 280-641730/3-A
Matrix: Solid
Analysis Batch: 642314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 641730

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorooctanesulfonic acid (PFOS)	2.98	3.55		ug/Kg		119	40 - 150
Perfluorononanesulfonic acid (PFNS)	3.08	3.41		ug/Kg		111	40 - 150
Perfluorodecanesulfonic acid (PFDS)	3.08	2.98		ug/Kg		97	40 - 150
Perfluorododecanesulfonic acid (PFDoS)	3.10	2.54		ug/Kg		82	40 - 150
4:2 FTS	7.98	8.45		ug/Kg		106	40 - 150
6:2 FTS	12.1	13.2		ug/Kg		109	40 - 150
8:2 FTS	12.3	13.7		ug/Kg		112	40 - 150
Perfluorooctanesulfonamide (PFOSA)	3.20	3.43		ug/Kg		107	40 - 150
NMeFOSA	3.20	3.39		ug/Kg		106	40 - 150
NEtFOSA	3.20	3.44		ug/Kg		107	40 - 150
NMeFOSAA	3.20	3.71		ug/Kg		116	40 - 150
NEtFOSAA	3.20	3.56		ug/Kg		111	40 - 150
NMeFOSE	16.0	18.5		ug/Kg		116	40 - 150
NEtFOSE	32.0	31.8		ug/Kg		99	40 - 150
HFPO-DA (GenX)	3.20	3.54		ug/Kg		111	40 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.02	3.50		ug/Kg		116	40 - 150
PFMBA	6.40	8.75		ug/Kg		137	40 - 150
NFDHA	3.20	3.72		ug/Kg		116	40 - 150
PFMPA	6.40	7.24		ug/Kg		113	40 - 150
9Cl-PF3ONS	7.96	9.14		ug/Kg		115	40 - 150
11Cl-PF3OUdS	8.04	7.78		ug/Kg		97	40 - 150
PFEESA	5.71	6.84		ug/Kg		120	40 - 150
3:3 FTCA	16.0	20.2		ug/Kg		126	40 - 150
5:3 FTCA	32.0	39.2		ug/Kg		122	40 - 150
7:3 FTCA	32.0	41.0		ug/Kg		128	40 - 150

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFBA	46		20 - 150
13C5 PFPeA	69		20 - 150
13C5 PFHxA	75		20 - 150
13C4 PFHpA	75		20 - 150
13C8 PFOA	76		20 - 150
13C9 PFNA	71		20 - 150
13C6 PFDA	69		20 - 150
13C7 PFUnA	73		20 - 150
13C2 PFDoA	66		20 - 150
13C2 PFTeDA	50		20 - 150
13C3 PFBS	74		20 - 150
13C3 PFHxS	68		20 - 150
13C8 PFOS	66		20 - 150
13C8 FOSA	76		20 - 150
d3-NMeFOSAA	64		20 - 150
d5-NEtFOSAA	64		20 - 150
M2-4:2 FTS	85		20 - 150

QC Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Method: Draft 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 280-641730/3-A
Matrix: Solid
Analysis Batch: 642314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 641730

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
M2-6:2 FTS	82		20 - 150
M2-8:2 FTS	82		20 - 150
13C3 HFPO-DA	75		20 - 150
d7-N-MeFOSE-M	51		20 - 150
d9-N-EtFOSE-M	59		20 - 150
d5-NEtPFOSA	47		20 - 150
d3-NMePFOSA	49		20 - 150

Lab Sample ID: LCSD 280-641730/4-A
Matrix: Solid
Analysis Batch: 642314

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 641730

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	RPD Limit
							Limits	RPD		
Perfluorobutanoic acid (PFBA)	3.20	3.53		ug/Kg		110	40 - 150	1	30	
Perfluoropentanoic acid (PFPeA)	3.20	3.73		ug/Kg		117	40 - 150	4	30	
Perfluorohexanoic acid (PFHxA)	3.20	3.52		ug/Kg		110	40 - 150	2	30	
Perfluoroheptanoic acid (PFHpA)	3.20	3.63		ug/Kg		114	40 - 150	2	30	
Perfluorooctanoic acid (PFOA)	3.20	3.76		ug/Kg		117	40 - 150	3	30	
Perfluorononanoic acid (PFNA)	3.20	3.61		ug/Kg		113	40 - 150	8	30	
Perfluorodecanoic acid (PFDA)	3.20	3.89		ug/Kg		121	40 - 150	12	30	
Perfluoroundecanoic acid (PFUnA)	3.20	3.73		ug/Kg		116	40 - 150	4	30	
Perfluorododecanoic acid (PFDoA)	3.20	3.91		ug/Kg		122	40 - 150	3	30	
Perfluorotridecanoic acid (PFTriA)	3.20	3.34		ug/Kg		104	40 - 150	14	30	
Perfluorotetradecanoic acid (PFTeDA)	3.20	4.38		ug/Kg		137	40 - 150	0	30	
Perfluorobutanesulfonic acid (PFBS)	2.84	3.12		ug/Kg		110	40 - 150	0	30	
Perfluoropentanesulfonic acid (PFPeS)	3.00	3.43		ug/Kg		114	40 - 150	4	30	
Perfluorohexanesulfonic acid (PFHxS)	2.92	3.22		ug/Kg		110	40 - 150	6	30	
Perfluoroheptanesulfonic acid (PFHpS)	3.05	3.38		ug/Kg		111	40 - 150	9	30	
Perfluorooctanesulfonic acid (PFOS)	2.98	3.41		ug/Kg		115	40 - 150	4	30	
Perfluorononanesulfonic acid (PFNS)	3.08	3.75		ug/Kg		122	40 - 150	9	30	
Perfluorodecanesulfonic acid (PFDS)	3.08	2.85		ug/Kg		92	40 - 150	5	30	
Perfluorododecanesulfonic acid (PFDoS)	3.10	2.19		ug/Kg		70	40 - 150	15	30	
4:2 FTS	7.98	8.79		ug/Kg		110	40 - 150	4	30	
6:2 FTS	12.1	12.6		ug/Kg		104	40 - 150	5	30	
8:2 FTS	12.3	12.2		ug/Kg		100	40 - 150	11	30	
Perfluorooctanesulfonamide (PFOSA)	3.20	3.27		ug/Kg		102	40 - 150	5	30	
NMeFOSA	3.20	3.29		ug/Kg		103	40 - 150	3	30	
NEtFOSA	3.20	3.36		ug/Kg		105	40 - 150	2	30	
NMeFOSAA	3.20	3.72		ug/Kg		116	40 - 150	0	30	

Eurofins Buffalo

QC Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Method: Draft 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCSD 280-641730/4-A
Matrix: Solid
Analysis Batch: 642314

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 641730

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
NEtFOSAA	3.20	3.68		ug/Kg		115	40 - 150	3	30
NMeFOSE	16.0	17.8		ug/Kg		111	40 - 150	4	30
NEtFOSE	32.0	32.8		ug/Kg		102	40 - 150	3	30
HFPO-DA (GenX)	3.20	3.30		ug/Kg		103	40 - 150	7	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.02	3.34		ug/Kg		111	40 - 150	5	30
PFMBA	6.40	8.60		ug/Kg		134	40 - 150	2	30
NFDHA	3.20	3.40		ug/Kg		106	40 - 150	9	30
PFMPA	6.40	6.72		ug/Kg		105	40 - 150	7	30
9Cl-PF3ONS	7.96	9.44		ug/Kg		119	40 - 150	3	30
11Cl-PF3OUdS	8.04	7.02		ug/Kg		87	40 - 150	10	30
PFEESA	5.71	6.75		ug/Kg		118	40 - 150	1	30
3:3 FTCA	16.0	19.0		ug/Kg		119	40 - 150	6	30
5:3 FTCA	32.0	39.1		ug/Kg		122	40 - 150	0	30
7:3 FTCA	32.0	41.4		ug/Kg		129	40 - 150	1	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	LCSD Limits
13C4 PFBA	43		20 - 150
13C5 PFPeA	74		20 - 150
13C5 PFHxA	79		20 - 150
13C4 PFHpA	78		20 - 150
13C8 PFOA	83		20 - 150
13C9 PFNA	79		20 - 150
13C6 PFDA	73		20 - 150
13C7 PFUnA	71		20 - 150
13C2 PFDoA	62		20 - 150
13C2 PFTeDA	46		20 - 150
13C3 PFBS	76		20 - 150
13C3 PFHxS	73		20 - 150
13C8 PFOS	70		20 - 150
13C8 FOSA	83		20 - 150
d3-NMeFOSAA	68		20 - 150
d5-NEtFOSAA	62		20 - 150
M2-4:2 FTS	84		20 - 150
M2-6:2 FTS	87		20 - 150
M2-8:2 FTS	96		20 - 150
13C3 HFPO-DA	80		20 - 150
d7-N-MeFOSE-M	53		20 - 150
d9-N-EtFOSE-M	57		20 - 150
d5-NEtPFOSA	50		20 - 150
d3-NMePFOSA	54		20 - 150

Lab Sample ID: LLCS 280-641730/2-A
Matrix: Solid
Analysis Batch: 642314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 641730

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	0.320	0.361	J	ug/Kg		113	40 - 150
Perfluoropentanoic acid (PFPeA)	0.320	0.380	J	ug/Kg		119	40 - 150

Eurofins Buffalo

QC Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Method: Draft 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 280-641730/2-A
Matrix: Solid
Analysis Batch: 642314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 641730

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorohexanoic acid (PFHxA)	0.320	0.366		ug/Kg		114	40 - 150
Perfluoroheptanoic acid (PFHpA)	0.320	0.353		ug/Kg		110	40 - 150
Perfluorooctanoic acid (PFOA)	0.320	0.397		ug/Kg		124	40 - 150
Perfluorononanoic acid (PFNA)	0.320	0.370		ug/Kg		116	40 - 150
Perfluorodecanoic acid (PFDA)	0.320	0.367		ug/Kg		115	40 - 150
Perfluoroundecanoic acid (PFUnA)	0.320	0.387		ug/Kg		121	40 - 150
Perfluorododecanoic acid (PFDoA)	0.320	0.386		ug/Kg		121	40 - 150
Perfluorotridecanoic acid (PFTriA)	0.320	0.342		ug/Kg		107	40 - 150
Perfluorotetradecanoic acid (PFTeDA)	0.320	0.429		ug/Kg		134	40 - 150
Perfluorobutanesulfonic acid (PFBS)	0.284	0.275		ug/Kg		97	40 - 150
Perfluoropentanesulfonic acid (PFPeS)	0.300	0.330		ug/Kg		110	40 - 150
Perfluorohexanesulfonic acid (PFHxS)	0.292	0.327		ug/Kg		112	40 - 150
Perfluoroheptanesulfonic acid (PFHpS)	0.305	0.325		ug/Kg		107	40 - 150
Perfluorooctanesulfonic acid (PFOS)	0.298	0.360		ug/Kg		121	40 - 150
Perfluorononanesulfonic acid (PFNS)	0.308	0.301		ug/Kg		98	40 - 150
Perfluorodecanesulfonic acid (PFDS)	0.308	0.253		ug/Kg		82	40 - 150
Perfluorododecanesulfonic acid (PFDoS)	0.310	0.180	J	ug/Kg		58	40 - 150
4:2 FTS	0.798	0.879		ug/Kg		110	40 - 150
6:2 FTS	1.21	1.34		ug/Kg		111	40 - 150
8:2 FTS	1.23	1.42		ug/Kg		116	40 - 150
Perfluorooctanesulfonamide (PFOSA)	0.320	0.338		ug/Kg		106	40 - 150
NMeFOSA	0.320	0.355		ug/Kg		111	40 - 150
NEtFOSA	0.320	0.362		ug/Kg		113	40 - 150
NMeFOSAA	0.320	0.441		ug/Kg		138	40 - 150
NEtFOSAA	0.320	0.384		ug/Kg		120	40 - 150
NMeFOSE	1.60	1.67	J	ug/Kg		104	40 - 150
NEtFOSE	3.20	3.14		ug/Kg		98	40 - 150
HFPO-DA (GenX)	0.320	0.366	J	ug/Kg		115	40 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	0.302	0.342	J	ug/Kg		113	40 - 150
PFMBA	0.640	0.834		ug/Kg		130	40 - 150
NFDHA	0.320	0.354	J	ug/Kg		111	40 - 150
PFMPA	0.640	0.723		ug/Kg		113	40 - 150
9Cl-PF3ONS	0.796	1.04		ug/Kg		131	40 - 150
11Cl-PF3OUdS	0.804	0.636	J	ug/Kg		79	40 - 150
PFEESA	0.571	0.654		ug/Kg		115	40 - 150
3:3 FTCA	1.60	1.94		ug/Kg		121	40 - 150
5:3 FTCA	3.20	3.87	J	ug/Kg		121	40 - 150
7:3 FTCA	3.20	4.12	J	ug/Kg		129	40 - 150

Eurofins Buffalo

QC Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Method: Draft 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Isotope Dilution	LLCS		Limits
	%Recovery	Qualifier	
13C4 PFBA	51		20 - 150
13C5 PFPeA	75		20 - 150
13C5 PFHxA	78		20 - 150
13C4 PFHpA	78		20 - 150
13C8 PFOA	78		20 - 150
13C9 PFNA	78		20 - 150
13C6 PFDA	78		20 - 150
13C7 PFUnA	73		20 - 150
13C2 PFDaA	62		20 - 150
13C2 PFTeDA	40		20 - 150
13C3 PFBS	75		20 - 150
13C3 PFHxS	70		20 - 150
13C8 PFOS	68		20 - 150
13C8 FOSA	77		20 - 150
d3-NMeFOSAA	61		20 - 150
d5-NEtFOSAA	57		20 - 150
M2-4:2 FTS	77		20 - 150
M2-6:2 FTS	77		20 - 150
M2-8:2 FTS	76		20 - 150
13C3 HFPO-DA	78		20 - 150
d7-N-MeFOSE-M	51		20 - 150
d9-N-EtFOSE-M	54		20 - 150
d5-NEtPFOSA	42		20 - 150
d3-NMePFOSA	45		20 - 150

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-699469/2-A
Matrix: Solid
Analysis Batch: 699726

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 699469

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		0.015	0.0056	mg/L		01/31/24 08:50	02/01/24 18:42	1
Barium	ND		1.0	0.10	mg/L		01/31/24 08:50	02/01/24 18:42	1
Cadmium	ND		0.0020	0.00050	mg/L		01/31/24 08:50	02/01/24 18:42	1
Chromium	ND		0.020	0.010	mg/L		01/31/24 08:50	02/01/24 18:42	1
Lead	ND		0.020	0.0030	mg/L		01/31/24 08:50	02/01/24 18:42	1
Selenium	ND		0.025	0.0087	mg/L		01/31/24 08:50	02/01/24 18:42	1

Lab Sample ID: MB 480-699469/2-A
Matrix: Solid
Analysis Batch: 699806

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 699469

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Silver	ND		0.0060	0.0017	mg/L		01/31/24 08:50	02/02/24 16:32	1

Lab Sample ID: LCS 480-699469/3-A
Matrix: Solid
Analysis Batch: 699726

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 699469

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Arsenic	1.00	1.05		mg/L		105	80 - 120
Barium	1.00	1.07		mg/L		107	80 - 120

Eurofins Buffalo

QC Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 480-699469/3-A
Matrix: Solid
Analysis Batch: 699726

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 699469

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cadmium	1.00	1.03		mg/L		103	80 - 120
Chromium	1.00	1.03		mg/L		103	80 - 120
Lead	1.00	1.05		mg/L		105	80 - 120
Selenium	1.00	1.01		mg/L		101	80 - 120

Lab Sample ID: LCS 480-699469/3-A
Matrix: Solid
Analysis Batch: 699806

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 699469

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	1.00	1.20		mg/L		120	80 - 120

Lab Sample ID: LB 480-699329/1-B
Matrix: Solid
Analysis Batch: 699726

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 699469

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		01/31/24 08:50	02/01/24 18:39	1
Barium	ND		1.0	0.10	mg/L		01/31/24 08:50	02/01/24 18:39	1
Cadmium	ND		0.0020	0.00050	mg/L		01/31/24 08:50	02/01/24 18:39	1
Chromium	ND		0.020	0.010	mg/L		01/31/24 08:50	02/01/24 18:39	1
Lead	0.0299		0.020	0.0030	mg/L		01/31/24 08:50	02/01/24 18:39	1
Selenium	ND		0.025	0.0087	mg/L		01/31/24 08:50	02/01/24 18:39	1

Lab Sample ID: LB 480-699329/1-B
Matrix: Solid
Analysis Batch: 699806

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 699469

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.0060	0.0017	mg/L		01/31/24 08:50	02/02/24 16:29	1

Lab Sample ID: 480-216689-4 MS
Matrix: Solid
Analysis Batch: 699726

Client Sample ID: LOA-04-01262024
Prep Type: TCLP
Prep Batch: 699469

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.0060	J	1.00	1.03		mg/L		102	75 - 125
Barium	0.55	J	1.00	1.50		mg/L		94	75 - 125
Cadmium	ND		1.00	1.01		mg/L		101	75 - 125
Chromium	ND		1.00	0.950		mg/L		95	75 - 125
Lead	0.014	J B	1.00	0.961		mg/L		95	75 - 125
Selenium	ND		1.00	1.00		mg/L		100	75 - 125

Lab Sample ID: 480-216689-4 MS
Matrix: Solid
Analysis Batch: 699806

Client Sample ID: LOA-04-01262024
Prep Type: TCLP
Prep Batch: 699469

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	ND		1.00	1.13		mg/L		113	75 - 125

Eurofins Buffalo

QC Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-216689-4 MSD
Matrix: Solid
Analysis Batch: 699726

Client Sample ID: LOA-04-01262024
Prep Type: TCLP
Prep Batch: 699469

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits		
Arsenic	0.0060	J	1.00	1.04		mg/L		103	75 - 125	1	20
Barium	0.55	J	1.00	1.52		mg/L		97	75 - 125	1	20
Cadmium	ND		1.00	1.01		mg/L		101	75 - 125	0	20
Chromium	ND		1.00	0.983		mg/L		98	75 - 125	3	20
Lead	0.014	J B	1.00	0.977		mg/L		96	75 - 125	2	20
Selenium	ND		1.00	1.02		mg/L		102	75 - 125	2	20

Lab Sample ID: 480-216689-4 MSD
Matrix: Solid
Analysis Batch: 699806

Client Sample ID: LOA-04-01262024
Prep Type: TCLP
Prep Batch: 699469

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits		
Silver	ND		1.00	1.12		mg/L		112	75 - 125	0	20

Method: 7470A - TCLP Mercury

Lab Sample ID: MB 480-699492/2-A
Matrix: Solid
Analysis Batch: 699556

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 699492

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.00020	0.000043	mg/L		01/31/24 11:15	01/31/24 14:50	1

Lab Sample ID: LCS 480-699492/3-A
Matrix: Solid
Analysis Batch: 699556

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 699492

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec
		Result	Qualifier				Limits
Mercury	0.00680	0.00648		mg/L		95	80 - 120

Lab Sample ID: LB 480-699329/1-E
Matrix: Solid
Analysis Batch: 699556

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 699492

Analyte	LB	LB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.00020	0.000043	mg/L		01/31/24 11:15	01/31/24 14:48	1

Lab Sample ID: 480-216689-4 MS
Matrix: Solid
Analysis Batch: 699556

Client Sample ID: LOA-04-01262024
Prep Type: TCLP
Prep Batch: 699492

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier		Result	Qualifier				Limits
Mercury	ND		0.00680	0.00614		mg/L		90	80 - 120

Lab Sample ID: 480-216689-4 MSD
Matrix: Solid
Analysis Batch: 699556

Client Sample ID: LOA-04-01262024
Prep Type: TCLP
Prep Batch: 699492

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits		
Mercury	ND		0.00680	0.00621		mg/L		91	80 - 120	1	20

Eurofins Buffalo

QC Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 480-699347/1-A
 Matrix: Solid
 Analysis Batch: 699422

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 699347

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.0046	mg/Kg		01/30/24 10:47	01/30/24 13:13	1

Lab Sample ID: LCSSRM 480-699347/2-A ^10
 Matrix: Solid
 Analysis Batch: 699422

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 699347

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	17.1	9.65		mg/Kg		56.4	36.0 - 109.9

Method: 1010A - Ignitability, Pensky-Martens Closed-Cup Method

Lab Sample ID: LCS 480-699199/1
 Matrix: Solid
 Analysis Batch: 699199

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Flashpoint	81.0	82.00		Degrees F		101	97.5 - 102.5

Lab Sample ID: LCS 480-699340/1
 Matrix: Solid
 Analysis Batch: 699340

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Flashpoint	81.0	82.00		Degrees F		101	97.5 - 102.5

Lab Sample ID: 480-216689-3 DU
 Matrix: Solid
 Analysis Batch: 699340

Client Sample ID: LOA-03-01262024
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Flashpoint	>180		>180.0		Degrees F		NC	10

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 480-699394/3
 Matrix: Solid
 Analysis Batch: 699394

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.20	0.10	mg/Kg			01/30/24 09:59	1

Lab Sample ID: LCS 480-699394/4
 Matrix: Solid
 Analysis Batch: 699394

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	1.00	1.01		mg/Kg		101	90 - 110

QC Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: MB 480-699395/3
Matrix: Solid
Analysis Batch: 699395

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.20	0.10	mg/Kg			01/30/24 10:35	1

Lab Sample ID: LCS 480-699395/4
Matrix: Solid
Analysis Batch: 699395

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	1.00	0.999		mg/Kg		100	90 - 110

Lab Sample ID: MB 480-699268/1-A
Matrix: Solid
Analysis Batch: 699393

Client Sample ID: Method Blank
Prep Type: ASTM Leach

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		4.0	2.0	mg/Kg			01/30/24 09:25	1

Lab Sample ID: 480-216689-3 MS
Matrix: Solid
Analysis Batch: 699394

Client Sample ID: LOA-03-01262024
Prep Type: ASTM Leach

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	255		34.0	259.9	4	mg/Kg		15	90 - 110

Lab Sample ID: 480-216689-3 DU
Matrix: Solid
Analysis Batch: 699394

Client Sample ID: LOA-03-01262024
Prep Type: ASTM Leach

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Ammonia	255		214.1		mg/Kg		17	20

Method: 9012 - Cyanide, Reactive

Lab Sample ID: MB 480-699488/1-A
Matrix: Solid
Analysis Batch: 699569

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 699488

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive	ND		10.0	10.0	mg/Kg		01/30/24 12:00	01/31/24 15:35	1

Lab Sample ID: LCS 480-699488/2-A
Matrix: Solid
Analysis Batch: 699569

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 699488

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Reactive	1000	672.5		mg/Kg		67	10 - 100

QC Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 480-699426/1-A
Matrix: Solid
Analysis Batch: 699447

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 699426

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		1.0	0.48	mg/Kg		01/30/24 13:10	01/30/24 16:04	1

Lab Sample ID: LCS 480-699426/3-A
Matrix: Solid
Analysis Batch: 699447

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 699426

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.400	0.369		mg/Kg		92	29 - 122

Lab Sample ID: LCS 480-699426/4-A
Matrix: Solid
Analysis Batch: 699447

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 699426

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.250	0.227		mg/Kg		91	29 - 122

Lab Sample ID: LCSSRM 480-699426/2-A ^10
Matrix: Solid
Analysis Batch: 699447

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 699426

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	154	37.33		mg/Kg		24.2	20.6 - 120.8

Lab Sample ID: 480-216689-1 MS
Matrix: Solid
Analysis Batch: 699447

Client Sample ID: LOA-01-01262024
Prep Type: Total/NA
Prep Batch: 699426

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	16.5		1.57	9.36	4	mg/Kg	⊛	-453	85 - 115

Lab Sample ID: 480-216689-1 DU
Matrix: Solid
Analysis Batch: 699447

Client Sample ID: LOA-01-01262024
Prep Type: Total/NA
Prep Batch: 699426

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cyanide, Total	16.5		11.06	F5	mg/Kg	⊛	39	15

Method: 9034 - Sulfide, Reactive

Lab Sample ID: MB 480-699490/1-A
Matrix: Solid
Analysis Batch: 699568

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 699490

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Reactive	ND		10.0	10.0	mg/Kg		01/30/24 12:00	01/31/24 16:00	1

QC Sample Results

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Method: 9034 - Sulfide, Reactive (Continued)

Lab Sample ID: LCS 480-699490/2-A
 Matrix: Solid
 Analysis Batch: 699568

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 699490

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide, Reactive	780	681.3		mg/Kg		87	10 - 100

Method: 9045D - pH

Lab Sample ID: LCS 480-699456/1
 Matrix: Solid
 Analysis Batch: 699456

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.0		SU		100	99 - 101

Lab Sample ID: 480-216689-1 DU
 Matrix: Solid
 Analysis Batch: 699456

Client Sample ID: LOA-01-01262024
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	10.1	HF	10.5		SU		4	5
Temperature	17.7	HF	17.7		Degrees C		0	10

QC Association Summary

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

GC/MS VOA

Leach Batch: 699330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1	LOA-01-01262024	TCLP	Solid	1311	
480-216689-1 - DL	LOA-01-01262024	TCLP	Solid	1311	
480-216689-2	LOA-02-01262024	TCLP	Solid	1311	
480-216689-3	LOA-03-01262024	TCLP	Solid	1311	
480-216689-4	LOA-04-01262024	TCLP	Solid	1311	
480-216689-5	LOA-05-01262024	TCLP	Solid	1311	
480-216689-5 - DL	LOA-05-01262024	TCLP	Solid	1311	
480-216689-6	LOA-06-01262024	TCLP	Solid	1311	
480-216689-7	LOA-07-01262024	TCLP	Solid	1311	
LB 480-699330/1-A	Method Blank	TCLP	Solid	1311	

Analysis Batch: 699465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1	LOA-01-01262024	Total/NA	Solid	8260C	699468
480-216689-2	LOA-02-01262024	Total/NA	Solid	8260C	699468
480-216689-3	LOA-03-01262024	Total/NA	Solid	8260C	699468
480-216689-4	LOA-04-01262024	Total/NA	Solid	8260C	699468
480-216689-5	LOA-05-01262024	Total/NA	Solid	8260C	699468
480-216689-6	LOA-06-01262024	Total/NA	Solid	8260C	699468
480-216689-7	LOA-07-01262024	Total/NA	Solid	8260C	699468
MB 480-699468/2-A	Method Blank	Total/NA	Solid	8260C	699468
LCS 480-699468/1-A	Lab Control Sample	Total/NA	Solid	8260C	699468

Prep Batch: 699468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1	LOA-01-01262024	Total/NA	Solid	5035A_H	
480-216689-2	LOA-02-01262024	Total/NA	Solid	5035A_H	
480-216689-3	LOA-03-01262024	Total/NA	Solid	5035A_H	
480-216689-4	LOA-04-01262024	Total/NA	Solid	5035A_H	
480-216689-5	LOA-05-01262024	Total/NA	Solid	5035A_H	
480-216689-6	LOA-06-01262024	Total/NA	Solid	5035A_H	
480-216689-7	LOA-07-01262024	Total/NA	Solid	5035A_H	
MB 480-699468/2-A	Method Blank	Total/NA	Solid	5035A_H	
LCS 480-699468/1-A	Lab Control Sample	Total/NA	Solid	5035A_H	

Analysis Batch: 699471

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1	LOA-01-01262024	TCLP	Solid	8260C	699330
480-216689-2	LOA-02-01262024	TCLP	Solid	8260C	699330
480-216689-3	LOA-03-01262024	TCLP	Solid	8260C	699330
480-216689-4	LOA-04-01262024	TCLP	Solid	8260C	699330
480-216689-5	LOA-05-01262024	TCLP	Solid	8260C	699330
480-216689-6	LOA-06-01262024	TCLP	Solid	8260C	699330
480-216689-7	LOA-07-01262024	TCLP	Solid	8260C	699330
LB 480-699330/1-A	Method Blank	TCLP	Solid	8260C	699330
MB 480-699471/8	Method Blank	Total/NA	Solid	8260C	
LCS 480-699471/6	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 480-699471/18	Lab Control Sample Dup	Total/NA	Solid	8260C	

QC Association Summary

Client: Inventum Engineering LLC
Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

GC/MS VOA

Analysis Batch: 699604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1 - DL	LOA-01-01262024	TCLP	Solid	8260C	699330
480-216689-5 - DL	LOA-05-01262024	TCLP	Solid	8260C	699330
MB 480-699604/8	Method Blank	Total/NA	Solid	8260C	
LCS 480-699604/6	Lab Control Sample	Total/NA	Solid	8260C	

GC/MS Semi VOA

Prep Batch: 699288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1	LOA-01-01262024	Total/NA	Solid	3550C	
480-216689-1 - DL	LOA-01-01262024	Total/NA	Solid	3550C	
480-216689-2 - DL	LOA-02-01262024	Total/NA	Solid	3550C	
480-216689-2	LOA-02-01262024	Total/NA	Solid	3550C	
480-216689-3	LOA-03-01262024	Total/NA	Solid	3550C	
480-216689-3 - DL	LOA-03-01262024	Total/NA	Solid	3550C	
480-216689-4	LOA-04-01262024	Total/NA	Solid	3550C	
480-216689-4 - DL	LOA-04-01262024	Total/NA	Solid	3550C	
480-216689-5 - DL	LOA-05-01262024	Total/NA	Solid	3550C	
480-216689-5	LOA-05-01262024	Total/NA	Solid	3550C	
480-216689-6	LOA-06-01262024	Total/NA	Solid	3550C	
480-216689-6 - DL	LOA-06-01262024	Total/NA	Solid	3550C	
480-216689-7 - DL	LOA-07-01262024	Total/NA	Solid	3550C	
480-216689-7	LOA-07-01262024	Total/NA	Solid	3550C	
MB 480-699288/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-699288/2-A	Lab Control Sample	Total/NA	Solid	3550C	

Leach Batch: 699329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1	LOA-01-01262024	TCLP	Solid	1311	
480-216689-2	LOA-02-01262024	TCLP	Solid	1311	
480-216689-3	LOA-03-01262024	TCLP	Solid	1311	
480-216689-4	LOA-04-01262024	TCLP	Solid	1311	
480-216689-5	LOA-05-01262024	TCLP	Solid	1311	
480-216689-6	LOA-06-01262024	TCLP	Solid	1311	
480-216689-7	LOA-07-01262024	TCLP	Solid	1311	
LB 480-699329/1-D	Method Blank	TCLP	Solid	1311	

Analysis Batch: 699396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1	LOA-01-01262024	Total/NA	Solid	8270D	699288
480-216689-2	LOA-02-01262024	Total/NA	Solid	8270D	699288
480-216689-3	LOA-03-01262024	Total/NA	Solid	8270D	699288
480-216689-4	LOA-04-01262024	Total/NA	Solid	8270D	699288
480-216689-5	LOA-05-01262024	Total/NA	Solid	8270D	699288
480-216689-6	LOA-06-01262024	Total/NA	Solid	8270D	699288
480-216689-7	LOA-07-01262024	Total/NA	Solid	8270D	699288
MB 480-699288/1-A	Method Blank	Total/NA	Solid	8270D	699288
LCS 480-699288/2-A	Lab Control Sample	Total/NA	Solid	8270D	699288

Eurofins Buffalo

QC Association Summary

Client: Inventum Engineering LLC
Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

GC/MS Semi VOA

Analysis Batch: 699482

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1 - DL	LOA-01-01262024	Total/NA	Solid	8270D	699288
480-216689-2 - DL	LOA-02-01262024	Total/NA	Solid	8270D	699288
480-216689-3 - DL	LOA-03-01262024	Total/NA	Solid	8270D	699288
480-216689-4 - DL	LOA-04-01262024	Total/NA	Solid	8270D	699288
480-216689-5 - DL	LOA-05-01262024	Total/NA	Solid	8270D	699288
480-216689-6 - DL	LOA-06-01262024	Total/NA	Solid	8270D	699288
480-216689-7 - DL	LOA-07-01262024	Total/NA	Solid	8270D	699288

Prep Batch: 699487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1	LOA-01-01262024	TCLP	Solid	3510C	699329
480-216689-2	LOA-02-01262024	TCLP	Solid	3510C	699329
480-216689-3	LOA-03-01262024	TCLP	Solid	3510C	699329
480-216689-4	LOA-04-01262024	TCLP	Solid	3510C	699329
480-216689-5	LOA-05-01262024	TCLP	Solid	3510C	699329
480-216689-6	LOA-06-01262024	TCLP	Solid	3510C	699329
480-216689-7	LOA-07-01262024	TCLP	Solid	3510C	699329
LB 480-699329/1-D	Method Blank	TCLP	Solid	3510C	699329
MB 480-699487/1-A	Method Blank	Total/NA	Solid	3510C	
LCS 480-699487/2-A	Lab Control Sample	Total/NA	Solid	3510C	
LCSD 480-699487/3-A	Lab Control Sample Dup	Total/NA	Solid	3510C	

Analysis Batch: 699589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1	LOA-01-01262024	TCLP	Solid	8270D	699487
480-216689-2	LOA-02-01262024	TCLP	Solid	8270D	699487
480-216689-3	LOA-03-01262024	TCLP	Solid	8270D	699487
480-216689-4	LOA-04-01262024	TCLP	Solid	8270D	699487
480-216689-5	LOA-05-01262024	TCLP	Solid	8270D	699487
480-216689-6	LOA-06-01262024	TCLP	Solid	8270D	699487
480-216689-7	LOA-07-01262024	TCLP	Solid	8270D	699487
LB 480-699329/1-D	Method Blank	TCLP	Solid	8270D	699487
MB 480-699487/1-A	Method Blank	Total/NA	Solid	8270D	699487
LCS 480-699487/2-A	Lab Control Sample	Total/NA	Solid	8270D	699487
LCSD 480-699487/3-A	Lab Control Sample Dup	Total/NA	Solid	8270D	699487

GC Semi VOA

Leach Batch: 699329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1	LOA-01-01262024	TCLP	Solid	1311	
480-216689-2	LOA-02-01262024	TCLP	Solid	1311	
480-216689-3	LOA-03-01262024	TCLP	Solid	1311	
480-216689-4	LOA-04-01262024	TCLP	Solid	1311	
480-216689-5	LOA-05-01262024	TCLP	Solid	1311	
480-216689-6	LOA-06-01262024	TCLP	Solid	1311	
480-216689-7	LOA-07-01262024	TCLP	Solid	1311	
LB 480-699329/1-C	Method Blank	TCLP	Solid	1311	
LB 480-699329/1-F	Method Blank	TCLP	Solid	1311	

Eurofins Buffalo

QC Association Summary

Client: Inventum Engineering LLC
Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

GC Semi VOA

Analysis Batch: 699458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1	LOA-01-01262024	TCLP	Solid	8081B	699477
480-216689-2	LOA-02-01262024	TCLP	Solid	8081B	699477
480-216689-3	LOA-03-01262024	TCLP	Solid	8081B	699477
480-216689-4	LOA-04-01262024	TCLP	Solid	8081B	699477
480-216689-5	LOA-05-01262024	TCLP	Solid	8081B	699477
480-216689-6	LOA-06-01262024	TCLP	Solid	8081B	699477
480-216689-7	LOA-07-01262024	TCLP	Solid	8081B	699477
LB 480-699329/1-C	Method Blank	TCLP	Solid	8081B	699477
MB 480-699477/1-A	Method Blank	Total/NA	Solid	8081B	699477
LCS 480-699477/2-A	Lab Control Sample	Total/NA	Solid	8081B	699477
LCSD 480-699477/3-A	Lab Control Sample Dup	Total/NA	Solid	8081B	699477

Prep Batch: 699477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1	LOA-01-01262024	TCLP	Solid	3510C	699329
480-216689-2	LOA-02-01262024	TCLP	Solid	3510C	699329
480-216689-3	LOA-03-01262024	TCLP	Solid	3510C	699329
480-216689-4	LOA-04-01262024	TCLP	Solid	3510C	699329
480-216689-5	LOA-05-01262024	TCLP	Solid	3510C	699329
480-216689-6	LOA-06-01262024	TCLP	Solid	3510C	699329
480-216689-7	LOA-07-01262024	TCLP	Solid	3510C	699329
LB 480-699329/1-C	Method Blank	TCLP	Solid	3510C	699329
MB 480-699477/1-A	Method Blank	Total/NA	Solid	3510C	
LCS 480-699477/2-A	Lab Control Sample	Total/NA	Solid	3510C	
LCSD 480-699477/3-A	Lab Control Sample Dup	Total/NA	Solid	3510C	

Prep Batch: 699606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1	LOA-01-01262024	TCLP	Solid	8151A	699329
480-216689-2	LOA-02-01262024	TCLP	Solid	8151A	699329
480-216689-3	LOA-03-01262024	TCLP	Solid	8151A	699329
480-216689-4	LOA-04-01262024	TCLP	Solid	8151A	699329
480-216689-5	LOA-05-01262024	TCLP	Solid	8151A	699329
480-216689-6	LOA-06-01262024	TCLP	Solid	8151A	699329
480-216689-7	LOA-07-01262024	TCLP	Solid	8151A	699329
LB 480-699329/1-F	Method Blank	TCLP	Solid	8151A	699329
MB 480-699606/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 480-699606/2-A	Lab Control Sample	Total/NA	Solid	8151A	
LCSD 480-699606/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	

Analysis Batch: 699733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1	LOA-01-01262024	TCLP	Solid	8151	699606
480-216689-2	LOA-02-01262024	TCLP	Solid	8151	699606
480-216689-3	LOA-03-01262024	TCLP	Solid	8151	699606
480-216689-4	LOA-04-01262024	TCLP	Solid	8151	699606
480-216689-5	LOA-05-01262024	TCLP	Solid	8151	699606
480-216689-6	LOA-06-01262024	TCLP	Solid	8151	699606
480-216689-7	LOA-07-01262024	TCLP	Solid	8151	699606
LB 480-699329/1-F	Method Blank	TCLP	Solid	8151	699606
MB 480-699606/1-A	Method Blank	Total/NA	Solid	8151	699606

Eurofins Buffalo

QC Association Summary

Client: Inventum Engineering LLC
Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

GC Semi VOA (Continued)

Analysis Batch: 699733 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-699606/2-A	Lab Control Sample	Total/NA	Solid	8151	699606
LCSD 480-699606/3-A	Lab Control Sample Dup	Total/NA	Solid	8151	699606

LCMS

Prep Batch: 641730

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1	LOA-01-01262024	Total/NA	Solid	1633 Shake	
MB 280-641730/1-A	Method Blank	Total/NA	Solid	1633 Shake	
LCS 280-641730/3-A	Lab Control Sample	Total/NA	Solid	1633 Shake	
LCSD 280-641730/4-A	Lab Control Sample Dup	Total/NA	Solid	1633 Shake	
LLCS 280-641730/2-A	Lab Control Sample	Total/NA	Solid	1633 Shake	

Analysis Batch: 642314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1	LOA-01-01262024	Total/NA	Solid	Draft 1633	641730
MB 280-641730/1-A	Method Blank	Total/NA	Solid	Draft 1633	641730
LCS 280-641730/3-A	Lab Control Sample	Total/NA	Solid	Draft 1633	641730
LCSD 280-641730/4-A	Lab Control Sample Dup	Total/NA	Solid	Draft 1633	641730
LLCS 280-641730/2-A	Lab Control Sample	Total/NA	Solid	Draft 1633	641730

Metals

Leach Batch: 699329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1	LOA-01-01262024	TCLP	Solid	1311	
480-216689-2	LOA-02-01262024	TCLP	Solid	1311	
480-216689-3	LOA-03-01262024	TCLP	Solid	1311	
480-216689-4	LOA-04-01262024	TCLP	Solid	1311	
480-216689-5	LOA-05-01262024	TCLP	Solid	1311	
480-216689-6	LOA-06-01262024	TCLP	Solid	1311	
480-216689-7	LOA-07-01262024	TCLP	Solid	1311	
LB 480-699329/1-B	Method Blank	TCLP	Solid	1311	
LB 480-699329/1-E	Method Blank	TCLP	Solid	1311	
480-216689-4 MS	LOA-04-01262024	TCLP	Solid	1311	
480-216689-4 MSD	LOA-04-01262024	TCLP	Solid	1311	

Prep Batch: 699347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1	LOA-01-01262024	Total/NA	Solid	7471B	
480-216689-2	LOA-02-01262024	Total/NA	Solid	7471B	
480-216689-3	LOA-03-01262024	Total/NA	Solid	7471B	
480-216689-4	LOA-04-01262024	Total/NA	Solid	7471B	
480-216689-5	LOA-05-01262024	Total/NA	Solid	7471B	
480-216689-6	LOA-06-01262024	Total/NA	Solid	7471B	
480-216689-7	LOA-07-01262024	Total/NA	Solid	7471B	
MB 480-699347/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 480-699347/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	

Analysis Batch: 699422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1	LOA-01-01262024	Total/NA	Solid	7471B	699347

Eurofins Buffalo

QC Association Summary

Client: Inventum Engineering LLC
Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Metals (Continued)

Analysis Batch: 699422 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-2	LOA-02-01262024	Total/NA	Solid	7471B	699347
480-216689-3	LOA-03-01262024	Total/NA	Solid	7471B	699347
480-216689-4	LOA-04-01262024	Total/NA	Solid	7471B	699347
480-216689-5	LOA-05-01262024	Total/NA	Solid	7471B	699347
480-216689-6	LOA-06-01262024	Total/NA	Solid	7471B	699347
480-216689-7	LOA-07-01262024	Total/NA	Solid	7471B	699347
MB 480-699347/1-A	Method Blank	Total/NA	Solid	7471B	699347
LCSSRM 480-699347/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	699347

Prep Batch: 699469

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1	LOA-01-01262024	TCLP	Solid	3010A	699329
480-216689-2	LOA-02-01262024	TCLP	Solid	3010A	699329
480-216689-3	LOA-03-01262024	TCLP	Solid	3010A	699329
480-216689-4	LOA-04-01262024	TCLP	Solid	3010A	699329
480-216689-5	LOA-05-01262024	TCLP	Solid	3010A	699329
480-216689-6	LOA-06-01262024	TCLP	Solid	3010A	699329
480-216689-7	LOA-07-01262024	TCLP	Solid	3010A	699329
LB 480-699329/1-B	Method Blank	TCLP	Solid	3010A	699329
MB 480-699469/2-A	Method Blank	Total/NA	Solid	3010A	
LCS 480-699469/3-A	Lab Control Sample	Total/NA	Solid	3010A	
480-216689-4 MS	LOA-04-01262024	TCLP	Solid	3010A	699329
480-216689-4 MSD	LOA-04-01262024	TCLP	Solid	3010A	699329

Prep Batch: 699492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1	LOA-01-01262024	TCLP	Solid	7470A	699329
480-216689-2	LOA-02-01262024	TCLP	Solid	7470A	699329
480-216689-3	LOA-03-01262024	TCLP	Solid	7470A	699329
480-216689-4	LOA-04-01262024	TCLP	Solid	7470A	699329
480-216689-5	LOA-05-01262024	TCLP	Solid	7470A	699329
480-216689-6	LOA-06-01262024	TCLP	Solid	7470A	699329
480-216689-7	LOA-07-01262024	TCLP	Solid	7470A	699329
LB 480-699329/1-E	Method Blank	TCLP	Solid	7470A	699329
MB 480-699492/2-A	Method Blank	Total/NA	Solid	7470A	
LCS 480-699492/3-A	Lab Control Sample	Total/NA	Solid	7470A	
480-216689-4 MS	LOA-04-01262024	TCLP	Solid	7470A	699329
480-216689-4 MSD	LOA-04-01262024	TCLP	Solid	7470A	699329

Analysis Batch: 699556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1	LOA-01-01262024	TCLP	Solid	7470A	699492
480-216689-2	LOA-02-01262024	TCLP	Solid	7470A	699492
480-216689-3	LOA-03-01262024	TCLP	Solid	7470A	699492
480-216689-4	LOA-04-01262024	TCLP	Solid	7470A	699492
480-216689-5	LOA-05-01262024	TCLP	Solid	7470A	699492
480-216689-6	LOA-06-01262024	TCLP	Solid	7470A	699492
480-216689-7	LOA-07-01262024	TCLP	Solid	7470A	699492
LB 480-699329/1-E	Method Blank	TCLP	Solid	7470A	699492
MB 480-699492/2-A	Method Blank	Total/NA	Solid	7470A	699492
LCS 480-699492/3-A	Lab Control Sample	Total/NA	Solid	7470A	699492

Eurofins Buffalo

QC Association Summary

Client: Inventum Engineering LLC
Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Metals (Continued)

Analysis Batch: 699556 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-4 MS	LOA-04-01262024	TCLP	Solid	7470A	699492
480-216689-4 MSD	LOA-04-01262024	TCLP	Solid	7470A	699492

Analysis Batch: 699726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1	LOA-01-01262024	TCLP	Solid	6010C	699469
480-216689-2	LOA-02-01262024	TCLP	Solid	6010C	699469
480-216689-3	LOA-03-01262024	TCLP	Solid	6010C	699469
480-216689-4	LOA-04-01262024	TCLP	Solid	6010C	699469
480-216689-5	LOA-05-01262024	TCLP	Solid	6010C	699469
480-216689-6	LOA-06-01262024	TCLP	Solid	6010C	699469
480-216689-7	LOA-07-01262024	TCLP	Solid	6010C	699469
LB 480-699329/1-B	Method Blank	TCLP	Solid	6010C	699469
MB 480-699469/2-A	Method Blank	Total/NA	Solid	6010C	699469
LCS 480-699469/3-A	Lab Control Sample	Total/NA	Solid	6010C	699469
480-216689-4 MS	LOA-04-01262024	TCLP	Solid	6010C	699469
480-216689-4 MSD	LOA-04-01262024	TCLP	Solid	6010C	699469

Analysis Batch: 699806

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1	LOA-01-01262024	TCLP	Solid	6010C	699469
480-216689-2	LOA-02-01262024	TCLP	Solid	6010C	699469
480-216689-3	LOA-03-01262024	TCLP	Solid	6010C	699469
480-216689-4	LOA-04-01262024	TCLP	Solid	6010C	699469
480-216689-5	LOA-05-01262024	TCLP	Solid	6010C	699469
480-216689-6	LOA-06-01262024	TCLP	Solid	6010C	699469
480-216689-7	LOA-07-01262024	TCLP	Solid	6010C	699469
LB 480-699329/1-B	Method Blank	TCLP	Solid	6010C	699469
MB 480-699469/2-A	Method Blank	Total/NA	Solid	6010C	699469
LCS 480-699469/3-A	Lab Control Sample	Total/NA	Solid	6010C	699469
480-216689-4 MS	LOA-04-01262024	TCLP	Solid	6010C	699469
480-216689-4 MSD	LOA-04-01262024	TCLP	Solid	6010C	699469

General Chemistry

Analysis Batch: 699199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1	LOA-01-01262024	Total/NA	Solid	1010A	
480-216689-2	LOA-02-01262024	Total/NA	Solid	1010A	
LCS 480-699199/1	Lab Control Sample	Total/NA	Solid	1010A	

Leach Batch: 699268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1	LOA-01-01262024	ASTM Leach	Solid	D3987-85	
480-216689-2	LOA-02-01262024	ASTM Leach	Solid	D3987-85	
480-216689-3	LOA-03-01262024	ASTM Leach	Solid	D3987-85	
480-216689-4	LOA-04-01262024	ASTM Leach	Solid	D3987-85	
480-216689-5	LOA-05-01262024	ASTM Leach	Solid	D3987-85	
480-216689-6	LOA-06-01262024	ASTM Leach	Solid	D3987-85	
480-216689-7	LOA-07-01262024	ASTM Leach	Solid	D3987-85	
MB 480-699268/1-A	Method Blank	ASTM Leach	Solid	D3987-85	

Eurofins Buffalo

QC Association Summary

Client: Inventum Engineering LLC
Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

General Chemistry (Continued)

Leach Batch: 699268 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-3 MS	LOA-03-01262024	ASTM Leach	Solid	D3987-85	
480-216689-3 DU	LOA-03-01262024	ASTM Leach	Solid	D3987-85	

Analysis Batch: 699300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1	LOA-01-01262024	Total/NA	Solid	Moisture	
480-216689-2	LOA-02-01262024	Total/NA	Solid	Moisture	
480-216689-3	LOA-03-01262024	Total/NA	Solid	Moisture	
480-216689-4	LOA-04-01262024	Total/NA	Solid	Moisture	
480-216689-5	LOA-05-01262024	Total/NA	Solid	Moisture	
480-216689-6	LOA-06-01262024	Total/NA	Solid	Moisture	
480-216689-7	LOA-07-01262024	Total/NA	Solid	Moisture	

Analysis Batch: 699340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-3	LOA-03-01262024	Total/NA	Solid	1010A	
480-216689-4	LOA-04-01262024	Total/NA	Solid	1010A	
480-216689-5	LOA-05-01262024	Total/NA	Solid	1010A	
480-216689-6	LOA-06-01262024	Total/NA	Solid	1010A	
480-216689-7	LOA-07-01262024	Total/NA	Solid	1010A	
LCS 480-699340/1	Lab Control Sample	Total/NA	Solid	1010A	
480-216689-3 DU	LOA-03-01262024	Total/NA	Solid	1010A	

Analysis Batch: 699393

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-699268/1-A	Method Blank	ASTM Leach	Solid	350.1	699268

Analysis Batch: 699394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-3	LOA-03-01262024	ASTM Leach	Solid	350.1	699268
MB 480-699394/3	Method Blank	Total/NA	Solid	350.1	
LCS 480-699394/4	Lab Control Sample	Total/NA	Solid	350.1	
480-216689-3 MS	LOA-03-01262024	ASTM Leach	Solid	350.1	699268
480-216689-3 DU	LOA-03-01262024	ASTM Leach	Solid	350.1	699268

Analysis Batch: 699395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1	LOA-01-01262024	ASTM Leach	Solid	350.1	699268
480-216689-2	LOA-02-01262024	ASTM Leach	Solid	350.1	699268
480-216689-4	LOA-04-01262024	ASTM Leach	Solid	350.1	699268
480-216689-5	LOA-05-01262024	ASTM Leach	Solid	350.1	699268
480-216689-6	LOA-06-01262024	ASTM Leach	Solid	350.1	699268
480-216689-7	LOA-07-01262024	ASTM Leach	Solid	350.1	699268
MB 480-699395/3	Method Blank	Total/NA	Solid	350.1	
LCS 480-699395/4	Lab Control Sample	Total/NA	Solid	350.1	

Prep Batch: 699426

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1	LOA-01-01262024	Total/NA	Solid	9012B	
480-216689-2	LOA-02-01262024	Total/NA	Solid	9012B	
480-216689-3	LOA-03-01262024	Total/NA	Solid	9012B	

Eurofins Buffalo

QC Association Summary

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

General Chemistry (Continued)

Prep Batch: 699426 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-4	LOA-04-01262024	Total/NA	Solid	9012B	
480-216689-5	LOA-05-01262024	Total/NA	Solid	9012B	
480-216689-6	LOA-06-01262024	Total/NA	Solid	9012B	
480-216689-7	LOA-07-01262024	Total/NA	Solid	9012B	
MB 480-699426/1-A	Method Blank	Total/NA	Solid	9012B	
LCS 480-699426/3-A	Lab Control Sample	Total/NA	Solid	9012B	
LCS 480-699426/4-A	Lab Control Sample	Total/NA	Solid	9012B	
LCSSRM 480-699426/2-A ^1	Lab Control Sample	Total/NA	Solid	9012B	
480-216689-1 MS	LOA-01-01262024	Total/NA	Solid	9012B	
480-216689-1 DU	LOA-01-01262024	Total/NA	Solid	9012B	

Analysis Batch: 699447

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1	LOA-01-01262024	Total/NA	Solid	9012B	699426
480-216689-2	LOA-02-01262024	Total/NA	Solid	9012B	699426
480-216689-3	LOA-03-01262024	Total/NA	Solid	9012B	699426
480-216689-4	LOA-04-01262024	Total/NA	Solid	9012B	699426
480-216689-5	LOA-05-01262024	Total/NA	Solid	9012B	699426
480-216689-6	LOA-06-01262024	Total/NA	Solid	9012B	699426
480-216689-7	LOA-07-01262024	Total/NA	Solid	9012B	699426
MB 480-699426/1-A	Method Blank	Total/NA	Solid	9012B	699426
LCS 480-699426/3-A	Lab Control Sample	Total/NA	Solid	9012B	699426
LCS 480-699426/4-A	Lab Control Sample	Total/NA	Solid	9012B	699426
LCSSRM 480-699426/2-A ^1	Lab Control Sample	Total/NA	Solid	9012B	699426
480-216689-1 MS	LOA-01-01262024	Total/NA	Solid	9012B	699426
480-216689-1 DU	LOA-01-01262024	Total/NA	Solid	9012B	699426

Analysis Batch: 699456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1	LOA-01-01262024	Total/NA	Solid	9045D	
480-216689-2	LOA-02-01262024	Total/NA	Solid	9045D	
480-216689-3	LOA-03-01262024	Total/NA	Solid	9045D	
480-216689-4	LOA-04-01262024	Total/NA	Solid	9045D	
480-216689-5	LOA-05-01262024	Total/NA	Solid	9045D	
480-216689-6	LOA-06-01262024	Total/NA	Solid	9045D	
480-216689-7	LOA-07-01262024	Total/NA	Solid	9045D	
LCS 480-699456/1	Lab Control Sample	Total/NA	Solid	9045D	
480-216689-1 DU	LOA-01-01262024	Total/NA	Solid	9045D	

Prep Batch: 699488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1	LOA-01-01262024	Total/NA	Solid	7.3.3	
480-216689-2	LOA-02-01262024	Total/NA	Solid	7.3.3	
480-216689-3	LOA-03-01262024	Total/NA	Solid	7.3.3	
480-216689-4	LOA-04-01262024	Total/NA	Solid	7.3.3	
480-216689-5	LOA-05-01262024	Total/NA	Solid	7.3.3	
480-216689-6	LOA-06-01262024	Total/NA	Solid	7.3.3	
480-216689-7	LOA-07-01262024	Total/NA	Solid	7.3.3	
MB 480-699488/1-A	Method Blank	Total/NA	Solid	7.3.3	
LCS 480-699488/2-A	Lab Control Sample	Total/NA	Solid	7.3.3	

QC Association Summary

Client: Inventum Engineering LLC
Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

General Chemistry

Prep Batch: 699490

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1	LOA-01-01262024	Total/NA	Solid	7.3.4	
480-216689-2	LOA-02-01262024	Total/NA	Solid	7.3.4	
480-216689-3	LOA-03-01262024	Total/NA	Solid	7.3.4	
480-216689-4	LOA-04-01262024	Total/NA	Solid	7.3.4	
480-216689-5	LOA-05-01262024	Total/NA	Solid	7.3.4	
480-216689-6	LOA-06-01262024	Total/NA	Solid	7.3.4	
480-216689-7	LOA-07-01262024	Total/NA	Solid	7.3.4	
MB 480-699490/1-A	Method Blank	Total/NA	Solid	7.3.4	
LCS 480-699490/2-A	Lab Control Sample	Total/NA	Solid	7.3.4	

Analysis Batch: 699568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1	LOA-01-01262024	Total/NA	Solid	9034	699490
480-216689-2	LOA-02-01262024	Total/NA	Solid	9034	699490
480-216689-3	LOA-03-01262024	Total/NA	Solid	9034	699490
480-216689-4	LOA-04-01262024	Total/NA	Solid	9034	699490
480-216689-5	LOA-05-01262024	Total/NA	Solid	9034	699490
480-216689-6	LOA-06-01262024	Total/NA	Solid	9034	699490
480-216689-7	LOA-07-01262024	Total/NA	Solid	9034	699490
MB 480-699490/1-A	Method Blank	Total/NA	Solid	9034	699490
LCS 480-699490/2-A	Lab Control Sample	Total/NA	Solid	9034	699490

Analysis Batch: 699569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-216689-1	LOA-01-01262024	Total/NA	Solid	9012	699488
480-216689-2	LOA-02-01262024	Total/NA	Solid	9012	699488
480-216689-3	LOA-03-01262024	Total/NA	Solid	9012	699488
480-216689-4	LOA-04-01262024	Total/NA	Solid	9012	699488
480-216689-5	LOA-05-01262024	Total/NA	Solid	9012	699488
480-216689-6	LOA-06-01262024	Total/NA	Solid	9012	699488
480-216689-7	LOA-07-01262024	Total/NA	Solid	9012	699488
MB 480-699488/1-A	Method Blank	Total/NA	Solid	9012	699488
LCS 480-699488/2-A	Lab Control Sample	Total/NA	Solid	9012	699488

Lab Chronicle

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-01-01262024

Lab Sample ID: 480-216689-1

Date Collected: 01/26/24 10:45

Matrix: Solid

Date Received: 01/26/24 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
TCLP	Leach	1311			699330	SMP	EET BUF	01/30/24 07:57 - 01/31/24 08:52 ¹
TCLP	Analysis	8260C		10	699471	CC	EET BUF	01/31/24 16:21
TCLP	Leach	1311	DL		699330	SMP	EET BUF	01/30/24 07:57 - 01/31/24 08:52 ¹
TCLP	Analysis	8260C	DL	20	699604	CC	EET BUF	02/01/24 13:35
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	3510C			699487	JMP	EET BUF	01/31/24 09:21
TCLP	Analysis	8270D		1	699589	EMD	EET BUF	02/01/24 14:35
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	3510C			699477	JMP	EET BUF	01/31/24 09:17
TCLP	Analysis	8081B		1	699458	JLS	EET BUF	01/31/24 15:55
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	8151A			699606	JMP	EET BUF	02/01/24 09:04
TCLP	Analysis	8151		1	699733	MAN	EET BUF	02/02/24 14:47
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	3010A			699469	ESB	EET BUF	01/31/24 08:50
TCLP	Analysis	6010C		1	699726	BMB	EET BUF	02/01/24 18:49
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	3010A			699469	ESB	EET BUF	01/31/24 08:50
TCLP	Analysis	6010C		1	699806	BMB	EET BUF	02/02/24 16:39
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	7470A			699492	NVK	EET BUF	01/31/24 11:15
TCLP	Analysis	7470A		1	699556	NVK	EET BUF	01/31/24 14:52
Total/NA	Analysis	1010A		1	699199	KM	EET BUF	01/29/24 08:50
ASTM Leach	Leach	D3987-85			699268	CLT	EET BUF	01/29/24 13:45 - 01/30/24 07:45 ¹
ASTM Leach	Analysis	350.1		10	699395	CLT	EET BUF	01/30/24 10:43
Total/NA	Prep	7.3.3			699488	AM	EET BUF	01/30/24 12:00
Total/NA	Analysis	9012		1	699569	AM	EET BUF	01/31/24 15:41
Total/NA	Prep	7.3.4			699490	AM	EET BUF	01/30/24 12:00
Total/NA	Analysis	9034		1	699568	AM	EET BUF	01/31/24 16:00
Total/NA	Analysis	9045D		1	699456	KB	EET BUF	01/30/24 16:51
Total/NA	Analysis	Moisture		1	699300	DSC	EET BUF	01/29/24 17:22

Client Sample ID: LOA-01-01262024

Lab Sample ID: 480-216689-1

Date Collected: 01/26/24 10:45

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 72.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_H			699468	ZN	EET BUF	01/31/24 08:18
Total/NA	Analysis	8260C		40	699465	ZN	EET BUF	01/31/24 13:15
Total/NA	Prep	3550C			699288	SJM	EET BUF	01/29/24 16:09
Total/NA	Analysis	8270D		1	699396	JMM	EET BUF	01/30/24 20:51
Total/NA	Prep	3550C	DL		699288	SJM	EET BUF	01/29/24 16:09
Total/NA	Analysis	8270D	DL	5	699482	JMM	EET BUF	01/31/24 12:19
Total/NA	Prep	1633 Shake			641730	SSS	EET DEN	02/05/24 08:14
Total/NA	Analysis	Draft 1633		1	642314	MRS	EET DEN	02/08/24 03:47

Eurofins Buffalo

Lab Chronicle

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-01-01262024

Lab Sample ID: 480-216689-1

Date Collected: 01/26/24 10:45

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 72.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7471B			699347	NVK	EET BUF	01/30/24 10:47
Total/NA	Analysis	7471B		10	699422	NVK	EET BUF	01/30/24 13:53
Total/NA	Prep	9012B			699426	AM	EET BUF	01/30/24 13:10
Total/NA	Analysis	9012B		5	699447	AM	EET BUF	01/30/24 16:27

Client Sample ID: LOA-02-01262024

Lab Sample ID: 480-216689-2

Date Collected: 01/26/24 11:10

Matrix: Solid

Date Received: 01/26/24 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
TCLP	Leach	1311			699330	SMP	EET BUF	01/30/24 07:57 - 01/31/24 08:52 ¹
TCLP	Analysis	8260C		10	699471	CC	EET BUF	01/31/24 16:44
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	3510C			699487	JMP	EET BUF	01/31/24 09:21
TCLP	Analysis	8270D		1	699589	EMD	EET BUF	02/01/24 14:59
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	3510C			699477	JMP	EET BUF	01/31/24 09:17
TCLP	Analysis	8081B		1	699458	JLS	EET BUF	01/31/24 16:15
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	8151A			699606	JMP	EET BUF	02/01/24 09:04
TCLP	Analysis	8151		1	699733	MAN	EET BUF	02/02/24 15:06
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	3010A			699469	ESB	EET BUF	01/31/24 08:50
TCLP	Analysis	6010C		1	699726	BMB	EET BUF	02/01/24 18:53
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	3010A			699469	ESB	EET BUF	01/31/24 08:50
TCLP	Analysis	6010C		1	699806	BMB	EET BUF	02/02/24 16:43
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	7470A			699492	NVK	EET BUF	01/31/24 11:15
TCLP	Analysis	7470A		1	699556	NVK	EET BUF	01/31/24 14:55
Total/NA	Analysis	1010A		1	699199	KM	EET BUF	01/29/24 08:50
ASTM Leach	Leach	D3987-85			699268	CLT	EET BUF	01/29/24 13:45 - 01/30/24 07:45 ¹
ASTM Leach	Analysis	350.1		10	699395	CLT	EET BUF	01/30/24 10:44
Total/NA	Prep	7.3.3			699488	AM	EET BUF	01/30/24 12:00
Total/NA	Analysis	9012		1	699569	AM	EET BUF	01/31/24 15:42
Total/NA	Prep	7.3.4			699490	AM	EET BUF	01/30/24 12:00
Total/NA	Analysis	9034		1	699568	AM	EET BUF	01/31/24 16:00
Total/NA	Analysis	9045D		1	699456	KB	EET BUF	01/30/24 16:51
Total/NA	Analysis	Moisture		1	699300	DSC	EET BUF	01/29/24 17:22

Lab Chronicle

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-02-01262024

Lab Sample ID: 480-216689-2

Date Collected: 01/26/24 11:10

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 83.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_H			699468	ZN	EET BUF	01/31/24 08:18
Total/NA	Analysis	8260C		40	699465	ZN	EET BUF	01/31/24 13:39
Total/NA	Prep	3550C			699288	SJM	EET BUF	01/29/24 16:09
Total/NA	Analysis	8270D		10	699396	JMM	EET BUF	01/30/24 21:16
Total/NA	Prep	3550C	DL		699288	SJM	EET BUF	01/29/24 16:09
Total/NA	Analysis	8270D	DL	50	699482	JMM	EET BUF	01/31/24 12:44
Total/NA	Prep	7471B			699347	NVK	EET BUF	01/30/24 10:47
Total/NA	Analysis	7471B		25	699422	NVK	EET BUF	01/30/24 13:55
Total/NA	Prep	9012B			699426	AM	EET BUF	01/30/24 13:10
Total/NA	Analysis	9012B		5	699447	AM	EET BUF	01/30/24 16:31

Client Sample ID: LOA-03-01262024

Lab Sample ID: 480-216689-3

Date Collected: 01/26/24 11:25

Matrix: Solid

Date Received: 01/26/24 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
TCLP	Leach	1311			699330	SMP	EET BUF	01/30/24 07:57 - 01/31/24 08:52 ¹
TCLP	Analysis	8260C		10	699471	CC	EET BUF	01/31/24 17:07
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	3510C			699487	JMP	EET BUF	01/31/24 09:21
TCLP	Analysis	8270D		1	699589	EMD	EET BUF	02/01/24 15:24
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	3510C			699477	JMP	EET BUF	01/31/24 09:17
TCLP	Analysis	8081B		1	699458	JLS	EET BUF	01/31/24 16:34
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	8151A			699606	JMP	EET BUF	02/01/24 09:04
TCLP	Analysis	8151		1	699733	MAN	EET BUF	02/02/24 15:24
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	3010A			699469	ESB	EET BUF	01/31/24 08:50
TCLP	Analysis	6010C		1	699726	BMB	EET BUF	02/01/24 18:57
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	3010A			699469	ESB	EET BUF	01/31/24 08:50
TCLP	Analysis	6010C		1	699806	BMB	EET BUF	02/02/24 16:47
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	7470A			699492	NVK	EET BUF	01/31/24 11:15
TCLP	Analysis	7470A		1	699556	NVK	EET BUF	01/31/24 14:57
Total/NA	Analysis	1010A		1	699340	KM	EET BUF	01/30/24 08:43
ASTM Leach	Leach	D3987-85			699268	CLT	EET BUF	01/29/24 13:45 - 01/30/24 07:45 ¹
ASTM Leach	Analysis	350.1		10	699394	CLT	EET BUF	01/30/24 10:01
Total/NA	Prep	7.3.3			699488	AM	EET BUF	01/30/24 12:00
Total/NA	Analysis	9012		1	699569	AM	EET BUF	01/31/24 15:44
Total/NA	Prep	7.3.4			699490	AM	EET BUF	01/30/24 12:00
Total/NA	Analysis	9034		1	699568	AM	EET BUF	01/31/24 16:00
Total/NA	Analysis	9045D		1	699456	KB	EET BUF	01/30/24 16:51
Total/NA	Analysis	Moisture		1	699300	DSC	EET BUF	01/29/24 17:22

Eurofins Buffalo

Lab Chronicle

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-03-01262024

Lab Sample ID: 480-216689-3

Date Collected: 01/26/24 11:25

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 78.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_H			699468	ZN	EET BUF	01/31/24 08:18
Total/NA	Analysis	8260C		80	699465	ZN	EET BUF	01/31/24 14:02
Total/NA	Prep	3550C			699288	SJM	EET BUF	01/29/24 16:09
Total/NA	Analysis	8270D		1	699396	JMM	EET BUF	01/30/24 21:40
Total/NA	Prep	3550C	DL		699288	SJM	EET BUF	01/29/24 16:09
Total/NA	Analysis	8270D	DL	10	699482	JMM	EET BUF	01/31/24 13:08
Total/NA	Prep	7471B			699347	NVK	EET BUF	01/30/24 10:47
Total/NA	Analysis	7471B		5	699422	NVK	EET BUF	01/30/24 13:56
Total/NA	Prep	9012B			699426	AM	EET BUF	01/30/24 13:10
Total/NA	Analysis	9012B		1	699447	AM	EET BUF	01/30/24 16:17

Client Sample ID: LOA-04-01262024

Lab Sample ID: 480-216689-4

Date Collected: 01/26/24 11:45

Matrix: Solid

Date Received: 01/26/24 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
TCLP	Leach	1311			699330	SMP	EET BUF	01/30/24 07:57 - 01/31/24 08:52 ¹
TCLP	Analysis	8260C		10	699471	CC	EET BUF	01/31/24 17:30
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	3510C			699487	JMP	EET BUF	01/31/24 09:21
TCLP	Analysis	8270D		1	699589	EMD	EET BUF	02/01/24 15:48
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	3510C			699477	JMP	EET BUF	01/31/24 09:17
TCLP	Analysis	8081B		1	699458	JLS	EET BUF	01/31/24 16:54
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	8151A			699606	JMP	EET BUF	02/01/24 09:04
TCLP	Analysis	8151		1	699733	MAN	EET BUF	02/02/24 15:43
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	3010A			699469	ESB	EET BUF	01/31/24 08:50
TCLP	Analysis	6010C		1	699726	BMB	EET BUF	02/01/24 19:01
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	3010A			699469	ESB	EET BUF	01/31/24 08:50
TCLP	Analysis	6010C		1	699806	BMB	EET BUF	02/02/24 16:51
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	7470A			699492	NVK	EET BUF	01/31/24 11:15
TCLP	Analysis	7470A		1	699556	NVK	EET BUF	01/31/24 14:58
Total/NA	Analysis	1010A		1	699340	KM	EET BUF	01/30/24 08:43
ASTM Leach	Leach	D3987-85			699268	CLT	EET BUF	01/29/24 13:45 - 01/30/24 07:45 ¹
ASTM Leach	Analysis	350.1		1	699395	CLT	EET BUF	01/30/24 10:46
Total/NA	Prep	7.3.3			699488	AM	EET BUF	01/30/24 12:00
Total/NA	Analysis	9012		1	699569	AM	EET BUF	01/31/24 15:45
Total/NA	Prep	7.3.4			699490	AM	EET BUF	01/30/24 12:00
Total/NA	Analysis	9034		1	699568	AM	EET BUF	01/31/24 16:00
Total/NA	Analysis	9045D		1	699456	KB	EET BUF	01/30/24 16:51
Total/NA	Analysis	Moisture		1	699300	DSC	EET BUF	01/29/24 17:22

Eurofins Buffalo

Lab Chronicle

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-04-01262024

Lab Sample ID: 480-216689-4

Date Collected: 01/26/24 11:45

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 85.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_H			699468	ZN	EET BUF	01/31/24 08:18
Total/NA	Analysis	8260C		80	699465	ZN	EET BUF	01/31/24 14:25
Total/NA	Prep	3550C			699288	SJM	EET BUF	01/29/24 16:09
Total/NA	Analysis	8270D		5	699396	JMM	EET BUF	01/30/24 22:05
Total/NA	Prep	3550C	DL		699288	SJM	EET BUF	01/29/24 16:09
Total/NA	Analysis	8270D	DL	20	699482	JMM	EET BUF	01/31/24 13:33
Total/NA	Prep	7471B			699347	NVK	EET BUF	01/30/24 10:47
Total/NA	Analysis	7471B		10	699422	NVK	EET BUF	01/30/24 13:57
Total/NA	Prep	9012B			699426	AM	EET BUF	01/30/24 13:10
Total/NA	Analysis	9012B		5	699447	AM	EET BUF	01/30/24 16:33

Client Sample ID: LOA-05-01262024

Lab Sample ID: 480-216689-5

Date Collected: 01/26/24 12:10

Matrix: Solid

Date Received: 01/26/24 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
TCLP	Leach	1311			699330	SMP	EET BUF	01/30/24 07:57 - 01/31/24 08:52 ¹
TCLP	Analysis	8260C		10	699471	CC	EET BUF	01/31/24 17:52
TCLP	Leach	1311	DL		699330	SMP	EET BUF	01/30/24 07:57 - 01/31/24 08:52 ¹
TCLP	Analysis	8260C	DL	20	699604	CC	EET BUF	02/01/24 13:58
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	3510C			699487	JMP	EET BUF	01/31/24 09:21
TCLP	Analysis	8270D		1	699589	EMD	EET BUF	02/01/24 16:12
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	3510C			699477	JMP	EET BUF	01/31/24 09:17
TCLP	Analysis	8081B		1	699458	JLS	EET BUF	01/31/24 17:14
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	8151A			699606	JMP	EET BUF	02/01/24 09:04
TCLP	Analysis	8151		1	699733	MAN	EET BUF	02/02/24 16:01
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	3010A			699469	ESB	EET BUF	01/31/24 08:50
TCLP	Analysis	6010C		1	699726	BMB	EET BUF	02/01/24 19:29
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	3010A			699469	ESB	EET BUF	01/31/24 08:50
TCLP	Analysis	6010C		1	699806	BMB	EET BUF	02/02/24 17:19
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	7470A			699492	NVK	EET BUF	01/31/24 11:15
TCLP	Analysis	7470A		1	699556	NVK	EET BUF	01/31/24 15:06
Total/NA	Analysis	1010A		1	699340	KM	EET BUF	01/30/24 08:43
ASTM Leach	Leach	D3987-85			699268	CLT	EET BUF	01/29/24 13:45 - 01/30/24 07:45 ¹
ASTM Leach	Analysis	350.1		10	699395	CLT	EET BUF	01/30/24 10:47
Total/NA	Prep	7.3.3			699488	AM	EET BUF	01/30/24 12:00
Total/NA	Analysis	9012		1	699569	AM	EET BUF	01/31/24 15:47
Total/NA	Prep	7.3.4			699490	AM	EET BUF	01/30/24 12:00
Total/NA	Analysis	9034		1	699568	AM	EET BUF	01/31/24 16:00

Eurofins Buffalo

Lab Chronicle

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-05-01262024

Lab Sample ID: 480-216689-5

Date Collected: 01/26/24 12:10

Matrix: Solid

Date Received: 01/26/24 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9045D		1	699456	KB	EET BUF	01/30/24 16:51
Total/NA	Analysis	Moisture		1	699300	DSC	EET BUF	01/29/24 17:22

Client Sample ID: LOA-05-01262024

Lab Sample ID: 480-216689-5

Date Collected: 01/26/24 12:10

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 77.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_H			699468	ZN	EET BUF	01/31/24 08:18
Total/NA	Analysis	8260C		200	699465	ZN	EET BUF	01/31/24 14:48
Total/NA	Prep	3550C			699288	SJM	EET BUF	01/29/24 16:09
Total/NA	Analysis	8270D		10	699396	JMM	EET BUF	01/30/24 22:30
Total/NA	Prep	3550C	DL		699288	SJM	EET BUF	01/29/24 16:09
Total/NA	Analysis	8270D	DL	100	699482	JMM	EET BUF	01/31/24 13:59
Total/NA	Prep	7471B			699347	NVK	EET BUF	01/30/24 10:47
Total/NA	Analysis	7471B		10	699422	NVK	EET BUF	01/30/24 13:59
Total/NA	Prep	9012B			699426	AM	EET BUF	01/30/24 13:10
Total/NA	Analysis	9012B		1	699447	AM	EET BUF	01/30/24 16:22

Client Sample ID: LOA-06-01262024

Lab Sample ID: 480-216689-6

Date Collected: 01/26/24 12:05

Matrix: Solid

Date Received: 01/26/24 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
TCLP	Leach	1311			699330	SMP	EET BUF	01/30/24 07:57 - 01/31/24 08:52 ¹
TCLP	Analysis	8260C		10	699471	CC	EET BUF	01/31/24 18:15
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	3510C			699487	JMP	EET BUF	01/31/24 09:21
TCLP	Analysis	8270D		1	699589	EMD	EET BUF	02/01/24 16:36
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	3510C			699477	JMP	EET BUF	01/31/24 09:17
TCLP	Analysis	8081B		1	699458	JLS	EET BUF	01/31/24 17:33
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	8151A			699606	JMP	EET BUF	02/01/24 09:04
TCLP	Analysis	8151		1	699733	MAN	EET BUF	02/02/24 16:20
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	3010A			699469	ESB	EET BUF	01/31/24 08:50
TCLP	Analysis	6010C		1	699726	BMB	EET BUF	02/01/24 19:33
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	3010A			699469	ESB	EET BUF	01/31/24 08:50
TCLP	Analysis	6010C		1	699806	BMB	EET BUF	02/02/24 17:23
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	7470A			699492	NVK	EET BUF	01/31/24 11:15
TCLP	Analysis	7470A		1	699556	NVK	EET BUF	01/31/24 15:07
Total/NA	Analysis	1010A		1	699340	KM	EET BUF	01/30/24 08:43

Eurofins Buffalo

Lab Chronicle

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-06-01262024

Lab Sample ID: 480-216689-6

Date Collected: 01/26/24 12:05

Matrix: Solid

Date Received: 01/26/24 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
ASTM Leach	Leach	D3987-85			699268	CLT	EET BUF	01/29/24 13:45 - 01/30/24 07:45 ¹
ASTM Leach	Analysis	350.1		10	699395	CLT	EET BUF	01/30/24 10:48
Total/NA	Prep	7.3.3			699488	AM	EET BUF	01/30/24 12:00
Total/NA	Analysis	9012		1	699569	AM	EET BUF	01/31/24 15:48
Total/NA	Prep	7.3.4			699490	AM	EET BUF	01/30/24 12:00
Total/NA	Analysis	9034		1	699568	AM	EET BUF	01/31/24 16:00
Total/NA	Analysis	9045D		1	699456	KB	EET BUF	01/30/24 16:51
Total/NA	Analysis	Moisture		1	699300	DSC	EET BUF	01/29/24 17:22

Client Sample ID: LOA-06-01262024

Lab Sample ID: 480-216689-6

Date Collected: 01/26/24 12:05

Matrix: Solid

Date Received: 01/26/24 16:25

Percent Solids: 72.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_H			699468	ZN	EET BUF	01/31/24 08:18
Total/NA	Analysis	8260C		80	699465	ZN	EET BUF	01/31/24 15:11
Total/NA	Prep	3550C			699288	SJM	EET BUF	01/29/24 16:09
Total/NA	Analysis	8270D		1	699396	JMM	EET BUF	01/30/24 22:54
Total/NA	Prep	3550C	DL		699288	SJM	EET BUF	01/29/24 16:09
Total/NA	Analysis	8270D	DL	5	699482	JMM	EET BUF	01/31/24 14:24
Total/NA	Prep	7471B			699347	NVK	EET BUF	01/30/24 10:47
Total/NA	Analysis	7471B		5	699422	NVK	EET BUF	01/30/24 14:00
Total/NA	Prep	9012B			699426	AM	EET BUF	01/30/24 13:10
Total/NA	Analysis	9012B		1	699447	AM	EET BUF	01/30/24 16:24

Client Sample ID: LOA-07-01262024

Lab Sample ID: 480-216689-7

Date Collected: 01/26/24 11:50

Matrix: Solid

Date Received: 01/26/24 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
TCLP	Leach	1311			699330	SMP	EET BUF	01/30/24 07:57 - 01/31/24 08:52 ¹
TCLP	Analysis	8260C		10	699471	CC	EET BUF	01/31/24 18:37
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	3510C			699487	JMP	EET BUF	01/31/24 09:21
TCLP	Analysis	8270D		1	699589	EMD	EET BUF	02/01/24 17:00
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	3510C			699477	JMP	EET BUF	01/31/24 09:17
TCLP	Analysis	8081B		1	699458	JLS	EET BUF	01/31/24 17:53
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	8151A			699606	JMP	EET BUF	02/01/24 09:04
TCLP	Analysis	8151		1	699733	MAN	EET BUF	02/02/24 16:38
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	3010A			699469	ESB	EET BUF	01/31/24 08:50
TCLP	Analysis	6010C		1	699726	BMB	EET BUF	02/01/24 19:36

Eurofins Buffalo

Lab Chronicle

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Client Sample ID: LOA-07-01262024
Date Collected: 01/26/24 11:50
Date Received: 01/26/24 16:25

Lab Sample ID: 480-216689-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	3010A			699469	ESB	EET BUF	01/31/24 08:50
TCLP	Analysis	6010C		1	699806	BMB	EET BUF	02/02/24 17:27
TCLP	Leach	1311			699329	SMP	EET BUF	01/30/24 07:54 - 01/31/24 08:21 ¹
TCLP	Prep	7470A			699492	NVK	EET BUF	01/31/24 11:15
TCLP	Analysis	7470A		1	699556	NVK	EET BUF	01/31/24 15:08
Total/NA	Analysis	1010A		1	699340	KM	EET BUF	01/30/24 08:43
ASTM Leach	Leach	D3987-85			699268	CLT	EET BUF	01/29/24 13:45 - 01/30/24 07:45 ¹
ASTM Leach	Analysis	350.1		10	699395	CLT	EET BUF	01/30/24 10:49
Total/NA	Prep	7.3.3			699488	AM	EET BUF	01/30/24 12:00
Total/NA	Analysis	9012		1	699569	AM	EET BUF	01/31/24 15:52
Total/NA	Prep	7.3.4			699490	AM	EET BUF	01/30/24 12:00
Total/NA	Analysis	9034		1	699568	AM	EET BUF	01/31/24 16:00
Total/NA	Analysis	9045D		1	699456	KB	EET BUF	01/30/24 16:51
Total/NA	Analysis	Moisture		1	699300	DSC	EET BUF	01/29/24 17:22

Client Sample ID: LOA-07-01262024
Date Collected: 01/26/24 11:50
Date Received: 01/26/24 16:25

Lab Sample ID: 480-216689-7
Matrix: Solid
Percent Solids: 82.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_H			699468	ZN	EET BUF	01/31/24 08:18
Total/NA	Analysis	8260C		80	699465	ZN	EET BUF	01/31/24 15:34
Total/NA	Prep	3550C			699288	SJM	EET BUF	01/29/24 16:09
Total/NA	Analysis	8270D		10	699396	JMM	EET BUF	01/30/24 23:19
Total/NA	Prep	3550C	DL		699288	SJM	EET BUF	01/29/24 16:09
Total/NA	Analysis	8270D	DL	20	699482	JMM	EET BUF	01/31/24 14:49
Total/NA	Prep	7471B			699347	NVK	EET BUF	01/30/24 10:47
Total/NA	Analysis	7471B		5	699422	NVK	EET BUF	01/30/24 14:01
Total/NA	Prep	9012B			699426	AM	EET BUF	01/30/24 13:10
Total/NA	Analysis	9012B		5	699447	AM	EET BUF	01/30/24 16:34

¹ This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
 EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Accreditation/Certification Summary

Client: Inventum Engineering LLC
 Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Laboratory: Eurofins Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
350.1		Solid	Ammonia
6010C	3010A	Solid	Arsenic
6010C	3010A	Solid	Barium
6010C	3010A	Solid	Cadmium
6010C	3010A	Solid	Chromium
6010C	3010A	Solid	Lead
6010C	3010A	Solid	Selenium
6010C	3010A	Solid	Silver
7470A	7470A	Solid	Mercury
8081B	3510C	Solid	Chlordane (technical)
8081B	3510C	Solid	Endrin
8081B	3510C	Solid	gamma-BHC (Lindane)
8081B	3510C	Solid	Heptachlor
8081B	3510C	Solid	Heptachlor epoxide
8081B	3510C	Solid	Methoxychlor
8081B	3510C	Solid	Toxaphene
8260C	5035A_H	Solid	Dichlorofluoromethane
9012	7.3.3	Solid	Cyanide, Reactive
9034	7.3.4	Solid	Sulfide, Reactive
9045D		Solid	Temperature
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins Denver

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11964	03-31-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Draft 1633	1633 Shake	Solid	11CI-PF3OUdS
Draft 1633	1633 Shake	Solid	3:3 FTCA
Draft 1633	1633 Shake	Solid	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
Draft 1633	1633 Shake	Solid	4:2 FTS
Draft 1633	1633 Shake	Solid	5:3 FTCA
Draft 1633	1633 Shake	Solid	6:2 FTS
Draft 1633	1633 Shake	Solid	7:3 FTCA
Draft 1633	1633 Shake	Solid	9CI-PF3ONS
Draft 1633	1633 Shake	Solid	HFPO-DA (GenX)
Draft 1633	1633 Shake	Solid	NEIFOSA
Draft 1633	1633 Shake	Solid	NEIFOSE
Draft 1633	1633 Shake	Solid	NFDHA
Draft 1633	1633 Shake	Solid	NMeFOSA

Accreditation/Certification Summary

Client: Inventum Engineering LLC
Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Laboratory: Eurofins Denver (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
-----------	---------	-----------------------	-----------------

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Draft 1633	1633 Shake	Solid	NMeFOSE
Draft 1633	1633 Shake	Solid	Perfluorobutanesulfonic acid (PFBS)
Draft 1633	1633 Shake	Solid	Perfluorodecanesulfonic acid (PFDS)
Draft 1633	1633 Shake	Solid	Perfluorododecanesulfonic acid (PFDoS)
Draft 1633	1633 Shake	Solid	Perfluoroheptanesulfonic acid (PFHpS)
Draft 1633	1633 Shake	Solid	Perfluorohexanesulfonic acid (PFHxS)
Draft 1633	1633 Shake	Solid	Perfluorononanesulfonic acid (PFNS)
Draft 1633	1633 Shake	Solid	Perfluorooctanesulfonamide (PFOSA)
Draft 1633	1633 Shake	Solid	Perfluoropentanesulfonic acid (PFPeS)
Draft 1633	1633 Shake	Solid	PFEESA
Draft 1633	1633 Shake	Solid	PFMBA
Draft 1633	1633 Shake	Solid	PFMPA

Method Summary

Client: Inventum Engineering LLC
Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Method	Method Description	Protocol	Laboratory
8260C	TCLP Volatiles	SW846	EET BUF
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET BUF
8081B	Organochlorine Pesticides (GC)	SW846	EET BUF
8151	TCLP Herbicides	SW846	EET BUF
Draft 1633	Per- and Polyfluoroalkyl Substances by LC/MS/MS	EPA	EET DEN
6010C	Metals (ICP)	SW846	EET BUF
7470A	TCLP Mercury	SW846	EET BUF
7471B	Mercury (CVAA)	SW846	EET BUF
1010A	Ignitability, Pensky-Martens Closed-Cup Method	SW846	EET BUF
350.1	Nitrogen, Ammonia	EPA	EET BUF
9012	Cyanide, Reactive	SW846	EET BUF
9012B	Cyanide, Total and/or Amenable	SW846	EET BUF
9034	Sulfide, Reactive	SW846	EET BUF
9045D	pH	SW846	EET BUF
Moisture	Percent Moisture	EPA	EET BUF
1311	TCLP Extraction	SW846	EET BUF
1633 Shake	Shake Extraction with SPE	EPA	EET DEN
3010A	Preparation, Total Metals	SW846	EET BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET BUF
3550C	Ultrasonic Extraction	SW846	EET BUF
5030C	Purge and Trap	SW846	EET BUF
5035A_H	Closed System Purge and Trap	SW846	EET BUF
7.3.3	Cyanide, Reactive	SW846	EET BUF
7.3.4	Sulfide, Reactive	SW846	EET BUF
7470A	Preparation, Mercury	SW846	EET BUF
7471B	Preparation, Mercury	SW846	EET BUF
8151A	Extraction (Herbicides)	SW846	EET BUF
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	EET BUF
D3987-85	ASTM Leaching Procedure	ASTM	EET BUF

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: Inventum Engineering LLC
Project/Site: 3875 River Road, Tonawanda NY

Job ID: 480-216689-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
480-216689-1	LOA-01-01262024	Solid	01/26/24 10:45	01/26/24 16:25	New York
480-216689-2	LOA-02-01262024	Solid	01/26/24 11:10	01/26/24 16:25	New York
480-216689-3	LOA-03-01262024	Solid	01/26/24 11:25	01/26/24 16:25	New York
480-216689-4	LOA-04-01262024	Solid	01/26/24 11:45	01/26/24 16:25	New York
480-216689-5	LOA-05-01262024	Solid	01/26/24 12:10	01/26/24 16:25	New York
480-216689-6	LOA-06-01262024	Solid	01/26/24 12:05	01/26/24 16:25	New York
480-216689-7	LOA-07-01262024	Solid	01/26/24 11:50	01/26/24 16:25	New York

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PM Fischer, Brian J	Carrier Tracking No(s) 480-849811
Shipping/Receiving		E-Mail Brian.Fischer@eurofins.com	State of Origin New York
Company TestAmerica Laboratories, Inc.		Accreditations Required (See note) NELAP - New York	
Address 4955 Yarrow Street, City Anvada State, Zip CO, 80002		Job # 480-216689-1	
Phone 303-736-0100(Tel) 303-431-7171(Fax)		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 Other:	
Project Name 3875 River Road - Tonawanda, NY		Analysis Requested	
Site SSOW#		Total Number of Containers	
Due Date Requested: 2/22/2024		Perform MS/MSD (Yes or No)	
TAT Requested (days):		Field Filtered Sample (Yes or No)	
PO #	WO #	1633_B24/1633_Shake 1633 B24 Standard List	
Sample Date	Sample Time	Sample Preservation Code:	Special Instructions/Note:
1/26/24	10:45 Eastern	Solid	
Sample Identification - Client ID (Lab ID) LOA-01-01262024 (480-216689-1)		Total Number of Containers 1	

Note: Since laboratory accreditations are subject to change Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our 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/test/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 compliance to Eurofins Environment Testing Northeast, LLC

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested, I, II, III, IV, Other (specify) _____
 Primary Deliverable Rank: 2

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

Relinquished by <i>[Signature]</i>	Received by <i>[Signature]</i>	Date/Time 1/31/24 0920	Company EASTDA
Relinquished by	Received by	Date/Time	Company
Relinquished by	Received by	Date/Time	Company

Custody Seals Intact: Yes No
 Cooler Temperature(s) °C and Other Remarks: *O.S. APPA CPOA*

Ver: 06/08/2021



Login Sample Receipt Checklist

Client: Inventum Engineering LLC

Job Number: 480-216689-1

Login Number: 216689

List Source: Eurofins Buffalo

List Number: 1

Creator: Yeager, Brian A

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	FREEZE 1-26-24 16:45
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	INVENTUM
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: Inventum Engineering LLC

Job Number: 480-216689-1

Login Number: 216689

List Number: 2

Creator: Naylis, Patrick J

List Source: Eurofins Denver

List Creation: 01/31/24 12:49 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





PARADIGM
ENVIRONMENTAL SERVICES, INC.

Analytical Report For
Inventum Engineering, P.C.

For Lab Project ID

231867

Referencing

RITC Lake Effect Cleaning Residuals

Prepared

Monday, September 22, 2025

This project has been re-issued to include additional compounds, per client request.

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

Emily Farmer

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

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



Client: Inventum Engineering, P.C.
Project Reference: RITC Lake Effect Cleaning Residuals

Sample Identifier: Dry Ice - 05042023
Lab Sample ID: 231867-01 **Date Sampled:** 5/4/2023 11:30
Matrix: Solid **Date Received** 5/4/2023

Heat Value

Analyte	Result	Units	Qualifier	Date Analyzed
BTU	2000	btu/lb	D	5/9/2023

Method Reference(s): ASTM D240-09

Subcontractor ELAP ID: 10709

ELAP does not offer this test for approval as part of their laboratory certification program.

Corrosivity as pH

Analyte	Result	Units	Qualifier	Date Analyzed
Corrosivity (as pH)	7.87 @ 22.7 C	S.U.		5/5/2023 16:48

Method Reference(s): EPA 9045D

Ignitability

Analyte	Result	Units	Qualifier	Date Analyzed
Ignitability	No Burn	mm / sec		5/11/2023

Method Reference(s): EPA 1030

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	14.0	mg/Kg		5/10/2023 10:51

Method Reference(s): EPA 7471B

Preparation Date: 5/9/2023

Data File: Hg230510A

TAL Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	3740	mg/Kg		5/9/2023 11:04
Antimony	13.2	mg/Kg		5/9/2023 11:04
Arsenic	5.00	mg/Kg		5/9/2023 11:04
Barium	39.8	mg/Kg		5/9/2023 11:04
Beryllium	< 0.245	mg/Kg		5/9/2023 11:04
Cadmium	0.721	mg/Kg		5/9/2023 11:04

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



Client: Inventum Engineering, P.C.

Project Reference: RITC Lake Effect Cleaning Residuals

Sample Identifier: Dry Ice - 05042023

Lab Sample ID: 231867-01

Date Sampled: 5/4/2023 11:30

Matrix: Solid

Date Received 5/4/2023

Calcium	44000	mg/Kg	5/10/2023 10:08
Chromium	17.7	mg/Kg	5/9/2023 11:04
Cobalt	2.80	mg/Kg	5/9/2023 11:04
Copper	44.9	mg/Kg	5/9/2023 11:04
Iron	27900	mg/Kg	5/10/2023 10:08
Lead	97.4	mg/Kg	5/9/2023 11:04
Magnesium	1810	mg/Kg	5/9/2023 11:04
Manganese	207	mg/Kg	5/9/2023 11:04
Nickel	7.27	mg/Kg	5/9/2023 11:04
Potassium	360	mg/Kg	5/9/2023 11:04
Selenium	1.34	mg/Kg	5/9/2023 11:04
Silver	< 0.490	mg/Kg	5/9/2023 11:04
Sodium	359	mg/Kg	5/9/2023 11:04
Thallium	< 1.23	mg/Kg	5/9/2023 11:04
Vanadium	7.04	mg/Kg	5/9/2023 11:04
Zinc	146	mg/Kg	5/9/2023 11:04

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 5/8/2023
Data File: 230509A

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.114	mg/Kg		5/9/2023 17:41
PCB-1221	< 0.114	mg/Kg		5/9/2023 17:41
PCB-1232	< 0.114	mg/Kg		5/9/2023 17:41
PCB-1242	< 0.114	mg/Kg		5/9/2023 17:41
PCB-1248	< 0.114	mg/Kg		5/9/2023 17:41
PCB-1254	< 0.114	mg/Kg		5/9/2023 17:41
PCB-1260	< 0.114	mg/Kg		5/9/2023 17:41
PCB-1262	< 0.114	mg/Kg		5/9/2023 17:41
PCB-1268	< 0.114	mg/Kg		5/9/2023 17:41

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



Client: Inventum Engineering, P.C.
Project Reference: RITC Lake Effect Cleaning Residuals

Sample Identifier: Dry Ice - 05042023
Lab Sample ID: 231867-01 **Date Sampled:** 5/4/2023 11:30
Matrix: Solid **Date Received** 5/4/2023

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Tetrachloro-m-xylene	46.7	10 - 110		5/9/2023 17:41

Method Reference(s): EPA 8082A
EPA 3546
Preparation Date: 5/9/2023

Percent Moisture

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Percent Moisture	14.4	%		5/11/2023

Method Reference(s): SM 2540 B
ELAP does not offer this test for approval as part of their laboratory certification program.

Reactive Cyanide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Reactivity, Cyanide	<1.0	mg/Kg		5/9/2023

Method Reference(s): EPA 7.3.3.2
Subcontractor ELAP ID: 10709
ELAP does not offer this test for approval as part of their laboratory certification program.
This sample has been reported as received.

Reactive Sulfide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Reactivity, Sulfide	16.0	mg/Kg		5/9/2023

Method Reference(s): EPA 7.3.4.2
Subcontractor ELAP ID: 10709
ELAP does not offer this test for approval as part of their laboratory certification program.
This sample has been reported as received.

Semi-Volatile Organics (Acid/Base Neutrals)

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1-Biphenyl	< 546000	ug/Kg		5/13/2023 04:22
1,2,4,5-Tetrachlorobenzene	< 546000	ug/Kg		5/13/2023 04:22
1,2,4-Trichlorobenzene	< 546000	ug/Kg		5/13/2023 04:22
1,2-Dichlorobenzene	< 546000	ug/Kg		5/13/2023 04:22

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Client: Inventum Engineering, P.C.
Project Reference: RITC Lake Effect Cleaning Residuals

Sample Identifier: Dry Ice - 05042023

Lab Sample ID: 231867-01

Date Sampled: 5/4/2023 11:30

Matrix: Solid

Date Received 5/4/2023

1,3-Dichlorobenzene	< 546000	ug/Kg	5/13/2023 04:22
1,4-Dichlorobenzene	< 546000	ug/Kg	5/13/2023 04:22
2,2-Oxybis (1-chloropropane)	< 546000	ug/Kg	5/13/2023 04:22
2,3,4,6-Tetrachlorophenol	< 546000	ug/Kg	5/13/2023 04:22
2,4,5-Trichlorophenol	< 546000	ug/Kg	5/13/2023 04:22
2,4,6-Trichlorophenol	< 546000	ug/Kg	5/13/2023 04:22
2,4-Dichlorophenol	< 546000	ug/Kg	5/13/2023 04:22
2,4-Dimethylphenol	< 546000	ug/Kg	5/13/2023 04:22
2,4-Dinitrophenol	< 2190000	ug/Kg	5/13/2023 04:22
2,4-Dinitrotoluene	< 546000	ug/Kg	5/13/2023 04:22
2,6-Dinitrotoluene	< 546000	ug/Kg	5/13/2023 04:22
2-Chloronaphthalene	< 546000	ug/Kg	5/13/2023 04:22
2-Chlorophenol	< 546000	ug/Kg	5/13/2023 04:22
2-Methylnaphthalene	< 546000	ug/Kg	5/13/2023 04:22
2-Methylphenol	< 546000	ug/Kg	5/13/2023 04:22
2-Nitroaniline	< 546000	ug/Kg	5/13/2023 04:22
2-Nitrophenol	< 546000	ug/Kg	5/13/2023 04:22
3&4-Methylphenol	< 546000	ug/Kg	5/13/2023 04:22
3,3'-Dichlorobenzidine	< 546000	ug/Kg	5/13/2023 04:22
3-Nitroaniline	< 546000	ug/Kg	5/13/2023 04:22
4,6-Dinitro-2-methylphenol	< 731000	ug/Kg	5/13/2023 04:22
4-Bromophenyl phenyl ether	< 546000	ug/Kg	5/13/2023 04:22
4-Chloro-3-methylphenol	< 546000	ug/Kg	5/13/2023 04:22
4-Chloroaniline	< 546000	ug/Kg	5/13/2023 04:22
4-Chlorophenyl phenyl ether	< 546000	ug/Kg	5/13/2023 04:22
4-Nitroaniline	< 546000	ug/Kg	5/13/2023 04:22
4-Nitrophenol	< 546000	ug/Kg	5/13/2023 04:22
Acenaphthene	< 546000	ug/Kg	5/13/2023 04:22
Acenaphthylene	< 546000	ug/Kg	5/13/2023 04:22
Acetophenone	< 546000	ug/Kg	5/13/2023 04:22

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Client: Inventum Engineering, P.C.
Project Reference: RITC Lake Effect Cleaning Residuals

Sample Identifier: Dry Ice - 05042023

Lab Sample ID: 231867-01

Date Sampled: 5/4/2023 11:30

Matrix: Solid

Date Received 5/4/2023

Anthracene	< 546000	ug/Kg	5/13/2023	04:22
Atrazine	< 546000	ug/Kg	5/13/2023	04:22
Benzaldehyde	< 546000	ug/Kg	5/13/2023	04:22
Benzo (a) anthracene	< 546000	ug/Kg	5/13/2023	04:22
Benzo (a) pyrene	< 546000	ug/Kg	5/13/2023	04:22
Benzo (b) fluoranthene	< 546000	ug/Kg	5/13/2023	04:22
Benzo (g,h,i) perylene	< 546000	ug/Kg	5/13/2023	04:22
Benzo (k) fluoranthene	< 546000	ug/Kg	5/13/2023	04:22
Bis (2-chloroethoxy) methane	< 546000	ug/Kg	5/13/2023	04:22
Bis (2-chloroethyl) ether	< 546000	ug/Kg	5/13/2023	04:22
Bis (2-ethylhexyl) phthalate	< 546000	ug/Kg	5/13/2023	04:22
Butylbenzylphthalate	< 546000	ug/Kg	5/13/2023	04:22
Caprolactam	< 546000	ug/Kg	5/13/2023	04:22
Carbazole	< 546000	ug/Kg	5/13/2023	04:22
Chrysene	670000	ug/Kg	5/13/2023	04:22
Dibenz (a,h) anthracene	< 546000	ug/Kg	5/13/2023	04:22
Dibenzofuran	< 546000	ug/Kg	5/13/2023	04:22
Diethyl phthalate	< 546000	ug/Kg	5/13/2023	04:22
Dimethyl phthalate	< 546000	ug/Kg	5/13/2023	04:22
Di-n-butyl phthalate	< 546000	ug/Kg	5/13/2023	04:22
Di-n-octylphthalate	< 546000	ug/Kg	5/13/2023	04:22
Fluoranthene	1390000	ug/Kg	5/13/2023	04:22
Fluorene	< 546000	ug/Kg	5/13/2023	04:22
Hexachlorobenzene	< 546000	ug/Kg	5/13/2023	04:22
Hexachlorobutadiene	< 546000	ug/Kg	5/13/2023	04:22
Hexachlorocyclopentadiene	< 2190000	ug/Kg	5/13/2023	04:22
Hexachloroethane	< 546000	ug/Kg	5/13/2023	04:22
Indeno (1,2,3-cd) pyrene	< 546000	ug/Kg	5/13/2023	04:22
Isophorone	< 546000	ug/Kg	5/13/2023	04:22
Naphthalene	< 546000	ug/Kg	5/13/2023	04:22

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



Client: Inventum Engineering, P.C.

Project Reference: RITC Lake Effect Cleaning Residuals

Sample Identifier: Dry Ice - 05042023

Lab Sample ID: 231867-01

Date Sampled: 5/4/2023 11:30

Matrix: Solid

Date Received 5/4/2023

Nitrobenzene	< 546000	ug/Kg	5/13/2023	04:22
N-Nitroso-di-n-propylamine	< 546000	ug/Kg	5/13/2023	04:22
N-Nitrosodiphenylamine	< 546000	ug/Kg	5/13/2023	04:22
Pentachlorophenol	< 1090000	ug/Kg	5/13/2023	04:22
Phenanthrene	1950000	ug/Kg	5/13/2023	04:22
Phenol	< 546000	ug/Kg	5/13/2023	04:22
Pyrene	943000	ug/Kg	5/13/2023	04:22

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
2,4,6-Tribromophenol	NC	35.1 - 95.9		5/13/2023 04:22
2-Fluorobiphenyl	NC	10 - 156		5/13/2023 04:22
2-Fluorophenol	NC	36 - 81.3		5/13/2023 04:22
Nitrobenzene-d5	NC	31.5 - 83.8		5/13/2023 04:22
Phenol-d5	NC	37.7 - 84		5/13/2023 04:22
Terphenyl-d14	NC	40.5 - 99.5		5/13/2023 04:22

Method Reference(s): EPA 8270D
EPA 3546
Preparation Date: 5/9/2023
Data File: B664036.D

Volatile Organics

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	< 3200	ug/Kg		5/11/2023 13:24
1,1,1-Trichloroethane	< 3200	ug/Kg		5/11/2023 13:24
1,1,2,2-Tetrachloroethane	< 3200	ug/Kg		5/11/2023 13:24
1,1,2-Trichloroethane	< 3200	ug/Kg		5/11/2023 13:24
1,1-Dichloroethane	< 3200	ug/Kg		5/11/2023 13:24
1,1-Dichloroethene	< 3200	ug/Kg		5/11/2023 13:24
1,1-Dichloropropene	< 3200	ug/Kg		5/11/2023 13:24
1,2,3-Trichlorobenzene	< 8000	ug/Kg		5/11/2023 13:24
1,2,3-Trichloropropane	< 3200	ug/Kg		5/11/2023 13:24
1,2,4-Trichlorobenzene	< 8000	ug/Kg		5/11/2023 13:24
1,2,4-Trimethylbenzene	< 3200	ug/Kg		5/11/2023 13:24

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



Client: Inventum Engineering, P.C.

Project Reference: RITC Lake Effect Cleaning Residuals

Sample Identifier: Dry Ice - 05042023

Lab Sample ID: 231867-01

Date Sampled: 5/4/2023 11:30

Matrix: Solid

Date Received 5/4/2023

1,2-Dibromo-3-Chloropropane	< 16000	ug/Kg	5/11/2023 13:24
1,2-Dibromoethane	< 3200	ug/Kg	5/11/2023 13:24
1,2-Dichlorobenzene	< 3200	ug/Kg	5/11/2023 13:24
1,2-Dichloroethane	< 3200	ug/Kg	5/11/2023 13:24
1,2-Dichloropropane	< 3200	ug/Kg	5/11/2023 13:24
1,3,5-Trimethylbenzene	< 3200	ug/Kg	5/11/2023 13:24
1,3-Dichlorobenzene	< 3200	ug/Kg	5/11/2023 13:24
1,3-Dichloropropane	< 3200	ug/Kg	5/11/2023 13:24
1,4-Dichlorobenzene	< 3200	ug/Kg	5/11/2023 13:24
1,4-Dioxane	< 16000	ug/Kg	5/11/2023 13:24
2,2-Dichloropropane	< 3200	ug/Kg	5/11/2023 13:24
2-Butanone	< 16000	ug/Kg	5/11/2023 13:24
2-Chlorotoluene	< 3200	ug/Kg	5/11/2023 13:24
2-Hexanone	< 8000	ug/Kg	5/11/2023 13:24
4-Chlorotoluene	< 3200	ug/Kg	5/11/2023 13:24
4-Methyl-2-pentanone	< 8000	ug/Kg	5/11/2023 13:24
Acetone	< 16000	ug/Kg	5/11/2023 13:24
Benzene	< 3200	ug/Kg	5/11/2023 13:24
Bromobenzene	< 8000	ug/Kg	5/11/2023 13:24
Bromochloromethane	< 8000	ug/Kg	5/11/2023 13:24
Bromodichloromethane	< 3200	ug/Kg	5/11/2023 13:24
Bromoform	< 8000	ug/Kg	5/11/2023 13:24
Bromomethane	< 3200	ug/Kg	5/11/2023 13:24
Carbon disulfide	< 3200	ug/Kg	5/11/2023 13:24
Carbon Tetrachloride	< 3200	ug/Kg	5/11/2023 13:24
Chlorobenzene	< 3200	ug/Kg	5/11/2023 13:24
Chloroethane	< 3200	ug/Kg	5/11/2023 13:24
Chloroform	< 3200	ug/Kg	5/11/2023 13:24
Chloromethane	< 3200	ug/Kg	5/11/2023 13:24
cis-1,2-Dichloroethene	< 3200	ug/Kg	5/11/2023 13:24

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Client: Inventum Engineering, P.C.
Project Reference: RITC Lake Effect Cleaning Residuals

Sample Identifier: Dry Ice - 05042023

Lab Sample ID: 231867-01

Date Sampled: 5/4/2023 11:30

Matrix: Solid

Date Received 5/4/2023

cis-1,3-Dichloropropene	< 3200	ug/Kg	5/11/2023 13:24
Cyclohexane	< 16000	ug/Kg	5/11/2023 13:24
Dibromochloromethane	< 3200	ug/Kg	5/11/2023 13:24
Dibromomethane	< 3200	ug/Kg	5/11/2023 13:24
Dichlorodifluoromethane	< 3200	ug/Kg	5/11/2023 13:24
Ethylbenzene	< 3200	ug/Kg	5/11/2023 13:24
Freon 113	< 3200	ug/Kg	5/11/2023 13:24
Isopropylbenzene	< 3200	ug/Kg	5/11/2023 13:24
m,p-Xylene	< 3200	ug/Kg	5/11/2023 13:24
Methyl acetate	< 3200	ug/Kg	5/11/2023 13:24
Methyl tert-butyl Ether	< 3200	ug/Kg	5/11/2023 13:24
Methylcyclohexane	< 3200	ug/Kg	5/11/2023 13:24
Methylene chloride	< 8000	ug/Kg	5/11/2023 13:24
Naphthalene	217000	ug/Kg	5/11/2023 13:24
n-Butylbenzene	< 3200	ug/Kg	5/11/2023 13:24
n-Propylbenzene	< 3200	ug/Kg	5/11/2023 13:24
o-Xylene	< 3200	ug/Kg	5/11/2023 13:24
p-Isopropyltoluene	< 3200	ug/Kg	5/11/2023 13:24
sec-Butylbenzene	< 3200	ug/Kg	5/11/2023 13:24
Styrene	< 8000	ug/Kg	5/11/2023 13:24
tert-Butylbenzene	< 3200	ug/Kg	5/11/2023 13:24
Tetrachloroethene	< 3200	ug/Kg	5/11/2023 13:24
Toluene	< 3200	ug/Kg	5/11/2023 13:24
trans-1,2-Dichloroethene	< 3200	ug/Kg	5/11/2023 13:24
trans-1,3-Dichloropropene	< 3200	ug/Kg	5/11/2023 13:24
Trichloroethene	< 3200	ug/Kg	5/11/2023 13:24
Trichlorofluoromethane	< 3200	ug/Kg	5/11/2023 13:24
Vinyl chloride	< 3200	ug/Kg	5/11/2023 13:24

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



Client: Inventum Engineering, P.C.

Project Reference: RITC Lake Effect Cleaning Residuals

Sample Identifier: Dry Ice - 05042023

Lab Sample ID: 231867-01

Date Sampled: 5/4/2023 11:30

Matrix: Solid

Date Received 5/4/2023

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
1,2-Dichloroethane-d4	91.6	72.3 - 128		5/11/2023 13:24
4-Bromofluorobenzene	95.3	70 - 123		5/11/2023 13:24
Pentafluorobenzene	103	80.7 - 124		5/11/2023 13:24
Toluene-D8	98.0	82.1 - 121		5/11/2023 13:24

Method Reference(s): EPA 8260C
EPA 5035A -- H

Data File: z16782.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.



Client: Inventum Engineering, P.C.

Project Reference: RITC Lake Effect Cleaning Residuals

Sample Identifier: Dry Ice - 05042023

Lab Sample ID: 231867-01A

Date Sampled: 5/4/2023 11:30

Matrix: TCLP Extract

Date Received 5/4/2023

TCLP Pesticides

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Chlordane	<10	ug/L	30		5/10/2023
Endrin	<2.0	ug/L	20		5/10/2023
gamma-BHC (Lindane)	<2.0	ug/L	400		5/10/2023
Heptachlor	<2.0	ug/L	8		5/10/2023
Heptachlor Epoxide	<2.0	ug/L	8		5/10/2023
Methoxychlor	<10	ug/L	10000		5/10/2023
Toxaphene	<20	ug/L	500		5/10/2023

Method Reference(s): EPA 8081B

EPA 1311

Subcontractor ELAP ID: 10709

TCLP Semi-Volatile Organics

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,4-Dichlorobenzene	< 40.0	ug/L	7500		5/9/2023 20:32
2,4,5-Trichlorophenol	< 40.0	ug/L	400000		5/9/2023 20:32
2,4,6-Trichlorophenol	< 40.0	ug/L	2000		5/9/2023 20:32
2,4-Dinitrotoluene	< 40.0	ug/L	130		5/9/2023 20:32
Cresols (as m,p,o-Cresol)	< 80.0	ug/L	200000		5/9/2023 20:32
Hexachlorobenzene	< 40.0	ug/L	130		5/9/2023 20:32
Hexachlorobutadiene	< 40.0	ug/L	500		5/9/2023 20:32
Hexachloroethane	< 40.0	ug/L	3000		5/9/2023 20:32
Nitrobenzene	< 40.0	ug/L	2000		5/9/2023 20:32
Pentachlorophenol	< 80.0	ug/L	100000		5/9/2023 20:32
Pyridine	< 40.0	ug/L	5000		5/9/2023 20:32

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



Client: Inventum Engineering, P.C.
Project Reference: RITC Lake Effect Cleaning Residuals

Sample Identifier: Dry Ice - 05042023
Lab Sample ID: 231867-01A **Date Sampled:** 5/4/2023 11:30
Matrix: TCLP Extract **Date Received** 5/4/2023

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	88.9	49 - 127		5/9/2023 20:32
2-Fluorobiphenyl	80.3	10 - 107		5/9/2023 20:32
2-Fluorophenol	71.5	10.6 - 109		5/9/2023 20:32
Nitrobenzene-d5	80.0	41 - 106		5/9/2023 20:32
Phenol-d5	71.9	10 - 109		5/9/2023 20:32
Terphenyl-d14	90.6	49.6 - 120		5/9/2023 20:32

Method Reference(s): EPA 8270D
EPA 1311 / 3510C
Preparation Date: 5/8/2023
Data File: B663937.D

TCLP Herbicides

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
2,4,5-TP (Silvex)	<0.050	mg/L	1		5/10/2023
2,4-D	<0.050	mg/L	10		5/10/2023

Method Reference(s): EPA 8321B
EPA 1311
Subcontractor ELAP ID: 10709

TCLP Mercury

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Mercury	< 0.00200	mg/L	0.2		5/9/2023 10:59

Method Reference(s): EPA 7470A
EPA 1311
Preparation Date: 5/9/2023
Data File: Hg230509A

TCLP RCRA Metals (ICP)

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Arsenic	< 0.500	mg/L	5		5/9/2023 09:39
Barium	< 0.500	mg/L	100		5/9/2023 09:39
Cadmium	< 0.0250	mg/L	1		5/9/2023 09:39
Chromium	< 0.500	mg/L	5		5/9/2023 09:39

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



Client: Inventum Engineering, P.C.

Project Reference: RITC Lake Effect Cleaning Residuals

Sample Identifier: Dry Ice - 05042023

Lab Sample ID: 231867-01A

Date Sampled: 5/4/2023 11:30

Matrix: TCLP Extract

Date Received 5/4/2023

Lead	< 0.500	mg/L	5	5/9/2023 09:39
Selenium	< 0.200	mg/L	1	5/9/2023 09:39
Silver	< 0.500	mg/L	5	5/9/2023 09:39

Method Reference(s): EPA 6010C
EPA 1311 / 3005A
Preparation Date: 5/8/2023
Data File: 230509A

TCLP Volatile Organics

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Regulatory Limit</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1-Dichloroethene	< 20.0	ug/L	700		5/9/2023 17:51
1,2-Dichloroethane	< 20.0	ug/L	500		5/9/2023 17:51
2-Butanone	< 100	ug/L	200000		5/9/2023 17:51
Benzene	< 20.0	ug/L	500		5/9/2023 17:51
Carbon Tetrachloride	< 20.0	ug/L	500		5/9/2023 17:51
Chlorobenzene	< 20.0	ug/L	100000		5/9/2023 17:51
Chloroform	< 20.0	ug/L	6000		5/9/2023 17:51
Tetrachloroethene	< 20.0	ug/L	700		5/9/2023 17:51
Trichloroethene	< 20.0	ug/L	500		5/9/2023 17:51
Vinyl chloride	< 20.0	ug/L	200		5/9/2023 17:51

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
1,2-Dichloroethane-d4	106	79.7 - 118		5/9/2023 17:51
4-Bromofluorobenzene	95.0	80.1 - 112		5/9/2023 17:51
Pentafluorobenzene	99.3	88 - 115		5/9/2023 17:51
Toluene-D8	98.3	88.2 - 113		5/9/2023 17:51

Method Reference(s): EPA 8260C
EPA 1311 / 5030C
Data File: z16726.D



Method Blank Report

Client: Inventum Engineering, P.C.
Project Reference: RITC Lake Effect Cleaning Residuals
Lab Project ID: 231867
Matrix: Solid

Mercury

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Mercury	<0.00723	mg/Kg		5/10/2023 09:56

Method Reference(s): EPA 7471B
Preparation Date: 5/9/2023
Data File: Hg230510A
QC Batch ID: QC230509Hgsoil
QC Number: Blk 1



QC Report for Laboratory Control Sample and Control Sample Duplicate

Client: Inventum Engineering, P.C.

Project Reference: RTTC Lake Effect Cleaning Residuals

Lab Project ID: 231867

Matrix: Solid

Mercury

Analyte	LCS	LCSD	Spike	LCS	LCSD	LCS %	LCSD %	% Rec	LCS	LCSD	Relative %	RPD	RPD	Date
	Added	Added	Units	Result	Result	Recovery	Recovery	Limits	Outliers	Outliers	Difference	Limit	Outliers	Analyzed
Mercury	0.0792	0.0701	mg/Kg	0.0831	0.0814	105	116	80 - 120			10.2	20		5/10/2023

Method Reference(s): EPA 7471B
 Preparation Date: 5/9/2023
 Data File: Hg230510A
 QC Number: 1
 QC Batch ID: QC230509Hgsoil

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



Method Blank Report

Client: Inventum Engineering, P.C.
Project Reference: RITC Lake Effect Cleaning Residuals
Lab Project ID: 231867
Matrix: TCLP Fluid

TCLP Mercury

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Mercury	<0.00200	mg/L		5/9/2023 10:26

Method Reference(s): EPA 7470A
Preparation Date: 5/9/2023
Data File: Hg230509A
QC Batch ID: QC230509Hgtclp
QC Number: Blk 1



QC Report for Laboratory Control Sample and Control Sample Duplicate

Client: Inventum Engineering, P.C.

Project Reference: RITC Lake Effect Cleaning Residuals

Lab Project ID: 231867

Matrix: TCLP Fluid

TCLP Mercury

Analyte	Added	Added	Units	Result	Result	Recovery	Recovery	Limits	Outliers	Outliers	Difference	Limit	Outliers	Date
						%	%		LCS	LCSD	Relative %	RPD	RPD	Analyzed
Mercury	0.0200	0.0200	mg/L	0.0199	0.0208	99.5	104	80 - 120			4.59	20		5/9/2023

Method Reference(s): EPA 7470A
 Preparation Date: 5/9/2023
 Data File: Hg230509A
 QC Number: 1
 QC Batch ID: QC230509Hgclp

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



Method Blank Report

Client: Inventum Engineering, P.C.
Project Reference: RITC Lake Effect Cleaning Residuals
Lab Project ID: 231867
Matrix: Solid

TAL Metals (ICP)

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Aluminum	<4.85	mg/Kg		5/9/2023 10:25
Antimony	<2.91	mg/Kg		5/9/2023 10:25
Arsenic	<0.485	mg/Kg		5/9/2023 10:25
Barium	<4.85	mg/Kg		5/9/2023 10:25
Beryllium	<0.243	mg/Kg		5/9/2023 10:25
Cadmium	<0.243	mg/Kg		5/9/2023 10:25
Calcium	<121	mg/Kg		5/9/2023 10:25
Chromium	<0.485	mg/Kg		5/9/2023 10:25
Cobalt	<2.43	mg/Kg		5/9/2023 10:25
Copper	<0.971	mg/Kg		5/9/2023 10:25
Iron	<9.71	mg/Kg		5/9/2023 10:25
Lead	<0.485	mg/Kg		5/9/2023 10:25
Magnesium	<121	mg/Kg		5/9/2023 10:25
Manganese	<0.728	mg/Kg		5/9/2023 10:25
Nickel	<1.94	mg/Kg		5/9/2023 10:25
Potassium	<121	mg/Kg		5/9/2023 10:25
Selenium	<0.971	mg/Kg		5/9/2023 10:25
Silver	<0.485	mg/Kg		5/9/2023 10:25
Sodium	<121	mg/Kg		5/9/2023 10:25
Thallium	<1.21	mg/Kg		5/9/2023 10:25
Vanadium	<1.21	mg/Kg		5/9/2023 10:25
Zinc	<2.91	mg/Kg		5/9/2023 10:25

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 5/8/2023
Data File: 230509A
QC Batch ID: QC230508soil
QC Number: Blk 1

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



QC Report for Laboratory Control Sample and Control Sample Duplicate

Client: Inventum Engineering, P.C.

Project Reference: RITC Lake Effect Cleaning Residuals

Lab Project ID: 231867

Matrix: Solid

Part 375 Metals (ICP)

Analyte	Added	LCSD	Spike	Result	LCSD	Recovery	LCSD %	Recovery	LCSD %	Limits	Outliers	LCSD	Outliers	Relative %	RPD	Outliers	Date
Aluminum	125	115	mg/Kg	127	116	102	102	80 - 120						0.236	20		5/9/2023
Antimony	125	115	mg/Kg	120	110	95.8	95.6	80 - 120						0.125	20		5/9/2023
Arsenic	125	115	mg/Kg	116	106	92.6	92.8	80 - 120						0.129	20		5/9/2023
Barium	125	115	mg/Kg	127	116	101	101	80 - 120						0.0790	20		5/9/2023
Beryllium	25.0	22.9	mg/Kg	24.0	22.0	96.0	96.0	80 - 120						0.0833	20		5/9/2023
Cadmium	50.0	45.9	mg/Kg	50.8	46.6	102	102	80 - 120						0.00	20		5/9/2023
Calcium	200	183	mg/Kg	186	170	92.8	92.8	80 - 120						0.00	20		5/9/2023
Chromium	125	115	mg/Kg	120	110	96.1	96.1	80 - 120						0.0416	20		5/9/2023
Cobalt	50.0	45.9	mg/Kg	50.1	46.1	100	100	80 - 120						0.0997	20		5/9/2023
Copper	125	115	mg/Kg	125	115	100	100	80 - 120						0.160	20		5/9/2023
Iron	125	115	mg/Kg	120	110	96.0	95.7	80 - 120						0.292	20		5/9/2023
Lead	125	115	mg/Kg	121	111	96.4	96.6	80 - 120						0.207	20		5/9/2023
Magnesium	400	367	mg/Kg	416	380	104	104	80 - 120						0.361	20		5/9/2023
Manganese	50.0	45.9	mg/Kg	47.7	43.9	95.4	95.6	80 - 120						0.178	20		5/9/2023
Nickel	250	229	mg/Kg	248	228	99.3	99.3	80 - 120						0.0201	20		5/9/2023
Potassium	2120	1950	mg/Kg	2050	1880	96.6	96.5	80 - 120						0.0975	20		5/9/2023

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



QC Report for Laboratory Control Sample and Control Sample Duplicate

Client: Inventum Engineering, P.C.

Project Reference: RITC Lake Effect Cleaning Residuals

Lab Project ID: 231867

Matrix: Solid

Part 375 Metals (ICP)

Analyte	LCS	LCSD	Spike	LCS	LCSD	Recovery	Recovery	%Rec	LCS	LCSD	Relative %	RPD	RPD	Date
Added	Added	Units	Result	Result	Recovery	Recovery	Limits	Outliers	Outliers	Difference	Limit	Outliers	Analyzed	
Selenium	125	115	mg/Kg	108	98.8	86.2	80 - 120			0.0464	20		5/9/2023	
Silver	12.5	11.5	mg/Kg	12.2	11.2	97.7	80 - 120			0.123	20		5/9/2023	
Sodium	600	550	mg/Kg	597	546	99.5	80 - 120			0.252	20		5/9/2023	
Thallium	125	115	mg/Kg	117	107	93.4	80 - 120			0.0428	20		5/9/2023	
Vanadium	50.0	45.9	mg/Kg	49.2	45.1	98.4	80 - 120			0.0813	20		5/9/2023	
Zinc	125	115	mg/Kg	121	111	96.7	80 - 120			0.00	20		5/9/2023	

Method Reference(s): EPA 6010C

EPA 3050B

Preparation Date: 5/8/2023

Data File: 230509A

QC Number: 1

QC Batch ID: QC230508soil

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



Method Blank Report

Client: Inventum Engineering, P.C.
Project Reference: RITC Lake Effect Cleaning Residuals
Lab Project ID: 231867
Matrix: TCLP Fluid

TCLP RCRA Metals (ICP)

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Arsenic	<0.500	mg/L		5/9/2023 09:23
Barium	<0.500	mg/L		5/9/2023 09:23
Cadmium	<0.0250	mg/L		5/9/2023 09:23
Chromium	<0.500	mg/L		5/9/2023 09:23
Lead	<0.500	mg/L		5/9/2023 09:23
Selenium	<0.200	mg/L		5/9/2023 09:23
Silver	<0.500	mg/L		5/9/2023 09:23

Method Reference(s): EPA 6010C
EPA 3005
Preparation Date: 5/8/2023
Data File: 230509A
QC Batch ID: QC230508tclp
QC Number: Blk 1



QC Report for Laboratory Control Sample and Control Sample Duplicate

Client: Inventum Engineering, P.C.

Project Reference: RITC Lake Effect Cleaning Residuals

Lab Project ID: 231867

Matrix: TCLP Fluid

TCLP RCRA Metals (ICP)

Analyte	Added	Added	Units	Result	Result	Recovery	Recovery	Limits	Outliers	Outliers	Difference	Limit	Outliers	Date
	LCS	LCSD	Spike	LCS	LCSD	LCS %	LCSD %	%Rec	LCS	LCSD	Relative %	RPD	RPD	Analyzed
Arsenic	12.5	12.5	mg/L	12.0	11.9	95.9	95.0	80 - 120			0.880	20		5/9/2023
Barium	12.5	12.5	mg/L	12.0	12.0	96.0	95.6	80 - 120			0.376	20		5/9/2023
Cadmium	5.00	5.00	mg/L	4.92	4.90	98.4	98.0	80 - 120			0.407	20		5/9/2023
Chromium	12.5	12.5	mg/L	11.4	11.3	91.0	90.6	80 - 120			0.441	20		5/9/2023
Lead	12.5	12.5	mg/L	11.8	11.9	94.2	94.8	80 - 120			0.635	20		5/9/2023
Selenium	12.5	12.5	mg/L	12.5	12.5	100	99.8	80 - 120			0.360	20		5/9/2023
Silver	1.25	1.25	mg/L	1.24	1.23	99.2	98.4	80 - 120			0.769	20		5/9/2023

Method Reference(s): EPA 6010C
EPA 3005
Preparation Date: 5/8/2023
Data File: 230509A
QC Number: 1
QC Batch ID: QC230508tclp

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



Method Blank Report

Client: Inventum Engineering, P.C.
Project Reference: RITC Lake Effect Cleaning Residuals
Lab Project ID: 231867
Matrix: Solid

PCBs

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
PCB-1016	<0.0286	mg/Kg		5/9/2023 18:27
PCB-1221	<0.0286	mg/Kg		5/9/2023 18:27
PCB-1232	<0.0286	mg/Kg		5/9/2023 18:27
PCB-1242	<0.0286	mg/Kg		5/9/2023 18:27
PCB-1248	<0.0286	mg/Kg		5/9/2023 18:27
PCB-1254	<0.0286	mg/Kg		5/9/2023 18:27
PCB-1260	<0.0286	mg/Kg		5/9/2023 18:27
PCB-1262	<0.0286	mg/Kg		5/9/2023 18:27
PCB-1268	<0.0286	mg/Kg		5/9/2023 18:27

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
Tetrachloro-m-xylene	63.0	10 - 110		5/9/2023 18:27

Method Reference(s): EPA 8082A
EPA 3546
Preparation Date: 5/9/2023
QC Batch ID: QC230509PCBS
QC Number: BlkC 1



QC Report for Laboratory Control Sample

Client: Invention Engineering, P.C.

Project Reference: RITC Lake Effect Cleaning Residuals

Lab Project ID: 231867

Matrix: Solid

PCBs

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed
PCB-1016/1260	0.141	mg/Kg	0.0748	52.9	10 - 122		5/9/2023

Method Reference(s): EPA 8082A
EPA 3546
Preparation Date: 5/9/2023
QC Number: LCSC 1
QC Batch ID: QC230509PCBS

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



Method Blank Report

Client: Inventum Engineering, P.C.
Project Reference: RITC Lake Effect Cleaning Residuals
Lab Project ID: 231867
Matrix: Solid

Semi-Volatile Organics (Acid/Base Neutrals)

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1-Biphenyl	<275	ug/Kg		5/10/2023 22:39
1,2,4,5-Tetrachlorobenzene	<275	ug/Kg		5/10/2023 22:39
1,2,4-Trichlorobenzene	<275	ug/Kg		5/10/2023 22:39
1,2-Dichlorobenzene	<275	ug/Kg		5/10/2023 22:39
1,3-Dichlorobenzene	<275	ug/Kg		5/10/2023 22:39
1,4-Dichlorobenzene	<275	ug/Kg		5/10/2023 22:39
2,2-Oxybis (1-chloropropane)	<275	ug/Kg		5/10/2023 22:39
2,3,4,6-Tetrachlorophenol	<275	ug/Kg		5/10/2023 22:39
2,4,5-Trichlorophenol	<275	ug/Kg		5/10/2023 22:39
2,4,6-Trichlorophenol	<275	ug/Kg		5/10/2023 22:39
2,4-Dichlorophenol	<275	ug/Kg		5/10/2023 22:39
2,4-Dimethylphenol	<275	ug/Kg		5/10/2023 22:39
2,4-Dinitrophenol	<1100	ug/Kg		5/10/2023 22:39
2,4-Dinitrotoluene	<275	ug/Kg		5/10/2023 22:39
2,6-Dinitrotoluene	<275	ug/Kg		5/10/2023 22:39
2-Chloronaphthalene	<275	ug/Kg		5/10/2023 22:39
2-Chlorophenol	<275	ug/Kg		5/10/2023 22:39
2-Methylnaphthalene	<275	ug/Kg		5/10/2023 22:39
2-Methylphenol	<275	ug/Kg		5/10/2023 22:39
2-Nitroaniline	<275	ug/Kg		5/10/2023 22:39
2-Nitrophenol	<275	ug/Kg		5/10/2023 22:39
3&4-Methylphenol	<275	ug/Kg		5/10/2023 22:39
3,3'-Dichlorobenzidine	<275	ug/Kg		5/10/2023 22:39
3-Nitroaniline	<275	ug/Kg		5/10/2023 22:39
4,6-Dinitro-2-methylphenol	<549	ug/Kg		5/10/2023 22:39
4-Bromophenyl phenyl ether	<275	ug/Kg		5/10/2023 22:39
4-Chloro-3-methylphenol	<275	ug/Kg		5/10/2023 22:39

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



Method Blank Report

Client: Inventum Engineering, P.C.
Project Reference: RITC Lake Effect Cleaning Residuals
Lab Project ID: 231867
Matrix: Solid

Semi-Volatile Organics (Acid/Base Neutrals)

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
4-Chloroaniline	<275	ug/Kg		5/10/2023 22:39
4-Chlorophenyl phenyl ether	<275	ug/Kg		5/10/2023 22:39
4-Nitroaniline	<275	ug/Kg		5/10/2023 22:39
4-Nitrophenol	<275	ug/Kg		5/10/2023 22:39
Acenaphthene	<275	ug/Kg		5/10/2023 22:39
Acenaphthylene	<275	ug/Kg		5/10/2023 22:39
Acetophenone	<275	ug/Kg		5/10/2023 22:39
Anthracene	<275	ug/Kg		5/10/2023 22:39
Atrazine	<275	ug/Kg		5/10/2023 22:39
Benzaldehyde	<275	ug/Kg		5/10/2023 22:39
Benzo (a) anthracene	<275	ug/Kg		5/10/2023 22:39
Benzo (a) pyrene	<275	ug/Kg		5/10/2023 22:39
Benzo (b) fluoranthene	<275	ug/Kg		5/10/2023 22:39
Benzo (g,h,i) perylene	<275	ug/Kg		5/10/2023 22:39
Benzo (k) fluoranthene	<275	ug/Kg		5/10/2023 22:39
Bis (2-chloroethoxy) methane	<275	ug/Kg		5/10/2023 22:39
Bis (2-chloroethyl) ether	<275	ug/Kg		5/10/2023 22:39
Bis (2-ethylhexyl) phthalate	<275	ug/Kg		5/10/2023 22:39
Butylbenzylphthalate	<275	ug/Kg		5/10/2023 22:39
Caprolactam	<275	ug/Kg		5/10/2023 22:39
Carbazole	<275	ug/Kg		5/10/2023 22:39
Chrysene	<275	ug/Kg		5/10/2023 22:39
Dibenz (a,h) anthracene	<275	ug/Kg		5/10/2023 22:39
Dibenzofuran	<275	ug/Kg		5/10/2023 22:39
Diethyl phthalate	<275	ug/Kg		5/10/2023 22:39
Dimethyl phthalate	<275	ug/Kg		5/10/2023 22:39
Di-n-butyl phthalate	<275	ug/Kg		5/10/2023 22:39
Di-n-octylphthalate	<275	ug/Kg		5/10/2023 22:39

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



Method Blank Report

Client: Inventum Engineering, P.C.
Project Reference: RITC Lake Effect Cleaning Residuals
Lab Project ID: 231867
Matrix: Solid

Semi-Volatile Organics (Acid/Base Neutrals)

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Fluoranthene	<275	ug/Kg		5/10/2023 22:39
Fluorene	<275	ug/Kg		5/10/2023 22:39
Hexachlorobenzene	<275	ug/Kg		5/10/2023 22:39
Hexachlorobutadiene	<275	ug/Kg		5/10/2023 22:39
Hexachlorocyclopentadiene	<1100	ug/Kg		5/10/2023 22:39
Hexachloroethane	<275	ug/Kg		5/10/2023 22:39
Indeno (1,2,3-cd) pyrene	<275	ug/Kg		5/10/2023 22:39
Isophorone	<275	ug/Kg		5/10/2023 22:39
Naphthalene	<275	ug/Kg		5/10/2023 22:39
Nitrobenzene	<275	ug/Kg		5/10/2023 22:39
N-Nitroso-di-n-propylamine	<275	ug/Kg		5/10/2023 22:39
N-Nitrosodiphenylamine	<275	ug/Kg		5/10/2023 22:39
Pentachlorophenol	<549	ug/Kg		5/10/2023 22:39
Phenanthrene	<275	ug/Kg		5/10/2023 22:39
Phenol	<275	ug/Kg		5/10/2023 22:39
Pyrene	<275	ug/Kg		5/10/2023 22:39

Method Reference(s): EPA 8270D
EPA 3546
Preparation Date: 5/9/2023
Data File: B663967.D
QC Batch ID: QC230509ABNS
QC Number: Blk 1



QC Report for Laboratory Control Sample

Client: Inventum Engineering, P.C.

Project Reference: RITC Lake Effect Cleaning Residuals

Lab Project ID: 231867

Matrix: Solid

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed
1,2,4-Trichlorobenzene	2810	ug/Kg	1660	59.2	41.2 - 84.4		5/10/2023
1,4-Dichlorobenzene	2810	ug/Kg	1510	53.7	39.2 - 74.5		5/10/2023
2,4-Dinitrotoluene	2810	ug/Kg	1920	68.4	37.8 - 99.2		5/10/2023
2-Chlorophenol	4210	ug/Kg	2610	62.0	48.2 - 82.9		5/10/2023
4-Chloro-3-methylphenol	4210	ug/Kg	2850	67.7	48.3 - 93.6		5/10/2023
4-Nitrophenol	4210	ug/Kg	2800	66.4	19.3 - 106		5/10/2023
Acenaphthene	2810	ug/Kg	1830	65.3	44.2 - 90.1		5/10/2023
N-Nitroso-di-n-propylamine	2810	ug/Kg	1720	61.3	36.5 - 87.1		5/10/2023
Pentachlorophenol	4210	ug/Kg	2430	57.7	33 - 110		5/10/2023
Phenol	4210	ug/Kg	2510	59.5	45.5 - 83.9		5/10/2023
Pyrene	2810	ug/Kg	2180	77.8	47.9 - 101		5/10/2023

Method Reference(s): EPA 8270D
EPA 3546

Preparation Date: 5/9/2023

Data File: B663968.D

QC Number: LCS 1

QC Batch ID: QC230509ABNS

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



Method Blank Report

Client: Inventum Engineering, P.C.
Project Reference: RITC Lake Effect Cleaning Residuals
Lab Project ID: 231867
Matrix: TCLP Fluid

TCLP Semi-Volatile Organics

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,4-Dichlorobenzene	<40.0	ug/L		5/9/2023 17:18
2,4,5-Trichlorophenol	<40.0	ug/L		5/9/2023 17:18
2,4,6-Trichlorophenol	<40.0	ug/L		5/9/2023 17:18
2,4-Dinitrotoluene	<40.0	ug/L		5/9/2023 17:18
Cresols (as m,p,o-Cresol)	<80.0	ug/L		5/9/2023 17:18
Hexachlorobenzene	<40.0	ug/L		5/9/2023 17:18
Hexachlorobutadiene	<40.0	ug/L		5/9/2023 17:18
Hexachloroethane	<40.0	ug/L		5/9/2023 17:18
Nitrobenzene	<40.0	ug/L		5/9/2023 17:18
Pentachlorophenol	<80.0	ug/L		5/9/2023 17:18
Pyridine	<40.0	ug/L		5/9/2023 17:18

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
2,4,6-Tribromophenol	87.6	49 - 127		5/9/2023 17:18
2-Fluorobiphenyl	66.0	10 - 107		5/9/2023 17:18
2-Fluorophenol	68.2	10.6 - 109		5/9/2023 17:18
Nitrobenzene-d5	74.5	41 - 106		5/9/2023 17:18
Phenol-d5	66.6	10 - 109		5/9/2023 17:18
Terphenyl-d14	91.5	49.6 - 120		5/9/2023 17:18

Method Reference(s): EPA 8270D
EPA 3510C
Preparation Date: 5/8/2023
Data File: B663930.D
QC Batch ID: QC230508ABNT
QC Number: Blk 1



QC Report for Laboratory Control Sample

Client: **Inventum Engineering, P.C.**

Project Reference: RITC Lake Effect Cleaning Residuals

Lab Project ID: 231867

Matrix: TCLP Fluid

TCLP Semi-Volatile Organics

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed
1,4-Dichlorobenzene	200	ug/L	136	68.0	10 - 107		5/9/2023
2,4,6-Trichlorophenol	300	ug/L	246	82.1	49.3 - 129		5/9/2023
2,4-Dinitrotoluene	200	ug/L	164	81.9	50.8 - 124		5/9/2023
Pentachlorophenol	300	ug/L	248	82.8	36.1 - 158		5/9/2023

Method Reference(s): EPA 8270D
EPA 3510C

Preparation Date: 5/8/2023

Data File: B663931.D

QC Number: LCS 1

QC Batch ID: QC230508ABNT

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Method Blank Report

Client: Inventum Engineering, P.C.
Project Reference: RITC Lake Effect Cleaning Residuals
Lab Project ID: 231867
Matrix: Solid

Volatile Organics

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>	
1,1,1,2-Tetrachloroethane	<2.00	ug/Kg		5/11/2023	11:44
1,1,1-Trichloroethane	<2.00	ug/Kg		5/11/2023	11:44
1,1,2,2-Tetrachloroethane	<2.00	ug/Kg		5/11/2023	11:44
1,1,2-Trichloroethane	<2.00	ug/Kg		5/11/2023	11:44
1,1-Dichloroethane	<2.00	ug/Kg		5/11/2023	11:44
1,1-Dichloroethene	<2.00	ug/Kg		5/11/2023	11:44
1,1-Dichloropropene	<2.00	ug/Kg		5/11/2023	11:44
1,2,3-Trichlorobenzene	<5.00	ug/Kg		5/11/2023	11:44
1,2,3-Trichloropropane	<2.00	ug/Kg		5/11/2023	11:44
1,2,4-Trichlorobenzene	<5.00	ug/Kg		5/11/2023	11:44
1,2,4-Trimethylbenzene	<2.00	ug/Kg		5/11/2023	11:44
1,2-Dibromo-3-Chloropropane	<10.0	ug/Kg		5/11/2023	11:44
1,2-Dibromoethane	<2.00	ug/Kg		5/11/2023	11:44
1,2-Dichlorobenzene	<2.00	ug/Kg		5/11/2023	11:44
1,2-Dichloroethane	<2.00	ug/Kg		5/11/2023	11:44
1,2-Dichloropropane	<2.00	ug/Kg		5/11/2023	11:44
1,3,5-Trimethylbenzene	<2.00	ug/Kg		5/11/2023	11:44
1,3-Dichlorobenzene	<2.00	ug/Kg		5/11/2023	11:44
1,3-Dichloropropane	<2.00	ug/Kg		5/11/2023	11:44
1,4-Dichlorobenzene	<2.00	ug/Kg		5/11/2023	11:44
1,4-Dioxane	<10.0	ug/Kg		5/11/2023	11:44
2,2-Dichloropropane	<2.00	ug/Kg		5/11/2023	11:44
2-Butanone	<10.0	ug/Kg		5/11/2023	11:44
2-Chlorotoluene	<2.00	ug/Kg		5/11/2023	11:44
2-Hexanone	<5.00	ug/Kg		5/11/2023	11:44
4-Chlorotoluene	<2.00	ug/Kg		5/11/2023	11:44
4-Methyl-2-pentanone	<5.00	ug/Kg		5/11/2023	11:44

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Method Blank Report

Client: Inventum Engineering, P.C.
Project Reference: RITC Lake Effect Cleaning Residuals
Lab Project ID: 231867
Matrix: Solid

Volatile Organics

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>	
Acetone	<10.0	ug/Kg		5/11/2023	11:44
Benzene	<2.00	ug/Kg		5/11/2023	11:44
Bromobenzene	<5.00	ug/Kg		5/11/2023	11:44
Bromochloromethane	<5.00	ug/Kg		5/11/2023	11:44
Bromodichloromethane	<2.00	ug/Kg		5/11/2023	11:44
Bromoform	<5.00	ug/Kg		5/11/2023	11:44
Bromomethane	<2.00	ug/Kg		5/11/2023	11:44
Carbon disulfide	<2.00	ug/Kg		5/11/2023	11:44
Carbon Tetrachloride	<2.00	ug/Kg		5/11/2023	11:44
Chlorobenzene	<2.00	ug/Kg		5/11/2023	11:44
Chloroethane	<2.00	ug/Kg		5/11/2023	11:44
Chloroform	<2.00	ug/Kg		5/11/2023	11:44
Chloromethane	<2.00	ug/Kg		5/11/2023	11:44
cis-1,2-Dichloroethene	<2.00	ug/Kg		5/11/2023	11:44
cis-1,3-Dichloropropene	<2.00	ug/Kg		5/11/2023	11:44
Cyclohexane	<10.0	ug/Kg		5/11/2023	11:44
Dibromochloromethane	<2.00	ug/Kg		5/11/2023	11:44
Dibromomethane	<2.00	ug/Kg		5/11/2023	11:44
Dichlorodifluoromethane	<2.00	ug/Kg		5/11/2023	11:44
Ethylbenzene	<2.00	ug/Kg		5/11/2023	11:44
Freon 113	<2.00	ug/Kg		5/11/2023	11:44
Isopropylbenzene	<2.00	ug/Kg		5/11/2023	11:44
m,p-Xylene	<2.00	ug/Kg		5/11/2023	11:44
Methyl acetate	<2.00	ug/Kg		5/11/2023	11:44
Methyl tert-butyl Ether	<2.00	ug/Kg		5/11/2023	11:44
Methylcyclohexane	<2.00	ug/Kg		5/11/2023	11:44
Methylene chloride	<5.00	ug/Kg		5/11/2023	11:44
Naphthalene	<5.00	ug/Kg		5/11/2023	11:44

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



Method Blank Report

Client: Inventum Engineering, P.C.
Project Reference: RITC Lake Effect Cleaning Residuals
Lab Project ID: 231867
Matrix: Solid

Volatile Organics

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
n-Butylbenzene	<2.00	ug/Kg		5/11/2023 11:44
n-Propylbenzene	<2.00	ug/Kg		5/11/2023 11:44
o-Xylene	<2.00	ug/Kg		5/11/2023 11:44
p-Isopropyltoluene	<2.00	ug/Kg		5/11/2023 11:44
sec-Butylbenzene	<2.00	ug/Kg		5/11/2023 11:44
Styrene	<5.00	ug/Kg		5/11/2023 11:44
tert-Butylbenzene	<2.00	ug/Kg		5/11/2023 11:44
Tetrachloroethene	<2.00	ug/Kg		5/11/2023 11:44
Toluene	<2.00	ug/Kg		5/11/2023 11:44
trans-1,2-Dichloroethene	<2.00	ug/Kg		5/11/2023 11:44
trans-1,3-Dichloropropene	<2.00	ug/Kg		5/11/2023 11:44
Trichloroethene	<2.00	ug/Kg		5/11/2023 11:44
Trichlorofluoromethane	<2.00	ug/Kg		5/11/2023 11:44
Vinyl chloride	<2.00	ug/Kg		5/11/2023 11:44

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
1,2-Dichloroethane-d4	98.3	72.3 - 128		5/11/2023 11:44
4-Bromofluorobenzene	92.4	70 - 123		5/11/2023 11:44
Pentafluorobenzene	101	80.7 - 124		5/11/2023 11:44
Toluene-D8	96.1	82.1 - 121		5/11/2023 11:44

Method Reference(s): EPA 8260C
EPA 5035A -- H
Data File: z16778.D
QC Batch ID: voahl230511
QC Number: Blk 1

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Method Blank Report

Client: Inventum Engineering, P.C.
Project Reference: RITC Lake Effect Cleaning Residuals
Lab Project ID: 231867
Matrix: Solid

Volatile Organics

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	<1000	ug/Kg		5/11/2023 12:23
1,1,1-Trichloroethane	<1000	ug/Kg		5/11/2023 12:23
1,1,2,2-Tetrachloroethane	<1000	ug/Kg		5/11/2023 12:23
1,1,2-Trichloroethane	<1000	ug/Kg		5/11/2023 12:23
1,1-Dichloroethane	<1000	ug/Kg		5/11/2023 12:23
1,1-Dichloroethene	<1000	ug/Kg		5/11/2023 12:23
1,1-Dichloropropene	<1000	ug/Kg		5/11/2023 12:23
1,2,3-Trichlorobenzene	<2500	ug/Kg		5/11/2023 12:23
1,2,3-Trichloropropane	<1000	ug/Kg		5/11/2023 12:23
1,2,4-Trichlorobenzene	<2500	ug/Kg		5/11/2023 12:23
1,2,4-Trimethylbenzene	<1000	ug/Kg		5/11/2023 12:23
1,2-Dibromo-3-Chloropropane	<5000	ug/Kg		5/11/2023 12:23
1,2-Dibromoethane	<1000	ug/Kg		5/11/2023 12:23
1,2-Dichlorobenzene	<1000	ug/Kg		5/11/2023 12:23
1,2-Dichloroethane	<1000	ug/Kg		5/11/2023 12:23
1,2-Dichloropropane	<1000	ug/Kg		5/11/2023 12:23
1,3,5-Trimethylbenzene	<1000	ug/Kg		5/11/2023 12:23
1,3-Dichlorobenzene	<1000	ug/Kg		5/11/2023 12:23
1,3-Dichloropropane	<1000	ug/Kg		5/11/2023 12:23
1,4-Dichlorobenzene	<1000	ug/Kg		5/11/2023 12:23
1,4-Dioxane	<5000	ug/Kg		5/11/2023 12:23
2,2-Dichloropropane	<1000	ug/Kg		5/11/2023 12:23
2-Butanone	<5000	ug/Kg		5/11/2023 12:23
2-Chlorotoluene	<1000	ug/Kg		5/11/2023 12:23
2-Hexanone	<2500	ug/Kg		5/11/2023 12:23
4-Chlorotoluene	<1000	ug/Kg		5/11/2023 12:23
4-Methyl-2-pentanone	<2500	ug/Kg		5/11/2023 12:23
Acetone	<5000	ug/Kg		5/11/2023 12:23

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Method Blank Report

Client: Inventum Engineering, P.C.
Project Reference: RITC Lake Effect Cleaning Residuals
Lab Project ID: 231867
Matrix: Solid

Volatile Organics

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Benzene	<1000	ug/Kg		5/11/2023 12:23
Bromobenzene	<2500	ug/Kg		5/11/2023 12:23
Bromochloromethane	<2500	ug/Kg		5/11/2023 12:23
Bromodichloromethane	<1000	ug/Kg		5/11/2023 12:23
Bromoform	<2500	ug/Kg		5/11/2023 12:23
Bromomethane	<1000	ug/Kg		5/11/2023 12:23
Carbon disulfide	<1000	ug/Kg		5/11/2023 12:23
Carbon Tetrachloride	<1000	ug/Kg		5/11/2023 12:23
Chlorobenzene	<1000	ug/Kg		5/11/2023 12:23
Chloroethane	<1000	ug/Kg		5/11/2023 12:23
Chloroform	<1000	ug/Kg		5/11/2023 12:23
Chloromethane	<1000	ug/Kg		5/11/2023 12:23
cis-1,2-Dichloroethene	<1000	ug/Kg		5/11/2023 12:23
cis-1,3-Dichloropropene	<1000	ug/Kg		5/11/2023 12:23
Cyclohexane	<5000	ug/Kg		5/11/2023 12:23
Dibromochloromethane	<1000	ug/Kg		5/11/2023 12:23
Dibromomethane	<1000	ug/Kg		5/11/2023 12:23
Dichlorodifluoromethane	<1000	ug/Kg		5/11/2023 12:23
Ethylbenzene	<1000	ug/Kg		5/11/2023 12:23
Freon 113	<1000	ug/Kg		5/11/2023 12:23
Isopropylbenzene	<1000	ug/Kg		5/11/2023 12:23
m,p-Xylene	<1000	ug/Kg		5/11/2023 12:23
Methyl acetate	<1000	ug/Kg		5/11/2023 12:23
Methyl tert-butyl Ether	<1000	ug/Kg		5/11/2023 12:23
Methylcyclohexane	<1000	ug/Kg		5/11/2023 12:23
Methylene chloride	<2500	ug/Kg		5/11/2023 12:23
Naphthalene	<2500	ug/Kg		5/11/2023 12:23
n-Butylbenzene	<1000	ug/Kg		5/11/2023 12:23

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



Method Blank Report

Client: Inventum Engineering, P.C.
Project Reference: RITC Lake Effect Cleaning Residuals
Lab Project ID: 231867
Matrix: Solid

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
n-Propylbenzene	<1000	ug/Kg		5/11/2023 12:23
o-Xylene	<1000	ug/Kg		5/11/2023 12:23
p-Isopropyltoluene	<1000	ug/Kg		5/11/2023 12:23
sec-Butylbenzene	<1000	ug/Kg		5/11/2023 12:23
Styrene	<2500	ug/Kg		5/11/2023 12:23
tert-Butylbenzene	<1000	ug/Kg		5/11/2023 12:23
Tetrachloroethene	<1000	ug/Kg		5/11/2023 12:23
Toluene	<1000	ug/Kg		5/11/2023 12:23
trans-1,2-Dichloroethene	<1000	ug/Kg		5/11/2023 12:23
trans-1,3-Dichloropropene	<1000	ug/Kg		5/11/2023 12:23
Trichloroethene	<1000	ug/Kg		5/11/2023 12:23
Trichlorofluoromethane	<1000	ug/Kg		5/11/2023 12:23
Vinyl chloride	<1000	ug/Kg		5/11/2023 12:23

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	91.1	72.3 - 128		5/11/2023 12:23
4-Bromofluorobenzene	95.0	70 - 123		5/11/2023 12:23
Pentafluorobenzene	101	80.7 - 124		5/11/2023 12:23
Toluene-D8	99.0	82.1 - 121		5/11/2023 12:23

Method Reference(s): EPA 8260C
 EPA 5035A -- H
Data File: z16780.D
QC Batch ID: voahl230511
QC Number: Blk 2

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



QC Report for Laboratory Control Sample

Client: Inventum Engineering, P.C.

Project Reference: RITC Lake Effect Cleaning Residuals

Lab Project ID: 231867

Matrix: Solid

Volatile Organics

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	%Rec Limits	LCS Outliers	Date Analyzed
1,1,1-Trichloroethane	20.0	ug/Kg	16.9	84.6	69.1 - 120		5/11/2023
1,1,2,2-Tetrachloroethane	20.0	ug/Kg	19.1	95.4	21 - 179		5/11/2023
1,1,2-Trichloroethane	20.0	ug/Kg	18.3	91.3	64.1 - 126		5/11/2023
1,1-Dichloroethane	20.0	ug/Kg	17.9	89.4	75.4 - 113		5/11/2023
1,1-Dichloroethene	20.0	ug/Kg	17.8	88.9	71.2 - 116		5/11/2023
1,2-Dichlorobenzene	20.0	ug/Kg	19.0	94.9	76.4 - 116		5/11/2023
1,2-Dichloroethane	20.0	ug/Kg	17.4	87.1	69.4 - 121		5/11/2023
1,2-Dichloropropane	20.0	ug/Kg	18.3	91.3	74.7 - 115		5/11/2023
1,3-Dichlorobenzene	20.0	ug/Kg	18.7	93.4	77.3 - 114		5/11/2023
1,4-Dichlorobenzene	20.0	ug/Kg	17.5	87.7	77.5 - 112		5/11/2023
Benzene	20.0	ug/Kg	18.4	92.2	78.4 - 116		5/11/2023
Bromodichloromethane	20.0	ug/Kg	17.7	88.4	71.2 - 117		5/11/2023
Bromoform	20.0	ug/Kg	18.8	93.8	63.5 - 121		5/11/2023
Bromomethane	20.0	ug/Kg	17.6	87.8	61.6 - 128		5/11/2023
Carbon Tetrachloride	20.0	ug/Kg	17.4	87.2	67.2 - 121		5/11/2023
Chlorobenzene	20.0	ug/Kg	18.7	93.3	81.1 - 119		5/11/2023

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



QC Report for Laboratory Control Sample

Client: Inventum Engineering, P.C.

Project Reference: RITC Lake Effect Cleaning Residuals

Lab Project ID: 231867

Matrix: Solid

Volatile Organics

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed
Chloroethane	20.0	ug/Kg	18.9	94.4	70.2 - 123		5/11/2023
Chloroform	20.0	ug/Kg	17.7	88.7	76.5 - 113		5/11/2023
Chloromethane	20.0	ug/Kg	19.2	95.9	53.8 - 125		5/11/2023
cis-1,3-Dichloropropene	20.0	ug/Kg	17.9	89.6	69.7 - 115		5/11/2023
Dibromochloromethane	20.0	ug/Kg	18.8	94.2	61.4 - 125		5/11/2023
Ethylbenzene	20.0	ug/Kg	17.6	88.1	75.5 - 117		5/11/2023
Methylene chloride	20.0	ug/Kg	15.0	74.8	65.8 - 125		5/11/2023
Tetrachloroethene	20.0	ug/Kg	18.9	94.7	61.1 - 125		5/11/2023
Toluene	20.0	ug/Kg	17.9	89.7	77.1 - 116		5/11/2023
trans-1,2-Dichloroethene	20.0	ug/Kg	17.9	89.4	75.4 - 116		5/11/2023
trans-1,3-Dichloropropene	20.0	ug/Kg	18.2	91.2	65.9 - 116		5/11/2023
Trichloroethene	20.0	ug/Kg	19.0	94.8	75.8 - 120		5/11/2023
Trichlorofluoromethane	20.0	ug/Kg	17.7	88.5	69 - 123		5/11/2023
Vinyl chloride	20.0	ug/Kg	17.8	89.1	64 - 127		5/11/2023

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



QC Report for Laboratory Control Sample

Client: **Inventum Engineering, P.C.**

Project Reference: RITC Lake Effect Cleaning Residuals

Lab Project ID: 231867

Matrix: Solid

Volatile Organics

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed
---------	-------------	-------------	------------	----------------	--------------	--------------	---------------

Method Reference(s): EPA 8260C
 EPA 5035A -- H
 Data File: z16777.D
 QC Number: LCS 1
 QC Batch ID: voahl230511

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Method Blank Report

Client: Inventum Engineering, P.C.
Project Reference: RITC Lake Effect Cleaning Residuals
Lab Project ID: 231867
Matrix: TCLP Fluid

TCLP Volatile Organics

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
1,1-Dichloroethene	<20.0	ug/L		5/9/2023 17:31
1,2-Dichloroethane	<20.0	ug/L		5/9/2023 17:31
2-Butanone	<100	ug/L		5/9/2023 17:31
Benzene	<20.0	ug/L		5/9/2023 17:31
Carbon Tetrachloride	<20.0	ug/L		5/9/2023 17:31
Chlorobenzene	<20.0	ug/L		5/9/2023 17:31
Chloroform	<20.0	ug/L		5/9/2023 17:31
Tetrachloroethene	<20.0	ug/L		5/9/2023 17:31
Trichloroethene	<20.0	ug/L		5/9/2023 17:31
Vinyl chloride	<20.0	ug/L		5/9/2023 17:31

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
1,2-Dichloroethane-d4	107	79.7 - 118		5/9/2023 17:31
4-Bromofluorobenzene	89.2	80.1 - 112		5/9/2023 17:31
Pentafluorobenzene	103	88 - 115		5/9/2023 17:31
Toluene-D8	103	88.2 - 113		5/9/2023 17:31

Method Reference(s): EPA 8260C
EPA 5030
Data File: z16725.D
QC Batch ID: voax230509
QC Number: Blk 1



QC Report for Laboratory Control Sample

Client: Inventum Engineering, P.C.

Project Reference: RITC Lake Effect Cleaning Residuals

Lab Project ID: 231867

Matrix: TCLP Fluid

TCLP Volatile Organics

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	%Rec Limits	LCS Outliers	Date Analyzed
1,1-Dichloroethene	20.0	ug/L	18.4	92.2	70.1 - 114		5/9/2023
1,2-Dichloroethane	20.0	ug/L	20.0	100	76.2 - 113		5/9/2023
Benzene	20.0	ug/L	19.1	95.6	82.6 - 111		5/9/2023
Carbon Tetrachloride	20.0	ug/L	17.7	88.6	69.7 - 115		5/9/2023
Chlorobenzene	20.0	ug/L	19.9	99.3	88.3 - 111		5/9/2023
Chloroform	20.0	ug/L	19.6	98.0	77.1 - 112		5/9/2023
Tetrachloroethene	20.0	ug/L	18.9	94.6	74.7 - 113		5/9/2023
Trichloroethene	20.0	ug/L	19.4	97.1	82.4 - 113		5/9/2023
Vinyl chloride	20.0	ug/L	19.9	99.5	63 - 120		5/9/2023

Method Reference(s):

EPA 8260C
EPA 5030
Data File: 216724.D
QC Number: LCS 1
QC Batch ID: voax230509

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



Analytical Report Appendix

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

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

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.

"H" = Denotes a parameter analyzed outside of holding time.

"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.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

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, term 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 will 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 the 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.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

CHAIN OF CUSTODY

PARADIGM ENVIRONMENTAL SERVICES

PROJECT REFERENCE
LAKE EFFECT CLEANING RESIDUALS

REPORT TO: INVENTUM ENGINEERING
INVOICE TO: SAME
LAB PROJECT ID: 231807
COMPANY: INVENTUM ENGINEERING
ADDRESS: 441 GARVISE DR STE 2
CITY: HERRNDON VA **STATE:** 20170
PHONE: 585-734-5255 **FAX:**
ATTN: JOHN BLACK
QUOTATION #:
EMAIL: john.black@inventumeng.com
Matrix Codes: AQ - Aqueous Liquid W/A - Water DW - Drinking Water SO - Soil SD - Solid
 NA - Non-Aqueous Liquid W/G - Groundwater WW - Wastewater SL - Sludge PT - Paint WP - Wipe CK - Caulk AR - Air

DATE COLLECTED	TIME COLLECTED	COMPOSITE	GARB	SAMPLE IDENTIFIER	MC TDRS	CONTAMINANTS	REQUESTED ANALYSIS	REMARKS	PARADIGM LAB SAMPLE NUMBER
5/4/23	11:30		X	DRYICE-05042023	SD	3	<input checked="" type="checkbox"/> FULL TCLP <input checked="" type="checkbox"/> TAL METALS <input checked="" type="checkbox"/> Hg 7471 <input checked="" type="checkbox"/> TCL VOLCS <input checked="" type="checkbox"/> TCL SVOLCS <input checked="" type="checkbox"/> PCBs <input checked="" type="checkbox"/> BTU <input checked="" type="checkbox"/> REACTIVITY <input checked="" type="checkbox"/> CORROSIIVITY <input checked="" type="checkbox"/> IGNITABILITY <input checked="" type="checkbox"/> % MOISTURE	A For TCLP extract.	014
								CR 5/4/23	

Turnaround Time
 Availability contingent upon lab approval; additional fees may apply.

Report Supplements

Standard 5 day None Required None Required
 10 day Batch QC Basic EDD
 Rush 3 day Category A NYSDEC EDD
 Rush 2 day Category B
 Rush 1 day
 Other Other EDD
 please indicate date needed: _____ please indicate EDD needed: _____

Received By: Roxanne Bix Date/Time: 5/4/2023 Total Cost: _____
 Relinquished By: [Signature] Date/Time: 5/4/2023
 Received By: [Signature] Date/Time: 5/4/23 1335 P.L.F. _____
 Received @ Lab By: [Signature] Date/Time: 5/4/23 16:27

By signing this form, client agrees to Paradigm Terms and Conditions (reverse).



Chain of Custody Supplement

Client: Inventum Completed by: ZF
 Lab Project ID: 231867 Date: 5/4/23

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	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> 5035	<input type="checkbox"/>
Comments	_____		
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input checked="" type="checkbox"/> TCLP vial	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Preservation	<input checked="" type="checkbox"/> Met TCN	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Temperature	<input checked="" type="checkbox"/> 6°C	<input type="checkbox"/>	<input checked="" type="checkbox"/> Met
Comments	_____		
Compliant Sample Quantity/Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		

212

230508028

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

CHAIN OF CUSTODY

ELAP ID: 10709



REPORT TO: Paradigm Environmental **INVOICE TO:** Same

COMPANY: Paradigm Environmental **COMPANY:** Same

ADDRESS: **ADDRESS:**

CITY: **STATE:** **ZIP:** **CITY:** **STATE:** **ZIP:**

PHONE: **FAX:** **PHONE:** **FAX:**

ATTN: Reporting **ATTN:** Accounts Payable

COMMENTS: Please email results to reporting@paradigmenv.com

LAB PROJECT #: **CLIENT PROJECT #:**

TURNAROUND TIME (WORKING DAYS): 1 2 3 5 OTHER

Date Due: 5/12/23

DATE	TIME	COMPOSITE	GRADES	SAMPLE LOCATION/FIELD ID	MATERIALS	CONTAMINANTS	REMARKS	PARADIGM LAB SAMPLE NUMBER
5/4/23	1130	X		Dry Ice - 05042003	Tw 1	TCUP Pest TCUP Herb		231867-01A
							Spun @ Paradigm on 5/5/23	

****LAB USE ONLY BELOW THIS LINE****

Sample Condition: Per NELAP/ELAP 210/241/242/243/244

Receipt Parameter **NELAC Compliance**

Container Type: Y N

Preservation: Y N

Holding Time: Y N

Temperature: Y N

Comments: _____

Client

Sampled By: *[Signature]* Date/Time: 0530 5/8/23

Refinquired By: *[Signature]* Date/Time: 1240 5/8/23

Received By: *[Signature]* Date/Time: 5/8 4:20

Received @ Lab By: *[Signature]* Date/Time: _____

Total Cost:

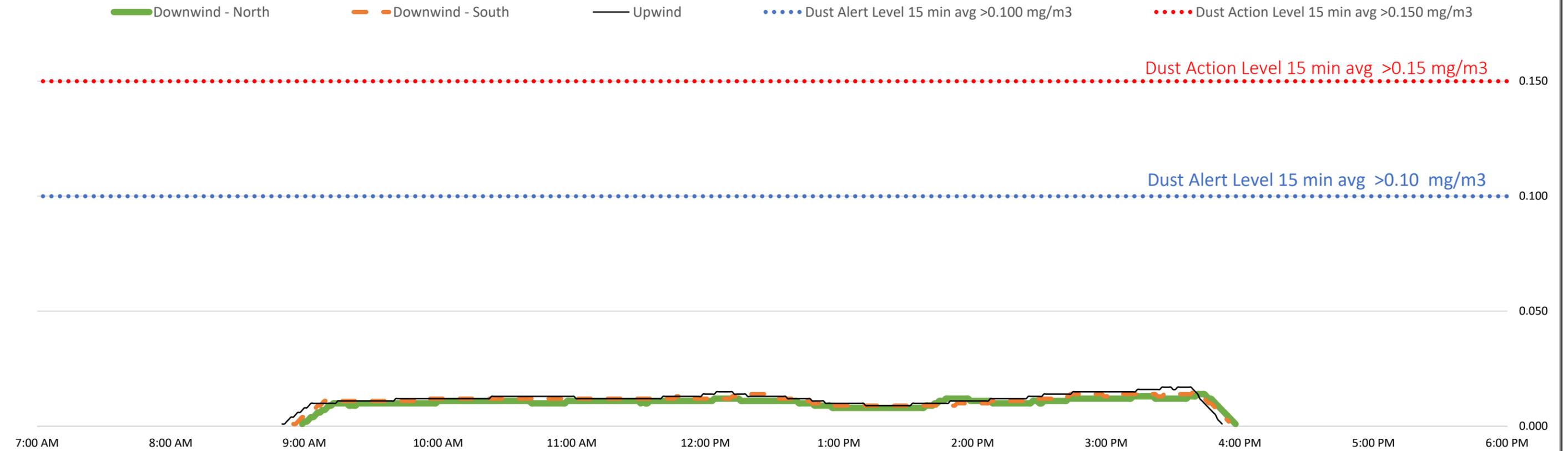
P.L.F.

Appendix C – CAMP Data

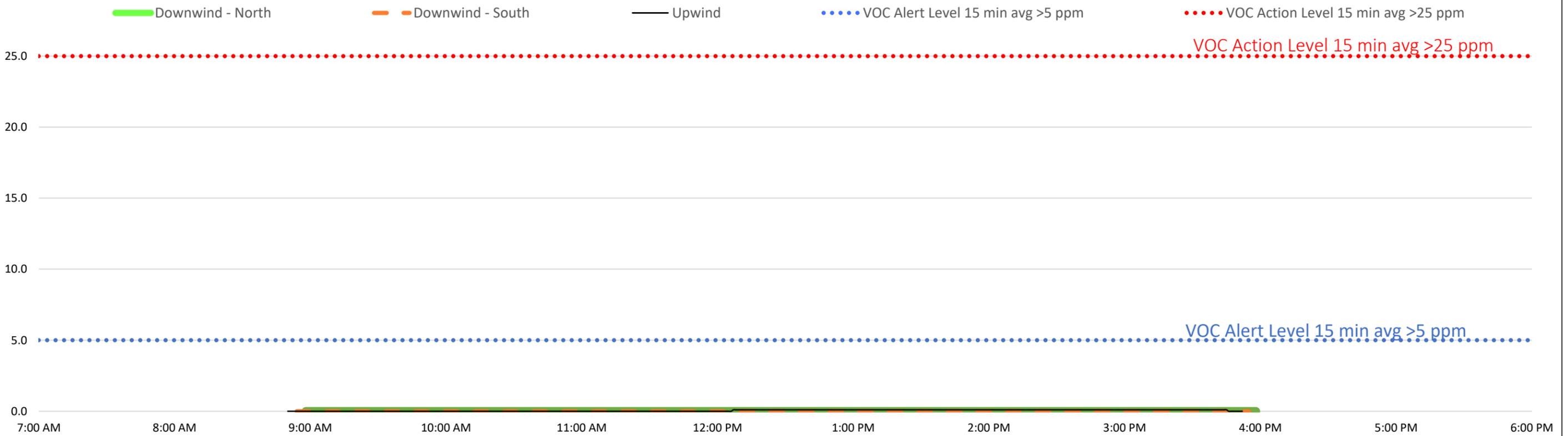


Fixed Station Daily Air Monitoring - November 30, 2021

Dust (mg/m3) 15 min avg

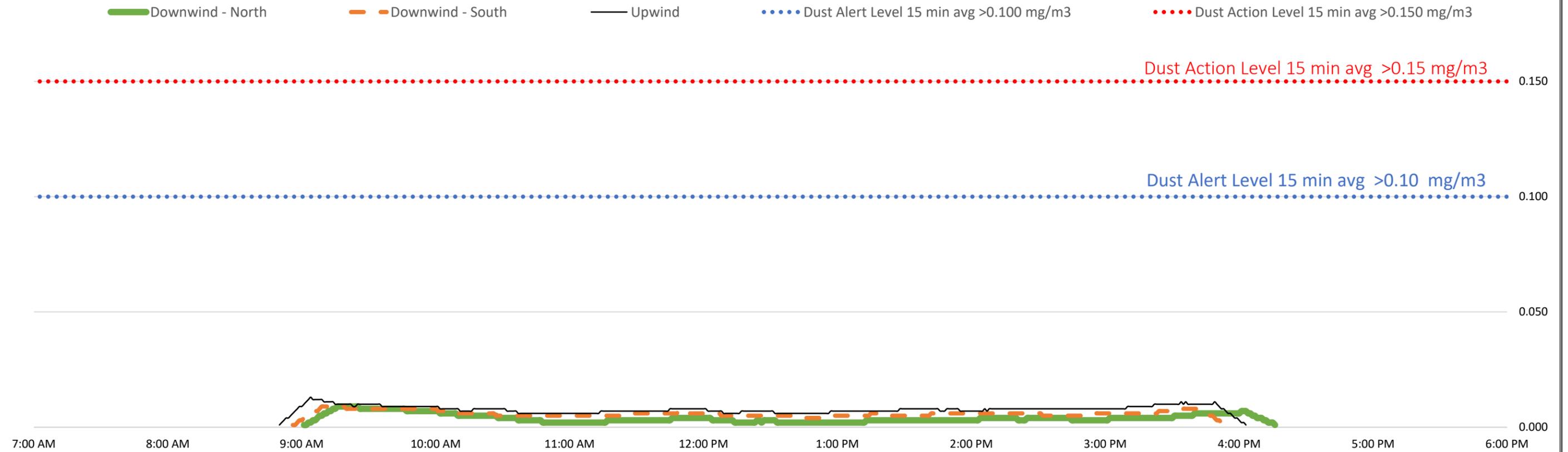


VOC (ppm) 15 min avg

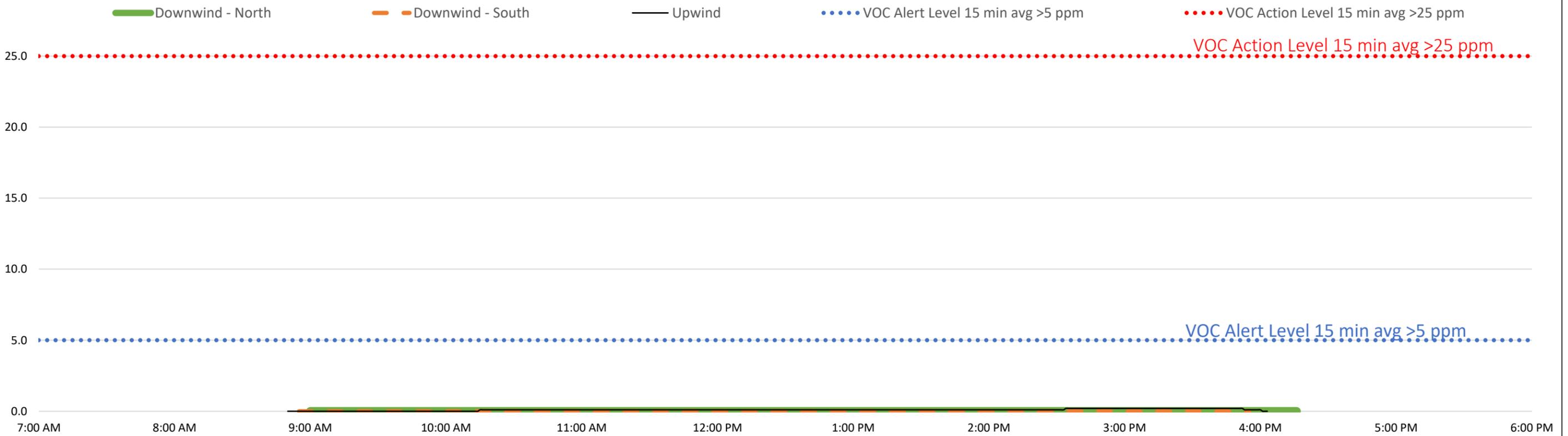


Fixed Station Daily Air Monitoring - December 1, 2021

Dust (mg/m3) 15 min avg

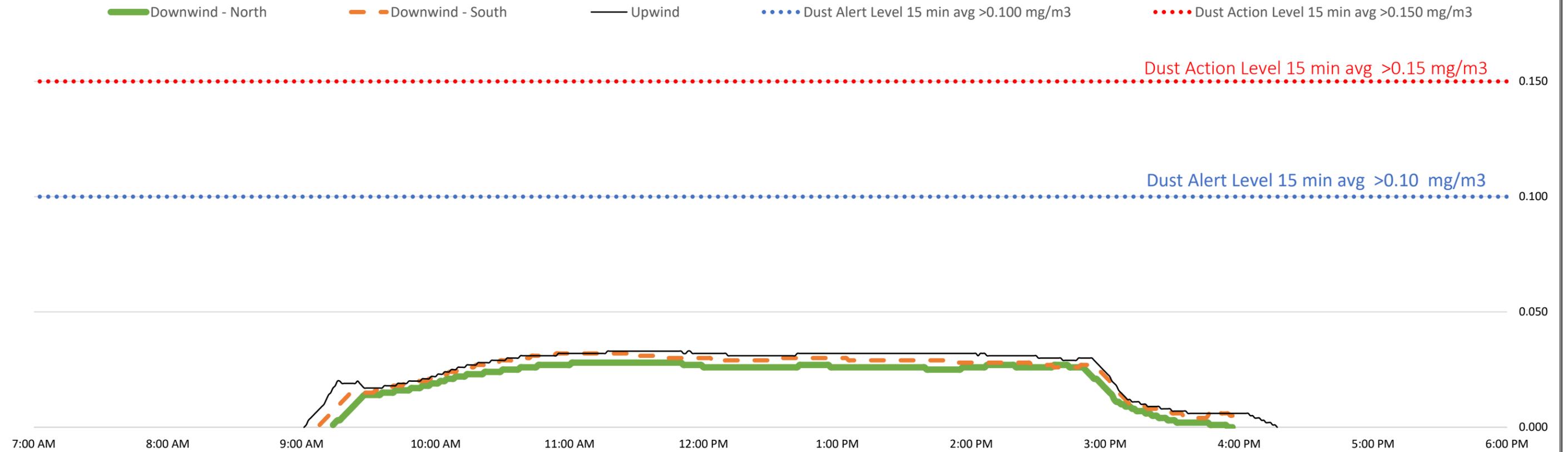


VOC (ppm) 15 min avg

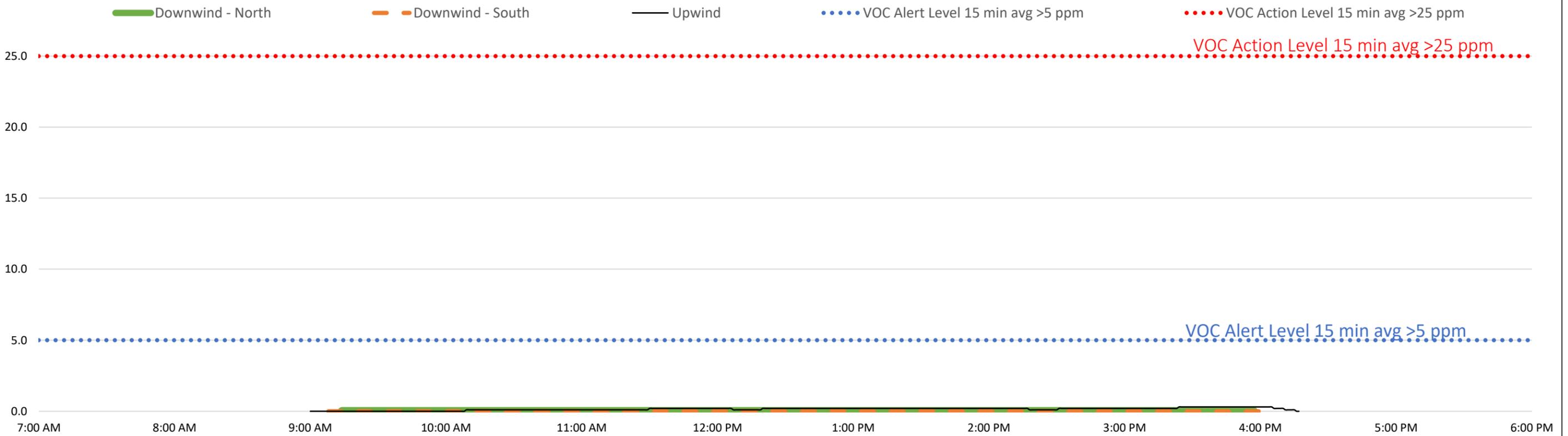


Fixed Station Daily Air Monitoring - December 2, 2021

Dust (mg/m3) 15 min avg

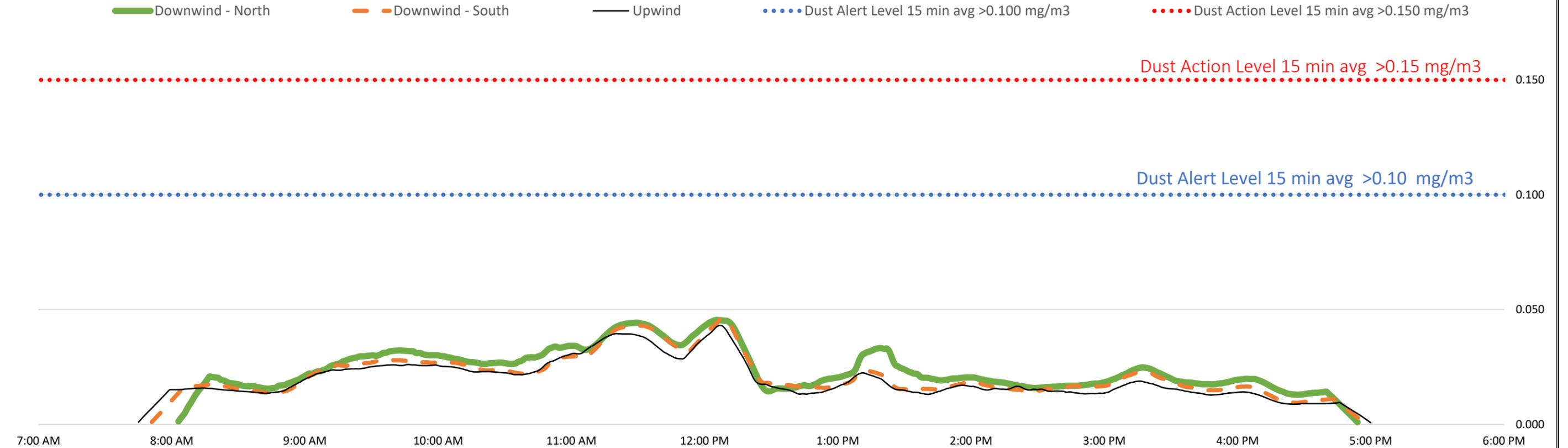


VOC (ppm) 15 min avg

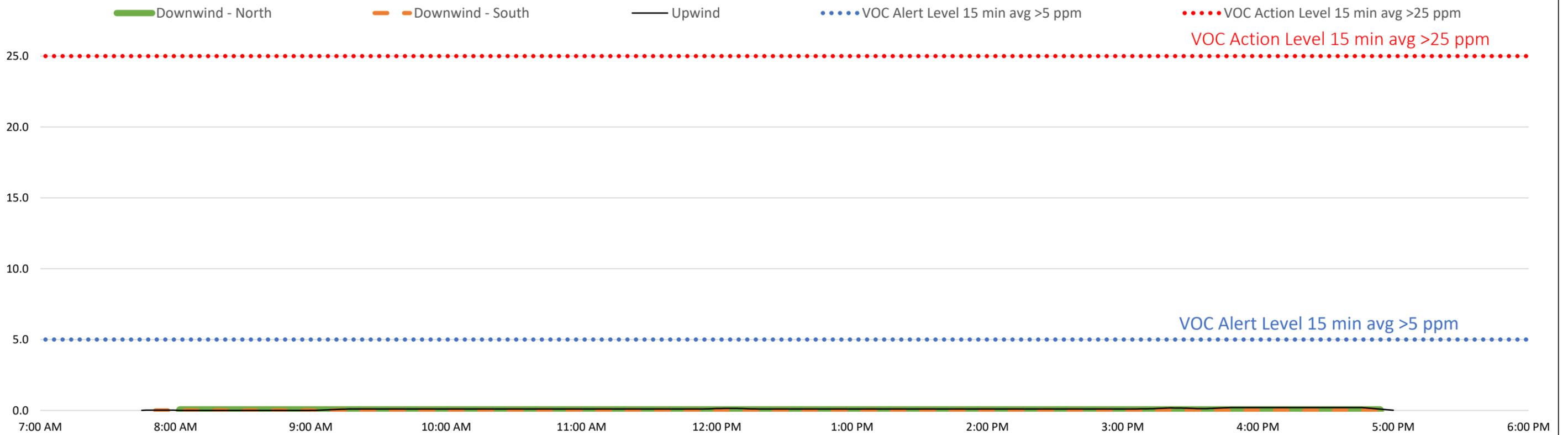


Fixed Station Daily Air Monitoring - April 24, 2023

Dust (mg/m3) 15 min avg

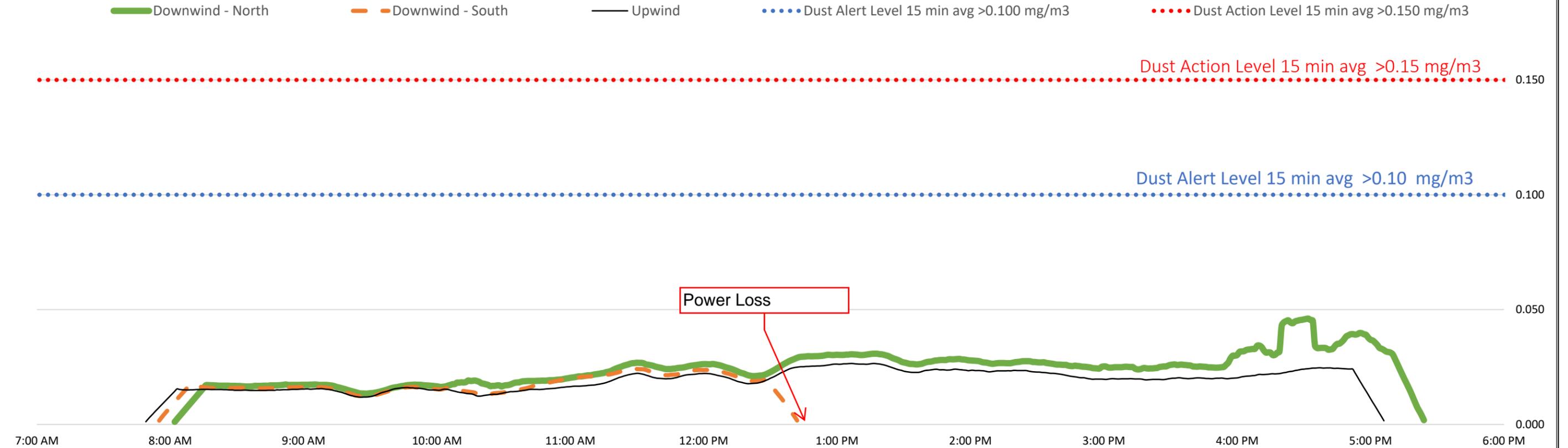


VOC (ppm) 15 min avg

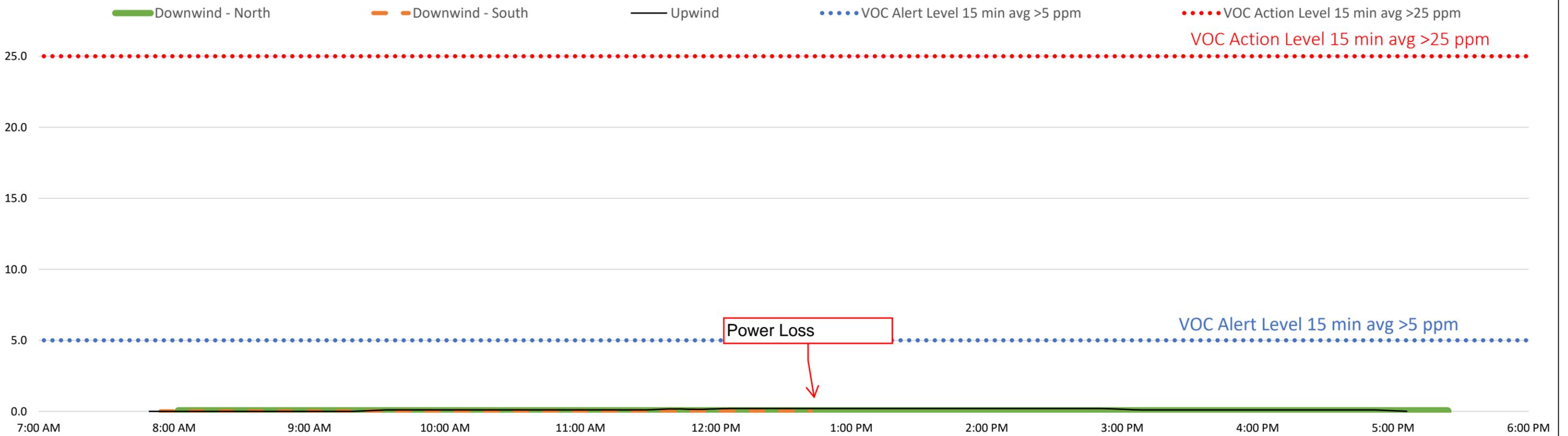


Fixed Station Daily Air Monitoring - April 25, 2023

Dust (mg/m3) 15 min avg

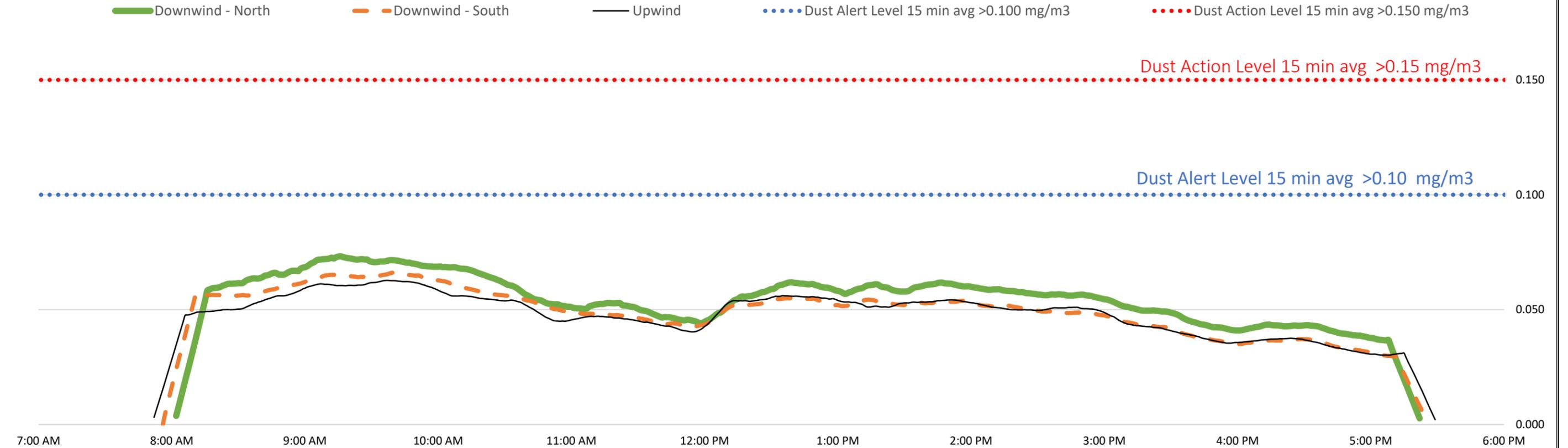


VOC (ppm) 15 min avg

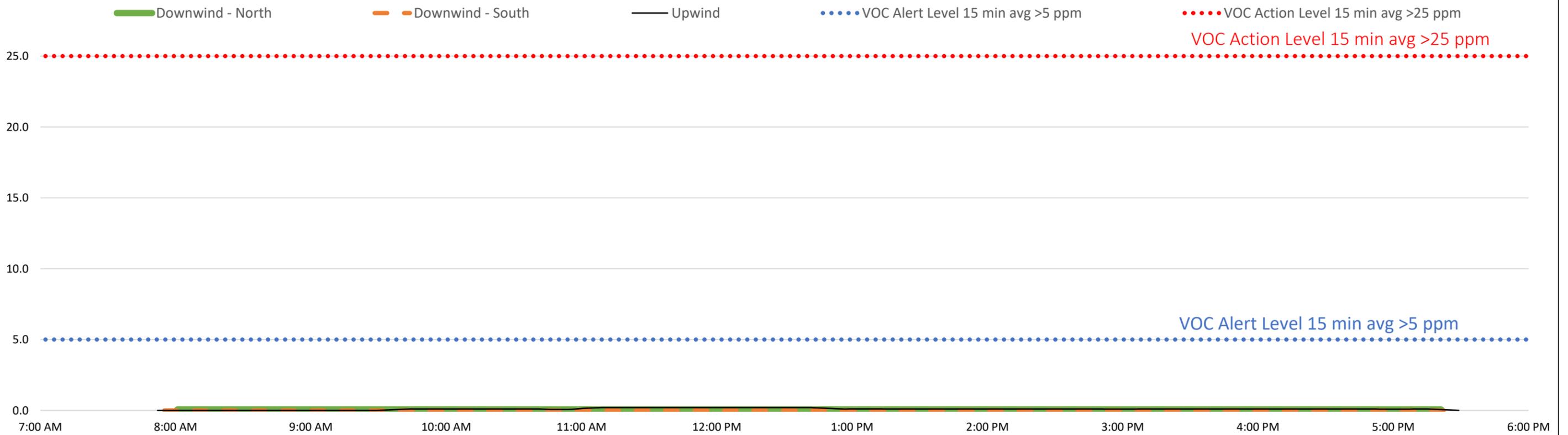


Fixed Station Daily Air Monitoring - April 26, 2023

Dust (mg/m3) 15 min avg

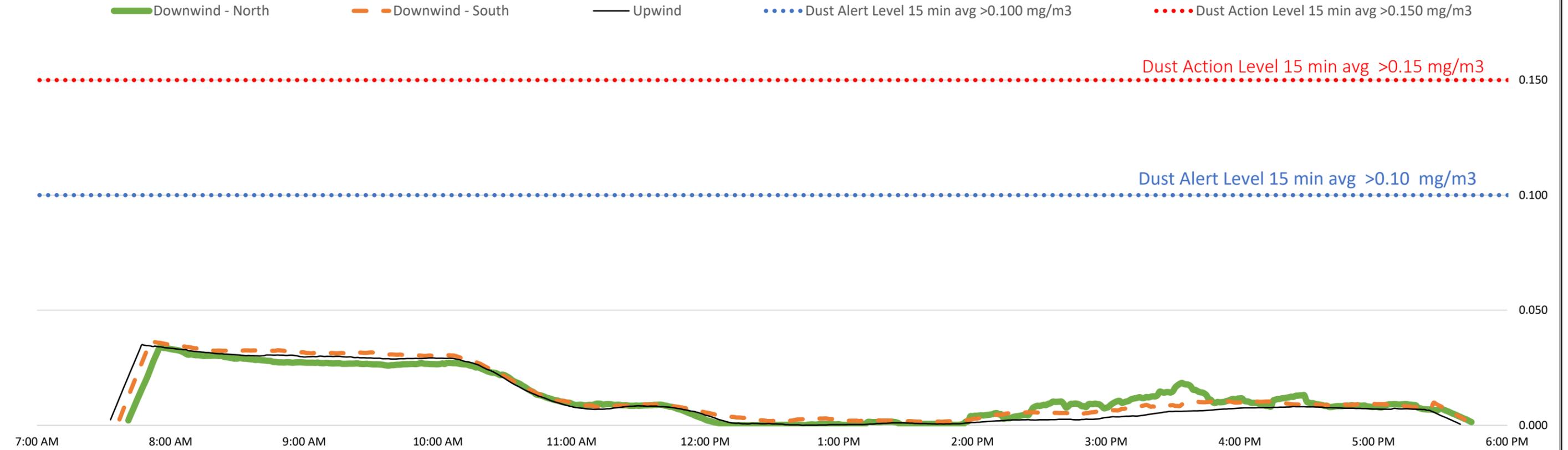


VOC (ppm) 15 min avg



Fixed Station Daily Air Monitoring - July 13, 2023

Dust (mg/m3) 15 min avg



VOC (ppm) 15 min avg

