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LIMITED PHASE II ENVIRONMENTAL INVESTIGATION RESULTS
7825 SAN LEANDRO STREET
OAKLAND, CALIFORNIA

by
Haley & Aldrich, Inc.
Walnut Creek, California

for
Duke Realty Corporation
Oakland, California

submitted to
Alameda County Department of Environmental Health
Alameda, California

File No. 0204627-100
May 2022



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9 May 2022
File No. 0204627-100

Alameda County Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502

Attention: Paresh Khatri
Local Oversight Program Manager

Subject: Limited Phase II Environmental Investigation Results
7825 San Leandro Street
Oakland, California
Case # RO0000092, Global ID # T0600100065

Dear Mr. Khatri:

Haley & Aldrich, Inc. (Haley & Aldrich) is submitting to Alameda County Department of Environmental Health (ACDEH) Local Oversight Program (LOP) on behalf of the Duke Realty Corporation (Duke) this letter report presenting the results of the Limited Phase II Environmental Investigation conducted at the project site located at 7825 San Leandro Street, Oakland, California (the "Site"; Figure 1 and Figure 2). The Site includes 14 parcels associated with the three addresses for the Site, which are 7741, 7785, and 7929 San Leandro Street. For simplicity and consistency with regulatory communication, 7825 San Leandro Street will be used to describe the location.

This Limited Phase II Environmental Investigation was solely developed to assist Duke with its environmental due diligence process for evaluating the potential purchase and redevelopment of the Site. Therefore, the objective of the investigation activities was to assess current subsurface conditions in select areas where residual impacts may be present based on the Site's previous environmental investigations results and evaluate whether the conditions present could affect Duke's redevelopment plans (Figure 3).

Background

The Site is owned by American Brass and Iron (AB&I) and has primarily been used for metal pipe manufacturing and storage since approximately 1941. Environmental investigations conducted at the Site beginning in 1993 identified subsurface groundwater, soil, and soil vapor conditions impacted with petroleum hydrocarbons and chlorinated volatile organic compounds (VOCs) due to releases associated with underground storage tanks (USTs). Given these impacts, the Site became a Leaking Underground Storage Tank case with ACDEH LOP. On 29 November 2011, following the removal of the USTs and performing groundwater remedial measures, ACDEH LOP issued a case closure of the Site that required

the filing of a land use covenant (LUC) and provided other restrictions associated with future redevelopment and subsurface work.

Duke plans to redevelop the Site with an approximately 320,000-square-foot warehouse and surface parking lot. In support of a potential property transfer and Site redevelopment, Duke engaged Haley & Aldrich to conduct a Limited Phase II environmental investigation to assist with its due diligence planning.

Sampling Activities

The soil, groundwater, and soil vapor sampling activities were conducted following Haley & Aldrich's *Limited Phase II Environmental Investigation Work Plan* (*Work Plan*) dated 14 March 2022. The *Work Plan* was submitted to and approved by the ACDEH LOP and an Alameda County Public Works Agency (ACPWA) drilling permit was obtained.

Soil vapor probe installations and soil and groundwater sampling was performed on 25 March 2022 and soil vapor sampling was performed on 28 March 2022. Six boring locations were proposed to be sampled as described in the Work Plan, however, borings could not be advanced at two locations due to subsurface refusal. Figure 2 presents the sampling locations. The soil vapor sampling activities were performed in general accordance with the California Department of Toxic Substances Control (DTSC) Advisory Active Soil Gas Investigations (*CalEPA/DTSC Advisory*), dated July 2015.

PRE-FIELD ACTIVITIES

The following pre-field activities were completed prior to performing the fieldwork associated with the soil, groundwater, and soil vapor sampling:

- Applying for drilling permit from ACPWA;
- Marking the boring locations on the ground using white spray paint and notifying Underground Service Alert (USA);
- Retaining a private utility locating firm to scan the boring locations and identifying nearby subsurface utilities; and
- Preparing a Site-specific health and safety plan to identify potential hazards and risks associated with the field activities, including COVID-19 protocols.

SOIL VAPOR PROBE INSTALLATION

Soil vapor probe installation was completed on 25 March 2022. Two approximately 2.25-inch diameter borings, E-2 and E-4, were advanced by Gregg Drilling (Gregg), a California C-57 licensed driller, using a hand auger and direct push rig to total depths of 15 feet below ground surface (bgs) under observation by Haley & Aldrich's staff; these borings were initially advanced for groundwater sample collection and then backfilled as described below. Proposed boring E-3 was not advanced due to equipment limitations and the thick concrete slab encountered while attempting to core through the concrete. The borings

were logged in general accordance with the American Society for Testing and Materials (ASTM) Unified Soil Classification System and the cores were screened using a photoionization detector (PID). Boring E-2 was backfilled with hydrated bentonite to 5.5 feet bgs, and a soil vapor probe was installed at 5 feet bgs. Boring E-4 was backfilled with hydrated bentonite to 4.5 feet bgs, and a soil vapor probe was installed at 4 feet bgs as moist soil was encountered at 5 feet bgs. Small diameter (1/4-inch) Teflon® tubing, fitted with a 1-inch long filter at the bottom to prevent particulate infiltration, was placed in borings E-2 and E-4 at approximately 5 and 4 feet bgs, respectively.

Approximately 12 inches of filter pack sand was placed around the tubing inlet in the bottom of the boring (from 4.5 to 5.5 feet bgs in E-2 and 3.5 to 4.5 feet bgs in E-4). After installation of the sand pack, the borehole was backfilled with hydrated bentonite with a 1- to 2-foot cement seal and flush mounted well box installed at the surface. Once the construction of the soil vapor probe was complete, the tubing was capped with an air-tight valve. Soil and groundwater borings and soil vapor probe construction logs are included as Appendix A. In accordance with the *CalEPA/DTSC Advisory*, the soil vapor probes were allowed to equilibrate for a minimum of 48 hours prior to sample collection and sampling was not performed within 5 days following a rain event generating 0.5-inches or more within a 24-hour period.[1]

SOIL AND GROUNDWATER SAMPLING

The soil and groundwater samples were collected by an environmental professional employing standard sampling methodologies in accordance with the Work Plan. Soil and groundwater sampling was completed on 25 March 2022. Proposed boring E-1 was not advanced due to equipment limitations and the thick concrete slab encountered while attempting to core this location. In addition, proposed boring location E-3 could not be advanced as previously described. Two soil samples were collected from each of the four completed borings. For borings E-2 and E-6, one soil sample was collected from within the capillary fringe, and one additional shallower soil sample was collected based on potential impacts observed during the drilling (e.g., odor or screening with the PID). Soil samples from boring E-4 were collected primarily based on potential impacts observed during drilling as groundwater was not encountered. For boring E-5, one soil sample was collected from immediately below the ground surface and a second at 3 feet bgs. The soil samples were collected in laboratory-provided glass jars, labeled with the boring location identification and sample depth, placed in resealable plastic bags, and stored in an ice-filled cooler. Soil samples submitted for VOC analysis were collected in accordance with United States Environmental Protection Agency (USEPA) Method 5035 and placed in laboratory-supplied containers with proper preservative.

Grab groundwater samples were collected from borings E-2 and E-6. Groundwater was not encountered at E-4 after being advanced to a total depth of 15 feet bgs; therefore, a groundwater sample was not collected. Groundwater was first encountered at E-2 and E-6 at 11.75 and 7.75 feet bgs, respectively. Soil and groundwater borings and soil vapor probe construction logs are included as Appendix A. Once the boring was advanced approximately 2 to 3 feet below the groundwater table, a temporary polyvinyl chloride casing with 5 feet of screen was placed in the open borehole to allow groundwater to

[1] A rain event occurred starting on 27 March 2022, however, less than 0.5 inches of rainfall was experienced during the 24-hour period preceding the soil vapor sampling activities. See National Weather Service report provide in Appendix B.

accumulate. Groundwater samples were collected using new, disposable Teflon® tubing and a peristaltic pump and transferred to laboratory-supplied sample bottles with proper preservative. Each groundwater sample bottle was labeled with the boring location identification, placed in resealable plastic bags, and stored in an ice-filled cooler.

The collected soil and groundwater samples were transported under standard chain of custody protocols to Pace National Analytical (Pace), a California-certified laboratory, for analysis for the following contaminants of concern:

- Total petroleum hydrocarbons as gasoline (TPHg), diesel (TPHd), and motor oil (TPHmo) using USEPA Method 8015, both with and without silica-gel cleanup;
- VOCs using USEPA Method 8260B; and
- California Code of Regulations (CCR) Title 22 Metals using USEPA Method 6010/7471, with groundwater reporting total (unfiltered) concentrations. After receipt of analytical results for the soil samples, additional leachability analyses, California Waste Extraction Test (CA WET) and/or USEPA Toxicity Characteristic Leaching Procedure (TCLP), for chromium and lead were performed on select soil samples.

One trip blank and one equipment blank sample were collected during the mobilization and submitted for the above analyses for project quality control/quality assurance (QA/QC). The equipment blank sample was collected by pouring laboratory-prepared deionized water through decontaminated sampling equipment into sample containers. The trip blank sample was provided by the laboratory and kept in the cooler during sampling and shipping activities. The equipment blank was submitted for the analyses listed above, and the trip blank was only analyzed for VOCs. The proposed duplicate groundwater sample was not collected due to the low recharge rate observed at E-6 and no groundwater encountered at E-4.

SOIL VAPOR SAMPLING

Soil vapor sampling was completed on 28 March 2022 and performed in general accordance with the *CalEPA/DTSC Advisory* before sample collection. Soil vapor samples were collected using laboratory-provided airflow regulators and manifolds, and into passivated stainless-steel canisters. Prior to sample collection, a successful shut-in test was completed on the manifold and connections by applying and monitoring a vacuum on the manifold and connections using the passivated cannister. The shut-in test was considered successful if the vacuum remains stable for at least 1 minute. Then, at least three purge volumes[2] were removed from the probe to avoid sampling any stagnant or ambient air, at a flow rate of approximately 150 milliliters per minute (mL/min) and the soil vapor sample subsequently collected. During purging, a leak-check was performed with a shroud placed over the probe and borehole using helium as a tracer compound. Each removed purge volume was measured with a landfill gas meter, a helium detector, and a PID. Soil vapor sampling field forms are included in Appendix C.

[2] Calculated based on the volume of void space in the tubing plus an estimate of the void space in the sand pack and dry bentonite in the vapor probe's annular space.

Soil vapor samples were submitted under chain-of-custody documentation to Eurofins Air Toxics (Eurofins), a California-certified analytical laboratory, for analysis of VOCs and TPHg using USEPA Method TO-15. In addition, for QA/QC measures, one sample was analyzed for helium using Modified ASTM Method D1946. One duplicate sample was collected from E-2 and submitted for VOC and TPHg analysis using USEPA Method TO-15 for project QA/QC.

BORING DESTRUCTION

The soil and groundwater only borings, E-5 and E-6, were backfilled with neat cement from the total boring depth to approximately 6 inches bgs and were completed with asphalt or concrete to match the surrounding surface conditions. Photo documentation was provided to an inspector from ACPWA.

After soil vapor sampling was completed, the two borings completed as soil vapor probes, E-2 and E-4, were destroyed by Gregg on 8 April 2022 under observation of Haley & Aldrich staff and an inspector from ACPWA. Gregg pulled the tubing from the probes, removed the well boxes, drilled the borings to remove the vapor probe materials, backfilled with neat cement to 6 inches bgs, and completed with asphalt or concrete to match the surrounding surface conditions.

INVESTIGATION DERIVED WASTE

The soil cuttings generated during drilling and sampling activities were placed in a labeled, Department of Transportation-approved, 55-gallon drum and sampled for waste characterization and disposal purposes. The soil waste was characterized as non-hazardous. On 5 May 2022, the drum was picked up and transported offsite for disposal. A copy of the non-hazardous waste manifest is provided in Appendix D.

Analytical Results

The analytical results are summarized below, with copies of the Eurofins and Pace analytical laboratory reports provided in Appendix E. Table 1 summarizes the analytical results for the collected soil samples, Table 2 summarizes the analytical results for the collected groundwater samples, and Table 3 summarizes the analytical results for the collected soil vapor samples.

To evaluate if subsurface environmental conditions of concern may exist that need to be addressed for redeveloping the Site, the detected concentrations were compared against the Environmental Screening Levels (ESLs) established by the San Francisco Bay Regional Water Quality Control Board (RWQCB), dated July 2019 (Rev 2). The soil ESLs assess potential direct exposure human health risks for commercial/industrial properties and for construction workers; the groundwater ESLs assess potential vapor intrusion human health risks for commercial/industrial properties; and the soil vapor ESLs assess potential vapor intrusion human health risks for commercial/industrial properties.

In addition, to evaluate disposal requirements for the soil encountered during potential redevelopment, the detected concentrations in soil were compared against the CCR Title 22 Soluble Threshold Limit

Concentration (STLC) and the Total Threshold Limit Concentration (TTLC) and the Federal Resource Conservation and Recovery Act (RCRA) Toxicity Characteristic (TC).

SOIL

Soil samples were collected from each of the four borings, E-2, E-4, E-5, and E-6. The soil analytical laboratory results for benzene, arsenic, chromium, lead, and nickel exceeded one or more of the regulatory criteria and are summarized below.

- Benzene was detected at concentrations ranging from 0.00122 milligrams per kilogram (mg/kg) in the 3 feet bgs sample collected at E-5 to 3.85 mg/kg in the 3 feet bgs sample collected at E-4, which exceeded the commercial/industrial ESL of 1.4 mg/kg but did not exceed the construction worker ESL of 33 mg/kg. The benzene concentrations are below waste thresholds and not indicative of hazardous waste based on benzene concentrations.
- Arsenic was detected at concentrations ranging from 1.38 mg/kg in the 5 feet bgs sample collected at E-6 to 7.33 mg/kg in the 0 feet bgs sample collected at E-5, which exceeded the commercial/industrial ESL of 0.31 mg/kg and the construction worker ESL of 0.98 mg/kg. These concentrations are below the upper estimate for background arsenic concentration of 11 mg/kg for soil in the region and accepted by the RWQCB for San Francisco Bay Area soil (Duvergé, 2011). The arsenic concentrations are below waste criteria and not indicative of hazardous waste.
- Chromium was detected at concentrations ranging from 31.3 mg/kg at E-5 to 88.2 mg/kg in E-2; the four samples collected from E-2 and E-6 contained chromium at concentrations greater than 10 times the STLC, 50 mg/kg. Therefore, the samples were further analyzed using a CA WET, and the resulting leachable chromium concentrations did not exceed the STLC, 5 milligrams per liter (mg/L). The soil from these borings would not be considered hazardous based on chromium concentrations. Additionally, the detected chromium concentrations were below the commercial/industrial and construction worker ESLs.
- Lead was detected at concentrations ranging from 7.07 mg/kg in the 13 feet bgs sample collected at E-4 to 232 mg/kg in the 3 feet bgs sample collected at E-4. The lead concentrations in the shallow samples at E-4 and E-5 contained lead at concentrations above the construction worker ESL of 160 mg/kg but below the commercial/industrial ESL of 320 mg/kg. Lead concentrations were greater than 10 times the STLC (50 mg/kg) in three samples (the shallow sample at E-4 and both samples at E-5), and two of the three samples (shallow samples at E-4 and E-5) contained lead at concentrations greater than 20 times the TC (100 mg/kg). Given these results, these three samples were further analyzed using CA WET, and the two samples exceeding 20 times the TC were also analyzed using the TCLP. The lead leachability results did not exceed the STLC or TC, 5 mg/L, for two of the three samples. The leachability results for the third sample, the shallower sample collected at E-5, exceeded the STLC for lead, 5 mg/L, indicating the soil when excavated would be classified as non-RCRA, California-only hazardous waste.
- Nickel was detected at concentrations ranging from 33.8 mg/kg in the 0 feet bgs sample at E-5 to 105 mg/kg in the 2 feet bgs sample at E-6, which exceeded the construction worker ESL of

86 mg/kg but did not exceed the commercial/industrial ESL of 11,000 mg/kg. The nickel concentrations are below waste criteria and not indicative of hazardous waste.

Additional petroleum hydrocarbon constituents (ethylbenzene and TPH) and chlorinated VOCs (trichloroethene [TCE] and tetrachloroethene) were detected at elevated concentrations in the 3 feet bgs sample collected from E-4 but not exceeding ESLs, while the 13 feet bgs sample collected at this same location did not contain elevated concentrations. These results suggest the soil vapor impact detected at this location, as discussed below, is potentially associated with a shallow soil source.

GROUNDWATER

Groundwater samples were collected from two of the four borings, E-2 and E-6. The groundwater analytical laboratory results were below the commercial/industrial ESLs with one exception. Vinyl chloride (VC) was detected at a concentration of 9.87 micrograms per liter (µg/L) at E-2, exceeding the commercial/industrial ESL of 0.14 µg/L. VC was not detected at E-6 (*i.e.*, the results were "non-detect").

Higher concentrations of petroleum hydrocarbons (TPHd and TPHmo) were detected in the groundwater sample collected from E-6, in the southwestern edge of the Site. If groundwater were encountered during excavation or dewatering activities during Site redevelopment, it should be characterized for proper treatment, handling, and disposal. Groundwater dewatering activities should also be performed in compliance with the applicable Publicly Owned Treatment Works and/or National Pollutant Discharge Elimination System permit requirements.

SOIL VAPOR

Soil vapor samples were collected from two of the four borings, E-2 and E-4. The soil vapor analytical laboratory results for benzene, chloroform, ethylbenzene, TCE, VC, and TPHg were above the commercial/industrial ESLs and are summarized below.

- Benzene was detected at a concentration of 11,000 micrograms per cubic meter (µg/m^3) at E-4, exceeding the commercial/industrial ESL of 14 µg/m^3. Benzene was not detected in the primary or duplicate samples at E-2.
- Chloroform was detected at concentrations of 21 and 20 µg/m^3 in the primary and duplicate samples, respectively, at E-2. These detections exceed the commercial/industrial ESL of 18 µg/m^3. Chloroform was not detected at E-4.[3]
- Ethylbenzene was detected at a concentration of 2,600 µg/m^3 at E-4, exceeding the commercial/industrial ESL of 160 µg/m^3. Ethylbenzene was not detected in the primary or duplicate samples at E-2.
- TCE was detected at a concentration of 740 µg/m^3 at E-4, exceeding the commercial/industrial ESL of 100 µg/m^3. TCE was not detected in the primary or duplicate samples at E-2.

[3] The laboratory reporting limit for chloroform in the sample collected from E-4 is elevated above the ESL due to high concentrations of other analytes (Appendix D).

- VC was detected at a concentration of 63 µg/m^3 at E-4, exceeding the ESL of 5.2 µg/m^3. VC was not detected in the primary or duplicate samples at E-2.
- TPHg was detected at a concentration of 820,000 µg/m^3 at E-4, exceeding the commercial/industrial ESL of 83,000 µg/m^3. TPHg was not detected in the primary or duplicate samples at E-2.

Helium was not detected above the laboratory reporting limit in E-4; therefore, no detectable leakage in the soil vapor sampling train occurred.

Based on the concentrations of petroleum hydrocarbons and chlorinated VOCs (TCE and VC) a potential vapor intrusion risk exists in the vicinity of E-4. Although an elevated VC groundwater concentration was detected in E-2 there does not appear to be a potential vapor intrusion risk as the soil vapor sample collected at this location did not exceed the ESL. In addition, although chloroform was detected above the ESL at location E-2, this compound is not likely associated with the Site's residual subsurface impact as chloroform is commonly detected in soil vapor due to being found in municipal water that is often present in the vadose zone by way of leaking drinking water or irrigation pipelines (Agency for Toxic Substances and Disease Registry, 1997).

QUALITY ASSURANCE / QUALITY CONTROL (QA/QC)

Haley & Aldrich performed data validation and review of the soil, groundwater, and soil vapor analytical results for completeness, accuracy, precision, possible sample contamination, conformance with holding times, and elevated detection limits.

The samples were collected in properly preserved containers, arrived at the laboratory at the proper temperature, and were prepared and analyzed within the holding time and preservation criteria specified per each method's protocol with the exceptions identified in the Data Usability Summary Reports (DUSRs) included as Appendix F. The field QA/QC samples, including the trip blank and equipment blank, included no detections, indicating that no contamination was introduced from field or sample transport activities. The soil vapor field duplicate concentrations were below the project threshold of 35 percent relative percent difference and no data qualification was required based on field QA/QC samples.

The analytical data were found to be of acceptable quality and usable for this sampling event.

Conclusions

Haley & Aldrich completed the limited Phase II environmental investigation at the Site on 25 and 28 March 2022 which included the collection of soil, grab groundwater, and soil vapor samples. The findings of this sampling are summarized below:

- A potential for vapor intrusion exists in the vicinity of E-4 due to concentrations of petroleum hydrocarbons (benzene, ethylbenzene, and TPHg) and chlorinated VOCs (TCE and VC) in soil vapor above the commercial/industrial ESLs.

- Elevated VC concentrations were detected in groundwater at location E-2, however, the soil vapor sample collected at this same location did not exceed the commercial/industrial ESL.
- Shallow soil in the vicinity of E-4, E-5, and E-6 contained lead, nickel, and/or benzene exceeding commercial/industrial and/or construction worker ESLs. With the exception of lead at E-5, however, discussed below, the results indicate the metal-impacted soil will generally be considered non-hazardous waste under California law and under federal law (*i.e.*, RCRA).
- There is a potential for the soil from the southeastern portion of the Site near boring E-5 to be classified as non-RCRA, California-only hazardous waste if excavated.

Professional Engineer Signing Statement

I declare under penalty of perjury that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

Closing

This report is being submitted to comply with ACDEH's approval of the Work Plan. Please do not hesitate to contact the undersigned if you have any questions or comments.

Sincerely yours,
HALEY & ALDRICH, INC.

Akash Caveney
Staff Scientist



Jason Grant, P.E. (CA)
Senior Project Manager | Engineer

c: Duke Realty Corporation; Attn: Mr. Jason Bernstein

Enclosures:
Table 1– Summary of Soil Analytical Results
Table 2 – Summary of Groundwater Analytical Results
Table 3 – Summary of Soil Vapor Analytical Results
Figure 1 – Project Locus
Figure 2 – Sampling Locations
Figure 3 – Proposed Redevelopment Plan
Appendix A – Boring Logs
Appendix B – National Weather Service Report

Appendix C – Soil Vapor Sampling Forms
Appendix D – Non-Hazardous Waste Manifest
Appendix E – Analytical Laboratory Reports
Appendix F – Data Usability Summary Reports

References

1. Agency for Toxic Substances and Disease Registry, 1997. Toxicological profile for Chloroform. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

2. Alameda County Department of Environmental Health, 2011. Case Closure for Fuel Leak Case No. RO0000092 and GeoTracker Global ID T0600100065, American Brass & Iron Foundry, 7825 San Leandro Street, Oakland, CA 94621. 29 November.

3. California Environmental Protection Agency/Department of Toxic Substances Control, 2015. Advisory – Active Soil Gas Investigation. July.

4. Duvergé, D.J., 2011. Establishing Background Arsenic in Soil of the Urbanized San Francisco Bay Region. December.

5. Haley & Aldrich, Inc., 2022. Limited Phase II Environmental Investigation Work Plan, 7825 San Leandro Street, Oakland, California, Case # RO0000092, Global ID # T0600100065. 14 March.

6. San Francisco Bay Regional Water Quality Control Board, 2019. Environmental Screening Levels, Revision 2. July.

TABLES

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS
7825 SAN LEANDRO STREET
OAKLAND, CALIFORNIA

Location	Commercial/ Industrial ESL	Construction Worker ESL	10x STLC	TTLC	20x TC	E-2	E-2	E-4	E-4	E-5	E-5	E-6	E-6
Sample Date						03/25/2022	03/25/2022	03/25/2022	03/25/2022	03/25/2022	03/25/2022	03/25/2022	03/25/2022
Sample Type						Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary
Sample Depth (ft bgs)						6 ft bgs	11 ft bgs	3 ft bgs	13 ft bgs	0 ft bgs	3 ft bgs	2 ft bgs	5 ft bgs
Other (%)													
Total Solids	--	--	--	--	--	**72.3**	**76.0**	**80.8**	**77.5**	**80.4**	**79.7**	**82.8**	**75.3**
CCR T22 Metals (mg/kg)													
Antimony, Total	160	50	150	500	--	**2.27 J**	**2.37 J**	**1.8 J**	< 0.702	**6.6**	**1.25 J**	**2.16 J**	**1.1 J**
Arsenic, Total	0.31	0.98	50	500	100	**3.74**	**5.57**	**5.66**	**3.19**	**7.33**	**5.75**	**2.91**	**1.38 J**
Barium, Total	220,000	3,000	1,000	10,000	2,000	**321**	**269**	**211**	**164**	**211**	**131**	**210**	**347**
Beryllium, Total	230	27	7.5	75	--	**1.05**	**0.562**	**0.491**	**0.478**	**0.256**	**0.271**	**0.732**	**0.720**
Cadmium, Total	1,100	51	10	100	20	< 0.0651	**0.287 J**	**2.44**	**0.216 J**	**1.64**	**1.03**	**0.519 J**	**0.374 J**
Chromium, Total	1,800,000	530,000	50	2,500	100	**88.3**	**63.3**	**44.1**	**47.8**	**40.5**	**31.3**	**84.9**	**59.9**
Cobalt, Total	350	28	800	8,000	--	**13.3**	**21.4**	**13.0**	**11.3**	**9.31**	**7.35**	**8.36**	**18.2**
Copper, Total	47,000	14,000	250	2,500	--	**45.9**	**42.0**	**40.0**	**25.3**	**56.0**	**65.7**	**85.4**	**46.2**
Lead, Total	320	160	50	1,000	100	**10.5**	**8.69**	**232**	**7.07**	**219**	**85.2**	**38.3**	**10.2**
Mercury, Total	190	44	2	20	4	**0.0569**	**0.0585**	**1.52**	**0.0696**	**0.304**	**0.145**	**0.156**	**0.143**
Molybdenum, Total	5,800	1,800	3,500	3,500	--	**0.199 J**	**0.387 J**	**1.95**	< 0.141	**8.74**	**0.912**	**17.8**	< 0.145
Nickel, Total	11,000	86	200	2,000	--	**68.2**	**66.5**	**73.8**	**81.4**	**33.8**	**38.2**	**105**	**67.1**
Selenium, Total	5,800	1,700	10	100	20	< 1.06	**1.57 J**	**0.973 J**	< 0.986	< 0.951	**1.56 J**	**2.81**	**1.44 J**
Silver, Total	5,800	1,800	50	500	100	< 0.176	< 0.167	< 0.157	< 0.164	< 0.158	< 0.159	**0.807 J**	< 0.169
Thallium, Total	12	3.5	70	700	--	< 0.545	< 0.518	< 0.488	< 0.508	< 0.490	< 0.494	< 0.476	< 0.524
Vanadium, Total	5,800	470	240	2,400	--	**93.7**	**68.6**	**45.2**	**34.0**	**41.2**	**32.4**	**53.0**	**52.2**
Zinc, Total	350,000	110,000	2,500	5,000	--	**71.7**	**65.9**	**124**	**53.0**	**295**	**352**	**60.6**	**78.4**
Extraction Metals (mg/L)													
STLC Chromium	--	--	5 [a]	--	--	**0.883**	**0.464**	--	--	--	--	**1.56**	**1.49**
STLC Lead	--	--	5 [a]	--	--	--	--	**1.43**	--	**5.59**	**3.09**	--	--
TCLP Lead	--	--	--	--	5.0 [b]	--	--	**0.203**	--	**0.250**	**0.296**	--	--
Total Petroleum Hydrocarbons (mg/kg)													
Total Petroleum Hydrocarbons (C5-C12) as Gasoline	2,000	1,800	--	--	--	< 1.55	< 1.40	**580**	**262**	**11.3**	**1.51 J**	< 1.22	**2.17 J**
Total Petroleum Hydrocarbons (C12-C22) as Diesel	1,200	1,100	--	--	--	< 1.01	**0.971 J**	**482 J-**	**41.7**	**27.1**	**6.22 J**	**6.52**	**1.06 J**
Total Petroleum Hydrocarbons (C12-C22) as Diesel, Silica Gel	1,200	1,100	--	--	--	< 1.01	**1.18 J**	**428**	**40.4**	**21.9**	**3.84 J**	**5.05**	**1.2 J**
Total Petroleum Hydrocarbons (C22-C40) as Motor Oil	180,000	54,000	--	--	--	**10.9 J**	**8.33 J**	**4,580**	**148**	**232**	**73.5**	**41.3**	**2.64 J**
Total Petroleum Hydrocarbons (C22-C40) as Motor Oil, Silica Gel	180,000	54,000	--	--	--	**10.6 J**	**7.62 J**	**4,400**	**157**	**186**	**51.7**	**39.2**	**2.17 J**
Volatile Organic Compounds (mg/kg)													
1,1,1,2-Tetrachloroethane	8.9	190	--	--	--	< 0.00177	< 0.0016	< 0.0119	< 0.00153	< 0.00186	< 0.00149	< 0.00139	< 0.00208
1,1,1-Trichloroethane	7,300	7,200	--	--	--	< 0.00172	< 0.00156	< 0.0116	< 0.00149	< 0.00181	< 0.00145	< 0.00135	< 0.00202
1,1,2,2-Tetrachloroethane	2.7	49	--	--	--	< 0.0013	< 0.00118	< 0.00875	< 0.00112	< 0.00136	< 0.00109	< 0.00102	< 0.00152
1,1,2-Trichloroethane	5.1	6.3	--	--	--	< 0.00111	< 0.00101	< 0.00753	< 0.000964	< 0.00117	< 0.000938	< 0.000875	< 0.00131
1,1-Dichloroethane	16	370	--	--	--	< 0.000916	< 0.000831	< 0.00618	< 0.000793	**0.00432 J**	**0.00445**	< 0.00072	< 0.00107
1,1-Dichloroethene	350	350	--	--	14	< 0.00113	**0.00623**	< 0.00764	< 0.000979	< 0.00119	< 0.000952	< 0.000887	< 0.00133
1,1-Dichloropropene	--	--	--	--	--	< 0.00151	< 0.00137	< 0.0102	< 0.00131	< 0.00159	< 0.00127	< 0.00118	< 0.00177
1,2,3-Trichlorobenzene	--	--	--	--	--	< 0.0137	< 0.0124	< 0.0923	< 0.0118	< 0.0144	< 0.0115	< 0.0107	< 0.0161
1,2,3-Trichloropropane	0.11	0.83	--	--	--	< 0.00302	< 0.00274	< 0.0204	< 0.00262	< 0.00318	< 0.00254	< 0.00237	< 0.00355

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS
7825 SAN LEANDRO STREET
OAKLAND, CALIFORNIA

Location	Commercial/ Industrial ESL	Construction Worker ESL	10x STLC	TTLC	20x TC	E-2	E-2	E-4	E-4	E-5	E-5	E-6	E-6
Sample Date						03/25/2022	03/25/2022	03/25/2022	03/25/2022	03/25/2022	03/25/2022	03/25/2022	03/25/2022
Sample Type						Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary
Sample Depth (ft bgs)						6 ft bgs	11 ft bgs	3 ft bgs	13 ft bgs	0 ft bgs	3 ft bgs	2 ft bgs	5 ft bgs
1,2,3-Trimethylbenzene	--	--	--	--	--	< 0.00295	< 0.00267	**0.882**	**0.046**	**0.0412**	**0.00362 J**	< 0.00231	< 0.00345
1,2,4-Trichlorobenzene	110	240	--	--	--	< 0.0082	< 0.00745	< 0.0554	< 0.00711	< 0.00863	< 0.00692	< 0.00645	< 0.00963
1,2,4-Trimethylbenzene	--	--	--	--	--	< 0.00295	< 0.00267	**4.61**	**0.0488**	**0.0603**	**0.00401 J**	< 0.00231	< 0.00345
1,2-Dibromo-3-chloropropane (DBCP)	0.059	1.1	--	--	--	< 0.00727	< 0.0066	< 0.0492	< 0.0063	< 0.00765	< 0.00612	< 0.00572	< 0.00853
1,2-Dibromoethane (Ethylene Dibromide)	0.16	3.3	--	--	--	< 0.00121	< 0.0011	< 0.00817	< 0.00105	< 0.00127	< 0.00102	< 0.000949	< 0.00142
1,2-Dichlorobenzene	9,400	7,800	--	--	--	< 0.000792	< 0.000719	**0.0158 J**	**0.0176**	< 0.000834	< 0.000668	< 0.000623	< 0.00093
1,2-Dichloroethane	2.1	45	--	--	10	< 0.00121	< 0.0011	< 0.00818	< 0.00105	< 0.00127	< 0.00102	< 0.000951	< 0.00142
1,2-Dichloropropane	4.4	66	--	--	--	< 0.00265	< 0.0024	< 0.0179	< 0.00229	< 0.00279	< 0.00223	< 0.00208	< 0.00311
1,3,5-Trimethylbenzene	--	--	--	--	--	< 0.00373	< 0.00339	**1.66**	**0.118**	**0.0176**	< 0.00314	< 0.00293	< 0.00438
1,3-Dichlorobenzene	--	--	--	--	--	< 0.00112	< 0.00102	< 0.00756	**0.00481 J**	< 0.00118	< 0.000943	< 0.000879	< 0.00131
1,3-Dichloropropane	--	--	--	--	--	< 0.000934	< 0.000848	< 0.00632	< 0.000809	< 0.000982	< 0.000787	< 0.000734	< 0.0011
1,4-Dichlorobenzene	12	280	--	--	150	< 0.00131	< 0.00118	< 0.00882	**0.00428 J**	**0.00236 J**	< 0.0011	< 0.00103	< 0.00153
2,2-Dichloropropane	--	--	--	--	--	< 0.00257	< 0.00234	< 0.0174	< 0.00223	< 0.0027	< 0.00217	< 0.00203	< 0.00302
2-Butanone (Methyl Ethyl Ketone)	200,000	120,000	--	--	4,000	< 0.118	< 0.107	< 0.801	< 0.103	< 0.125	< 0.0998	< 0.093	< 0.139
2-Chlorotoluene	--	--	--	--	--	< 0.00161	< 0.00146	< 0.0109	< 0.0014	< 0.00169	< 0.00136	< 0.00127	< 0.00189
2-Phenylbutane (sec-Butylbenzene)	--	--	--	--	--	< 0.00537	< 0.00487	**1.37**	**0.297**	**0.00726 J**	< 0.00452	< 0.00423	< 0.0063
4-Chlorotoluene	--	--	--	--	--	< 0.000839	< 0.000762	< 0.00567	< 0.000727	< 0.000883	< 0.000708	< 0.000659	< 0.000985
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	140,000	140,000	--	--	--	< 0.00425	< 0.00386	< 0.0287	< 0.00368	< 0.00448	< 0.00358	< 0.00334	< 0.00499
Acetone	670,000	270,000	--	--	--	< 0.0681	< 0.0618	< 0.459	< 0.0589	< 0.0716	< 0.0573	< 0.0535	< 0.0799
Acrylonitrile	--	--	--	--	--	< 0.00673	< 0.00611	< 0.0455	< 0.00583	< 0.00708	< 0.00567	< 0.00528	< 0.00789
Benzene	1.4	33	--	--	10	< 0.000871	< 0.00079	**3.85**	**0.426**	**0.00324**	**0.00122 J**	**0.00325**	< 0.00102
Bromobenzene	--	--	--	--	--	< 0.00168	< 0.00152	< 0.0113	< 0.00145	< 0.00176	< 0.00141	< 0.00132	< 0.00197
Bromodichloromethane	1.3	28	--	--	--	< 0.00135	< 0.00123	< 0.00913	< 0.00117	< 0.00142	< 0.00114	< 0.00106	< 0.00159
Bromoform	80	1,200	--	--	--	< 0.00218	< 0.00198	< 0.0147	< 0.00189	< 0.00229	< 0.00184	< 0.00172	< 0.00256
Bromomethane (Methyl Bromide)	30	29	--	--	--	< 0.00367	< 0.00333	< 0.0248	< 0.00318	< 0.00387	< 0.0031	< 0.00289	< 0.00431
Carbon tetrachloride	2.7	53	--	--	10	< 0.00167	< 0.00152	< 0.0113	< 0.00145	< 0.00176	< 0.00141	< 0.00132	< 0.00197
Chlorobenzene	1,300	1,200	--	--	2,000	< 0.000392	< 0.000355	< 0.00264	< 0.000339	< 0.000412	< 0.000331	< 0.000307	< 0.000459
Chloroethane	59,000	59,000	--	--	--	< 0.00317	< 0.00288	< 0.0214	< 0.00275	< 0.00334	< 0.00268	< 0.00249	< 0.00372
Chloroform (Trichloromethane)	1.4	34	--	--	120	< 0.00192	< 0.00174	< 0.013	< 0.00166	< 0.00202	< 0.00162	< 0.00151	< 0.00225
Chloromethane (Methyl Chloride)	470	470	--	--	--	< 0.00811	< 0.00736	< 0.0548	< 0.00702	< 0.00853	< 0.00684	< 0.00637	< 0.00952
cis-1,2-Dichloroethene	85	78	--	--	--	< 0.00137	< 0.00124	**0.0473**	< 0.00119	< 0.00144	< 0.00115	< 0.00107	< 0.00161
cis-1,3-Dichloropropene	--	--	--	--	--	< 0.00141	< 0.00128	< 0.00954	< 0.00122	< 0.00148	< 0.00119	< 0.00111	< 0.00166
Cymene (p-Isopropyltoluene)	--	--	--	--	--	< 0.00475	< 0.00432	**0.462**	**0.165**	**0.00647 J**	< 0.00401	< 0.00373	< 0.00558
Dibromochloromethane	39	290	--	--	--	< 0.00114	< 0.00104	< 0.00772	< 0.000988	< 0.0012	< 0.000962	< 0.000896	< 0.00134
Dibromomethane	--	--	--	--	--	< 0.0014	< 0.00127	< 0.00945	< 0.00121	< 0.00148	< 0.00118	< 0.0011	< 0.00164
Dichlorodifluoromethane (CFC-12)	--	--	--	--	--	< 0.003	< 0.00273	< 0.0203	< 0.0026	< 0.00316	< 0.00253	< 0.00235	< 0.00352
Diisopropyl ether (DIPE)	--	--	--	--	--	< 0.000765	< 0.000694	< 0.00516	< 0.000662	< 0.000805	< 0.000645	< 0.0006	< 0.000897
Ethylbenzene	26	540	--	--	--	< 0.00137	< 0.00125	**10.9**	**0.0465**	**0.00917**	**0.00181 J**	< 0.00108	< 0.00161
Hexachlorobutadiene	5.3	100	--	--	10	< 0.0112	< 0.0102	< 0.0756	< 0.00969	< 0.0118	< 0.00943	< 0.00879	< 0.0131
Isopropylbenzene (Cumene)	--	--	--	--	--	< 0.000792	< 0.000719	**5.85**	**0.77**	**0.00407 J**	< 0.000668	**0.000842 J**	< 0.00093
Methyl Tert Butyl Ether (MTBE)	210	4,100	--	--	--	< 0.000653	< 0.000592	< 0.0044	< 0.000565	< 0.000687	< 0.000551	< 0.000513	< 0.000766
Methylene chloride (Dichloromethane)	25	490	--	--	--	< 0.0124	< 0.0112	< 0.0837	< 0.0107	< 0.013	< 0.0104	< 0.00973	< 0.0145
Naphthalene	17	400	--	--	--	< 0.0091	< 0.00826	**0.091 J**	< 0.00788	**0.0512**	**0.00766 J**	< 0.00716	< 0.0107
n-Butylbenzene	--	--	--	--	--	< 0.00979	< 0.00889	**1.98**	**0.438**	**0.0121 J**	< 0.00825	< 0.00769	< 0.0115
n-Propylbenzene	--	--	--	--	--	< 0.00177	< 0.00161	**17.8**	**0.993**	**0.00765 J**	< 0.00149	< 0.00139	< 0.00208
Styrene	33,000	25,000	--	--	--	< 0.000427	< 0.000388	< 0.00289	< 0.00037	**0.0022 J**	< 0.000359	< 0.000335	< 0.000502

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS
7825 SAN LEANDRO STREET
OAKLAND, CALIFORNIA

Location	Commercial/ Industrial ESL	Construction Worker ESL	10x STLC	TTLC	20x TC	E-2	E-2	E-4	E-4	E-5	E-5	E-6	E-6
Sample Date						03/25/2022	03/25/2022	03/25/2022	03/25/2022	03/25/2022	03/25/2022	03/25/2022	03/25/2022
Sample Type						Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary
Sample Depth (ft bgs)						6 ft bgs	11 ft bgs	3 ft bgs	13 ft bgs	0 ft bgs	3 ft bgs	2 ft bgs	5 ft bgs
tert-Butylbenzene	--	--	--	--	--	< 0.00364	< 0.0033	< 0.0245	**0.0176**	< 0.00382	< 0.00307	< 0.00286	< 0.00427
Tetrachloroethene	2.7	33	--	--	14	< 0.00167	< 0.00152	**0.118**	< 0.00145	< 0.00176	< 0.00141	< 0.00131	< 0.00195
Toluene	5,300	4,700	--	--	--	**0.0115**	< 0.0022	**0.0302 J**	**0.0375**	**0.0216**	**0.00425 J**	**0.00428 J**	< 0.00284
trans-1,2-Dichloroethene	600	570	--	--	--	< 0.00194	< 0.00176	< 0.0131	< 0.00168	< 0.00205	< 0.00163	< 0.00152	< 0.00228
trans-1,3-Dichloropropene	--	--	--	--	--	< 0.00213	< 0.00193	< 0.0144	< 0.00184	< 0.00223	< 0.0018	< 0.00168	< 0.0025
Trichloroethene	6.1	18	2,040	2,040	10	< 0.00109	< 0.000988	**0.328**	< 0.000943	< 0.00115	< 0.000918	< 0.000855	< 0.00128
Trichlorofluoromethane (CFC-11)	--	--	--	--	--	< 0.00154	< 0.0014	< 0.0104	< 0.00134	< 0.00162	< 0.0013	< 0.00121	< 0.00181
Trifluorotrichloroethane (Freon 113)	--	--	--	--	--	< 0.00141	< 0.00128	< 0.00949	< 0.00122	< 0.00148	< 0.00119	< 0.0011	< 0.00166
Vinyl chloride	0.15	3.4	--	--	4	< 0.00216	**0.0128**	< 0.0146	< 0.00187	< 0.00227	< 0.00183	< 0.0017	< 0.00253
Xylene (total)	2,500	2,400	--	--	--	< 0.00164	< 0.00149	**2.48**	**0.318**	**0.0537**	**0.00873 J**	**0.00139 J**	< 0.00192

Notes:
mg/kg = milligrams per kilogram
mg/L = milligrams per liter
Commercial/Industrial ESL = Commercial/Industrial Direct Exposure Environmental Screening Level (ESL) established by the San Francisco Bay Regional Water Quality Control Board, July 2019 (Rev. 2)
Construction Worker ESL = Construction Worker Direct Exposure ESL established by the San Francisco Bay Regional Water Quality Control Board, July 2019 (Rev. 2)
STLC = Soluble Threshold Limit Concentration
TTLC = Total Threshold Limit Concentrations
TC = Toxicity Characteristic
TCLP = Toxicity Characteristic Leaching Procedure
Highlighted concentration exceeds the commercial/industrial ESL.
Highlighted concentration exceeds the construction worker ESL.
Highlighted concentration exceeds the STLC.
Non-detects are reported to the laboratory method detection limit (< MDL).
Detects are **bolded**.
a = value is STLC
b = value is TC
ft bgs = feet below ground surface
J = estimated result
J- = estimated result, biased low
See Appendix E for additional details regarding data qualifications applied to analytical results.
Analyses were completed using USEPA Method 6010B, 7471A, 8260B, and Standard Method 2540 G-2011.
ESL for total chromium provided as chromium (III).

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
7825 SAN LEANDRO STREET
OAKLAND, CALIFORNIA

Location Sample Date Sample Type	**Commercial/ Industrial ESL**	E-2 03/25/2022 Primary	E-6 03/25/2022 Primary
CCR T22 Metals (µg/L)			
Antimony, Total	--	< 1.03	**11**
Arsenic, Total	--	**1.81 J**	**6.05**
Barium, Total	--	**163**	**321**
Beryllium, Total	--	< 1.48	< 1.48
Cadmium, Total	--	**0.628 J**	**0.268 J**
Chromium, Total	--	**15.2 J**	**31.8 J**
Cobalt, Total	--	**5.69 J**	**7.48 J**
Copper, Total	--	**14.6**	**21.6**
Lead, Total	--	**5.48**	**37.3**
Mercury, Total	0.38	< 0.1	**0.192 J**
Molybdenum, Total	--	**9.78 J**	**341**
Nickel, Total	--	**20.7**	**39.1**
Selenium, Total	--	**0.32 J**	**0.731 J**
Silver, Total	--	**0.215 J**	< 0.07
Thallium, Total	--	< 0.121	< 0.121
Vanadium, Total	--	**38.9 J**	**22.8 J**
Zinc, Total	--	**16.6 J**	**38.8**
Total Petroleum Hydrocarbons (µg/L)			
Total Petroleum Hydrocarbons (C5-C12) as Gasoline	--	**146 J+**	< 100 J
Total Petroleum Hydrocarbons (C12-C22) as Diesel	--	**236 J**	**892 J**
Total Petroleum Hydrocarbons (C12-C22) as Diesel, Silica Gel	--	< 36.6 J	**55.4 J**
Total Petroleum Hydrocarbons (C22-C40) as Motor Oil	--	**111 J**	**819 J**
Total Petroleum Hydrocarbons (C22-C40) as Motor Oil, Silica Gel	--	< 36.6 J	**43.7 J**
Volatile Organic Compounds (µg/L)			
1,1,1,2-Tetrachloroethane	17	< 0.147	< 0.147
1,1,1-Trichloroethane	6,300	< 0.149	< 0.149
1,1,2,2-Tetrachloroethane	14	< 0.133	< 0.133
1,1,2-Trichloroethane	23	< 0.158	< 0.158
1,1-Dichloroethane	33	**3.63**	**0.325 J**
1,1-Dichloroethene	280	**195**	< 0.188
1,1-Dichloropropene	--	< 0.142	< 0.142
1,2,3-Trichlorobenzene	--	< 0.23	< 0.23
1,2,3-Trichloropropane	94	< 0.237	< 0.237
1,2,3-Trimethylbenzene	--	< 0.104	**0.407 J**
1,2,4-Trichlorobenzene	150	< 0.481	< 0.481
1,2,4-Trimethylbenzene	--	< 0.322	< 0.322
1,2-Dibromo-3-chloropropane (DBCP)	0.34	< 0.276	< 0.276
1,2-Dibromoethane (Ethylene Dibromide)	0.76	< 0.126	< 0.126
1,2-Dichlorobenzene	11,000	< 0.107	< 0.107
1,2-Dichloroethane	9.8	< 0.0819	< 0.0819
1,2-Dichloropropane	10	< 0.149	< 0.149

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
7825 SAN LEANDRO STREET
OAKLAND, CALIFORNIA

Location Sample Date Sample Type	**Commercial/ Industrial ESL**	E-2 03/25/2022 Primary	E-6 03/25/2022 Primary
1,3,5-Trimethylbenzene	--	< 0.104	< 0.104
1,3-Dichlorobenzene	--	< 0.11	< 0.11
1,3-Dichloropropane	--	< 0.11	< 0.11
1,4-Dichlorobenzene	11	< 0.12	< 0.12
2,2-Dichloropropane	--	< 0.161	< 0.161
2-Butanone (Methyl Ethyl Ketone)	9,500,000	< 1.19	**5.01 J**
2-Chlorotoluene	--	< 0.106	< 0.106
2-Phenylbutane (sec-Butylbenzene)	--	< 0.125	< 0.125
4-Chlorotoluene	--	< 0.114	< 0.114
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	2,300,000	< 0.478	< 0.478
Acetone	97,000,000	< 11.3	**25.2 J**
Acrolein	--	< 2.54	< 2.54
Acrylonitrile	--	< 0.671	< 0.671
Benzene	1.8	< 0.0941	**0.463 J**
Bromobenzene	--	< 0.118	< 0.118
Bromodichloromethane	3.8	< 0.136	< 0.136
Bromoform	510	< 0.129	< 0.129
Bromomethane (Methyl Bromide)	73	< 0.605	< 0.605
Carbon tetrachloride	1.9	< 0.128	< 0.128
Chlorobenzene	1,700	< 0.116	< 0.116
Chloroethane	97,000	< 0.192	< 0.192
Chloroform (Trichloromethane)	3.6	< 0.111	< 0.111
Chloromethane (Methyl Chloride)	1,100	< 0.96	< 0.96
cis-1,2-Dichloroethene	210	**2.36**	**0.215 J**
cis-1,3-Dichloropropene	--	< 0.111	< 0.111
Cymene (p-Isopropyltoluene)	--	< 0.12	< 0.12
Dibromochloromethane	--	< 0.14	< 0.14
Dibromomethane	--	< 0.122	< 0.122
Dichlorodifluoromethane (CFC-12)	--	< 0.374	< 0.374
Diisopropyl ether (DIPE)	--	< 0.105	< 0.105
Ethylbenzene	15	< 0.137	**0.147 J**
Hexachlorobutadiene	1.3	< 0.337	< 0.337
Isopropylbenzene (Cumene)	--	< 0.105	**0.125 J**
Methyl Tert Butyl Ether (MTBE)	2,000	**0.27 J**	< 0.101
Methylene chloride (Dichloromethane)	94	< 0.43	< 0.43
Naphthalene	20	< 1	**2.61 J**
n-Butylbenzene	--	< 0.157	< 0.157
n-Propylbenzene	--	< 0.0993	< 0.0993
Styrene	36,000	< 0.118	< 0.118
tert-Butylbenzene	--	< 0.127	< 0.127
Tetrachloroethene	2.8	< 0.3	< 0.3
Toluene	4,900	< 0.278	< 0.278
trans-1,2-Dichloroethene	920	< 0.149	< 0.149
trans-1,3-Dichloropropene	--	< 0.118	< 0.118
Trichloroethene	7.5	< 0.19	< 0.19

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
7825 SAN LEANDRO STREET
OAKLAND, CALIFORNIA

Location Sample Date Sample Type	**Commercial/ Industrial ESL**	E-2 03/25/2022 Primary	E-6 03/25/2022 Primary
Trichlorofluoromethane (CFC-11)	--	< 0.16	< 0.16
Trifluorotrichloroethane (Freon 113)	--	< 0.18	< 0.18
Vinyl chloride	0.14	**8.87**	< 0.234
Xylene (total)	1,600	< 0.174	**0.224 J**

Notes:
µg/L = micrograms per liter
Commercial/Industrial ESL = Commercial/Industrial Vapor Intrusion Environmental Screening Level (ESL) established by the San Francisco Bay Regional Water Quality Control Board, July 2019 (Rev. 2)
Non-detects are reported to the laboratory method detection limit (< MDL).
Detects are **bolded**.
J = estimated result
J+ = estimated result, biased high
See Appendix E for additional details regarding data qualifications applied to analytical results.
Analyses were completed using USEPA Method 6010B, 6020, 7470A, 8015, and 8260B.
ESL for total chromium provided as chromium (III).

TABLE 3
SUMMARY OF SOIL VAPOR ANALYTICAL RESULTS
7825 SAN LEANDRO STREET
OAKLAND, CALIFORNIA

Location Sample Date Sample Type	**Commercial/ Industrial ESL**	E-2 03/28/2022 Primary	E-2 03/28/2022 Duplicate	E-4 03/28/2022 Primary
Natural Gases (%)				
Helium	--	--	--	< 0.097
Volatile Organic Compounds (µg/m^3)				
1,1,1-Trichloroethane	150,000	< 5.5	< 5.6	< 100
1,1,2,2-Tetrachloroethane	7	< 6.9	< 7.1	< 130
1,1,2-Trichloroethane	26	< 5.5	< 5.6	< 100
1,1-Dichloroethane	260	< 4.1	**4.4**	< 78
1,1-Dichloroethene	10,000	**11**	**11**	< 77
1,2,4-Trichlorobenzene	290	< 30	< 30	< 580
1,2,4-Trimethylbenzene	--	< 5	< 5.1	**370**
1,2-Dibromoethane (Ethylene Dibromide)	0.68	< 7.8	< 7.9	< 150
1,2-Dichlorobenzene	29,000	< 6.1	< 6.2	< 120
1,2-Dichloroethane	16	< 4.1	< 4.2	< 78
1,2-Dichloropropane	41	< 4.7	< 4.8	< 90
1,2-Dichlorotetrafluoroethane (CFC 114)	--	< 7.1	< 7.2	< 140
1,3,5-Trimethylbenzene	--	< 5	< 5.1	**140**
1,3-Butadiene	--	< 2.2	< 2.3	< 43
1,3-Dichlorobenzene	--	< 6.1	< 6.2	< 120
1,4-Dichlorobenzene	37	< 6.1	< 6.2	< 120
1,4-Dioxane	53	< 14	< 15	< 280
2,2,4-Trimethylpentane	--	< 4.7	< 4.8	**20,000**
2-Butanone (Methyl Ethyl Ketone)	730,000	< 12	< 12	< 230
2-Hexanone (Methyl Butyl Ketone)	--	< 16	< 17	< 320
4-Ethyltoluene (1-Ethyl-4-Methylbenzene)	--	< 5	< 5.1	< 95
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	440,000	< 4.1	< 4.2	< 79
Acetone	4,500,000	**35**	**30**	< 460
Allyl chloride	--	< 13	< 13	< 240
Benzene	14	< 3.2	< 3.3	**11,000**
Benzyl Chloride (alpha-Chlorotoluene)	--	< 5.2	< 5.3	< 100
Bromodichloromethane	11	< 6.8	< 6.9	< 130
Bromoform	370	< 10	< 11	< 200
Bromomethane (Methyl Bromide)	730	< 39	< 40	< 750
Carbon disulfide	--	< 12	< 13	< 240
Carbon tetrachloride	68	< 6.4	< 6.5	< 120
Chlorobenzene	7,300	< 4.6	< 4.7	< 89
Chloroethane	1,500,000	< 11	< 11	< 200
Chloroform (Trichloromethane)	18	**21**	**20**	< 95
Chloromethane (Methyl Chloride)	13,000	< 21	< 21	< 400
cis-1,2-Dichloroethene	1,200	< 4	< 4.1	**170**
cis-1,3-Dichloropropene	--	< 4.6	< 4.7	< 88
Cyclohexane	--	< 3.5	< 3.5	**5,600**
Dibromochloromethane	--	< 8.6	< 8.8	< 160

TABLE 3
SUMMARY OF SOIL VAPOR ANALYTICAL RESULTS
7825 SAN LEANDRO STREET
OAKLAND, CALIFORNIA

Location Sample Date Sample Type	**Commercial/ Industrial ESL**	E-2 03/28/2022 Primary	E-2 03/28/2022 Duplicate	E-4 03/28/2022 Primary
Dichlorodifluoromethane (CFC-12)	--	< 5	< 5.1	< 96
Ethanol	--	< 19	< 19	< 360
Ethylbenzene	160	< 4.4	< 4.5	**2,600**
Hexachlorobutadiene	19	< 43	< 44	< 830
Hexane	--	< 3.6	< 3.6	**7,600**
Isopropyl Alcohol (2-Propanol)	--	**55**	**42**	< 190
Isopropylbenzene (Cumene)	--	< 5	< 5.1	**1,400**
m,p-Xylenes	15,000	< 4.4	< 4.5	**1,000**
Methyl Tert Butyl Ether (MTBE)	1,600	< 14	< 15	< 280
Methylene chloride (Dichloromethane)	410	< 35	< 36	< 670
n-Heptane	--	< 4.1	< 4.2	**5,000**
n-Propylbenzene	--	< 5	< 5.1	**2,300**
o-Xylene	15,000	< 4.4	< 4.5	**440**
Styrene	130,000	< 4.3	< 4.4	< 83
Tetrachloroethene	67	< 6.8	< 7	< 130
Tetrahydrofuran	--	< 3	< 3	< 57
Toluene	44,000	< 3.8	< 3.9	< 73
trans-1,2-Dichloroethene	12,000	< 4	< 4.1	< 77
trans-1,3-Dichloropropene	--	< 4.6	< 4.7	< 88
Trichloroethene	100	< 5.4	< 5.5	**740**
Trichlorofluoromethane (CFC-11)	--	< 5.7	< 5.8	< 110
Trifluorotrichloroethane (Freon 113)	--	< 7.7	< 7.9	< 150
Vinyl chloride	5.2	< 2.6	< 2.6	**63**
Total Petroleum Hydrocarbons as Gasoline	83,000	< 410 J	< 420 J	**820,000 J**

Notes:
µg/m^3 = micrograms per cubic meter
Commercial/Industrial ESL = Commercial/Industrial Environmental Screening Level established by the San Francisco Bay Regional Water Quality Control Board, July 2019 (Rev. 2)
Non-detects are reported to the laboratory reporting limit (< RL).
Detects are **bolded**.
J= estimated result
See Appendix E for additional details regarding data qualifications applied to analytical results.
Analyses were completed using USEPA Method TO-15 and ASTM D-1946.

FIGURES



DUKE REALTY CORPORATION
THE FOUNDRY OAKLAND
7825 SAN LEANDRO STREET
OAKLAND, CALIFORNIA

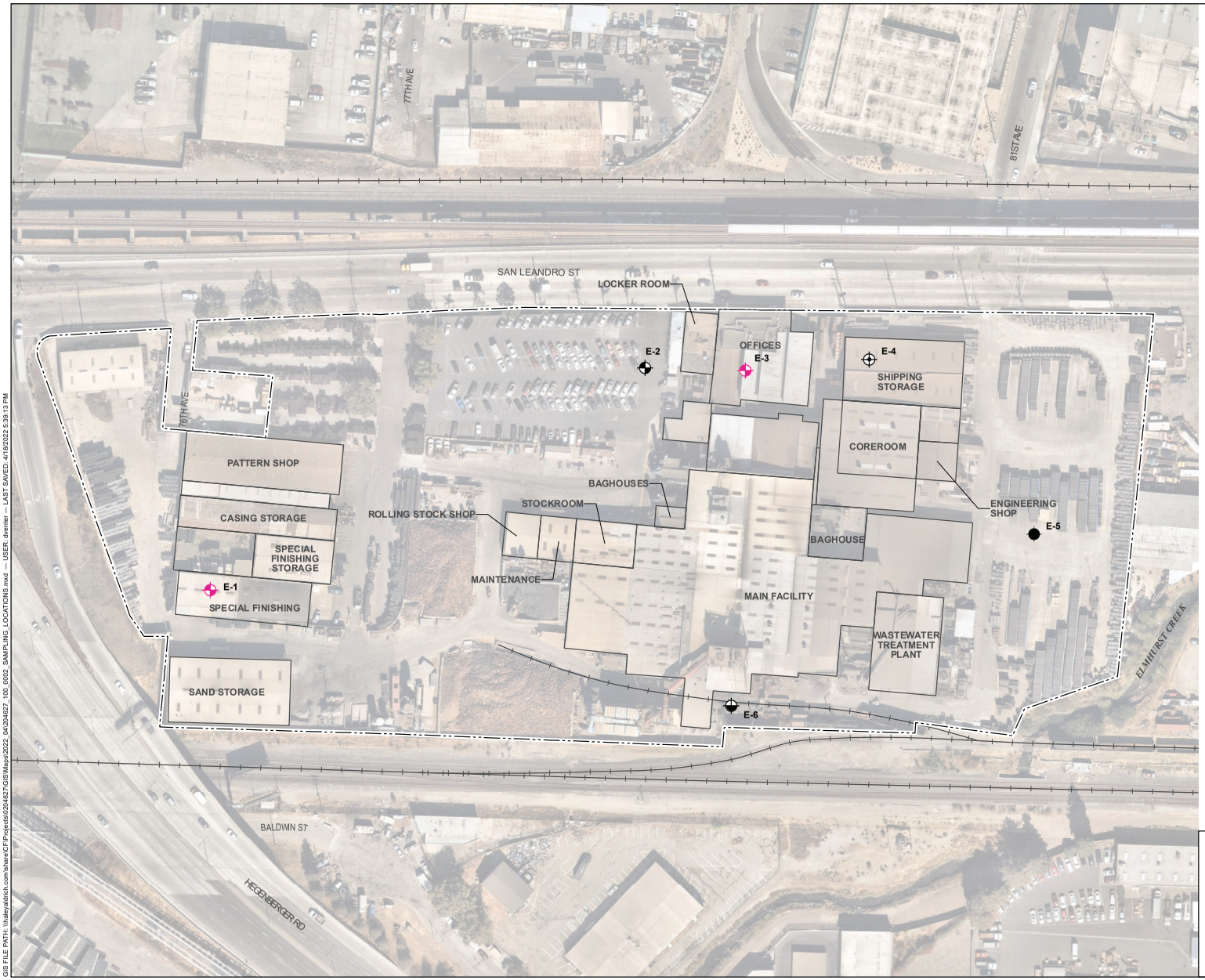
PROJECT LOCUS

MAP SOURCE: ESRI
SITE COORDINATES: 37°44'59"N, 122°11'38"W

APPROXIMATE SCALE: 1 IN = 2000 FT
APRIL 2022

FIGURE 1

GIS FILE PATH: \\haleyaldrich.com\share\CF\Projects\0204627\GIS\Maps\2022_04\204627_000_0001_PROJECT_LOCUS.mxd — USER: dvernier — LAST SAVED: 2/17/2022 1:02:40 PM



LEGEND

- SOIL, GROUNDWATER, AND SOIL VAPOR BORING
- SOIL AND GROUNDWATER BORING
- SOIL AND SOIL VAPOR BORING
- SOIL BORING
- PROPOSED BORING NOT ADVANCED
- RAILROAD
- BUILDING FOOTPRINT
- SITE BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. AERIAL IMAGERY SOURCE: NEARMAP, 28 SEPTEMBER 2021

0 120 240
SCALE IN FEET

HALEY ALDRICH

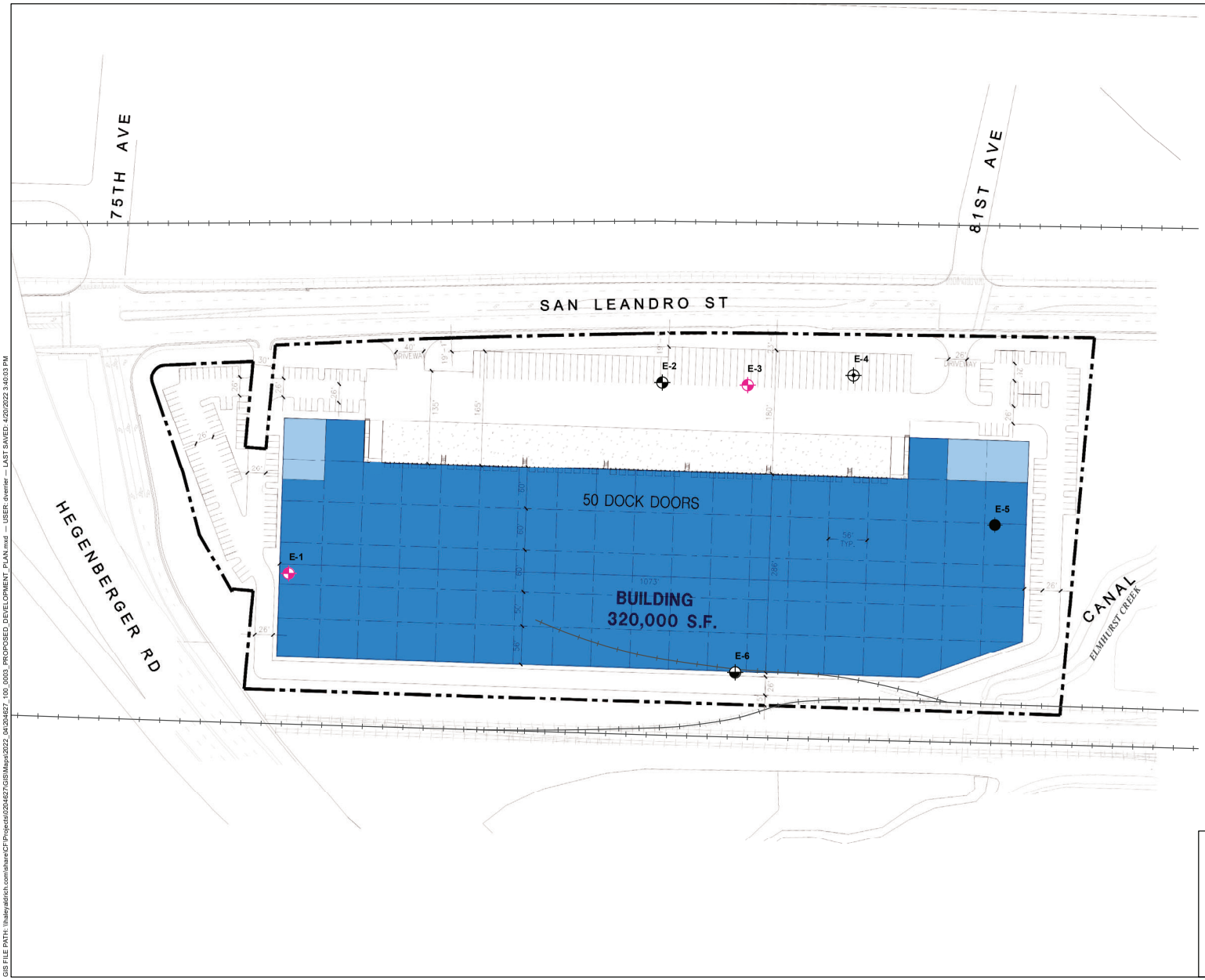
DUKE REALTY CORPORATION
THE FOUNDRY OAKLAND
7825 SAN LEANDRO STREET
OAKLAND, CALIFORNIA

SAMPLING LOCATIONS

APRIL 2022

FIGURE 2

GIS FILE PATH: \\haleyaldrich.com\share\CF\Projects\0204627\GIS\Mxd\2022_0420\4627_100_0002_SAMPLING_LOCATIONS.mxd -- USER: dwerker -- LAST SAVED: 4/18/2022 5:39:13 PM



LEGEND

- SOIL, GROUNDWATER, AND SOIL VAPOR BORING
- SOIL AND GROUNDWATER BORING
- SOIL AND SOIL VAPOR BORING
- SOIL BORING
- PROPOSED BORING NOT ADVANCED
- RAILROAD
- POTENTIAL OFFICE
- POTENTIAL OFFICE WITH MEZZANINE
- WAREHOUSE

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. BASE PLAN SOURCE: "CONCEPTUAL SITE PLAN, 7825 SAN LEANDRO ST." DUKE REALTY, 08 APRIL 2022

0 140 280
SCALE IN FEET

HALEY ALDRICH

DUKE REALTY CORPORATION
THE FOUNDRY OAKLAND
7825 SAN LEANDRO STREET
OAKLAND, CALIFORNIA

PROPOSED DEVELOPMENT PLAN

APRIL 2022

FIGURE 3

GIS FILE PATH: \\haleyaldrich.com\share\CF\Projects\0204627\GIS\Maps\2022_0420\4627_100_0003_PROPOSED_DEVELOPMENT_PLAN.mxd — USER: dvenier — LAST SAVED: 4/20/2022 3:40:03 PM

APPENDIX A
Boring Logs

HALEY & ALDRICH — TEST BORING REPORT

BORING NO. E-2
Page 1 of

PROJECT	The Foundry Oakland	H&A FILE NO.	0204627-100
LOCATION	7825 San Leandro Street	PROJECT MGR.	C.Ellis
CLIENT	Duke Realty	FIELD REP.	A.Cayeney
CONTRACTOR	GPRS	DATE STARTED	3/25/22
DRILLER	Gregg Drilling	DATE FINISHED	3/25/22

Elevation ft Datum — Boring Location

Item	Casing	Sampler	Core Barrel
Type			
Inside Diameter			
Hammer Weight			
Hammer Fall (in.			

Rig Make & Model: ☐ Truck ☐ Tripod ☐ Cat-Head ☐ ATV ☐ Geoprobe ☐ Winch ☐ Track ☐ Air Track ☐ Roller Bit ☐ Skid ☐ _____ ☐ Cutting Head

Hammer Type: ☐ Safety ☐ Doughnut ☐ Automatic

Drilling Mud: ☐ Bentonite ☐ Polymer ☐ None

Casing Advance — Type Method Depth: DPT

Drilling Notes: 2.5" Hand Auger, 2.25" DPT

Depth (ft.)	Sample Recovery	Sample No.	PID (ppb)	SV Probe Diagram	Well Diagram	Stratum Change (ft.)	USCS Symbol	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test: Dilatancy	Toughness	Plasticity	Strength
0								Asphalt/Concrete										
1	Hand Auger		287			0.5	SM	Fill Yellowish brown (5/6, 10YR), Silty Sand with gravel, Moist, NO odor, Fill	15	15		40	30	30				
2			282					Color change to dark brown (3/3, 10YR)										
3			283			2.5 3	SP CL	Gray (5/1, 10YR) Poorly Graded Sand w/gravel, moist, NO odor, Trace brick fragments	10	5			80	5				
							CL		10	5	5	10	70	8	L	M	L	
4			280			4			10	10	5	5	70	5	M	M	M	
5			227				CL	Dark brown (3/3, 10YR), Gravelly lean clay w/sand, moist, No odor, trace wood/brick fragments					10	90	S	M	M	M
6		E-2-5-6	275					@3', Very dark grey (3/1, Gley1) lean clay w/gravel, moist, Slight odor, trace brick/wood fragments										
7								@4' Black (2.5/N, Gley1), lean Clay, moist, NO odor										
8			357															
9			160															
10		E-2-5-11	240															
11			411															
12			402															
13			283															
14		E-2-W	406															
15								TOL Depth 15', SV probe @ 5'										

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casi	Bottom of Hole		Water
	1332					11.75

Sample ID: O Open End Rod; T Thin Wall Tube; U Undisturbed Sample; S Split Spoon Sample; G Geoprobe

Well Diagram: Riser Pipe; Screen; Filter Sand; Cuttings; Grout; Concrete; Bentonite Seal

Summary: Overburden (Linear ft.) _____ Rock Cored (Linear ft.) _____ Number of Samples _____ BORING NO.

Field Tests Dilatancy: R - Rapid S - Slow N - None; Toughness: L - Low M - Medium H - High; Plasticity: N - Nonplastic L - Low M - Medium H - High; Dry Strength: N - None L - Low M - Medium H - High V - Very High

*NOTE: Maximum Particle Size is determined by direct observation within the limitations of sampler size.

NOTE: Soil identifications based on visual-manual methods of the USCS system as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

BORING NO. E-4
Page 1 of 1

PROJECT	The Foundry Oakland	H&A FILE NO.	0204627-100
LOCATION	7825 San Leandro Street	PROJECT MGR.	C.Ellis
CLIENT	Duke Realty	FIELD REP.	A.Caveney
CONTRACTOR	GPRS	DATE STARTED	3/25/22
DRILLER	Gregg Drilling	DATE FINISHED	3/25/22

Elevation ft Datum | Boring Location

Item	Casing	Sampler	Core Barrel
Type			
Inside Diameter			
Hammer Weight			
Hammer Fall (in.)			

Rig Make & Model: ☐ Truck ☐ Tripod ☐ Cat-Head; ☐ ATV ☑ Geoprobe ☐ Winch; ☐ Track ☐ Air Track ☐ Roller Bit; ☐ Skid ☐ _____ ☐ Cutting Head

Hammer Type: ☐ Safety ☐ Doughnut ☐ Automatic

Drilling Mud: ☐ Bentonite ☐ Polymer ☐ None

Casing Advance: Type Method Depth — Hand Augers DPT

Drilling Notes: 3.5" HA 2.25" DPT

Depth (ft.)	Sample Recovery	Sample No.	PID (ppb)	SV Probe Diagram	Well Diagram SV probe	Stratum Change (ft.)	USCS Symbol	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Toughness	Plasticity	Strength
0	Hand Auger		281				SM	Concrete core ~4.5"										
1			1401					Yellowish Brown (10YR 5/6) Silty Sand w/ Gravel, Fill	10	5		40	30	15				
2								Moist, slight odor, trace brick fragments/glass										
3		E-4 S-3	12 ppm					@1' color change to dark brown (3/3, 10YR)										
4								@3' Strong petroleum odor										
5			18.1 ppm			5	CL	Black (2.5/N, 6/gy1) lean clay, with sand,				5	10	85	6	M	M	M
6			150					Moist, petroleum odor										
7			651															
8			404															
9			383															
10			34.1 ppm															
11			33.1 ppm					@11' Color change to light olive brown (5/4 2.5Y)										
12			44.6 ppm					@12' 6" lense of Black (2.5/N, 6/gy1)										
13		E-4 S-13	105.49 ppm					@13' Very strong petroleum odor										
14			41.29 ppm															
15								TD 15', SV probe @ 4'										

@ 1745

@ 1830

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casi	Bottom of Hole		Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (Linear ft.) _____
Rock Cored (Linear ft.) _____
Number of Samples _____

BORING NO.

Field Tests Dilatancy: R - Rapid S - Slow N - None
Toughnes L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

*NOTE: Maximum Particle Size is determined by direct observation within the limitations of sampler size.

NOTE: Soil identifications based on visual-manual methods of the USCS system as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH — TEST BORING REPORT

BORING NO. E-5
Page 1 of 1

PROJECT	The Foundry Oakland	H&A FILE NO.	0204627-100
LOCATION	7825 San Leandro Street	PROJECT MGR.	C.Ellis
CLIENT	Duke Realty	FIELD REP.	A.Caveney
CONTRACTOR	GPRS	DATE STARTED	3/25/22
DRILLER	Gregg Drilling	DATE FINISHED	3/25/22

Elevation ft Datum Boring Location

Item	Casing	Sampler	Core Barrel
Type			
Inside Diameter			
Hammer Weight			
Hammer Fall (in.			

Rig Make & Model: ☐ Truck ☐ Tripod ☐ Cat-Head; ☐ ATV ☑ Geoprobe ☐ Winch; ☐ Track ☐ Air Track ☐ Roller Bit; ☐ Skid ☐ ☐ Cutting Head

Hammer Type: ☐ Safety ☐ Doughnut ☐ Automatic

Drilling Mud: ☐ Bentonite ☐ Polymer ☐ None

Casing Advance: Type Method Depth — Hand Auger

Drilling Notes: .25" Diameter

Depth (ft.)	Sample Recovery	Sample No.	PID (ppb)	SV Probe Diagram	Well Diagram	Stratum Change (ft.)	USCS Symbol	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test: Dilatancy	Toughness	Plasticity	Strength
0								Approx 5 in Concrete										
1	Hand Auger	E-S-0 -0	112			0.5	GM	Fill/Aggregate base										
2			52					Very dark gray (7.5YR 3/1), Silty sand with gravel, moist, no odor, Fill	15	9		8	25	30	S	L	L	L
3		E-S-3	61															
4								Total depth 3', boring grouted @ 1040										
5																		

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet: Bottom of Casi	Bottom of Hole		Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (Linear ft.)
Rock Cored (Linear ft.)
Number of Samples
BORING NO.

Field Tests Dilatancy: R - Rapid S - Slow N - None
Toughness L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

*NOTE: Maximum Particle Size is determined by direct observation within the limitations of sampler size.

NOTE: Soil identifications based on visual-manual methods of the USCS system as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

BORING NO. E-6
Page 1 of 1

PROJECT	The Foundry Oakland	H&A FILE NO.	0204627-100
LOCATION	7825 San Leandro Street	PROJECT MGR.	C.Ellis
CLIENT	Duke Realty	FIELD REP.	A.Cavepey
CONTRACTOR	GPRS	DATE STARTED	3/25/22
DRILLER	Gregg Drilling	DATE FINISHED	3/25/22

Elevation ft Datum | Boring Location

Item	Casing	Sampler	Core Barrel
Type			
Inside Diameter			
Hammer Weight			
Hammer Fall (in.			

Rig Make & Model: ☐ Truck ☐ Tripod ☐ Cat-Head ☐ ATV ☐ Geoprobe ☐ Winch ☐ Track ☐ Air Track ☐ Roller Bit ☐ Skid ☐ _____ ☐ Cutting Head

Hammer Type: ☐ Safety ☐ Doughnut ☐ Automatic

Drilling Mud: ☐ Bentonite ☐ Polymer ☐ None

Casing Advance: Type Method Depth — Handauger/DPT

Drilling Notes: 3.5" HA, 2.25" DPT

Depth (ft.)	Sample Recovery	Sample No.	PID (ppb)	SV Probe Diagram	Well Diagram	Stratum Change (ft.)	USCS Symbol	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0								Rocks/fill										
1			42 ppb															
2		E-6 S-2	1100 ppb			2	CL	Black (GE/M, Gley1), lean Clay, Moist, No odor				10	5	85	S	M	M	M
3			300 ppb															
4						4	CL	Gray (GY, Gley1), Sandy Clay, Moist, trace gravel, slight odor		T		10	5	85	S	M	M	M
5		E-6 S-5	165															
6			153			6	CL	Black (GE/M, Gley1), Lean Clay, moist, slight odor				10	5	85	S	M	M	M
7			142															
8			133															
9		E-6 -W	157															
10								Total depth, 10'										

1620 1625 @1630

Water Level Data						
Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casi	Bottom of Hole		Water
3/25/22	1615					7.75

Sample ID: O Open End Rod; T Thin Wall Tube; U Undisturbed Sample; S Split Spoon Sample; G Geoprobe

Well Diagram: Riser Pipe; Screen; Filter Sand; Cuttings; Grout; Concrete; Bentonite Seal

Summary: Overburden (Linear ft.) _____ Rock Cored (Linear ft.) _____ Number of Samples _____ BORING NO.

Field Tests Dilatancy: R - Rapid S - Slow N - None
Toughnes L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

*NOTE: Maximum Particle Size is determined by direct observation within the limitations of sampler size.

NOTE: Soil identifications based on visual-manual methods of the USCS system as practiced by Haley & Aldrich, Inc.

APPENDIX B
National Weather Service Report

www.weather.gov

National Weather Service Forecast Office
San Francisco Bay Area/Monterey

Home News Organization FAQ Share Search WR NWS ALL NOAA Go

Get Local Forecast for:
Enter locatio GO
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RSS Feeds
Current Hazards
Outlooks
Tsunami
Current Conditions
Observations
Radar
Satellite
Precipitation
Buoy Reports
Interactive Map
Forecasts
Forecast Discussion
Local Area
Activity Planner
Aviation Weather
Fire Weather
Marine Weather
Severe Weather
Hurricane Center
User Defined Area
Travel
Forecast Models
Hydrology
Rivers and Lakes
Rainfall Reports
Climate
Local
National
Drought
More...
Climate portal
Weather Safety
Preparedness
Weather Radio
SkyWarn™
Tsunami Information
Rip Currents
Additional Info
Items of Interest
Other Useful Links
Education Resources
COOP Observer
Our Office
El Niño/La Niña
NWS News
Contact Us
Contact Info
Feedback
FAQ
USA.gov

Current Version Previous Version: 1 2 3 4 5

HYDROLOGY-METEOROLOGY DATA REPORT PART 5

```
SRUS56 KRSA 281548
RR5RSA
:
: 24 HOUR PRECIPITATION SUMMARY
: NATIONAL WEATHER SERVICE / CALIFORNIA NEVADA RFC / SACRAMENTO CA
: 848 AM PDT MON MAR 28 2022
:
: WARNING!! THIS PRODUCT CONTAINS PROVISIONAL DATA FROM AUTOMATED GAUGES
:           THIS DATA HAS NOT BEEN SCREENED OR VERIFIED FOR ACCURACY
:
: DATA REPRESENTS PRECIPITATION ENDING AT 800 AM PDT
:
:      +  REPRESENTS MISSING DATA
:      T  REPRESENTS TRACE AMOUNTS OF PRECIP
:   0.00  REPRESENTS NO MEASUREABLE PRECIP
: (5280)  REPRESENTS STATION ELEVATION (IN FEET)
:
: G = GOES / R = ALERT / Z = ASOS / P = PHONE
: TRACE AMOUNTS ARE ONLY AVAILABLE FOR ASOS GAGES (SOURCE Z)
:
:.BR RSA 20220328 Z DH1500/PPH/PPB/PPT/PPQ/PPK/PPD
:
:                                    ACCUMULATED PRECIPITATION (INCHES)
:
:                                   1 HR   2 HR   3 HR   6 HR  12 HR  24 HR
:                                  -----  -----  -----  -----  -----  -----
:                                   7AM    6AM    5AM    2AM    8PM    8AM
: ID    STATION NAME               - 8AM  - 8AM  - 8AM  - 8AM  - 8AM  - 8AM
:
:       SOUTHERN OREGON COAST
:
OTH   : NORTH BEND          Z(  16) :     T/     T/     T/     T/  0.01/  0.01
SMCO3 : SEVEN MILE CREEK    G( 438) :  0.00/  0.00/  0.00/  0.00/  0.00/  0.00
BNFO3 : BURNT RIDGE         G(2955) :  0.00/  0.00/  0.00/  0.00/  0.00/  0.00
RBG   : ROSEBURG            Z( 525) :  0.00/  0.00/  0.00/  0.00/  0.00/  0.00
LGPO3 : LONG PRAIRIE        G(1093) :  0.00/  0.00/  0.00/  0.00/  0.00/  0.00
TRFO3 : SIGNAL TREE         G(3294) :  0.00/  0.00/  0.00/  0.00/  0.01/  0.01
SVFO3 : SILVER BUTTE        G(3973) :  0.00/  0.00/  0.00/  0.00/  0.00/  0.00
SXT   : SEXTON SUMMIT       Z(3958) :  0.00/     T/     T/     T/     T/  +
FPRO3 : FLYNN PRAIRIE       G(1543) :  0.00/  0.00/  0.00/  0.12/  0.22/  0.22
OMFO3 : ONION MTN LOOKOUT   G(4438) :  0.00/  0.00/  0.00/  0.00/  0.00/  0.00
MFR   : MEDFORD             Z(1302) :  0.00/  0.00/  0.00/     T/     T/     T
PRFO3 : PROVOLT SEED ORCH   G(1180) :  0.00/  0.00/  0.00/  0.00/  0.00/  0.00
RMFO3 : RED MOUND           G(1753) :  0.00/  0.00/  0.02/  0.09/  0.17/  0.17
SBFO3 : ILLINOIS VLY ARPT   G(1389) :  0.00/  0.00/  0.00/  0.00/  0.00/  0.00
:
:       SOUTHERN OREGON - UPPER KLAMATH
:
CRLO3 : CRATER LAKE         P(6475) :  +   /  +   /  +   /  +   /  +   /  +
KMRO3 : KLAMATH NATL WR     G(4531) :  0.00/  0.00/  0.00/  0.00/  0.00/  0.00
OYFO3 : HOYT CREEK          G(5500) :  0.00/  0.00/  0.00/  0.00/  0.00/  0.00
CLFO3 : CALIMUS             G(6622) :  0.00/  0.00/  0.00/  0.00/  0.00/  0.00
CQFO3 : CHILOQUIN           G(4420) :  0.00/  0.00/  0.00/  0.00/  0.00/  0.00
SDFO3 : SELDOM CREEK        G(4875) :  0.00/  0.00/  0.00/  0.00/  0.00/  0.00
LKV   : LAKEVIEW            Z(4778) :  0.00/  0.00/  0.00/  0.00/  0.00/  0.00
STFO3 : STRAWBERRY          G(5590) :  0.00/  0.00/  0.00/  0.00/  0.00/  0.00
GRBO3 : GERBER RESERVOIR    G(4850) :  0.00/  0.00/  0.00/  0.00/  0.00/  0.00
LMT   : KLAMATH FALLS       Z(4090) :  0.00/  0.00/  0.00/  0.00/  0.00/  0.00
ARFO3 : PARKER MOUNTAIN     G(5280) :  0.00/  0.00/  0.00/  0.00/  0.00/  0.00
OKNC1 : OAK KNOLL           G(1940) :  0.00/  0.00/  0.00/  0.00/  0.00/  0.00
SIY   : MONTAGUE            Z(2644) :  0.00/  0.00/  0.00/     T/     T/     T
WEEC1 : WEED                G(2930) :  0.00/  0.00/  0.00/  0.00/  0.00/  0.00
:
:       NORTHERN CALIFORNIA COAST - SMITH / LOWER KLAMATH / TRINITY / REDWOOD
```

```
:
:       SACRAMENTO METRO AREA
:
SMF   : SAC INT`L AIRPORT   Z(  20) :  0.00/     T/     T/  0.04/  0.40/  0.40
SAPC1 : METRO AIR PARK      R(  14) :  0.00/  0.00/  0.00/  0.00/  0.24/  0.24
DIVC1 : NATOMAS             R(  35) :  0.00/  0.00/  0.00/  0.04/  0.27/  0.27
RILC1 : RIO LINDA           R(  42) :  0.00/  0.00/  0.00/  0.04/  0.24/  0.24
SMTC1 : CSU - SACRAMENTO    G(  49) :  0.00/  0.00/  0.00/  0.08/  0.33/  0.33
SAC   : SACRAMENTO EXEC     Z(  21) :     T/     T/     T/  0.05/  0.35/  0.35
APNC1 : COSUMNES RIVER COLL R(  23) :  0.00/  0.00/  0.04/  0.12/  0.35/  0.35
VWTC1 : VINEYARD WTP        R(  76) :  0.00/  0.00/  0.00/  0.12/  0.28/  0.28
ELGC1 : ELK GROVE           R(  45) :  0.00/  0.00/  0.00/  0.08/  0.28/  0.28
COSC1 : WILTON              R(  75) :  0.00/  0.00/  0.00/  0.11/  0.19/  0.19
IONC1 : IONE ROAD           R( 310) :  0.00/  0.04/  0.04/  0.20/  0.24/  0.24
GGSC1 : WALNUT GROVE        R(  20) :  0.00/  0.04/  0.04/  0.04/  0.43/  0.43
RNCC1 : RANCHO CORDOVA      R(  72) :  0.00/  0.00/  0.00/  0.16/  0.32/  0.32
BHCC1 : MATHER              R(  69) :  0.00/  0.00/  0.00/  0.11/  0.27/  0.27
ORGC1 : ORANGEVALE          R( 233) :  0.00/  0.00/  0.00/  0.16/  0.35/  0.35
CHCC1 : FAIR OAKS           R( 220) :  0.00/  0.00/  0.00/  0.20/  0.36/  0.36
PRRC1 : PRAIRIE CITY        R( 280) :  0.00/  0.00/  0.00/  0.19/  0.35/  0.35
LMFC1 : FOLSOM              R( 343) :  0.00/  0.00/  0.00/  0.12/  0.20/  0.20
FSLC1 : FOLSOM POINT        R( 350) :  0.00/  0.00/  0.00/  0.11/  0.19/  0.19
VNMC1 : CITRUS HEIGHTS      R( 120) :  0.00/  0.00/  0.04/  0.16/  0.36/  0.36
RTPC1 : ROSEVILLE           R( 410) :  0.00/  0.00/  0.00/  0.12/  0.28/  0.28
SECC1 : ROCKLIN             R( 252) :  0.00/  0.00/  0.00/  0.12/  0.24/  0.24
LICC1 : LINCOLN             G( 200) :  0.00/  0.00/  0.00/  0.06/  0.19/  0.19
LDOC1 : LOOMIS              R( 440) :  0.00/  0.00/  0.00/  0.12/  0.20/  0.20
NWCC1 : NEWCASTLE           R( 890) :  0.00/  0.00/  0.00/  0.12/  0.24/  0.24
AAPC1 : AUBURN              R(1550) :  0.00/  0.00/  0.00/  0.15/  0.19/  0.19
:
:       SAN FRANCISCO BAY AREA - NORTH BAY COUNTIES (RUSSIAN / NAPA)
:
WILC1 : WILLITS             G(1851) :  0.01/  0.01/  0.01/  0.03/  0.17/  0.17
UKI   : UKIAH               Z( 626) :     T/  0.02/  0.02/  0.02/  0.17/  0.19
BNVC1 : BOONVILLE           G( 660) :  0.02/  0.02/  0.02/  0.02/  0.25/  0.31
YRKC1 : YORKVILLE           G(1100) :  0.00/  0.00/  0.00/  0.04/  0.44/  0.52
HWKC1 : HAWKEYE             G(2000) :  0.00/  0.00/  0.02/  0.24/  0.90/  0.90
VNOC1 : VENADO              G(1260) :  0.01/  0.06/  0.11/  0.13/  0.91/  1.27
STS   : SANTA ROSA          Z( 114) :     T/  0.01/  0.02/  0.16/  0.71/  0.75
WSPC1 : WHISPERING PINES    G(2700) :  0.00/  0.04/  0.04/  0.36/  0.76/  0.76
PFRC1 : PETRIFIED FOREST RD R(1124) :  0.00/  0.00/  0.00/  0.31/  0.86/  0.86
PBRC1 : POPE CK - BERRYESSA R( 500) :  +   /  +   /  +   /  +   /  +   /  +
ANGC1 : ANGWIN              G(1715) :  0.00/  0.04/  0.04/  0.16/  0.80/  0.80
NAPC1 : ATLAS PEAK          G(1680) :  0.10/  0.17/  0.28/  0.70/  1.15/  1.15
YOUC1 : MOUNT VEEDER        R(1800) :  0.04/  0.08/  0.08/  0.24/  0.91/  0.91
MGTC1 : MT GEORGE TRANMER   R(1000) :  0.08/  0.08/  0.16/  0.40/  0.59/  0.59
STHC1 : SAINT HELENA        G(1780) :  0.00/  0.04/  0.04/  0.20/  0.92/  0.96
YNTC1 : MT VEEDER ROAD      R( 360) :  0.00/  0.00/  0.04/  0.08/  0.48/  +
NPYC1 : NAPA CORP YARD      R(  20) :  0.07/  0.07/  0.07/  0.07/  0.31/  0.31
APC   : NAPA AIRPORT        Z(  14) :  0.12/  0.13/  0.15/  0.16/  0.34/  0.34
PCRC1 : PETALUMA            R(  30) :  0.00/  0.00/  0.00/  0.00/  0.27/  0.55
DBEC1 : DILLON BEACH        R( 455) :  0.00/  0.00/  0.00/  0.00/  0.20/  0.32
EYSC1 : POINT REYES STATION R(  22) :  0.00/  0.00/  0.00/  0.08/  0.55/  0.83
NVHC1 : NOVATO - ROBINHOOD  G( 429) :  0.00/  0.00/  0.01/  0.16/  0.48/  0.54
NVLC1 : NOVATO              R(  28) :  0.00/  0.00/  0.00/  0.00/  0.35/  0.47
KTFC1 : KENTFIELD           R(   0) :  0.00/  0.00/  0.00/  0.00/  0.40/  0.59
ACMC1 : MILL VALLEY         R(   2) :  0.00/  0.00/  0.00/  0.04/  0.31/  0.35
:
:       SAN FRANCISCO BAY AREA - PENINSULA AND EAST BAY COUNTIES
:
SFOC1 : SAN FRANCISCO       G( 175) :  0.00/  0.00/  0.00/  0.00/  0.12/  0.18
SFO   : SAN FRANCISCO INT`L Z( 105) :  0.00/  0.00/  0.00/     T/  0.11/  0.14
RWCC1 : REDWOOD CITY        G(  31) :  0.00/  0.04/  0.04/  0.12/  0.20/  0.21
HAF   : HALF MOON BAY AP    Z(  66) :  0.00/  0.00/  0.00/  0.02/  0.21/  0.40
HSPC1 : SPRING VALLEY       G(1075) :  0.00/  0.00/  0.00/  0.02/  0.42/  0.52
RCNC1 : RICHMOND            R(  55) :  0.01/  0.01/  0.02/  0.02/  0.32/  0.32
REOC1 : RODEO               R(  30) :  0.08/  0.11/  0.15/  0.15/  0.40/  0.41
CCR   : CONCORD             Z(  23) :  0.12/  0.17/  0.23/  0.32/  0.43/  0.43
ODAC1 : ORINDA              R( 700) :  0.09/  0.12/  0.17/  0.22/  0.57/  0.61
AGAC1 : SAINT MARYS COLLEGE R( 620) :  0.11/  0.15/  0.19/  0.25/  0.68/  0.69
VAUC1 : MOUNT DIABLO        R(3690) :  0.12/  0.23/  0.37/  0.44/  0.75/  0.75
BTBC1 : UC BERKELEY GARDEN  R( 751) :  0.02/  0.14/  0.16/  0.19/  0.54/  0.58
OAMC1 : OAKLAND MUSEUM      G(  30) :  0.04/  0.07/  0.10/  0.10/  0.29/  0.33
OAK   : OAKLAND INT`L       Z(  86) :  0.07/  0.10/  0.13/  0.16/  0.28/  0.32
ACFC1 : CASTRO VALLEY       R( 178) :  0.11/  0.19/  0.28/  0.42/  0.70/  0.72
DSRC1 : DUBLIN - SAN RAMON  R( 355) :  0.11/  0.18/  0.26/  0.32/  0.43/  0.43
SALC1 : SAN LEANDRO MARINA  R(  10) :  0.12/  0.16/  0.20/  0.28/  0.32/  0.32
HWD   : HAYWARD AIRPORT     Z(  43) :  0.13/  0.21/  0.30/  0.41/  0.48/  0.49
```

APPENDIX C
Soil Vapor Sampling Forms

SOIL VAPOR PROBE MEASUREMENTS

HALEY ALDRICH

Project: The Foundry | Project Number: 0204627-100 | Probe ID: E-2 | [X] Soil vapor probe | [ ] Sub-slab probe

Site Location: 7825 San Leandro St, Oakland CA | PID Model and ID#: ppbRAE 3000

Date: 3/22/22 | Weather: Clear | Landfill Gas Meter and ID#: GEM 5000

Site Personnel: A.Caveney | Helium Detector Model and ID#: MGD 2002

Surface Type: [X] Concrete [ ] Grass [~~X~~ Soil AC] [ ] Paving Stone [ ] Asphalt [X] Other (specify): Installed well box

Surface Thickness (if asphalt or concrete): ~~0~~ ____ (or) ____ Unknown

Calculated Casing Volume (one volume): Soil Vapor Probe 0.310 (L) | Sub-Slab Probe ____ (L)

Purge Measurements

Pre- or Post-Sample?	Canister Vac. Gauge (in. Hg)	Pump Vac. Gauge (in. Hg)	Purge Volume (L)	Cumulative Volume (L)	Landfill Gas Meter (%) CH_4	Landfill Gas Meter (%) CO_2	Landfill Gas Meter (%) O_2	PID (ppb) VOCs	Helium Tracer Gas Measurements: Shroud (%) Min	Shroud (%) Max	Purge Sample Concentration (ppm)
Pre	Ø	-	~~0.500~~ 0	~~0.800~~ 0	0.0	7.2	9.2	395			Ø
Pre	Ø	-	0.5	1.0	6.0	8.4	6.8	350	31.7	37.7	Ø
Pre	Ø	-	0.5	1.5	0.0	8.6	6.6	244	35.0	38.2	Ø
Sample									32.1	46.8	
Post	Ø	-	6.5	2.0	0.0	8.3	6.4	326	35.7	40.2	Ø

Shut-in test completed prior to purging and sampling? (Yes) No @1102

Vac. Pressure while purging is less than -7 in. Hg? (Yes) No

Helium concentration in field-screened samples is less than 10% of minimum concentration in the shroud? (Yes) No

Sample Collection

Start Time	End Time	Flow Controller	Canister ID	Initial Vacuum (in. Hg)	Final Vacuum (in. Hg)	Sample ID
1139	1145	25530	1L3825	-28.5	-5	E-2
1139	1144	25473	1L2410	-27.5	-5	DUP-01

Comments: Increased PV to 0.5L to get readings from all 3 instruments for guidance - Heavy machinery + busy roadway/BART nearby

Weather Readings

Temperature: 57 °F

Humidity: 77 %

Barometric Pressure: 29.74 in. Hg

Wind: 5 mph Direction: from SW

SOIL VAPOR PROBE MEASUREMENTS

HALEY ALDRICH

Project: The Foundry | Project Number: 0204627-100 | Probe ID: E-4 | [Soil vapor probe] | Sub-slab probe

Site Location: 7825 San Leandro St, Oakland CA | PID Model and ID#: ppbRAE 3000

Date: 3/28/22 | Weather: | Landfill Gas Meter and ID#: GEM 5000

Site Personnel: A.Caveney | Helium Detector Model and ID#: MGD 2002

Surface Type: X Concrete ___ Grass ~~* Soil~~ ___ Paving Stone ___ Asphalt ___ Other (specify): Installed well box

Surface Thickness (in inches): ~4.5 (or) ___ Unknown (If asphalt or concrete)

Calculated Casing Volume (one volume): Soil Vapor Probe 0.304 (L) Sub-Slab Probe ___ (L)

Purge Measurements									Helium Tracer Gas Measurements		
Pre- or Post-Sample?	Canister Vac. Gauge (in. Hg)	Pump Vac. Gauge (in. Hg)	Purge Volume (L)	Cumulative Volume (L)	Landfill Gas Meter (%) CH_4	Landfill Gas Meter (%) CO_2	Landfill Gas Meter (%) O_2	PID (ppb) VOCs	Shroud (%) Min	Shroud (%) Max	Purge Sample Concentration (ppm)
Pre	Ø	–	0.5	0.5	0.7	2.2	1.9	146.3 ppm	31.0	38.8	Ø
Pre	Ø	–	0.5	1.0	0.3	4.4	0.7	132.1 ppm	33.8	37.6	Ø
Pre	Ø	–	0.5	1.5	0.1	5.0	1.5	121.3 ppm	36.0	39.5	Ø
Pre	Ø	–	0.5	2.0	0.2	6.0	1.1	122.5 ppm	36.6	39.2	Ø
Sample									30.2	44.5	
Post	Ø	–	0.5	2.5	0.1	6.3	1.1	121.2 ppm	38.9	41.4	Ø

Shut-in test completed prior to purging and sampling? (Yes) No @ 1128

Vac. Pressure while ~~purging~~ is less than -7 in. Hg? (Yes) No

Helium concentration in field-screened samples ~~is~~ less than 10% of minimum concentration in the shroud? (Yes) No

Sample Collection

Start Time	End Time	Flow Controller	Canister ID	Initial Vacuum (in. Hg)	Final Vacuum (in. Hg)	Sample ID
1251	1257	20949	1L1555	-27.5	-5	E-4

Comments: - Increased PV to 0.5L to get readings from all 3 instruments per guidance
- Heavy machinery & busy roadway nearby

Weather Readings

Temperature: 59 °F

Humidity: 68 %

Barometric Pressure: 29.74 in. Hg

Wind: 7 mph Direction: from W

APPENDIX D
Non-Hazardous Waste Manifest

Manifest

SOIL SAFE OF CA – TPST
Non-Hazardous Soils

↓ Manifest # ↓

Date of Shipment:	Responsible for Payment:	Transport Truck #:	Facility #:	Approval Number:	Load #
/ /			A07		

Generator and/or Consultant

Generator's Name and Billing Address: DUKE REALTY CORPORATION, JASON BERNSTEIN 1904 FRANKLIN STREET, 8TH FLOOR OAKLAND, CA 94612	Generator's Phone #: 415-298-3325 Person to Contact: FAX#:	Customer Account Number
Consultant's Name and Billing Address:	Consultant's Phone #: Person to Contact: FAX#:	Customer Account Number
Generation Site (Transport from): *(name & address)* THE FOUNDRY 7825 SAN LEANDRO ST. OAKLAND, CA 94621	Site Phone #: Person to Contact: FAX#:	
Designated Facility (Transport to): *(name & address)* SOIL SAFE 12328 HIBISCUS AVENUE ADELANTO, CA 92301	Facility Phone #: (800) 862-8001 Person to Contact: JOE PROVANSAL FAX#: (760) 246-8004	
Transporter Name and Mailing Address: BELSHIRE 25971 TOWNE CENTRE DRIVE FOOTHILL RANCH, CA 92610 BESI: 342048	Transporter's Phone #: 949-460-5200 Person to Contact: LARRY MOOTHART FAX#: 949-460-5210	CAR000183913 1629169 Customer Account Number

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐	1 DM	Soil			
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐					

List any exception to items listed above: Scale Ticket #

SIGN

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name: Generator ☐ Consultant ☐	Signature and date:	Month	Day	Year
Akash Cavener on behalf of Duke Realty		5	5	22

Transporter

Transporter's certification: I/We acknowledge receipt of the soil referenced above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that the soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name:	Signature and date:	Month	Day	Year
Ron Green	Ron Green	05	05	22

Recycling Facility

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name:	Signature and date:
Joe Provansal / Barry Meek / Bill Bishop	

Please print or type.

FACILITY COPY

APPENDIX E
Analytical Laboratory Reports

eurofins | Air Toxics

3/31/2022
Mr. Jason Grant
Haley & Aldrich
2033 North Main Street
Suite 309
Walnut Creek CA 94596

Project Name: The Foundry
Project #:
Workorder #: 2203785A

Dear Mr. Jason Grant

The following report includes the data for the above referenced project for sample(s) received on 3/29/2022 at Eurofins Air Toxics LLC.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics LLC. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Kelly Buettner

Project Manager

eurofins | Air Toxics

WORK ORDER #: 2203785A

Work Order Summary

CLIENT:	Mr. Jason Grant Haley & Aldrich 2033 North Main Street Suite 309 Walnut Creek, CA 94596	**BILL TO:**	Accounts Payable Haley & Aldrich 70 Blanchard Road Suite 430 Burlington, MA 02129-1400
PHONE:	925-979-1450	**P.O. #**	0204627-100-035-01
FAX:	925-974-3506	**PROJECT #**	The Foundry
DATE RECEIVED:	03/29/2022	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	03/31/2022		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	E-2	TO-15	5.0 "Hg	10 psi
02A	E-4	TO-15	4.0 "Hg	10 psi
03A	DUP-01	TO-15	5.5 "Hg	10 psi
04A	Lab Blank	TO-15	NA	NA
05A	CCV	TO-15	NA	NA
06A	LCS	TO-15	NA	NA
06AA	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 03/31/22

Technical Director

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209221, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-21-17, UT NELAP – CA009332021-13, VA NELAP - 10615, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005-015, Effective date: 10/18/2021, Expiration date: 10/17/2022.
Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, LLC.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

LABORATORY NARRATIVE
EPA Method TO-15
Haley & Aldrich
Workorder# 2203785A

Three 1 Liter Summa Canister samples were received on March 29, 2022. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page.

Dilution was performed on sample E-4 due to the presence of high level target species.

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: E-2

Lab ID#: 2203785A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	1.0	2.8	4.0	11
Acetone	10	15	24	35
2-Propanol	4.0	22	9.9	55
Chloroform	1.0	4.4	4.9	21

Client Sample ID: E-4

Lab ID#: 2203785A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	19	24	50	63
Hexane	19	2200	68	7600
cis-1,2-Dichloroethene	19	43	77	170
Cyclohexane	19	1600	67	5600
2,2,4-Trimethylpentane	19	4400	91	20000
Benzene	19	3500	62	11000
Heptane	19	1200	80	5000
Trichloroethene	19	140	100	740
Ethyl Benzene	19	590	84	2600
m,p-Xylene	19	240	84	1000
o-Xylene	19	100	84	440
Cumene	19	300	95	1400
Propylbenzene	19	470	95	2300
1,3,5-Trimethylbenzene	19	28	95	140
1,2,4-Trimethylbenzene	19	76	95	370

Client Sample ID: DUP-01

Lab ID#: 2203785A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	1.0	2.9	4.1	11
Acetone	10	12	24	30
2-Propanol	4.1	17	10	42
1,1-Dichloroethane	1.0	1.1	4.2	4.4

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: DUP-01

Lab ID#: 2203785A-03A

Chloroform	1.0	4.0	5.0	20

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Client Sample ID: E-2

Lab ID#: 2203785A-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p033008**	**Date of Collection:**	**3/28/22 11:39:00 AM**
Dil. Factor:	**2.02**	**Date of Analysis:**	**3/30/22 05:13 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	Not Detected	5.0	Not Detected
Freon 114	1.0	Not Detected	7.1	Not Detected
Chloromethane	10	Not Detected	21	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected
1,3-Butadiene	1.0	Not Detected	2.2	Not Detected
Bromomethane	10	Not Detected	39	Not Detected
Chloroethane	4.0	Not Detected	11	Not Detected
Freon 11	1.0	Not Detected	5.7	Not Detected
Ethanol	10	Not Detected	19	Not Detected
Freon 113	1.0	Not Detected	7.7	Not Detected
1,1-Dichloroethene	1.0	2.8	4.0	11
Acetone	10	15	24	35
2-Propanol	4.0	22	9.9	55
Carbon Disulfide	4.0	Not Detected	12	Not Detected
3-Chloropropene	4.0	Not Detected	13	Not Detected
Methylene Chloride	10	Not Detected	35	Not Detected
Methyl tert-butyl ether	4.0	Not Detected	14	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.0	Not Detected
Hexane	1.0	Not Detected	3.6	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.0	Not Detected	12	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.0	Not Detected
Tetrahydrofuran	1.0	Not Detected	3.0	Not Detected
Chloroform	1.0	4.4	4.9	21
1,1,1-Trichloroethane	1.0	Not Detected	5.5	Not Detected
Cyclohexane	1.0	Not Detected	3.5	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.4	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.7	Not Detected
Benzene	1.0	Not Detected	3.2	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.1	Not Detected
Heptane	1.0	Not Detected	4.1	Not Detected
Trichloroethene	1.0	Not Detected	5.4	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.7	Not Detected
1,4-Dioxane	4.0	Not Detected	14	Not Detected
Bromodichloromethane	1.0	Not Detected	6.8	Not Detected
cis-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.1	Not Detected
Toluene	1.0	Not Detected	3.8	Not Detected
trans-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.5	Not Detected
Tetrachloroethene	1.0	Not Detected	6.8	Not Detected
2-Hexanone	4.0	Not Detected	16	Not Detected

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Client Sample ID: E-2

Lab ID#: 2203785A-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p033008**	**Date of Collection:**	**3/28/22 11:39:00 AM**
Dil. Factor:	**2.02**	**Date of Analysis:**	**3/30/22 05:13 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.0	Not Detected	8.6	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	7.8	Not Detected
Chlorobenzene	1.0	Not Detected	4.6	Not Detected
Ethyl Benzene	1.0	Not Detected	4.4	Not Detected
m,p-Xylene	1.0	Not Detected	4.4	Not Detected
o-Xylene	1.0	Not Detected	4.4	Not Detected
Styrene	1.0	Not Detected	4.3	Not Detected
Bromoform	1.0	Not Detected	10	Not Detected
Cumene	1.0	Not Detected	5.0	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	6.9	Not Detected
Propylbenzene	1.0	Not Detected	5.0	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.0	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.0	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	5.0	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.2	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
1,2,4-Trichlorobenzene	4.0	Not Detected	30	Not Detected
Hexachlorobutadiene	4.0	Not Detected	43	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	94	70-130

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Client Sample ID: E-4

Lab ID#: 2203785A-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p033026**	**Date of Collection:**	**3/28/22 12:51:00 PM**
Dil. Factor:	**38.8**	**Date of Analysis:**	**3/31/22 03:57 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	19	Not Detected	96	Not Detected
Freon 114	19	Not Detected	140	Not Detected
Chloromethane	190	Not Detected	400	Not Detected
Vinyl Chloride	19	24	50	63
1,3-Butadiene	19	Not Detected	43	Not Detected
Bromomethane	190	Not Detected	750	Not Detected
Chloroethane	78	Not Detected	200	Not Detected
Freon 11	19	Not Detected	110	Not Detected
Ethanol	190	Not Detected	360	Not Detected
Freon 113	19	Not Detected	150	Not Detected
1,1-Dichloroethene	19	Not Detected	77	Not Detected
Acetone	190	Not Detected	460	Not Detected
2-Propanol	78	Not Detected	190	Not Detected
Carbon Disulfide	78	Not Detected	240	Not Detected
3-Chloropropene	78	Not Detected	240	Not Detected
Methylene Chloride	190	Not Detected	670	Not Detected
Methyl tert-butyl ether	78	Not Detected	280	Not Detected
trans-1,2-Dichloroethene	19	Not Detected	77	Not Detected
Hexane	19	2200	68	7600
1,1-Dichloroethane	19	Not Detected	78	Not Detected
2-Butanone (Methyl Ethyl Ketone)	78	Not Detected	230	Not Detected
cis-1,2-Dichloroethene	19	43	77	170
Tetrahydrofuran	19	Not Detected	57	Not Detected
Chloroform	19	Not Detected	95	Not Detected
1,1,1-Trichloroethane	19	Not Detected	100	Not Detected
Cyclohexane	19	1600	67	5600
Carbon Tetrachloride	19	Not Detected	120	Not Detected
2,2,4-Trimethylpentane	19	4400	91	20000
Benzene	19	3500	62	11000
1,2-Dichloroethane	19	Not Detected	78	Not Detected
Heptane	19	1200	80	5000
Trichloroethene	19	140	100	740
1,2-Dichloropropane	19	Not Detected	90	Not Detected
1,4-Dioxane	78	Not Detected	280	Not Detected
Bromodichloromethane	19	Not Detected	130	Not Detected
cis-1,3-Dichloropropene	19	Not Detected	88	Not Detected
4-Methyl-2-pentanone	19	Not Detected	79	Not Detected
Toluene	19	Not Detected	73	Not Detected
trans-1,3-Dichloropropene	19	Not Detected	88	Not Detected
1,1,2-Trichloroethane	19	Not Detected	100	Not Detected
Tetrachloroethene	19	Not Detected	130	Not Detected
2-Hexanone	78	Not Detected	320	Not Detected

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Client Sample ID: E-4

Lab ID#: 2203785A-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p033026**	**Date of Collection:**	**3/28/22 12:51:00 PM**
Dil. Factor:	**38.8**	**Date of Analysis:**	**3/31/22 03:57 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	19	Not Detected	160	Not Detected
1,2-Dibromoethane (EDB)	19	Not Detected	150	Not Detected
Chlorobenzene	19	Not Detected	89	Not Detected
Ethyl Benzene	19	590	84	2600
m,p-Xylene	19	240	84	1000
o-Xylene	19	100	84	440
Styrene	19	Not Detected	83	Not Detected
Bromoform	19	Not Detected	200	Not Detected
Cumene	19	300	95	1400
1,1,2,2-Tetrachloroethane	19	Not Detected	130	Not Detected
Propylbenzene	19	470	95	2300
4-Ethyltoluene	19	Not Detected	95	Not Detected
1,3,5-Trimethylbenzene	19	28	95	140
1,2,4-Trimethylbenzene	19	76	95	370
1,3-Dichlorobenzene	19	Not Detected	120	Not Detected
1,4-Dichlorobenzene	19	Not Detected	120	Not Detected
alpha-Chlorotoluene	19	Not Detected	100	Not Detected
1,2-Dichlorobenzene	19	Not Detected	120	Not Detected
1,2,4-Trichlorobenzene	78	Not Detected	580	Not Detected
Hexachlorobutadiene	78	Not Detected	830	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	108	70-130
4-Bromofluorobenzene	97	70-130

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Client Sample ID: DUP-01

Lab ID#: 2203785A-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p033009**	**Date of Collection: 3/28/22**	
Dil. Factor:	**2.06**	**Date of Analysis: 3/30/22 05:42 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	Not Detected	5.1	Not Detected
Freon 114	1.0	Not Detected	7.2	Not Detected
Chloromethane	10	Not Detected	21	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected
1,3-Butadiene	1.0	Not Detected	2.3	Not Detected
Bromomethane	10	Not Detected	40	Not Detected
Chloroethane	4.1	Not Detected	11	Not Detected
Freon 11	1.0	Not Detected	5.8	Not Detected
Ethanol	10	Not Detected	19	Not Detected
Freon 113	1.0	Not Detected	7.9	Not Detected
1,1-Dichloroethene	1.0	2.9	4.1	11
Acetone	10	12	24	30
2-Propanol	4.1	17	10	42
Carbon Disulfide	4.1	Not Detected	13	Not Detected
3-Chloropropene	4.1	Not Detected	13	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Methyl tert-butyl ether	4.1	Not Detected	15	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Hexane	1.0	Not Detected	3.6	Not Detected
1,1-Dichloroethane	1.0	1.1	4.2	4.4
2-Butanone (Methyl Ethyl Ketone)	4.1	Not Detected	12	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Tetrahydrofuran	1.0	Not Detected	3.0	Not Detected
Chloroform	1.0	4.0	5.0	20
1,1,1-Trichloroethane	1.0	Not Detected	5.6	Not Detected
Cyclohexane	1.0	Not Detected	3.5	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.5	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.8	Not Detected
Benzene	1.0	Not Detected	3.3	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
Heptane	1.0	Not Detected	4.2	Not Detected
Trichloroethene	1.0	Not Detected	5.5	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.8	Not Detected
1,4-Dioxane	4.1	Not Detected	15	Not Detected
Bromodichloromethane	1.0	Not Detected	6.9	Not Detected
cis-1,3-Dichloropropene	1.0	Not Detected	4.7	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.2	Not Detected
Toluene	1.0	Not Detected	3.9	Not Detected
trans-1,3-Dichloropropene	1.0	Not Detected	4.7	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.6	Not Detected
Tetrachloroethene	1.0	Not Detected	7.0	Not Detected
2-Hexanone	4.1	Not Detected	17	Not Detected

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Client Sample ID: DUP-01

Lab ID#: 2203785A-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p033009**	**Date of Collection: 3/28/22**	
Dil. Factor:	**2.06**	**Date of Analysis: 3/30/22 05:42 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.0	Not Detected	8.8	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	7.9	Not Detected
Chlorobenzene	1.0	Not Detected	4.7	Not Detected
Ethyl Benzene	1.0	Not Detected	4.5	Not Detected
m,p-Xylene	1.0	Not Detected	4.5	Not Detected
o-Xylene	1.0	Not Detected	4.5	Not Detected
Styrene	1.0	Not Detected	4.4	Not Detected
Bromoform	1.0	Not Detected	11	Not Detected
Cumene	1.0	Not Detected	5.1	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.1	Not Detected
Propylbenzene	1.0	Not Detected	5.1	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.1	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.1	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	5.1	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.3	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,2,4-Trichlorobenzene	4.1	Not Detected	30	Not Detected
Hexachlorobutadiene	4.1	Not Detected	44	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	94	70-130

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Client Sample ID: Lab Blank

Lab ID#: 2203785A-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p033007**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/30/22 03:59 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	5.0	Not Detected	9.4	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected

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Client Sample ID: Lab Blank

Lab ID#: 2203785A-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p033007**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/30/22 03:59 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	93	70-130

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Client Sample ID: CCV

Lab ID#: 2203785A-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p033002**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 3/30/22 12:50 PM**

Compound	%Recovery
Freon 12	103
Freon 114	105
Chloromethane	123
Vinyl Chloride	113
1,3-Butadiene	120
Bromomethane	95
Chloroethane	104
Freon 11	96
Ethanol	110
Freon 113	99
1,1-Dichloroethene	108
Acetone	105
2-Propanol	106
Carbon Disulfide	100
3-Chloropropene	108
Methylene Chloride	104
Methyl tert-butyl ether	105
trans-1,2-Dichloroethene	108
Hexane	111
1,1-Dichloroethane	108
2-Butanone (Methyl Ethyl Ketone)	103
cis-1,2-Dichloroethene	108
Tetrahydrofuran	118
Chloroform	105
1,1,1-Trichloroethane	100
Cyclohexane	105
Carbon Tetrachloride	105
2,2,4-Trimethylpentane	113
Benzene	108
1,2-Dichloroethane	100
Heptane	116
Trichloroethene	110
1,2-Dichloropropane	108
1,4-Dioxane	115
Bromodichloromethane	105
cis-1,3-Dichloropropene	111
4-Methyl-2-pentanone	111
Toluene	107
trans-1,3-Dichloropropene	112
1,1,2-Trichloroethane	108
Tetrachloroethene	111
2-Hexanone	116

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Client Sample ID: CCV

Lab ID#: 2203785A-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p033002**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/30/22 12:50 PM**	

Compound	%Recovery
Dibromochloromethane	110
1,2-Dibromoethane (EDB)	114
Chlorobenzene	108
Ethyl Benzene	114
m,p-Xylene	116
o-Xylene	114
Styrene	122
Bromoform	110
Cumene	118
1,1,2,2-Tetrachloroethane	109
Propylbenzene	111
4-Ethyltoluene	111
1,3,5-Trimethylbenzene	114
1,2,4-Trimethylbenzene	115
1,3-Dichlorobenzene	110
1,4-Dichlorobenzene	109
alpha-Chlorotoluene	114
1,2-Dichlorobenzene	106
1,2,4-Trichlorobenzene	91
Hexachlorobutadiene	92

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	101	70-130

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Client Sample ID: LCS

Lab ID#: 2203785A-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p033003**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/30/22 01:18 PM**	

Compound	%Recovery	Method Limits
Freon 12	99	70-130
Freon 114	99	70-130
Chloromethane	123	70-130
Vinyl Chloride	115	70-130
1,3-Butadiene	122	70-130
Bromomethane	88	70-130
Chloroethane	102	70-130
Freon 11	94	70-130
Ethanol	107	70-130
Freon 113	94	70-130
1,1-Dichloroethene	102	70-130
Acetone	100	70-130
2-Propanol	112	70-130
Carbon Disulfide	98	70-130
3-Chloropropene	109	70-130
Methylene Chloride	99	70-130
Methyl tert-butyl ether	104	70-130
trans-1,2-Dichloroethene	107	70-130
Hexane	107	70-130
1,1-Dichloroethane	106	70-130
2-Butanone (Methyl Ethyl Ketone)	103	70-130
cis-1,2-Dichloroethene	105	70-130
Tetrahydrofuran	116	70-130
Chloroform	99	70-130
1,1,1-Trichloroethane	98	70-130
Cyclohexane	105	70-130
Carbon Tetrachloride	102	70-130
2,2,4-Trimethylpentane	112	70-130
Benzene	106	70-130
1,2-Dichloroethane	102	70-130
Heptane	115	70-130
Trichloroethene	107	70-130
1,2-Dichloropropane	106	70-130
1,4-Dioxane	110	70-130
Bromodichloromethane	102	70-130
cis-1,3-Dichloropropene	112	70-130
4-Methyl-2-pentanone	111	70-130
Toluene	106	70-130
trans-1,3-Dichloropropene	111	70-130
1,1,2-Trichloroethane	112	70-130
Tetrachloroethene	107	70-130
2-Hexanone	114	70-130

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Client Sample ID: LCS

Lab ID#: 2203785A-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p033003**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/30/22 01:18 PM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	108	70-130
1,2-Dibromoethane (EDB)	110	70-130
Chlorobenzene	107	70-130
Ethyl Benzene	112	70-130
m,p-Xylene	112	70-130
o-Xylene	111	70-130
Styrene	120	70-130
Bromoform	108	70-130
Cumene	115	70-130
1,1,2,2-Tetrachloroethane	110	70-130
Propylbenzene	109	70-130
4-Ethyltoluene	110	70-130
1,3,5-Trimethylbenzene	113	70-130
1,2,4-Trimethylbenzene	112	70-130
1,3-Dichlorobenzene	108	70-130
1,4-Dichlorobenzene	106	70-130
alpha-Chlorotoluene	112	70-130
1,2-Dichlorobenzene	106	70-130
1,2,4-Trichlorobenzene	98	70-130
Hexachlorobutadiene	98	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: LCSD

Lab ID#: 2203785A-06AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p033004**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/30/22 01:46 PM**	

Compound	%Recovery	Method Limits
Freon 12	101	70-130
Freon 114	102	70-130
Chloromethane	138 Q	70-130
Vinyl Chloride	119	70-130
1,3-Butadiene	120	70-130
Bromomethane	91	70-130
Chloroethane	105	70-130
Freon 11	96	70-130
Ethanol	111	70-130
Freon 113	99	70-130
1,1-Dichloroethene	106	70-130
Acetone	104	70-130
2-Propanol	114	70-130
Carbon Disulfide	102	70-130
3-Chloropropene	109	70-130
Methylene Chloride	100	70-130
Methyl tert-butyl ether	108	70-130
trans-1,2-Dichloroethene	112	70-130
Hexane	112	70-130
1,1-Dichloroethane	109	70-130
2-Butanone (Methyl Ethyl Ketone)	103	70-130
cis-1,2-Dichloroethene	106	70-130
Tetrahydrofuran	119	70-130
Chloroform	102	70-130
1,1,1-Trichloroethane	100	70-130
Cyclohexane	108	70-130
Carbon Tetrachloride	102	70-130
2,2,4-Trimethylpentane	114	70-130
Benzene	106	70-130
1,2-Dichloroethane	100	70-130
Heptane	116	70-130
Trichloroethene	106	70-130
1,2-Dichloropropane	107	70-130
1,4-Dioxane	110	70-130
Bromodichloromethane	102	70-130
cis-1,3-Dichloropropene	111	70-130
4-Methyl-2-pentanone	111	70-130
Toluene	105	70-130
trans-1,3-Dichloropropene	114	70-130
1,1,2-Trichloroethane	111	70-130
Tetrachloroethene	107	70-130
2-Hexanone	118	70-130

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Client Sample ID: LCSD

Lab ID#: 2203785A-06AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p033004**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/30/22 01:46 PM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	109	70-130
1,2-Dibromoethane (EDB)	112	70-130
Chlorobenzene	107	70-130
Ethyl Benzene	113	70-130
m,p-Xylene	113	70-130
o-Xylene	113	70-130
Styrene	121	70-130
Bromoform	109	70-130
Cumene	116	70-130
1,1,2,2-Tetrachloroethane	110	70-130
Propylbenzene	110	70-130
4-Ethyltoluene	110	70-130
1,3,5-Trimethylbenzene	112	70-130
1,2,4-Trimethylbenzene	116	70-130
1,3-Dichlorobenzene	109	70-130
1,4-Dichlorobenzene	107	70-130
alpha-Chlorotoluene	115	70-130
1,2-Dichlorobenzene	107	70-130
1,2,4-Trichlorobenzene	117	70-130
Hexachlorobutadiene	112	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	100	70-130

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4/14/2022
Mr. Jason Grant
Haley & Aldrich
2033 North Main Street
Suite 309
Walnut Creek CA 94596

Project Name: The Foundry
Project #:
Workorder #: 2203785AR1

Dear Mr. Jason Grant

The following report includes the data for the above referenced project for sample(s) received on 3/29/2022 at Eurofins Air Toxics LLC.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics LLC. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Kelly Buettner

Project Manager

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WORK ORDER #: 2203785AR1

Work Order Summary

CLIENT:	Mr. Jason Grant Haley & Aldrich 2033 North Main Street Suite 309 Walnut Creek, CA 94596	**BILL TO:**	Accounts Payable Haley & Aldrich 70 Blanchard Road Suite 430 Burlington, MA 02129-1400
PHONE:	925-979-1450	**P.O. #**	0204627-100-035-01
FAX:	925-974-3506	**PROJECT #**	The Foundry
DATE RECEIVED:	03/29/2022	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	03/31/2022		
DATE REISSUED:	04/14/2022		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	E-2	TO-15	5.0 "Hg	10 psi
02A	E-4	TO-15	4.0 "Hg	10 psi
03A	DUP-01	TO-15	5.5 "Hg	10 psi
04A	Lab Blank	TO-15	NA	NA
05A	CCV	TO-15	NA	NA
06A	LCS	TO-15	NA	NA
06AA	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 04/14/22

Technical Director

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209221, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-21-17, UT NELAP – CA009332021-13, VA NELAP - 10615, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005-015, Effective date: 10/18/2021, Expiration date: 10/17/2022.
Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, LLC.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

LABORATORY NARRATIVE
EPA Method TO-15
Haley & Aldrich
Workorder# 2203785AR1

Three 1 Liter Summa Canister samples were received on March 29, 2022. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page.

Dilution was performed on sample E-4 due to the presence of high level target species.

The workorder was reissued on 4/14/22 to report TPHg referenced to gasoline per client's request.

A single point calibration for TPH referenced to gasoline was not performed in the analytical batch associated with the samples. Results for TPH referenced to gasoline were calculated using the single point calibration analyzed on 3/29/22. Recovery for TPH referenced to gasoline is reported as not spiked in the associated CCV.

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.
M - Reported value may be biased due to apparent matrix interferences.
CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: E-2

Lab ID#: 2203785AR1-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	1.0	2.8	4.0	11
Acetone	10	15	24	35
2-Propanol	4.0	22	9.9	55
Chloroform	1.0	4.4	4.9	21

Client Sample ID: E-4

Lab ID#: 2203785AR1-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	19	24	50	63
Hexane	19	2200	68	7600
cis-1,2-Dichloroethene	19	43	77	170
Cyclohexane	19	1600	67	5600
2,2,4-Trimethylpentane	19	4400	91	20000
Benzene	19	3500	62	11000
Heptane	19	1200	80	5000
Trichloroethene	19	140	100	740
Ethyl Benzene	19	590	84	2600
m,p-Xylene	19	240	84	1000
o-Xylene	19	100	84	440
Cumene	19	300	95	1400
Propylbenzene	19	470	95	2300
1,3,5-Trimethylbenzene	19	28	95	140
1,2,4-Trimethylbenzene	19	76	95	370
TPH ref. to Gasoline (MW=100)	1900	200000	7900	820000

Client Sample ID: DUP-01

Lab ID#: 2203785AR1-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	1.0	2.9	4.1	11
Acetone	10	12	24	30
2-Propanol	4.1	17	10	42

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: DUP-01

Lab ID#: 2203785AR1-03A

1,1-Dichloroethane	1.0	1.1	4.2	4.4
Chloroform	1.0	4.0	5.0	20

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Client Sample ID: E-2

Lab ID#: 2203785AR1-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p033008R1**	**Date of Collection:**	**3/28/22 11:39:00 AM**
Dil. Factor:	**2.02**	**Date of Analysis:**	**3/30/22 05:13 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	Not Detected	5.0	Not Detected
Freon 114	1.0	Not Detected	7.1	Not Detected
Chloromethane	10	Not Detected	21	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected
1,3-Butadiene	1.0	Not Detected	2.2	Not Detected
Bromomethane	10	Not Detected	39	Not Detected
Chloroethane	4.0	Not Detected	11	Not Detected
Freon 11	1.0	Not Detected	5.7	Not Detected
Ethanol	10	Not Detected	19	Not Detected
Freon 113	1.0	Not Detected	7.7	Not Detected
1,1-Dichloroethene	1.0	2.8	4.0	11
Acetone	10	15	24	35
2-Propanol	4.0	22	9.9	55
Carbon Disulfide	4.0	Not Detected	12	Not Detected
3-Chloropropene	4.0	Not Detected	13	Not Detected
Methylene Chloride	10	Not Detected	35	Not Detected
Methyl tert-butyl ether	4.0	Not Detected	14	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.0	Not Detected
Hexane	1.0	Not Detected	3.6	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.0	Not Detected	12	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.0	Not Detected
Tetrahydrofuran	1.0	Not Detected	3.0	Not Detected
Chloroform	1.0	4.4	4.9	21
1,1,1-Trichloroethane	1.0	Not Detected	5.5	Not Detected
Cyclohexane	1.0	Not Detected	3.5	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.4	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.7	Not Detected
Benzene	1.0	Not Detected	3.2	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.1	Not Detected
Heptane	1.0	Not Detected	4.1	Not Detected
Trichloroethene	1.0	Not Detected	5.4	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.7	Not Detected
1,4-Dioxane	4.0	Not Detected	14	Not Detected
Bromodichloromethane	1.0	Not Detected	6.8	Not Detected
cis-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.1	Not Detected
Toluene	1.0	Not Detected	3.8	Not Detected
trans-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.5	Not Detected
Tetrachloroethene	1.0	Not Detected	6.8	Not Detected
2-Hexanone	4.0	Not Detected	16	Not Detected

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Client Sample ID: E-2

Lab ID#: 2203785AR1-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p033008R1**	**Date of Collection:**	**3/28/22 11:39:00 AM**
Dil. Factor:	**2.02**	**Date of Analysis:**	**3/30/22 05:13 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.0	Not Detected	8.6	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	7.8	Not Detected
Chlorobenzene	1.0	Not Detected	4.6	Not Detected
Ethyl Benzene	1.0	Not Detected	4.4	Not Detected
m,p-Xylene	1.0	Not Detected	4.4	Not Detected
o-Xylene	1.0	Not Detected	4.4	Not Detected
Styrene	1.0	Not Detected	4.3	Not Detected
Bromoform	1.0	Not Detected	10	Not Detected
Cumene	1.0	Not Detected	5.0	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	6.9	Not Detected
Propylbenzene	1.0	Not Detected	5.0	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.0	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.0	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	5.0	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.2	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
1,2,4-Trichlorobenzene	4.0	Not Detected	30	Not Detected
Hexachlorobutadiene	4.0	Not Detected	43	Not Detected
TPH ref. to Gasoline (MW=100)	100	Not Detected	410	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	94	70-130

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Client Sample ID: E-4

Lab ID#: 2203785AR1-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p033026R1**	**Date of Collection:**	**3/28/22 12:51:00 PM**
Dil. Factor:	**38.8**	**Date of Analysis:**	**3/31/22 03:57 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	19	Not Detected	96	Not Detected
Freon 114	19	Not Detected	140	Not Detected
Chloromethane	190	Not Detected	400	Not Detected
Vinyl Chloride	19	24	50	63
1,3-Butadiene	19	Not Detected	43	Not Detected
Bromomethane	190	Not Detected	750	Not Detected
Chloroethane	78	Not Detected	200	Not Detected
Freon 11	19	Not Detected	110	Not Detected
Ethanol	190	Not Detected	360	Not Detected
Freon 113	19	Not Detected	150	Not Detected
1,1-Dichloroethene	19	Not Detected	77	Not Detected
Acetone	190	Not Detected	460	Not Detected
2-Propanol	78	Not Detected	190	Not Detected
Carbon Disulfide	78	Not Detected	240	Not Detected
3-Chloropropene	78	Not Detected	240	Not Detected
Methylene Chloride	190	Not Detected	670	Not Detected
Methyl tert-butyl ether	78	Not Detected	280	Not Detected
trans-1,2-Dichloroethene	19	Not Detected	77	Not Detected
Hexane	19	2200	68	7600
1,1-Dichloroethane	19	Not Detected	78	Not Detected
2-Butanone (Methyl Ethyl Ketone)	78	Not Detected	230	Not Detected
cis-1,2-Dichloroethene	19	43	77	170
Tetrahydrofuran	19	Not Detected	57	Not Detected
Chloroform	19	Not Detected	95	Not Detected
1,1,1-Trichloroethane	19	Not Detected	100	Not Detected
Cyclohexane	19	1600	67	5600
Carbon Tetrachloride	19	Not Detected	120	Not Detected
2,2,4-Trimethylpentane	19	4400	91	20000
Benzene	19	3500	62	11000
1,2-Dichloroethane	19	Not Detected	78	Not Detected
Heptane	19	1200	80	5000
Trichloroethene	19	140	100	740
1,2-Dichloropropane	19	Not Detected	90	Not Detected
1,4-Dioxane	78	Not Detected	280	Not Detected
Bromodichloromethane	19	Not Detected	130	Not Detected
cis-1,3-Dichloropropene	19	Not Detected	88	Not Detected
4-Methyl-2-pentanone	19	Not Detected	79	Not Detected
Toluene	19	Not Detected	73	Not Detected
trans-1,3-Dichloropropene	19	Not Detected	88	Not Detected
1,1,2-Trichloroethane	19	Not Detected	100	Not Detected
Tetrachloroethene	19	Not Detected	130	Not Detected
2-Hexanone	78	Not Detected	320	Not Detected

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Client Sample ID: E-4

Lab ID#: 2203785AR1-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p033026R1**	**Date of Collection:**	**3/28/22 12:51:00 PM**
Dil. Factor:	**38.8**	**Date of Analysis:**	**3/31/22 03:57 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	19	Not Detected	160	Not Detected
1,2-Dibromoethane (EDB)	19	Not Detected	150	Not Detected
Chlorobenzene	19	Not Detected	89	Not Detected
Ethyl Benzene	19	590	84	2600
m,p-Xylene	19	240	84	1000
o-Xylene	19	100	84	440
Styrene	19	Not Detected	83	Not Detected
Bromoform	19	Not Detected	200	Not Detected
Cumene	19	300	95	1400
1,1,2,2-Tetrachloroethane	19	Not Detected	130	Not Detected
Propylbenzene	19	470	95	2300
4-Ethyltoluene	19	Not Detected	95	Not Detected
1,3,5-Trimethylbenzene	19	28	95	140
1,2,4-Trimethylbenzene	19	76	95	370
1,3-Dichlorobenzene	19	Not Detected	120	Not Detected
1,4-Dichlorobenzene	19	Not Detected	120	Not Detected
alpha-Chlorotoluene	19	Not Detected	100	Not Detected
1,2-Dichlorobenzene	19	Not Detected	120	Not Detected
1,2,4-Trichlorobenzene	78	Not Detected	580	Not Detected
Hexachlorobutadiene	78	Not Detected	830	Not Detected
TPH ref. to Gasoline (MW=100)	1900	200000	7900	820000

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	108	70-130
4-Bromofluorobenzene	97	70-130

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Client Sample ID: DUP-01

Lab ID#: 2203785AR1-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p033009R1**	**Date of Collection: 3/28/22**	
Dil. Factor:	**2.06**	**Date of Analysis: 3/30/22 05:42 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	Not Detected	5.1	Not Detected
Freon 114	1.0	Not Detected	7.2	Not Detected
Chloromethane	10	Not Detected	21	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected
1,3-Butadiene	1.0	Not Detected	2.3	Not Detected
Bromomethane	10	Not Detected	40	Not Detected
Chloroethane	4.1	Not Detected	11	Not Detected
Freon 11	1.0	Not Detected	5.8	Not Detected
Ethanol	10	Not Detected	19	Not Detected
Freon 113	1.0	Not Detected	7.9	Not Detected
1,1-Dichloroethene	1.0	2.9	4.1	11
Acetone	10	12	24	30
2-Propanol	4.1	17	10	42
Carbon Disulfide	4.1	Not Detected	13	Not Detected
3-Chloropropene	4.1	Not Detected	13	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Methyl tert-butyl ether	4.1	Not Detected	15	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Hexane	1.0	Not Detected	3.6	Not Detected
1,1-Dichloroethane	1.0	1.1	4.2	4.4
2-Butanone (Methyl Ethyl Ketone)	4.1	Not Detected	12	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Tetrahydrofuran	1.0	Not Detected	3.0	Not Detected
Chloroform	1.0	4.0	5.0	20
1,1,1-Trichloroethane	1.0	Not Detected	5.6	Not Detected
Cyclohexane	1.0	Not Detected	3.5	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.5	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.8	Not Detected
Benzene	1.0	Not Detected	3.3	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
Heptane	1.0	Not Detected	4.2	Not Detected
Trichloroethene	1.0	Not Detected	5.5	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.8	Not Detected
1,4-Dioxane	4.1	Not Detected	15	Not Detected
Bromodichloromethane	1.0	Not Detected	6.9	Not Detected
cis-1,3-Dichloropropene	1.0	Not Detected	4.7	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.2	Not Detected
Toluene	1.0	Not Detected	3.9	Not Detected
trans-1,3-Dichloropropene	1.0	Not Detected	4.7	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.6	Not Detected
Tetrachloroethene	1.0	Not Detected	7.0	Not Detected
2-Hexanone	4.1	Not Detected	17	Not Detected

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Client Sample ID: DUP-01

Lab ID#: 2203785AR1-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p033009R1**	**Date of Collection: 3/28/22**	
Dil. Factor:	**2.06**	**Date of Analysis: 3/30/22 05:42 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.0	Not Detected	8.8	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	7.9	Not Detected
Chlorobenzene	1.0	Not Detected	4.7	Not Detected
Ethyl Benzene	1.0	Not Detected	4.5	Not Detected
m,p-Xylene	1.0	Not Detected	4.5	Not Detected
o-Xylene	1.0	Not Detected	4.5	Not Detected
Styrene	1.0	Not Detected	4.4	Not Detected
Bromoform	1.0	Not Detected	11	Not Detected
Cumene	1.0	Not Detected	5.1	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.1	Not Detected
Propylbenzene	1.0	Not Detected	5.1	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.1	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.1	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	5.1	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.3	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,2,4-Trichlorobenzene	4.1	Not Detected	30	Not Detected
Hexachlorobutadiene	4.1	Not Detected	44	Not Detected
TPH ref. to Gasoline (MW=100)	100	Not Detected	420	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	94	70-130

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Client Sample ID: Lab Blank

Lab ID#: 2203785AR1-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p033007**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/30/22 03:59 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	5.0	Not Detected	9.4	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected

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Client Sample ID: Lab Blank

Lab ID#: 2203785AR1-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p033007**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/30/22 03:59 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
TPH ref. to Gasoline (MW=100)	50	Not Detected	200	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	93	70-130

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Client Sample ID: CCV

Lab ID#: 2203785AR1-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p033002**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 3/30/22 12:50 PM**

Compound	%Recovery
Freon 12	103
Freon 114	105
Chloromethane	123
Vinyl Chloride	113
1,3-Butadiene	120
Bromomethane	95
Chloroethane	104
Freon 11	96
Ethanol	110
Freon 113	99
1,1-Dichloroethene	108
Acetone	105
2-Propanol	106
Carbon Disulfide	100
3-Chloropropene	108
Methylene Chloride	104
Methyl tert-butyl ether	105
trans-1,2-Dichloroethene	108
Hexane	111
1,1-Dichloroethane	108
2-Butanone (Methyl Ethyl Ketone)	103
cis-1,2-Dichloroethene	108
Tetrahydrofuran	118
Chloroform	105
1,1,1-Trichloroethane	100
Cyclohexane	105
Carbon Tetrachloride	105
2,2,4-Trimethylpentane	113
Benzene	108
1,2-Dichloroethane	100
Heptane	116
Trichloroethene	110
1,2-Dichloropropane	108
1,4-Dioxane	115
Bromodichloromethane	105
cis-1,3-Dichloropropene	111
4-Methyl-2-pentanone	111
Toluene	107
trans-1,3-Dichloropropene	112
1,1,2-Trichloroethane	108
Tetrachloroethene	111
2-Hexanone	116

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Client Sample ID: CCV

Lab ID#: 2203785AR1-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p033002**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/30/22 12:50 PM**	

Compound	%Recovery
Dibromochloromethane	110
1,2-Dibromoethane (EDB)	114
Chlorobenzene	108
Ethyl Benzene	114
m,p-Xylene	116
o-Xylene	114
Styrene	122
Bromoform	110
Cumene	118
1,1,2,2-Tetrachloroethane	109
Propylbenzene	111
4-Ethyltoluene	111
1,3,5-Trimethylbenzene	114
1,2,4-Trimethylbenzene	115
1,3-Dichlorobenzene	110
1,4-Dichlorobenzene	109
alpha-Chlorotoluene	114
1,2-Dichlorobenzene	106
1,2,4-Trichlorobenzene	91
Hexachlorobutadiene	92
TPH ref. to Gasoline (MW=100)	Not Spiked

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	101	70-130

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Client Sample ID: LCS

Lab ID#: 2203785AR1-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p033003**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/30/22 01:18 PM**	

Compound	%Recovery	Method Limits
Freon 12	99	70-130
Freon 114	99	70-130
Chloromethane	123	70-130
Vinyl Chloride	115	70-130
1,3-Butadiene	122	70-130
Bromomethane	88	70-130
Chloroethane	102	70-130
Freon 11	94	70-130
Ethanol	107	70-130
Freon 113	94	70-130
1,1-Dichloroethene	102	70-130
Acetone	100	70-130
2-Propanol	112	70-130
Carbon Disulfide	98	70-130
3-Chloropropene	109	70-130
Methylene Chloride	99	70-130
Methyl tert-butyl ether	104	70-130
trans-1,2-Dichloroethene	107	70-130
Hexane	107	70-130
1,1-Dichloroethane	106	70-130
2-Butanone (Methyl Ethyl Ketone)	103	70-130
cis-1,2-Dichloroethene	105	70-130
Tetrahydrofuran	116	70-130
Chloroform	99	70-130
1,1,1-Trichloroethane	98	70-130
Cyclohexane	105	70-130
Carbon Tetrachloride	102	70-130
2,2,4-Trimethylpentane	112	70-130
Benzene	106	70-130
1,2-Dichloroethane	102	70-130
Heptane	115	70-130
Trichloroethene	107	70-130
1,2-Dichloropropane	106	70-130
1,4-Dioxane	110	70-130
Bromodichloromethane	102	70-130
cis-1,3-Dichloropropene	112	70-130
4-Methyl-2-pentanone	111	70-130
Toluene	106	70-130
trans-1,3-Dichloropropene	111	70-130
1,1,2-Trichloroethane	112	70-130
Tetrachloroethene	107	70-130
2-Hexanone	114	70-130

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Client Sample ID: LCS

Lab ID#: 2203785AR1-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p033003**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/30/22 01:18 PM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	108	70-130
1,2-Dibromoethane (EDB)	110	70-130
Chlorobenzene	107	70-130
Ethyl Benzene	112	70-130
m,p-Xylene	112	70-130
o-Xylene	111	70-130
Styrene	120	70-130
Bromoform	108	70-130
Cumene	115	70-130
1,1,2,2-Tetrachloroethane	110	70-130
Propylbenzene	109	70-130
4-Ethyltoluene	110	70-130
1,3,5-Trimethylbenzene	113	70-130
1,2,4-Trimethylbenzene	112	70-130
1,3-Dichlorobenzene	108	70-130
1,4-Dichlorobenzene	106	70-130
alpha-Chlorotoluene	112	70-130
1,2-Dichlorobenzene	106	70-130
1,2,4-Trichlorobenzene	98	70-130
Hexachlorobutadiene	98	70-130
TPH ref. to Gasoline (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: LCSD

Lab ID#: 2203785AR1-06AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p033004**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/30/22 01:46 PM**	

Compound	%Recovery	Method Limits
Freon 12	101	70-130
Freon 114	102	70-130
Chloromethane	138 Q	70-130
Vinyl Chloride	119	70-130
1,3-Butadiene	120	70-130
Bromomethane	91	70-130
Chloroethane	105	70-130
Freon 11	96	70-130
Ethanol	111	70-130
Freon 113	99	70-130
1,1-Dichloroethene	106	70-130
Acetone	104	70-130
2-Propanol	114	70-130
Carbon Disulfide	102	70-130
3-Chloropropene	109	70-130
Methylene Chloride	100	70-130
Methyl tert-butyl ether	108	70-130
trans-1,2-Dichloroethene	112	70-130
Hexane	112	70-130
1,1-Dichloroethane	109	70-130
2-Butanone (Methyl Ethyl Ketone)	103	70-130
cis-1,2-Dichloroethene	106	70-130
Tetrahydrofuran	119	70-130
Chloroform	102	70-130
1,1,1-Trichloroethane	100	70-130
Cyclohexane	108	70-130
Carbon Tetrachloride	102	70-130
2,2,4-Trimethylpentane	114	70-130
Benzene	106	70-130
1,2-Dichloroethane	100	70-130
Heptane	116	70-130
Trichloroethene	106	70-130
1,2-Dichloropropane	107	70-130
1,4-Dioxane	110	70-130
Bromodichloromethane	102	70-130
cis-1,3-Dichloropropene	111	70-130
4-Methyl-2-pentanone	111	70-130
Toluene	105	70-130
trans-1,3-Dichloropropene	114	70-130
1,1,2-Trichloroethane	111	70-130
Tetrachloroethene	107	70-130
2-Hexanone	118	70-130

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Client Sample ID: LCSD

Lab ID#: 2203785AR1-06AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p033004**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/30/22 01:46 PM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	109	70-130
1,2-Dibromoethane (EDB)	112	70-130
Chlorobenzene	107	70-130
Ethyl Benzene	113	70-130
m,p-Xylene	113	70-130
o-Xylene	113	70-130
Styrene	121	70-130
Bromoform	109	70-130
Cumene	116	70-130
1,1,2,2-Tetrachloroethane	110	70-130
Propylbenzene	110	70-130
4-Ethyltoluene	110	70-130
1,3,5-Trimethylbenzene	112	70-130
1,2,4-Trimethylbenzene	116	70-130
1,3-Dichlorobenzene	109	70-130
1,4-Dichlorobenzene	107	70-130
alpha-Chlorotoluene	115	70-130
1,2-Dichlorobenzene	107	70-130
1,2,4-Trichlorobenzene	117	70-130
Hexachlorobutadiene	112	70-130
TPH ref. to Gasoline (MW=100)	Not Spiked	

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	100	70-130

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3/31/2022
Mr. Jason Grant
Haley & Aldrich
2033 North Main Street
Suite 309
Walnut Creek CA 94596

Project Name: The Foundry
Project #:
Workorder #: 2203785B

Dear Mr. Jason Grant

The following report includes the data for the above referenced project for sample(s) received on 3/29/2022 at Eurofins Air Toxics LLC.

The data and associated QC analyzed by Modified ASTM D-1946 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics LLC. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Kelly Buettner

Project Manager

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WORK ORDER #: 2203785B

Work Order Summary

CLIENT:	Mr. Jason Grant Haley & Aldrich 2033 North Main Street Suite 309 Walnut Creek, CA 94596	**BILL TO:**	Accounts Payable Haley & Aldrich 70 Blanchard Road Suite 430 Burlington, MA 02129-1400
PHONE:	925-979-1450	**P.O. #**	0204627-100-035-01
FAX:	925-974-3506	**PROJECT #**	The Foundry
DATE RECEIVED:	03/29/2022	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	03/31/2022		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
02A	E-4	Modified ASTM D-1946	4.0 "Hg	10 psi
03A	Lab Blank	Modified ASTM D-1946	NA	NA
04A	CCV	Modified ASTM D-1946	NA	NA
05A	LCS	Modified ASTM D-1946	NA	NA
05AA	LCSD	Modified ASTM D-1946	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 03/31/22

Technical Director

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209221, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-21-17, UT NELAP – CA009332021-13, VA NELAP - 10615, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005-015, Effective date: 10/18/2021, Expiration date: 10/17/2022.
Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
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LABORATORY NARRATIVE
Modified ASTM D-1946
Haley & Aldrich
Workorder# 2203785B

One 1 Liter Summa Canister sample was received on March 29, 2022. The laboratory performed analysis via Modified ASTM Method D-1946 for Helium in air using GC/TCD. The method involves direct injection of 1.0 mL of sample.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the EATL modifications.

Requirement	*ASTM D-1946*	*ATL Modifications*
Calibration	A single point calibration is performed using a reference standard closely matching the composition of the unknown.	A minimum of 5-point calibration curve is performed. Quantitation is based on average Response Factor.
Reference Standard	The composition of any reference standard must be known to within 0.01 mol % for any component.	The standards used by ATL are blended to a >/= 95% accuracy.
Sample Injection Volume	Components whose concentrations are in excess of 5 % should not be analyzed by using sample volumes greater than 0.5 mL.	The sample container is connected directly to a fixed volume sample loop of 1.0 mL on the GC. Linear range is defined by the calibration curve. Bags are loaded by vacuum.
Normalization	Normalize the mole percent values by multiplying each value by 100 and dividing by the sum of the original values. The sum of the original values should not differ from 100% by more than 1.0%.	Results are not normalized. The sum of the reported values can differ from 100% by as much as 15%, either due to analytical variability or an unusual sample matrix.
Precision	Precision requirements established at each concentration level.	Duplicates should agree within 25% RPD for detections > 5 X's the RL.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:
B - Compound present in laboratory blank greater than reporting limit.
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the detection limit.
M - Reported value may be biased due to apparent matrix interferences.
File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: E-4

Lab ID#: 2203785B-02A

No Detections Were Found.

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Client Sample ID: E-4

Lab ID#: 2203785B-02A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10033015c**	**Date of Collection: 3/28/22 12:51:00 PM**	
Dil. Factor:	**1.94**	**Date of Analysis: 3/30/22 01:00 PM**	

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.097	Not Detected

Container Type: 1 Liter Summa Canister

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Client Sample ID: Lab Blank

Lab ID#: 2203785B-03A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10033006c**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/30/22 08:43 AM**	

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.050	Not Detected

Container Type: NA - Not Applicable

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Client Sample ID: CCV

Lab ID#: 2203785B-04A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10033001c**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/30/22 06:46 AM**	

Compound	%Recovery
Helium	95

Container Type: NA - Not Applicable

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Client Sample ID: LCS

Lab ID#: 2203785B-05A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10033002c**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/30/22 07:08 AM**	

Compound	%Recovery	Method Limits
Helium	112	85-115

Container Type: NA - Not Applicable

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Client Sample ID: LCSD

Lab ID#: 2203785B-05AA

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10033003c**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/30/22 07:29 AM**	

Compound	%Recovery	Method Limits
Helium	112	85-115

Container Type: NA - Not Applicable

ANALYTICAL REPORT

April 06, 2022

Haley & Aldrich - San Jose, CA

Sample Delivery Group:	L1476312
Samples Received:	03/29/2022
Project Number:	0204627-100-035-01
Description:	Duke Realty

Report To: Akash Caveney
2107 North First Street
Suite 380
San Jose, CA 95131

Entire Report Reviewed By: Brian Ford

Brian Ford
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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E-2-S-6 L1476312-01 Solid

Collected by: Akash Caveney | Collected date/time: 03/25/22 14:30 | Received date/time: 03/29/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1840439	1	03/31/22 19:12	03/31/22 19:21	CMK	Mt. Juliet, TN
Mercury by Method 7471A	WG1840540	1	04/05/22 08:01	04/06/22 12:00	MRW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1840376	1	03/30/22 14:40	03/31/22 03:09	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015	WG1840999	25	03/25/22 14:30	03/31/22 15:00	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1841654	1	03/25/22 14:30	04/02/22 17:54	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1841743	1	04/03/22 06:17	04/04/22 10:42	JDG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1842785	1	04/03/22 06:17	04/05/22 06:04	JAS	Mt. Juliet, TN

E-2-W L1476312-02 GW

Collected by: Akash Caveney | Collected date/time: 03/25/22 13:45 | Received date/time: 03/29/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1841306	1	04/03/22 11:16	04/04/22 08:58	MRW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1840322	4.5	04/04/22 03:14	04/04/22 11:43	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1840325	1	04/01/22 10:10	04/03/22 12:35	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015	WG1841046	1	03/31/22 19:37	03/31/22 19:37	CAM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1842435	1	04/02/22 00:57	04/02/22 00:57	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1842439	10	04/04/22 01:40	04/04/22 01:40	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1842914	1.11	04/05/22 07:52	04/05/22 14:50	WCR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015-SGT	WG1842916	1.11	04/05/22 10:47	04/05/22 15:52	WCR	Mt. Juliet, TN

E-6-W L1476312-03 GW

Collected by: Akash Caveney | Collected date/time: 03/25/22 16:30 | Received date/time: 03/29/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1841306	1	04/03/22 11:16	04/04/22 09:00	MRW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1840322	4.5	04/04/22 03:14	04/04/22 11:46	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1840325	1	04/01/22 10:10	04/03/22 12:39	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015	WG1841046	1	03/31/22 19:58	03/31/22 19:58	CAM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1842435	1	04/02/22 01:16	04/02/22 01:16	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1842914	1	04/05/22 07:52	04/05/22 15:11	WCR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015-SGT	WG1842916	1	04/05/22 10:47	04/05/22 16:13	WCR	Mt. Juliet, TN

EB-1 L1476312-04 GW

Collected by: Akash Caveney | Collected date/time: 03/25/22 20:00 | Received date/time: 03/29/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1841306	1	04/03/22 11:16	04/04/22 09:02	MRW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1840322	4.5	04/04/22 03:14	04/04/22 11:54	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1840325	1	04/01/22 10:10	04/03/22 12:42	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015	WG1841046	1	03/31/22 15:25	03/31/22 15:25	CAM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1842435	1	04/01/22 20:52	04/01/22 20:52	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1842914	1	04/05/22 07:52	04/05/22 15:32	WCR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015-SGT	WG1842916	1	04/05/22 10:47	04/05/22 15:32	DMG	Mt. Juliet, TN

TB-1 L1476312-05 GW

Collected by: Akash Caveney | Collected date/time: 03/25/22 00:00 | Received date/time: 03/29/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015	WG1841046	1	03/31/22 15:03	03/31/22 15:03	CAM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1842435	1	04/01/22 21:10	04/01/22 21:10	BMB	Mt. Juliet, TN

E-2-S-11 L1476312-06 Solid

Collected by: Akash Caveney | Collected date/time: 03/25/22 14:35 | Received date/time: 03/29/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1841678	1	04/01/22 06:33	04/01/22 06:39	CMK	Mt. Juliet, TN
Mercury by Method 7471A	WG1841932	1	04/04/22 09:13	04/05/22 08:47	CLL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1841927	1	04/01/22 13:15	04/01/22 17:55	KMG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015	WG1841652	25	03/25/22 14:35	04/01/22 07:38	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1841654	1	03/25/22 14:35	04/02/22 18:13	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1841743	1	04/03/22 06:17	04/03/22 16:38	JDG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1842785	1	04/03/22 06:17	04/05/22 05:14	JAS	Mt. Juliet, TN

E-4-S-3 L1476312-07 Solid

Collected by: Akash Caveney | Collected date/time: 03/25/22 17:45 | Received date/time: 03/29/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1841705	1	04/04/22 10:09	04/04/22 10:16	CMK	Mt. Juliet, TN
Mercury by Method 7471A	WG1841932	1	04/04/22 09:13	04/05/22 08:49	CLL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1841927	1	04/01/22 13:15	04/01/22 17:57	KMG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015	WG1841652	108	03/25/22 17:45	04/01/22 14:50	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1841654	8.64	03/25/22 17:45	04/02/22 20:23	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1841743	25	04/03/22 06:17	04/04/22 11:49	JDG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1841743	5	04/03/22 06:17	04/04/22 00:10	JN	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1842785	20	04/03/22 06:17	04/05/22 10:35	JAS	Mt. Juliet, TN

E-4-S-13 L1476312-08 Solid

Collected by: Akash Caveney | Collected date/time: 03/25/22 18:30 | Received date/time: 03/29/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1841705	1	04/04/22 10:09	04/04/22 10:16	CMK	Mt. Juliet, TN
Mercury by Method 7471A	WG1841932	1	04/04/22 09:13	04/05/22 08:52	CLL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1841927	1	04/01/22 13:15	04/01/22 18:00	KMG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015	WG1841652	25	03/25/22 18:30	04/01/22 08:01	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1841654	1	03/25/22 18:30	04/02/22 18:31	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1841743	1	04/03/22 06:17	04/03/22 16:21	JN	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1842785	1	04/03/22 06:17	04/05/22 06:21	JAS	Mt. Juliet, TN

E-5-S-0 L1476312-09 Solid

Collected by: Akash Caveney | Collected date/time: 03/25/22 10:30 | Received date/time: 03/29/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1841705	1	04/04/22 10:09	04/04/22 10:16	CMK	Mt. Juliet, TN
Mercury by Method 7471A	WG1841932	1	04/04/22 09:13	04/05/22 08:55	CLL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1841927	1	04/01/22 13:15	04/01/22 18:09	KMG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015	WG1841652	34.5	03/25/22 10:30	04/01/22 08:25	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1841654	1.38	03/25/22 10:30	04/02/22 18:50	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1841743	5	04/03/22 06:17	04/03/22 23:20	JN	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1842785	1	04/03/22 06:17	04/05/22 06:55	JAS	Mt. Juliet, TN

E-5-S-3 L1476312-10 Solid

Collected by: Akash Caveney | Collected date/time: 03/25/22 10:35 | Received date/time: 03/29/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1841705	1	04/04/22 10:09	04/04/22 10:16	CMK	Mt. Juliet, TN
Mercury by Method 7471A	WG1841932	1	04/04/22 09:13	04/05/22 08:57	CLL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1841927	1	04/01/22 13:15	04/01/22 18:12	KMG	Mt. Juliet, TN

E-5-S-3 L1476312-10 Solid

Collected by: Akash Caveney | Collected date/time: 03/25/22 10:35 | Received date/time: 03/29/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015	WG1841652	26.3	03/25/22 10:35	04/01/22 08:48	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1841654	1.05	03/25/22 10:35	04/02/22 19:27	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1841743	5	04/03/22 06:17	04/03/22 23:53	JN	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1842785	1	04/03/22 06:17	04/05/22 10:18	JAS	Mt. Juliet, TN

E-6-S-2 L1476312-11 Solid

Collected by: Akash Caveney | Collected date/time: 03/25/22 16:20 | Received date/time: 03/29/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1841705	1	04/04/22 10:09	04/04/22 10:16	CMK	Mt. Juliet, TN
Mercury by Method 7471A	WG1841932	1	04/04/22 09:13	04/05/22 09:00	CLL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1841927	1	04/01/22 13:15	04/01/22 18:15	KMG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015	WG1841652	26	03/25/22 16:20	04/01/22 09:11	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1841654	1.04	03/25/22 16:20	04/02/22 19:45	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1841743	1	04/03/22 06:17	04/03/22 16:05	JN	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1842785	1	04/03/22 06:17	04/05/22 10:01	JAS	Mt. Juliet, TN

E-6-S-5 L1476312-12 Solid

Collected by: Akash Caveney | Collected date/time: 03/25/22 16:25 | Received date/time: 03/29/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1841705	1	04/04/22 10:09	04/04/22 10:16	CMK	Mt. Juliet, TN
Mercury by Method 7471A	WG1841932	1	04/04/22 09:13	04/05/22 09:02	CLL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1841927	1	04/01/22 13:15	04/01/22 18:18	KMG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015	WG1841652	35	03/25/22 16:25	04/01/22 10:40	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1841654	1.4	03/25/22 16:25	04/02/22 20:04	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1841743	1	04/03/22 06:17	04/03/22 15:48	JN	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015 SGT	WG1842785	1	04/03/22 06:17	04/05/22 04:57	JAS	Mt. Juliet, TN

TB-2 L1476312-13 GW

Collected by: Akash Caveney | Collected date/time: 03/25/22 00:00 | Received date/time: 03/29/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015	WG1841979	1	04/02/22 01:27	04/02/22 01:27	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1841561	1	03/31/22 19:55	03/31/22 19:55	ADM	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Brian Ford
Project Manager

Sample Delivery Group (SDG) Narrative

pH outside of method requirement.

Lab Sample ID	Project Sample ID	Method
L1476312-02	E-2-W	3511/8015, 3511/8015-SGT
L1476312-03	E-6-W	3511/8015, 3511/8015-SGT

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	72.3		1	03/31/2022 19:21	WG1840439

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0569		0.0249	0.0553	1	04/06/2022 12:00	WG1840540

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	2.27	J	0.752	2.77	1	03/31/2022 03:09	WG1840376
Arsenic	3.74		0.716	2.77	1	03/31/2022 03:09	WG1840376
Barium	321		0.118	0.692	1	03/31/2022 03:09	WG1840376
Beryllium	1.05		0.0436	0.277	1	03/31/2022 03:09	WG1840376
Cadmium	U		0.0651	0.692	1	03/31/2022 03:09	WG1840376
Chromium	88.3		0.184	1.38	1	03/31/2022 03:09	WG1840376
Cobalt	13.3		0.112	1.38	1	03/31/2022 03:09	WG1840376
Copper	45.9		0.553	2.77	1	03/31/2022 03:09	WG1840376
Lead	10.5		0.288	0.692	1	03/31/2022 03:09	WG1840376
Molybdenum	0.199	J	0.151	0.692	1	03/31/2022 03:09	WG1840376
Nickel	68.2		0.183	2.77	1	03/31/2022 03:09	WG1840376
Selenium	U		1.06	2.77	1	03/31/2022 03:09	WG1840376
Silver	U		0.176	1.38	1	03/31/2022 03:09	WG1840376
Thallium	U		0.545	2.77	1	03/31/2022 03:09	WG1840376
Vanadium	93.7		0.700	2.77	1	03/31/2022 03:09	WG1840376
Zinc	71.7		1.15	6.92	1	03/31/2022 03:09	WG1840376

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPHG C5 - C12	U		1.55	4.66	25	03/31/2022 15:00	WG1840999
(S) a,a,a-Trifluorotoluene(FID)	*97.5*			*77.0-120*		*03/31/2022 15:00*	WG1840999

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0681	0.0932	1	04/02/2022 17:54	WG1841654
Acrylonitrile	U		0.00673	0.0233	1	04/02/2022 17:54	WG1841654
Benzene	U		0.000871	0.00186	1	04/02/2022 17:54	WG1841654
Bromobenzene	U		0.00168	0.0233	1	04/02/2022 17:54	WG1841654
Bromodichloromethane	U		0.00135	0.00466	1	04/02/2022 17:54	WG1841654
Bromoform	U		0.00218	0.0466	1	04/02/2022 17:54	WG1841654
Bromomethane	U		0.00367	0.0233	1	04/02/2022 17:54	WG1841654
n-Butylbenzene	U		0.00979	0.0233	1	04/02/2022 17:54	WG1841654
sec-Butylbenzene	U		0.00537	0.0233	1	04/02/2022 17:54	WG1841654
tert-Butylbenzene	U		0.00364	0.00932	1	04/02/2022 17:54	WG1841654
Carbon tetrachloride	U		0.00167	0.00932	1	04/02/2022 17:54	WG1841654
Chlorobenzene	U		0.000392	0.00466	1	04/02/2022 17:54	WG1841654
Chlorodibromomethane	U		0.00114	0.00466	1	04/02/2022 17:54	WG1841654
Chloroethane	U		0.00317	0.00932	1	04/02/2022 17:54	WG1841654
Chloroform	U		0.00192	0.00466	1	04/02/2022 17:54	WG1841654
Chloromethane	U		0.00811	0.0233	1	04/02/2022 17:54	WG1841654
2-Chlorotoluene	U		0.00161	0.00466	1	04/02/2022 17:54	WG1841654
4-Chlorotoluene	U		0.000839	0.00932	1	04/02/2022 17:54	WG1841654

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	U		0.00727	0.0466	1	04/02/2022 17:54	WG1841654
1,2-Dibromoethane	U		0.00121	0.00466	1	04/02/2022 17:54	WG1841654
Dibromomethane	U		0.00140	0.00932	1	04/02/2022 17:54	WG1841654
1,2-Dichlorobenzene	U		0.000792	0.00932	1	04/02/2022 17:54	WG1841654
1,3-Dichlorobenzene	U		0.00112	0.00932	1	04/02/2022 17:54	WG1841654
1,4-Dichlorobenzene	U		0.00131	0.00932	1	04/02/2022 17:54	WG1841654
Dichlorodifluoromethane	U		0.00300	0.00466	1	04/02/2022 17:54	WG1841654
1,1-Dichloroethane	U		0.000916	0.00466	1	04/02/2022 17:54	WG1841654
1,2-Dichloroethane	U		0.00121	0.00466	1	04/02/2022 17:54	WG1841654
1,1-Dichloroethene	U		0.00113	0.00466	1	04/02/2022 17:54	WG1841654
cis-1,2-Dichloroethene	U		0.00137	0.00466	1	04/02/2022 17:54	WG1841654
trans-1,2-Dichloroethene	U		0.00194	0.00932	1	04/02/2022 17:54	WG1841654
1,2-Dichloropropane	U		0.00265	0.00932	1	04/02/2022 17:54	WG1841654
1,1-Dichloropropene	U		0.00151	0.00466	1	04/02/2022 17:54	WG1841654
1,3-Dichloropropane	U		0.000934	0.00932	1	04/02/2022 17:54	WG1841654
cis-1,3-Dichloropropene	U		0.00141	0.00466	1	04/02/2022 17:54	WG1841654
trans-1,3-Dichloropropene	U		0.00213	0.00932	1	04/02/2022 17:54	WG1841654
2,2-Dichloropropane	U		0.00257	0.00466	1	04/02/2022 17:54	WG1841654
Di-isopropyl ether	U		0.000765	0.00186	1	04/02/2022 17:54	WG1841654
Ethylbenzene	U		0.00137	0.00466	1	04/02/2022 17:54	WG1841654
Hexachloro-1,3-butadiene	U		0.0112	0.0466	1	04/02/2022 17:54	WG1841654
Isopropylbenzene	U		0.000792	0.00466	1	04/02/2022 17:54	WG1841654
p-Isopropyltoluene	U		0.00475	0.00932	1	04/02/2022 17:54	WG1841654
2-Butanone (MEK)	U		0.118	0.186	1	04/02/2022 17:54	WG1841654
Methylene Chloride	U		0.0124	0.0466	1	04/02/2022 17:54	WG1841654
4-Methyl-2-pentanone (MIBK)	U		0.00425	0.0466	1	04/02/2022 17:54	WG1841654
Methyl tert-butyl ether	U		0.000653	0.00186	1	04/02/2022 17:54	WG1841654
Naphthalene	U		0.00910	0.0233	1	04/02/2022 17:54	WG1841654
n-Propylbenzene	U		0.00177	0.00932	1	04/02/2022 17:54	WG1841654
Styrene	U		0.000427	0.0233	1	04/02/2022 17:54	WG1841654
1,1,1,2-Tetrachloroethane	U		0.00177	0.00466	1	04/02/2022 17:54	WG1841654
1,1,2,2-Tetrachloroethane	U		0.00130	0.00466	1	04/02/2022 17:54	WG1841654
1,1,2-Trichlorotrifluoroethane	U		0.00141	0.00466	1	04/02/2022 17:54	WG1841654
Tetrachloroethene	U		0.00167	0.00466	1	04/02/2022 17:54	WG1841654
Toluene	0.0115		0.00242	0.00932	1	04/02/2022 17:54	WG1841654
1,2,3-Trichlorobenzene	U		0.0137	0.0233	1	04/02/2022 17:54	WG1841654
1,2,4-Trichlorobenzene	U		0.00820	0.0233	1	04/02/2022 17:54	WG1841654
1,1,1-Trichloroethane	U		0.00172	0.00466	1	04/02/2022 17:54	WG1841654
1,1,2-Trichloroethane	U		0.00111	0.00466	1	04/02/2022 17:54	WG1841654
Trichloroethene	U		0.00109	0.00186	1	04/02/2022 17:54	WG1841654
Trichlorofluoromethane	U		0.00154	0.00466	1	04/02/2022 17:54	WG1841654
1,2,3-Trichloropropane	U		0.00302	0.0233	1	04/02/2022 17:54	WG1841654
1,2,4-Trimethylbenzene	U		0.00295	0.00932	1	04/02/2022 17:54	WG1841654
1,2,3-Trimethylbenzene	U		0.00295	0.00932	1	04/02/2022 17:54	WG1841654
1,3,5-Trimethylbenzene	U		0.00373	0.00932	1	04/02/2022 17:54	WG1841654
Vinyl chloride	U		0.00216	0.00466	1	04/02/2022 17:54	WG1841654
Xylenes, Total	U		0.00164	0.0121	1	04/02/2022 17:54	WG1841654
(S) Toluene-d8	*106*			*75.0-131*		*04/02/2022 17:54*	WG1841654
(S) 4-Bromofluorobenzene	*98.8*			*67.0-138*		*04/02/2022 17:54*	WG1841654
(S) 1,2-Dichloroethane-d4	*97.7*			*70.0-130*		*04/02/2022 17:54*	WG1841654

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		1.01	5.53	1	04/04/2022 10:42	WG1841743
C22-C32 Hydrocarbons	4.63	J	1.84	5.53	1	04/04/2022 10:42	WG1841743
C32-C40 Hydrocarbons	6.24		1.84	5.53	1	04/04/2022 10:42	WG1841743
(S) o-Terphenyl	*78.2*			*18.0-148*		*04/04/2022 10:42*	WG1841743

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		1.01	5.53	1	04/05/2022 06:04	WG1842785
C22-C32 Hydrocarbons	3.21	J	1.84	5.53	1	04/05/2022 06:04	WG1842785
C32-C40 Hydrocarbons	7.43		1.84	5.53	1	04/05/2022 06:04	WG1842785
(S) o-Terphenyl	*67.8*			*18.0-148*		*04/05/2022 06:04*	WG1842785

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Mercury	U		0.100	0.200	1	04/04/2022 08:58	WG1841306

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Barium	163		3.31	22.5	4.5	04/04/2022 11:43	WG1840322
Beryllium	U		1.48	9.00	4.5	04/04/2022 11:43	WG1840322
Chromium	15.2	J	6.30	45.0	4.5	04/04/2022 11:43	WG1840322
Cobalt	5.69	J	3.78	45.0	4.5	04/04/2022 11:43	WG1840322
Molybdenum	9.78	J	5.22	22.5	4.5	04/04/2022 11:43	WG1840322
Vanadium	38.9	J	22.4	90.0	4.5	04/04/2022 11:43	WG1840322

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Antimony	U		1.03	4.00	1	04/03/2022 12:35	WG1840325
Arsenic	1.81	J	0.180	2.00	1	04/03/2022 12:35	WG1840325
Cadmium	0.628	J	0.150	1.00	1	04/03/2022 12:35	WG1840325
Copper	14.6		1.51	5.00	1	04/03/2022 12:35	WG1840325
Lead	5.48		0.849	2.00	1	04/03/2022 12:35	WG1840325
Nickel	20.7		0.816	2.00	1	04/03/2022 12:35	WG1840325
Selenium	0.320	J	0.300	2.00	1	04/03/2022 12:35	WG1840325
Silver	0.215	J	0.0700	2.00	1	04/03/2022 12:35	WG1840325
Thallium	U		0.121	2.00	1	04/03/2022 12:35	WG1840325
Zinc	16.6	J	3.02	25.0	1	04/03/2022 12:35	WG1840325

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TPHG C5 - C12	146	B	30.4	100	1	03/31/2022 19:37	WG1841046
(S) a,a,a-Trifluorotoluene(FID)	*98.6*			*78.0-120*		*03/31/2022 19:37*	WG1841046

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	J3 J4	11.3	50.0	1	04/02/2022 00:57	WG1842435
Acrolein	U	J3	2.54	50.0	1	04/02/2022 00:57	WG1842435
Acrylonitrile	U	J3	0.671	10.0	1	04/02/2022 00:57	WG1842435
Benzene	U		0.0941	1.00	1	04/02/2022 00:57	WG1842435
Bromobenzene	U		0.118	1.00	1	04/02/2022 00:57	WG1842435
Bromodichloromethane	U		0.136	1.00	1	04/02/2022 00:57	WG1842435
Bromoform	U		0.129	1.00	1	04/02/2022 00:57	WG1842435
Bromomethane	U		0.605	5.00	1	04/02/2022 00:57	WG1842435
n-Butylbenzene	U		0.157	1.00	1	04/02/2022 00:57	WG1842435
sec-Butylbenzene	U		0.125	1.00	1	04/02/2022 00:57	WG1842435
tert-Butylbenzene	U		0.127	1.00	1	04/02/2022 00:57	WG1842435
Carbon tetrachloride	U		0.128	1.00	1	04/02/2022 00:57	WG1842435
Chlorobenzene	U		0.116	1.00	1	04/02/2022 00:57	WG1842435
Chlorodibromomethane	U		0.140	1.00	1	04/02/2022 00:57	WG1842435
Chloroethane	U		0.192	5.00	1	04/02/2022 00:57	WG1842435
Chloroform	U		0.111	5.00	1	04/02/2022 00:57	WG1842435
Chloromethane	U		0.960	2.50	1	04/02/2022 00:57	WG1842435
2-Chlorotoluene	U		0.106	1.00	1	04/02/2022 00:57	WG1842435

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
4-Chlorotoluene	U		0.114	1.00	1	04/02/2022 00:57	WG1842435
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	04/02/2022 00:57	WG1842435
1,2-Dibromoethane	U		0.126	1.00	1	04/02/2022 00:57	WG1842435
Dibromomethane	U		0.122	1.00	1	04/02/2022 00:57	WG1842435
1,2-Dichlorobenzene	U		0.107	1.00	1	04/02/2022 00:57	WG1842435
1,3-Dichlorobenzene	U		0.110	1.00	1	04/02/2022 00:57	WG1842435
1,4-Dichlorobenzene	U		0.120	1.00	1	04/02/2022 00:57	WG1842435
Dichlorodifluoromethane	U		0.374	5.00	1	04/02/2022 00:57	WG1842435
1,1-Dichloroethane	3.63		0.100	1.00	1	04/02/2022 00:57	WG1842435
1,2-Dichloroethane	U		0.0819	1.00	1	04/02/2022 00:57	WG1842435
1,1-Dichloroethene	195		1.88	10.0	10	04/04/2022 01:40	WG1842439
cis-1,2-Dichloroethene	2.36		0.126	1.00	1	04/02/2022 00:57	WG1842435
trans-1,2-Dichloroethene	U		0.149	1.00	1	04/02/2022 00:57	WG1842435
1,2-Dichloropropane	U		0.149	1.00	1	04/02/2022 00:57	WG1842435
1,1-Dichloropropene	U		0.142	1.00	1	04/02/2022 00:57	WG1842435
1,3-Dichloropropane	U		0.110	1.00	1	04/02/2022 00:57	WG1842435
cis-1,3-Dichloropropene	U		0.111	1.00	1	04/02/2022 00:57	WG1842435
trans-1,3-Dichloropropene	U		0.118	1.00	1	04/02/2022 00:57	WG1842435
2,2-Dichloropropane	U		0.161	1.00	1	04/02/2022 00:57	WG1842435
Di-isopropyl ether	U		0.105	1.00	1	04/02/2022 00:57	WG1842435
Ethylbenzene	U		0.137	1.00	1	04/02/2022 00:57	WG1842435
Hexachloro-1,3-butadiene	U		0.337	1.00	1	04/02/2022 00:57	WG1842435
Isopropylbenzene	U		0.105	1.00	1	04/02/2022 00:57	WG1842435
p-Isopropyltoluene	U		0.120	1.00	1	04/02/2022 00:57	WG1842435
2-Butanone (MEK)	U		1.19	10.0	1	04/02/2022 00:57	WG1842435
Methylene Chloride	U		0.430	5.00	1	04/02/2022 00:57	WG1842435
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	04/02/2022 00:57	WG1842435
Methyl tert-butyl ether	0.270	J	0.101	1.00	1	04/02/2022 00:57	WG1842435
Naphthalene	U		1.00	5.00	1	04/02/2022 00:57	WG1842435
n-Propylbenzene	U		0.0993	1.00	1	04/02/2022 00:57	WG1842435
Styrene	U		0.118	1.00	1	04/02/2022 00:57	WG1842435
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	04/02/2022 00:57	WG1842435
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	04/02/2022 00:57	WG1842435
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	04/02/2022 00:57	WG1842435
Tetrachloroethene	U		0.300	1.00	1	04/02/2022 00:57	WG1842435
Toluene	U		0.278	1.00	1	04/02/2022 00:57	WG1842435
1,2,3-Trichlorobenzene	U		0.230	1.00	1	04/02/2022 00:57	WG1842435
1,2,4-Trichlorobenzene	U		0.481	1.00	1	04/02/2022 00:57	WG1842435
1,1,1-Trichloroethane	U		0.149	1.00	1	04/02/2022 00:57	WG1842435
1,1,2-Trichloroethane	U		0.158	1.00	1	04/02/2022 00:57	WG1842435
Trichloroethene	U		0.190	1.00	1	04/02/2022 00:57	WG1842435
Trichlorofluoromethane	U		0.160	5.00	1	04/02/2022 00:57	WG1842435
1,2,3-Trichloropropane	U		0.237	2.50	1	04/02/2022 00:57	WG1842435
1,2,4-Trimethylbenzene	U		0.322	1.00	1	04/02/2022 00:57	WG1842435
1,2,3-Trimethylbenzene	U		0.104	1.00	1	04/02/2022 00:57	WG1842435
1,3,5-Trimethylbenzene	U		0.104	1.00	1	04/02/2022 00:57	WG1842435
Vinyl chloride	8.87		0.234	1.00	1	04/02/2022 00:57	WG1842435
Xylenes, Total	U		0.174	3.00	1	04/02/2022 00:57	WG1842435
(S) Toluene-d8	*106*			*80.0-120*		*04/02/2022 00:57*	WG1842435
(S) Toluene-d8	*115*			*80.0-120*		*04/04/2022 01:40*	WG1842439
(S) 4-Bromofluorobenzene	*100*			*77.0-126*		*04/02/2022 00:57*	WG1842435
(S) 4-Bromofluorobenzene	*91.3*			*77.0-126*		*04/04/2022 01:40*	WG1842439
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*04/02/2022 00:57*	WG1842435
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*04/04/2022 01:40*	WG1842439

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
C12-C22 Hydrocarbons	236		36.6	111	1.11	04/05/2022 14:50	WG1842914
C22-C32 Hydrocarbons	111	J	36.6	111	1.11	04/05/2022 14:50	WG1842914
C32-C40 Hydrocarbons	U		36.6	111	1.11	04/05/2022 14:50	WG1842914
(S) o-Terphenyl	*96.4*			*52.0-156*		*04/05/2022 14:50*	WG1842914

Sample Narrative:

L1476312-02 WG1842914: Dilution due to sample volume.

Semi-Volatile Organic Compounds (GC) by Method 3511/8015-SGT

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
C12-C22 Hydrocarbons	U		36.6	111	1.11	04/05/2022 15:52	WG1842916
C22-C32 Hydrocarbons	U		36.6	111	1.11	04/05/2022 15:52	WG1842916
C32-C40 Hydrocarbons	U		36.6	111	1.11	04/05/2022 15:52	WG1842916
(S) o-Terphenyl	*57.7*			*52.0-156*		*04/05/2022 15:52*	WG1842916

Sample Narrative:

L1476312-02 WG1842916: Dilution due to sample volume.

Mercury by Method 7470A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Mercury	0.192	J	0.100	0.200	1	04/04/2022 09:00	WG1841306

Metals (ICP) by Method 6010B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Barium	321		3.31	22.5	4.5	04/04/2022 11:46	WG1840322
Beryllium	U		1.48	9.00	4.5	04/04/2022 11:46	WG1840322
Chromium	31.8	J	6.30	45.0	4.5	04/04/2022 11:46	WG1840322
Cobalt	7.48	J	3.78	45.0	4.5	04/04/2022 11:46	WG1840322
Molybdenum	341		5.22	22.5	4.5	04/04/2022 11:46	WG1840322
Vanadium	22.8	J	22.4	90.0	4.5	04/04/2022 11:46	WG1840322

Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Antimony	11.0		1.03	4.00	1	04/03/2022 12:39	WG1840325
Arsenic	6.05		0.180	2.00	1	04/03/2022 12:39	WG1840325
Cadmium	0.268	J	0.150	1.00	1	04/03/2022 12:39	WG1840325
Copper	21.6		1.51	5.00	1	04/03/2022 12:39	WG1840325
Lead	37.3		0.849	2.00	1	04/03/2022 12:39	WG1840325
Nickel	39.1		0.816	2.00	1	04/03/2022 12:39	WG1840325
Selenium	0.731	J	0.300	2.00	1	04/03/2022 12:39	WG1840325
Silver	U		0.0700	2.00	1	04/03/2022 12:39	WG1840325
Thallium	U		0.121	2.00	1	04/03/2022 12:39	WG1840325
Zinc	38.8		3.02	25.0	1	04/03/2022 12:39	WG1840325

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPHG C5 - C12	79.9	B J	30.4	100	1	03/31/2022 19:58	WG1841046
(S) a,a,a-Trifluorotoluene(FID)	*97.5*			*78.0-120*		*03/31/2022 19:58*	WG1841046

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	25.2	J J3 J4	11.3	50.0	1	04/02/2022 01:16	WG1842435
Acrolein	U	J3	2.54	50.0	1	04/02/2022 01:16	WG1842435
Acrylonitrile	U	J3	0.671	10.0	1	04/02/2022 01:16	WG1842435
Benzene	0.463	J	0.0941	1.00	1	04/02/2022 01:16	WG1842435
Bromobenzene	U		0.118	1.00	1	04/02/2022 01:16	WG1842435
Bromodichloromethane	U		0.136	1.00	1	04/02/2022 01:16	WG1842435
Bromoform	U		0.129	1.00	1	04/02/2022 01:16	WG1842435
Bromomethane	U		0.605	5.00	1	04/02/2022 01:16	WG1842435
n-Butylbenzene	U		0.157	1.00	1	04/02/2022 01:16	WG1842435
sec-Butylbenzene	U		0.125	1.00	1	04/02/2022 01:16	WG1842435
tert-Butylbenzene	U		0.127	1.00	1	04/02/2022 01:16	WG1842435
Carbon tetrachloride	U		0.128	1.00	1	04/02/2022 01:16	WG1842435
Chlorobenzene	U		0.116	1.00	1	04/02/2022 01:16	WG1842435
Chlorodibromomethane	U		0.140	1.00	1	04/02/2022 01:16	WG1842435
Chloroethane	U		0.192	5.00	1	04/02/2022 01:16	WG1842435
Chloroform	U		0.111	5.00	1	04/02/2022 01:16	WG1842435
Chloromethane	U		0.960	2.50	1	04/02/2022 01:16	WG1842435
2-Chlorotoluene	U		0.106	1.00	1	04/02/2022 01:16	WG1842435

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
4-Chlorotoluene	U		0.114	1.00	1	04/02/2022 01:16	WG1842435
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	04/02/2022 01:16	WG1842435
1,2-Dibromoethane	U		0.126	1.00	1	04/02/2022 01:16	WG1842435
Dibromomethane	U		0.122	1.00	1	04/02/2022 01:16	WG1842435
1,2-Dichlorobenzene	U		0.107	1.00	1	04/02/2022 01:16	WG1842435
1,3-Dichlorobenzene	U		0.110	1.00	1	04/02/2022 01:16	WG1842435
1,4-Dichlorobenzene	U		0.120	1.00	1	04/02/2022 01:16	WG1842435
Dichlorodifluoromethane	U		0.374	5.00	1	04/02/2022 01:16	WG1842435
1,1-Dichloroethane	0.325	J	0.100	1.00	1	04/02/2022 01:16	WG1842435
1,2-Dichloroethane	U		0.0819	1.00	1	04/02/2022 01:16	WG1842435
1,1-Dichloroethene	U		0.188	1.00	1	04/02/2022 01:16	WG1842435
cis-1,2-Dichloroethene	0.215	J	0.126	1.00	1	04/02/2022 01:16	WG1842435
trans-1,2-Dichloroethene	U		0.149	1.00	1	04/02/2022 01:16	WG1842435
1,2-Dichloropropane	U		0.149	1.00	1	04/02/2022 01:16	WG1842435
1,1-Dichloropropene	U		0.142	1.00	1	04/02/2022 01:16	WG1842435
1,3-Dichloropropane	U		0.110	1.00	1	04/02/2022 01:16	WG1842435
cis-1,3-Dichloropropene	U		0.111	1.00	1	04/02/2022 01:16	WG1842435
trans-1,3-Dichloropropene	U		0.118	1.00	1	04/02/2022 01:16	WG1842435
2,2-Dichloropropane	U		0.161	1.00	1	04/02/2022 01:16	WG1842435
Di-isopropyl ether	U		0.105	1.00	1	04/02/2022 01:16	WG1842435
Ethylbenzene	0.147	J	0.137	1.00	1	04/02/2022 01:16	WG1842435
Hexachloro-1,3-butadiene	U		0.337	1.00	1	04/02/2022 01:16	WG1842435
Isopropylbenzene	0.125	J	0.105	1.00	1	04/02/2022 01:16	WG1842435
p-Isopropyltoluene	U		0.120	1.00	1	04/02/2022 01:16	WG1842435
2-Butanone (MEK)	5.01	J	1.19	10.0	1	04/02/2022 01:16	WG1842435
Methylene Chloride	U		0.430	5.00	1	04/02/2022 01:16	WG1842435
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	04/02/2022 01:16	WG1842435
Methyl tert-butyl ether	U		0.101	1.00	1	04/02/2022 01:16	WG1842435
Naphthalene	2.61	J	1.00	5.00	1	04/02/2022 01:16	WG1842435
n-Propylbenzene	U		0.0993	1.00	1	04/02/2022 01:16	WG1842435
Styrene	U		0.118	1.00	1	04/02/2022 01:16	WG1842435
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	04/02/2022 01:16	WG1842435
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	04/02/2022 01:16	WG1842435
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	04/02/2022 01:16	WG1842435
Tetrachloroethene	U		0.300	1.00	1	04/02/2022 01:16	WG1842435
Toluene	U		0.278	1.00	1	04/02/2022 01:16	WG1842435
1,2,3-Trichlorobenzene	U		0.230	1.00	1	04/02/2022 01:16	WG1842435
1,2,4-Trichlorobenzene	U		0.481	1.00	1	04/02/2022 01:16	WG1842435
1,1,1-Trichloroethane	U		0.149	1.00	1	04/02/2022 01:16	WG1842435
1,1,2-Trichloroethane	U		0.158	1.00	1	04/02/2022 01:16	WG1842435
Trichloroethene	U		0.190	1.00	1	04/02/2022 01:16	WG1842435
Trichlorofluoromethane	U		0.160	5.00	1	04/02/2022 01:16	WG1842435
1,2,3-Trichloropropane	U		0.237	2.50	1	04/02/2022 01:16	WG1842435
1,2,4-Trimethylbenzene	U		0.322	1.00	1	04/02/2022 01:16	WG1842435
1,2,3-Trimethylbenzene	0.407	J	0.104	1.00	1	04/02/2022 01:16	WG1842435
1,3,5-Trimethylbenzene	U		0.104	1.00	1	04/02/2022 01:16	WG1842435
Vinyl chloride	U		0.234	1.00	1	04/02/2022 01:16	WG1842435
Xylenes, Total	0.224	J	0.174	3.00	1	04/02/2022 01:16	WG1842435
(S) Toluene-d8	*104*			*80.0-120*		*04/02/2022 01:16*	WG1842435
(S) 4-Bromofluorobenzene	*97.0*			*77.0-126*		*04/02/2022 01:16*	WG1842435
(S) 1,2-Dichloroethane-d4	*99.1*			*70.0-130*		*04/02/2022 01:16*	WG1842435

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
C12-C22 Hydrocarbons	892		33.0	100	1	04/05/2022 15:11	WG1842914
C22-C32 Hydrocarbons	600		33.0	100	1	04/05/2022 15:11	WG1842914
C32-C40 Hydrocarbons	219		33.0	100	1	04/05/2022 15:11	WG1842914
(S) o-Terphenyl	*116*			*52.0-156*		*04/05/2022 15:11*	WG1842914

Semi-Volatile Organic Compounds (GC) by Method 3511/8015-SGT

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
C12-C22 Hydrocarbons	55.4	J	33.0	100	1	04/05/2022 16:13	WG1842916
C22-C32 Hydrocarbons	U		33.0	100	1	04/05/2022 16:13	WG1842916
C32-C40 Hydrocarbons	43.7	J	33.0	100	1	04/05/2022 16:13	WG1842916
(S) o-Terphenyl	*69.7*			*52.0-156*		*04/05/2022 16:13*	WG1842916

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Mercury	U		0.100	0.200	1	04/04/2022 09:02	WG1841306

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Barium	U		3.31	22.5	4.5	04/04/2022 11:54	WG1840322
Beryllium	U		1.48	9.00	4.5	04/04/2022 11:54	WG1840322
Chromium	U		6.30	45.0	4.5	04/04/2022 11:54	WG1840322
Cobalt	U		3.78	45.0	4.5	04/04/2022 11:54	WG1840322
Molybdenum	U		5.22	22.5	4.5	04/04/2022 11:54	WG1840322
Vanadium	U		22.4	90.0	4.5	04/04/2022 11:54	WG1840322

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Antimony	U		1.03	4.00	1	04/03/2022 12:42	WG1840325
Arsenic	U		0.180	2.00	1	04/03/2022 12:42	WG1840325
Cadmium	U		0.150	1.00	1	04/03/2022 12:42	WG1840325
Copper	U		1.51	5.00	1	04/03/2022 12:42	WG1840325
Lead	U		0.849	2.00	1	04/03/2022 12:42	WG1840325
Nickel	U		0.816	2.00	1	04/03/2022 12:42	WG1840325
Selenium	U		0.300	2.00	1	04/03/2022 12:42	WG1840325
Silver	U		0.0700	2.00	1	04/03/2022 12:42	WG1840325
Thallium	U		0.121	2.00	1	04/03/2022 12:42	WG1840325
Zinc	U		3.02	25.0	1	04/03/2022 12:42	WG1840325

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TPHG C5 - C12	55.0	B J	30.4	100	1	03/31/2022 15:25	WG1841046
(S) a,a,a-Trifluorotoluene(FID)	*97.2*			*78.0-120*		*03/31/2022 15:25*	WG1841046

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	J3 J4	11.3	50.0	1	04/01/2022 20:52	WG1842435
Acrolein	U	J3	2.54	50.0	1	04/01/2022 20:52	WG1842435
Acrylonitrile	U	J3	0.671	10.0	1	04/01/2022 20:52	WG1842435
Benzene	U		0.0941	1.00	1	04/01/2022 20:52	WG1842435
Bromobenzene	U		0.118	1.00	1	04/01/2022 20:52	WG1842435
Bromodichloromethane	U		0.136	1.00	1	04/01/2022 20:52	WG1842435
Bromoform	U		0.129	1.00	1	04/01/2022 20:52	WG1842435
Bromomethane	U		0.605	5.00	1	04/01/2022 20:52	WG1842435
n-Butylbenzene	U		0.157	1.00	1	04/01/2022 20:52	WG1842435
sec-Butylbenzene	U		0.125	1.00	1	04/01/2022 20:52	WG1842435
tert-Butylbenzene	U		0.127	1.00	1	04/01/2022 20:52	WG1842435
Carbon tetrachloride	U		0.128	1.00	1	04/01/2022 20:52	WG1842435
Chlorobenzene	U		0.116	1.00	1	04/01/2022 20:52	WG1842435
Chlorodibromomethane	U		0.140	1.00	1	04/01/2022 20:52	WG1842435
Chloroethane	U		0.192	5.00	1	04/01/2022 20:52	WG1842435
Chloroform	U		0.111	5.00	1	04/01/2022 20:52	WG1842435
Chloromethane	U		0.960	2.50	1	04/01/2022 20:52	WG1842435
2-Chlorotoluene	U		0.106	1.00	1	04/01/2022 20:52	WG1842435

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
4-Chlorotoluene	U		0.114	1.00	1	04/01/2022 20:52	WG1842435
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	04/01/2022 20:52	WG1842435
1,2-Dibromoethane	U		0.126	1.00	1	04/01/2022 20:52	WG1842435
Dibromomethane	U		0.122	1.00	1	04/01/2022 20:52	WG1842435
1,2-Dichlorobenzene	U		0.107	1.00	1	04/01/2022 20:52	WG1842435
1,3-Dichlorobenzene	U		0.110	1.00	1	04/01/2022 20:52	WG1842435
1,4-Dichlorobenzene	U		0.120	1.00	1	04/01/2022 20:52	WG1842435
Dichlorodifluoromethane	U		0.374	5.00	1	04/01/2022 20:52	WG1842435
1,1-Dichloroethane	U		0.100	1.00	1	04/01/2022 20:52	WG1842435
1,2-Dichloroethane	U		0.0819	1.00	1	04/01/2022 20:52	WG1842435
1,1-Dichloroethene	U		0.188	1.00	1	04/01/2022 20:52	WG1842435
cis-1,2-Dichloroethene	U		0.126	1.00	1	04/01/2022 20:52	WG1842435
trans-1,2-Dichloroethene	U		0.149	1.00	1	04/01/2022 20:52	WG1842435
1,2-Dichloropropane	U		0.149	1.00	1	04/01/2022 20:52	WG1842435
1,1-Dichloropropene	U		0.142	1.00	1	04/01/2022 20:52	WG1842435
1,3-Dichloropropane	U		0.110	1.00	1	04/01/2022 20:52	WG1842435
cis-1,3-Dichloropropene	U		0.111	1.00	1	04/01/2022 20:52	WG1842435
trans-1,3-Dichloropropene	U		0.118	1.00	1	04/01/2022 20:52	WG1842435
2,2-Dichloropropane	U		0.161	1.00	1	04/01/2022 20:52	WG1842435
Di-isopropyl ether	U		0.105	1.00	1	04/01/2022 20:52	WG1842435
Ethylbenzene	U		0.137	1.00	1	04/01/2022 20:52	WG1842435
Hexachloro-1,3-butadiene	U		0.337	1.00	1	04/01/2022 20:52	WG1842435
Isopropylbenzene	U		0.105	1.00	1	04/01/2022 20:52	WG1842435
p-Isopropyltoluene	U		0.120	1.00	1	04/01/2022 20:52	WG1842435
2-Butanone (MEK)	U		1.19	10.0	1	04/01/2022 20:52	WG1842435
Methylene Chloride	U		0.430	5.00	1	04/01/2022 20:52	WG1842435
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	04/01/2022 20:52	WG1842435
Methyl tert-butyl ether	U		0.101	1.00	1	04/01/2022 20:52	WG1842435
Naphthalene	U		1.00	5.00	1	04/01/2022 20:52	WG1842435
n-Propylbenzene	U		0.0993	1.00	1	04/01/2022 20:52	WG1842435
Styrene	U		0.118	1.00	1	04/01/2022 20:52	WG1842435
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	04/01/2022 20:52	WG1842435
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	04/01/2022 20:52	WG1842435
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	04/01/2022 20:52	WG1842435
Tetrachloroethene	U		0.300	1.00	1	04/01/2022 20:52	WG1842435
Toluene	U		0.278	1.00	1	04/01/2022 20:52	WG1842435
1,2,3-Trichlorobenzene	U		0.230	1.00	1	04/01/2022 20:52	WG1842435
1,2,4-Trichlorobenzene	U		0.481	1.00	1	04/01/2022 20:52	WG1842435
1,1,1-Trichloroethane	U		0.149	1.00	1	04/01/2022 20:52	WG1842435
1,1,2-Trichloroethane	U		0.158	1.00	1	04/01/2022 20:52	WG1842435
Trichloroethene	U		0.190	1.00	1	04/01/2022 20:52	WG1842435
Trichlorofluoromethane	U		0.160	5.00	1	04/01/2022 20:52	WG1842435
1,2,3-Trichloropropane	U		0.237	2.50	1	04/01/2022 20:52	WG1842435
1,2,4-Trimethylbenzene	U		0.322	1.00	1	04/01/2022 20:52	WG1842435
1,2,3-Trimethylbenzene	U		0.104	1.00	1	04/01/2022 20:52	WG1842435
1,3,5-Trimethylbenzene	U		0.104	1.00	1	04/01/2022 20:52	WG1842435
Vinyl chloride	U		0.234	1.00	1	04/01/2022 20:52	WG1842435
Xylenes, Total	U		0.174	3.00	1	04/01/2022 20:52	WG1842435
(S) Toluene-d8	*107*			*80.0-120*		*04/01/2022 20:52*	WG1842435
(S) 4-Bromofluorobenzene	*98.8*			*77.0-126*		*04/01/2022 20:52*	WG1842435
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*04/01/2022 20:52*	WG1842435

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
C12-C22 Hydrocarbons	U		33.0	100	1	04/05/2022 15:32	WG1842914
C22-C32 Hydrocarbons	U		33.0	100	1	04/05/2022 15:32	WG1842914
C32-C40 Hydrocarbons	U		33.0	100	1	04/05/2022 15:32	WG1842914
(S) o-Terphenyl	*83.7*			*52.0-156*		*04/05/2022 15:32*	WG1842914

Semi-Volatile Organic Compounds (GC) by Method 3511/8015-SGT

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
C12-C22 Hydrocarbons	U		33.0	100	1	04/05/2022 15:32	WG1842916
C22-C32 Hydrocarbons	U		33.0	100	1	04/05/2022 15:32	WG1842916
C32-C40 Hydrocarbons	U		33.0	100	1	04/05/2022 15:32	WG1842916
(S) o-Terphenyl	*83.7*			*52.0-156*		*04/05/2022 15:32*	WG1842916

Sample Narrative:

L1476312-04 WG1842916: Reporting from non-silica gel data due to non-detect to the RDL.

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPHG C5 - C12	92.2	B J	30.4	100	1	03/31/2022 15:03	WG1841046
(S) a,a,a-Trifluorotoluene(FID)	*98.9*			*78.0-120*		*03/31/2022 15:03*	WG1841046

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U	J3 J4	11.3	50.0	1	04/01/2022 21:10	WG1842435
Acrolein	U	J3	2.54	50.0	1	04/01/2022 21:10	WG1842435
Acrylonitrile	U	J3	0.671	10.0	1	04/01/2022 21:10	WG1842435
Benzene	U		0.0941	1.00	1	04/01/2022 21:10	WG1842435
Bromobenzene	U		0.118	1.00	1	04/01/2022 21:10	WG1842435
Bromodichloromethane	U		0.136	1.00	1	04/01/2022 21:10	WG1842435
Bromoform	U		0.129	1.00	1	04/01/2022 21:10	WG1842435
Bromomethane	U		0.605	5.00	1	04/01/2022 21:10	WG1842435
n-Butylbenzene	U		0.157	1.00	1	04/01/2022 21:10	WG1842435
sec-Butylbenzene	U		0.125	1.00	1	04/01/2022 21:10	WG1842435
tert-Butylbenzene	U		0.127	1.00	1	04/01/2022 21:10	WG1842435
Carbon tetrachloride	U		0.128	1.00	1	04/01/2022 21:10	WG1842435
Chlorobenzene	U		0.116	1.00	1	04/01/2022 21:10	WG1842435
Chlorodibromomethane	U		0.140	1.00	1	04/01/2022 21:10	WG1842435
Chloroethane	U		0.192	5.00	1	04/01/2022 21:10	WG1842435
Chloroform	U		0.111	5.00	1	04/01/2022 21:10	WG1842435
Chloromethane	U		0.960	2.50	1	04/01/2022 21:10	WG1842435
2-Chlorotoluene	U		0.106	1.00	1	04/01/2022 21:10	WG1842435
4-Chlorotoluene	U		0.114	1.00	1	04/01/2022 21:10	WG1842435
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	04/01/2022 21:10	WG1842435
1,2-Dibromoethane	U		0.126	1.00	1	04/01/2022 21:10	WG1842435
Dibromomethane	U		0.122	1.00	1	04/01/2022 21:10	WG1842435
1,2-Dichlorobenzene	U		0.107	1.00	1	04/01/2022 21:10	WG1842435
1,3-Dichlorobenzene	U		0.110	1.00	1	04/01/2022 21:10	WG1842435
1,4-Dichlorobenzene	U		0.120	1.00	1	04/01/2022 21:10	WG1842435
Dichlorodifluoromethane	U		0.374	5.00	1	04/01/2022 21:10	WG1842435
1,1-Dichloroethane	U		0.100	1.00	1	04/01/2022 21:10	WG1842435
1,2-Dichloroethane	U		0.0819	1.00	1	04/01/2022 21:10	WG1842435
1,1-Dichloroethene	U		0.188	1.00	1	04/01/2022 21:10	WG1842435
cis-1,2-Dichloroethene	U		0.126	1.00	1	04/01/2022 21:10	WG1842435
trans-1,2-Dichloroethene	U		0.149	1.00	1	04/01/2022 21:10	WG1842435
1,2-Dichloropropane	U		0.149	1.00	1	04/01/2022 21:10	WG1842435
1,1-Dichloropropene	U		0.142	1.00	1	04/01/2022 21:10	WG1842435
1,3-Dichloropropane	U		0.110	1.00	1	04/01/2022 21:10	WG1842435
cis-1,3-Dichloropropene	U		0.111	1.00	1	04/01/2022 21:10	WG1842435
trans-1,3-Dichloropropene	U		0.118	1.00	1	04/01/2022 21:10	WG1842435
2,2-Dichloropropane	U		0.161	1.00	1	04/01/2022 21:10	WG1842435
Di-isopropyl ether	U		0.105	1.00	1	04/01/2022 21:10	WG1842435
Ethylbenzene	U		0.137	1.00	1	04/01/2022 21:10	WG1842435
Hexachloro-1,3-butadiene	U		0.337	1.00	1	04/01/2022 21:10	WG1842435
Isopropylbenzene	U		0.105	1.00	1	04/01/2022 21:10	WG1842435
p-Isopropyltoluene	U		0.120	1.00	1	04/01/2022 21:10	WG1842435
2-Butanone (MEK)	U		1.19	10.0	1	04/01/2022 21:10	WG1842435
Methylene Chloride	U		0.430	5.00	1	04/01/2022 21:10	WG1842435
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	04/01/2022 21:10	WG1842435
Methyl tert-butyl ether	U		0.101	1.00	1	04/01/2022 21:10	WG1842435
Naphthalene	U		1.00	5.00	1	04/01/2022 21:10	WG1842435
n-Propylbenzene	U		0.0993	1.00	1	04/01/2022 21:10	WG1842435
Styrene	U		0.118	1.00	1	04/01/2022 21:10	WG1842435

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	04/01/2022 21:10	WG1842435
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	04/01/2022 21:10	WG1842435
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	04/01/2022 21:10	WG1842435
Tetrachloroethene	U		0.300	1.00	1	04/01/2022 21:10	WG1842435
Toluene	U		0.278	1.00	1	04/01/2022 21:10	WG1842435
1,2,3-Trichlorobenzene	U		0.230	1.00	1	04/01/2022 21:10	WG1842435
1,2,4-Trichlorobenzene	U		0.481	1.00	1	04/01/2022 21:10	WG1842435
1,1,1-Trichloroethane	U		0.149	1.00	1	04/01/2022 21:10	WG1842435
1,1,2-Trichloroethane	U		0.158	1.00	1	04/01/2022 21:10	WG1842435
Trichloroethene	U		0.190	1.00	1	04/01/2022 21:10	WG1842435
Trichlorofluoromethane	U		0.160	5.00	1	04/01/2022 21:10	WG1842435
1,2,3-Trichloropropane	U		0.237	2.50	1	04/01/2022 21:10	WG1842435
1,2,4-Trimethylbenzene	U		0.322	1.00	1	04/01/2022 21:10	WG1842435
1,2,3-Trimethylbenzene	U		0.104	1.00	1	04/01/2022 21:10	WG1842435
1,3,5-Trimethylbenzene	U		0.104	1.00	1	04/01/2022 21:10	WG1842435
Vinyl chloride	U		0.234	1.00	1	04/01/2022 21:10	WG1842435
Xylenes, Total	U		0.174	3.00	1	04/01/2022 21:10	WG1842435
(S) Toluene-d8	*104*			*80.0-120*		*04/01/2022 21:10*	WG1842435
(S) 4-Bromofluorobenzene	*99.3*			*77.0-126*		*04/01/2022 21:10*	WG1842435
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*04/01/2022 21:10*	WG1842435

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.0		1	04/01/2022 06:39	WG1841678

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0585		0.0237	0.0526	1	04/05/2022 08:47	WG1841932

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	2.37	J	0.716	2.63	1	04/01/2022 17:55	WG1841927
Arsenic	5.57		0.682	2.63	1	04/01/2022 17:55	WG1841927
Barium	269		0.112	0.658	1	04/01/2022 17:55	WG1841927
Beryllium	0.562		0.0415	0.263	1	04/01/2022 17:55	WG1841927
Cadmium	0.287	J	0.0620	0.658	1	04/01/2022 17:55	WG1841927
Chromium	63.3		0.175	1.32	1	04/01/2022 17:55	WG1841927
Cobalt	21.4		0.107	1.32	1	04/01/2022 17:55	WG1841927
Copper	42.0		0.526	2.63	1	04/01/2022 17:55	WG1841927
Lead	8.69		0.274	0.658	1	04/01/2022 17:55	WG1841927
Molybdenum	0.387	J	0.143	0.658	1	04/01/2022 17:55	WG1841927
Nickel	66.5		0.174	2.63	1	04/01/2022 17:55	WG1841927
Selenium	1.57	J	1.01	2.63	1	04/01/2022 17:55	WG1841927
Silver	U		0.167	1.32	1	04/01/2022 17:55	WG1841927
Thallium	U		0.518	2.63	1	04/01/2022 17:55	WG1841927
Vanadium	68.6		0.666	2.63	1	04/01/2022 17:55	WG1841927
Zinc	65.9		1.09	6.58	1	04/01/2022 17:55	WG1841927

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPHG C5 - C12	U		1.40	4.23	25	04/01/2022 07:38	WG1841652
(S) a,a,a-Trifluorotoluene(FID)	*97.8*			*77.0-120*		*04/01/2022 07:38*	WG1841652

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0618	0.0846	1	04/02/2022 18:13	WG1841654
Acrylonitrile	U		0.00611	0.0212	1	04/02/2022 18:13	WG1841654
Benzene	U		0.000790	0.00169	1	04/02/2022 18:13	WG1841654
Bromobenzene	U		0.00152	0.0212	1	04/02/2022 18:13	WG1841654
Bromodichloromethane	U		0.00123	0.00423	1	04/02/2022 18:13	WG1841654
Bromoform	U		0.00198	0.0423	1	04/02/2022 18:13	WG1841654
Bromomethane	U		0.00333	0.0212	1	04/02/2022 18:13	WG1841654
n-Butylbenzene	U		0.00889	0.0212	1	04/02/2022 18:13	WG1841654
sec-Butylbenzene	U		0.00487	0.0212	1	04/02/2022 18:13	WG1841654
tert-Butylbenzene	U		0.00330	0.00846	1	04/02/2022 18:13	WG1841654
Carbon tetrachloride	U		0.00152	0.00846	1	04/02/2022 18:13	WG1841654
Chlorobenzene	U		0.000355	0.00423	1	04/02/2022 18:13	WG1841654
Chlorodibromomethane	U		0.00104	0.00423	1	04/02/2022 18:13	WG1841654
Chloroethane	U		0.00288	0.00846	1	04/02/2022 18:13	WG1841654
Chloroform	U		0.00174	0.00423	1	04/02/2022 18:13	WG1841654
Chloromethane	U		0.00736	0.0212	1	04/02/2022 18:13	WG1841654
2-Chlorotoluene	U		0.00146	0.00423	1	04/02/2022 18:13	WG1841654
4-Chlorotoluene	U		0.000762	0.00846	1	04/02/2022 18:13	WG1841654

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	U		0.00660	0.0423	1	04/02/2022 18:13	WG1841654
1,2-Dibromoethane	U		0.00110	0.00423	1	04/02/2022 18:13	WG1841654
Dibromomethane	U		0.00127	0.00846	1	04/02/2022 18:13	WG1841654
1,2-Dichlorobenzene	U		0.000719	0.00846	1	04/02/2022 18:13	WG1841654
1,3-Dichlorobenzene	U		0.00102	0.00846	1	04/02/2022 18:13	WG1841654
1,4-Dichlorobenzene	U		0.00118	0.00846	1	04/02/2022 18:13	WG1841654
Dichlorodifluoromethane	U		0.00273	0.00423	1	04/02/2022 18:13	WG1841654
1,1-Dichloroethane	U		0.000831	0.00423	1	04/02/2022 18:13	WG1841654
1,2-Dichloroethane	U		0.00110	0.00423	1	04/02/2022 18:13	WG1841654
1,1-Dichloroethene	0.00623		0.00103	0.00423	1	04/02/2022 18:13	WG1841654
cis-1,2-Dichloroethene	U		0.00124	0.00423	1	04/02/2022 18:13	WG1841654
trans-1,2-Dichloroethene	U		0.00176	0.00846	1	04/02/2022 18:13	WG1841654
1,2-Dichloropropane	U		0.00240	0.00846	1	04/02/2022 18:13	WG1841654
1,1-Dichloropropene	U		0.00137	0.00423	1	04/02/2022 18:13	WG1841654
1,3-Dichloropropane	U		0.000848	0.00846	1	04/02/2022 18:13	WG1841654
cis-1,3-Dichloropropene	U		0.00128	0.00423	1	04/02/2022 18:13	WG1841654
trans-1,3-Dichloropropene	U		0.00193	0.00846	1	04/02/2022 18:13	WG1841654
2,2-Dichloropropane	U		0.00234	0.00423	1	04/02/2022 18:13	WG1841654
Di-isopropyl ether	U		0.000694	0.00169	1	04/02/2022 18:13	WG1841654
Ethylbenzene	U		0.00125	0.00423	1	04/02/2022 18:13	WG1841654
Hexachloro-1,3-butadiene	U		0.0102	0.0423	1	04/02/2022 18:13	WG1841654
Isopropylbenzene	U		0.000719	0.00423	1	04/02/2022 18:13	WG1841654
p-Isopropyltoluene	U		0.00432	0.00846	1	04/02/2022 18:13	WG1841654
2-Butanone (MEK)	U		0.107	0.169	1	04/02/2022 18:13	WG1841654
Methylene Chloride	U		0.0112	0.0423	1	04/02/2022 18:13	WG1841654
4-Methyl-2-pentanone (MIBK)	U		0.00386	0.0423	1	04/02/2022 18:13	WG1841654
Methyl tert-butyl ether	U		0.000592	0.00169	1	04/02/2022 18:13	WG1841654
Naphthalene	U		0.00826	0.0212	1	04/02/2022 18:13	WG1841654
n-Propylbenzene	U		0.00161	0.00846	1	04/02/2022 18:13	WG1841654
Styrene	U		0.000388	0.0212	1	04/02/2022 18:13	WG1841654
1,1,1,2-Tetrachloroethane	U		0.00160	0.00423	1	04/02/2022 18:13	WG1841654
1,1,2,2-Tetrachloroethane	U		0.00118	0.00423	1	04/02/2022 18:13	WG1841654
1,1,2-Trichlorotrifluoroethane	U		0.00128	0.00423	1	04/02/2022 18:13	WG1841654
Tetrachloroethene	U		0.00152	0.00423	1	04/02/2022 18:13	WG1841654
Toluene	U		0.00220	0.00846	1	04/02/2022 18:13	WG1841654
1,2,3-Trichlorobenzene	U		0.0124	0.0212	1	04/02/2022 18:13	WG1841654
1,2,4-Trichlorobenzene	U		0.00745	0.0212	1	04/02/2022 18:13	WG1841654
1,1,1-Trichloroethane	U		0.00156	0.00423	1	04/02/2022 18:13	WG1841654
1,1,2-Trichloroethane	U		0.00101	0.00423	1	04/02/2022 18:13	WG1841654
Trichloroethene	U		0.000988	0.00169	1	04/02/2022 18:13	WG1841654
Trichlorofluoromethane	U		0.00140	0.00423	1	04/02/2022 18:13	WG1841654
1,2,3-Trichloropropane	U		0.00274	0.0212	1	04/02/2022 18:13	WG1841654
1,2,4-Trimethylbenzene	U		0.00267	0.00846	1	04/02/2022 18:13	WG1841654
1,2,3-Trimethylbenzene	U		0.00267	0.00846	1	04/02/2022 18:13	WG1841654
1,3,5-Trimethylbenzene	U		0.00339	0.00846	1	04/02/2022 18:13	WG1841654
Vinyl chloride	0.0128		0.00196	0.00423	1	04/02/2022 18:13	WG1841654
Xylenes, Total	U		0.00149	0.0110	1	04/02/2022 18:13	WG1841654
(S) Toluene-d8	*106*			*75.0-131*		*04/02/2022 18:13*	WG1841654
(S) 4-Bromofluorobenzene	*98.3*			*67.0-138*		*04/02/2022 18:13*	WG1841654
(S) 1,2-Dichloroethane-d4	*99.4*			*70.0-130*		*04/02/2022 18:13*	WG1841654

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	0.971	J	0.965	5.26	1	04/03/2022 16:38	WG1841743
C22-C32 Hydrocarbons	3.37	J	1.75	5.26	1	04/03/2022 16:38	WG1841743
C32-C40 Hydrocarbons	4.96	J	1.75	5.26	1	04/03/2022 16:38	WG1841743
(S) o-Terphenyl	*81.2*			*18.0-148*		*04/03/2022 16:38*	WG1841743

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	1.18	J	0.965	5.26	1	04/05/2022 05:14	WG1842785
C22-C32 Hydrocarbons	2.46	J	1.75	5.26	1	04/05/2022 05:14	WG1842785
C32-C40 Hydrocarbons	5.16	J	1.75	5.26	1	04/05/2022 05:14	WG1842785
(S) o-Terphenyl	*76.2*			*18.0-148*		*04/05/2022 05:14*	WG1842785

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.8		1	04/04/2022 10:16	WG1841705

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	1.52		0.0223	0.0495	1	04/05/2022 08:49	WG1841932

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	1.80	J	0.674	2.48	1	04/01/2022 17:57	WG1841927
Arsenic	5.66		0.641	2.48	1	04/01/2022 17:57	WG1841927
Barium	211		0.105	0.619	1	04/01/2022 17:57	WG1841927
Beryllium	0.491		0.0390	0.248	1	04/01/2022 17:57	WG1841927
Cadmium	2.44		0.0583	0.619	1	04/01/2022 17:57	WG1841927
Chromium	44.1		0.165	1.24	1	04/01/2022 17:57	WG1841927
Cobalt	13.0		0.100	1.24	1	04/01/2022 17:57	WG1841927
Copper	40.0		0.495	2.48	1	04/01/2022 17:57	WG1841927
Lead	232		0.258	0.619	1	04/01/2022 17:57	WG1841927
Molybdenum	1.95		0.135	0.619	1	04/01/2022 17:57	WG1841927
Nickel	73.8		0.163	2.48	1	04/01/2022 17:57	WG1841927
Selenium	0.973	J	0.946	2.48	1	04/01/2022 17:57	WG1841927
Silver	U		0.157	1.24	1	04/01/2022 17:57	WG1841927
Thallium	U		0.488	2.48	1	04/01/2022 17:57	WG1841927
Vanadium	45.2		0.627	2.48	1	04/01/2022 17:57	WG1841927
Zinc	124		1.03	6.19	1	04/01/2022 17:57	WG1841927

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPHG C5 - C12	580		5.24	15.8	108	04/01/2022 14:50	WG1841652
(S) a,a,a-Trifluorotoluene(FID)	*99.9*			*77.0-120*		*04/01/2022 14:50*	WG1841652

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.459	0.630	8.64	04/02/2022 20:23	WG1841654
Acrylonitrile	U		0.0455	0.158	8.64	04/02/2022 20:23	WG1841654
Benzene	3.85		0.00588	0.0126	8.64	04/02/2022 20:23	WG1841654
Bromobenzene	U		0.0113	0.158	8.64	04/02/2022 20:23	WG1841654
Bromodichloromethane	U		0.00913	0.0315	8.64	04/02/2022 20:23	WG1841654
Bromoform	U		0.0147	0.315	8.64	04/02/2022 20:23	WG1841654
Bromomethane	U		0.0248	0.158	8.64	04/02/2022 20:23	WG1841654
n-Butylbenzene	1.98		0.0662	0.158	8.64	04/02/2022 20:23	WG1841654
sec-Butylbenzene	1.37		0.0363	0.158	8.64	04/02/2022 20:23	WG1841654
tert-Butylbenzene	U		0.0245	0.0630	8.64	04/02/2022 20:23	WG1841654
Carbon tetrachloride	U		0.0113	0.0630	8.64	04/02/2022 20:23	WG1841654
Chlorobenzene	U		0.00264	0.0315	8.64	04/02/2022 20:23	WG1841654
Chlorodibromomethane	U		0.00772	0.0315	8.64	04/02/2022 20:23	WG1841654
Chloroethane	U		0.0214	0.0630	8.64	04/02/2022 20:23	WG1841654
Chloroform	U		0.0130	0.0315	8.64	04/02/2022 20:23	WG1841654
Chloromethane	U		0.0548	0.158	8.64	04/02/2022 20:23	WG1841654
2-Chlorotoluene	U		0.0109	0.0315	8.64	04/02/2022 20:23	WG1841654
4-Chlorotoluene	U		0.00567	0.0630	8.64	04/02/2022 20:23	WG1841654

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	U		0.0492	0.315	8.64	04/02/2022 20:23	WG1841654
1,2-Dibromoethane	U		0.00817	0.0315	8.64	04/02/2022 20:23	WG1841654
Dibromomethane	U		0.00945	0.0630	8.64	04/02/2022 20:23	WG1841654
1,2-Dichlorobenzene	0.0158	J	0.00535	0.0630	8.64	04/02/2022 20:23	WG1841654
1,3-Dichlorobenzene	U		0.00756	0.0630	8.64	04/02/2022 20:23	WG1841654
1,4-Dichlorobenzene	U		0.00882	0.0630	8.64	04/02/2022 20:23	WG1841654
Dichlorodifluoromethane	U		0.0203	0.0315	8.64	04/02/2022 20:23	WG1841654
1,1-Dichloroethane	U		0.00618	0.0315	8.64	04/02/2022 20:23	WG1841654
1,2-Dichloroethane	U		0.00818	0.0315	8.64	04/02/2022 20:23	WG1841654
1,1-Dichloroethene	U		0.00764	0.0315	8.64	04/02/2022 20:23	WG1841654
cis-1,2-Dichloroethene	0.0473		0.00925	0.0315	8.64	04/02/2022 20:23	WG1841654
trans-1,2-Dichloroethene	U		0.0131	0.0630	8.64	04/02/2022 20:23	WG1841654
1,2-Dichloropropane	U		0.0179	0.0630	8.64	04/02/2022 20:23	WG1841654
1,1-Dichloropropene	U		0.0102	0.0315	8.64	04/02/2022 20:23	WG1841654
1,3-Dichloropropane	U		0.00632	0.0630	8.64	04/02/2022 20:23	WG1841654
cis-1,3-Dichloropropene	U		0.00954	0.0315	8.64	04/02/2022 20:23	WG1841654
trans-1,3-Dichloropropene	U		0.0144	0.0630	8.64	04/02/2022 20:23	WG1841654
2,2-Dichloropropane	U		0.0174	0.0315	8.64	04/02/2022 20:23	WG1841654
Di-isopropyl ether	U		0.00516	0.0126	8.64	04/02/2022 20:23	WG1841654
Ethylbenzene	10.9		0.00929	0.0315	8.64	04/02/2022 20:23	WG1841654
Hexachloro-1,3-butadiene	U		0.0756	0.315	8.64	04/02/2022 20:23	WG1841654
Isopropylbenzene	5.85		0.00535	0.0315	8.64	04/02/2022 20:23	WG1841654
p-Isopropyltoluene	0.462		0.0321	0.0630	8.64	04/02/2022 20:23	WG1841654
2-Butanone (MEK)	U		0.801	1.26	8.64	04/02/2022 20:23	WG1841654
Methylene Chloride	U		0.0837	0.315	8.64	04/02/2022 20:23	WG1841654
4-Methyl-2-pentanone (MIBK)	U		0.0287	0.315	8.64	04/02/2022 20:23	WG1841654
Methyl tert-butyl ether	U		0.00440	0.0126	8.64	04/02/2022 20:23	WG1841654
Naphthalene	0.0910	J	0.0615	0.158	8.64	04/02/2022 20:23	WG1841654
n-Propylbenzene	17.8		0.0120	0.0630	8.64	04/02/2022 20:23	WG1841654
Styrene	U		0.00289	0.158	8.64	04/02/2022 20:23	WG1841654
1,1,1,2-Tetrachloroethane	U		0.0119	0.0315	8.64	04/02/2022 20:23	WG1841654
1,1,2,2-Tetrachloroethane	U		0.00875	0.0315	8.64	04/02/2022 20:23	WG1841654
1,1,2-Trichlorotrifluoroethane	U		0.00949	0.0315	8.64	04/02/2022 20:23	WG1841654
Tetrachloroethene	0.118		0.0113	0.0315	8.64	04/02/2022 20:23	WG1841654
Toluene	0.0302	J	0.0163	0.0630	8.64	04/02/2022 20:23	WG1841654
1,2,3-Trichlorobenzene	U		0.0923	0.158	8.64	04/02/2022 20:23	WG1841654
1,2,4-Trichlorobenzene	U		0.0554	0.158	8.64	04/02/2022 20:23	WG1841654
1,1,1-Trichloroethane	U		0.0116	0.0315	8.64	04/02/2022 20:23	WG1841654
1,1,2-Trichloroethane	U		0.00753	0.0315	8.64	04/02/2022 20:23	WG1841654
Trichloroethene	0.328		0.00737	0.0126	8.64	04/02/2022 20:23	WG1841654
Trichlorofluoromethane	U		0.0104	0.0315	8.64	04/02/2022 20:23	WG1841654
1,2,3-Trichloropropane	U		0.0204	0.158	8.64	04/02/2022 20:23	WG1841654
1,2,4-Trimethylbenzene	4.61		0.0200	0.0630	8.64	04/02/2022 20:23	WG1841654
1,2,3-Trimethylbenzene	0.882		0.0200	0.0630	8.64	04/02/2022 20:23	WG1841654
1,3,5-Trimethylbenzene	1.66		0.0252	0.0630	8.64	04/02/2022 20:23	WG1841654
Vinyl chloride	U		0.0146	0.0315	8.64	04/02/2022 20:23	WG1841654
Xylenes, Total	2.48		0.0111	0.0820	8.64	04/02/2022 20:23	WG1841654
(S) Toluene-d8	*107*			*75.0-131*		*04/02/2022 20:23*	WG1841654
(S) 4-Bromofluorobenzene	*98.5*			*67.0-138*		*04/02/2022 20:23*	WG1841654
(S) 1,2-Dichloroethane-d4	*91.4*			*70.0-130*		*04/02/2022 20:23*	WG1841654

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	482		4.54	24.8	5	04/04/2022 00:10	WG1841743
C22-C32 Hydrocarbons	3270		41.2	124	25	04/04/2022 11:49	WG1841743
C32-C40 Hydrocarbons	1310		41.2	124	25	04/04/2022 11:49	WG1841743
(S) o-Terphenyl	*0.000*	J2		*18.0-148*		*04/04/2022 00:10*	WG1841743
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*04/04/2022 11:49*	WG1841743

Sample Narrative:

L1476312-07 WG1841743: Surrogate failure due to matrix interference

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	428		18.2	99.1	20	04/05/2022 10:35	WG1842785
C22-C32 Hydrocarbons	3000		32.9	99.1	20	04/05/2022 10:35	WG1842785
C32-C40 Hydrocarbons	1400		32.9	99.1	20	04/05/2022 10:35	WG1842785
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*04/05/2022 10:35*	WG1842785

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	77.5		1	04/04/2022 10:16	WG1841705

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0696		0.0232	0.0516	1	04/05/2022 08:52	WG1841932

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	U		0.702	2.58	1	04/01/2022 18:00	WG1841927
Arsenic	3.19		0.668	2.58	1	04/01/2022 18:00	WG1841927
Barium	164		0.110	0.645	1	04/01/2022 18:00	WG1841927
Beryllium	0.478		0.0406	0.258	1	04/01/2022 18:00	WG1841927
Cadmium	0.216	J	0.0608	0.645	1	04/01/2022 18:00	WG1841927
Chromium	47.8		0.172	1.29	1	04/01/2022 18:00	WG1841927
Cobalt	11.3		0.105	1.29	1	04/01/2022 18:00	WG1841927
Copper	25.3		0.516	2.58	1	04/01/2022 18:00	WG1841927
Lead	7.07		0.268	0.645	1	04/01/2022 18:00	WG1841927
Molybdenum	U		0.141	0.645	1	04/01/2022 18:00	WG1841927
Nickel	81.4		0.170	2.58	1	04/01/2022 18:00	WG1841927
Selenium	U		0.986	2.58	1	04/01/2022 18:00	WG1841927
Silver	U		0.164	1.29	1	04/01/2022 18:00	WG1841927
Thallium	U		0.508	2.58	1	04/01/2022 18:00	WG1841927
Vanadium	34.0		0.653	2.58	1	04/01/2022 18:00	WG1841927
Zinc	53.0		1.07	6.45	1	04/01/2022 18:00	WG1841927

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPHG C5 - C12	262		1.34	4.04	25	04/01/2022 08:01	WG1841652
(S) a,a,a-Trifluorotoluene(FID)	*99.2*			*77.0-120*		*04/01/2022 08:01*	WG1841652

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0589	0.0807	1	04/02/2022 18:31	WG1841654
Acrylonitrile	U		0.00583	0.0202	1	04/02/2022 18:31	WG1841654
Benzene	0.426		0.000754	0.00161	1	04/02/2022 18:31	WG1841654
Bromobenzene	U		0.00145	0.0202	1	04/02/2022 18:31	WG1841654
Bromodichloromethane	U		0.00117	0.00404	1	04/02/2022 18:31	WG1841654
Bromoform	U		0.00189	0.0404	1	04/02/2022 18:31	WG1841654
Bromomethane	U		0.00318	0.0202	1	04/02/2022 18:31	WG1841654
n-Butylbenzene	0.438		0.00848	0.0202	1	04/02/2022 18:31	WG1841654
sec-Butylbenzene	0.297		0.00465	0.0202	1	04/02/2022 18:31	WG1841654
tert-Butylbenzene	0.0176		0.00315	0.00807	1	04/02/2022 18:31	WG1841654
Carbon tetrachloride	U		0.00145	0.00807	1	04/02/2022 18:31	WG1841654
Chlorobenzene	U		0.000339	0.00404	1	04/02/2022 18:31	WG1841654
Chlorodibromomethane	U		0.000988	0.00404	1	04/02/2022 18:31	WG1841654
Chloroethane	U		0.00275	0.00807	1	04/02/2022 18:31	WG1841654
Chloroform	U		0.00166	0.00404	1	04/02/2022 18:31	WG1841654
Chloromethane	U		0.00702	0.0202	1	04/02/2022 18:31	WG1841654
2-Chlorotoluene	U		0.00140	0.00404	1	04/02/2022 18:31	WG1841654
4-Chlorotoluene	U		0.000727	0.00807	1	04/02/2022 18:31	WG1841654

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	U		0.00630	0.0404	1	04/02/2022 18:31	WG1841654
1,2-Dibromoethane	U		0.00105	0.00404	1	04/02/2022 18:31	WG1841654
Dibromomethane	U		0.00121	0.00807	1	04/02/2022 18:31	WG1841654
1,2-Dichlorobenzene	0.0176		0.000686	0.00807	1	04/02/2022 18:31	WG1841654
1,3-Dichlorobenzene	0.00481	J	0.000969	0.00807	1	04/02/2022 18:31	WG1841654
1,4-Dichlorobenzene	0.00428	J	0.00113	0.00807	1	04/02/2022 18:31	WG1841654
Dichlorodifluoromethane	U		0.00260	0.00404	1	04/02/2022 18:31	WG1841654
1,1-Dichloroethane	U		0.000793	0.00404	1	04/02/2022 18:31	WG1841654
1,2-Dichloroethane	U		0.00105	0.00404	1	04/02/2022 18:31	WG1841654
1,1-Dichloroethene	U		0.000979	0.00404	1	04/02/2022 18:31	WG1841654
cis-1,2-Dichloroethene	U		0.00119	0.00404	1	04/02/2022 18:31	WG1841654
trans-1,2-Dichloroethene	U		0.00168	0.00807	1	04/02/2022 18:31	WG1841654
1,2-Dichloropropane	U		0.00229	0.00807	1	04/02/2022 18:31	WG1841654
1,1-Dichloropropene	U		0.00131	0.00404	1	04/02/2022 18:31	WG1841654
1,3-Dichloropropane	U		0.000809	0.00807	1	04/02/2022 18:31	WG1841654
cis-1,3-Dichloropropene	U		0.00122	0.00404	1	04/02/2022 18:31	WG1841654
trans-1,3-Dichloropropene	U		0.00184	0.00807	1	04/02/2022 18:31	WG1841654
2,2-Dichloropropane	U		0.00223	0.00404	1	04/02/2022 18:31	WG1841654
Di-isopropyl ether	U		0.000662	0.00161	1	04/02/2022 18:31	WG1841654
Ethylbenzene	0.0465		0.00119	0.00404	1	04/02/2022 18:31	WG1841654
Hexachloro-1,3-butadiene	U		0.00969	0.0404	1	04/02/2022 18:31	WG1841654
Isopropylbenzene	0.770		0.000686	0.00404	1	04/02/2022 18:31	WG1841654
p-Isopropyltoluene	0.165		0.00412	0.00807	1	04/02/2022 18:31	WG1841654
2-Butanone (MEK)	U		0.103	0.161	1	04/02/2022 18:31	WG1841654
Methylene Chloride	U		0.0107	0.0404	1	04/02/2022 18:31	WG1841654
4-Methyl-2-pentanone (MIBK)	U		0.00368	0.0404	1	04/02/2022 18:31	WG1841654
Methyl tert-butyl ether	U		0.000565	0.00161	1	04/02/2022 18:31	WG1841654
Naphthalene	U		0.00788	0.0202	1	04/02/2022 18:31	WG1841654
n-Propylbenzene	0.993		0.00153	0.00807	1	04/02/2022 18:31	WG1841654
Styrene	U		0.000370	0.0202	1	04/02/2022 18:31	WG1841654
1,1,1,2-Tetrachloroethane	U		0.00153	0.00404	1	04/02/2022 18:31	WG1841654
1,1,2,2-Tetrachloroethane	U		0.00112	0.00404	1	04/02/2022 18:31	WG1841654
1,1,2-Trichlorotrifluoroethane	U		0.00122	0.00404	1	04/02/2022 18:31	WG1841654
Tetrachloroethene	U		0.00145	0.00404	1	04/02/2022 18:31	WG1841654
Toluene	0.0375		0.00210	0.00807	1	04/02/2022 18:31	WG1841654
1,2,3-Trichlorobenzene	U		0.0118	0.0202	1	04/02/2022 18:31	WG1841654
1,2,4-Trichlorobenzene	U		0.00711	0.0202	1	04/02/2022 18:31	WG1841654
1,1,1-Trichloroethane	U		0.00149	0.00404	1	04/02/2022 18:31	WG1841654
1,1,2-Trichloroethane	U		0.000964	0.00404	1	04/02/2022 18:31	WG1841654
Trichloroethene	U		0.000943	0.00161	1	04/02/2022 18:31	WG1841654
Trichlorofluoromethane	U		0.00134	0.00404	1	04/02/2022 18:31	WG1841654
1,2,3-Trichloropropane	U		0.00262	0.0202	1	04/02/2022 18:31	WG1841654
1,2,4-Trimethylbenzene	0.0488		0.00255	0.00807	1	04/02/2022 18:31	WG1841654
1,2,3-Trimethylbenzene	0.0460		0.00255	0.00807	1	04/02/2022 18:31	WG1841654
1,3,5-Trimethylbenzene	0.118		0.00323	0.00807	1	04/02/2022 18:31	WG1841654
Vinyl chloride	U		0.00187	0.00404	1	04/02/2022 18:31	WG1841654
Xylenes, Total	0.318		0.00142	0.0105	1	04/02/2022 18:31	WG1841654
(S) Toluene-d8	*92.4*			*75.0-131*		*04/02/2022 18:31*	WG1841654
(S) 4-Bromofluorobenzene	*105*			*67.0-138*		*04/02/2022 18:31*	WG1841654
(S) 1,2-Dichloroethane-d4	*111*			*70.0-130*		*04/02/2022 18:31*	WG1841654

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	41.7		0.946	5.16	1	04/03/2022 16:21	WG1841743
C22-C32 Hydrocarbons	112		1.72	5.16	1	04/03/2022 16:21	WG1841743
C32-C40 Hydrocarbons	35.5		1.72	5.16	1	04/03/2022 16:21	WG1841743
(S) o-Terphenyl	*56.1*			*18.0-148*		*04/03/2022 16:21*	WG1841743

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	40.4		0.946	5.16	1	04/05/2022 06:21	WG1842785
C22-C32 Hydrocarbons	111		1.72	5.16	1	04/05/2022 06:21	WG1842785
C32-C40 Hydrocarbons	46.3		1.72	5.16	1	04/05/2022 06:21	WG1842785
(S) o-Terphenyl	*49.2*			*18.0-148*		*04/05/2022 06:21*	WG1842785

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.4		1	04/04/2022 10:16	WG1841705

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.304		0.0224	0.0498	1	04/05/2022 08:55	WG1841932

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	6.60		0.677	2.49	1	04/01/2022 18:09	WG1841927
Arsenic	7.33		0.644	2.49	1	04/01/2022 18:09	WG1841927
Barium	211		0.106	0.622	1	04/01/2022 18:09	WG1841927
Beryllium	0.256		0.0392	0.249	1	04/01/2022 18:09	WG1841927
Cadmium	1.64		0.0586	0.622	1	04/01/2022 18:09	WG1841927
Chromium	40.5		0.165	1.24	1	04/01/2022 18:09	WG1841927
Cobalt	9.31		0.101	1.24	1	04/01/2022 18:09	WG1841927
Copper	56.0		0.498	2.49	1	04/01/2022 18:09	WG1841927
Lead	219		0.259	0.622	1	04/01/2022 18:09	WG1841927
Molybdenum	8.74		0.136	0.622	1	04/01/2022 18:09	WG1841927
Nickel	33.8		0.164	2.49	1	04/01/2022 18:09	WG1841927
Selenium	U		0.951	2.49	1	04/01/2022 18:09	WG1841927
Silver	U		0.158	1.24	1	04/01/2022 18:09	WG1841927
Thallium	U		0.490	2.49	1	04/01/2022 18:09	WG1841927
Vanadium	41.2		0.630	2.49	1	04/01/2022 18:09	WG1841927
Zinc	295		1.04	6.22	1	04/01/2022 18:09	WG1841927

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPHG C5 - C12	11.3		1.63	4.90	34.5	04/01/2022 08:25	WG1841652
(S) a,a,a-Trifluorotoluene(FID)	*97.8*			*77.0-120*		*04/01/2022 08:25*	WG1841652

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0716	0.0981	1.38	04/02/2022 18:50	WG1841654
Acrylonitrile	U		0.00708	0.0246	1.38	04/02/2022 18:50	WG1841654
Benzene	0.00324		0.000915	0.00196	1.38	04/02/2022 18:50	WG1841654
Bromobenzene	U		0.00176	0.0246	1.38	04/02/2022 18:50	WG1841654
Bromodichloromethane	U		0.00142	0.00490	1.38	04/02/2022 18:50	WG1841654
Bromoform	U		0.00229	0.0490	1.38	04/02/2022 18:50	WG1841654
Bromomethane	U		0.00387	0.0246	1.38	04/02/2022 18:50	WG1841654
n-Butylbenzene	0.0121	J	0.0103	0.0246	1.38	04/02/2022 18:50	WG1841654
sec-Butylbenzene	0.00726	J	0.00564	0.0246	1.38	04/02/2022 18:50	WG1841654
tert-Butylbenzene	U		0.00382	0.00981	1.38	04/02/2022 18:50	WG1841654
Carbon tetrachloride	U		0.00176	0.00981	1.38	04/02/2022 18:50	WG1841654
Chlorobenzene	U		0.000412	0.00490	1.38	04/02/2022 18:50	WG1841654
Chlorodibromomethane	U		0.00120	0.00490	1.38	04/02/2022 18:50	WG1841654
Chloroethane	U		0.00334	0.00981	1.38	04/02/2022 18:50	WG1841654
Chloroform	U		0.00202	0.00490	1.38	04/02/2022 18:50	WG1841654
Chloromethane	U		0.00853	0.0246	1.38	04/02/2022 18:50	WG1841654
2-Chlorotoluene	U		0.00169	0.00490	1.38	04/02/2022 18:50	WG1841654
4-Chlorotoluene	U		0.000883	0.00981	1.38	04/02/2022 18:50	WG1841654

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	U		0.00765	0.0490	1.38	04/02/2022 18:50	WG1841654
1,2-Dibromoethane	U		0.00127	0.00490	1.38	04/02/2022 18:50	WG1841654
Dibromomethane	U		0.00148	0.00981	1.38	04/02/2022 18:50	WG1841654
1,2-Dichlorobenzene	U		0.000834	0.00981	1.38	04/02/2022 18:50	WG1841654
1,3-Dichlorobenzene	U		0.00118	0.00981	1.38	04/02/2022 18:50	WG1841654
1,4-Dichlorobenzene	0.00236	J	0.00137	0.00981	1.38	04/02/2022 18:50	WG1841654
Dichlorodifluoromethane	U		0.00316	0.00490	1.38	04/02/2022 18:50	WG1841654
1,1-Dichloroethane	0.00432	J	0.000964	0.00490	1.38	04/02/2022 18:50	WG1841654
1,2-Dichloroethane	U		0.00127	0.00490	1.38	04/02/2022 18:50	WG1841654
1,1-Dichloroethene	U		0.00119	0.00490	1.38	04/02/2022 18:50	WG1841654
cis-1,2-Dichloroethene	U		0.00144	0.00490	1.38	04/02/2022 18:50	WG1841654
trans-1,2-Dichloroethene	U		0.00205	0.00981	1.38	04/02/2022 18:50	WG1841654
1,2-Dichloropropane	U		0.00279	0.00981	1.38	04/02/2022 18:50	WG1841654
1,1-Dichloropropene	U		0.00159	0.00490	1.38	04/02/2022 18:50	WG1841654
1,3-Dichloropropane	U		0.000982	0.00981	1.38	04/02/2022 18:50	WG1841654
cis-1,3-Dichloropropene	U		0.00148	0.00490	1.38	04/02/2022 18:50	WG1841654
trans-1,3-Dichloropropene	U		0.00223	0.00981	1.38	04/02/2022 18:50	WG1841654
2,2-Dichloropropane	U		0.00270	0.00490	1.38	04/02/2022 18:50	WG1841654
Di-isopropyl ether	U		0.000805	0.00196	1.38	04/02/2022 18:50	WG1841654
Ethylbenzene	0.00917		0.00145	0.00490	1.38	04/02/2022 18:50	WG1841654
Hexachloro-1,3-butadiene	U		0.0118	0.0490	1.38	04/02/2022 18:50	WG1841654
Isopropylbenzene	0.00407	J	0.000834	0.00490	1.38	04/02/2022 18:50	WG1841654
p-Isopropyltoluene	0.00647	J	0.00500	0.00981	1.38	04/02/2022 18:50	WG1841654
2-Butanone (MEK)	U		0.125	0.196	1.38	04/02/2022 18:50	WG1841654
Methylene Chloride	U		0.0130	0.0490	1.38	04/02/2022 18:50	WG1841654
4-Methyl-2-pentanone (MIBK)	U		0.00448	0.0490	1.38	04/02/2022 18:50	WG1841654
Methyl tert-butyl ether	U		0.000687	0.00196	1.38	04/02/2022 18:50	WG1841654
Naphthalene	0.0512		0.00957	0.0246	1.38	04/02/2022 18:50	WG1841654
n-Propylbenzene	0.00765	J	0.00186	0.00981	1.38	04/02/2022 18:50	WG1841654
Styrene	0.00220	J	0.000449	0.0246	1.38	04/02/2022 18:50	WG1841654
1,1,1,2-Tetrachloroethane	U		0.00186	0.00490	1.38	04/02/2022 18:50	WG1841654
1,1,2,2-Tetrachloroethane	U		0.00136	0.00490	1.38	04/02/2022 18:50	WG1841654
1,1,2-Trichlorotrifluoroethane	U		0.00148	0.00490	1.38	04/02/2022 18:50	WG1841654
Tetrachloroethene	U		0.00176	0.00490	1.38	04/02/2022 18:50	WG1841654
Toluene	0.0216		0.00254	0.00981	1.38	04/02/2022 18:50	WG1841654
1,2,3-Trichlorobenzene	U		0.0144	0.0246	1.38	04/02/2022 18:50	WG1841654
1,2,4-Trichlorobenzene	U		0.00863	0.0246	1.38	04/02/2022 18:50	WG1841654
1,1,1-Trichloroethane	U		0.00181	0.00490	1.38	04/02/2022 18:50	WG1841654
1,1,2-Trichloroethane	U		0.00117	0.00490	1.38	04/02/2022 18:50	WG1841654
Trichloroethene	U		0.00115	0.00196	1.38	04/02/2022 18:50	WG1841654
Trichlorofluoromethane	U		0.00162	0.00490	1.38	04/02/2022 18:50	WG1841654
1,2,3-Trichloropropane	U		0.00318	0.0246	1.38	04/02/2022 18:50	WG1841654
1,2,4-Trimethylbenzene	0.0603		0.00310	0.00981	1.38	04/02/2022 18:50	WG1841654
1,2,3-Trimethylbenzene	0.0412		0.00310	0.00981	1.38	04/02/2022 18:50	WG1841654
1,3,5-Trimethylbenzene	0.0176		0.00392	0.00981	1.38	04/02/2022 18:50	WG1841654
Vinyl chloride	U		0.00227	0.00490	1.38	04/02/2022 18:50	WG1841654
Xylenes, Total	0.0537		0.00172	0.0127	1.38	04/02/2022 18:50	WG1841654
(S) Toluene-d8	*107*			*75.0-131*		*04/02/2022 18:50*	WG1841654
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*04/02/2022 18:50*	WG1841654
(S) 1,2-Dichloroethane-d4	*97.8*			*70.0-130*		*04/02/2022 18:50*	WG1841654

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	27.1		4.57	24.9	5	04/03/2022 23:20	WG1841743
C22-C32 Hydrocarbons	165		8.27	24.9	5	04/03/2022 23:20	WG1841743
C32-C40 Hydrocarbons	66.6		8.27	24.9	5	04/03/2022 23:20	WG1841743
(S) o-Terphenyl	*68.4*			*18.0-148*		*04/03/2022 23:20*	WG1841743

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	21.9		0.912	4.98	1	04/05/2022 06:55	WG1842785
C22-C32 Hydrocarbons	127		1.65	4.98	1	04/05/2022 06:55	WG1842785
C32-C40 Hydrocarbons	59.1		1.65	4.98	1	04/05/2022 06:55	WG1842785
(S) o-Terphenyl	*45.5*			*18.0-148*		*04/05/2022 06:55*	WG1842785

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.7		1	04/04/2022 10:16	WG1841705

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.145		0.0226	0.0502	1	04/05/2022 08:57	WG1841932

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	1.25	J	0.683	2.51	1	04/01/2022 18:12	WG1841927
Arsenic	5.75		0.650	2.51	1	04/01/2022 18:12	WG1841927
Barium	131		0.107	0.627	1	04/01/2022 18:12	WG1841927
Beryllium	0.271		0.0395	0.251	1	04/01/2022 18:12	WG1841927
Cadmium	1.03		0.0591	0.627	1	04/01/2022 18:12	WG1841927
Chromium	31.3		0.167	1.25	1	04/01/2022 18:12	WG1841927
Cobalt	7.35		0.102	1.25	1	04/01/2022 18:12	WG1841927
Copper	65.7		0.502	2.51	1	04/01/2022 18:12	WG1841927
Lead	85.2		0.261	0.627	1	04/01/2022 18:12	WG1841927
Molybdenum	0.912		0.137	0.627	1	04/01/2022 18:12	WG1841927
Nickel	38.2		0.166	2.51	1	04/01/2022 18:12	WG1841927
Selenium	1.56	J	0.959	2.51	1	04/01/2022 18:12	WG1841927
Silver	U		0.159	1.25	1	04/01/2022 18:12	WG1841927
Thallium	U		0.494	2.51	1	04/01/2022 18:12	WG1841927
Vanadium	32.4		0.635	2.51	1	04/01/2022 18:12	WG1841927
Zinc	352		1.04	6.27	1	04/01/2022 18:12	WG1841927

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPHG C5 - C12	1.51	J	1.31	3.94	26.3	04/01/2022 08:48	WG1841652
(S) a,a,a-Trifluorotoluene(FID)	*97.9*			*77.0-120*		*04/01/2022 08:48*	WG1841652

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0573	0.0786	1.05	04/02/2022 19:27	WG1841654
Acrylonitrile	U		0.00567	0.0196	1.05	04/02/2022 19:27	WG1841654
Benzene	0.00122	J	0.000733	0.00157	1.05	04/02/2022 19:27	WG1841654
Bromobenzene	U		0.00141	0.0196	1.05	04/02/2022 19:27	WG1841654
Bromodichloromethane	U		0.00114	0.00394	1.05	04/02/2022 19:27	WG1841654
Bromoform	U		0.00184	0.0394	1.05	04/02/2022 19:27	WG1841654
Bromomethane	U		0.00310	0.0196	1.05	04/02/2022 19:27	WG1841654
n-Butylbenzene	U		0.00825	0.0196	1.05	04/02/2022 19:27	WG1841654
sec-Butylbenzene	U		0.00452	0.0196	1.05	04/02/2022 19:27	WG1841654
tert-Butylbenzene	U		0.00307	0.00786	1.05	04/02/2022 19:27	WG1841654
Carbon tetrachloride	U		0.00141	0.00786	1.05	04/02/2022 19:27	WG1841654
Chlorobenzene	U		0.000331	0.00394	1.05	04/02/2022 19:27	WG1841654
Chlorodibromomethane	U		0.000962	0.00394	1.05	04/02/2022 19:27	WG1841654
Chloroethane	U		0.00268	0.00786	1.05	04/02/2022 19:27	WG1841654
Chloroform	U		0.00162	0.00394	1.05	04/02/2022 19:27	WG1841654
Chloromethane	U		0.00684	0.0196	1.05	04/02/2022 19:27	WG1841654
2-Chlorotoluene	U		0.00136	0.00394	1.05	04/02/2022 19:27	WG1841654
4-Chlorotoluene	U		0.000708	0.00786	1.05	04/02/2022 19:27	WG1841654

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	U		0.00612	0.0394	1.05	04/02/2022 19:27	WG1841654
1,2-Dibromoethane	U		0.00102	0.00394	1.05	04/02/2022 19:27	WG1841654
Dibromomethane	U		0.00118	0.00786	1.05	04/02/2022 19:27	WG1841654
1,2-Dichlorobenzene	U		0.000668	0.00786	1.05	04/02/2022 19:27	WG1841654
1,3-Dichlorobenzene	U		0.000943	0.00786	1.05	04/02/2022 19:27	WG1841654
1,4-Dichlorobenzene	U		0.00110	0.00786	1.05	04/02/2022 19:27	WG1841654
Dichlorodifluoromethane	U		0.00253	0.00394	1.05	04/02/2022 19:27	WG1841654
1,1-Dichloroethane	0.00445		0.000772	0.00394	1.05	04/02/2022 19:27	WG1841654
1,2-Dichloroethane	U		0.00102	0.00394	1.05	04/02/2022 19:27	WG1841654
1,1-Dichloroethene	U		0.000952	0.00394	1.05	04/02/2022 19:27	WG1841654
cis-1,2-Dichloroethene	U		0.00115	0.00394	1.05	04/02/2022 19:27	WG1841654
trans-1,2-Dichloroethene	U		0.00163	0.00786	1.05	04/02/2022 19:27	WG1841654
1,2-Dichloropropane	U		0.00223	0.00786	1.05	04/02/2022 19:27	WG1841654
1,1-Dichloropropene	U		0.00127	0.00394	1.05	04/02/2022 19:27	WG1841654
1,3-Dichloropropane	U		0.000787	0.00786	1.05	04/02/2022 19:27	WG1841654
cis-1,3-Dichloropropene	U		0.00119	0.00394	1.05	04/02/2022 19:27	WG1841654
trans-1,3-Dichloropropene	U		0.00180	0.00786	1.05	04/02/2022 19:27	WG1841654
2,2-Dichloropropane	U		0.00217	0.00394	1.05	04/02/2022 19:27	WG1841654
Di-isopropyl ether	U		0.000645	0.00157	1.05	04/02/2022 19:27	WG1841654
Ethylbenzene	0.00181	J	0.00116	0.00394	1.05	04/02/2022 19:27	WG1841654
Hexachloro-1,3-butadiene	U		0.00943	0.0394	1.05	04/02/2022 19:27	WG1841654
Isopropylbenzene	U		0.000668	0.00394	1.05	04/02/2022 19:27	WG1841654
p-Isopropyltoluene	U		0.00401	0.00786	1.05	04/02/2022 19:27	WG1841654
2-Butanone (MEK)	U		0.0998	0.157	1.05	04/02/2022 19:27	WG1841654
Methylene Chloride	U		0.0104	0.0394	1.05	04/02/2022 19:27	WG1841654
4-Methyl-2-pentanone (MIBK)	U		0.00358	0.0394	1.05	04/02/2022 19:27	WG1841654
Methyl tert-butyl ether	U		0.000551	0.00157	1.05	04/02/2022 19:27	WG1841654
Naphthalene	0.00766	J	0.00766	0.0196	1.05	04/02/2022 19:27	WG1841654
n-Propylbenzene	U		0.00149	0.00786	1.05	04/02/2022 19:27	WG1841654
Styrene	U		0.000359	0.0196	1.05	04/02/2022 19:27	WG1841654
1,1,1,2-Tetrachloroethane	U		0.00149	0.00394	1.05	04/02/2022 19:27	WG1841654
1,1,2,2-Tetrachloroethane	U		0.00109	0.00394	1.05	04/02/2022 19:27	WG1841654
1,1,2-Trichlorotrifluoroethane	U		0.00119	0.00394	1.05	04/02/2022 19:27	WG1841654
Tetrachloroethene	U		0.00141	0.00394	1.05	04/02/2022 19:27	WG1841654
Toluene	0.00425	J	0.00204	0.00786	1.05	04/02/2022 19:27	WG1841654
1,2,3-Trichlorobenzene	U		0.0115	0.0196	1.05	04/02/2022 19:27	WG1841654
1,2,4-Trichlorobenzene	U		0.00692	0.0196	1.05	04/02/2022 19:27	WG1841654
1,1,1-Trichloroethane	U		0.00145	0.00394	1.05	04/02/2022 19:27	WG1841654
1,1,2-Trichloroethane	U		0.000938	0.00394	1.05	04/02/2022 19:27	WG1841654
Trichloroethene	U		0.000918	0.00157	1.05	04/02/2022 19:27	WG1841654
Trichlorofluoromethane	U		0.00130	0.00394	1.05	04/02/2022 19:27	WG1841654
1,2,3-Trichloropropane	U		0.00254	0.0196	1.05	04/02/2022 19:27	WG1841654
1,2,4-Trimethylbenzene	0.00401	J	0.00248	0.00786	1.05	04/02/2022 19:27	WG1841654
1,2,3-Trimethylbenzene	0.00362	J	0.00248	0.00786	1.05	04/02/2022 19:27	WG1841654
1,3,5-Trimethylbenzene	U		0.00314	0.00786	1.05	04/02/2022 19:27	WG1841654
Vinyl chloride	U		0.00183	0.00394	1.05	04/02/2022 19:27	WG1841654
Xylenes, Total	0.00873	J	0.00138	0.0102	1.05	04/02/2022 19:27	WG1841654
(S) Toluene-d8	*108*			*75.0-131*		*04/02/2022 19:27*	WG1841654
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*04/02/2022 19:27*	WG1841654
(S) 1,2-Dichloroethane-d4	*96.6*			*70.0-130*		*04/02/2022 19:27*	WG1841654

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	6.22	J	4.61	25.1	5	04/03/2022 23:53	WG1841743
C22-C32 Hydrocarbons	44.4		8.34	25.1	5	04/03/2022 23:53	WG1841743
C32-C40 Hydrocarbons	29.1		8.34	25.1	5	04/03/2022 23:53	WG1841743
(S) o-Terphenyl	*85.0*			*18.0-148*		*04/03/2022 23:53*	WG1841743

Sample Narrative:

L1476312-10 WG1841743: Cannot run at lower dilution due to viscosity of extract

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	3.84	J	0.920	5.02	1	04/05/2022 10:18	WG1842785
C22-C32 Hydrocarbons	31.4		1.67	5.02	1	04/05/2022 10:18	WG1842785
C32-C40 Hydrocarbons	20.3		1.67	5.02	1	04/05/2022 10:18	WG1842785
(S) o-Terphenyl	*69.9*			*18.0-148*		*04/05/2022 10:18*	WG1842785

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.8		1	04/04/2022 10:16	WG1841705

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.156		0.0217	0.0483	1	04/05/2022 09:00	WG1841932

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	2.16	J	0.657	2.42	1	04/01/2022 18:15	WG1841927
Arsenic	2.91		0.626	2.42	1	04/01/2022 18:15	WG1841927
Barium	210		0.103	0.604	1	04/01/2022 18:15	WG1841927
Beryllium	0.732		0.0381	0.242	1	04/01/2022 18:15	WG1841927
Cadmium	0.519	J	0.0569	0.604	1	04/01/2022 18:15	WG1841927
Chromium	84.9		0.161	1.21	1	04/01/2022 18:15	WG1841927
Cobalt	8.36		0.0980	1.21	1	04/01/2022 18:15	WG1841927
Copper	85.4		0.483	2.42	1	04/01/2022 18:15	WG1841927
Lead	38.3		0.251	0.604	1	04/01/2022 18:15	WG1841927
Molybdenum	17.8		0.132	0.604	1	04/01/2022 18:15	WG1841927
Nickel	105		0.159	2.42	1	04/01/2022 18:15	WG1841927
Selenium	2.81		0.923	2.42	1	04/01/2022 18:15	WG1841927
Silver	0.807	J	0.153	1.21	1	04/01/2022 18:15	WG1841927
Thallium	U		0.476	2.42	1	04/01/2022 18:15	WG1841927
Vanadium	53.0		0.611	2.42	1	04/01/2022 18:15	WG1841927
Zinc	60.6		1.01	6.04	1	04/01/2022 18:15	WG1841927

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPHG C5 - C12	U		1.22	3.66	26	04/01/2022 09:11	WG1841652
(S) a,a,a-Trifluorotoluene(FID)	*97.9*			*77.0-120*		*04/01/2022 09:11*	WG1841652

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0535	0.0732	1.04	04/02/2022 19:45	WG1841654
Acrylonitrile	U		0.00528	0.0183	1.04	04/02/2022 19:45	WG1841654
Benzene	0.00325		0.000685	0.00146	1.04	04/02/2022 19:45	WG1841654
Bromobenzene	U		0.00132	0.0183	1.04	04/02/2022 19:45	WG1841654
Bromodichloromethane	U		0.00106	0.00366	1.04	04/02/2022 19:45	WG1841654
Bromoform	U		0.00172	0.0366	1.04	04/02/2022 19:45	WG1841654
Bromomethane	U		0.00289	0.0183	1.04	04/02/2022 19:45	WG1841654
n-Butylbenzene	U		0.00769	0.0183	1.04	04/02/2022 19:45	WG1841654
sec-Butylbenzene	U		0.00423	0.0183	1.04	04/02/2022 19:45	WG1841654
tert-Butylbenzene	U		0.00286	0.00732	1.04	04/02/2022 19:45	WG1841654
Carbon tetrachloride	U		0.00132	0.00732	1.04	04/02/2022 19:45	WG1841654
Chlorobenzene	U		0.000307	0.00366	1.04	04/02/2022 19:45	WG1841654
Chlorodibromomethane	U		0.000896	0.00366	1.04	04/02/2022 19:45	WG1841654
Chloroethane	U		0.00249	0.00732	1.04	04/02/2022 19:45	WG1841654
Chloroform	U		0.00151	0.00366	1.04	04/02/2022 19:45	WG1841654
Chloromethane	U		0.00637	0.0183	1.04	04/02/2022 19:45	WG1841654
2-Chlorotoluene	U		0.00127	0.00366	1.04	04/02/2022 19:45	WG1841654
4-Chlorotoluene	U		0.000659	0.00732	1.04	04/02/2022 19:45	WG1841654

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	U		0.00572	0.0366	1.04	04/02/2022 19:45	WG1841654
1,2-Dibromoethane	U		0.000949	0.00366	1.04	04/02/2022 19:45	WG1841654
Dibromomethane	U		0.00110	0.00732	1.04	04/02/2022 19:45	WG1841654
1,2-Dichlorobenzene	U		0.000623	0.00732	1.04	04/02/2022 19:45	WG1841654
1,3-Dichlorobenzene	U		0.000879	0.00732	1.04	04/02/2022 19:45	WG1841654
1,4-Dichlorobenzene	U		0.00103	0.00732	1.04	04/02/2022 19:45	WG1841654
Dichlorodifluoromethane	U		0.00235	0.00366	1.04	04/02/2022 19:45	WG1841654
1,1-Dichloroethane	U		0.000720	0.00366	1.04	04/02/2022 19:45	WG1841654
1,2-Dichloroethane	U		0.000951	0.00366	1.04	04/02/2022 19:45	WG1841654
1,1-Dichloroethene	U		0.000887	0.00366	1.04	04/02/2022 19:45	WG1841654
cis-1,2-Dichloroethene	U		0.00107	0.00366	1.04	04/02/2022 19:45	WG1841654
trans-1,2-Dichloroethene	U		0.00152	0.00732	1.04	04/02/2022 19:45	WG1841654
1,2-Dichloropropane	U		0.00208	0.00732	1.04	04/02/2022 19:45	WG1841654
1,1-Dichloropropene	U		0.00118	0.00366	1.04	04/02/2022 19:45	WG1841654
1,3-Dichloropropane	U		0.000734	0.00732	1.04	04/02/2022 19:45	WG1841654
cis-1,3-Dichloropropene	U		0.00111	0.00366	1.04	04/02/2022 19:45	WG1841654
trans-1,3-Dichloropropene	U		0.00168	0.00732	1.04	04/02/2022 19:45	WG1841654
2,2-Dichloropropane	U		0.00203	0.00366	1.04	04/02/2022 19:45	WG1841654
Di-isopropyl ether	U		0.000600	0.00146	1.04	04/02/2022 19:45	WG1841654
Ethylbenzene	U		0.00108	0.00366	1.04	04/02/2022 19:45	WG1841654
Hexachloro-1,3-butadiene	U		0.00879	0.0366	1.04	04/02/2022 19:45	WG1841654
Isopropylbenzene	0.000842	J	0.000623	0.00366	1.04	04/02/2022 19:45	WG1841654
p-Isopropyltoluene	U		0.00373	0.00732	1.04	04/02/2022 19:45	WG1841654
2-Butanone (MEK)	U		0.0930	0.146	1.04	04/02/2022 19:45	WG1841654
Methylene Chloride	U		0.00973	0.0366	1.04	04/02/2022 19:45	WG1841654
4-Methyl-2-pentanone (MIBK)	U		0.00334	0.0366	1.04	04/02/2022 19:45	WG1841654
Methyl tert-butyl ether	U		0.000513	0.00146	1.04	04/02/2022 19:45	WG1841654
Naphthalene	U		0.00716	0.0183	1.04	04/02/2022 19:45	WG1841654
n-Propylbenzene	U		0.00139	0.00732	1.04	04/02/2022 19:45	WG1841654
Styrene	U		0.000335	0.0183	1.04	04/02/2022 19:45	WG1841654
1,1,1,2-Tetrachloroethane	U		0.00139	0.00366	1.04	04/02/2022 19:45	WG1841654
1,1,2,2-Tetrachloroethane	U		0.00102	0.00366	1.04	04/02/2022 19:45	WG1841654
1,1,2-Trichlorotrifluoroethane	U		0.00110	0.00366	1.04	04/02/2022 19:45	WG1841654
Tetrachloroethene	U		0.00131	0.00366	1.04	04/02/2022 19:45	WG1841654
Toluene	0.00428	J	0.00190	0.00732	1.04	04/02/2022 19:45	WG1841654
1,2,3-Trichlorobenzene	U		0.0107	0.0183	1.04	04/02/2022 19:45	WG1841654
1,2,4-Trichlorobenzene	U		0.00645	0.0183	1.04	04/02/2022 19:45	WG1841654
1,1,1-Trichloroethane	U		0.00135	0.00366	1.04	04/02/2022 19:45	WG1841654
1,1,2-Trichloroethane	U		0.000875	0.00366	1.04	04/02/2022 19:45	WG1841654
Trichloroethene	U		0.000855	0.00146	1.04	04/02/2022 19:45	WG1841654
Trichlorofluoromethane	U		0.00121	0.00366	1.04	04/02/2022 19:45	WG1841654
1,2,3-Trichloropropane	U		0.00237	0.0183	1.04	04/02/2022 19:45	WG1841654
1,2,4-Trimethylbenzene	U		0.00231	0.00732	1.04	04/02/2022 19:45	WG1841654
1,2,3-Trimethylbenzene	U		0.00231	0.00732	1.04	04/02/2022 19:45	WG1841654
1,3,5-Trimethylbenzene	U		0.00293	0.00732	1.04	04/02/2022 19:45	WG1841654
Vinyl chloride	U		0.00170	0.00366	1.04	04/02/2022 19:45	WG1841654
Xylenes, Total	0.00139	J	0.00129	0.00952	1.04	04/02/2022 19:45	WG1841654
(S) Toluene-d8	*109*			*75.0-131*		*04/02/2022 19:45*	WG1841654
(S) 4-Bromofluorobenzene	*98.1*			*67.0-138*		*04/02/2022 19:45*	WG1841654
(S) 1,2-Dichloroethane-d4	*95.0*			*70.0-130*		*04/02/2022 19:45*	WG1841654

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	6.52		0.886	4.83	1	04/03/2022 16:05	WG1841743
C22-C32 Hydrocarbons	26.9		1.61	4.83	1	04/03/2022 16:05	WG1841743
C32-C40 Hydrocarbons	14.4		1.61	4.83	1	04/03/2022 16:05	WG1841743
(S) o-Terphenyl	*82.6*			*18.0-148*		*04/03/2022 16:05*	WG1841743

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	5.05		0.886	4.83	1	04/05/2022 10:01	WG1842785
C22-C32 Hydrocarbons	23.9		1.61	4.83	1	04/05/2022 10:01	WG1842785
C32-C40 Hydrocarbons	15.3		1.61	4.83	1	04/05/2022 10:01	WG1842785
(S) o-Terphenyl	*60.0*			*18.0-148*		*04/05/2022 10:01*	WG1842785

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	75.3		1	04/04/2022 10:16	WG1841705

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.143		0.0239	0.0532	1	04/05/2022 09:02	WG1841932

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	1.10	J	0.723	2.66	1	04/01/2022 18:18	WG1841927
Arsenic	1.38	J	0.688	2.66	1	04/01/2022 18:18	WG1841927
Barium	347		0.113	0.664	1	04/01/2022 18:18	WG1841927
Beryllium	0.720		0.0419	0.266	1	04/01/2022 18:18	WG1841927
Cadmium	0.374	J	0.0626	0.664	1	04/01/2022 18:18	WG1841927
Chromium	59.9		0.177	1.33	1	04/01/2022 18:18	WG1841927
Cobalt	18.2		0.108	1.33	1	04/01/2022 18:18	WG1841927
Copper	46.2		0.532	2.66	1	04/01/2022 18:18	WG1841927
Lead	10.2		0.276	0.664	1	04/01/2022 18:18	WG1841927
Molybdenum	U		0.145	0.664	1	04/01/2022 18:18	WG1841927
Nickel	67.1		0.175	2.66	1	04/01/2022 18:18	WG1841927
Selenium	1.44	J	1.02	2.66	1	04/01/2022 18:18	WG1841927
Silver	U		0.169	1.33	1	04/01/2022 18:18	WG1841927
Thallium	U		0.524	2.66	1	04/01/2022 18:18	WG1841927
Vanadium	52.2		0.672	2.66	1	04/01/2022 18:18	WG1841927
Zinc	78.4		1.11	6.64	1	04/01/2022 18:18	WG1841927

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPHG C5 - C12	2.17	J	1.81	5.47	35	04/01/2022 10:40	WG1841652
(S) a,a,a-Trifluorotoluene(FID)	*97.6*			*77.0-120*		*04/01/2022 10:40*	WG1841652

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0799	0.109	1.4	04/02/2022 20:04	WG1841654
Acrylonitrile	U		0.00789	0.0273	1.4	04/02/2022 20:04	WG1841654
Benzene	U		0.00102	0.00219	1.4	04/02/2022 20:04	WG1841654
Bromobenzene	U		0.00197	0.0273	1.4	04/02/2022 20:04	WG1841654
Bromodichloromethane	U		0.00159	0.00547	1.4	04/02/2022 20:04	WG1841654
Bromoform	U		0.00256	0.0547	1.4	04/02/2022 20:04	WG1841654
Bromomethane	U		0.00431	0.0273	1.4	04/02/2022 20:04	WG1841654
n-Butylbenzene	U		0.0115	0.0273	1.4	04/02/2022 20:04	WG1841654
sec-Butylbenzene	U		0.00630	0.0273	1.4	04/02/2022 20:04	WG1841654
tert-Butylbenzene	U		0.00427	0.0109	1.4	04/02/2022 20:04	WG1841654
Carbon tetrachloride	U		0.00197	0.0109	1.4	04/02/2022 20:04	WG1841654
Chlorobenzene	U		0.000459	0.00547	1.4	04/02/2022 20:04	WG1841654
Chlorodibromomethane	U		0.00134	0.00547	1.4	04/02/2022 20:04	WG1841654
Chloroethane	U		0.00372	0.0109	1.4	04/02/2022 20:04	WG1841654
Chloroform	U		0.00225	0.00547	1.4	04/02/2022 20:04	WG1841654
Chloromethane	U		0.00952	0.0273	1.4	04/02/2022 20:04	WG1841654
2-Chlorotoluene	U		0.00189	0.00547	1.4	04/02/2022 20:04	WG1841654
4-Chlorotoluene	U		0.000985	0.0109	1.4	04/02/2022 20:04	WG1841654

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	U		0.00853	0.0547	1.4	04/02/2022 20:04	WG1841654
1,2-Dibromoethane	U		0.00142	0.00547	1.4	04/02/2022 20:04	WG1841654
Dibromomethane	U		0.00164	0.0109	1.4	04/02/2022 20:04	WG1841654
1,2-Dichlorobenzene	U		0.000930	0.0109	1.4	04/02/2022 20:04	WG1841654
1,3-Dichlorobenzene	U		0.00131	0.0109	1.4	04/02/2022 20:04	WG1841654
1,4-Dichlorobenzene	U		0.00153	0.0109	1.4	04/02/2022 20:04	WG1841654
Dichlorodifluoromethane	U		0.00352	0.00547	1.4	04/02/2022 20:04	WG1841654
1,1-Dichloroethane	U		0.00107	0.00547	1.4	04/02/2022 20:04	WG1841654
1,2-Dichloroethane	U		0.00142	0.00547	1.4	04/02/2022 20:04	WG1841654
1,1-Dichloroethene	U		0.00133	0.00547	1.4	04/02/2022 20:04	WG1841654
cis-1,2-Dichloroethene	U		0.00161	0.00547	1.4	04/02/2022 20:04	WG1841654
trans-1,2-Dichloroethene	U		0.00228	0.0109	1.4	04/02/2022 20:04	WG1841654
1,2-Dichloropropane	U		0.00311	0.0109	1.4	04/02/2022 20:04	WG1841654
1,1-Dichloropropene	U		0.00177	0.00547	1.4	04/02/2022 20:04	WG1841654
1,3-Dichloropropane	U		0.00110	0.0109	1.4	04/02/2022 20:04	WG1841654
cis-1,3-Dichloropropene	U		0.00166	0.00547	1.4	04/02/2022 20:04	WG1841654
trans-1,3-Dichloropropene	U		0.00250	0.0109	1.4	04/02/2022 20:04	WG1841654
2,2-Dichloropropane	U		0.00302	0.00547	1.4	04/02/2022 20:04	WG1841654
Di-isopropyl ether	U		0.000897	0.00219	1.4	04/02/2022 20:04	WG1841654
Ethylbenzene	U		0.00161	0.00547	1.4	04/02/2022 20:04	WG1841654
Hexachloro-1,3-butadiene	U		0.0131	0.0547	1.4	04/02/2022 20:04	WG1841654
Isopropylbenzene	U		0.000930	0.00547	1.4	04/02/2022 20:04	WG1841654
p-Isopropyltoluene	U		0.00558	0.0109	1.4	04/02/2022 20:04	WG1841654
2-Butanone (MEK)	U		0.139	0.219	1.4	04/02/2022 20:04	WG1841654
Methylene Chloride	U		0.0145	0.0547	1.4	04/02/2022 20:04	WG1841654
4-Methyl-2-pentanone (MIBK)	U		0.00499	0.0547	1.4	04/02/2022 20:04	WG1841654
Methyl tert-butyl ether	U		0.000766	0.00219	1.4	04/02/2022 20:04	WG1841654
Naphthalene	U		0.0107	0.0273	1.4	04/02/2022 20:04	WG1841654
n-Propylbenzene	U		0.00208	0.0109	1.4	04/02/2022 20:04	WG1841654
Styrene	U		0.000502	0.0273	1.4	04/02/2022 20:04	WG1841654
1,1,1,2-Tetrachloroethane	U		0.00208	0.00547	1.4	04/02/2022 20:04	WG1841654
1,1,2,2-Tetrachloroethane	U		0.00152	0.00547	1.4	04/02/2022 20:04	WG1841654
1,1,2-Trichlorotrifluoroethane	U		0.00166	0.00547	1.4	04/02/2022 20:04	WG1841654
Tetrachloroethene	U		0.00195	0.00547	1.4	04/02/2022 20:04	WG1841654
Toluene	U		0.00284	0.0109	1.4	04/02/2022 20:04	WG1841654
1,2,3-Trichlorobenzene	U		0.0161	0.0273	1.4	04/02/2022 20:04	WG1841654
1,2,4-Trichlorobenzene	U		0.00963	0.0273	1.4	04/02/2022 20:04	WG1841654
1,1,1-Trichloroethane	U		0.00202	0.00547	1.4	04/02/2022 20:04	WG1841654
1,1,2-Trichloroethane	U		0.00131	0.00547	1.4	04/02/2022 20:04	WG1841654
Trichloroethene	U		0.00128	0.00219	1.4	04/02/2022 20:04	WG1841654
Trichlorofluoromethane	U		0.00181	0.00547	1.4	04/02/2022 20:04	WG1841654
1,2,3-Trichloropropane	U		0.00355	0.0273	1.4	04/02/2022 20:04	WG1841654
1,2,4-Trimethylbenzene	U		0.00345	0.0109	1.4	04/02/2022 20:04	WG1841654
1,2,3-Trimethylbenzene	U		0.00345	0.0109	1.4	04/02/2022 20:04	WG1841654
1,3,5-Trimethylbenzene	U		0.00438	0.0109	1.4	04/02/2022 20:04	WG1841654
Vinyl chloride	U		0.00253	0.00547	1.4	04/02/2022 20:04	WG1841654
Xylenes, Total	U		0.00192	0.0142	1.4	04/02/2022 20:04	WG1841654
(S) Toluene-d8	*108*			*75.0-131*		*04/02/2022 20:04*	WG1841654
(S) 4-Bromofluorobenzene	*96.4*			*67.0-138*		*04/02/2022 20:04*	WG1841654
(S) 1,2-Dichloroethane-d4	*95.2*			*70.0-130*		*04/02/2022 20:04*	WG1841654

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	1.06	J	0.974	5.32	1	04/03/2022 15:48	WG1841743
C22-C32 Hydrocarbons	2.64	J	1.77	5.32	1	04/03/2022 15:48	WG1841743
C32-C40 Hydrocarbons	U		1.77	5.32	1	04/03/2022 15:48	WG1841743
(S) o-Terphenyl	*93.0*			*18.0-148*		*04/03/2022 15:48*	WG1841743

Semi-Volatile Organic Compounds (GC) by Method 8015 SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	1.20	J	0.974	5.32	1	04/05/2022 04:57	WG1842785
C22-C32 Hydrocarbons	2.17	J	1.77	5.32	1	04/05/2022 04:57	WG1842785
C32-C40 Hydrocarbons	U		1.77	5.32	1	04/05/2022 04:57	WG1842785
(S) o-Terphenyl	*93.3*			*18.0-148*		*04/05/2022 04:57*	WG1842785

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TPHG C5 - C12	U		30.4	100	1	04/02/2022 01:27	WG1841979
(S) a,a,a-Trifluorotoluene(FID)	*96.9*			*78.0-120*		*04/02/2022 01:27*	WG1841979

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		11.3	50.0	1	03/31/2022 19:55	WG1841561
Acrolein	U	J4	2.54	50.0	1	03/31/2022 19:55	WG1841561
Acrylonitrile	U		0.671	10.0	1	03/31/2022 19:55	WG1841561
Benzene	U		0.0941	1.00	1	03/31/2022 19:55	WG1841561
Bromobenzene	U		0.118	1.00	1	03/31/2022 19:55	WG1841561
Bromodichloromethane	U		0.136	1.00	1	03/31/2022 19:55	WG1841561
Bromoform	U		0.129	1.00	1	03/31/2022 19:55	WG1841561
Bromomethane	U		0.605	5.00	1	03/31/2022 19:55	WG1841561
n-Butylbenzene	U		0.157	1.00	1	03/31/2022 19:55	WG1841561
sec-Butylbenzene	U		0.125	1.00	1	03/31/2022 19:55	WG1841561
tert-Butylbenzene	U		0.127	1.00	1	03/31/2022 19:55	WG1841561
Carbon tetrachloride	U		0.128	1.00	1	03/31/2022 19:55	WG1841561
Chlorobenzene	U		0.116	1.00	1	03/31/2022 19:55	WG1841561
Chlorodibromomethane	U		0.140	1.00	1	03/31/2022 19:55	WG1841561
Chloroethane	U		0.192	5.00	1	03/31/2022 19:55	WG1841561
Chloroform	U		0.111	5.00	1	03/31/2022 19:55	WG1841561
Chloromethane	U		0.960	2.50	1	03/31/2022 19:55	WG1841561
2-Chlorotoluene	U		0.106	1.00	1	03/31/2022 19:55	WG1841561
4-Chlorotoluene	U		0.114	1.00	1	03/31/2022 19:55	WG1841561
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	03/31/2022 19:55	WG1841561
1,2-Dibromoethane	U		0.126	1.00	1	03/31/2022 19:55	WG1841561
Dibromomethane	U		0.122	1.00	1	03/31/2022 19:55	WG1841561
1,2-Dichlorobenzene	U		0.107	1.00	1	03/31/2022 19:55	WG1841561
1,3-Dichlorobenzene	U		0.110	1.00	1	03/31/2022 19:55	WG1841561
1,4-Dichlorobenzene	U		0.120	1.00	1	03/31/2022 19:55	WG1841561
Dichlorodifluoromethane	U		0.374	5.00	1	03/31/2022 19:55	WG1841561
1,1-Dichloroethane	U		0.100	1.00	1	03/31/2022 19:55	WG1841561
1,2-Dichloroethane	U		0.0819	1.00	1	03/31/2022 19:55	WG1841561
1,1-Dichloroethene	U		0.188	1.00	1	03/31/2022 19:55	WG1841561
cis-1,2-Dichloroethene	U		0.126	1.00	1	03/31/2022 19:55	WG1841561
trans-1,2-Dichloroethene	U		0.149	1.00	1	03/31/2022 19:55	WG1841561
1,2-Dichloropropane	U		0.149	1.00	1	03/31/2022 19:55	WG1841561
1,1-Dichloropropene	U		0.142	1.00	1	03/31/2022 19:55	WG1841561
1,3-Dichloropropane	U		0.110	1.00	1	03/31/2022 19:55	WG1841561
cis-1,3-Dichloropropene	U		0.111	1.00	1	03/31/2022 19:55	WG1841561
trans-1,3-Dichloropropene	U		0.118	1.00	1	03/31/2022 19:55	WG1841561
2,2-Dichloropropane	U		0.161	1.00	1	03/31/2022 19:55	WG1841561
Di-isopropyl ether	U		0.105	1.00	1	03/31/2022 19:55	WG1841561
Ethylbenzene	U		0.137	1.00	1	03/31/2022 19:55	WG1841561
Hexachloro-1,3-butadiene	U		0.337	1.00	1	03/31/2022 19:55	WG1841561
Isopropylbenzene	U		0.105	1.00	1	03/31/2022 19:55	WG1841561
p-Isopropyltoluene	U		0.120	1.00	1	03/31/2022 19:55	WG1841561
2-Butanone (MEK)	U		1.19	10.0	1	03/31/2022 19:55	WG1841561
Methylene Chloride	U		0.430	5.00	1	03/31/2022 19:55	WG1841561
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	03/31/2022 19:55	WG1841561
Methyl tert-butyl ether	U		0.101	1.00	1	03/31/2022 19:55	WG1841561
Naphthalene	U		1.00	5.00	1	03/31/2022 19:55	WG1841561
n-Propylbenzene	U		0.0993	1.00	1	03/31/2022 19:55	WG1841561
Styrene	U		0.118	1.00	1	03/31/2022 19:55	WG1841561

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	03/31/2022 19:55	WG1841561
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	03/31/2022 19:55	WG1841561
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	03/31/2022 19:55	WG1841561
Tetrachloroethene	U		0.300	1.00	1	03/31/2022 19:55	WG1841561
Toluene	U		0.278	1.00	1	03/31/2022 19:55	WG1841561
1,2,3-Trichlorobenzene	U		0.230	1.00	1	03/31/2022 19:55	WG1841561
1,2,4-Trichlorobenzene	U		0.481	1.00	1	03/31/2022 19:55	WG1841561
1,1,1-Trichloroethane	U		0.149	1.00	1	03/31/2022 19:55	WG1841561
1,1,2-Trichloroethane	U		0.158	1.00	1	03/31/2022 19:55	WG1841561
Trichloroethene	U		0.190	1.00	1	03/31/2022 19:55	WG1841561
Trichlorofluoromethane	U		0.160	5.00	1	03/31/2022 19:55	WG1841561
1,2,3-Trichloropropane	U		0.237	2.50	1	03/31/2022 19:55	WG1841561
1,2,4-Trimethylbenzene	U		0.322	1.00	1	03/31/2022 19:55	WG1841561
1,2,3-Trimethylbenzene	U		0.104	1.00	1	03/31/2022 19:55	WG1841561
1,3,5-Trimethylbenzene	U		0.104	1.00	1	03/31/2022 19:55	WG1841561
Vinyl chloride	U		0.234	1.00	1	03/31/2022 19:55	WG1841561
Xylenes, Total	U		0.174	3.00	1	03/31/2022 19:55	WG1841561
(S) Toluene-d8	*111*			*80.0-120*		*03/31/2022 19:55*	WG1841561
(S) 4-Bromofluorobenzene	*99.0*			*77.0-126*		*03/31/2022 19:55*	WG1841561
(S) 1,2-Dichloroethane-d4	*96.9*			*70.0-130*		*03/31/2022 19:55*	WG1841561

Method Blank (MB)

(MB) R3776554-1 03/31/22 19:21

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00200			

L1476314-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1476314-04 03/31/22 19:21 • (DUP) R3776554-3 03/31/22 19:21

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	81.2	81.3	1	0.108		10

Laboratory Control Sample (LCS)

(LCS) R3776554-2 03/31/22 19:21

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3776626-1 04/01/22 06:39

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1477114-17 Original Sample (OS) • Duplicate (DUP)

(OS) L1477114-17 04/01/22 06:39 • (DUP) R3776626-3 04/01/22 06:39

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	98.3	98.3	1	0.0536		10

Laboratory Control Sample (LCS)

(LCS) R3776626-2 04/01/22 06:39

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3777534-1 04/04/22 10:16

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1477098-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1477098-01 04/04/22 10:16 • (DUP) R3777534-3 04/04/22 10:16

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	89.7	88.6	1	1.26		10

Laboratory Control Sample (LCS)

(LCS) R3777534-2 04/04/22 10:16

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3777243-1 04/04/22 08:33

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Mercury	U		0.100	0.200

Laboratory Control Sample (LCS)

(LCS) R3777243-2 04/04/22 08:35

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Mercury	3.00	3.07	102	80.0-120	

L1475823-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1475823-01 04/04/22 08:37 • (MS) R3777243-3 04/04/22 08:39 • (MSD) R3777243-4 04/04/22 08:41

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Mercury	3.00	U	3.11	3.03	104	101	1	75.0-125			2.45	20

Method Blank (MB)

(MB) R3778121-1 04/06/22 11:17

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
Mercury	U		0.0180	0.0400

Laboratory Control Sample (LCS)

(LCS) R3778121-2 04/06/22 11:19

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Mercury	0.500	0.539	108	80.0-120	

L1476314-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1476314-02 04/06/22 11:22 • (MS) R3778121-3 04/06/22 11:25 • (MSD) R3778121-4 04/06/22 11:27

	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Mercury	0.598	0.0342	0.645	0.617	102	97.5	1	75.0-125			4.38	20

Method Blank (MB)

(MB) R3777601-1 04/05/22 08:12

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
Mercury	U		0.0180	0.0400

Laboratory Control Sample (LCS)

(LCS) R3777601-2 04/05/22 08:14

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Mercury	0.500	0.525	105	80.0-120	

L1476295-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1476295-02 04/05/22 08:17 • (MS) R3777601-3 04/05/22 08:19 • (MSD) R3777601-4 04/05/22 08:22

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Mercury	0.500	U	0.452	0.574	90.4	115	1	75.0-125		J3	23.9	20

Method Blank (MB)

(MB) R3777491-1 04/04/22 11:21

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Barium	U		0.736	5.00
Beryllium	U		0.330	2.00
Chromium	U		1.40	10.0
Cobalt	U		0.840	10.0
Molybdenum	U		1.16	5.00
Vanadium	U		4.99	20.0

Laboratory Control Sample (LCS)

(LCS) R3777491-2 04/04/22 11:23

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium	1000	947	94.7	80.0-120	
Beryllium	1000	928	92.8	80.0-120	
Chromium	1000	919	91.9	80.0-120	
Cobalt	1000	933	93.3	80.0-120	
Molybdenum	1000	955	95.5	80.0-120	
Vanadium	1000	913	91.3	80.0-120	

L1477796-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1477796-01 04/04/22 11:26 • (MS) R3777491-4 04/04/22 11:32 • (MSD) R3777491-5 04/04/22 11:34

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Barium	1000	U	953	947	95.3	94.7	1	75.0-125			0.704	20
Beryllium	1000	U	938	934	93.8	93.4	1	75.0-125			0.467	20
Chromium	1000	U	932	935	93.2	93.5	1	75.0-125			0.338	20
Cobalt	1000	U	946	942	94.6	94.2	1	75.0-125			0.447	20
Molybdenum	1000	U	967	965	96.7	96.5	1	75.0-125			0.204	20
Vanadium	1000	U	927	920	92.7	92.0	1	75.0-125			0.770	20

QUALITY CONTROL SUMMARY

L1476312-01

Method Blank (MB)

(MB) R3775918-1 03/31/22 01:53

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Antimony	U		0.544	2.00
Arsenic	U		0.518	2.00
Barium	U		0.0852	0.500
Beryllium	U		0.0315	0.200
Cadmium	U		0.0471	0.500
Chromium	U		0.133	1.00
Cobalt	U		0.0811	1.00
Copper	U		0.400	2.00
Lead	U		0.208	0.500
Molybdenum	U		0.109	0.500
Nickel	U		0.132	2.00
Selenium	U		0.764	2.00
Silver	U		0.127	1.00
Thallium	U		0.394	2.00
Vanadium	U		0.506	2.00
Zinc	U		0.832	5.00

Laboratory Control Sample (LCS)

(LCS) R3775918-2 03/31/22 01:55

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Antimony	100	96.6	96.6	80.0-120	
Arsenic	100	95.7	95.7	80.0-120	
Barium	100	102	102	80.0-120	
Beryllium	100	104	104	80.0-120	
Cadmium	100	96.4	96.4	80.0-120	
Chromium	100	99.2	99.2	80.0-120	
Cobalt	100	97.4	97.4	80.0-120	
Copper	100	103	103	80.0-120	
Lead	100	102	102	80.0-120	
Molybdenum	100	102	102	80.0-120	
Nickel	100	93.8	93.8	80.0-120	
Selenium	100	90.2	90.2	80.0-120	
Silver	20.0	18.3	91.3	80.0-120	
Thallium	100	104	104	80.0-120	
Vanadium	100	104	104	80.0-120	
Zinc	100	89.5	89.5	80.0-120	

QUALITY CONTROL SUMMARY

L1476312-01

L1473428-41 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1473428-41 03/31/22 01:58 • (MS) R3775918-5 03/31/22 02:06 • (MSD) R3775918-6 03/31/22 02:09

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony	130	7.25	84.2	81.4	59.2	57.1	1	75.0-125	J6	J6	3.35	20
Arsenic	130	14.6	130	136	88.4	93.1	1	75.0-125			4.64	20
Barium	130	284	357	408	56.3	95.6	1	75.0-125	J6		13.4	20
Beryllium	130	1.46	125	127	94.8	96.5	1	75.0-125			1.70	20
Cadmium	130	2.16	118	120	89.5	90.4	1	75.0-125			0.990	20
Chromium	130	102	149	149	36.3	35.8	1	75.0-125	J6	J6	0.403	20
Cobalt	130	8.33	128	130	92.1	93.8	1	75.0-125			1.67	20
Copper	130	104	228	229	95.6	96.6	1	75.0-125			0.614	20
Lead	130	739	875	826	104	66.7	1	75.0-125		V	5.76	20
Molybdenum	130	5.28	122	125	90.1	92.1	1	75.0-125			2.11	20
Nickel	130	65.6	143	151	59.9	65.8	1	75.0-125	J6	J6	5.17	20
Selenium	130	4.42	112	111	82.4	82.1	1	75.0-125			0.419	20
Silver	26.0	U	22.9	23.2	88.1	89.1	1	75.0-125			1.09	20
Thallium	130	U	115	123	88.2	94.4	1	75.0-125			6.74	20
Vanadium	130	45.4	152	158	82.3	86.6	1	75.0-125			3.56	20
Zinc	130	864	901	874	28.7	8.22	1	75.0-125	V	V	3.00	20

QUALITY CONTROL SUMMARY

L1476312-06,07,08,09,10,11,12

Method Blank (MB)

(MB) R3776798-1 04/01/22 17:35

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Antimony	U		0.544	2.00
Arsenic	U		0.518	2.00
Barium	U		0.0852	0.500
Beryllium	U		0.0315	0.200
Cadmium	U		0.0471	0.500
Chromium	U		0.133	1.00
Cobalt	U		0.0811	1.00
Copper	U		0.400	2.00
Lead	U		0.208	0.500
Molybdenum	U		0.109	0.500
Nickel	U		0.132	2.00
Selenium	U		0.764	2.00
Silver	U		0.127	1.00
Thallium	U		0.394	2.00
Vanadium	U		0.506	2.00
Zinc	U		0.832	5.00

Laboratory Control Sample (LCS)

(LCS) R3776798-2 04/01/22 17:38

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Antimony	100	93.1	93.1	80.0-120	
Arsenic	100	96.0	96.0	80.0-120	
Barium	100	96.2	96.2	80.0-120	
Beryllium	100	94.3	94.3	80.0-120	
Cadmium	100	93.3	93.3	80.0-120	
Chromium	100	91.7	91.7	80.0-120	
Cobalt	100	94.3	94.3	80.0-120	
Copper	100	94.9	94.9	80.0-120	
Lead	100	91.7	91.7	80.0-120	
Molybdenum	100	97.4	97.4	80.0-120	
Nickel	100	92.5	92.5	80.0-120	
Selenium	100	96.7	96.7	80.0-120	
Silver	20.0	17.0	84.9	80.0-120	
Thallium	100	97.7	97.7	80.0-120	
Vanadium	100	93.4	93.4	80.0-120	
Zinc	100	93.1	93.1	80.0-120	

L1475472-73 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1475472-73 04/01/22 17:41 • (MS) R3776798-5 04/01/22 17:49 • (MSD) R3776798-6 04/01/22 17:52

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony	100	0.0327	81.8	74.9	81.8	74.9	1	75.0-125		J6	8.85	20
Arsenic	100	0.118	107	102	107	102	1	75.0-125			4.85	20
Barium	100	0.670	183	183	183	183	1	75.0-125	J5	J5	0.0282	20
Beryllium	100	0.00406	92.7	86.1	92.7	86.1	1	75.0-125			7.39	20
Cadmium	100	0.00264	93.0	86.8	93.0	86.8	1	75.0-125			6.83	20
Chromium	100	0.147	107	102	107	101	1	75.0-125			5.02	20
Cobalt	100	0.0488	100	95.1	100	95.1	1	75.0-125			5.36	20
Copper	100	7.50	866	920	859	912	1	75.0-125	J5	J5	5.99	20
Lead	100	0.155	106	99.4	106	99.4	1	75.0-125			6.01	20
Molybdenum	100	0.230	121	117	121	117	1	75.0-125			3.32	20
Nickel	100	0.102	105	101	105	101	1	75.0-125			3.97	20
Selenium	100	0.0201	95.2	91.0	95.2	91.0	1	75.0-125			4.50	20
Silver	20.0	U	17.2	16.0	85.9	79.8	1	75.0-125			7.29	20
Thallium	100	U	93.3	86.5	93.3	86.5	1	75.0-125			7.59	20
Vanadium	100	0.113	101	97.2	101	97.2	1	75.0-125			4.26	20
Zinc	100	1.81	214	229	212	227	1	75.0-125	J5	J5	6.91	20

Method Blank (MB)

(MB) R3776975-1 04/03/22 11:22

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Antimony	U		1.03	4.00
Arsenic	U		0.180	2.00
Cadmium	U		0.150	1.00
Copper	U		1.51	5.00
Lead	U		0.849	2.00
Nickel	U		0.816	2.00
Selenium	U		0.300	2.00
Silver	U		0.0700	2.00
Thallium	0.121	J	0.121	2.00
Zinc	U		3.02	25.0

Laboratory Control Sample (LCS)

(LCS) R3776975-2 04/03/22 11:25

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Antimony	50.0	50.2	100	80.0-120	
Arsenic	50.0	48.0	95.9	80.0-120	
Cadmium	50.0	51.1	102	80.0-120	
Copper	50.0	48.4	96.7	80.0-120	
Lead	50.0	48.2	96.3	80.0-120	
Nickel	50.0	51.6	103	80.0-120	
Selenium	50.0	52.9	106	80.0-120	
Silver	50.0	49.8	99.6	80.0-120	
Thallium	50.0	47.3	94.6	80.0-120	
Zinc	500	480	96.0	80.0-120	

L1475711-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1475711-06 04/03/22 11:28 • (MS) R3776975-4 04/03/22 11:35 • (MSD) R3776975-5 04/03/22 11:39

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony	50.0	U	51.8	51.5	104	103	1	75.0-125			0.440	20
Arsenic	50.0	U	49.5	48.6	99.0	97.1	1	75.0-125			1.93	20
Cadmium	50.0	U	51.5	52.1	103	104	1	75.0-125			1.11	20
Copper	50.0	U	50.0	48.8	99.9	97.6	1	75.0-125			2.33	20
Lead	50.0	U	50.1	49.3	100	98.7	1	75.0-125			1.45	20
Nickel	50.0	U	51.5	51.1	103	102	1	75.0-125			0.760	20
Selenium	50.0	U	52.8	53.2	106	106	1	75.0-125			0.891	20

L1475711-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1475711-06 04/03/22 11:28 • (MS) R3776975-4 04/03/22 11:35 • (MSD) R3776975-5 04/03/22 11:39

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Silver	50.0	U	50.0	50.4	100	101	1	75.0-125			0.729	20
Thallium	50.0	U	49.2	48.8	98.5	97.5	1	75.0-125			1.01	20
Zinc	500	U	495	486	99.0	97.2	1	75.0-125			1.87	20

Method Blank (MB)

(MB) R3776349-2 03/31/22 12:29

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPHG C5 - C12	1.20	J	0.830	2.50
(S) a,a,a-Trifluorotoluene(FID)	*96.9*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3776349-1 03/31/22 11:43

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPHG C5 - C12	5.50	6.73	122	72.0-125	
(S) a,a,a-Trifluorotoluene(FID)			*108*	*77.0-120*	

L1476312-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1476312-01 03/31/22 15:00 • (MS) R3776349-3 03/31/22 21:55 • (MSD) R3776349-4 03/31/22 22:18

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPHG C5 - C12	205	U	211	201	103	98.2	25	10.0-141			4.52	29
(S) a,a,a-Trifluorotoluene(FID)					*106*	*106*		*77.0-120*				

Method Blank (MB)

(MB) R3776690-2 04/01/22 03:25

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPHG C5 - C12	U		0.830	2.50
(S) a,a,a-Trifluorotoluene(FID)	*96.7*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3776690-1 04/01/22 01:59

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPHG C5 - C12	5.50	6.13	111	72.0-125	
(S) a,a,a-Trifluorotoluene(FID)			*102*	*77.0-120*	

L1476312-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1476312-06 04/01/22 07:38 • (MS) R3776690-3 04/01/22 17:07 • (MSD) R3776690-4 04/01/22 17:30

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPHG C5 - C12	196	U	171	159	87.1	80.9	25	10.0-141			7.29	29
(S) a,a,a-Trifluorotoluene(FID)					*101*	*100*		*77.0-120*				

Method Blank (MB)

(MB) R3776408-2 03/31/22 12:16

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
TPHG C5 - C12	56.9	J	30.4	100
(S) a,a,a-Trifluorotoluene(FID)	*96.8*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3776408-1 03/31/22 11:33

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPHG C5 - C12	5500	6350	115	71.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*107*	*78.0-120*	

Method Blank (MB)

(MB) R3777061-2 04/02/22 00:46

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
TPHG C5 - C12	U		30.4	100
(S) a,a,a-Trifluorotoluene(FID)	*97.8*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3777061-1 04/01/22 23:38

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPHG C5 - C12	5500	5120	93.1	71.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*113*	*78.0-120*	

Method Blank (MB)

(MB) R3776427-3 03/31/22 17:50

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		11.3	50.0
Acrolein	U		2.54	50.0
Acrylonitrile	U		0.671	10.0
Benzene	U		0.0941	1.00
Bromobenzene	U		0.118	1.00
Bromodichloromethane	U		0.136	1.00
Bromoform	U		0.129	1.00
Bromomethane	U		0.605	5.00
n-Butylbenzene	0.415	J	0.157	1.00
sec-Butylbenzene	0.171	J	0.125	1.00
tert-Butylbenzene	U		0.127	1.00
Carbon tetrachloride	U		0.128	1.00
Chlorobenzene	U		0.116	1.00
Chlorodibromomethane	U		0.140	1.00
Chloroethane	U		0.192	5.00
Chloroform	U		0.111	5.00
Chloromethane	U		0.960	2.50
2-Chlorotoluene	U		0.106	1.00
4-Chlorotoluene	U		0.114	1.00
1,2-Dibromo-3-Chloropropane	U		0.276	5.00
1,2-Dibromoethane	U		0.126	1.00
Dibromomethane	U		0.122	1.00
1,2-Dichlorobenzene	U		0.107	1.00
1,3-Dichlorobenzene	U		0.110	1.00
1,4-Dichlorobenzene	U		0.120	1.00
Dichlorodifluoromethane	U		0.374	5.00
1,1-Dichloroethane	U		0.100	1.00
1,2-Dichloroethane	U		0.0819	1.00
1,1-Dichloroethene	U		0.188	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
1,2-Dichloropropane	U		0.149	1.00
1,1-Dichloropropene	U		0.142	1.00
1,3-Dichloropropane	U		0.110	1.00
cis-1,3-Dichloropropene	U		0.111	1.00
trans-1,3-Dichloropropene	U		0.118	1.00
2,2-Dichloropropane	U		0.161	1.00
Di-isopropyl ether	U		0.105	1.00
Ethylbenzene	U		0.137	1.00
Hexachloro-1,3-butadiene	U		0.337	1.00

Method Blank (MB)

(MB) R3776427-3 03/31/22 17:50

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Isopropylbenzene	U		0.105	1.00
p-Isopropyltoluene	U		0.120	1.00
2-Butanone (MEK)	U		1.19	10.0
Methylene Chloride	U		0.430	5.00
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0
Methyl tert-butyl ether	U		0.101	1.00
Naphthalene	U		1.00	5.00
n-Propylbenzene	U		0.0993	1.00
Styrene	U		0.118	1.00
1,1,1,2-Tetrachloroethane	U		0.147	1.00
1,1,2,2-Tetrachloroethane	U		0.133	1.00
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00
Tetrachloroethene	U		0.300	1.00
Toluene	U		0.278	1.00
1,2,3-Trichlorobenzene	0.496	J	0.230	1.00
1,2,4-Trichlorobenzene	U		0.481	1.00
1,1,1-Trichloroethane	U		0.149	1.00
1,1,2-Trichloroethane	U		0.158	1.00
Trichloroethene	U		0.190	1.00
Trichlorofluoromethane	U		0.160	5.00
1,2,3-Trichloropropane	U		0.237	2.50
1,2,4-Trimethylbenzene	U		0.322	1.00
1,2,3-Trimethylbenzene	U		0.104	1.00
1,3,5-Trimethylbenzene	U		0.104	1.00
Vinyl chloride	U		0.234	1.00
Xylenes, Total	U		0.174	3.00
(S) Toluene-d8	*108*			*80.0-120*
(S) 4-Bromofluorobenzene	*93.9*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*89.4*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3776427-1 03/31/22 16:48 • (LCSD) R3776427-2 03/31/22 17:09

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	25.0	27.6	28.7	110	115	19.0-160			3.91	27
Acrolein	25.0	89.6	81.2	358	325	10.0-160	J4	J4	9.84	26
Acrylonitrile	25.0	31.2	30.4	125	122	55.0-149			2.60	20
Benzene	5.00	4.98	5.08	99.6	102	70.0-123			1.99	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3776427-1 03/31/22 16:48 • (LCSD) R3776427-2 03/31/22 17:09

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromobenzene	5.00	5.00	5.30	100	106	73.0-121			5.83	20
Bromodichloromethane	5.00	4.66	4.91	93.2	98.2	75.0-120			5.22	20
Bromoform	5.00	4.43	4.46	88.6	89.2	68.0-132			0.675	20
Bromomethane	5.00	4.26	4.25	85.2	85.0	10.0-160			0.235	25
n-Butylbenzene	5.00	4.45	4.99	89.0	99.8	73.0-125			11.4	20
sec-Butylbenzene	5.00	4.53	4.73	90.6	94.6	75.0-125			4.32	20
tert-Butylbenzene	5.00	4.55	4.61	91.0	92.2	76.0-124			1.31	20
Carbon tetrachloride	5.00	4.29	4.49	85.8	89.8	68.0-126			4.56	20
Chlorobenzene	5.00	5.47	5.28	109	106	80.0-121			3.53	20
Chlorodibromomethane	5.00	4.73	4.66	94.6	93.2	77.0-125			1.49	20
Chloroethane	5.00	4.58	4.75	91.6	95.0	47.0-150			3.64	20
Chloroform	5.00	5.04	4.80	101	96.0	73.0-120			4.88	20
Chloromethane	5.00	5.51	5.58	110	112	41.0-142			1.26	20
2-Chlorotoluene	5.00	5.11	5.10	102	102	76.0-123			0.196	20
4-Chlorotoluene	5.00	4.78	4.58	95.6	91.6	75.0-122			4.27	20
1,2-Dibromo-3-Chloropropane	5.00	4.89	5.36	97.8	107	58.0-134			9.17	20
1,2-Dibromoethane	5.00	5.23	4.97	105	99.4	80.0-122			5.10	20
Dibromomethane	5.00	4.69	4.71	93.8	94.2	80.0-120			0.426	20
1,2-Dichlorobenzene	5.00	5.13	5.67	103	113	79.0-121			10.0	20
1,3-Dichlorobenzene	5.00	4.90	4.95	98.0	99.0	79.0-120			1.02	20
1,4-Dichlorobenzene	5.00	4.69	5.03	93.8	101	79.0-120			7.00	20
Dichlorodifluoromethane	5.00	4.01	4.23	80.2	84.6	51.0-149			5.34	20
1,1-Dichloroethane	5.00	5.00	5.04	100	101	70.0-126			0.797	20
1,2-Dichloroethane	5.00	4.68	4.83	93.6	96.6	70.0-128			3.15	20
1,1-Dichloroethene	5.00	4.50	4.66	90.0	93.2	71.0-124			3.49	20
cis-1,2-Dichloroethene	5.00	5.15	4.87	103	97.4	73.0-120			5.59	20
trans-1,2-Dichloroethene	5.00	4.98	5.07	99.6	101	73.0-120			1.79	20
1,2-Dichloropropane	5.00	5.06	5.21	101	104	77.0-125			2.92	20
1,1-Dichloropropene	5.00	4.53	4.59	90.6	91.8	74.0-126			1.32	20
1,3-Dichloropropane	5.00	5.64	5.30	113	106	80.0-120			6.22	20
cis-1,3-Dichloropropene	5.00	4.66	4.65	93.2	93.0	80.0-123			0.215	20
trans-1,3-Dichloropropene	5.00	5.24	5.00	105	100	78.0-124			4.69	20
2,2-Dichloropropane	5.00	5.17	5.04	103	101	58.0-130			2.55	20
Di-isopropyl ether	5.00	5.56	5.54	111	111	58.0-138			0.360	20
Ethylbenzene	5.00	5.04	5.08	101	102	79.0-123			0.791	20
Hexachloro-1,3-butadiene	5.00	3.97	4.49	79.4	89.8	54.0-138			12.3	20
Isopropylbenzene	5.00	4.48	4.40	89.6	88.0	76.0-127			1.80	20
p-Isopropyltoluene	5.00	4.58	4.88	91.6	97.6	76.0-125			6.34	20
2-Butanone (MEK)	25.0	28.6	28.0	114	112	44.0-160			2.12	20
Methylene Chloride	5.00	5.24	5.22	105	104	67.0-120			0.382	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3776427-1 03/31/22 16:48 • (LCSD) R3776427-2 03/31/22 17:09

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
4-Methyl-2-pentanone (MIBK)	25.0	30.1	28.4	120	114	68.0-142			5.81	20
Methyl tert-butyl ether	5.00	4.80	4.78	96.0	95.6	68.0-125			0.418	20
Naphthalene	5.00	3.86	4.35	77.2	87.0	54.0-135			11.9	20
n-Propylbenzene	5.00	4.93	5.13	98.6	103	77.0-124			3.98	20
Styrene	5.00	4.64	4.55	92.8	91.0	73.0-130			1.96	20
1,1,1,2-Tetrachloroethane	5.00	5.35	4.99	107	99.8	75.0-125			6.96	20
1,1,2,2-Tetrachloroethane	5.00	5.78	5.95	116	119	65.0-130			2.90	20
1,1,2-Trichlorotrifluoroethane	5.00	4.82	4.86	96.4	97.2	69.0-132			0.826	20
Tetrachloroethene	5.00	5.69	5.23	114	105	72.0-132			8.42	20
Toluene	5.00	5.12	5.02	102	100	79.0-120			1.97	20
1,2,3-Trichlorobenzene	5.00	4.04	4.36	80.8	87.2	50.0-138			7.62	20
1,2,4-Trichlorobenzene	5.00	4.05	4.29	81.0	85.8	57.0-137			5.76	20
1,1,1-Trichloroethane	5.00	4.32	4.49	86.4	89.8	73.0-124			3.86	20
1,1,2-Trichloroethane	5.00	5.35	5.34	107	107	80.0-120			0.187	20
Trichloroethene	5.00	4.35	4.54	87.0	90.8	78.0-124			4.27	20
Trichlorofluoromethane	5.00	4.26	4.38	85.2	87.6	59.0-147			2.78	20
1,2,3-Trichloropropane	5.00	5.70	5.99	114	120	73.0-130			4.96	20
1,2,4-Trimethylbenzene	5.00	4.96	4.95	99.2	99.0	76.0-121			0.202	20
1,2,3-Trimethylbenzene	5.00	5.06	5.25	101	105	77.0-120			3.69	20
1,3,5-Trimethylbenzene	5.00	5.22	5.43	104	109	76.0-122			3.94	20
Vinyl chloride	5.00	4.41	4.21	88.2	84.2	67.0-131			4.64	20
Xylenes, Total	15.0	15.2	15.2	101	101	79.0-123			0.000	20
(S) Toluene-d8				*110*	*107*	*80.0-120*				
(S) 4-Bromofluorobenzene				*98.1*	*92.3*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*92.7*	*93.4*	*70.0-130*				

Method Blank (MB)

(MB) R3776937-2 04/01/22 18:14

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		11.3	50.0
Acrolein	U		2.54	50.0
Acrylonitrile	U		0.671	10.0
Benzene	U		0.0941	1.00
Bromobenzene	U		0.118	1.00
Bromodichloromethane	U		0.136	1.00
Bromoform	U		0.129	1.00
Bromomethane	U		0.605	5.00
n-Butylbenzene	U		0.157	1.00
sec-Butylbenzene	U		0.125	1.00
tert-Butylbenzene	U		0.127	1.00
Carbon tetrachloride	U		0.128	1.00
Chlorobenzene	U		0.116	1.00
Chlorodibromomethane	U		0.140	1.00
Chloroethane	U		0.192	5.00
Chloroform	U		0.111	5.00
Chloromethane	U		0.960	2.50
2-Chlorotoluene	U		0.106	1.00
4-Chlorotoluene	U		0.114	1.00
1,2-Dibromo-3-Chloropropane	U		0.276	5.00
1,2-Dibromoethane	U		0.126	1.00
Dibromomethane	U		0.122	1.00
1,2-Dichlorobenzene	U		0.107	1.00
1,3-Dichlorobenzene	U		0.110	1.00
1,4-Dichlorobenzene	U		0.120	1.00
Dichlorodifluoromethane	U		0.374	5.00
1,1-Dichloroethane	U		0.100	1.00
1,2-Dichloroethane	U		0.0819	1.00
1,1-Dichloroethene	U		0.188	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
1,2-Dichloropropane	U		0.149	1.00
1,1-Dichloropropene	U		0.142	1.00
1,3-Dichloropropane	U		0.110	1.00
cis-1,3-Dichloropropene	U		0.111	1.00
trans-1,3-Dichloropropene	U		0.118	1.00
2,2-Dichloropropane	U		0.161	1.00
Di-isopropyl ether	U		0.105	1.00
Ethylbenzene	U		0.137	1.00
Hexachloro-1,3-butadiene	U		0.337	1.00

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R3776937-2 04/01/22 18:14

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Isopropylbenzene	U		0.105	1.00
p-Isopropyltoluene	U		0.120	1.00
2-Butanone (MEK)	U		1.19	10.0
Methylene Chloride	U		0.430	5.00
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0
Methyl tert-butyl ether	U		0.101	1.00
Naphthalene	U		1.00	5.00
n-Propylbenzene	U		0.0993	1.00
Styrene	U		0.118	1.00
1,1,1,2-Tetrachloroethane	U		0.147	1.00
1,1,2,2-Tetrachloroethane	U		0.133	1.00
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00
Tetrachloroethene	U		0.300	1.00
Toluene	U		0.278	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.481	1.00
1,1,1-Trichloroethane	U		0.149	1.00
1,1,2-Trichloroethane	U		0.158	1.00
Trichloroethene	U		0.190	1.00
Trichlorofluoromethane	U		0.160	5.00
1,2,3-Trichloropropane	U		0.237	2.50
1,2,4-Trimethylbenzene	U		0.322	1.00
1,2,3-Trimethylbenzene	U		0.104	1.00
1,3,5-Trimethylbenzene	U		0.104	1.00
Vinyl chloride	U		0.234	1.00
Xylenes, Total	U		0.174	3.00
(S) Toluene-d8	*104*			*80.0-120*
(S) 4-Bromofluorobenzene	*100*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*100*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3776937-1 04/01/22 17:36 • (LCSD) R3776937-3 04/01/22 19:24

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	25.0	28.2	42.3	113	169	19.0-160		J3 J4	40.0	27
Acrolein	25.0	4.24	8.43	17.0	33.7	10.0-160		J3	66.1	26
Acrylonitrile	25.0	21.5	27.4	86.0	110	55.0-149		J3	24.1	20
Benzene	5.00	4.66	4.69	93.2	93.8	70.0-123			0.642	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3776937-1 04/01/22 17:36 • (LCSD) R3776937-3 04/01/22 19:24

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromobenzene	5.00	5.30	4.63	106	92.6	73.0-121			13.5	20
Bromodichloromethane	5.00	4.58	4.56	91.6	91.2	75.0-120			0.438	20
Bromoform	5.00	4.56	4.92	91.2	98.4	68.0-132			7.59	20
Bromomethane	5.00	5.09	4.88	102	97.6	10.0-160			4.21	25
n-Butylbenzene	5.00	4.13	4.33	82.6	86.6	73.0-125			4.73	20
sec-Butylbenzene	5.00	4.75	4.42	95.0	88.4	75.0-125			7.20	20
tert-Butylbenzene	5.00	4.83	4.40	96.6	88.0	76.0-124			9.32	20
Carbon tetrachloride	5.00	5.65	5.22	113	104	68.0-126			7.91	20
Chlorobenzene	5.00	4.92	4.83	98.4	96.6	80.0-121			1.85	20
Chlorodibromomethane	5.00	5.30	5.21	106	104	77.0-125			1.71	20
Chloroethane	5.00	4.44	4.18	88.8	83.6	47.0-150			6.03	20
Chloroform	5.00	4.70	4.61	94.0	92.2	73.0-120			1.93	20
Chloromethane	5.00	3.93	3.56	78.6	71.2	41.0-142			9.88	20
2-Chlorotoluene	5.00	5.23	4.66	105	93.2	76.0-123			11.5	20
4-Chlorotoluene	5.00	5.03	4.62	101	92.4	75.0-122			8.50	20
1,2-Dibromo-3-Chloropropane	5.00	3.98	3.98	79.6	79.6	58.0-134			0.000	20
1,2-Dibromoethane	5.00	5.06	5.02	101	100	80.0-122			0.794	20
Dibromomethane	5.00	4.42	4.73	88.4	94.6	80.0-120			6.78	20
1,2-Dichlorobenzene	5.00	4.36	4.37	87.2	87.4	79.0-121			0.229	20
1,3-Dichlorobenzene	5.00	4.73	4.47	94.6	89.4	79.0-120			5.65	20
1,4-Dichlorobenzene	5.00	4.56	4.41	91.2	88.2	79.0-120			3.34	20
Dichlorodifluoromethane	5.00	5.33	4.90	107	98.0	51.0-149			8.41	20
1,1-Dichloroethane	5.00	4.33	4.20	86.6	84.0	70.0-126			3.05	20
1,2-Dichloroethane	5.00	4.75	4.88	95.0	97.6	70.0-128			2.70	20
1,1-Dichloroethene	5.00	4.47	4.05	89.4	81.0	71.0-124			9.86	20
cis-1,2-Dichloroethene	5.00	4.85	4.74	97.0	94.8	73.0-120			2.29	20
trans-1,2-Dichloroethene	5.00	4.65	4.39	93.0	87.8	73.0-120			5.75	20
1,2-Dichloropropane	5.00	4.09	4.08	81.8	81.6	77.0-125			0.245	20
1,1-Dichloropropene	5.00	4.55	4.59	91.0	91.8	74.0-126			0.875	20
1,3-Dichloropropane	5.00	4.71	4.54	94.2	90.8	80.0-120			3.68	20
cis-1,3-Dichloropropene	5.00	4.15	4.23	83.0	84.6	80.0-123			1.91	20
trans-1,3-Dichloropropene	5.00	4.28	4.28	85.6	85.6	78.0-124			0.000	20
2,2-Dichloropropane	5.00	5.18	4.88	104	97.6	58.0-130			5.96	20
Di-isopropyl ether	5.00	4.13	3.92	82.6	78.4	58.0-138			5.22	20
Ethylbenzene	5.00	4.70	4.58	94.0	91.6	79.0-123			2.59	20
Hexachloro-1,3-butadiene	5.00	3.13	3.24	62.6	64.8	54.0-138			3.45	20
Isopropylbenzene	5.00	4.54	4.67	90.8	93.4	76.0-127			2.82	20
p-Isopropyltoluene	5.00	4.51	4.37	90.2	87.4	76.0-125			3.15	20
2-Butanone (MEK)	25.0	23.4	27.9	93.6	112	44.0-160			17.5	20
Methylene Chloride	5.00	4.96	4.57	99.2	91.4	67.0-120			8.18	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3776937-1 04/01/22 17:36 • (LCSD) R3776937-3 04/01/22 19:24

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
4-Methyl-2-pentanone (MIBK)	25.0	23.2	23.4	92.8	93.6	68.0-142			0.858	20
Methyl tert-butyl ether	5.00	4.68	4.43	93.6	88.6	68.0-125			5.49	20
Naphthalene	5.00	3.04	2.98	60.8	59.6	54.0-135			1.99	20
n-Propylbenzene	5.00	4.96	4.43	99.2	88.6	77.0-124			11.3	20
Styrene	5.00	4.31	4.33	86.2	86.6	73.0-130			0.463	20
1,1,1,2-Tetrachloroethane	5.00	4.57	4.54	91.4	90.8	75.0-125			0.659	20
1,1,2,2-Tetrachloroethane	5.00	5.11	4.89	102	97.8	65.0-130			4.40	20
1,1,2-Trichlorotrifluoroethane	5.00	4.76	4.41	95.2	88.2	69.0-132			7.63	20
Tetrachloroethene	5.00	5.05	4.83	101	96.6	72.0-132			4.45	20
Toluene	5.00	4.71	4.57	94.2	91.4	79.0-120			3.02	20
1,2,3-Trichlorobenzene	5.00	2.65	2.55	53.0	51.0	50.0-138			3.85	20
1,2,4-Trichlorobenzene	5.00	3.00	3.30	60.0	66.0	57.0-137			9.52	20
1,1,1-Trichloroethane	5.00	5.49	5.39	110	108	73.0-124			1.84	20
1,1,2-Trichloroethane	5.00	4.65	4.49	93.0	89.8	80.0-120			3.50	20
Trichloroethene	5.00	5.06	5.01	101	100	78.0-124			0.993	20
Trichlorofluoromethane	5.00	5.16	4.69	103	93.8	59.0-147			9.54	20
1,2,3-Trichloropropane	5.00	5.32	4.90	106	98.0	73.0-130			8.22	20
1,2,4-Trimethylbenzene	5.00	4.43	4.17	88.6	83.4	76.0-121			6.05	20
1,2,3-Trimethylbenzene	5.00	4.19	4.06	83.8	81.2	77.0-120			3.15	20
1,3,5-Trimethylbenzene	5.00	4.69	4.27	93.8	85.4	76.0-122			9.37	20
Vinyl chloride	5.00	4.47	4.34	89.4	86.8	67.0-131			2.95	20
Xylenes, Total	15.0	13.7	14.1	91.3	94.0	79.0-123			2.88	20
(S) Toluene-d8				*106*	*103*	*80.0-120*				
(S) 4-Bromofluorobenzene				*95.9*	*99.3*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*103*	*103*	*70.0-130*				

L1476287-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1476287-02 04/02/22 01:54 • (MS) R3776937-4 04/02/22 02:31 • (MSD) R3776937-5 04/02/22 02:50

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	2500	U	3840	3160	154	126	100	10.0-160			19.4	35
Acrolein	2500	U	530	519	21.2	20.8	100	10.0-160			2.10	39
Acrylonitrile	2500	U	2590	2780	104	111	100	21.0-160			7.08	32
Benzene	500	U	417	552	83.4	110	100	17.0-158		J3	27.9	27
Bromobenzene	500	U	421	506	84.2	101	100	30.0-149			18.3	28
Bromodichloromethane	500	U	417	523	83.4	105	100	31.0-150			22.6	27
Bromoform	500	U	477	528	95.4	106	100	29.0-150			10.1	29
Bromomethane	500	U	453	618	90.6	124	100	10.0-160			30.8	38

L1476287-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1476287-02 04/02/22 01:54 • (MS) R3776937-4 04/02/22 02:31 • (MSD) R3776937-5 04/02/22 02:50

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
n-Butylbenzene	500	U	282	359	56.4	71.8	100	31.0-150			24.0	30
sec-Butylbenzene	500	U	309	405	61.8	81.0	100	33.0-155			26.9	29
tert-Butylbenzene	500	U	321	410	64.2	82.0	100	34.0-153			24.4	28
Carbon tetrachloride	500	U	458	686	91.6	137	100	23.0-159		J3	39.9	28
Chlorobenzene	500	U	430	551	86.0	110	100	33.0-152			24.7	27
Chlorodibromomethane	500	U	485	563	97.0	113	100	37.0-149			14.9	27
Chloroethane	500	U	391	527	78.2	105	100	10.0-160			29.6	30
Chloroform	500	U	425	585	85.0	117	100	29.0-154		J3	31.7	28
Chloromethane	500	U	343	513	68.6	103	100	10.0-160		J3	39.7	29
2-Chlorotoluene	500	U	406	507	81.2	101	100	32.0-153			22.1	28
4-Chlorotoluene	500	U	390	493	78.0	98.6	100	32.0-150			23.3	28
1,2-Dibromo-3-Chloropropane	500	U	411	433	82.2	86.6	100	22.0-151			5.21	34
1,2-Dibromoethane	500	U	474	540	94.8	108	100	34.0-147			13.0	27
Dibromomethane	500	U	455	533	91.0	107	100	30.0-151			15.8	27
1,2-Dichlorobenzene	500	U	397	458	79.4	91.6	100	34.0-149			14.3	28
1,3-Dichlorobenzene	500	U	375	463	75.0	92.6	100	36.0-146			21.0	27
1,4-Dichlorobenzene	500	U	391	482	78.2	96.4	100	35.0-142			20.8	27
Dichlorodifluoromethane	500	U	475	730	95.0	146	100	10.0-160		J3	42.3	29
1,1-Dichloroethane	500	U	390	513	78.0	103	100	25.0-158		J3	27.2	27
1,2-Dichloroethane	500	U	456	526	91.2	105	100	29.0-151			14.3	27
1,1-Dichloroethene	500	U	395	555	79.0	111	100	11.0-160		J3	33.7	29
cis-1,2-Dichloroethene	500	U	436	574	87.2	115	100	10.0-160		J3	27.3	27
trans-1,2-Dichloroethene	500	U	402	572	80.4	114	100	17.0-153		J3	34.9	27
1,2-Dichloropropane	500	U	386	472	77.2	94.4	100	30.0-156			20.0	27
1,1-Dichloropropene	500	U	370	559	74.0	112	100	25.0-158		J3	40.7	27
1,3-Dichloropropane	500	U	419	483	83.8	96.6	100	38.0-147			14.2	27
cis-1,3-Dichloropropene	500	U	369	436	73.8	87.2	100	34.0-149			16.6	28
trans-1,3-Dichloropropene	500	U	357	435	71.4	87.0	100	32.0-149			19.7	28
2,2-Dichloropropane	500	U	344	512	68.8	102	100	24.0-152		J3	39.3	29
Di-isopropyl ether	500	U	408	488	81.6	97.6	100	21.0-160			17.9	28
Ethylbenzene	500	19.3	396	542	75.3	105	100	30.0-155		J3	31.1	27
Hexachloro-1,3-butadiene	500	U	193	249	38.6	49.8	100	20.0-154			25.3	34
Isopropylbenzene	500	U	394	502	78.8	100	100	28.0-157			24.1	27
p-Isopropyltoluene	500	22.4	318	406	59.1	76.7	100	30.0-154			24.3	29
2-Butanone (MEK)	2500	U	2700	2600	108	104	100	10.0-160			3.77	32
Methylene Chloride	500	U	447	554	89.4	111	100	23.0-144			21.4	28
4-Methyl-2-pentanone (MIBK)	2500	U	2430	2560	97.2	102	100	29.0-160			5.21	29
Methyl tert-butyl ether	500	U	483	528	96.6	106	100	28.0-150			8.90	29
Naphthalene	500	U	281	320	56.2	64.0	100	12.0-156			13.0	35
n-Propylbenzene	500	12.5	359	468	69.3	91.1	100	31.0-154			26.4	28

L1476287-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1476287-02 04/02/22 01:54 • (MS) R3776937-4 04/02/22 02:31 • (MSD) R3776937-5 04/02/22 02:50

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Styrene	500	U	393	506	78.6	101	100	33.0-155			25.1	28
1,1,1,2-Tetrachloroethane	500	U	414	532	82.8	106	100	36.0-151			24.9	29
1,1,2,2-Tetrachloroethane	500	U	509	561	102	112	100	33.0-150			9.72	28
1,1,2-Trichlorotrifluoroethane	500	U	418	599	83.6	120	100	23.0-160		J3	35.6	30
Tetrachloroethene	500	U	515	543	103	109	100	10.0-160			5.29	27
Toluene	500	U	371	512	74.2	102	100	26.0-154		J3	31.9	28
1,2,3-Trichlorobenzene	500	U	188	235	37.6	47.0	100	17.0-150			22.2	36
1,2,4-Trichlorobenzene	500	U	243	287	48.6	57.4	100	24.0-150			16.6	33
1,1,1-Trichloroethane	500	U	463	662	92.6	132	100	23.0-160		J3	35.4	28
1,1,2-Trichloroethane	500	U	422	495	84.4	99.0	100	35.0-147			15.9	27
Trichloroethene	500	U	424	558	84.8	112	100	10.0-160		J3	27.3	25
Trichlorofluoromethane	500	U	430	619	86.0	124	100	17.0-160		J3	36.0	31
1,2,3-Trichloropropane	500	U	474	544	94.8	109	100	34.0-151			13.8	29
1,2,4-Trimethylbenzene	500	61.9	344	429	56.4	73.4	100	26.0-154			22.0	27
1,2,3-Trimethylbenzene	500	20.2	351	419	66.2	79.8	100	32.0-149			17.7	28
1,3,5-Trimethylbenzene	500	18.1	341	434	64.6	83.2	100	28.0-153			24.0	27
Vinyl chloride	500	U	409	618	81.8	124	100	10.0-160		J3	40.7	27
Xylenes, Total	1500	65.0	1250	1570	79.0	100	100	29.0-154			22.7	28
(S) Toluene-d8					*100*	*105*		*80.0-120*				
(S) 4-Bromofluorobenzene					*103*	*102*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*103*	*105*		*70.0-130*				

Method Blank (MB)

(MB) R3777140-3 04/03/22 19:53

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
1,1-Dichloroethene	U		0.188	1.00
(S) Toluene-d8	*115*			*80.0-120*
(S) 4-Bromofluorobenzene	*89.4*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3777140-1 04/03/22 18:13 • (LCSD) R3777140-2 04/03/22 18:35

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,1-Dichloroethene	5.00	5.03	5.46	101	109	71.0-124			8.20	20
(S) Toluene-d8				*112*	*112*	*80.0-120*				
(S) 4-Bromofluorobenzene				*92.3*	*91.3*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*103*	*101*	*70.0-130*				

Method Blank (MB)

(MB) R3777041-3 04/02/22 17:16

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0365	0.0500
Acrylonitrile	U		0.00361	0.0125
Benzene	U		0.000467	0.00100
Bromobenzene	U		0.000900	0.0125
Bromodichloromethane	U		0.000725	0.00250
Bromoform	U		0.00117	0.0250
Bromomethane	U		0.00197	0.0125
n-Butylbenzene	U		0.00525	0.0125
sec-Butylbenzene	U		0.00288	0.0125
tert-Butylbenzene	U		0.00195	0.00500
Carbon tetrachloride	U		0.000898	0.00500
Chlorobenzene	U		0.000210	0.00250
Chlorodibromomethane	U		0.000612	0.00250
Chloroethane	U		0.00170	0.00500
Chloroform	U		0.00103	0.00250
Chloromethane	U		0.00435	0.0125
2-Chlorotoluene	U		0.000865	0.00250
4-Chlorotoluene	U		0.000450	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00390	0.0250
1,2-Dibromoethane	U		0.000648	0.00250
Dibromomethane	U		0.000750	0.00500
1,2-Dichlorobenzene	U		0.000425	0.00500
1,3-Dichlorobenzene	U		0.000600	0.00500
1,4-Dichlorobenzene	U		0.000700	0.00500
Dichlorodifluoromethane	U		0.00161	0.00250
1,1-Dichloroethane	U		0.000491	0.00250
1,2-Dichloroethane	U		0.000649	0.00250
1,1-Dichloroethene	U		0.000606	0.00250
cis-1,2-Dichloroethene	U		0.000734	0.00250
trans-1,2-Dichloroethene	U		0.00104	0.00500
1,2-Dichloropropane	U		0.00142	0.00500
1,1-Dichloropropene	U		0.000809	0.00250
1,3-Dichloropropane	U		0.000501	0.00500
cis-1,3-Dichloropropene	U		0.000757	0.00250
trans-1,3-Dichloropropene	U		0.00114	0.00500
2,2-Dichloropropane	U		0.00138	0.00250
Di-isopropyl ether	U		0.000410	0.00100
Ethylbenzene	U		0.000737	0.00250
Hexachloro-1,3-butadiene	U		0.00600	0.0250
Isopropylbenzene	U		0.000425	0.00250

Method Blank (MB)

(MB) R3777041-3 04/02/22 17:16

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
p-Isopropyltoluene	U		0.00255	0.00500
2-Butanone (MEK)	U		0.0635	0.100
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.00228	0.0250
Methyl tert-butyl ether	U		0.000350	0.00100
Naphthalene	U		0.00488	0.0125
n-Propylbenzene	U		0.000950	0.00500
Styrene	U		0.000229	0.0125
1,1,1,2-Tetrachloroethane	U		0.000948	0.00250
1,1,2,2-Tetrachloroethane	U		0.000695	0.00250
1,1,2-Trichlorotrifluoroethane	U		0.000754	0.00250
Tetrachloroethene	U		0.000896	0.00250
Toluene	U		0.00130	0.00500
1,2,3-Trichlorobenzene	U		0.00733	0.0125
1,2,4-Trichlorobenzene	U		0.00440	0.0125
1,1,1-Trichloroethane	U		0.000923	0.00250
1,1,2-Trichloroethane	U		0.000597	0.00250
Trichloroethene	U		0.000584	0.00100
Trichlorofluoromethane	U		0.000827	0.00250
1,2,3-Trichloropropane	U		0.00162	0.0125
1,2,4-Trimethylbenzene	U		0.00158	0.00500
1,2,3-Trimethylbenzene	U		0.00158	0.00500
1,3,5-Trimethylbenzene	U		0.00200	0.00500
Vinyl chloride	U		0.00116	0.00250
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*108*			*75.0-131*
(S) 4-Bromofluorobenzene	*96.6*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*99.3*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3777041-1 04/02/22 16:01 • (LCSD) R3777041-2 04/02/22 16:20

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.625	0.870	0.866	139	139	10.0-160			0.461	31
Acrylonitrile	0.625	0.926	0.905	148	145	45.0-153			2.29	22
Benzene	0.125	0.116	0.122	92.8	97.6	70.0-123			5.04	20
Bromobenzene	0.125	0.128	0.127	102	102	73.0-121			0.784	20
Bromodichloromethane	0.125	0.111	0.115	88.8	92.0	73.0-121			3.54	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3777041-1 04/02/22 16:01 • (LCSD) R3777041-2 04/02/22 16:20

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromoform	0.125	0.114	0.125	91.2	100	64.0-132			9.21	20
Bromomethane	0.125	0.105	0.108	84.0	86.4	56.0-147			2.82	20
n-Butylbenzene	0.125	0.107	0.108	85.6	86.4	68.0-135			0.930	20
sec-Butylbenzene	0.125	0.119	0.121	95.2	96.8	74.0-130			1.67	20
tert-Butylbenzene	0.125	0.117	0.115	93.6	92.0	75.0-127			1.72	20
Carbon tetrachloride	0.125	0.123	0.126	98.4	101	66.0-128			2.41	20
Chlorobenzene	0.125	0.130	0.134	104	107	76.0-128			3.03	20
Chlorodibromomethane	0.125	0.124	0.133	99.2	106	74.0-127			7.00	20
Chloroethane	0.125	0.125	0.132	100	106	61.0-134			5.45	20
Chloroform	0.125	0.112	0.115	89.6	92.0	72.0-123			2.64	20
Chloromethane	0.125	0.151	0.156	121	125	51.0-138			3.26	20
2-Chlorotoluene	0.125	0.125	0.130	100	104	75.0-124			3.92	20
4-Chlorotoluene	0.125	0.113	0.106	90.4	84.8	75.0-124			6.39	20
1,2-Dibromo-3-Chloropropane	0.125	0.104	0.106	83.2	84.8	59.0-130			1.90	20
1,2-Dibromoethane	0.125	0.134	0.137	107	110	74.0-128			2.21	20
Dibromomethane	0.125	0.121	0.126	96.8	101	75.0-122			4.05	20
1,2-Dichlorobenzene	0.125	0.120	0.120	96.0	96.0	76.0-124			0.000	20
1,3-Dichlorobenzene	0.125	0.125	0.127	100	102	76.0-125			1.59	20
1,4-Dichlorobenzene	0.125	0.112	0.114	89.6	91.2	77.0-121			1.77	20
Dichlorodifluoromethane	0.125	0.110	0.120	88.0	96.0	43.0-156			8.70	20
1,1-Dichloroethane	0.125	0.128	0.128	102	102	70.0-127			0.000	20
1,2-Dichloroethane	0.125	0.119	0.121	95.2	96.8	65.0-131			1.67	20
1,1-Dichloroethene	0.125	0.132	0.137	106	110	65.0-131			3.72	20
cis-1,2-Dichloroethene	0.125	0.113	0.112	90.4	89.6	73.0-125			0.889	20
trans-1,2-Dichloroethene	0.125	0.124	0.122	99.2	97.6	71.0-125			1.63	20
1,2-Dichloropropane	0.125	0.133	0.138	106	110	74.0-125			3.69	20
1,1-Dichloropropene	0.125	0.122	0.127	97.6	102	73.0-125			4.02	20
1,3-Dichloropropane	0.125	0.127	0.133	102	106	80.0-125			4.62	20
cis-1,3-Dichloropropene	0.125	0.122	0.128	97.6	102	76.0-127			4.80	20
trans-1,3-Dichloropropene	0.125	0.120	0.128	96.0	102	73.0-127			6.45	20
2,2-Dichloropropane	0.125	0.138	0.119	110	95.2	59.0-135			14.8	20
Di-isopropyl ether	0.125	0.147	0.146	118	117	60.0-136			0.683	20
Ethylbenzene	0.125	0.118	0.121	94.4	96.8	74.0-126			2.51	20
Hexachloro-1,3-butadiene	0.125	0.142	0.164	114	131	57.0-150			14.4	20
Isopropylbenzene	0.125	0.117	0.127	93.6	102	72.0-127			8.20	20
p-Isopropyltoluene	0.125	0.114	0.119	91.2	95.2	72.0-133			4.29	20
2-Butanone (MEK)	0.625	0.825	0.840	132	134	30.0-160			1.80	24
Methylene Chloride	0.125	0.118	0.119	94.4	95.2	68.0-123			0.844	20
4-Methyl-2-pentanone (MIBK)	0.625	0.714	0.749	114	120	56.0-143			4.78	20
Methyl tert-butyl ether	0.125	0.114	0.115	91.2	92.0	66.0-132			0.873	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3777041-1 04/02/22 16:01 • (LCSD) R3777041-2 04/02/22 16:20

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Naphthalene	0.125	0.104	0.106	83.2	84.8	59.0-130			1.90	20
n-Propylbenzene	0.125	0.116	0.117	92.8	93.6	74.0-126			0.858	20
Styrene	0.125	0.111	0.119	88.8	95.2	72.0-127			6.96	20
1,1,1,2-Tetrachloroethane	0.125	0.125	0.131	100	105	74.0-129			4.69	20
1,1,2,2-Tetrachloroethane	0.125	0.126	0.121	101	96.8	68.0-128			4.05	20
1,1,2-Trichlorotrifluoroethane	0.125	0.119	0.121	95.2	96.8	61.0-139			1.67	20
Tetrachloroethene	0.125	0.130	0.141	104	113	70.0-136			8.12	20
Toluene	0.125	0.123	0.132	98.4	106	75.0-121			7.06	20
1,2,3-Trichlorobenzene	0.125	0.111	0.133	88.8	106	59.0-139			18.0	20
1,2,4-Trichlorobenzene	0.125	0.125	0.134	100	107	62.0-137			6.95	20
1,1,1-Trichloroethane	0.125	0.124	0.124	99.2	99.2	69.0-126			0.000	20
1,1,2-Trichloroethane	0.125	0.126	0.137	101	110	78.0-123			8.37	20
Trichloroethene	0.125	0.134	0.136	107	109	76.0-126			1.48	20
Trichlorofluoromethane	0.125	0.0980	0.103	78.4	82.4	61.0-142			4.98	20
1,2,3-Trichloropropane	0.125	0.133	0.125	106	100	67.0-129			6.20	20
1,2,4-Trimethylbenzene	0.125	0.113	0.113	90.4	90.4	70.0-126			0.000	20
1,2,3-Trimethylbenzene	0.125	0.116	0.117	92.8	93.6	74.0-124			0.858	20
1,3,5-Trimethylbenzene	0.125	0.120	0.122	96.0	97.6	73.0-127			1.65	20
Vinyl chloride	0.125	0.135	0.145	108	116	63.0-134			7.14	20
Xylenes, Total	0.375	0.362	0.378	96.5	101	72.0-127			4.32	20
(S) Toluene-d8				*106*	*111*	*75.0-131*				
(S) 4-Bromofluorobenzene				*96.8*	*101*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*96.4*	*98.2*	*70.0-130*				

Method Blank (MB)

(MB) R3777915-1 04/05/22 12:47

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
C12-C22 Hydrocarbons	U		33.0	100
C22-C32 Hydrocarbons	U		33.0	100
C32-C40 Hydrocarbons	U		33.0	100
(S) o-Terphenyl	*64.5*			*52.0-156*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3777915-2 04/05/22 13:07 • (LCSD) R3777915-3 04/05/22 13:27

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
C12-C22 Hydrocarbons	750	818	823	109	110	50.0-150			0.609	20
C22-C32 Hydrocarbons	750	811	813	108	108	50.0-150			0.246	20
(S) o-Terphenyl				*106*	*106*	*52.0-156*				

Method Blank (MB)

(MB) R3777915-1 04/05/22 12:47

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
C12-C22 Hydrocarbons	U		33.0	100
C22-C32 Hydrocarbons	U		33.0	100
C32-C40 Hydrocarbons	U		33.0	100
(S) o-Terphenyl	*64.5*			*52.0-156*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3777915-2 04/05/22 13:07 • (LCSD) R3777915-3 04/05/22 13:27

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
C12-C22 Hydrocarbons	750	818	823	109	110	50.0-150			0.609	20
C22-C32 Hydrocarbons	750	811	813	108	108	50.0-150			0.246	20
(S) o-Terphenyl				*106*	*106*	*52.0-156*				

Method Blank (MB)

(MB) R3777916-1 04/05/22 13:47

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
C12-C22 Hydrocarbons	U		33.0	100
C22-C32 Hydrocarbons	U		33.0	100
C32-C40 Hydrocarbons	U		33.0	100
(S) o-Terphenyl	*54.5*			*52.0-156*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3777916-2 04/05/22 14:08 • (LCSD) R3777916-3 04/05/22 14:29

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
C12-C22 Hydrocarbons	750	650	667	86.7	88.9	50.0-150			2.58	20
C22-C32 Hydrocarbons	750	657	667	87.6	88.9	50.0-150			1.51	20
(S) o-Terphenyl				*81.5*	*85.0*	*52.0-156*				

Method Blank (MB)

(MB) R3777172-1 04/03/22 15:14

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C12-C22 Hydrocarbons	U		0.733	4.00
C22-C32 Hydrocarbons	U		1.33	4.00
C32-C40 Hydrocarbons	U		1.33	4.00
(S) o-Terphenyl	*91.6*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3777172-2 04/03/22 15:31

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C12-C22 Hydrocarbons	25.0	20.1	80.4	50.0-150	
C22-C32 Hydrocarbons	25.0	20.5	82.0	50.0-150	
(S) o-Terphenyl			*80.5*	*18.0-148*	

L1476312-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1476312-06 04/03/22 16:38 • (MS) R3777172-3 04/04/22 09:19 • (MSD) R3777172-4 04/04/22 09:35

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C12-C22 Hydrocarbons	32.0	0.971	22.2	22.4	66.5	67.2	1	50.0-150			0.590	20
C22-C32 Hydrocarbons	32.0	3.37	22.4	24.1	59.4	65.0	1	50.0-150			7.37	20
(S) o-Terphenyl					*67.0*	*73.8*		*18.0-148*				

Method Blank (MB)

(MB) R3777655-1 04/05/22 04:23

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C12-C22 Hydrocarbons	U		0.733	4.00
C22-C32 Hydrocarbons	U		1.33	4.00
C32-C40 Hydrocarbons	U		1.33	4.00
(S) o-Terphenyl	*91.7*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3777655-2 04/05/22 04:40

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C12-C22 Hydrocarbons	25.0	22.3	89.2	50.0-150	
C22-C32 Hydrocarbons	25.0	21.6	86.4	50.0-150	
(S) o-Terphenyl			*73.1*	*18.0-148*	

L1476312-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1476312-06 04/05/22 05:14 • (MS) R3777655-3 04/05/22 05:31 • (MSD) R3777655-4 04/05/22 05:47

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C12-C22 Hydrocarbons	32.0	1.18	22.0	23.2	68.7	72.7	1	50.0-150			5.25	20
C22-C32 Hydrocarbons	32.0	2.46	22.6	24.9	63.1	70.4	1	50.0-150			9.42	20
(S) o-Terphenyl					*60.5*	*63.5*		*18.0-148*				

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

C169

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HALEY ALDRICH

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

Section A — Required Client Information:

Company: Haley & Aldrich
Address: 2033 North Main Street | Suite 309
Walnut Creek, CA 94596
Email To: JGrant@haleyaldrich.com
Phone: (925) 949-1012 Fax: (925) 979-1456
Requested Due Date/TAT: Standard

Section B — Required Project Information:

Report To: Jason Grant JGrant@haleyaldrich.com
Copy To: Mzlotoff@haleyaldrich.com, vgodard@haleyaldrich.com
acaveney@haleyaldrich.com
BSA #: 2022-24-Pace
H&A Client Name: Duke Realty
H&A Project #: 0204627-100-035-01

Section C — Invoice Information:

Attention: accountspayable@haleyaldrich.com
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: Brian Ford
Pace Profile #:

39 Spruce Street, East Longmeadow, MA 01028
1700 Elm Street SE - Minneapolis, MN 55414
7726 Moller Road - Indianapolis, IN 46268

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐

Site Location STATE:

Pace's services under this Chain of Custody shall be performed in accordance with terms and conditions within Blanket Service Agreement #2022-24-Pace by and between Haley & Aldrich, Inc., its subsidiaries and affiliates and Pace Analytical Services, Inc.

Requested Analysis Filtered (Y/N)

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	VOCs 8260B	TPH-gasoline 8015	Total petroleum hydrocarbons as diesel and motor oil USEPA Method 8015B, with silica-gel cleanup	Total petroleum hydrocarbons as diesel and motor oil USEPA Method 8015B, without silica-gel cleanup	CCR Title 22 Metals USEPA Method 6010/7471	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	E-2-S-6	SL	G	3/25/22	1430	–	–		3										X	X	X	X	X			-01
2	E-2-S-11	SL	G	3/25/22	1435	–	–		3										X	X	X	X	X			-06
3	E-4-S-3	SL	G	3/25/22	1745	–	–		3										X	X	X	X	X			-07
4	E-4-S-13	SL	G	3/25/22	1830	–	–		3										X	X	X	X	X			-08
5	E-5-S-0	SL	G	3/25/22	1030	–	–		3										X	X	X	X	X			-09
6	E-5-S-3	SL	G	3/25/22	1035	–	–		3										X	X	X	X	X			-10
7	E-6-S-2	SL	G	3/25/22	1620	–	–		3										X	X	X	X	X			-11
8	E-6-S-5	SL	G	3/25/22	1625	–	–		3										X	X	X	X	X			-12
9	E-2-W	WT	G	3/25/22	1345	–	–		10										X	X	X	X	X			-02
10	E-6-W	WT	G	3/25/22	1630	–	–		10										X	X	X	X	X			-03
11	EB-1	WT	G	3/25/22	2000	–	–		10										X	X	X	X	X			-04
12	TB-1	WT	G	3/25/22	–	–	–		2										X	X						-05
13	TB-2	WT	G	3/25/22	–	–	–		2										X	X						-13

L1476312

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Akash Caveney HA	3/28/22	1445	Adriana Timms	3/29	0900	0.1°	Y	N	Y

~~*10W-01-S = 3 CNT (NOT ON LIST)~~

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Akash Caveney

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 3/28/22

Sample Receipt Checklist

COC Seal Present/Intact: Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
RAD Screen <0.5 mR/hr: Y N

If Applicable
VOA Zero Headspace: Y N
Pres.Correct/Check: Y N

TRC# 7912.4393.1646
CNT=36
TB=2

Temp: (DEA 0.1+0=0.1°C)

20-July-2015

ANALYTICAL REPORT

April 14, 2022

Haley & Aldrich - San Jose, CA

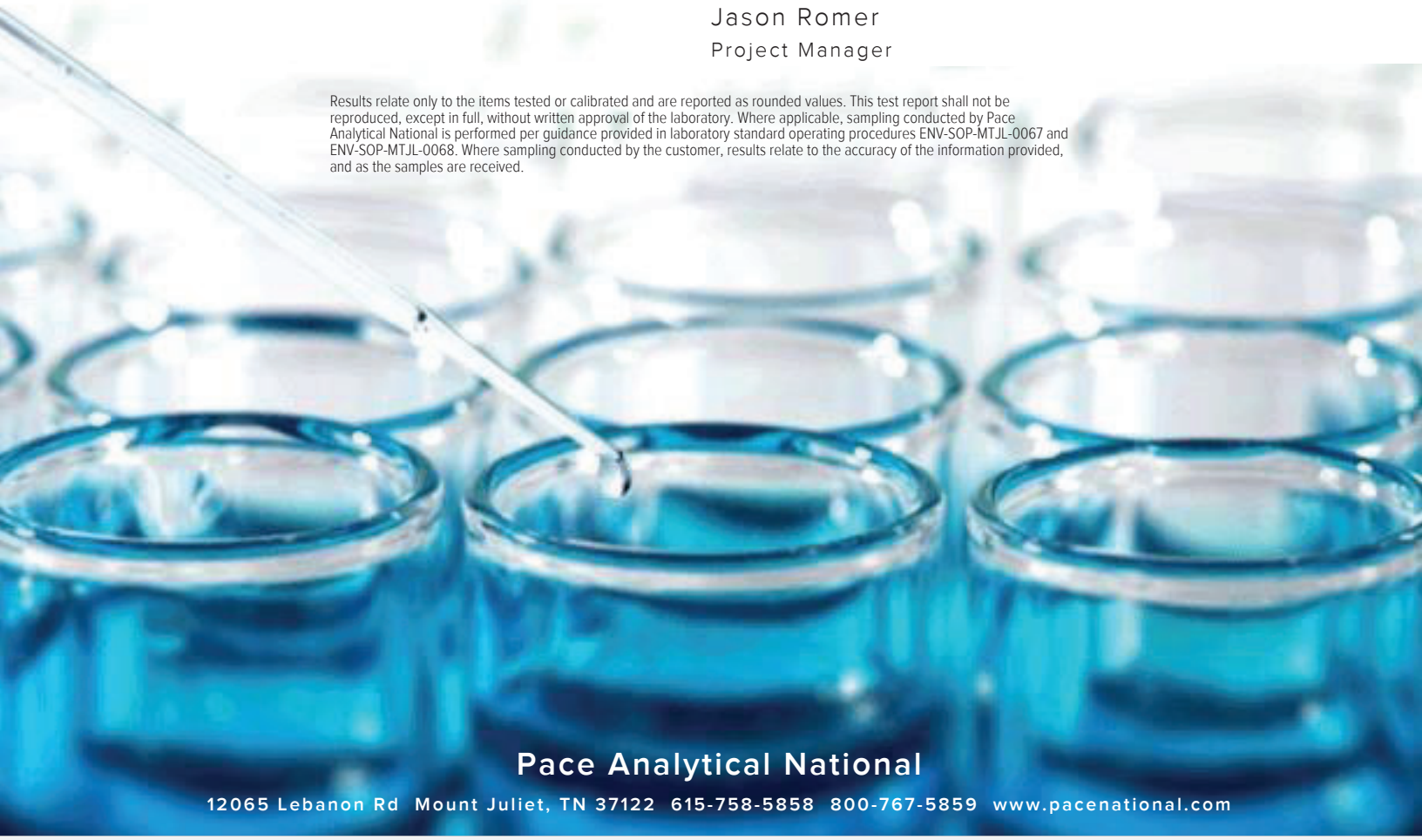
Sample Delivery Group:	L1480096
Samples Received:	03/29/2022
Project Number:	0204627-100-035-01
Description:	Duke Realty

Report To: Akash Caveney
2107 North First Street
Suite 380
San Jose, CA 95131

Entire Report Reviewed By:

Jason Romer
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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E-2-S-6 L1480096-01 GW

Collected by: Akash Caveney | Collected date/time: 03/25/22 14:30 | Received date/time: 03/29/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 22CCRA2	WG1844468	1	04/09/22 09:10	04/09/22 09:10	JAV	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1848217	9	04/13/22 22:23	04/14/22 11:29	CCE	Mt. Juliet, TN

E-2-S-11 L1480096-02 GW

Collected by: Akash Caveney | Collected date/time: 03/25/22 14:35 | Received date/time: 03/29/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 22CCRA2	WG1844468	1	04/09/22 09:10	04/09/22 09:10	JAV	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1848217	9	04/13/22 22:23	04/14/22 11:37	CCE	Mt. Juliet, TN

E-4-S-3 L1480096-03 GW

Collected by: Akash Caveney | Collected date/time: 03/25/22 17:45 | Received date/time: 03/29/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 22CCRA2	WG1844468	1	04/09/22 09:10	04/09/22 09:10	JAV	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1848217	9	04/13/22 22:23	04/14/22 11:40	CCE	Mt. Juliet, TN

E-5-S-0 L1480096-04 GW

Collected by: Akash Caveney | Collected date/time: 03/25/22 10:30 | Received date/time: 03/29/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 22CCRA2	WG1844468	1	04/09/22 09:10	04/09/22 09:10	JAV	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1848217	9	04/13/22 22:23	04/14/22 11:43	CCE	Mt. Juliet, TN

E-5-S-3 L1480096-05 GW

Collected by: Akash Caveney | Collected date/time: 03/25/22 10:35 | Received date/time: 03/29/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 22CCRA2	WG1844468	1	04/09/22 09:10	04/09/22 09:10	JAV	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1848217	9	04/13/22 22:23	04/14/22 11:46	CCE	Mt. Juliet, TN

E-6-S-2 L1480096-06 GW

Collected by: Akash Caveney | Collected date/time: 03/25/22 16:25 | Received date/time: 03/29/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 22CCRA2	WG1844468	1	04/09/22 09:10	04/09/22 09:10	JAV	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1848217	9	04/13/22 22:23	04/14/22 11:49	CCE	Mt. Juliet, TN

E-6-S-5 L1480096-07 GW

Collected by: Akash Caveney | Collected date/time: 03/25/22 13:45 | Received date/time: 03/29/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 22CCRA2	WG1844468	1	04/09/22 09:10	04/09/22 09:10	JAV	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1848217	9	04/13/22 22:23	04/14/22 11:52	CCE	Mt. Juliet, TN

E-4-S-3 L1480096-08 Waste

Collected by: Akash Caveney
Collected date/time: 03/25/22 17:45
Received date/time: 03/29/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1846490	1	04/11/22 12:20	04/11/22 12:20	JAV	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1847164	1	04/12/22 16:43	04/13/22 12:59	CCE	Mt. Juliet, TN

E-5-S-0 L1480096-09 Waste

Collected by: Akash Caveney
Collected date/time: 03/25/22 10:30
Received date/time: 03/29/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1846490	1	04/11/22 12:20	04/11/22 12:20	JAV	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1847164	1	04/12/22 16:43	04/13/22 13:03	CCE	Mt. Juliet, TN

E-5-S-3 L1480096-10 Waste

Collected by: Akash Caveney
Collected date/time: 03/25/22 10:35
Received date/time: 03/29/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1846490	1	04/11/22 12:20	04/11/22 12:20	JAV	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1847164	1	04/12/22 16:43	04/13/22 13:06	CCE	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Jason Romer
Project Manager

Preparation by Method 1311/22CCRA2

Analyte	Result	Qualifier	Prep date / time	Batch
STLC Extraction	-		4/9/2022 9:10:13 AM	WG1844468
Final pH	4.95		4/9/2022 9:10:13 AM	WG1844468

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chromium	0.883		0.0126	0.0900	9	04/14/2022 11:29	WG1848217

Preparation by Method 1311/22CCRA2

Analyte	Result	Qualifier	Prep date / time	Batch
STLC Extraction	-		4/9/2022 9:10:13 AM	WG1844468
Final pH	6.27		4/9/2022 9:10:13 AM	WG1844468

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chromium	0.464		0.0126	0.0900	9	04/14/2022 11:37	WG1848217

Preparation by Method 1311/22CCRA2

Analyte	Result	Qualifier	Prep date / time	Batch
STLC Extraction	-		4/9/2022 9:10:13 AM	WG1844468
Final pH	5.61		4/9/2022 9:10:13 AM	WG1844468

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Lead	1.43		0.0269	0.0540	9	04/14/2022 11:40	WG1848217

Preparation by Method 1311/22CCRA2

Analyte	Result	Qualifier	Prep date / time	Batch
STLC Extraction	-		4/9/2022 9:10:13 AM	WG1844468
Final pH	5.92		4/9/2022 9:10:13 AM	WG1844468

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Lead	5.59		0.0269	0.0540	9	04/14/2022 11:43	WG1848217

Preparation by Method 1311/22CCRA2

Analyte	Result	Qualifier	Prep date / time	Batch
STLC Extraction	-		4/9/2022 9:10:13 AM	WG1844468
Final pH	5.30		4/9/2022 9:10:13 AM	WG1844468

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Lead	3.09		0.0269	0.0540	9	04/14/2022 11:46	WG1848217

Preparation by Method 1311/22CCRA2

Analyte	Result	Qualifier	Prep date / time	Batch
STLC Extraction	-		4/9/2022 9:10:13 AM	WG1844468
Final pH	6.24		4/9/2022 9:10:13 AM	WG1844468

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chromium	1.56		0.0126	0.0900	9	04/14/2022 11:49	WG1848217

Preparation by Method 1311/22CCRA2

Analyte	Result	Qualifier	Prep date / time	Batch
STLC Extraction	-		4/9/2022 9:10:13 AM	WG1844468
Final pH	5.04		4/9/2022 9:10:13 AM	WG1844468

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chromium	1.49		0.0126	0.0900	9	04/14/2022 11:52	WG1848217

Preparation by Method 1311/22CCRA2

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		4/11/2022 12:20:11 PM	WG1846490
Fluid	1		4/11/2022 12:20:11 PM	WG1846490
Initial pH	8.23		4/11/2022 12:20:11 PM	WG1846490
Final pH	4.91		4/11/2022 12:20:11 PM	WG1846490

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	0.203		0.100	5	1	04/13/2022 12:59	WG1847164

Preparation by Method 1311/22CCRA2

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		4/11/2022 12:20:11 PM	WG1846490
Fluid	1		4/11/2022 12:20:11 PM	WG1846490
Initial pH	9.07		4/11/2022 12:20:11 PM	WG1846490
Final pH	5.27		4/11/2022 12:20:11 PM	WG1846490

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	0.250		0.100	5	1	04/13/2022 13:03	WG1847164

Preparation by Method 1311/22CCRA2

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		4/11/2022 12:20:11 PM	WG1846490
Fluid	1		4/11/2022 12:20:11 PM	WG1846490
Initial pH	9.14		4/11/2022 12:20:11 PM	WG1846490
Final pH	5.02		4/11/2022 12:20:11 PM	WG1846490

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	0.296		0.100	5	1	04/13/2022 13:06	WG1847164

Method Blank (MB)

(MB) R3780579-1 04/13/22 11:43

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Lead	U		0.0330	0.100

Laboratory Control Sample (LCS)

(LCS) R3780579-2 04/13/22 11:46

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Lead	10.0	9.30	93.0	80.0-120	

L1477993-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1477993-03 04/13/22 11:49 • (MS) R3780579-4 04/13/22 11:55 • (MSD) R3780579-5 04/13/22 11:57

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Lead	10.0	0.402	9.79	9.63	93.9	92.3	1	75.0-125			1.68	20

L1480151-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1480151-02 04/13/22 12:00 • (MS) R3780579-6 04/13/22 12:03 • (MSD) R3780579-7 04/13/22 12:05

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Lead	10.0	ND	9.20	9.22	92.0	92.2	1	75.0-125			0.243	20

Method Blank (MB)

(MB) R3781104-1 04/14/22 11:04

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chromium	U		0.0126	0.0900
Lead	U		0.0269	0.0540

Laboratory Control Sample (LCS)

(LCS) R3781104-2 04/14/22 11:07

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chromium	1.00	1.07	107	80.0-120	
Lead	1.00	1.13	113	80.0-120	

L1478394-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1478394-01 04/14/22 11:10 • (MS) R3781104-4 04/14/22 11:15 • (MSD) R3781104-5 04/14/22 11:18

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chromium	9.00	0.0288	9.26	9.21	103	102	9	75.0-125			0.615	20
Lead	9.00	U	10.1	10.1	112	112	9	75.0-125			0.317	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

C169

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HALEY ALDRICH

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

Section A	Section B	Section C	
Required Client Information:	Required Project Information:	Invoice Information:	39 Spruce Street, East Longmeadow, MA 01028
Company: Haley & Aldrich	Report To: Jason Grant JGrant@haleyaldrich.com	Attention: accountspayable@haleyaldrich.com	1700 Elm Street SE - Minneapolis, MN 55414
Address: 2033 North Main Street | Suite 309	Copy To: Mzlotoff@haleyaldrich.com, vgodard@haleyaldrich.com	Company Name:	7726 Moller Road - Indianapolis, IN 46268
Walnut Creek, CA 94596	acaveney@haleyaldrich.com	Address:	REGULATORY AGENCY
Email To: JGrant@haleyaldrich.com	BSA #: 2022-24-Pace	Pace Quote Reference:	☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
Phone: (925) 949-1012 Fax: (925) 979-1456	H&A Client Name: Duke Realty	Pace Project Manager: Brian Ford	☐ UST ☐ RCRA ☐
Requested Due Date/TAT: Standard	H&A Project #: 0204627-100-035-01	Pace Profile #:	Site Location STATE:

Pace's services under this Chain of Custody shall be performed in accordance with terms and conditions within Blanket Service Agreement #2022-24-Pace by and between Haley & Aldrich, Inc., its subsidiaries and affiliates and Pace Analytical Services, Inc.

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ITEM #	SAMPLE ID (A-Z, 0-9 / , -) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	VOCs 8260B	TPH-gasoline 8015	Total petroleum hydrocarbons 4b diesel and motor oil USEPA Method 8015B, with silica-gel cleanup	Total petroleum hydrocarbons 4b diesel and motor oil USEPA Method 8015B, without silica-gel cleanup	CCR Title 22 Metals USEPA Method 6010/7471	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	E-2-S-6	SL	G	3/25/22	1450	–	–		3										X	X	X	X	X			-01
2	E-2-S-11	SL	G	3/25/22	1455	–	–		3										X	X	X	X	X			-08 -02
3	E-4-S-3	SL	G	3/25/22	1745	–	–		3										X	X	X	X	X			-07 -03/08
4	E-4-S-13	SL	G	3/25/22	1830	–	–		3										X	X	X	X	X			-06
5	E-5-S-0	SL	G	3/25/22	1030	–	–		3										X	X	X	X	X			-04 -04/09
6	E-5-S-3	SL	G	3/25/22	1035	–	–		3										X	X	X	X	X			-05 -05/10
7	E-6-S-2	SL	G	3/25/22	1620	–	–		3										X	X	X	X	X			-06
8	E-6-S-5	SL	G	3/25/22	1625	–	–		3										X	X	X	X	X			-07
9	E-2-W	WT	G	3/25/22	1345	–	–		10										X	X	X	X	X			-02
10	E-6-W	WT	G	3/25/22	1630	–	–		10										X	X	X	X	X			-03
11	EB-1	WT	G	3/25/22	2000	–	–		10										X	X	X	X	X			-09
12	TB-1	WT	G	3/25/22	–	–	–		2										X	X						-05
13	TB-2	WT	G	3/25/22	–	–	–		2										X	X						-13

L1480096
L1476312N 4/8/22

Pace Project No./ Lab I.D.

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Akash Caveney H&A	3/28/22	1445	Adriana Timms	3/29	0900	0.1°	Y	N	Y

~~*10W-01-S=3 CNT (NOT ON LIST)~~

SAMPLER NAME AND SIGNATURE					
PRINT Name of SAMPLER: Akash Caveney					
SIGNATURE of SAMPLER:	DATE Signed (MM/DD/YY): 3/28/22	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Sample Receipt Checklist

COC Seal Present/Intact:	Y N	If Applicable	
COC Signed/Accurate:	Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	Y N	Pres.Correct/Check:	Y N
Correct bottles used:	Y N		
Sufficient volume sent:	Y N		
RAD Screen <0.5 mR/hr:	Y N		

Trc# 7912-4393-1646
CNT=36
TB=2

Temp: (DEA 0.1+0=0.1°C)

20-July-2015

L1476312 HALALDSJCA re-log

R5

Please re-log the following as R5 due 04/15.

L1476312-01 (E-2-S-6):STLC CRICP
L1476312-06 (E-2-S-11): STLC CRICP
L1476312-07 (E-4-S-3): STLC PBICP, TCLP PBICP.
L1476312-09 (E-5-S-0): STLC PBICP, TCLP PBICP.
L1476312-10 (E-5-S-3): STLC PBICP, TCLP PBICP.
L1476312-11 (E-6-S-2): STLC CRICP
L1476312-12 (E-6-S-5): STLC CRICP

Time estimate: oh **Time spent:** oh

Members

Brian Ford

APPENDIX F
Data Usability Summary Reports

Haley & Aldrich, Inc.
600 South Meyer Ave
Suite 100
Tucson, AZ 85701
520.289.8621

Data Usability Summary Report

Project Name: The Foundry

Project Description: Soil Vapor Samples

Sample Date(s): 28 March 2022

Analytical Laboratory: Eurofins Air Toxics, LLC – Folsom, CA

Validation Performed by: Vanessa Godard

Validation Reviewed by: Katherine Miller

Validation Date: 15 April 2022

Haley & Aldrich, Inc. prepared this Data Usability Summary Report (DUSR) to summarize the review and validation of the analytical results for Sample Delivery Group(s) (SDG) listed below.

1. Sample Delivery Group Number 2203785

2. Explanations

3. Glossary

4. Abbreviations

5. Qualifiers

This data validation and usability assessment was performed per the guidance and requirements established by the United States Environmental Protection Agency's (USEPA) using the following reference materials:

- National Functional Guidelines (NFG) for Organic Data Review.
- Analysis of Volatile Organic Compounds (VOCs) in Air Contained in Canisters by Method TO-15.

Data reported in this sampling event were reported to the laboratory reporting limit (RL).

Sample data were qualified in accordance with laboratory's standard operating procedures (SOP). The results presented in each laboratory report were found to be compliant with the data quality objectives for the project and therefore usable; any exceptions are noted in the following pages.

1. Sample Delivery Group Number 2203785

1.1 SAMPLE MANAGEMENT

This DUSR summarizes the review of SDG number 2203785, dated 14 April 2022. Samples were collected, preserved, and shipped following standard chain of custody (COC) protocol. Samples were also received appropriately, identified correctly, and analyzed according to the COC.

- The lab report was revised to report Total Petroleum Hydrocarbons as Gasoline from the TO-15 analysis run, per client request. A single point calibration for TPH gasoline was not performed in this analytical batch, as it was not initially requested. Results for TPH gasoline were calculated using the single point calibration analyzed on 3/29/2022 (whereas these samples were analyzed on 3/30 and 3/31). TPH gasoline was also not spiked in the associated CCV. Due to these limitations, **all TPH gasoline should be qualified estimated " J/UJ".**

Analyses were performed on the following samples:

Sample ID	Sample Type	Lab ID	Sample Date	Matrix	Methods
E-2	N	2203785A-01A	3/28/2022	Soil Vapor	A
E-4	N	2203785A-02A	3/28/2022	Soil Vapor	A & B
DUP-01	FD	2203785A-03A	3/28/2022	Soil Vapor	A

Method Holding Times			
A.	TO-15	Volatile Organic Compounds (VOCs) & TPH Gasoline	30 days
B.	D1946	Helium	30 days

1.2 HOLDING TIMES/PRESERVATION

The samples arrived at the laboratory at the proper temperature and were prepared and analyzed within the holding time and preservation criteria specified per method protocol.

1.3 REPORTING LIMITS AND SAMPLE DILUTIONS

All dilutions were reviewed and found to be justified. Any non-detects with elevated reported limits are noted and explained below. Samples collected in summa canisters are pressurized by the laboratory, resulting in a ~2x dilution.

Sample ID	Lab ID	Analyte/ Method	Dilution Factor	Issue/Explanation
E-4	2203785A-02A	TO-15	~38.8x	Dilution required to bring the concentration of target analytes within the calibration range.

1.4 SURROGATE RECOVERY COMPLIANCE

Refer to section E 1.2. The percent recovery (%R) for each surrogate compound added to each project sample were determined to be within the laboratory specified QC limits.

1.5 LABORATORY CONTROL SAMPLES

Refer to section E 1.3. Compounds associated with the laboratory control samples/laboratory control sample duplicates (LCS/LCSD) analyses exhibited recoveries and RPDs within the specified limits with the following exceptions:

- The laboratory does not report RPDs. As spike concentrations are also not provided, the RPD could not be calculated by the reviewer. Precision was estimated by comparing the recoveries of the LCS and LCSD.
- TPH gasoline was not spiked in the LCS/LCSD.

Sample Type	Method	Batch ID	Analyte	%R	Qualifier	Affected Samples
LCSD	TO-15	3/30	Chloromethane	138%	NA	None, samples ND.

1.6 BLANK SAMPLE ANALYSIS

Refer to section E 1.5. Method blank samples had no detections, indicating that no contamination from laboratory activities occurred.

1.7 DUPLICATE SAMPLE ANALYSIS

Refer to section E 1.6. The laboratory did not analyze any laboratory duplicates in this SDG as per the method or laboratory SOP.

The following sample(s) were used for field duplicate analysis. The RPD comparison for detections in either the parent or duplicate sample(s) is shown below. RPDs were all below 35 percent. Any exceptions are noted below and qualified.

Field Duplicate RPD Calculations:

Method(s): TO-15				
Analyte (µg/m3)	Primary Sample ID	Duplicate Sample ID	% RPD	Qualification
	E-2	DUP-01		
1,1-Dichloroethane	4.1 U	**4.4**	7	None, RPD < 35%
1,1-Dichloroethene	**11**	**11**	0	None, RPD < 35%
Acetone	**35**	**30**	15	None, RPD < 35%
Chloroform	**21**	**20**	5	None, RPD < 35%
Isopropyl Alcohol	**55**	**42**	27	None, RPD < 35%
All Remaining VOCs/TPHs	ND U	ND U	NA	None, Both ND

1.8 PRECISION AND ACCURACY

Refer to section E 1.7. Where required by the method, some measurement of analytical accuracy and precision was reported for each method with the site samples, with the following exceptions:

- No precision or accuracy was reported for TPH gasoline by TO-15 (see Section 1.1).

1.9 CLEAN CANISTER CERTIFICATION

The canisters used for the TO-15 sample collection were certified clean by batch can analysis prior to sampling to ensure that no target analytes were present. These analysis sheets were reviewed, and no target analytes were detected in the laboratory-provided canisters.

1.10 LEAK COMPOUND ANALYSIS CHECK

Refer to section E 1.12. All helium results were ND, indicating a leak did not occur.

1.11 INITIAL AND CONTINUING CALIBRATION VERIFICATION

Refer to section E 1.21. Percent Recoveries (%R) were within the specified limits. TPH gasoline was not spiked in the associated CCV as this request was made after the fact.

1.12 SYSTEM PERFORMANCE AND OVERALL ASSESSMENT

The results presented in this report were found to comply with the data quality objectives for the project and the guidelines specified by the analytical method. Based on the review of this report, the data are useable and acceptable as no data was rejected. A summary of qualifiers applied to this SDG are shown below.

Sample ID	Analyte	Reported Result	Validated Result	Reason for Qualifier
E-2	Total Petroleum Hydrocarbon – Gasoline	ND U	ND UJ	Not Calculated From Batch Calibration & Not Supported by Accuracy/Precision (LCS/LCSD)
E-4		820,000	820,000 J	
DUP-01		ND U	ND UJ	

2. Explanations

The following explanations include more detailed information regarding each of the sections in the DUSR above. Not all sections in the Explanations are represented:

- E 1.2 Surrogate Recovery Compliance
  - Surrogates, also known as system monitoring compounds, are compounds added to each sample prior to sample preparation to determining the efficiency of the extraction procedure by evaluating the percent recovery (%R) of the compounds.
- E 1.3 Laboratory Control Samples
  - The laboratory control sample/laboratory control sample duplicate (LCS/LCSD) analyses are used to assess the precision and accuracy of the analytical method independent of matrix interferences.
- E 1.5 Blank Sample Analysis
  - Method blanks are prepared by the analytical laboratory and analyzed concurrently with the project samples to assess possible laboratory contamination.
- E 1.6 Laboratory and Field Duplicate Sample Analysis
  - The laboratory duplicate sample analysis is used by the laboratory at the time of the analysis to demonstrate acceptable method precision. The RPD or absolute difference was evaluated for each duplicate sample pair to monitor the reproducibility of the data.
  - The field duplicate sample analysis is used to assess the precision of the field sampling procedures and analytical method. The relative percent difference (RPD) or absolute difference was evaluated for each duplicate sample pair to monitor the reproducibility of the data.
- E 1.7 Precision and Accuracy
  - Precision measures the reproducibility of repetitive measurements. In a laboratory environment, this will be measured by determining the relative percent difference (%RPD) found between a primary and a duplicate sample. This can be an LCS/LCSD pair, a MS/MSD pair, a laboratory duplicate performed on a site sample, or a field duplicate collected and analyzed concurrently with a site sample.
  - Accuracy is a statistical measurement of the correctness of a measured value and includes components of random error (variability caused by imprecision) and systematic error. In a laboratory environment, this will be measured by determining the percent recovery (%Rec) of certain spiked compounds. This can be assessed using LCS, BS, MS, and/or surrogate recoveries.
- E. 1.12 Leak Check Compound Analysis
  - Helium is commonly used as a gaseous leak check indicator compound. If a shroud is used and the helium concentration in the sample is greater than or equal to 5 percent of the helium concentration in the shroud (usually 1.5 percent) qualify detects “J” and non-detects “UJ.”

- E 1.21 Initial and Continuing Calibration Verification
  - Organic methods require an additional ICV and CCV to ensure that the instrument continues to meet the sensitivity and linearity criteria to produce acceptable qualitative and quantitative data throughout each analytical sequence. CCVs must be run at the beginning and end of every 12-hour period of operation.

3. Glossary

Not all of the following symbols, acronyms, or qualifiers occur in this document.

- Sample Types:
  - EB Equipment Blank Sample
  - FB Field Blank Sample
  - FD Field Duplicate Sample
  - N Primary Sample
  - TB Trip Blank Sample
- Units:
  - µg/kg microgram per kilogram
  - µg/L microgram per liter
  - µg/m3 microgram per cubic meter
  - mg/kg milligram per kilogram
  - mg/L milligram per liter
  - ppb v/v parts per billion volume/volume
  - pCi/L picocuries per liter
- Matrices:
  - AA Ambient Air
  - GS Soil Gas
  - GW/WG Groundwater
  - QW Water Quality
  - IA Indoor Air
  - SE Sediment
  - SO Soil
  - WQ Water Quality control matrix
- Table Footnotes:
  - NA Not applicable
  - ND Non-detect
  - NR Not reported
- Common Symbols:
  - % percent
  - < less than
  - ≤ less than or equal to
  - > greater than
  - ≥ greater than or equal to
  - = equal
  - °C degrees Celsius
  - ± plus or minus
  - ~ approximately
  - x times (multiplier)

4. Abbreviations

%D	Percent Difference
%R	Percent Recovery
%RSD	Percent Relative Standard Deviation
%v/v	Percent volume by volume
µg/L	micrograms per liter
2s	2 sigma
4,4-DDT	4 4-dichlorodiphenyltrichloroethane
Abs Diff	Absolute Difference
BPJ	Best Professional Judgement
BS	Blank Spike
CCB	Continuing Calibration Blank
CCV	Continuing Calibration Verification
CCVL	Continuing Calibration Verification Low
COC	Chain of Custody
COM	Combined Isotope Calculation
Cr (VI)	Hexavalent Chromium
CRI	Collision Reaction Interface
DoD	Department of Defense
DUSR	Data Usability Summary Report
EMPC	Estimated Maximum Possible Concentration
FBK	Field Blank Contamination
FDP	Field Duplicate
GC	Gas Chromatograph
GC/MS	Gas Chromatography/Mass Spectrometry
GPC	Gel Permeation Chromatography
H2	Hydrogen gas
HCl	Hydrochloric Acid
ICAL	Initial Calibration
ICB	Initial Calibration Blank
ICP/MS	Inductively Coupled Plasma/ Mass Spectrometry
ICV	Initial Calibration Verification
ICVL	Initial Calibration Verification Low
IPA	Isopropyl Alcohol
LC	Laboratory Control
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MBK	Method Blank Contamination
MDC	Minimum Detectable Concentration
MDL	Laboratory Method Detection Limit
Mg/kg	milligrams per kilogram
MS/MSD	Matrix Spike/Matrix Spike Duplicate
NA	not applicable
ND	Non-Detect
NFG	National Functional Guidelines
NH_3	Ammonia
NYSDEC	New York State Department of Environmental Conservation
PAH	polyaromatic hydrocarbons
PCB	Polychlorinated Biphenyl
PDS	Post Digestion Spike
PEM	Performance Evaluation Mixture
PFAS	Per- and Polyfluoroalkyl Substances
PFBA	Perfluorbutanoic Acid
PFD	Perfluorodecalin
PFOA	Perfluorooctanoic Acid
PFOS	Perfluorooctanoic Acid
PFPeA	nonafluorovaleric acid
QAPP	Quality Assurance Project Plan
QC	Quality Control
QSM	Quality Systems Manual
R^2	R-squared value
Ra-226	Radium-226
Ra-228	Radium-228
RESC	Resolution Check Measure
RL	Laboratory Reporting Limit
RPD	Relative Percent Difference
RRF	Relative Response Factors
RT	Retention Time
SAP	sampling analysis plan
SDG	Sample Delivery Group
SIM	Selected ion monitoring
SOP	Laboratory Standard Operating Procedures
SPE	Solid Phase Extraction
SVOC	Semi-Volatile Organic Compounds
TIC	Tentatively Identified Compound
TKN	Total Kjeldahl Nitrogen
TPH	Total Petroleum Hydrocarbon
TPU	Total Propagated Uncertainty
u	atomic mass unit
USEPA	U.S. Environmental Protection Agency
VOC	Volatile Organic Compounds
WP	Work Plan

5. Qualifiers

The qualifiers below are from the USEPA National Functional Guidelines and the data in the DUSR may contain these qualifiers:

- Concentration (C) Qualifiers:

  U The compound was analyzed for but not detected. The associated value is either the compound quantitation limit if not detected by the analytical instrument or could be the reported or blank concentration if qualified by blank contamination. This can also be displayed as less than the associated compound quantitation limit (<RL or <MDL), or "ND".

  B The compound was found in the sample and its associated blank. Its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers:

  E The compound was quantitated above the calibration range.

  D The concentration is based on a diluted sample analysis.

- Validation Qualifiers:

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  J+ The result is an estimated quantity, but the result may be biased high.

  J- The result is an estimated quantity, but the result may be biased low.

  J/UJ as listed in exception tables J applies to detected data and UJ applies to nondettected data as reported by the laboratory.

  UJ The compound was not detected above the reported sample quantitation limit; however, the reported limit is estimated and may or may not represent the actual limit of quantitation.

  NJ The analysis indicated the presence of a compound for which there is presumptive evidence to make a tentative identification; the associated numerical value is an estimated concentration only.

  R The sample results were rejected as unusable; the compound may or may not be present in the sample.

  S Result is suspect. See DUSR for details.

References

1. United States Environmental Protection Agency, 2014a. Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15, SOP NO. HW-31, Revision 6. June.
2. United States Environmental Protection Agency, 2020b. National Functional Guidelines for Organic Superfund Methods Data Review. EPA-540-R-20-005. November.

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Data Usability Summary Report

Project Name: The Foundry – Duke Realty

Project Description: Soil & Groundwater Samples

Sample Date(s): 25 March 2022

Analytical Laboratory: Pace Analytical National – Mt. Juliet, TN

Validation Performed by: Vanessa Godard

Validation Reviewed by: Katherine Miller

Validation Date: 6 April 2022

Haley & Aldrich, Inc. prepared this Data Usability Summary Report (DUSR) to summarize the review and validation of the analytical results for Sample Delivery Group(s) (SDG) listed below.

1. Sample Delivery Group Number L1476312

2. Explanations

3. Glossary

4. Abbreviations

5. Qualifiers

This data validation and usability assessment was performed per the guidance and requirements established by the United States Environmental Protection Agency's (USEPA) using the following reference materials:

- National Functional Guidelines (NFG) for Inorganic Data Review.
- National Functional Guidelines (NFG) for Organic Data Review.

Data reported in this sampling event were reported to the laboratory method detection limit (MDL). Results found between the MDL and RL are flagged J as estimated.

Sample data were qualified in accordance with laboratory's standard operating procedures (SOP). The results presented in each laboratory report were found to be compliant with the data quality objectives for the project and therefore usable; any exceptions are noted in the following pages.

1. Sample Delivery Group Number L1476312

1.1 SAMPLE MANAGEMENT

This DUSR summarizes the review of SDG number L1476312, dated 6 April 2022. Samples were collected, preserved, and shipped following standard chain of custody (COC) protocol. Samples were also received appropriately, identified correctly, and analyzed according to the COC. Issues noted with sample management are listed below:

- Custody seals were not used when samples were dropped off at the laboratory or service center by the field staff, submitted to a laboratory-provided courier, or when transported between subcontracted laboratories.

Analyses were performed on the following samples:

Sample ID	Sample Type	Lab ID	Sample Date	Matrix	Methods
E-2-S-6	N	L1476312-01	3/25/2022	Soil	A, B, F, G, I, K
E-2-W	N	L1476312-02	3/25/2022	Groundwater	C, D, E, H, J, L
E-6-W	N	L1476312-03	3/25/2022	Groundwater	C, D, E, H, J, L
EB-1	EB	L1476312-04	3/25/2022	Blank	C, D, E, H, J, L
TB-1	TB	L1476312-05	3/25/2022	Blank	H*, L
E-2-S-11	N	L1476312-06	3/25/2022	Soil	A, B, F, G, I, K
E-4-S-3	N	L1476312-07	3/25/2022	Soil	A, B, F, G, I, K
E-4-S-13	N	L1476312-08	3/25/2022	Soil	A, B, F, G, I, K
E-5-S-0	N	L1476312-09	3/25/2022	Soil	A, B, F, G, I, K
E-5-S-3	N	L1476312-10	3/25/2022	Soil	A, B, F ,G, I, K
E-6-S-2	N	L1476312-11	3/25/2022	Soil	A, B, F ,G, I, K
E-6-S-5	N	L1476312-12	3/25/2022	Soil	A, B, F, G, I, K
TB-2	TB	L1476312-13	3/25/2022	Blank	H*, L

* Only Total Petroleum Hydrocarbons (C5-C12) reported.

Method Holding Times			
A.	EPA 2540G	Total Solids	10 days
B.	EPA 6010B	Total Metals (Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Mo, Ni, Se, Ag, Tl, V, Zn)	180 days
C.	EPA 6010B	Total Metals (Ba, Be, Cr, Co, Mo, V)	180 days
D.	EPA 6020	Total Metals (Sb, As, Cd, Cu, Pb, Ni, Se, Ag, Tl, Zn)	180 days
E.	EPA 7470A	Total Mercury	(Water) 28 days
F.	EPA 7471A		(Soil) 28 days
G.	EPA 8015	Total Petroleum Hydrocarbons (TPHs): (C5-C12), (C12-C22), (C22-C32), (C32-C40)	(Soil) 14 day ext., 40 days analysis
H.			(Water) 7* day ext., 40 days analysis
I.	EPA 8015 Silica Gel	Total Petroleum Hydrocarbons (TPHs): (C12-C22), (C22-C32), (C32-C40)	(Soil) 14 day ext., 40 days analysis
J.			(Water) 7* day ext., 40 days analysis
K.	EPA 8260B	Volatile Organic Compounds (VOCs) (Soil)	14 days (Methanol Terracore)
L.		Volatile Organic Compounds (VOCs) (Water)	7 days unpreserved; 14 days preserved

* The lab SOP provides an extraction hold time of 14 days instead of 7 days. The lab SOP was followed for this data.

1.2 CASE NARRATIVE

The laboratory report case narrative lists various additional quality control issues such as internal standard exceedances and initial calibration verification (ICV) and/or continuing calibration verification (CCV) exceedances. Since these additional quality control issues were not required for the project's data quality objectives, these quality control issues were not reviewed.

- The pH was outside method requirement for samples L1476312-02 and -03 for EPA 8015 (with and without silica gel cleanup). **The results from these analyses should be estimated "J/UJ".**
- TPHs by EPA 8015 were reported from the non-silica gel analysis run for sample L1476312-04, due to all ND results.

1.3 HOLDING TIMES/PRESERVATION

The samples arrived at the laboratory at the proper temperature and were prepared and analyzed within the holding time and preservation criteria specified per method protocol.

Cooler(s) temperature on arrival to the laboratory was: 0.1 degrees Celsius.

1.4 REPORTING LIMITS AND SAMPLE DILUTIONS

All dilutions were reviewed and found to be justified. Any non-detects with elevated reported limits are noted and explained below.

Sample ID	Lab ID	Analyte/Method	Dilution Factor	Issue/Explanation
E-6-S-2	L1476312-11	TPH (C5-C12)	26x	Dilution required to bring the concentration of target analytes within the calibration range or based on matrix interferences.
E-2-S-6	L1476312-01		25x	
E-2-S-11	L1476312-06		25x	
E-4-S-3	L1476312-07	VOCs	8.64x	
E-2-W	L1476312-02	Various Metals	4.5x	
E-6-W	L1476312-03		4.5x	
EB-1	L1476312-04		4.5x	

1.5 REPORTING BASIS (WET/DRY)

Refer to section E 1.1. Soil data in this SDG were reported on a dry weight basis. Where reported, percent solid results were reviewed and found to be within limits.

1.6 SURROGATE RECOVERY COMPLIANCE

Refer to section E 1.2. The percent recovery (%R) for each surrogate compound added to each project sample were determined to be within the laboratory specified QC limits, with the following exceptions:

Method	Sample ID	Lab ID	Surrogate	Dilution	%R	Qualification
EPA 8015	E-4-S-3	L1476312-07	o-Terphenyl	5x	0%	**Qualify "J-"**
				25x	0%	None, dilution >5x
EPA 8015 SGT				20x	0%	None, dilution >5x

1.7 LABORATORY CONTROL SAMPLES

Refer to section E 1.3. Compounds associated with the laboratory control samples/laboratory control sample duplicates (LCS/LCSD) analyses exhibited recoveries and RPDs within the specified limits with the following exceptions:

Sample Type	Method	Batch ID	Analyte	%R	Qualifier	Affected Samples
LCS/LCSD	EPA 8260B	1841561	Acrolein	358%/325%	NA	None, sample ND.
LCSD		1842435	Acetone	169%, RPD=40.0	**J**	**L1476312-03**
LCSD			Acrolein	RPD=66.1	NA	None, samples ND.
LCSD			Acrylonitrile	RPD=24.1	NA	None, samples ND.

1.8 MATRIX SPIKE SAMPLES

Refer to section E 1.4. The sample(s) below were used for matrix spike/matrix spike duplicate (MS/MSD):

Lab Sample Number	Matrix Spike/Matrix Spike Duplicate Sample Client ID	Method(s)
L1476312-01	E-2-S-6	TPHG (C5-C12)
L1476312-06	E-2-S-11	TPHG (C5-C12), TPH (C12-C22) & (C22-C32) – with and without SGT

The MS/MSD recoveries and the RPD between the MS and MSD results were within the specified limits.

1.9 BLANK SAMPLE ANALYSIS

Refer to section E 1.5. Method blank samples had no detections, indicating that no contamination from laboratory activities occurred with the following exceptions:

Blank Type	Batch ID	Analyte Detected in Blank	Concentration	Qualifier	Affected Samples
Method Blank	WG1840325	Thallium (6020)	0.121 J ug/L	NA	None, samples ND.
	WG1840999	TPHG (C5-C12)	1.20 J mg/kg	NA	None, samples ND.
	WG1841046	TPHG (C5-C12)	56.9 J ug/L	**RL U**	**L1476312-03, 04, 05**
				J+	**L1476312-02**
	WG1841561	n-Butylbenzene	0.415 J ug/L	NA	None, sample ND.
		sec-Butylbenzene	0.171 J ug/L	NA	None, sample ND.
		1,2,3-Trichlorobenzene	0.496 J ug/L	NA	None, sample ND.

The analysis of the blank samples for field quality control was free of target compounds, with the following exceptions:

Blank Type	Date of Blank	Analyte Detected in Blank	Concentration (µg/L)	Qualifier	Affected Samples
Equipment Blank	3/25/2022	Total Petroleum Hydrocarbons (C5-C12)	55.0 J	NA	None, qualified ND by MB.
Trip Blank	3/25/2022		92.2 J	NA	

1.10 DUPLICATE SAMPLE ANALYSIS

Refer to section E 1.6. No client samples were used for laboratory duplicate analysis in this SDG. No field duplicates were collected in this data set.

1.11 PRECISION AND ACCURACY

Refer to section E 1.7. Where required by the method, some measurement of analytical accuracy and precision was reported for each method with the site samples, except for batch QC which was acceptable, with the following exceptions:

- Precision was not reported for any method in this SDG, other than batch qc which was acceptable, except for the following methods: EPA 8260B and some EPA 8015 batches.

1.12 SYSTEM PERFORMANCE AND OVERALL ASSESSMENT

The results presented in this report were found to comply with the data quality objectives for the project and the guidelines specified by the analytical method. Based on the review of this report, the data are useable and acceptable as no data was rejected. A summary of qualifiers applied to this SDG are shown below.

Sample ID	Analyte	Reported Result	Validated Result	Reason for Qualifier
E-2-W	Total Petroleum Hydrocarbons by EPA 8015	Detect/ ND U	Detect J/ ND UJ	pH Outside Method Requirement
E-6-W		Detect/ ND U	Detect J/ ND UJ	
E-4-S-3	Total Petroleum Hydrocarbons (C12-C22)	482	482 J-	Low Surrogate Recovery
E-6-W	Acetone	25.2	25.2 J	High Laboratory Control Sample Recovery & RPD
E-2-W	Total Petroleum Hydrocarbons (C5-C12)	146	146 J+	Method Blank Contamination
E-6-W		79.9	100 U	
EB-1		55.0	100 U	
TB-1		92.2	100 U	

2. Explanations

The following explanations include more detailed information regarding each of the sections in the DUSR above. Not all sections in the Explanations are represented:

- E 1.1 Reporting Basis (Wet/Dry)
  - Soil samples can be reported on either a wet (as received) or dry weight basis. Dry weight data indicate calculations were made to compensate for the moisture content of the soil sample.
  - Percent (%) solids should be appropriately considered when evaluating analytical results for non-aqueous samples. Sediments with high moisture content may or may not be successfully analyzed by routine analytical methods. Samples should have greater than or equal to 30 percent solids to be appropriately quantified.
- E 1.2 Surrogate Recovery Compliance
  - Surrogates, also known as system monitoring compounds, are compounds added to each sample prior to sample preparation to determining the efficiency of the extraction procedure by evaluating the percent recovery (%R) of the compounds.
- E 1.3 Laboratory Control Samples
  - The laboratory control sample/laboratory control sample duplicate (LCS/LCSD) analyses are used to assess the precision and accuracy of the analytical method independent of matrix interferences.
- E 1.4 Matrix Spike Samples
  - Matrix spike/matrix spike duplicate (MS/MSD) data are used to assess the precision and accuracy of the analytical method and evaluate the effects of the sample matrix on the sample preparation procedures and measurement methodologies.
  - For inorganic methods, when a matrix spike recovery falls outside of the control limits and the sample result is less than four times the spike added, a post digestion spike (PDS) is performed.
- E 1.5 Blank Sample Analysis
  - Method blanks are prepared by the analytical laboratory and analyzed concurrently with the project samples to assess possible laboratory contamination.
  - Field blanks are prepared to identify contamination that may have been introduced during field activity. Equipment blanks are prepared to identify contamination that may have been introduced while decontaminating sampling equipment. Trip blanks are prepared when volatile analysis is requested to identify contamination that may have been introduced during transport.
- E 1.6 Laboratory and Field Duplicate Sample Analysis
  - The laboratory duplicate sample analysis is used by the laboratory at the time of the analysis to demonstrate acceptable method precision. The RPD or absolute difference was evaluated for each duplicate sample pair to monitor the reproducibility of the data.
  - The field duplicate sample analysis is used to assess the precision of the field sampling procedures and analytical method. The relative percent difference (RPD) or absolute difference was evaluated for each duplicate sample pair to monitor the reproducibility of the data.

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  - Precision measures the reproducibility of repetitive measurements. In a laboratory environment, this will be measured by determining the relative percent difference (%RPD) found between a primary and a duplicate sample. This can be an LCS/LCSD pair, a MS/MSD pair, a laboratory duplicate performed on a site sample, or a field duplicate collected and analyzed concurrently with a site sample.
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  - pCi/L picocuries per liter
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  - > greater than
  - ≥ greater than or equal to
  - = equal
  - °C degrees Celsius
  - ± plus or minus
  - ~ approximately
  - x times (multiplier)

4. Abbreviations

%D	Percent Difference
%R	Percent Recovery
%RSD	Percent Relative Standard Deviation
%v/v	Percent volume by volume
µg/L	micrograms per liter
2s	2 sigma
4,4-DDT	4 4-dichlorodiphenyltrichloroethane
Abs Diff	Absolute Difference
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PFD	Perfluorodecalin
PFOA	Perfluorooctanoic Acid
PFOS	Perfluorooctanoic Acid
PFPeA	nonafluorovaleric acid
QAPP	Quality Assurance Project Plan
QC	Quality Control
QSM	Quality Systems Manual
R^2	R-squared value
Ra-226	Radium-226
Ra-228	Radium-228
RESC	Resolution Check Measure
RL	Laboratory Reporting Limit
RPD	Relative Percent Difference
RRF	Relative Response Factors
RT	Retention Time
SAP	sampling analysis plan
SDG	Sample Delivery Group
SIM	Selected ion monitoring
SOP	Laboratory Standard Operating Procedures
SPE	Solid Phase Extraction
SVOC	Semi-Volatile Organic Compounds
TIC	Tentatively Identified Compound
TKN	Total Kjeldahl Nitrogen
TPH	Total Petroleum Hydrocarbon
TPU	Total Propagated Uncertainty
u	atomic mass unit
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  B The compound was found in the sample and its associated blank. Its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers:

  E The compound was quantitated above the calibration range.

  D The concentration is based on a diluted sample analysis.

- Validation Qualifiers:

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

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  UJ The compound was not detected above the reported sample quantitation limit; however, the reported limit is estimated and may or may not represent the actual limit of quantitation.

  NJ The analysis indicated the presence of a compound for which there is presumptive evidence to make a tentative identification; the associated numerical value is an estimated concentration only.

  R The sample results were rejected as unusable; the compound may or may not be present in the sample.

  S Result is suspect. See DUSR for details.

References

1. United States Environmental Protection Agency, 2020a. National Functional Guidelines for Inorganic Superfund Methods Data Review. EPA-542-R-20-006. November.
2. United States Environmental Protection Agency, 2020b. National Functional Guidelines for Organic Superfund Methods Data Review. EPA-540-R-20-005. November.