ENVIRONMENTAL SERVICES REPORT
(INCLUDING PHASE II ENVIRONMENTAL SITE ASSESSMENT)

Former H.G. LaVelle Solid Waste Landfill
2800 NE 82nd Avenue
Portland, Oregon, 97220

For
Bird Alliance of Oregon Inc.
Bird Alliance of Oregon Nature and Wildlife Care Center, LLC

April 26, 2024

Project: SOJ-7-03

NV5

April 26, 2024

Bird Alliance of Oregon Inc.
Bird Alliance of Oregon Nature and Wildlife Care Center, LLC.
5151 NW Cornell Road
Portland, OR 97210

Attention: Stuart Wells

Environmental Services Report
2800 NE 82nd Avenue
Portland, Oregon
Project: SOJ-7-03

NV5 is pleased to submit this report summarizing the results of our environmental services, including a Phase II ESA, a soil cap and landfill gas extraction system assessment, and a Beneficial Water Use Determination for the property located at 2800 NE 82nd Avenue in Portland, Oregon. Our services were provided in accordance with our proposal dated October 12, 2023.

We appreciate the opportunity to be of service to the Bird Alliance of Oregon Inc. and Bird Alliance of Oregon Nature and Wildlife Care Center, LLC on this project. Please contact us if you have questions regarding this report.

Sincerely,

NV5

Kyle R. Sattler, L.G. (Washington)
Principal Geologist

cc: Ryan Lewis, Oregon Department of Environmental Quality
Jeanette Schuster, Tonkin Torp LLP
Amy Copeland, Shiels|Obletz|Johnsen

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Attachments
One copy submitted
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ACRONYMS AND ABBREVIATIONS

ASTM	American Society for Testing and Materials
BGS	below ground surface
BS	blank spike
BSD	blank spike duplicate
°C	degrees Celsius
CFSL	clean fill screening level
Closure Permit	Solid Waste Disposal Site Closure Permit
DDD	dichlorodiphenyldichloroethane
DDE	dichlorodiphenyldichloroethylene
DDT	dichlorodiphenyltrichloroethane
DEQ	Oregon Department of Environmental Quality
EPA	U.S. Environmental Protection Agency
ESA	environmental site assessment
eV	electronvolt
°F	degrees Fahrenheit
fpm	feet per minute
GPR	ground-penetrating radar
HPAH	heavy polycyclic aromatic hydrocarbon
I.D.	identification
inHg	inches of mercury
iow	inches of water
Landfill	H.G. LaVelle Landfill
LEL	lower explosive limit
LGES	landfill gas extraction system
LPAH	light polycyclic aromatic hydrocarbon
mbars	millibars
MCPP	2-(2-methyl-4-chlorophenoxy) propionic acid
MEK	methyl ethyl ketone
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MS	matrix spike
MSD	matrix spike duplicate
MTBE	methyl tertiary-butyl ether
ND	not detected
NE	not established
NITI	no inhalation toxicity information
NM	not measured
not detected	compound not detected at a concentration equal to or greater than the laboratory method reporting limit or reporting detection limit
OWRD	Oregon Water Resources Department
Pace	Pace Analytical
PAH	polycyclic aromatic hydrocarbon
pbv	percent by volume
PCB	polychlorinated biphenyl

PCE	tetrachloroethene
PFA	perfluoroalkoxy
PID	photoionization detector
PLM	polarized light microscopy
PPA	Prospective Purchaser Agreement
ppm	parts per million
PRT	Post Run Tubing
QA	quality assurance
QC	quality control
RBC	risk-based concentration
RBDM	*Risk-Based Decision Making for the Remediation of Petroleum Contaminated Sites*
RCRA	Resource Conservation and Recovery Act
REC	recognized environmental condition
RPD	relative percent difference
SIM	selective ion monitoring
SSWMP	Soil and Solid Waste Management Plan
SVOC	semi-volatile organic compound
TCE	trichloroethene
TCLP	toxicity characteristic leaching procedure
T&E	Threatened and Endangered
TEM	transmission electron microscopy
TMB	trimethylbenzene
µg/m^3	micrograms per cubic meter
UST	underground storage tank
VOC	volatile organic compound
WAC	Washington Administrative Code

1.0 INTRODUCTION

This report summarizes the results of a Phase II ESA, a soil cap and LGES assessment, and a Beneficial Water Use Determination for the property located at 2800 NE 82nd Avenue in Portland, Oregon (subject property). The 12.49-acre property consists of Tax Lot 400 of Multnomah County Tax Map 1N2E28BC. The subject property is currently occupied by a vacant structure that was historically used as a warehouse/office space and most recently as a golf pro shop. Numerous covered tee boxes and two manmade ponds are also present on the subject property. In addition, numerous methane monitoring probes, extraction wells, and passive vents associated with the active LGES are present along the south and west portions of the subject property. The LGES has been used at the subject property to prevent subsurface migration of methane off site at concentrations greater than the LEL for methane, which is 5 pbv.

The subject property is shown relative to surrounding physical features on Figure 1. A site plan of the subject property is shown on Figure 2. Acronyms and abbreviations used herein are defined above, immediately following the Table of Contents.

2.0 PURPOSE

Bird Alliance of Oregon Inc. and Bird Alliance of Oregon Nature and Wildlife Care Center, LLC (collectively, "Bird Alliance"; formerly the Audubon Society of Portland, Oregon, and the Portland Audubon Wildlife Care Center LLC) are conducting environmental due diligence in connection with a potential purchase of the subject property. Bird Alliance seeks to develop the subject property into a nature and wildlife care center. The proposed development includes construction of an approximately 5,000-square-foot wildlife care center and up to 34 unconditioned animal enclosures that will total approximately 19,000 square feet. Creation of a vegetative buffer along the west boundary of the subject property and improvements to the existing soil cap and other areas of the subject property are also anticipated during construction. Subject property redevelopment is anticipated to occur in five phases (tentatively June 2025, December 2025, June 2026, October 2026, and February 2027). A site plan showing a preliminary layout of the proposed development at the subject property is shown on Figure 3. The final layout of the proposed development has not yet been determined.

3.0 BACKGROUND

Our review of historical sources from 1897 through the present indicates that the subject property appeared to be vacant land by 1897 and was occupied by a gravel quarry operated by Rose City Sand & Gravel Co. with associated structures and access roads from at least 1936 through 1972. In 1957, a structure was constructed on the west portion of the subject property. Between 1972 and 1982, the former gravel quarry, which was present both on and adjacent to the subject property, functioned as the H.G. LaVelle Solid Waste Landfill and was backfilled with soil and construction and demolition debris. The debris included inert material such as brick, metal, and concrete; appliances; and organic material, including vegetation and wood. In addition, a limited amount of household waste was disposed of at the Landfill, contrary to DEQ permit requirements. By 1975, the structures associated with the former Landfill operations at the subject property had been removed except for the structure constructed in 1957. In 1979, a

LGES was installed at the subject property to mitigate methane, carbon dioxide, and other landfill gases typically generated in landfills through the decomposition of organic wastes. In 1982, the Landfill ceased operation and was capped with fill. By 1990, a golf driving range was constructed on the subject property. By 2005, the golf driving range was no longer operating, but the structures associated with the driving range (including covered tee boxes and the structure constructed in 1957) remained on the subject property. In 2009, the LGES was expanded, including four new extraction wells along the south subject property boundary. The subject property is currently owned by Skidmore LP.

NV5 prepared and submitted to the Audubon Society of Portland, Oregon, and Portland Audubon Wildlife Care Center LLC (now known as Bird Alliance of Oregon) a Phase I ESA report for the subject property dated October 11, 2023. The Phase I ESA revealed the following four RECs in connection with the subject property:

1. The former landfill use of the subject property has resulted in subsurface methanogenesis, which is managed through engineering controls, including an LGES and a soil cap. This LGES has not been fully operated and maintained, nor has landfill gas sampling been conducted, to the standards required by a landfill closure permit issued by DEQ. The subject property's former landfill use represents a REC at the subject property. Soil gas conditions within the interior of the subject property and along the north and east boundaries of the subject property (the interior of the southwest portion of the Landfill) were largely unknown.
2. Elevated concentrations of PAHs were detected in soil samples collected from fill material on the east-adjoining Dharma Rain site. It is likely that the portions of the Landfill encompassing the subject property and the Dharma Rain site were capped using materials from the same source during the same time frame; therefore, the potential for similar concentrations of PAHs, or other petroleum-related contaminants, in the fill material at the subject property was identified as a REC at the subject property.
3. The Landfill reportedly contains approximately 2 million cubic yards of solid waste, including construction and demolition debris, that were used to backfill the former quarry from 1972 through 1982, and the potential for some of the debris to contain asbestos was identified as a REC at the subject property, particularly if materials are excavated.
4. Several USTs were decommissioned by removal from the adjoining former Henningsen Cold Storage property (currently occupied by Great Floors) west of the north approximately one-third of the west subject property boundary and north of the westernmost portion of the north subject property boundary. It is possible that a former UST south of the current Great Floors structure may have been within the current subject property boundaries. Although there is no documentation of a reported release associated with the decommissioned USTs, confirmation soil sampling data were not readily available for NV5's review, and it is possible that residual contamination associated with releases from the former USTs is present at the subject property. The lack of documentation confirming the absence of residual contamination at concentrations exceeding current regulatory screening levels was considered a REC in connection with the subject property.

In addition to the above RECs, the following environmental concerns were identified during the Phase I ESA:

1. Groundwater conditions have not been evaluated at the Landfill since March 2001. Groundwater results from samples collected from two down-gradient monitoring wells (GWMW-1 and GWMW-2) north of the subject property on the adjoining Dharma Rain site and Asian American Plaza site did not indicate the presence of VOCs or, except for Bis(2-ethylhexyl) phthalate, SVOCs (including PAHs). Several total metals were detected at concentrations greater than the current DEQ *Ingestion & Inhalation from Tapwater* RBCs. The groundwater results of leachate parameters were not indicative of leachate impact to groundwater. The depths to groundwater measured in monitoring wells GWMW-1 and GWMW-2 in March 2001 were approximately 191 and 202 feet BGS, respectively. Current groundwater conditions are unknown. Monitoring well GWMW-2 has been decommissioned and is no longer present. Monitoring well GWMW-1 is not currently visible; it is unknown if monitoring well GWMW-1 still exists.
2. Due to a lack of static pressure data from the methane monitoring probes, a lack of methane and vacuum pressure data from the extraction wells, and a lack of operations and maintenance data for the blower, the condition and efficacy of the LGES was largely unknown.
3. The former golf pro shop structure was formerly connected to a cesspool that was installed in 1957 and abandoned in 1989. Due to the historical use of the structure as a warehouse/office space, then as the golf pro shop, it is unlikely that the cesspool provided a pathway for hazardous substances to the subsurface.

Based on the findings of the Phase I ESA, NV5 recommended conducting a Phase II ESA that included the following tasks:

Task 1: Characterize the conditions of the surficial cap material (from 0 to 3 feet BGS) and the subsurface conditions of the cap material or solid waste (greater than 3 feet BGS) at the subject property.

Task 2: Characterize the subsurface soil conditions in the vicinity of the on-site abandoned cesspool and former UST potentially on the subject property.

Task 3: Characterize the soil gas conditions at the subject property (including the magnitude and extent of landfill gas [methane and carbon dioxide] concentrations).

Task 4: Further characterize the groundwater conditions downgradient (relative to the direction of groundwater flow) of the subject property, if feasible, and characterize seep water along with the south slope of the subject property if seeps are present.

In addition, NV5 recommended conducting an LGES and soil cap assessment that included the following tasks:

Task 5: Assess the condition of the soil cap, including visual observations of the existing slopes and the cap's thickness to be protective of human health via potential soil ingestion, dermal contact, and inhalation.

Task 6: Assess the operating condition and efficacy of the LGES, including visual observation of the conditions of the blower, extraction wells, monitoring probes, and passive vents on and adjacent to the subject property (before and after system re-start) and collection of pressure data and landfill gas concentration readings using hand-held equipment.

NV5 also recommended preparing a Beneficial Water Use Determination to identify the current and reasonably likely beneficial uses of water at and in the vicinity of the subject property. The findings of the Beneficial Water Use Determination are presented in Section 6.0.

The scope of services for Tasks 1 through 4 (Phase II ESA) are presented in Section 4.0. The scope of services for Tasks 5 (soil cap assessment) and 6 (LGES assessment) are presented in Sections 9.0 and 10.0, respectively.

4.0 PHASE II ENVIRONMENTAL SITE ASSESSMENT

4.1 TASK 1

The objective of Task 1 was to characterize the conditions of the surficial cap material (from 0 to 3 feet BGS) and the subsurface conditions of the cap material or solid waste (deeper than 3 feet BGS) at the subject property. The specific scope of services that was conducted to meet this objective is presented as follows:

- Contacted Oregon's one-call Utility Notification Center to mark the location of public utilities beneath the subject property.
- Subcontracted Pacific Geophysics to clear an approximately 10-foot radius around each proposed boring location of potential utility conflicts.
- Subcontracted Cascade Environmental of Clackamas, Oregon, to advance 14 direct-push soil borings for environmental sampling at the subject property as follows:
  - Advanced 12 direct-push borings to depths of 5 feet BGS throughout the subject property (DP-5 through DP-16) to characterize the surface soil (cap material) and shallow subsurface solid waste (if encountered).
  - Advanced one direct-push boring to a depth of 20 feet BGS at the location of the future proposed 5,000-square-foot building (the wildlife care center) footprint on the west portion of the subject property (DP-3) and one direct-push boring to a depth of 19 feet BGS at the location of the future proposed large aviaries on the south portion of the subject property (DP-4) to characterize deeper solid waste conditions (assuming future foundational elements may disturb solid waste conditions to these depths).
- Collected continuous soil samples from each boring. Field screened soil samples collected from each boring using visual and olfactory indicators, water sheen testing, and headspace vapor concentration measurements using a hand-held PID with a 10.6-eV lamp. Field screened boreholes for headspace hydrogen sulfide concentration measurements using a Landtec GEM 2000+ landfill gas analyzer.

- Up to two discrete soil samples were collected from each 5-foot boring, including at least one discrete soil sample representative of the cap material and one discrete soil sample representative of the solid waste (if encountered). These samples were submitted to Pace Analytical (Pace) of Mount Juliet, Tennessee, where they were thoroughly homogenized to generate two composite samples, one representative of the cap material (COMP-1) and one representative of the solid waste (COMP-2).
- Submitted composite samples COMP-1 and COMP-2 for analysis of the following: gasoline-range hydrocarbons by Method NWTPH-Gx, diesel- and oil-range hydrocarbons by Method NWTPH-Dx, VOCs by EPA Method 8260B, PAHs by EPA Method 8270E-SIM, PCBs by EPA Method 8082A, RCRA 8 total metals by EPA Methods 6020/7471A, organochlorine pesticides by EPA Method 8081B, chlorinated herbicides by EPA Method 8151, and asbestos by ASTM Method D752-16 PLM/TEM. .
- Submitted each discrete soil sample used to generate composite sample COMP-1, [including DP-6(2-2.5), DP-9(0-2), DP-14(0-2), DP-15(0-1.5), and DP-16(0-2)] for the contaminants detected in composite sample COMP-1 (RCRA 8 total metals by EPA Methods 6020/7471A and/or TCLP by EPA Method 6010D).
- Submitted each discrete soil sample used to generate composite sample COMP-2 [including DP-5(2-2.5), DP-7(3-4), DP-8(2-3.5), DP-10(3-4), DP-11(2-3), DP-12(3-4.5), and DP-13(2.5-3.5)] for the contaminants detected in composite sample COMP-2 (gasoline-range hydrocarbons by Method NWTPH-Gx, arsenic, lead, and mercury by EPA Methods 6020/7471A and/or TCLP lead by EPA Method 6010D).
- Submitted two vertical composite soil samples from the 20-foot-deep boring, including one sample representative of shallow solid waste [DP-3(1-2.3)] and one sample representative of deeper solid waste DP-3(12-13)] and from the 19-foot-deep boring, including one sample representative of cap material [DP-4(0-1)] and one sample representative of intermediate solid waste [DP-4(5-7)] for analysis of the following: gasoline-range hydrocarbons by Method NWTPH-Gx, diesel- and oil-range hydrocarbons by Method NWTPH-Dx, VOCs by EPA Method 8260B, PAHs by EPA Method 8270E-SIM, PCBs by EPA Method 8082A, RCRA 8 total metals by EPA Methods 6020/7471A, organochlorine pesticides by EPA Method 8081B, chlorinated herbicides by EPA Method 8151, and asbestos by ASTM Method D752-16 PLM/TEM.
- Soil samples analyzed for gasoline-range hydrocarbons and VOCs were collected in a laboratory-provided terracore vial preserved with methanol. Soil samples analyzed for other contaminants were collected in glass jars with no preservatives. All containers used for collecting soil samples were new and provided by Pace.

4.2 TASK 2

The objective of Task 2 was to characterize the subsurface soil conditions in the vicinity of the abandoned cesspool and former UST. The specific scope of services that was conducted to meet this objective for this task is presented as follows:

- Subcontracted the same geophysical survey company used in Task 1 to locate the cesspool and former UST in the vicinity of the former golf pro shop structure.
- Subcontracted the same drilling subcontractor used in Task 1 to advance two direct-push soil borings at the subject property as follows:

    - Advanced one direct-push boring to a depth of 15 feet BGS in the vicinity of the abandoned cesspool (DP-1) to characterize soil conditions near this historical feature.
    - Advanced one direct-push boring to a depth of 15 feet BGS in the former UST excavation (DP-2) to evaluate if a release had occurred and to characterize the soil conditions.
- Collected continuous soil samples from each boring. Field screened soil samples collected from each boring using visual and olfactory indicators, water sheen testing, and headspace vapor concentration measurements using a hand-held PID with a 10.6-eV lamp. Measured the boreholes for hydrogen sulfide using a Landtec GEM 2000+ landfill gas analyzer.
- Based on field screening results, submitted two soil samples from each 15-foot boring to Pace for analysis of the following: gasoline-range hydrocarbons by Method NWTPH-Gx, diesel- and oil-range hydrocarbons by Method NWTPH-Dx, VOCs by EPA Method 8260B, PAHs by EPA Method 8270E-SIM, PCBs by EPA Method 8082A, RCRA 8 total metals by EPA Methods 6020/7471A, and asbestos by ASTM Method D752-16 PLM/TEM.
- Soil samples analyzed for gasoline-range hydrocarbons and VOCs were collected in terracore vials preserved with methanol. Soil samples analyzed for other contaminants were collected in glass jars with no preservatives. All containers used for collecting soil samples were new and provided by Pace.

4.3 TASK 3

The objective of Task 3 was to characterize the soil gas conditions at the subject property, including the magnitude and extent of landfill gas (primarily methane) concentrations. The specific scope of services that was conducted to meet the objective for this task is presented below.

- Adjacent to each 5-foot direct-push soil boring (within 5 lateral feet) described under Task 1, methane, carbon dioxide, oxygen, and hydrogen sulfide gases were measured in the field using a Landtec GEM 2000+ landfill gas analyzer and soil gas samples were collected for chemical analysis. The soil gas field screening measurements and soil gas samples were collected as follows:
    - Advanced a Geoprobe® PRT system equipped with an expendable point to a depth of approximately 3.5 feet BGS at each soil gas sampling location. Extracted the PRT system to a depth of approximately 3 feet BGS to dislodge the expendable point.
    - Sealed the annular space between the soil gas probe and the boring sidewall with bentonite to minimize ambient air migration into the sampling zone.
    - Connected the PRT system to a Landtec GEM 2000+ landfill gas analyzer using new disposable PFA tubing and screened for methane until readings stabilized, recording the concentrations of methane, carbon dioxide, oxygen, and hydrogen sulfide.
    - Connected the PRT system to a laboratory-provided, 1-liter Summa canister using new disposal PFA tubing.
    - Installed a leak-check system consisting of cloths saturated with isopropyl alcohol at each location following DEQ-established protocol.
    - Allowed each soil gas sample to equilibrate for at least 30 minutes.
    - Purged approximately two to three volumes of dead space from the sampling train.
    - Collected soil gas samples using the 1-liter Summa canisters equipped with 200-milliliter per minute flow controllers. The initial and final vacuum pressures of each Summa canister were measured and recorded on the laboratory chain-of-custody form.

- Shipped the samples to Pace under general chain-of-custody protocols for analysis of gasoline-range hydrocarbons and VOCs by EPA Method TO-15 and percent methane by ASTM Method D1946.

4.4 TASK 4

The objective of Task 4 was to further characterize the groundwater conditions downgradient of the subject property (relative to the direction of groundwater flow), if feasible, and characterize seep water along the south slope of the subject property, if seeps were present. We were unable to locate groundwater monitoring well GWMW-1 during this investigation, and groundwater seeps were not observed along the south slope of the subject property. Therefore, this task was not conducted during our field activities.

5.0 FIELD ACTIVITIES

NV5 conducted field activities at the subject property on December 12 and December 18 through 22, 2023. Field activities on December 12, 2023, included a geophysical survey to locate the former UST and abandoned cesspool near the former golf pro shop building and to clear proposed boring locations of potential utility conflicts.

Field activities on December 18, 2023, included observing Cascade Environmental advance one 15-foot boring (DP-1, adjacent to the abandoned cesspool, outside the limits of the Landfill) and four 5-foot borings (DP-5, DP-6, DP-10, and DP-11 within the limits of the Landfill) at the subject property and collecting environmental soil samples for field screening and chemical analytical testing. Select boreholes were screened for methane and hydrogen sulfide with a Landtec GEM 2000+ landfill gas analyzer. Due to the detected methane and hydrogen sulfide concentrations measured in the boreholes (a maximum of 50 pbv and 3 pbv, respectively) and health and safety concerns for the drillers, Cascade Environmental temporarily stopped work and contacted their manager to evaluate and, if needed, adjust their health and safety protocols. However, methane and hydrogen sulfide were not detected in the breathing zone above the boreholes. Drilling resumed on December 21, 2023, under adjusted health and safety protocols, including monitoring the breathing zone around the drill rig with a Landtec GEM 2000+ landfill gas analyzer. Field activities conducted on December 18 and 21, 2023, are further discussed in Section 5.2.

Field activities on December 19, 2023, included attempting to locate groundwater monitoring well GWMW-1, presumably on the north-adjoining Dharma Rain property, and searching for groundwater seeps along the sloped south portion of the subject property. On that day, we were unable to visually locate the groundwater monitoring well and concluded that it was either buried or previously decommissioned. Groundwater seeps were not observed along the south slope of the subject property. Field activities conducted on December 19, 2023, are further discussed in Section 5.4.

Field activities conducted on December 20, 2023, before restarting the blower for the LGES, included (1) collecting soil gas samples throughout the subject property (discussed in Section 5.3), (2) observing the conditions of the methane monitoring probes and extraction wells (discussed in Sections 10.2 and 10.3, respectively), (3) meeting with Johnny Kondilis (current

property owner representative) to obtain access to the extraction system blower compound and identify the locations of the monitoring probes that are reportedly monitored monthly by Mr. Kondilis and other staff employed by the owner, and (4) monitoring the methane monitoring probes and the methane extraction wells (which is discussed in Sections 10.2 and 10.3, respectively).

Field activities conducted on December 21, 2023, included starting the blower for the LGES and observing Cascade Environmental advance the remaining borings (DP-2 within the former UST excavation outside the limits of the Landfill and DP-3, DP-4, DP-7, DP-8, DP-9, and DP-12 through DP-16 within the limits of the Landfill) throughout the subject property (as discussed in Section 5.2). NV5 continuously monitored the breathing zone above the borings for methane and hydrogen sulfide with the Landtec GEM 2000+ landfill gas analyzer during the drilling activities. Methane and hydrogen sulfide were not detected in the breathing zone during the drilling. NV5 collected soil samples for field screening and chemical analytical testing during the drilling (discussed in Section 5.2.3).

Field activities on December 22, 2023, after the LGES blower had operated for approximately 24 hours, included observing APS Locates' attempt to locate groundwater monitoring well GWMW-1 (discussed in Section 5.4) and monitoring the methane monitoring probes and methane extraction wells (which is discussed in Sections 10.2 and 10.3, respectively).

The locations of the direct-push borings, soil gas samples, and extraction wells and monitoring probes are shown on Figure 2. A description of our field procedures is summarized in Appendix A. The field activities are further described in the following sections.

5.1 GEOPHYSICAL SURVEY

On December 12, 2023, Nikos Tzetos of Pacific Geophysics conducted a geophysical survey at the subject property. GPR equipment was used north of the former golf pro shop building in the area where historical records indicated the potential presence of a former UST and west of the former golf pro shop building in the area of the potential abandoned cesspool. The GPR survey identified an area of disturbed soil consistent with the location of the anticipated UST excavation and identified two pipes heading west from the former golf pro shop building (one pipe apparently connected to a downspout) that converged at an apparent combined drywell/cesspool, which is assumed to be the abandoned cesspool identified in historical records.

Pacific Geophysics also used GPR, a metal detector, and a radio detection receiver to clear planned boring locations of potential utility conflicts and other buried obstructions. The geophysical survey report is presented in Appendix B.

5.2 DIRECT-PUSH BORINGS

On December 18 and 21, 2023, Cascade Environmental advanced 16 direct-push borings (DP-1 through DP-16) throughout the subject property to depths of up to 20 feet BGS, as follows:

- Direct-push borings DP-1 and DP-2 were advanced to a dept of 15 feet BGS adjacent to the abandoned cesspool and within the former UST excavation, respectively, outside the limits of the Landfill.
- Direct-push borings DP-3 and DP-4 were advanced to depths of 20 feet and 19 feet BGS, respectively, within the limits of the Landfill beneath the proposed locations of future structures.
- Direct-push borings DP-5 through DP-16 were advanced to a depth of 5 feet BGS within the Landfill limits throughout the subject property.

An NV5 representative observed the drilling activities and collected continuous soil samples from the borings for field screening purposes and chemical analytical testing.

5.2.1 Subsurface Conditions

Subsurface conditions encountered in boring DP-1 (advanced adjacent to the abandoned cesspool, outside the limits of the Landfill), consisted of varying amounts of sand, silt, and gravel to the maximum depth explored (15 feet BGS). Subsurface conditions encountered in boring DP-2 (advanced within the former UST excavation, outside the limits of the Landfill), consisted of fill material (including gravel with silt and sand underlain by sandy silt with gravel underlain by sand with gravel) to a depth of 11 feet BGS underlain by native gravel with silt to the maximum depth explored (15 feet BGS).

Subsurface conditions encountered in boring DP-3 (advanced within the limits of the Landfill in the anticipated location of the future wildlife care center building), consisted of approximately 1 foot of cap material (sandy silt with a 6-inch-thick root zone, underlain by silt with varying amounts of gravel and debris to the maximum depth explored. From 1 foot to 7 feet BGS, there was wood debris. From a depth of 12 feet BGS to the maximum depth explored of 20 feet BGS, the debris was other solid waste. Subsurface conditions encountered in boring DP-4 (advanced within the limits of the Landfill in the south portion of the subject property in the anticipated location of future large aviaries) consisted of approximately 2.5 feet of cap material (sand with silt) underlain by sand with gravel and debris to the maximum depth explored. From 2.5 feet to 10 feet BGS, the debris was primarily wood. From 10 feet BGS to the maximum depth explored of 19 feet BGS, the debris was other solid waste. Beginning at a depth of 10.5 feet BGS to the maximum depth explored, very loose solid waste was encountered that was not recoverable. Refusal was met at a depth of 19 feet BGS.

Subsurface conditions encountered in borings DP-5 through DP-16 (which were 5-foot-deep soil borings advanced throughout the limits of the Landfill) consisted of between 1 foot and at least 5 feet of cap material consisting of sand or silt with varying amounts of gravel and a 6-inch-thick root zone underlain by silt and sand with wood and solid waste debris to the maximum depth explored. Groundwater was not encountered in the direct-push borings advanced during this investigation.

5.2.2 Field Screening

Soil was continuously field screened during the direct-push drilling activities for evidence of petroleum contamination. Field screening consisted of visual and olfactory observation, water sheen screening, and headspace vapor screening using a hand-held PID. Field evidence of

petroleum impacts (odor and/or elevated PID readings) were observed in both shallow and deeper solid waste encountered in the borings advanced within the limits of the Landfill. Field screening evidence of petroleum impacts was not observed in the cap material encountered in the borings advanced within the limits of the Landfill. Field screening evidence of petroleum impacts was not observed in the borings advanced adjacent to the abandoned cesspool or within or below the former UST excavation. The field screening results are summarized on the boring logs presented in Appendix A.

In addition to field screening soil for evidence of petroleum contamination, NV5 personnel used a Landtec GEM 2000+ landfill gas analyzer to monitor the boreholes and the breathing zone above the boreholes for methane and hydrogen sulfide. The maximum detected concentration of methane measured in a borehole (DP-3) was 50 pbv. The maximum detected concentration of hydrogen sulfide measured in a borehole (DP-3) was 3 ppm. Methane and hydrogen sulfide were not detected in the breathing zones above the boreholes at any point during the drilling or soil sampling activities.

5.2.3 Soil Sampling

Two discrete soil samples were collected from the 15-foot borings advanced adjacent to the abandoned cesspool (boring DP-1) and within the former UST excavation (boring DP-2) at depths between 2 and 3.5 feet BGS and 11 and 13 feet BGS. The discrete soil samples collected from the 15-foot borings were submitted to Pace for analysis of gasoline-range hydrocarbons by Method NWTPH-Gx, diesel- and oil-range hydrocarbons by Method NWTPH-Dx, VOCs by EPA Method 8260B, PAHs by EPA Method 8270E-SIM, PCBs by EPA Method 8082A, RCRA 8 total metals by EPA Methods 6020/7471A, organochlorine pesticides by EPA Method 8081B, and chlorinated herbicides by EPA Method 8151.

Two vertical composite soil samples were collected from the 20-foot-deep boring (DP-3) and the 19-foot-deep boring (DP-4), which were advanced within the limits of the Landfill at the locations of the proposed future wildlife center structure and the large aviaries, respectively. The vertical composite soil samples were collected at depths between 0 and 2.5 feet BGS and between 5 and 13 feet BGS, which are representative of shallow and deeper solid waste, respectively. The vertical composite samples were submitted to Pace for the same analyses as listed above for borings DP-1 and DP-2.

Up to two discrete soil samples were collected from each of the 5-foot borings (DP-5 through DP-16) advanced within the limits of the Landfill at depths between 0 and 2 feet BGS (representative of cap material) and between 1 foot and 4.5 feet BGS (representative of shallow solid waste). The discrete soil samples collected from the cap material were composited by Pace to generate composite sample COMP-1, which is representative of cap material throughout the limits of the Landfill. The discrete soil samples collected from the shallow solid waste were composited by Pace to generate composite sample COMP-2, which is representative of shallow solid waste throughout the Landfill. Composite samples COMP-1 and COMP-2 were submitted to Pace for the same analyses listed above for borings DP-1 through DP-4. Based on the analytical results of composite samples COMP-1 and COMP-2, the individual discrete soil samples that comprised composite samples COMP-1 and COMP-2 were further analyzed for select contaminants that were detected in composite samples COMP-1 and COMP-2. The COMP-1

discrete soil samples were analyzed for total lead and the COMP-2 discrete soil samples were analyzed for gasoline-range hydrocarbons, naphthalene, total arsenic, total and TCLP lead, and total mercury.

The soil samples were placed immediately in an ice chest and kept cool until delivery to the laboratory. Standard chain-of-custody procedures were observed during transport of the samples to the laboratory.

5.3 SOIL GAS SAMPLES

Eleven soil gas samples (SG-1 through SG-11) were collected adjacent (within 5 feet) of each of the 5-foot soil borings (DP-5 through DP-16) advanced throughout the limits of the Landfill at the subject property. An additional soil gas sample (SG-12) was attempted adjacent to DP-15 but had to be abandoned due to wet soil conditions. The soil gas samples were collected at a depth of approximately 3 feet BGS, except for SG-4, which encountered refusal at 2.5 feet BGS and was therefore sampled at that depth. The samples were collected in general accordance with DEQ's *Guidance for Assessing and Remediating Vapor Intrusion in Buildings,* dated March 2010, and the draft updated guidance, dated August 2023.

Before collecting soil gas samples, the PRT system was connected to a Landtec GEM 2000+ landfill gas analyzer using new PFA tubing, and methane, carbon dioxide, oxygen, and hydrogen sulfide measurements were recorded. The detected concentrations of methane in each soil gas boring ranged from 0.0 pbv (in SG-4 and SG-9) to a maximum of 51.1 pbv (in SG-6). Hydrogen sulfide was not detected in the soil gas borings other than in SG-7, at a concentration of 2 ppm.

NV5 installed a leak-check system consisting of cloths saturated with isopropyl alcohol (2-propanol) at each soil gas sampling location. Based on the ambient temperature and barometric pressure at the time of sampling, and assuming 25 percent contribution of 2-propanol to the surrounding atmosphere, the maximum detected concentration of 2-propanol (11,900 µg/m3) represents less than a 0.3 percent leakage contribution. DEQ guidance states that less than a 5-percent contribution from ambient air indicates the sampling trains were sufficiently airtight. Additional QA/QC information is presented in Appendix C. The soil gas samples were shipped to Pace for analysis of gasoline-range hydrocarbons and VOCs by EPA Method TO-15 and percent methane by ASTM Method D1946.

The initial and final vacuum pressure of the Summa canisters, barometric pressure, and ambient temperature were measured at the sub-slab vapor sampling locations and are presented in the table below.

Sample I.D.	Date	Start and End Times	Initial/Final Vacuum (inHg)	Barometric Pressure (inHg)	Ambient Temperature (°F)
SG-1	12/20/23	1040 – 1044	27.3/5.5	29.93	42
SG-2	12/20/23	1101 – 1105	27.0/6.0	29.93	42
SG-3	12/20/23	1124 – 1130	30.0/6.0	29.93	41
SG-4	12/20/23	1349 – 1353	28.8/6.0	29.92	49
SG-5	12/20/23	1322 – 1329	30.0/7.2	29.92	49
SG-6	12/20/23	1425 – 1429	29.0/6.0	29.92	51
SG-7	12/20/23	1510 – 1514	30.0/7.0	29.92	51
SG-8	12/20/23	1550 – 1555	29.2/6.0	29.93	50
SG-9	12/20/23	1611 – 1616	28.0/6.0	29.93	50
SG-10	12/20/23	1712 – 1717	28.0/6.0	29.95	45
SG-11	12/20/23	1739 – 1807	30.0/8.0	29.96	44

5.4 GROUNDWATER AND SEEP SAMPLES

On December 19, 2023, NV5 personnel attempted to locate groundwater monitoring well GWMW-1, historically identified as being present on the north-adjoining Dharma Rain property. NV5 was unable to visually locate the groundwater monitoring well, and on December 22, 2023, contracted APS Locates of Portland, Oregon, to perform a GPR and magnetometer survey in the area where the monitoring well was expected to be present. APS Locates identified several potential subsurface abnormalities. However, digging with hand tools in these locations to depths of up to 2 feet BGS yielded only large cobbles.

GWMW-1 was installed on the Dharma Rain property in 2001, at which time the surveyed elevation at the top of the well casing was 241.43 feet. Grading activities appeared to occur in the vicinity of the monitoring well when the Asian American Plaza development was constructed in 2007, and subsequent topographic data show surface elevations between 245 feet and 246 feet in the vicinity of the monitoring well, indicating that GWMW-1 is likely buried under several feet of soil if it is still present. Consequently, groundwater samples were not collected during this investigation.

NV5 personnel did not observe groundwater seeps along the south slope of the subject property during several site visits between December 18 and 22, 2023. Consequently, seep water samples were not collected during this investigation.

6.0 BENEFICIAL WATER USE DETERMINATION

Information presented herein regarding the current and reasonably likely beneficial uses of water at the subject property and in the subject property vicinity is based on a review of water supply well records, water rights documents, and subject property observations.

The following regulatory sources were reviewed to obtain information regarding beneficial water uses:

- OWRD online well query database for water wells within an approximately 0.25-mile radius of the subject property
- OWRD online interactive mapping application for water rights information
- National Wetlands Inventory Map for Portland, Oregon

6.1 WATER SUPPLY WELL EVALUATION

NV5 conducted a search for and evaluation of relevant water supply wells (i.e., wells specifically for water supply) within a 0.25-mile radius of the subject property. Information on OWRD's online well query database was used to identify locations. Geotechnical borings, grounding wells, monitoring wells, and abandoned wells were not included in the search criteria. Water supply wells were not identified within a 0.25-mile radius of the subject property in OWRD records.

Potable water is supplied to surrounding properties by the Portland Water Bureau. The Portland Water Bureau sources water from the Bull Run watershed and the Columbia South Shore Wellfield. Groundwater in the subject property vicinity is neither currently nor reasonably likely in the future to be developed for municipal or community consumptive use.

6.2 WATER RIGHTS

NV5 reviewed water right records for the subject property and surrounding properties within a 0.25-mile radius of the subject property using the OWRD water rights interactive mapping tool. The OWRD interactive mapper identifies water rights for which preliminary permits or certificates have been issued. Certificates of Water Rights were not identified within a 0.25-mile radius of the subject property.

6.3 WETLANDS

According to the National Wetlands Inventory, the two manmade ponds on the subject property are classified as freshwater pond habitat (PUBHx). The nearest off-site mapped wetland (also classified as PUBHx) is 0.19 mile southwest (downgradient) of the subject property, associated with a manmade pond on the Rose City Golf Course property. The wetlands inventory map is presented in Appendix D. Due to the wetland classification, it may be necessary to consult the Oregon Department of State Lands to determine if a removal-fill permit is required to fill the ponds on the subject property.

6.4 SURFACE WATER BODIES

Two manmade ponds are present on the subject property. The nearest off-site body of water to the subject property is a manmade pond approximately 0.19 mile southwest of the subject property on the Rose City Golf Course property.

7.0 REGULATORY SCREENING LEVELS

7.1 DEQ HUMAN HEALTH RISK-BASED CONCENTRATIONS

Considering the redevelopment plans for the subject property, the findings of the beneficial water use determination and the current land use in the vicinity of the subject property (primarily

residential, commercial, and institutional), the following DEQ RBCs were selected for comparison of soil and soil gas chemical analytical results obtained during this investigation and are considered the applicable RBCs:

- *Soil Ingestion, Dermal Contact, and Inhalation:* occupational, construction worker, and excavation worker receptors
- *Volatilization to Outdoor Air:* occupational receptors
- *Vapor Intrusion into Buildings:* commercial receptors

The DEQ *Leaching to Groundwater* RBCs are not used for comparison purposes because the *Leaching to Groundwater* exposure pathway is considered incomplete due to the following: (1) water supply wells were not identified within a 0.25-mile radius of the subject property during the beneficial water use determination, (2) the City of Portland Water Bureau provides potable water to the subject property and the surrounding properties, (3) the regional groundwater beneath the subject property is expected to be present at a depth of approximately 200 feet BGS based on well logs reviewed through the OWRD and a review of previous environmental reports, and (4) leaching parameters were not indicative of leachate impact to groundwater samples collected in 2001 from GWMW-1 (downgradient of the subject property relative to the groundwater flow direction).

7.2 DEQ ECOLOGICAL RISK-BASED CONCENTRATIONS

The following DEQ Ecological RBCs were selected for comparison purposes only for birds and mammals that may be housed at the subject property in the future by Bird Alliance. Due to the urban setting in the vicinity of the subject property and the planned redevelopment of the subject property, the DEQ Ecological RBCs presented below are not considered applicable for native birds and mammals at or in the vicinity of the subject property.

- *Ecological— Ground Feeding:* T&E birds and mammals, non-T&E birds and mammals
- *Ecological—Top Consumers:* T&E birds and mammals, non-T&E birds and mammals

7.3 DEQ CLEAN FILL SCREENING LEVELS

To facilitate characterization of soil for disposal/management purposes, soil chemical analytical results were also compared to established DEQ CFSLs, which were updated February 21, 2019. Soil containing chemical constituents at concentrations below DEQ CFSLs is considered "clean fill" and can be reused on site or disposed of off site without restrictions. Soil containing chemical constituents at concentrations exceeding DEQ CFSLs can be managed on site without restriction (provided the soil does not exhibit physical characteristics of petroleum hydrocarbon impact during removal, such as odor or staining, and it is geotechnically suitable) or disposed of off site at a RCRA Subtitle D landfill or other DEQ approved facility. Soil and/or solid waste containing asbestos at concentrations greater than 1 percent is considered asbestos-containing material and must be disposed of at a RCRA Subtitle C or D landfill.

8.0 CHEMICAL ANALYTICAL RESULTS

The results of the soil and soil gas samples are summarized below.

8.1 SOIL

A total of 28 soil samples were submitted to Pace for chemical analysis, including the following:

- Two discrete soil samples from each of the 15-foot-deep borings advanced adjacent to the abandoned cesspool and within the former UST excavation (DP-1 and DP-2, respectively).
- Two vertical composite soil samples from the 20-foot-deep boring and the 19-foot-deep boring (DP-3 and DP-4), which were advanced within the limits of the Landfill beneath the proposed locations of the future wildlife center structure and the large aviaries, respectively.
- Ten discrete soil samples representative of the cap material collected from the 5-foot-deep borings advanced within the limits of the Landfill (composited to generate composite sample COMP-1).
- Nine discrete soil samples representative of the shallow solid waste collected from the 5-foot-deep borings advanced within the limits of the Landfill (composited to generate composite sample COMP-1).
- A blind duplicate sample (BD-1) collected from boring DP-4 between depths of 5 and 7 feet BGS was also submitted for analysis.

The discrete and composite soil samples were analyzed for one or more of the following chemical analyses:

- Gasoline-range hydrocarbons by Method NWTPH-Gx
- Diesel- and oil-range hydrocarbons by Method NWTPH-Dx
- VOCs by EPA Method 8260B
- PAHs by EPA Method 8270E-SIM
- PCBs by EPA Method 8082A
- RCRA 8 total metals by EPA Methods 6020/7471A
- TCLP lead by EPA Method 6010D
- Organochlorine pesticides by EPA Method 8081B
- Chlorinated herbicides by EPA Method 8151
- Asbestos by ASTM Method D752-16 PLM/TEM

The chemical analytical program details, laboratory reports, and chain-of-custody documentation are presented in Appendix C. A comparison of the soil sample chemical analytical results to the applicable regulatory criteria is presented in Tables 1 through 10 and summarized below.

8.1.1 Abandoned Cesspool (Outside the Limits of the Landfill)

Gasoline-, diesel-, and oil-range hydrocarbons, VOCs, RCRA 8 total metals, PAHs, PCBs, pesticides, herbicides, and asbestos were either not detected or were detected at concentrations less than applicable DEQ RBCs and CFSLs in samples DP-1(2-3) and DP-1(11-12).

8.1.2 Former UST Excavation (Outside the Limits of the Landfill)

Discrete soil sample DP-2(2-3.5) contained detectable concentrations of oil-range hydrocarbons, 1,4-dichlorobenzene, methylene chloride, several metals, benzo(b)fluoranthene, and benzo(g,h,i)perylene. The detected concentration of lead (24.1 mg/kg) exceeds the DEQ ecological *Ground Feeding* RBC for T&E and non-T&E birds. However, this concentration does

not exceed the CFSL for lead in the Portland Basin, which represents the background concentrations of lead present in the Portland Basin. Other analytes detected in DP-2(2-3.5) did not exceed applicable DEQ RBCs or corresponding CFSLs.

Discrete soil sample DP-2(12-13) contained detectable concentrations of gasoline-range hydrocarbons and several metals. These analytes were detected at concentrations less than the applicable DEQ RBCs and the corresponding CFSLs.

8.1.3 Borings Within the Limits of the Landfill

8.1.3.1 20-Foot-Deep Boring

Gasoline-, diesel-, and oil-range hydrocarbons, VOCs, RCRA 8 total metals, PAHs, PCBs, pesticides, herbicides, and asbestos were either not detected or were detected at concentrations less than applicable DEQ RBCs and CFSLs in sample DP-3(1-2.3), except as follows:

- The detected concentration of lead (42.3 mg/kg) exceeds the DEQ CFSL and the DEQ Ecological *Ground Feeding* RBCs for T&E and non-T&E birds.
- The detected concentration of mercury (0.0649 mg/kg) exceeds the DEQ Ecological *Ground Feeding* RBCs for T&E and non-T&E birds and the DEQ Ecological *Top Consumers* RBC for T&E birds. However, it should be noted that the detected concentration of mercury is less than the DEQ CFSL of 0.23 mg/kg, which represents the background concentration of mercury present in the Portland Basin.
- Although the concentrations of individual detected PAHs did not exceed any applicable DEQ RBCs or CFSLs, the calculated total HPAH concentration (the summed concentrations of high molecular weight PAHs) was 0.14478 mg/kg, which is greater than the DEQ Ecological *Ground Feeding* RBC for T&E birds.

Gasoline-, diesel-, and oil-range hydrocarbons, VOCs, RCRA 8 total metals, PAHs, PCBs, pesticides, herbicides, and asbestos were either not detected or were detected at concentrations less than applicable DEQ RBCs and CFSLs in sample DP-3(12-13), except as follows:

- The detected concentration of cadmium (6.89 mg/kg) exceeds the DEQ CFSL, the DEQ Ecological *Ground Feeding* RBCs for T&E and non-T&E birds and mammals, and the DEQ Ecological *Top Consumers* RBC for T&E birds.
- The detected concentration of chromium (32.2 mg/kg) exceeds the DEQ Ecological *Ground Feeding* RBC for T&E birds. However, it should be noted that the detected concentration of chromium is less than the DEQ CFSL of 76 mg/kg, which represents the background concentration of chromium present in the Portland Basin.
- The detected concentration of lead (306 mg/kg) exceeds the DEQ CFSL, the DEQ Ecological *Ground Feeding* RBCs for T&E and non-T&E birds and mammals, and the DEQ Ecological *Top Consumers* RBCs for T&E and non-T&E birds. DP-3(12-13) was further analyzed for TCLP lead. TCLP was not detected in DP-3(12-13).

- The detected concentration of mercury (0.134 mg/kg) exceeds the DEQ Ecological *Ground Feeding* RBCs for T&E and non-T&E birds and the DEQ Ecological *Top Consumers* RBC for T&E birds. However, it should be noted that the detected concentration of mercury is less than the DEQ CFSL of 0.23 mg/kg, which represents the background concentration of mercury in the Portland Basin.
- Although the concentrations of individual PAHs did not exceed applicable DEQ RBCs or CFSLs, the calculated total HPAH concentration (0.27358 mg/kg) is greater than the DEQ Ecological *Ground Feeding* RBC for T&E birds.

8.1.3.2 19-Foot-Deep Boring

Boring DP-4 encountered refusal at a depth of 19 feet BGS and had limited recovery of soil at depths between 7 and 19 feet BGS.

Gasoline-, diesel-, and oil-range hydrocarbons, VOCs, RCRA 8 total metals, PAHs, PCBs, pesticides, herbicides, and asbestos were either not detected or were detected at concentrations less than applicable DEQ RBCs and CFSLs in sample DP-4(0-1).

Gasoline-, diesel-, and oil-range hydrocarbons, VOCs, RCRA 8 total metals, PAHs, PCBs, pesticides, herbicides, and asbestos were either not detected or were detected at concentrations less than applicable DEQ RBCs and CFSLs in sample DP-4(5-7), except as follows:

- The detected concentrations of gasoline-range hydrocarbons (43.1 mg/kg) and diesel-range hydrocarbons (1,110 mg/kg) are greater than their corresponding DEQ CFSLs but less than applicable RBCs.
- The detected concentrations of ethylbenzene (0.305 mg/kg), naphthalene (0.122 mg/kg), and 1,1,2-trichloroethane (0.0226 mg/kg) are greater than their corresponding DEQ CFSLs but less than applicable RBCs.
- The detected concentration of arsenic (13.6 mg/kg) is greater than the DEQ *Soil Ingestion, Dermal Contact, and Inhalation* RBC for occupational receptors and the DEQ CFSL.
- The detected concentration of cadmium (2.00 mg/kg) exceeds the DEQ CFSL, the DEQ Ecological *Ground Feeding* RBCs for T&E and non-T&E birds and T&E mammals, and the DEQ Ecological *Top Consumers* RBC for T&E birds.
- The detected concentrations of chromium (109 mg/kg) and lead (109 mg/kg) exceed the corresponding DEQ CFSLs and the DEQ Ecological *Ground Feeding* RBCs for T&E and non-T&E birds and T&E mammals.
- The detected concentration of silver (2.31 mg/kg) is greater than the DEQ CFSL but less than applicable RBCs.
- The detected concentrations of benzo(a)pyrene (0.240 mg/kg) and naphthalene (0.237 mg/kg) are greater than their corresponding DEQ CFSLs. In addition, the calculated total HPAH concentration of 2.7903 mg/kg is greater than the DEQ Ecological *Ground Feeding* RBCs for T&E and non-T&E birds and T&E mammals.

A blind duplicate sample (BD-1) collected from boring DP-4 from a depth between 5 and 7 feet BGS was collected and submitted to Pace for the same analyses as sample DP-4(5-7). The detected concentrations of analytes in blind duplicate sample BD-1 were generally similar to the

concentrations detected in DP-4(5-7). Several analytes were detected in blind duplicate sample BD-1 at higher concentrations (exceeding DEQ RBCs and/or CFSLs) than in sample DP-4(5-7), as follows:

- Benzene (0.0449 mg/kg), 1,4-dichlorobenzene (0.275 mg/kg), and TCE (0.0161 mg/kg) were detected at concentrations greater than their corresponding CFSLs.
- Cadmium (8.70 mg/kg) and lead (209 mg/kg) were detected at concentrations greater than the DEQ Ecological *Ground Feeding* RBCs for T&E and non-T&E birds and mammals and the DEQ Ecological *Top Consumers* RBCs for T&E and non-T&E birds. Discrete sample DP-4(5-7) and blind duplicate sample BD-1 were further analyzed for TCLP lead. TCLP lead was not detected in discrete sample DP-4(5-7) and blind duplicate sample BD-1.
- 1-methylnaphthalene (0.531 mg/kg) was detected at a concentration greater than the DEQ CFSL.

8.1.3.3 5-Foot-Deep Borings

8.1.3.3.1 COMP-1

Twelve borings (DP-5 through DP-16) were advanced to a depth of 5 feet BGS within the limits of the Landfill throughout the subject property. Discrete soil samples DP-5(0-0.5), DP-6(2-2.5), DP-7(0-2), DP-8(0-2), DP-9(0-2), DP-10(0-1), DP-11(0-1), DP-12(0-1.5), DP-13(1-2.5), DP-14(0-2), DP-15(0-1.5), and DP-16(0-2) were collected from the cap material encountered in these borings and submitted to Pace, where they were composited to generate composite sample COMP-1. Composite sample COMP-1 was analyzed for one or more of the analyses listed in Section 8.1.

Gasoline-, diesel-, and oil-range hydrocarbons, VOCs, RCRA 8 total metals, PAHs, PCBs, pesticides, herbicides and asbestos were either not detected or were detected at concentrations less than applicable DEQ RBCs and CFSLs in composite sample COMP-1, except as follows:

- The detected concentration of lead (37.8 mg/kg) exceeds the DEQ CFSL and the DEQ Ecological *Ground Feeding* RBCs for T&E and non-T&E birds.
- The detected concentration of mercury (0.0322 mg/kg) exceeds the DEQ Ecological *Ground Feeding* RBC for T&E birds. However, it should be noted that this detected concentration of mercury is less than the DEQ CFSL of 0.23 mg/kg, which represents the background concentration of mercury in the Portland Basin.

Based on the total lead results detected in composite sample COMP-1, the individual discrete soil samples that were composited to generate composite sample COMP-1 were further analyzed for lead to evaluate the magnitude of lead at each 5-foot-deep boring location within the limits of the Landfill throughout the subject property. Lead was detected in the discrete soil samples representative of the cap material at concentrations generally ranging from 3.15 mg/kg in DP-15(0-1.5) to 33.4 mg/kg in DP-8(0-2). However, two discrete soil samples exhibited elevated concentrations of total lead, including discrete samples DP-7(0-2) and DP-9(0-2). These two discrete soil samples detected lead at concentrations of 512 mg/kg and 113 mg/kg, respectively. The concentration of lead (512 mg/kg) detected in discrete soil sample DP-7(0-2) exceeds the DEQ CFSL, the DEQ Ecological *Ground Feeding* RBCs for T&E and non-T&E birds and mammals, and the DEQ *Top Consumers* RBC for T&E and non-T&E birds and T&E mammals. The

concentration of lead (113 mg/kg) detected in discrete soil sample DP-9(0-2) exceeds the DEQ CFSL, the DEQ Ecological *Ground Feeding* RBCs for T&E and non-T&E birds and T&E mammals, and the DEQ *Top Consumers* RBC for T&E birds.

The two discrete soil samples used to generate composite sample COMP-1 that exceeded 100 mg/kg [DP-7(0-2) and DP-9(0-2)] were further analyzed for TCLP lead. TCLP lead was detected in DP-7(0-2) at a concentration of 0.732 mg/L, which is less than the EPA hazardous waste threshold of 5 mg/L. TCLP lead was not detected in DP-9(0-2).

8.1.3.3.2 COMP-2

Discrete soil samples DP-5(2-2.5), DP-7(3-4), DP-8(2-3.6), DP-10(3-4), DP-11(2-3), DP-12(3-4.5), and DP-13(2.5-3.5) were collected from the shallow solid waste underlying the cap material in the 5-foot-deep borings advanced within the limits of the Landfill throughout the subject property. The discrete soil samples were submitted to Pace, where they were composited to generate composite sample COMP-2. Composite sample COMP-2 was analyzed for one or more of the analyses listed in Section 8.1.

Gasoline-, diesel-, and oil-range hydrocarbons, VOCs, RCRA 8 total metals, PAHs, PCBs, pesticides, herbicides, and asbestos were either not detected or were detected at concentrations less than applicable DEQ RBCs and CFSLs in composite sample COMP-1, except as follows:

- The detected concentrations of gasoline-range hydrocarbons (38.8 mg/kg) and naphthalene (0.150 mg/kg) exceed their corresponding DEQ CFSLs but are less than applicable RBCs.
- The detected concentration of arsenic (11.6 mg/kg) exceeds the DEQ CFSL and the DEQ *Soil Ingestion, Dermal Contact, and Inhalation* RBC for occupational receptors.
- The detected concentrations of cadmium (0.552 mg/kg) and chromium (24.4 mg/kg) exceed the DEQ Ecological *Ground Feeding* RBCs for T&E birds and/or mammals. However, it should be noted that these detected concentrations are less than the corresponding DEQ CFSLs of 0.63 mg/kg and 76 mg/kg, respectively, which represent the background concentrations of cadmium and chromium in the Portland Basin.
- The detected concentration of lead (176 mg/kg) is greater than the DEQ CFSL, the DEQ Ecological *Ground Feeding* RBCs for T&E and non-T&E birds and mammals, and the DEQ Ecological *Top Consumers* RBCs for T&E and non-T&E birds.
- The detected concentration of mercury (0.312 mg/kg) is greater than the DEQ CFSL, the DEQ Ecological *Ground Feeding* RBCs for T&E and non-T&E birds, and the DEQ Ecological *Top Consumers* RBC for T&E birds.
- Although the concentrations of individual PAHs did not exceed applicable DEQ RBCs or CFSLs, the calculated total HPAH concentration was 0.722 mg/kg, which is greater than the DEQ Ecological *Ground Feeding* RBCs for T&E and non-T&E birds.
- The detected concentration of 4,4'-DDD (0.0421 mg/kg) is greater than the DEQ CFSL, the DEQ Ecological *Ground Feeding* RBC for T&E birds, and the DEQ Ecological *Top Consumers* RBCs for T&E and non-T&E mammals.

Based on the results of composite sample COMP-2, the individual discrete soil samples that were composited to generate composite sample COMP-2 were further analyzed for gasoline-range hydrocarbons, naphthalene, arsenic, lead, and mercury to evaluate the magnitude of these

contaminants at each 5-foot-deep boring location within the limits of the Landfill throughout the subject property. Gasoline-range hydrocarbons, naphthalene, arsenic, and mercury were either not detected or were detected at concentrations less than applicable DEQ RBCs and CFSLs in the individual discrete soil samples composited to generate COMP-2, except as follows:

- Gasoline-range hydrocarbons were detected in each of the discrete soil samples at concentrations greater than the DEQ CFSL except for discrete soil sample DP-7(3-4).
- The concentrations of naphthalene detected in discrete soil samples DP-5(2-2.5), DP-10(3-4), DP-11(2-3), and DP-12(3-4.5) were greater than the DEQ CFSL.
- The concentration of arsenic (12.6 mg/kg) detected in discrete soil sample DP-13(2.5-3.5) exceeds the DEQ CFSL and the DEQ *Soil Ingestion, Dermal Contact, and Inhalation* RBC for occupational receptors.
- The concentrations of lead (33.5 mg/kg and 49.3 mg/kg) detected in discrete samples DP-7(3-4) and DP-8(2-3.5), respectively, are greater than the DEQ CFSL and the DEQ Ecological *Ground Feeding* RBCs for T&E and non-T&E birds.
- The concentration of lead (167 mg/kg) detected in discrete sample DP-13(2.5-3.5) is greater than the DEQ CFSL, the DEQ Ecological *Ground Feeding* RBCs for T&E and non-T&E birds and T&E mammals, and the DEQ Ecological *Top Consumers* RBCs for T&E and non-T&E birds.
- The concentrations of mercury (0.0403 mg/kg and 0.0681 mg/kg) detected in discrete soil samples DP-7(3-4) and DP-8(2-3.5), respectively, are greater than the DEQ Ecological *Ground Feeding* RBC for T&E birds and/or the DEQ Ecological *Top Consumers* RBC for T&E birds. However, it should be noted that these detected concentrations are less than the corresponding DEQ CFSL of 0.23 mg/kg, which represents the background concentration of mercury in the Portland Basin.
- The concentrations of mercury detected in discrete soil samples DP-10(3-4), DP-11(2-3), and DP-13(2.5-3.5) exceed the DEQ CFSL, the DEQ Ecological *Ground Feeding* RBCs for T&E and non-T&E birds, and the DEQ Ecological *Top Consumers* RBC for T&E birds.
- The concentrations of mercury detected in discrete soil samples DP-5(2-2.5) and DP-12(3-4.5) exceed the DEQ Ecological *Ground Feeding* RBCs for T&E and non-T&E birds, and the DEQ Ecological *Top Consumers* RBCs for T&E and non-T&E birds.

Four discrete soil samples used to generate composite sample COMP-2 that exhibited lead concentrations exceeding 100 mg/kg [DP-10(3-4), DP-11(2-3), DP-12(3-4.5), and DP-13(2.5-3.5)] were further analyzed for TCLP lead. TCLP lead was detected in discrete soil samples DP-10(3-4) and DP-11(2-3) at concentrations of 0.368 mg/L and 0.649 mg/L, respectively, which are less than the EPA hazardous waste threshold of 5 mg/L. TCLP lead was not detected in discrete soil samples DP-12(3-4.5) and DP-13(2.5-3.5).

8.2 SOIL GAS

Soil gas samples SG-1 through SG-11 were collected within the limits of the Landfill throughout the subject property and submitted to Pace for analysis of percent methane, gasoline-range hydrocarbons, and VOCs. Methane was either not detected or was detected at concentrations less than the LEL for methane (5 pbv) in each soil gas sample except for soil gas samples SG-3 and SG-10. The concentrations of methane detected in soil gas samples SG-3 (6.80 pbv) and SG-10 (6.15 pbv) are greater than the LEL for methane.

Gasoline-range hydrocarbons were either not detected or were detected at concentrations less than the DEQ *Vapor Intrusion into Buildings—Chronic* RBC in each of the soil gas samples except for SG-1 and SG-3. The concentrations of gasoline-range hydrocarbons detected in soil gas samples SG-1 (57,000 µg/m^3) and SG-3 (169,000 µg/m3) exceed the DEQ *Vapor Intrusion into Buildings—Chronic* RBC of 40,000 µg/m^3. DEQ has not established a *Vapor Intrusion into Buildings—Acute* RBC.

As many as 26 VOCs were detected in the soil gas samples at concentrations less than the DEQ *Vapor Intrusion into Buildings—Chronic* RBCs. Benzene was detected in soil gas samples SG-1, SG-3, and SG-10 at concentrations of 93.9 µg/m^3, 169 µg/m^3, and 53.7 µg/m^3, respectively, which exceed the DEQ *Vapor Intrusion into Buildings—Chronic* RBC of 52 µg/m^3. VOCs were otherwise not detected at concentrations greater than the applicable DEQ established chronic and acute RBCs in the soil gas samples analyzed.

9.0 SOIL CAP ASSESSMENT

9.1 TASK 5

The objective of Task 5 was to assess the condition of the soil cap, including visual observations of the existing slopes and its protectiveness to human health. The specific scope of services that was conducted to meet this objective is presented below.

- Visually observe the existing surface condition of the soil cap and associated slopes to assess if there has been significant stormwater channeling, stormwater infiltration, and potential leachate generation. Obtain photographic documentation.
- Evaluate the thickness of the soil cap throughout the subject property via the soil borings described in Tasks 1 and 2 (Section 4.0).

9.2 OBSERVATIONS

NV5 observed two manmade ponds associated with the former golf driving range and other depressions throughout the subject property. Currently, surface water at the subject property appears to collect in the ponds and depressions at the subject property and/or infiltrate into the ground surface. The ponds at the subject property may have been lined during their construction. The locations of the ponds and depressions are shown on Figure 2. The thickness of the soil cap observed in the soil borings advanced throughout the limits of the Landfill (DP-3 through DP-16) ranged from 1 foot to at least 5 feet. The thickness of the soil cap observed at the location of Each soil boring within the limits of the Landfill is shown on Figure 2. Less than 3 feet of cap material were observed in soil borings DP-3, DP-4, DP-5, DP-8, DP-9, DP-11, and DP-13. Overall, the subject property appeared to maintain a relatively flat slope with isolated undulations and depressions. Photographs depicting the general topography of the subject property are shown on Figures 4 and 5.

10.0 LANDFILL GAS EXTRACTION SYSTEM ASSESSMENT

10.1 TASK 6

The objective of Task 6 was to assess the operating condition and efficacy of the LGES, including visual observation of the conditions of the blower, extraction wells, monitoring probes, and

passive vents on and adjacent to the subject property (before and after system re-start) and collection of pressure data and landfill gas concentration readings using hand-held equipment. The specific scope of services that was conducted to meet this objective is presented below.

- Observe the conditions of the LGES blower and the extraction wells, monitoring probes, and the passive vents throughout the subject property and adjacent to the subject property before restarting the blower. The extraction wells, monitoring probes, and passive vents that will be observed and monitored are highlighted in yellow on Figure 2.
- Request the methane concentration data (and other available data) presumably collected by the current property owner (Skidmore LP) during the pilot shutdown test.
- Before restarting the blower for the LGES, measure static pressure and methane concentrations from the monitoring probes and, if feasible, the extraction wells throughout and adjacent to the subject property, as feasible, using a Landtec GEM 2000+ landfill gas analyzer (if sampling valves are present) to supplement and verify the data, if provided, by the current property owner.
- Restart the blower for the LGES, allow it to operate for a minimum of 30 minutes, and then measure vacuum pressure, flow rate, and methane concentration from the blower flow port, if present, using a Landtec GEM 2000+ landfill gas analyzer and a Dwyer anemometer.
- Measure vacuum pressure, flow rate, and methane concentrations (after restarting the system) from the extraction wells throughout and adjacent to the subject property, as feasible, using a Landtec GEM 2000+ landfill gas analyzer and a Dwyer anemometer, if sampling valves and flow ports are present.

NV5 observed and monitored accessible monitoring probes within and adjacent to the west and south portions of the subject property both before and approximately 24 hours after restarting the blower. NV5 also observed all but two of the extraction wells within and adjacent to the west and south portions of the subject property. Data collected from the monitoring probes and extraction wells are presented in Tables 11 through 14.

10.2 METHANE MONITORING PROBES

Before restarting the LGES, NV5 accessed 13 methane monitoring probes within or adjacent to the west and south portions of the subject property (MW-8S, MW-8D, MW-10, MW-11, MW-12S, MW-12D, MW-13, MW-14, MW-15, MW-16, MW-17, MW-29, and MW-30). Monitoring probe MW-9 did not appear to be present in the vicinity of where it had been indicated on the previous site plan, and monitoring probes MW-21 and MW-22 could not be located due to dense vegetation.

The accessible monitoring probes were monitored with a Landtec GEM 2000+ landfill gas analyzer for static pressure, percent methane, percent carbon dioxide, and percent oxygen. The maximum methane concentration observed over a 60-second purge time was also recorded. The maximum methane concentration observed was 0.1 pbv in monitoring probes MW-10, MW-12S, MW-12D, MW-13, MW-14, MW-17, and MW-30. Methane was not detected in the other methane monitoring probes monitored. The maximum carbon dioxide concentration observed was 11.7 pbv in monitoring probe MW-11. The maximum oxygen concentration

observed was 21.0 pbv in monitoring probe MW-29. Static pressures were measured in monitoring probes MW-11 (0.01 iow) and MW-13 (0.02 iow). Static pressure was otherwise not measured in the monitoring probes.

After restarting the blower to the LGES and allowing it to operate for approximately 24 hours, NV5 monitored the same monitoring probes as those monitored before we restarted the LGES. The maximum methane concentration observed was 0.1 pbv in monitoring probes MW-10, MW-12D, MW-13, MW-14, MW-29, and MW-20. Methane was not detected in the other probes monitored. The maximum carbon dioxide concentration observed was 8.7 pbv in monitoring probe MW-10. The maximum oxygen concentration observed was 21.3 pbv in monitoring probe MW-12S. Static pressure of 0.01 iow was observed in MW-13. Static pressure was otherwise not observed in the monitoring probes.

There did not appear to be a significant difference in monitoring results while the blower to the LGES was on or off, and monitoring results appeared to be generally consistent with the data reported by the current owner of the subject property over the last several months. The monitoring probes that were monitored were readily accessible and generally appeared to be in good condition. As noted above, monitoring probe MW-9 did not appear to be present in the vicinity of where it had been indicated on the previous site plan, and monitoring probes MW-21 and MW-22 could not be located due to dense vegetation. Consequently, we did not monitor these monitoring probes.

10.3 METHANE EXTRACTION WELLS

NV5 monitored six extraction wells within and adjacent to the west and south portions of the subject property (EW-12, EW-13, EW-16, EW-16A, EW-16B, and EW-18). NV5 was unable to locate EW-20 and EW-21 on the southeast portion of the subject property, which were installed in 2009 with flush-mount monuments and are likely hidden beneath an area of blackberry overgrowth. Several extraction wells (EW-14, EW-15, and EW-17) were inaccessible due to the caps of the sampling ports being rusted shut. We were unable to remove the caps without damaging them and/or the extraction wells, so extraction wells EW-14, EW-15, and EW-17 were not monitored during this assessment. EW-19 was inaccessible due to the presence of a homeless person in the area at the time of the monitoring event.

Before restarting the blower to the LGES, NV5 monitored each of the accessible extraction wells and the extraction system blower with a Landtec GEM 2000+ landfill gas analyzer. Methane was not detected in the extraction wells monitored or the extraction system blower. The maximum concentration of carbon dioxide observed was 8.1 pbv in extraction well EW-16. The maximum concentration of oxygen observed was 20.7 pbv in extraction well EW-16B. A static pressure of 0.08 iow was observed in EW-16, which was actively venting what appeared to be steam from its sample port. The extraction system blower, EW-12, EW-13, EW-16, and EW-18 were not equipped with flow ports, and we were unable to measure the velocity at these extraction points. Extraction wells EW-16A and EW-16B were equipped with flow ports, and the measured velocity while the blower was off was 0 fpm.

After restarting the blower to the LGES and allowing it to operate for approximately 24 hours, NV5 monitored the same extraction wells as those monitored before restarting the blower and

also monitored the extraction system blower. The maximum methane concentration observed was 1.1 pbv in extraction well EW-16A. The maximum carbon dioxide concentration observed was 2.9 pbv in extraction well EW-18. The maximum oxygen concentration observed was 21.1 pbv in extraction well EW-16B. The static pressure observed at the extraction system blower was -23.16 iow. The static pressure observed in extraction well EW-12 was -4.26 iow. Static pressure measurements in the remaining extraction wells otherwise ranged from -0.08 iow to -0.23 iow. A velocity of 60 fpm was measured from the flow port of extraction well EW-16A. A velocity of 0 fpm was measured from the flow port of extraction well EW-16B.

11.0 CONCLUSIONS AND RECOMMENDATIONS

NV5 conducted a Phase II ESA, soil cap and LGES assessment, and a Beneficial Water Use Determination for the property located at 2800 NE 82nd Avenue in Portland, Oregon. The results of these assessments are summarized below.

11.1 PHASE II ESA

The results of the Phase II ESA indicated the following:

- Soil in the vicinity of the abandoned cesspool and the former UST do not present unacceptable risks to human or ecological receptors. Soil potentially removed from the vicinity of the abandoned cesspool and former UST during future earthwork activities can be reused on site without restriction.
- Soil cap material throughout the subject property did not exhibit contaminants at concentrations greater than applicable DEQ RBCs except for lead, mercury, and total HPAHs, which were detected at concentrations greater than select DEQ Ecological RBCs and/or CFSLs. In our opinion, the soil cap is suitable for continued use as an engineering control and will be enhanced during future phases of development such that a minimum thickness of three feet and an overall surface grade of at least 2 percent will be achieved and maintained.
- Shallow solid waste from former landfilling operations throughout the subject property contains contaminants at concentrations greater than DEQ Ecological RBCs and CFSLs. Shallow solid waste, if geotechnically suitable, can be reused on site without restriction. If potentially excavated shallow solid waste required disposal off site, it must be disposed of at a RCRA Subtitle D landfill or other DEQ approved facility.
- Deeper solid waste throughout the subject property contains contaminants at concentrations greater than the DEQ *Soil Ingestion, Dermal Contact, and Inhalation* RBC for occupational receptors, DEQ Ecological RBCs, and CFSLs. However, due to the depth of the deeper solid waste (3 feet BGS or greater), the *Soil Ingestion, Dermal Contact, and Inhalation* exposure pathway is incomplete for both human and ecological receptors that may inhabit the future Bird Alliance facility. If deeper solid waste is removed during future earthwork and construction activities, it cannot be reused on site and must be disposed of off site at a RCRA Subtitle D landfill or other DEQ-approved facility.
- Methane was either not detected or was detected at concentrations less than the LEL for methane (5 pbv) in each of the soil gas samples except for SG-3 and SG-10. Additionally, gasoline and benzene were detected at concentrations greater than the DEQ *Vapor Intrusion into Buildings—Chronic* RBC for commercial receptors in SG-1, SG-3, and SG-10. Potential

unacceptable vapor intrusion risks from methane, gasoline-range hydrocarbons, and benzene within future enclosed structures can be mitigated with engineering controls, such as vapor barriers and utility trench dams, and confined spaces such as manholes and utility vaults will be routinely monitored for methane. In addition, sub-slab probes will be constructed beneath the future enclosed structures to monitor methane concentrations in the subsurface beneath the structures.

Based on the results of the Phase II ESA, it is our opinion that further investigation is not warranted at the subject property.

11.2 SOIL CAP ASSESSMENT

The results of the soil cap assessment indicated the following:

- The thickness of the soil cap observed in the soil borings advanced throughout the limits of the Landfill (DP-3 through DP-16) ranged from 1 foot to at least 5 feet. The thickness of the soil cap observed at the location of each soil boring within the limits of the Landfill is shown on Figure 2. Less than 3 feet of cap material were observed in soil borings DP-3, DP-4, DP-5, DP-8, DP-9, DP-11, and DP-13.
- Overall, the subject property appeared to maintain a relatively flat slope with isolated undulations and depressions, including two manmade ponds.

Based on the results of the soil cap assessment, the following non-compliant permit-related issues have been identified:

- The closure permit stipulates that the permittee (currently Skidmore LP) must maintain landfill-cover surface contours of at least 2 percent to minimize leachate generation by promoting stormwater drainage and minimizing standing water and ponding. The current depressions and manmade ponds at the subject property must be filled and graded to achieve compliance with the landfill closure permit.
- The closure permit stipulates that the permittee must divert surface water drainage around or away from the landfill and maintain surface water diversion ditches or structures in good working condition at all times. Select areas surrounding the landfill areas (particularly south of the southern landfill slope) show visual evidence of historical standing water adjacent to the landfill and in the areas of extraction wells. It is likely these extraction wells are covered with sediment and/or standing water during the rainy season. Drainage features (ditches) in these areas should be reconstructed to divert standing water away from these areas.
- Areas of the cap less than 3 feet thick must be enhanced such that a minimum soil cap of at least 3 feet in thickness covers the landfill throughout the subject property.

11.3 LANDFILL GAS EXTRACTION SYSTEM ASSESSMENT

The results of the LGES assessment indicated the following:

- The maximum methane concentration detected in the methane monitoring probes that were monitored within and adjacent to the west and south portions of subject property was 0.1 pbv with a maximum static pressure of 0.02 iow. There did not appear to be a significant difference in methane monitoring results while the blower to the LGES was on or off, and the

monitoring results appeared to be generally consistent with the limited data available for review obtained over the last several months. The monitoring probes that were monitored were readily accessible and generally appeared to be in good condition. In our opinion, these data indicate that the blower for the LGES can remain off at least initially during redevelopment activities. Future monitoring will be regularly conducted during redevelopment; if these monitoring data indicate an exceedance or significantly changing conditions, the blower to the LGES will be restarted and the LGES will need to operate effectively.

- Methane was not detected in any of the extraction wells monitored within and adjacent to the west and south portions of the subject property or the extraction system blower intake while the blower to the LGES was turned off. A static pressure of 0.08 iow was observed in extraction well EW-16, which was actively venting what appeared to be steam from its sample port.
- A maximum methane concentration of 1.1 pbv in extraction well EW-16A was observed while the blower to the LGES was operating. The static pressure observed at the extraction system blower was -23.16 iow. The static pressure observed in extraction well EW-12 was -4.26 iow. Static pressures observed in the remaining extraction wells monitored otherwise ranged from -0.08 iow to -0.23 iow. A velocity of 60 fpm was measured from the flow port of extraction well EW-16A. A velocity of 0 fpm was measured from the flow port of EW-16B.
- The limited number of accessible extraction wells and the lack of flow ports on most of the extraction wells resulted in a limited characterization of the LGES. However, based on the low static pressures observed in the extraction wells and the low (or zero) velocity measured in the available extraction well flow ports, it appears that the LGES may not be operating effectively.

Based on the results of the LGES assessment, the following non-compliant permit-related issues have been identified:

- The closure permit stipulates that the permittee must maintain the LGES in effective working order. The permittee must notify DEQ about any damaged, defective, or worn-out gas-system equipment, relace or repair such equipment immediately, and provide a written description of any such work in the annual post-closure maintenance and monitoring report. Based on our observations, the LGES may not currently be in effective working order. The LGES should be further evaluated by qualified personnel and repaired such that it operates effectively and as intended when first constructed. Extraction wells that were inaccessible at the time of our assessment should be cleared of vegetation and evaluated.

11.4 BENEFICIAL WATER USE DETERMINATION

- The results of the Beneficial Water Use Determination indicated the following: water supply wells or Certificates of Water Rights were not identified within a 0.25-mile radius of the subject property.
- According to the National Wetlands Inventory, the two manmade ponds on the subject property are classified as freshwater pond habitat (PUBHx).

12.0 FUTURE SUBMITTALS AND CLOSURE PERMIT

Bird Alliance is in the process of finalizing a PPA in the form of a Consent Judgement with DEQ. NV5 is currently preparing a Basis of Design and Engineering Approach that will be submitted to and reviewed by DEQ before the Consent Judgement (PPA) is finalized and executed. The Basis of Design and Engineering Approach will outline mitigation and other measures that Bird Alliance will be obligated to perform. DEQ will review the Basis of Design and Engineering Approach and negotiate with Bird Alliance to finalize it. The final Basis of Design and Engineering Approach will be attached to and incorporated by reference into the Consent Judgement. Once the PPA is adopted, additional documents (as was negotiated with DEQ and outlined in the Basis of Design and Engineering Approach) will be submitted to DEQ, including an SSWMP. The SSWMP will summarize methods to be employed for the management (handling and disposal) of soil and solid waste that may be encountered during earthwork activities.

Post-closure operations and maintenance of the subject property will be managed under a new Solid Waste Disposal Site Closure Permit (Closure Permit) that will be issued to Bird Alliance, superseding existing Closure Permit No. 211. Existing Closure Permit No. 211, issued to Hashem, was effective November 14, 2011, to August 31, 2021. However, the Closure Permit has been administratively extended. The new Closure Permit will authorize Bird Alliance to provide post-closure operations, maintenance, and monitoring (as negotiated with DEQ and outlined in the Basis of Design and Engineering Approach) at the subject property. The Closure Permit will also describe activities Bird Alliance is prohibited from conducting.

13.0 LIMITATIONS

This report has been prepared for Bird Alliance. This report is not intended for use by others, and the information contained herein is not applicable to other sites. Reliance by other parties must be approved by NV5 in accordance with our standard contractual process for third-party reliance. Our interpretations of subsurface conditions are based on data from select soil samples collected from limited areas. The results of the analyses only indicate the presence or absence of those chemical constituents analyzed in those sample locations. It is always possible that contamination could exist between the widely spaced exploration locations. Analytical data from the laboratory samples should only be considered as indicators of subject property conditions and not a guarantee of the absence of subsurface impact in areas not sampled.

The conclusions presented in this report are based on our observations made during field investigations and chemical analytical data. The findings of this investigation should be considered as a professional opinion based on our evaluation of select and limited data.

Our services have been executed in accordance with the generally accepted practices in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

♦ ♦ ♦

We appreciate the opportunity to be of service. Please call if you have questions regarding this report.

Sincerely,

NV5

Caroline B. Siegel
Environmental Staff

Kyle R. Sattler, L.G. (Washington)
Principal Geologist

FIGURES

VICINITY MAP BASED ON AERIAL PHOTOGRAPH OBTAINED FROM GOOGLE EARTH PRO®

NIV5	SOJ-7-03	**VICINITY MAP**	
	APRIL 2024	FORMER H.G. LAVELLE SOLID WASTE LANDFILL PORTLAND, OR	**FIGURE 1**

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NOTES:

1. SITE PLAN BASED ON PDF DRAWING NO. G1.01 OF PROPOSED WELL LOCATIONS, REVISED DATE AUGUST 4, 2009, PREPARED BY ENERGYNEERING SOLUTIONS, INC.
2. AERIAL PHOTOGRAPH DATED JUNE 14, 2022, OBTAINED FROM GOOGLE EARTH PRO.

SITE PLAN

FORMER H.G. LAVELLE SOLID WASTE LANDFILL
PORTLAND, OR

FIGURE 2

SOJ-7-03

APRIL 2024

NV5

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LEGEND:

- WILDLIFE CARE CENTER
- WILDLIFE ENCLOSURES & OUTBUILDINGS
- NEW ASPHALT AREAS
- NEW CANOPY COVER
- NEW LANDSCAPE BUFFER AREAS
- NEW FENCELINE

N

0 100 200

(SCALE IN FEET)

NOTES:

1. SITE PLAN BASED ON IMAGE OF CONCEPT SITE DESIGN.
2. AERIAL PHOTOGRAPH DATED JUNE 14, 2022, OBTAINED FROM GOOGLE EARTH PRO.

SITE PLAN - PROPOSED DEVELOPMENT

FORMER H.G. LAVELLE SOLID WASTE LANDFILL
PORTLAND, OR

FIGURE 3

SOJ-7-03

APRIL 2024

NV5

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File Name: J:\S-Z\SOJ\SOJ-7\SOJ-7-03\Figures\CAD\SOJ-7-03-SP02.dwg | Layout: FIGURE 3

VIEW OF NORTH MANMADE POND AT THE SUBJECT PROPERTY. PHOTOGRAPH TAKEN FACING NORTHEAST.

VIEW OF SOUTH MANMADE POND AT THE SUBJECT PROPERTY. PHOTOGRAPH TAKEN FACING SOUTHWEST.

NV5	SOJ-7-03	**SUBJECT PROPERTY PHOTOGRAPHS**	
	APRIL 2024	FORMER H.G. LAVELLE SOLID WASTE LANDFILL PORTLAND, OR	**FIGURE 4**

VIEW OF DEPRESSION AND STANDING WATER ON THE NORTH PORTION OF THE SUBJECT PROPERTY. PHOTOGRAPH TAKEN FACING WEST.

VIEW OF DEPRESSION, STANDING WATER, AND UNDULATION ON THE EAST PORTION OF THE SUBJECT PROPERTY. PHOTOGRAPH TAKEN FACING SOUTHEAST.

NV5	SOJ-7-03	**SUBJECT PROPERTY PHOTOGRAPHS**	
	APRIL 2024	FORMER H.G. LAVELLE SOLID WASTE LANDFILL PORTLAND, OR	**FIGURE 5**

TABLES

TABLE 1
Summary of Soil Sample Chemical Analytical Results
Petroleum Hydrocarbons
Site Name
2800 NE 82nd Avenue
Portland, Oregon

Sample I.D. (depth in feet BGS)	Sample Date	Gasoline-Range Hydrocarbons Method NWTPH-Gx (mg/kg)		Diesel- and Oil-Range Hydrocarbons Method NWTPH-Dx (mg/kg)			
				Diesel-Range		Oil-Range	
COMP-1	12/18/23	5.36		22.7		184	
COMP-2	12/18/23	38.8		117		1,250	
DP-1(2-3)	12/18/23	1.91	J	20.1	J	293	
DP-1(11-12)	12/18/23	1.69	U	64.3	J	1,070	
DP-2(2-3.5)	12/18/23	1.86	U	7.85	U	103	
DP-2(12-13)	12/21/23	1.10	B, J	1.47	U	3.68	U
DP-3(1-2.3)	12/18/23	11.0	B	55.8	J	457	
DP-3(12-13)	12/21/23	12.0	B	174		300	
DP-4(0-1)	12/21/23	1.33	U	1.89	J	6.12	J
DP-4(5-7)	12/21/23	43.1		1,110		4,790	
BD-1	12/21/23	80.2	Q	808		3,420	
DP-5(2-2.5)	12/18/23	151	T8	--		--	
DP-7(3-4)	12/21/23	1.63	B, J	--		--	
DP-8(2-3.5)	12/21/23	114		--		--	
DP-10(3-4)	12/18/23	63.9	T8	--		--	
DP-11(2-3)	12/18/23	38.8	T8	--		--	
DP-12(3-4.5)	12/18/23	220	T8	--		--	
DP-13(2.5-3.5)	12/21/23	49.3	Q	--		--	
DEQ Generic RBCs[1]							
Soil Ingestion, Dermal Contact, and Inhalation							
Occupational		20,000		14,000		NE	
Construction Worker		9,700		4,600		NE	
Excavation Worker		>Max		>Max		NE	
Volatilization to Outdoor Air							
Occupational		69,000		>Max		NE	
DEQ Ecological RBCs[2]							
Ground Feeding							
T&E Birds		5,000		6000[3]			
Non-T&E Birds		5,000		6000[3]			
T&E Mammals		5,000		6000[3]			
Non-T&E Mammals		5,000		6000[3]			
Top Consumers							

TABLE 1
Summary of Soil Sample Chemical Analytical Results
Petroleum Hydrocarbons
Site Name
2800 NE 82nd Avenue
Portland, Oregon

Sample I.D. (depth in feet BGS)	Sample Date	Gasoline-Range Hydrocarbons Method NWTPH-Gx (mg/kg)	Diesel- and Oil-Range Hydrocarbons Method NWTPH-Dx (mg/kg)	
			Diesel-Range	Oil-Range
T&E Birds		5,000	6000[3]	
Non-T&E Birds		5,000	6000[3]	
T&E Mammals		5,000	6000[3]	
Non-T&E Mammals		5,000	6000[3]	
DEQ CFSLs[4]		31	1,100	NE

Notes:
1. DEQ Generic RBCs dated May 2018, amended June 2023
2. DEQ Ecological RBCs dated September 2020
3. These RBC values are compared to the sum of the detected concentrations of these analytes.
4. DEQ CFSLs dated February 21, 2019
B: The same analyte is found in the associated blank.
J: The identification of the analyte is acceptable; the reported value is an estimate.
>Max: The constituent RBC for this pathway is calculated as greater than 1,000,000 mg/kg or 1,000,000 mg/L. Therefore, this substance is deemed not to pose risks in this scenario.
Q: Sample was prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.
T8: Sample received past/too close to holding time expiration.
U: Not detected. Reporting or detection limit shown.
Bolding indicates analyte detection.
Grey shading indicates analyte detection at a concentration greater than DEQ RBCs and/or CFSLs.
--: not analyzed

TABLE 2
Summary of Soil Sample Chemical Analytical Results
VOCs
2800 NE 82nd Avenue
Portland, Oregon

Sample I.D. (depth in feet BGS)	Sample Date	VOCs EPA Method 8260D (mg/kg)																	
		Acetone	Benzene	Bromobenzene	Bromodichloromethane	Bromoform	Bromomethane	2-Butanone (MEK)	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	1,2-Dibromo-3-chloropropane
COMP-1	12/18/23	0.0554 U	**0.00114**	0.0190 U	0.00110 U	0.00178 U	0.00299 U	0.0964 U	0.00797 U	0.00437 U	0.00296 U	0.00136 U	0.000319 U	0.00258 U	0.00156 U	0.00660 U	0.00131 U	0.000683 U	0.00592 U
COMP-2	12/18/23	0.0573 U	**0.00424**	0.00141 U	0.00114 U	0.00184 U	0.00309 U	0.0997 U	**0.0322**	**0.0243**	**0.00317 J**	0.00141 U	**0.00259 J**	0.00267 U	**0.00180**	0.00683 U	0.00136 U	0.000706 U	0.00612 U
DP-1(2-3)	12/18/23	**0.0714 J**	0.000851 U	0.00165 U	0.00132 U	0.00214 U	0.00359 U	0.116 U	0.00958 U	0.00526 U	0.00355 U	0.00164 U	0.000384 U	0.00311 U	0.00188 U	0.00793 U	0.00158 U	0.000822 U	0.00712 U
DP-1(11-12)	12/18/23	**0.246**	0.000929 U	0.00179 U	0.00144 U	0.00233 U	0.00392 U	0.126 U	0.0104 U	0.00573 U	0.00388 U	0.00179 U	0.000418 U	0.00338 U	0.00205 U	0.00865 U	0.00172 U	0.000896 U	0.00776 U
DP-2(2-3.5)	12/18/23	0.0802 U	0.00103 U	0.00198 U	0.00159 U	0.00257 U	0.00433 U	0.140 U	0.0115 U	0.00633 U	0.00428 U	0.00198 U	0.000462 U	0.00374 U	0.00226 U	0.00957 U	0.00190 U	0.000990 U	0.00858 U
DP-2(12-13)	12/21/23	0.0470 U	0.000601 U	0.00116 U	0.000933 U	0.00150 U	0.00254 U	0.0817 U	0.00676 U	0.00370 U	0.00251 U	0.00116 U	0.000271 U	0.00219 U	0.00132 U	0.00559 U	0.00111 U	0.000579 U	0.00502 U
DP-3(1-2.3)	12/18/23	**0.117 J**	**0.00145 J**	0.00217 U	0.00175 U	0.00283 U	0.00477 U	0.153 U	0.0127 U	**0.00709 J**	0.00473 U	0.00217 U	**0.00896**	0.00411 U	0.00249 U	0.0105 U	0.00210 U	0.00109 U	0.00944 U
DP-3(12-13)	12/21/23	0.0549 U	0.000703 U	0.00135 U	0.00109 U	0.00176 U	0.00296 U	0.0954 U	0.00789 U	**0.00493 J**	0.00293 U	0.00135 U	**0.00188 J**	0.00256 U	0.00155 U	0.00654 U	**0.00170 J**	0.000677 U	0.00587 U
DP-4(0-1)	12/21/23	**0.0611 J**	0.000730 U	0.00141 U	0.00113 U	0.00182 U	0.00308 U	0.0994 U	0.00821 U	0.00450 U	0.00306 U	0.00140 U	0.000329 U	0.00266 U	0.00161 U	0.00681 U	0.00135 U	0.000704 U	0.00610 U
DP-4(5-7)	12/21/23	0.0954 U	0.0230 U	0.00235 U	0.00189 U	0.00307 U	0.00515 U	0.166 U	0.0137 U	**0.0580**	**0.0118 J**	0.00235 U	**0.00660**	0.00444 U	0.00270 U	0.0114 U	**0.00987**	0.00118 U	0.0102 U
BD-1	12/21/23	0.0606 U	**0.0449**	0.00149 U	0.00120 U	0.00195 U	0.00327 U	0.105 U	0.00870 U	**0.0712**	**0.00942**	0.00149 U	**0.0140**	0.00281 U	0.00170 U	0.00721 U	0.00143 U	0.000747 U	0.00647 U
DP-5(2-2.5)	12/18/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DP-7(3-4)	12/21/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DP-8(2-3.5)	12/21/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DP-10(3-4)	12/18/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DP-11(2-3)	12/18/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DP-12(3-4.5)	12/18/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DP-13(2.5-3.5)	12/21/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DEQ Generic RBCs[1]																			
Soil Ingestion, Dermal Contact, and Inhalation																			
Occupational		NE	37	NE	15	260	750	NE	NE	NE	NE	34	8,700	>Max	26	25,000	NE	NE	NE
Construction Worker		NE	380	NE	230	2,700	370	NE	NE	NE	NE	320	4,700	>Max	410	25,000	NE	NE	NE
Excavation Worker		NE	11,000	NE	6,300	74,000	10,000	NE	NE	NE	NE	8,900	130,000	>Max	11,000	700,000	NE	NE	NE
Volatilization to Outdoor Air																			
Occupational		NE	50	NE	11	360	700	NE	NE	NE	NE	65	>Csat	>Csat	17	>Csat	NE	NE	NE
DEQ Ecological RBCs[2]																			
Ground Feeding																			
T&E Birds		7.5	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Non-T&E Birds		75	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
T&E Mammals		1.2	24	NE	NE	NE	NE	350	NE	NE	NE	2	NE	NE	8	NE	NE	NE	NE
Non-T&E Mammals		6.3	240	NE	NE	NE	NE	920	NE	NE	NE	9.8	NE	NE	21	NE	NE	NE	NE
Top Consumers																			
T&E Birds		840	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Non-T&E Birds		8,400	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
T&E Mammals		1,800	4,300	NE	NE	NE	NE	1,300,000	NE	NE	NE	3	NE	NE	2,200	NE	NE	NE	NE
Non-T&E Mammals		8,900	43,000	NE	NE	NE	NE	3,500,000	NE	NE	NE	15	NE	NE	6,000	NE	NE	NE	NE
DEQ CFSLs[3]		**1.2**	**0.023**	**2.5**	**0.002**	**0.046**	**0.083**	**72**	**190**	**350**	**96**	**0.013**	**2.4**	**310**	**0.0034**	**2.2**	**14**	**14**	**0.0000084**

TABLE 2
Summary of Soil Sample Chemical Analytical Results
VOCs
2800 NE 82nd Avenue
Portland, Oregon

Sample I.D. (depth in feet BGS)	Sample Date	VOCs EPA Method 8260D (mg/kg) 1,2-Dibromoethane	Dibromomethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene
COMP-1	12/18/23	0.000983 U	0.00114 U	0.000645 U	0.00091 U	**0.0110**	0.00244 U	0.000985 U	0.000985 U	0.000920 U	0.00111 U	0.00158 U	0.00215 U	0.000760 U	0.00209 U	0.00123 U	0.00115 U	0.00173 U	**0.00202**
COMP-2	12/18/23	0.00102 U	0.00118 U	0.000667 U	0.000942 U	**0.0242**	0.00253 U	0.000771 U	0.00102 U	0.000951 U	0.00115 U	0.00163 U	0.00223 U	0.000786 U	0.00217 U	0.00127 U	0.00119 U	0.00179 U	**0.0220**
DP-1(2-3)	12/18/23	0.00118 U	0.00136 U	0.000776 U	0.00109 U	0.00128 U	0.00293 U	0.000896 U	0.00118 U	0.00111 U	0.00134 U	0.00189 U	0.00259 U	0.000914 U	0.00251 U	0.00147 U	0.00138 U	0.00208 U	0.00134 U
DP-1(11-12)	12/18/23	0.00129 U	0.00150 U	0.000845 U	0.00119 U	0.00139 U	0.00321 U	0.000977 U	0.00129 U	0.00121 U	0.00146 U	0.00207 U	0.00283 U	0.000997 U	0.00275 U	0.00161 U	0.00151 U	0.00227 U	0.00147 U
DP-2(2-3.5)	12/18/23	0.00143 U	0.00165 U	0.000935 U	0.00132 U	**0.0141**	0.00354 U	0.00108 U	0.00143 U	0.00134 U	0.00162 U	0.00229 U	0.00313 U	0.00110 U	0.00304 U	0.00177 U	0.00166 U	0.00251 U	0.00162 U
DP-2(12-13)	12/21/23	0.000834 U	0.000966 U	0.000547 U	0.000772 U	0.000901 U	0.00207 U	0.000631 U	0.000835 U	0.000779 U	0.000944 U	0.00134 U	0.00183 U	0.000645 U	0.00178 U	0.00104 U	0.000974 U	0.00147 U	0.000949 U
DP-3(1-2.3)	12/18/23	0.00158 U	0.00182 U	**0.00400 J**	0.00145 U	**0.0286**	0.00390 U	0.00119 U	0.00158 U	0.00147 U	0.00178 U	0.00252 U	0.00344 U	0.00121 U	0.00334 U	0.00195 U	0.00184 U	0.00276 U	**0.00727**
DP-3(12-13)	12/21/23	0.000974 U	0.00113 U	0.000639 U	0.000902 U	**0.0198**	0.00243 U	0.000738 U	0.000975 U	0.000911 U	0.00110 U	0.00156 U	0.00213 U	0.000753 U	0.00207 U	0.00122 U	0.00114 U	0.00171 U	**0.00924**
DP-4(0-1)	12/21/23	0.00101 U	0.00117 U	0.000665 U	0.000939 U	0.00109 U	0.00252 U	0.000768 U	0.00102 U	0.000947 U	0.00115 U	0.00162 U	0.00222 U	0.000784 U	0.00216 U	0.00127 U	0.00118 U	0.00178 U	0.00115 U
DP-4(5-7)	12/21/23	0.00169 U	0.00196 U	0.00111 U	0.00157 U	**0.0194**	0.00421 U	0.00128 U	0.00169 U	0.00158 U	0.00193 U	0.00272 U	0.00372 U	0.00131 U	0.00360 U	0.00211 U	0.00198 U	0.00298 U	**0.305**
BD-1	12/21/23	0.00107 U	0.00124 U	**0.0167**	**0.0193**	**0.275**	0.00266 U	0.000814 U	0.00108 U	0.00101 U	**0.00447**	0.00172 U	0.00236 U	0.000831 U	0.00228 U	0.00134 U	0.00126 U	0.00189 U	**0.186**
DP-5(2-2.5)	12/18/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DP-7(3-4)	12/21/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DP-8(2-3.5)	12/21/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DP-10(3-4)	12/18/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DP-11(2-3)	12/18/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DP-12(3-4.5)	12/18/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DP-13(2.5-3.5)	12/21/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DEQ Generic RBCs[1]																			
Soil Ingestion, Dermal Contact, and Inhalation																			
Occupational		0.73	NE	36,000	NE	64	NE	260	16	29,000	2,300	23,000	NE	NE	NE	NE	NE	NE	150
Construction Worker		9.0	NE	20,000	NE	1,300	NE	3,200	200	13,000	710	7,100	NE	NE	NE	NE	NE	NE	1,700
Excavation Worker		250	NE	560,000	NE	36,000	NE	89,000	5,600	370,000	20,000	200,000	NE	NE	NE	NE	NE	NE	49,000
Volatilization to Outdoor Air																			
Occupational		0.65	NE	>Csat	NE	36	NE	240	15	>Csat	>Max	>Max	NE	NE	NE	NE	NE	NE	160
DEQ Ecological RBCs[2]																			
Ground Feeding																			
T&E Birds		NE	NE	NE	NE	NE	NE	NE	0.85	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Non-T&E Birds		NE	NE	NE	NE	NE	NE	NE	1.6	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
T&E Mammals		NE	NE	0.92	0.74	0.89	NE	210	27	11	24	24	NE	NE	NE	NE	NE	NE	NE
Non-T&E Mammals		NE	NE	9.2	7.4	3.5	NE	2,100	270	60	240	240	NE	NE	NE	NE	NE	NE	NE
Top Consumers																			
T&E Birds		NE	NE	NE	NE	NE	NE	NE	22	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Non-T&E Birds		NE	NE	NE	NE	NE	NE	NE	44	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
T&E Mammals		NE	NE	480	380	470	NE	250,000	8,400	320	6,300	6,300	NE	NE	NE	NE	NE	NE	NE
Non-T&E Mammals		NE	NE	4,800	3,800	1,800	NE	2,500,000	84,000	1,600	63,000	63,000	NE	NE	NE	NE	NE	NE	NE
DEQ CFSLs[3]		**0.00012**	**0.13**	**0.92**	**0.74**	**0.057**	**18**	**0.044**	**0.0028**	**6.7**	**0.63**	**7**	**0.017**	**7.8**	**NE**	**NE**	**0.01**	**0.01**	**0.22**

TABLE 2
Summary of Soil Sample Chemical Analytical Results
VOCs
2800 NE 82nd Avenue
Portland, Oregon

Sample I.D. (depth in feet BGS)	Sample Date	VOCs EPA Method 8260D (mg/kg)																
		Isopropylbenzene	4-Isopropyltoluene	4-Methyl-2-pentanone (MiBK)	MTBE	Methylene Chloride	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	PCE	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	TCE
COMP-1	12/18/23	**0.00698**		0.00346 U	0.000531 U	0.0101 U	**0.0511**	**0.00687**	0.000347 U	0.00144 U	0.00105 U	0.00136 U	**0.0234**	0.0111 U	0.00668 U	0.00140 U	0.000906 U	0.000886 U
COMP-2	12/18/23	**0.0278**		0.00358 U	0.000549 U	0.0104 U	**0.150**	**0.0322**	0.000359 U	0.00149 U	0.00109 U	**0.00358**	**0.0562**	0.0115 U	0.00691 U	0.00145 U	0.000937 U	**0.00212**
DP-1(2-3)	12/18/23	0.000776 U		0.00416 U	0.000639 U	0.0121 U	0.00891 U	0.00173 U	0.000418 U	0.00173 U	0.00127 U	0.00164 U	0.00238 U	0.0134 U	0.00803 U	0.00169 U	0.00109 U	0.00106 U
DP-1(11-12)	12/18/23	0.000845 U		0.00454 U	0.000697 U	0.0132 U	0.00971 U	0.00189 U	0.000456 U	0.00189 U	0.00138 U	0.00179 U	0.00259 U	0.0146 U	0.00876 U	0.00184 U	0.00119 U	0.00116 U
DP-2(2-3.5)	12/18/23	0.000935 U		0.00502 U	0.000770 U	**0.0181 J**	0.0107 U	0.00208 U	0.000504 U	0.00208 U	0.00153 U	0.00197 U	0.00285 U	0.0161 U	0.00967 U	0.00203 U	0.00131 U	0.00128 U
DP-2(12-13)	12/21/23	0.000547 U		0.00293 U	0.000450 U	0.00854 U	0.00628 U	0.00123 U	0.000295 U	0.00121 U	0.000895 U	0.00115 U	0.00167 U	0.00943 U	0.00567 U	0.00119 U	0.000769 U	0.000752 U
DP-3(1-2.3)	12/18/23	**0.00551 J**		0.00551 U	0.000848 U	0.0160 U	**0.0284 J**	**0.0125**	**0.000727 J**	0.00229 U	0.00168 U	0.00217 U	**0.00896 J**	0.0178 U	0.0106 U	0.00223 U	0.00145 U	0.00141 U
DP-3(12-13)	12/21/23	**0.00271 J**		0.00342 U	0.000526 U	0.00999 U	0.00734 U	**0.00508 J**	0.000344 U	0.00142 U	0.00105 U	0.00135 U	**0.00447 J**	0.0110 U	0.00661 U	0.00139 U	0.000898 U	0.000878 U
DP-4(0-1)	12/21/23	0.000665 U		0.00356 U	0.000547 U	0.0104 U	0.00763 U	0.00149 U	0.000358 U	0.00148 U	0.00109 U	0.00140 U	0.00203 U	0.0115 U	0.00688 U	0.00144 U	0.000934 U	0.000914 U
DP-4(5-7)	12/21/23	**0.320**		0.00597 U	0.000915 U	0.0174 U	**0.122**	**0.138**	0.000598 U	0.00248 U	0.00181 U	0.00235 U	**0.0102 J**	0.0191 U	0.0115 U	0.00241 U	**0.0226**	0.00153 U
BD-1	12/21/23	**0.187**		0.00379 U	0.000580 U	**0.0225 J**	**0.140**	**0.126**	**0.0612**	0.00157 U	0.00115 U	**0.0139**	**0.564**	0.0122 U	0.00730 U	0.00154 U	0.000991 U	**0.0161**
DP-5(2-2.5)	12/18/23	--	--	--	--	--	**2.31 T8**	--	--	--	--	--	--	--	--	--	--	--
DP-7(3-4)	12/21/23	--	--	--	--	--	0.00734 U	--	--	--	--	--	--	--	--	--	--	--
DP-8(2-3.5)	12/21/23	--	--	--	--	--	0.00979 U	--	--	--	--	--	--	--	--	--	--	--
DP-10(3-4)	12/18/23	--	--	--	--	--	**0.175 T8**	--	--	--	--	--	--	--	--	--	--	--
DP-11(2-3)	12/18/23	--	--	--	--	--	**0.279 T8**	--	--	--	--	--	--	--	--	--	--	--
DP-12(3-4.5)	12/18/23	--	--	--	--	--	**0.0860 T8**	--	--	--	--	--	--	--	--	--	--	--
DP-13(2.5-3.5)	12/21/23	--	--	--	--	--	**0.0725**	--	--	--	--	--	--	--	--	--	--	--
DEQ Generic RBCs[1]																		
Soil Ingestion, Dermal Contact, and Inhalation																		
Occupational		57,000	NE	NE	1,100	1,600	23	NE	130,000	NE	NE	1,000	88,000	NE	NE	870,000	26	51
Construction Worker		27,000	NE	NE	12,000	2,100	580	NE	56,000	NE	NE	1,800	28,000	NE	NE	470,000	54	130
Excavation Worker		750,000	NE	NE	320,000	58,000	16,000	NE	>Max	NE	NE	50,000	770,000	NE	NE	>Max	1,500	3,700
Volatilization to Outdoor Air																		
Occupational		>Csat	NE	NE	1,500	>Csat	83	NE	>Csat	NE	NE	>Csat	>Csat	NE	NE	>Csat	24	96
DEQ Ecological RBCs[2]																		
Ground Feeding																		
T&E Birds		NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Non-T&E Birds		NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
T&E Mammals		NE		9.7	NE	2.6	NE	NE	NE	NE	NE	0.18	23	NE	0.27	250	NE	42
Non-T&E Mammals		NE		97	NE	22	NE	NE	NE	NE	NE	0.94	230	NE	2.6	1,300	NE	420
Top Consumers																		
T&E Birds		NE		NE	NE	NE	NE	`	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Non-T&E Birds		NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
T&E Mammals		NE		18,000	NE	1,000	NE	NE	NE	NE	NE	42	3,300	NE	110	91,000	NE	11,000
Non-T&E Mammals		NE		180,000	NE	8,500	NE	NE	NE	NE	NE	210	33,000	NE	1,100	450,000	NE	110,000
DEQ CFSLs[3]		**96**	**NE**	**9.7**	**0.11**	**0.14**	**0.077**	**72**	**1.2**	**0.013**	**0.0018**	**0.18**	**23**	**1.3**	**0.2**	**190**	**0.0063**	**0.013**

TABLE 2
Summary of Soil Sample Chemical Analytical Results
VOCs
2800 NE 82nd Avenue
Portland, Oregon

Sample I.D. (depth in feet BGS)	Sample Date	VOCs EPA Method 8260D (mg/kg) Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-TMB	1,3,5-TMB	Vinyl Chloride	Total Xylenes
COMP-1	12/18/23	0.00125 U	0.00246 U	**0.00642**	0 U	0.00176 U	**0.0023**
COMP-2	12/18/23	0.00130 U	0.00254 U	**0.0135**	**0.01**	0.00182 U	**0.0449**
DP-1(2-3)	12/18/23	0.00151 U	0.00296 U	0.00288 U	0 U	0.00212 U	0.00161 U
DP-1(11-12)	12/18/23	0.00165 U	0.00322 U	0.00314 U	0 U	0.00231 U	0.00175 U
DP-2(2-3.5)	12/18/23	0.00181 U	0.00356 U	0.00347 U	.0044I U	0.00255 U	0.00193 U
DP-2(12-13)	12/21/23	0.00106 U	0.00208 U	0.00203 U	0 U	0.00149 U	0.00113 U
DP-3(1-2.3)	12/18/23	0.00200 U	0.00392 U	**0.0110 J**	0 U	0.00282 U	**0.0078 J**
DP-3(12-13)	12/21/23	0.00124 U	0.00244 U	**0.0201**	**0.01 J**	0.00174 U	**0.0185**
DP-4(0-1)	12/21/23	0.00129 U	0.00253 U	0.00248 U	0 U	0.00181 U	0.00138 U
DP-4(5-7)	12/21/23	0.00216 U	0.00424 U	**0.218**	**0.08**	0.00303 U	**0.0624**
BD-1	12/21/23	**0.00817**	0.00269 U	**0.178**	**0.03**	0.00192 U	**0.160**
DP-5(2-2.5)	12/18/23	--	--	--	--	--	--
DP-7(3-4)	12/21/23	--	--	--	--	--	--
DP-8(2-3.5)	12/21/23	--	--	--	--	--	--
DP-10(3-4)	12/18/23	--	--	--	--	--	--
DP-11(2-3)	12/18/23	--	--	--	--	--	--
DP-12(3-4.5)	12/18/23	--	--	--	--	--	--
DP-13(2.5-3.5)	12/21/23	--	--	--	--	--	--
DEQ Generic RBCs[1]							
Soil Ingestion, Dermal Contact, and Inhalation							
Occupational		130,000	NE	6,900	6,900	4.4	25,000
Construction Worker		69,000	NE	2,900	2,900	34	20,000
Excavation Worker		>Max	NE	81,000	81,000	950	560,000
Volatilization to Outdoor Air							
Occupational		>Csat	NE	>Csat	>Csat	89	>Csat
DEQ Ecological RBCs[2]							
Ground Feeding							
T&E Birds		NE	NE	NE	NE	NE	41
Non-T&E Birds		NE	NE	NE	NE	NE	410
T&E Mammals		52	NE	NE	NE	0.12	1.4
Non-T&E Mammals		350	NE	NE	NE	1.2	1.8
Top Consumers							
T&E Birds		NE	NE	NE	NE	NE	190
Non-T&E Birds		NE	NE	NE	NE	NE	1,900
T&E Mammals		62,000	NE	NE	NE	28	210
Non-T&E Mammals		420,000	NE	NE	NE	280	260
DEQ CFSLs[3]		**52**	**0.000019**	**10**	**11**	**0.00057**	**1.4**

Notes:
1. DEQ Generic RBCs dated May 2018, amended June 2023
2. DEQ Ecological RBCs dated September 2020
3. DEQ CFSLs dated February 21, 2019
J: The identification of the analyte is acceptable; the reported value is an estimate.
T8: Sample received past/too close to holding time expiration.
>Csat: This soil RBC exceeds the limit of three-phase equilibrium partitioning. Refer to Appendix D of DEQ's RBDM guidance document for the corresponding value of Csat. Soil concentrations in excess of Csat indicate that free product might be present.
J: The identification of the analyte is acceptable; the reported value is an estimate.
>Max: The constituent RBC for this pathway is calculated as greater than 1,000,000 mg/kg or 1,000,000 mg/L. Therefore, this substance is deemed not to pose risks in this scenario.
U: Not detected. Reporting or detection limit shown.
Bolding indicates analyte detection.
Shading indicates analyte detection at a concentration greater than DEQ RBCs and/or CFSLs.
--: not analyzed

TABLE 3
Summary of Soil Sample Chemical Analytical Results
RCRA 8 Total Metals
2800 NE 82nd Avenue
Portland, Oregon

Sample I.D. (depth in feet BGS)	Sample Date	RCRA 8 Total Metals EPA Method 6020B (mg/kg)								TCLP Lead EPA Method 6010D (mg/L)
		Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver	
COMP-1	12/18/23	4.33	142	0.245 J	15.3	37.8	0.0322	0.543 J	0.109 U	--
COMP-2	12/18/23	11.6	171	0.552 J	24.4	176	0.312	0.491 J	0.127 J	--
DP-1(2-3)	12/18/23	2.15	198	0.103 U	13.2	5.82	0.0216 U	0.605 J	0.104 U	--
DP-1(11-12)	12/18/23	1.31	96.4	0.0995 U	14.6	3.81	0.0209 U	0.418 J	0.101 U	--
DP-2(2-3.5)	12/18/23	2.32	126	0.127 J	11.0	24.1	0.0212 U	0.753 J	0.102 U	--
DP-2(12-13)	12/21/23	1.01 J	124	0.0945 U	9.03	4.60	0.0199 U	0.594 J	0.0956 U	--
DP-3(1-2.3)	12/18/23	2.29	96.6	0.198 J	14.8	42.3	0.0649	0.331 J	0.111 U	--
DP-3(12-13)	12/21/23	7.64	247	6.89	32.2	306	0.134	0.358 J	0.108 U	0.100 U
DP-4(0-1)	12/21/23	3.98	126	0.127 J	12.7	11.0	0.0222 U	0.431 J	0.107 U	--
DP-4(5-7)	12/21/23	13.6	121	2.00	109	107	0.367 U	0.441 J	2.31	0.100 U
BD-1	12/21/23	6.79	179	8.70	59.7	209	0.261 U	0.324 J	0.110 U	0.100 U
DP-5(0-0.5)	12/18/23	--	--	--	--	8.20	--	--	--	0.100 U
DP-5(2-2.5)	12/18/23	4.64	--	--	--	411	1.37	--	--	--
DP-6(2-2.5)	12/18/23	--	--	--	--	12.5	--	--	--	--
DP-7(0-2)	12/21/23	--	--	--	--	512	--	--	--	0.732
DP-7(3-4)	12/21/23	3.67	--	--	--	33.5	0.0403 J	--	--	--
DP-8(0-2)	12/21/23	--	--	--	--	33.4	--	--	--	--
DP-8(2-3.5)	12/21/23	3.35	--	--	--	49.3	0.0681	--	--	--
DP-9(0-2)	12/21/23	--	--	--	--	113	--	--	--	0.100 U
DP-10(0-1)	12/18/23	--	--	--	--	13.6	--	--	--	--
DP-10(3-4)	12/18/23	8.75	--	--	--	376	0.179	--	--	0.368
DP-11(0-1)	12/18/23	--	--	--	--	11.2	--	--	--	--
DP-11(2-3)	12/18/23	4.86	--	--	--	259	0.344	--	--	0.649
DP-12(0-1.5)	12/18/23	--	--	--	--	20.2	--	--	--	--
DP-12(3-4.5)	12/18/23	4.48	--	--	--	439	0.594	--	--	0.100 U
DP-13(1-2.5)	12/21/23	--	--	--	--	16.9	--	--	--	--
DP-13(2.5-3.5)	12/21/23	12.6	--	--	--	167	0.257	--	--	0.100 U
DP-14(0-2)	12/21/23	--	--	--	--	25.0	--	--	--	--
DP-15(0-1.5)	12/21/23	--	--	--	--	3.15	--	--	--	--
DP-16(0-2)	12/21/23	--	--	--	--	19.6	--	--	--	--
DEQ Generic RBCs[1]										
Soil Ingestion, Dermal Contact, and Inhalation										
Occupational		1.9[2]	220,000	1,100	>Max	800	350	NE	5,800	NE
Construction Worker		15	69,000	350	530,000	800	110	NE	1,800	NE
Excavation Worker		420	>Max	9,700	>Max	800	2,900	NE	49,000	NE
Volatilization to Outdoor Air										
Occupational		NV	NV	NV	NV	NV	NV	NE	NV	NE

TABLE 3
Summary of Soil Sample Chemical Analytical Results
RCRA 8 Total Metals
2800 NE 82nd Avenue
Portland, Oregon

Sample I.D. (depth in feet BGS)	Sample Date	RCRA 8 Total Metals EPA Method 6020B (mg/kg)								TCLP Lead EPA Method 6010D (mg/L)
		Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver	
DEQ Ecological RBCs[3]										
Ground Feeding										
T&E Birds		15	720	0.29	23	11	0.013	0.71	2.6	NE
Non-T&E Birds		32	1,200	1.6	73	23	0.13	1.4	26	NE
T&E Mammals		19	1,800	0.27	34	56	1.7	0.63	14	NE
Non-T&E Mammals		31	8,700	4	1,600	170	17	1	140	NE
Top Consumers										
T&E Birds		100	630	1	170	83	0.058	4	90	NE
Non-T&E Birds		1,000	13,000	7.7	560	160	0.58	7.5	900	NE
T&E Mammals		170	9,100	84	180	460	26	2.8	46	NE
Non-T&E Mammals		290	44,000	1,700	10,000	1,600	130	33	460	NE
DEQ CFSLs[4] (Portland Basin)		8.8	790	0.63	76	28	0.23	0.71	0.82	NE
EPA TCLP Limits[5]		NE	NE	NE	NE	NE	NE	NE	NE	5

Notes:
1. DEQ Generic RBCs dated May 2018, amended June 2023
2. While the detected concentrations of arsenic are greater than this RBC, they are within the range of naturally occuring arsenic concentrations in soil in this area except for samples COMP-2, DP-4(5-7) and DP-13(2.5-3.5).
3. DEQ Ecological RBCs dated September 2020
4. DEQ CFSLs dated February 21, 2019
5. Analytes exceeding the maximum leachable limits are defined as toxicity characteristic hazardous waste.

J: The identification of the analyte is acceptable; the reported value is an estimate.
>Max: The constituent RBC for this pathway is calculated as greater than 1,000,000 mg/kg or 1,000,000 mg/L. Therefore, this substance is deemed not to pose risks in this scenario.
NV: chemical is considered non-volatile
U: Not detected. Reporting or detection limit shown.
Bolding indicates analyte detection.
Shading indicates analyte detection at a concentration greater than DEQ RBCs and/or CFSLs.
--: not analyzed

TABLE 4
Summary of Soil Sample Chemical Analytical Results
PAHs
2800 NE 82nd Avenue
Portland, Oregon

Sample I.D. (depth in feet BGS)	Sample Date	PAHs EPA Method 8270E-SIM (mg/kg)																				
		Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	2-Chloronaphthalene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene	Total LPAH	Total HPAH
COMP-1	12/18/23	**0.00351 J**	0.00272 U	**0.00491 J**	**0.0177**	**0.0278**	**0.0279**	**0.00843**	**0.0269**	0.00587 U	**0.0204**	**0.00335 J**	**0.0467**	**0.00534 J**	**0.0210**	0.00565 U	**0.00537 J**	**0.0115 J**	**0.0341**	**0.0505**	**0.0731**	**0.2507**
COMP-2	12/18/23	**0.0158**	**0.0164**	**0.0206**	**0.0732**	**0.0830**	**0.0998**	**0.0265**	**0.0766**	**0.0125 J**	**0.102**	**0.01190**	**0.274**	**0.0379**	**0.0581**	**0.0220 J**	**0.0247 J**	**0.0644**	**0.126**	**0.270**	**0.306**	**0.722**
DP-1(2-3)	12/18/23	0.00251 U	0.00260 U	0.00276 U	0.00208 U	0.00215 U	0.00184 U	0.00258 U	**0.00233 J**	0.00560 U	0.00279 U	0.00207 U	0.00273 U	0.00246 U	0.00218 U	0.00540 U	0.00513 U	0.00490 U	0.00278 U	0.00240 U	**0.01564**	**0.02075**
DP-1(11-12)	12/18/23	0.00243 U	0.00251 U	0.00268 U	**0.00732**	**0.00643 J**	**0.00584 J**	0.00250 U	0.00980 U	0.00542 U	0.0145 U	**0.00304 J**	**0.00297 J**	0.00238 U	**0.00249 J**	0.00522 U	0.00497 U	0.00475 U	**0.0131**	**0.0120**	**0.03804**	**0.04259**
DP-2(2-3.5)	12/18/23	0.00247 U	0.00255 U	0.00272 U	0.00204 U	0.00211 U	**0.00201 J**	0.00254 U	**0.00246 J**	0.00550 U	0.00274 U	0.00203 U	0.00268 U	0.00242 U	0.00214 U	0.00530 U	0.00504 U	0.00482 U	0.00273 U	0.00236 U	**0.02275**	**0.02311**
DP-2(12-13)	12/21/23	0.00231 U	0.00239 U	0.00254 U	0.00191 U	0.00198 U	0.00169 U	0.00238 U	0.00196 U	0.00515 U	0.00256 U	0.00190 U	0.00251 U	0.00226 U	0.00200 U	0.00496 U	0.00472 U	0.00451 U	0.00255 U	0.00221 U	0.02624 U	0.0172 U
DP-3(1-2.3)	12/18/23	0.00269 U	0.00278 U	0.00296 U	**0.0149**	**0.0210**	**0.0205**	**0.00686 J**	**0.0183**	0.00600 U	**0.0193**	**0.00309 J**	**0.00643 J**	**0.00643 J**	**0.0171**	**0.0107 J**	**0.0144 J**	**0.0237 J**	**0.0305**	**0.0383**	**0.09416**	**0.14478**
DP-3(12-13)	12/21/23	**0.00705 J**	**0.00893**	**0.0106**	**0.0249**	**0.0399**	**0.0132**	**0.0132**	**0.0358**	0.00580 U	**0.0304**	**0.00868**	**0.0719**	**0.00481 J**	**0.0356**	0.00559 U	0.00532 U	0.00508 U	**0.00997**	**0.0840**	**0.05735**	**0.27358**
DP-4(0-1)	12/21/23	0.00258 U	0.00266 U	0.00284 U	0.00213 U	0.00221 U	0.00189 U	0.00265 U	0.00218 U	0.00575 U	0.00286 U	0.00212 U	0.00280 U	0.00253 U	0.00223 U	0.00526 U	0.00526 U	0.00503 U	0.00285 U	0.00247 U	0.02901 U	0.02074 U
DP-4(5-7)	12/21/23	**0.186**	**0.0340**	**0.130**	**0.287**	**0.240**	**0.263**	**0.0685**	**0.171**	**0.0388**	**0.580**	**0.0448**	**0.953**	**0.354**	**0.155**	**0.176**	**0.195**	**0.237**	**1.20**	**0.848**	**1.148**	**2.7903**
BD-1	12/21/23	**0.0871**	**0.0356**	**0.0832**	**0.253**	**0.232**	**0.260**	**0.0772**	**0.191**	0.00593 U	**0.322**	**0.0441**	**0.536**	**0.167**	**0.188**	**0.531**	**0.677**	**0.215**	**0.472**	**0.527**	**2.2679**	**2.3703**
DEQ Generic RBCs[1]																						
Soil Ingestion, Dermal Contact, and Inhalation																						
Occupational		70,000	NE	350,000	21	2.1	21	210	NE	NE	2,100	2.1	30,000	47,000	21	NE	NE	23	NE	23,000	NE	NE
Construction Worker		21,000	NE	110,000	170	17	170	1,700	NE	NE	17,000	17	10,000	14,000	170	NE	NE	580	NE	7,500	NE	NE
Excavation Worker		590,000	NE	>Max	4,800	490	4,900	49,000	NE	NE	490,000	490	280,000	390,000	4,900	NE	NE	16,000	NE	210,000	NE	NE
Volatilization to Outdoor Air																						
Occupational		>Max	NE	>Max	>Csat	NV	NV	NV	NE	NE	NV	NV	NV	>Max	NV	NE	NE	83	NE	>Max	NE	NE
DEQ Ecological RBCs[2]																						
Ground Feeding																						
T&E Birds		See Total LPAH	See Total LPAH	See Total LPAH	See Total HPAH	See Total HPAH	See Total HPAH	See Total HPAH	See Total HPAH	NE	See Total HPAH	See Total HPAH	See Total HPAH	See Total LPAH	See Total HPAH	See Total LPAH	See Total LPAH	See Total LPAH	See Total LPAH	See Total HPAH	13	0.11
Non-T&E Birds		See Total LPAH	See Total LPAH	See Total LPAH	See Total HPAH	See Total HPAH	See Total HPAH	See Total HPAH	See Total HPAH	NE	See Total HPAH	See Total HPAH	See Total HPAH	See Total LPAH	See Total HPAH	See Total LPAH	See Total LPAH	See Total LPAH	See Total LPAH	See Total HPAH	67	0.55
T&E Mammals		See Total LPAH	See Total LPAH	See Total LPAH	See Total HPAH	See Total HPAH	See Total HPAH	See Total HPAH	See Total HPAH	NE	See Total HPAH	See Total HPAH	See Total HPAH	See Total LPAH	See Total HPAH	See Total LPAH	See Total LPAH	See Total LPAH	See Total LPAH	See Total HPAH	100	1.1
Non-T&E Mammals		See Total LPAH	See Total LPAH	See Total LPAH	See Total HPAH	See Total HPAH	See Total HPAH	See Total HPAH	See Total HPAH	NE	See Total HPAH	See Total HPAH	See Total HPAH	See Total LPAH	See Total HPAH	See Total LPAH	See Total LPAH	See Total LPAH	See Total LPAH	See Total HPAH	540	5.9
Top Consumers																						
T&E Birds		See Total LPAH	See Total LPAH	See Total LPAH	See Total HPAH	See Total HPAH	See Total HPAH	See Total HPAH	See Total HPAH	NE	See Total HPAH	See Total HPAH	See Total HPAH	See Total LPAH	See Total HPAH	See Total LPAH	See Total LPAH	See Total LPAH	See Total LPAH	See Total HPAH	7,500	6
Non-T&E Birds		See Total LPAH	See Total LPAH	See Total LPAH	See Total HPAH	See Total HPAH	See Total HPAH	See Total HPAH	See Total HPAH	NE	See Total HPAH	See Total HPAH	See Total HPAH	See Total LPAH	See Total HPAH	See Total LPAH	See Total LPAH	See Total LPAH	See Total LPAH	See Total HPAH	37,000	64
T&E Mammals		See Total LPAH	See Total LPAH	See Total LPAH	See Total HPAH	See Total HPAH	See Total HPAH	See Total HPAH	See Total HPAH	NE	See Total HPAH	See Total HPAH	See Total HPAH	See Total LPAH	See Total HPAH	See Total LPAH	See Total LPAH	See Total LPAH	See Total LPAH	See Total HPAH	1,200	110
Non-T&E Mammals		See Total LPAH	See Total LPAH	See Total LPAH	See Total HPAH	See Total HPAH	See Total HPAH	See Total HPAH	See Total HPAH	NE	See Total HPAH	See Total HPAH	See Total HPAH	See Total LPAH	See Total HPAH	See Total LPAH	See Total LPAH	See Total LPAH	See Total LPAH	See Total HPAH	59,000	550
DEQ CFSLs[3]		0.25	120	6.8	0.73	0.11	1.1	11	25	230	3.1	0.11	10	3.7	1.1	0.36	11	0.077	5.5	10	NE	NE

Notes:
1. DEQ Generic RBCs dated May 2018, amended June 2023
2. DEQ Ecological RBCs dated September 2020
3. DEQ CFSLs dated February 21, 2019
>Csat: This soil RBC exceeds the limit of three-phase equilibrium partitioning. Refer to Appendix D of DEQ's RBDM guidance document for the corresponding value of Csat. Soil concentrations in excess of Csat indicate that free product might be present.
J: The identification of the analyte is acceptable; the reported value is an estimate.
>Max: The constituent RBC for this pathway is calculated as greater than 1,000,000 mg/kg or 1,000,000 mg/L. Therefore, this substance is deemed not to pose risks in this scenario.
NV: chemical is considered non-volatile
U: Not detected. Reporting or detection limit shown.
Bolding indicates analyte detection.
Shading indicates analyte detection at a concentration greater than DEQ RBCs and/or CFSLs.
Total LPAH is the sum of 1-methylnaphthalene, 2-methylnaphthalene, acenaphthnene, acenapthylene, anthracene, fluorene, naphthalene, and phenanthrene
Total HPAH is the sum of benz(a)anthracene, benzo(x)fluoranthenes, benzo(a)pyrene, benzo(g,h,i)perylene, chrysene, dibenz(a,h)anthracene, fluoranthene, indeno(1,2,3-c,d)pyrene, pyrene, benzo(g,h,i)perylene, chrysene, dibenz(a,h)anthracene, fluoranthene, indeno(1,2,3-c,d)pyrene, and pyrene.
--: not analyzed

TABLE 5
Summary of Soil Sample Chemical Analytical Results
PCBs
2800 NE 82nd Avenue
Portland, Oregon

Sample I.D. (depth in feet BGS)	Sample Date	PCBs EPA Method 8082A (mg/kg)						
		Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
COMP-1	12/18/23	0.0149 U	0.0149 U	0.0149 U	0.0149 U	0.00929 U	0.00929 U	0.00929 U
COMP-2	12/18/23	0.0303 U	0.0303 U	0.0303 U	0.0303 U	0.0190 U	0.0190 U	0.0190 U
DP-1(2-3)	12/18/23	0.0142 U	0.0142 U	0.0142 U	0.0142 U	0.00887 U	0.00887 U	0.00887 U
DP-1(11-12)	12/18/23	0.0137 U	0.0137 U	0.0137 U	0.0137 U	0.00859 U	0.00859 U	0.00859 U
DP-2(2-3.5)	12/18/23	0.0139 U	0.0139 U	0.0139 U	0.0139 U	0.00871 U	0.00871 U	0.00871 U
DP-2(12-13)	12/21/23	0.0130 U	0.0130 U	0.0130 U	0.0130 U	0.00815 U	0.00815 U	0.00815 U
DP-3(1-2.3)	12/18/23	0.0152 U	0.0152 U	0.0152 U	0.0152 U	0.00950 U	0.00950 U	0.00950 U
DP-3(12-13)	12/21/23	0.0147 U	0.0147 U	0.0147 U	0.0147 U	0.00919 U	0.00919 U	0.00919 U
DP-4(0-1)	12/21/23	0.0145 U	0.0145 U	0.0145 U	0.0145 U	0.00910 U	0.00910 U	0.00910 U
DP-4(5-7)	12/21/23	0.0167 U	0.0167 U	0.0167 U	0.0167 U	0.0104 U	0.0104 U	0.0104 U
BD-1	12/21/23	0.0150 U	0.0150 U	0.0150 U	0.0150 U	0.00939 U	0.00939 U	0.00939 U
DEQ Generic RBCs[1]								
Soil Ingestion, Dermal Contact, and Inhalation								
Occupational		0.59						
Construction Worker		4.9						
Excavation Worker		140						
Volatilization to Outdoor Air								
Occupational		>Csat						
DEQ CFSLs[2]		1.1	0.0048	0.0048	0.041	0.0073	0.041	0.24

TABLE 5
Summary of Soil Sample Chemical Analytical Results
PCBs
2800 NE 82nd Avenue
Portland, Oregon

Notes:
1. DEQ Generic RBCs dated May 2018, amended June 2023
2. DEQ CFSLs dated February 21, 2019

>Csat: This soil RBC exceeds the limit of three-phase equilibrium partitioning. Refer to Appendix D of DEQ's RBDM guidance document for the corresponding value of Csat. Soil concentrations in excess of Csat indicate that free product might be present.

U: Not detected. Reporting or detection limit shown.

TABLE 6
Summary of Soil Sample Chemical Analytical Results
Organochlorine Pesticides
2800 NE 82nd Avenue
Portland, Oregon

Sample I.D. (depth in feet BGS)	Sample Date	Organochlorine Pesticides EPA Method 8081B (mg/kg)																					
		4,4'-DDD	4,4'-DDE	4,4'-DDT	Aldrin	alpha-HCH	beta-BHC	gamma-HCH	Chlordane	Heptachlor	delta-BHC	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan Sulfate	Endrin	Endrin Aldehyde	Endrin Ketone	Heptachlor Epoxide	Methoxychlor	Toxaphene
COMP-1	12/18/23	0.00466 U	0.00461 U	0.00789 U	0.00473 U	0.00463 U	0.00477 U	0.00433 U	0.130 U	0.00539 U	0.00435 U	0.00433 U	0.00457 U	0.00422 U	0.00458 U	0.00441 U	0.00427 U	0.00895 U	0.00427 U	0.00609 U	0.156 U
COMP-2	12/18/23	**0.0421**	0.00470 U	0.00805 U	0.00483 U	0.00473 U	0.00487 U	0.00442 U	0.132 U	0.00550 U	0.00444 U	0.00442 U	0.00466 U	0.00430 U	0.00468 U	0.00450 U	0.00435 U	0.00913 U	0.00435 U	0.00622 U	0.159 U
DP-1(2-3)	12/18/23	0.00445 U, T8	0.00440 U, T8	0.00753 U, T8	0.00452 U, T8	0.00442 U, T8	0.00445 U, T8	0.00413 U, T8	0.124 U, T8	0.00514 U, T8	0.00416 U, T8	0.00413 U, T8	0.00436 U, T8	0.00403 U, T8	0.00437 U, T8	0.00421 U, T8	0.00407 U, T8	0.00854 U, T8	0.00407 U, T8	0.00582 U, T8	0.149 U, T8
DP-1(11-12)	12/18/23	0.00430 U, T8	0.00426 U, T8	0.00729 U, T8	0.00437 U, T8	0.00428 U, T8	0.00441 U, T8	0.00400 U, T8	0.120 U, T8	0.00498 U, T8	0.00403 U, T8	0.00400 U, T8	0.00422 U, T8	0.00390 U, T8	0.00423 U, T8	0.00407 U, T8	0.00394 U, T8	0.00827 U, T8	0.00394 U, T8	0.00563 U, T8	0.144 U, T8
DP-2(2-3.5)	12/18/23	0.00437 U, T8	0.00432 U, T8	0.00740 U, T8	0.00444 U, T8	0.00434 U, T8	0.00447 U, T8	0.00406 U, T8	0.122 U, T8	0.00505 U, T8	0.00408 U, T8	0.00406 U, T8	0.00429 U, T8	0.00395 U, T8	0.00430 U, T8	0.00413 U, T8	0.00400 U, T8	0.00839 U, T8	0.00400 U, T8	0.00571 U, T8	0.146 U, T8
DP-2(12-13)	12/21/23	0.00409 U	0.00404 U	0.00693 U	0.00415 U	0.00407 U	0.00419 U	0.00380 U	0.114 U	0.00473 U	0.00382 U	0.00380 U	0.00401 U	0.00370 U	0.00402 U	0.00387 U	0.00375 U	0.00785 U	0.00375 U	0.00535 U	0.137 U
DP-3(1-2.3)	12/18/23	0.00476 U, T8	0.00471 U, T8	0.00807 U, T8	0.00484 U, T8	0.00473 U, T8	0.00488 U, T8	0.00443 U, T8	0.133 U, T8	0.00551 U, T8	0.00445 U, T8	0.00443 U, T8	0.00467 U, T8	0.00431 U, T8	0.00468 U, T8	0.00450 U, T8	0.00436 U, T8	0.00915 U, T8	0.00436 U, T8	0.00623 U, T8	0.160 U, T8
DP-3(12-13)	12/21/23	0.00461 U	0.00456 U	0.00781 U	0.00468 U	0.00458 U	0.00472 U	0.00429 U	0.128 U	0.00533 U	0.00431 U	0.00429 U	0.00452 U	0.00417 U	0.00453 U	0.00436 U	0.00422 U	0.00886 U	0.00422 U	0.00603 U	0.154 U
DP-4(0-1)	12/21/23	0.00456 U	0.00451 U	0.00773 U	0.00464 U	0.00454 U	0.00467 U	0.00424 U	0.127 U	0.00528 U	0.00427 U	0.00424 U	0.00448 U	0.00413 U	0.00449 U	0.00432 U	0.00418 U	0.00877 U	0.00418 U	0.00597 U	0.153 U
DP-4(5-7)	12/21/23	0.00522 U	0.00517 U	0.00885 U	0.00531 U	0.00520 U	0.00535 U	0.00486 U	0.145 U	0.00604 U	0.00488 U	0.00486 U	0.00512 U	0.00473 U	0.00514 U	0.00494 U	0.00479 U	0.0100 U	0.00479 U	0.00683 U	0.175 U
BD-1	12/21/23	0.00471 U	0.00466 U	0.00798 U	0.00478 U	0.00468 U	0.00482 U	0.00438 U	0.131 U	0.00544 U	0.00440 U	0.00438 U	0.00462 U	0.00426 U	0.00463 U	0.00445 U	0.00431 U	0.00905 U	0.00431 U	0.00616 U	0.158 U
DEQ Generic RBCs[1]																					
Soil Ingestion, Dermal Contact, and Inhalation																					
Occupational		12	8.2	8.5	0.13	0.36	NE	2.1	7.4	0.45	NE	0.14	4,900		NE	250	NE	NE	0.24	NE	2.1
Construction Worker		9.7	66	66	1.1	3.0	NE	17	61	4.0	NE	1.2	1,600		NE	80	NE	NE	2.0	NE	17
Excavation Worker		270	1,800	1,800	30	83	NE	470	1,700	110	NE	33	45,000		NE	2,200	NE	NE	56	NE	470
Volatilization to Outdoor Air																					
Occupational		NV	>Csat	NV	>Csat	NV	NE	NV	>Csat	230	NE	NV	>Max		NE	NV	NE	NE	>Csat	NE	NV
DEQ Ecological RBCs[2]																					
Ground Feeding																					
T&E Birds		0.041[3]			0.000085	0.21[3]			0.28[3]		NE	0.012	15		NE	0.0014	NE	NE	NE	18	4.1
Non-T&E Birds		0.41[3]			0.0043	0.85[3]			1.4[3]		NE	0.64	150		NE	0.014	NE	NE	NE	92	21
T&E Mammals		0.047[3]			0.037	0.0096[3]			0.27[3]		NE	0.0045	0.64		NE	0.023	NE	NE	NE	5.1	5.9
Non-T&E Mammals		0.24[3]			0.18	0.096[3]			1.4[3]		NE	0.009	6.4		NE	0.23	NE	NE	NE	10	30
Top Consumers																					
T&E Birds		0.12[3]			0.062	120[3]			NE		NE	0.056	200		NE	0.0068	NE	NE	NE	87	19
Non-T&E Birds		1.2[3]			3.1	470[3]			NE		NE	3	2,000		NE	0.068	NE	NE	NE	8,800	190
T&E Mammals		0.02[3]			4.4	0.88[3]			120[3]		NE	0.0065	23		NE	2.1	NE	NE	NE	300	430
Non-T&E Mammals		0.099[3]			22	8.8[3]			590[3]		NE	0.013	230		NE	21	NE	NE	NE	600	2,100
DEQ CFSLs[4]		0.0063			0.023	0.0063	0.009	0.0095	0.91	0.017	NE	0.0045	0.64		NE	0.0014	NE	NE	0.0042	5.1	0.36

Notes:
1. DEQ Generic RBCs dated May 2018, amended June 2023
2. DEQ Ecological RBCs dated September 2020
3. These RBC values are compared to the sum of the detected concentrations of these analytes.
4. DEQ CFSLs dated February 21, 2019
>Csat: This soil RBC exceeds the limit of three-phase equilibrium partitioning. Refer to Appendix D of DEQ's RBDM guidance document for the corresponding value of Csat. Soil concentrations in excess of Csat indicate that free product might be present.
>Max: The constituent RBC for this pathway is calculated as greater than 1,000,000 mg/kg or 1,000,000 mg/L. Therefore, this substance is deemed not to pose risks in this scenario.
NV: Chemical is considered non-volatile.
T8: Sample received past/too close to holding time expiration.
U: Not detected. Reporting or detection limit shown.
Bolding indicates analyte detection.
Shading indicates analyte detection at a concentration greater than the DEQ RBCs and/or CFSLs.

TABLE 7
Summary of Surface Soil Sample Chemical Analytical Results
Organochlorine Herbicides
2800 NE 82nd Avenue
Portland, Oregon

Sample I.D.	Sample Date	Organochlorine Herbicides EPA Method 8151A (mg/kg)																	
		2,4-Dichlorophenoxy Acetic Acid		Dalapon		4-(2,4-Dichlorophenoxy) Butonic Acid		Dicamba		Dichloroprop		Dinoseb		MCPA		MCPP		2,4,5-Trichlorophenoxyacetic Acid		2,4,5-Trichlorophenoxypropionic Acid	
COMP-1	12/18/23	0.00884	U	0.0142	U	0.0374	U	0.0198	U	0.0308	U	0.00877	U	0.558	U	0.462		0.0107	U	0.0135	U
COMP-2	12/18/23	0.00902	U	0.0145	U	0.0382	U	0.0202	U	0.0315	U	0.00895	U	0.569	U	0.471	U	0.0109	U	0.0137	U
DP-1(2-3)	12/18/23	0.00844	U, T8	0.0136	U, T8	0.0357	U, T8	0.0189	U, T8	0.0294	U, T8	0.00838	U, T8	0.532	U, T8	0.441	U, T8	0.0102	U, T8	0.0129	U, T8
DP-1(11-12)	12/18/23	0.00817	U, T8	0.0131	U, T8	0.0346	U, T8	0.0183	U, T8	0.0285	U, T8	0.00811	U, T8	0.515	U, T8	0.427	U, T8	0.00991	U, T8	0.0124	U, T8
DP-2(2-3.5)	12/18/23	0.00829	U, T8	0.0133	U, T8	0.0351	U, T8	0.0185	U, T8	0.0289	U, T8	0.00823	U, T8	0.523	U, T8	0.433	U, T8	0.0101	U, T8	0.0126	U, T8
DP-2(12-13)	12/21/23	0.00776	U	0.0125	U	0.0328	U	0.0173	U	0.0271	U	0.00770	U	0.489	U	0.405	U	0.00941	U	0.0118	U
DP-3(1-2.3)	12/18/23	0.00903	U, Q	0.0145	U, Q	0.0382	U, Q	0.0202	U, Q	0.0315	U, Q	0.0090	U, Q	0.570	U, Q	0.472	U, Q	0.0110	U, Q	0.0138	U, Q
DP-3(12-13)	12/21/23	0.00874	U	0.0141	U	0.0370	U	0.0196	U	0.0305	U	0.00868	U	0.552	U	0.457	U	0.0106	U	0.0133	U
DP-4(0-1)	12/21/23	0.00866	U	0.0139	U	0.0366	U	0.0194	U	0.0302	U	0.00859	U	0.546	U	0.452	U	0.0105	U	0.0132	U
DP-4(5-7)	12/21/23	0.00991	U	0.0610	U	0.0419	U	0.0222	U	0.0346	U	0.00984	U	0.625	U	0.518	U	0.0120	U	0.0151	U
BD-1	12/21/23	0.00902	U	0.0145	U	0.0382	U	0.0202	U	0.0315	U	0.00895	U	0.569	U	0.471	U	0.0109	U	0.0137	U
DEQ Generic RBCs[1]																			
Soil Ingestion, Dermal Contact, and Inhalation																			
Occupational		8,200		NE		NE		NE		NE		NE		410		NE		NE		NE	
Construction Worker		2,700		NE		NE		NE		NE		NE		130		NE		NE		NE	
Excavation Worker		74,000		NE		NE		NE		NE		NE		3,700		NE		NE		NE	
Volatilization to Outdoor Air																			
Occupational		NV		NE		NE		NE		NE		NE		NV		NE		NE		NE	
DEQ CFSLs[2]		2.3		7.2		25		9		NE		7.8		0.097		0.28		4.1		3.7	

Notes:
1. DEQ Generic RBCs dated May 2018, amended June 2023
2. DEQ CFSLs dated February 21, 2019
NV: chemical is considered non-volatile
Q: Sample was prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.
T8: Sample received past/too close to holding time expiration.
U: Not detected. Reporting or detection limit shown.

TABLE 8
Summary of Soil Sample Chemical Analytical Results
Asbestos in Soil
2800 NE 82nd Avenue
Portland, Oregon

Sample I.D. (depth in feet BGS)	Sample Date	Asbestos in Soil EPA Method 600/R-93/116
COMP-1	12/18/23	ND
COMP-2	12/18/23	ND
DP-1(2-3)	12/18/23	ND
DP-1(11-12)	12/18/23	ND
DP-2(2-3.5)	12/18/23	ND
DP-2(12-13)	12/21/23	ND
DP-3(1-2.3)	12/18/23	ND
DP-3(12-13)	12/21/23	ND
DP-4(0-1)	12/21/23	ND
DP-4(5-7)	12/21/23	ND
BD-1	12/21/23	ND

TABLE 9
Summary of Vapor Sample Chemical Analytical Results
Percent Methane
2800 NE 82nd Avenue
Portland, Oregon

Sample I.D.	Sample Date	Methane (pbv)	
SG-1	12/20/23	**3.36**	
SG-2	12/20/23	**3.38**	
SG-3	12/20/23	**6.80**	
SG-4	12/20/23	0.400	U
SG-5	12/20/23	**1.54**	
SG-6	12/20/23	0.400	U
SG-7	12/20/23	**0.0887**	
SG-8	12/20/23	0.400	U
SG-9	12/20/23	0.400	U
SG-10	12/20/23	**6.15**	
SG-11	12/20/23	**4.09**	

Notes:
U: Not detected. Reporting or detection limit shown.
Bolding indicates analyte detection.
Shading indicates analyte detection at a concentration greater than the lower explosive limit (5 pbv).

TABLE 10
Summary of Soil Gas Sample Chemical Analytical Results
Gasoline-Range Hydrocarbons and VOCs
2800 NE 82nd Avenue
Portland, Oregon

Sample I.D.	Sample Date	Gasoline-Range Hydrocarbons EPA Method TO-15 (µg/m³)	VOCs EPA Method TO-15 (µg/m³)														
			Acetone	Allyl Chloride	Benzene	Benzyl Chloride	Bromodichloromethane	Bromoform	Bromomethane	1,3-Butadiene	2-Butanone (MEK)	Carbon Disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform
SG-1	12/20/23	**57,000**	**131**	0.626 U	**93.9**	1.04 U	1.34 U	6.21 U	0.776 U	4.43 U	**51.0**	**361**	1.26 U	0.924 U	0.528 U	0.973 U
SG-2	12/20/23	**20,600**	**149**	3.13 U	3.19 U	1.04 U	6.71 U	6.21 U	3.88 U	22.1 U	**29.8**	**3.14**	6.30 U	**14.3**	2.64 U	4.87 U
SG-3	12/20/23	**169,000**	**328**	12.5 U	**169**	20.8 U	26.8 U	124 U	15.5 U	88.5 U	**87.6**	**392**	25.2 U	18.5 U	**14.6**	19.5 U
SG-4	12/20/23	16,500 U	**1,380**	12.5 U	12.8 U	20.8 U	26.8 U	124 U	15.5 U	88.5 U	73.7 U	12.4 U	25.2 U	18.5 U	10.6 U	19.5 U
SG-5	12/20/23	**6,650**	**37.5**	1.25 U	1.28 U	2.08 U	2.68 U	12.4 U	1.55 U	8.85 U	7.37 U	1.24 U	2.52 U	**4.90**	1.06 U	1.95 U
SG-6	12/20/23	16,500 U	59.4 U	12.5 U	12.8 U	20.8 U	26.8 U	124 U	15.5 U	88.5 U	73.7 U	12.4 U	25.2 U	18.5 U	10.6 U	19.5 U
SG-7	12/20/23	16,500 U	59.4 U	12.5 U	12.8 U	20.8 U	26.8 U	124 U	15.5 U	88.5 U	73.7 U	12.4 U	25.2 U	18.5 U	10.6 U	19.5 U
SG-8	12/20/23	16,500 U	59.4 U	12.5 U	12.8 U	20.8 U	26.8 U	124 U	15.5 U	88.5 U	73.7 U	12.4 U	25.2 U	18.5 U	10.6 U	19.5 U
SG-9	12/20/23	1,650 U	**39.7**	1.25 U	**1.65**	2.08 U	2.68 U	12.4 U	1.55 U	8.85 U	**7.49**	1.24 U	2.52 U	1.85 U	1.06 U	1.95 U
SG-10	12/20/23	**17,500**	**1,210**	12.5 U	**53.7**	20.8 U	26.8 U	124 U	15.5 U	88.5 U	73.7 U	12.4 U	25.2 U	18.5 U	10.6 U	19.5 U
SG-11	12/20/23	**23,800**	**309**	12.5 U	12.8 U	20.8 U	26.8 U	124 U	15.5 U	88.5 U	73.7 U	12.4 U	25.2 U	18.5 U	10.6 U	19.5 U
DEQ Generic RBCs[1]																
Vapor Intrusion into Buildings—Chronic																
Commercial		40,000	NITI	68	52	8.3	11	370	730	14	730,000	100,000	68	7,300	580,000	18
Vapor Intrusion into Buildings—Acute																
Commercial		NE	6,300,000	NE	2,900	24,000	NE	NE	400,000	67,000	500,000	630,000	190,000	NE	4,000,000	50,000

TABLE 10
Summary of Soil Gas Sample Chemical Analytical Results
Gasoline-Range Hydrocarbons and VOCs
2800 NE 82nd Avenue
Portland, Oregon

Sample I.D.	Sample Date	VOCs EPA Method TO-15 (µg/m³)														
		Chloromethane	2-Chlorotoluene	Cyclohexane	Chlorodibromomethane (Dibromochloromethane)	1,2-Dibromoethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane
SG-1	12/20/23	0.413 U	1.03 U	**228**	1.70 U	1.54 U	1.20 U	1.20 U	1.20 U	**8.01**	**0.834**	0.810 U	0.793 U	0.793 U	0.793 U	0.924 U
SG-2	12/20/23	2.07 U	1.03 U	**73.7**	8.51 U	7.69 U	1.20 U	1.20 U	1.20 U	4.95 U	4.01 U	4.05 U	3.96 U	3.96 U	3.96 U	4.62 U
SG-3	12/20/23	8.26 U	20.6 U	**792**	34.0 U	30.8 U	24.0 U	24.0 U	24.0 U	**30.4**	16.0 U	16.2 U	15.9 U	15.9 U	15.9 U	18.5 U
SG-4	12/20/23	8.26 U	20.6 U	13.8 U	24.0 U	30.8 U	24.0 U	24.0 U	24.0 U	19.8 U	16.0 U	16.2 U	15.9 U	15.9 U	15.9 U	18.5 U
SG-5	12/20/23	0.826 U	2.06 U	1.38 U	3.40 U	3.08 U	2.40 U	2.40 U	2.40 U	**0.320**	1.60 U	1.62 U	1.59 U	1.59 U	1.59 U	1.85 U
SG-6	12/20/23	8.26 U	20.6 U	13.8 U	24.0 U	30.8 U	24.0 U	24.0 U	24.0 U	19.8 U	16.0 U	16.2 U	15.9 U	15.9 U	15.9 U	18.5 U
SG-7	12/20/23	8.26 U	20.6 U	13.8 U	24.0 U	30.8 U	24.0 U	24.0 U	24.0 U	19.8 U	16.0 U	16.2 U	15.9 U	15.9 U	15.9 U	18.5 U
SG-8	12/20/23	8.26 U	20.6 U	13.8 U	24.0 U	30.8 U	24.0 U	24.0 U	24.0 U	19.8 U	16.0 U	16.2 U	15.9 U	15.9 U	15.9 U	18.5 U
SG-9	12/20/23	0.826 U	2.06 U	1.38 U	3.40 U	3.08 U	2.40 U	2.40 U	2.40 U	**2.42**	1.60 U	1.62 U	1.59 U	1.59 U	1.59 U	1.85 U
SG-10	12/20/23	8.26 U	20.6 U	**358**	34.0 U	30.8 U	24.0 U	24.0 U	24.0 U	19.8 U	16.0 U	16.2 U	15.9 U	15.9 U	15.9 U	18.5 U
SG-11	12/20/23	8.26 U	20.6 U	**362**	34.0 U	30.8 U	24.0 U	24.0 U	24.0 U	19.8 U	16.0 U	16.2 U	15.9 U	15.9 U	15.9 U	18.5 U
DEQ Generic RBCs[1]																
Vapor Intrusion into Buildings—Chronic																
Commercial		13,000	NITI	880,000	NITI	0.68	29,000	NITI	37	15,000	260	16	29,000	5,800	5,800	110
Vapor Intrusion into Buildings—Acute																
Commercial		100,000	NE	NE	NE	NE	NE	NE	1,200,000	NE	NE	NE	20,000	NE	80,000	23,000

TABLE 10
Summary of Soil Gas Sample Chemical Analytical Results
Gasoline-Range Hydrocarbons and VOCs
2800 NE 82nd Avenue
Portland, Oregon

Sample I.D.	Sample Date	VOCs EPA Method TO-15 (µg/m³)														
		cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	1,2-Dichlorotetrafluoroethane	1,4-Dioxane	Ethanol	Ethylbenzene	4-Ethyltoluene	Heptane	Hexachlorobutadiene	n-Hexane	Isopropylbenzene	4-Methyl-2-pentanone	MTBE	Methylene Chloride (Dichloromethane)	Methyl Butyl Ketone
SG-1	12/20/23	0.908 U	0.908 U	**99.3**	2.27 U	**33.6**	**38.3**	0.982 U	**285**	6.73 U	**409**	**135**	5.12 U	0.721 U	0.694 U	5.11 U
SG-2	12/20/23	4.54 U	4.54 U	**43.8**	11.4 U	**121**	**14.5**	0.982 U	4.09 U	6.73 U	**49.7**	**19.7**	25.6 U	3.60 U	25.6 U	25.6 U
SG-3	12/20/23	18.2 U	18.2 U	**152**	45.4 U	94.3 U	17.3 U	19.6 U	**1,500**	135 U	**1,050**	**211**	102 U	14.4 U	13.9 U	102 U
SG-4	12/20/23	18.2 U	18.2 U	28.0 U	45.4 U	94.3 U	17.3 U	19.6 U	17.5 U	135 U	44.4 U	19.7 U	102 U	14.4 U	**14.5**	102 U
SG-5	12/20/23	1.82 U	1.82 U	**15.7**	4.54 U	**9.50**	1.73 U	1.96 U	**17.0**	13.5 U	**41.6**	1.97 U	10.2 U	1.44 U	1.39 U	10.2 U
SG-6	12/20/23	18.2 U	18.2 U	28.0 U	45.4 U	94.3 U	17.3 U	19.6 U	**18.2**	135 U	44.4 U	19.7 U	102 U	14.4 U	13.9 U	102 U
SG-7	12/20/23	18.2 U	18.2 U	28.0 U	45.4 U	94.3 U	17.3 U	19.6 U	16.4 U	135 U	44.4 U	19.7 U	102 U	14.4 U	13.9 U	102 U
SG-8	12/20/23	18.2 U	18.2 U	28.0 U	45.4 U	94.3 U	17.3 U	19.6 U	16.4 U	135 U	44.4 U	19.7 U	102 U	14.4 U	13.9 U	102 U
SG-9	12/20/23	1.82 U	1.82 U	2.80 U	4.54 U	**41.3**	1.73 U	1.96 U	1.64 U	13.5 U	4.44 U	1.97 U	10.2 U	1.44 U	**3.96**	10.2 U
SG-10	12/20/23	18.2 U	18.2 U	28.0 U	45.4 U	94.3 U	17.3 U	19.6 U	**298**	135 U	**323**	19.7 U	102 U	14.4 U	13.9 U	102 U
SG-11	12/20/23	18.2 U	18.2 U	28.0 U	45.4 U	**159**	**23.3**	19.6 U	**205**	135 U	**143**	19.7 U	102 U	14.4 U	**14.6**	102 U
DEQ Generic RBCs[1]																
Vapor Intrusion into Buildings—Chronic																
Commercial	NE	NE	NE	82	NE	160	NE	58,000	19	10,000	58,000	440,000	1,600	41,000	4,400	
Vapor Intrusion into Buildings—Acute																
Commercial	NE	NE	NE	730,000	NE	2,200,000	NE	NE	NE	NE	NE	NE	800,000	210,000	NE	

TABLE 10
Summary of Soil Gas Sample Chemical Analytical Results
Gasoline-Range Hydrocarbons and VOCs
2800 NE 82nd Avenue
Portland, Oregon

Sample I.D.	Sample Date	VOCs EPA Method TO-15 (µg/m³)														
		Methyl Methacrylate	Naphthalene	2-Propanol	Propene	Styrene	1,1,2,2-Tetrachloroethane	PCE	Tetrahydrofuran	Toluene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	TCE	Trichlorofluoromethane	1,2,4-TMB
SG-1	12/20/23	0.819 U	**3.66**	**61.9**	2.15 U	0.851 U	1.37 U	1.36 U	0.590 U	**31.5**	4.66 U	1.09 U	1.09 U	1.07 U	1.12 U	**25.3**
SG-2	12/20/23	4.09 U	3.30 U	**124**	10.8 U	0.851 U	1.37 U	6.79 U	2.95 U	9.42 U	4.66 U	5.44 U	5.44 U	5.36 U	5.62 U	**4.49**
SG-3	12/20/23	16.4 U	66.0 U	61.5 U	43.0 U	17.0 U	27.5 U	27.2 U	11.8 U	38.4 U	93.3 U	21.8 U	21.8 U	21.4 U	22.5 U	**147**
SG-4	12/20/23	16.4 U	66.0 U	**7,600**	43.0 U	17.0 U	27.5 U	27.2 U	11.8 U	37.7 U	93.3 U	21.8 U	21.8 U	21.4 U	22.5 U	19.6 U
SG-5	12/20/23	1.64 U	6.60 U	**29.5**	4.30 U	1.70 U	2.75 U	2.72 U	1.18 U	3.77 U	9.33 U	2.18 U	2.18 U	2.14 U	2.25 U	1.96 U
SG-6	12/20/23	16.4 U	66.0 U	**11,900**	43.0 U	17.0 U	27.5 U	27.2 U	11.8 U	37.7 U	93.3 U	21.8 U	21.8 U	21.4 U	22.5 U	19.6 U
SG-7	12/20/23	16.4 U	66.0 U	**10,900**	43.0 U	17.0 U	27.5 U	27.2 U	11.8 U	37.7 U	93.3 U	21.8 U	21.8 U	21.4 U	22.5 U	19.6 U
SG-8	12/20/23	16.4 U	66.0 U	**4,720**	43.0 U	17.0 U	27.5 U	27.2 U	11.8 U	37.7 U	93.3 U	21.8 U	21.8 U	21.4 U	22.5 U	19.6 U
SG-9	12/20/23	1.64 U	6.60 U	**74.0**	**32.0**	1.70 U	2.75 U	2.72 U	1.18 U	3.77 U	9.33 U	2.18 U	2.18 U	2.14 U	**2.73**	1.96 U
SG-10	12/20/23	16.4 U	66.0 U	**1,160**	43.0 U	17.0 U	27.5 U	27.2 U	11.8 U	37.7 U	93.3 U	21.8 U	21.8 U	21.4 U	22.5 U	19.6 U
SG-11	12/20/23	16.4 U	66.0 U	**767**	43.0 U	17.0 U	27.5 U	27.2 U	11.8 U	37.7 U	93.3 U	21.8 U	21.8 U	21.4 U	22.5 U	19.6 U
DEQ Generic RBCs[1]																
Vapor Intrusion into Buildings—Chronic																
Commercial	100,000	12	29,000	440,000	150,000	7.1	1,600	290,000	730,000	29	730,000	26	100	NITI	8,800	
Vapor Intrusion into Buildings—Acute																
Commercial	NE	20,000	320,000	NE	2,100,000	NE	4,000	NE	770,000	NE	1,100,000	NE	210	NE	NE	

TABLE 10
Summary of Soil Gas Sample Chemical Analytical Results
Gasoline-Range Hydrocarbons and VOCs
2800 NE 82nd Avenue
Portland, Oregon

Sample I.D.	Sample Date	VOCs EPA Method TO-15 (µg/m³)						
		1,3,5-TMB	2,2,4-Trimethylpentane	1,1,2-Trichlorotrifluoroethane (Freon 113)	Vinyl Chloride	Vinyl Bromide	Vinyl Acetate	Total Xylenes
SG-1	12/20/23	**38.1**	**58.4**	1.53 U	**2.45**	0.875 U	2.22 U	**33.2**
SG-2	12/20/23	**3.11**	**25.8**	7.66 U	2.56 U	4.37 U	11.1 U	**38.9**
SG-3	12/20/23	**52.5**	**159**	30.7 U	10.2 U	17.5 U	44.4 U	**113.4**
SG-4	12/20/23	19.6 U	**22.1**	30.7 U	10.2 U	17.5 U	44.4 U	52.0 U
SG-5	12/20/23	1.96 U	**25.7**	3.07 U	1.02 U	1.75 U	4.44 U	5.20 U
SG-6	12/20/23	19.6 U	18.7 U	30.7 U	10.2 U	17.5 U	44.4 U	52.0 U
SG-7	12/20/23	19.6 U	18.7 U	30.7 U	10.2 U	17.5 U	44.4 U	52.0 U
SG-8	12/20/23	19.6 U	18.7 U	30.7 U	10.2 U	17.5 U	44.4 U	52.0 U
SG-9	12/20/23	1.96 U	1.87 U	3.07 U	1.02 U	1.75 U	4.44 U	5.20 U
SG-10	12/20/23	19.6 U	**164**	30.7 U	10.2 U	17.5 U	44.4 U	52.0 U
SG-11	12/20/23	19.6 U	**120**	30.7 U	10.2 U	17.5 U	44.4 U	52.0 U
DEQ Generic RBCs[1]								
Vapor Intrusion into Buildings—Chronic								
Commercial		8,800	NE	73,000	93	27	29,000	15,000
Vapor Intrusion into Buildings—Acute								
Commercial		NE	NE	NE	130,000	NE	20,000	870,000

Notes:
1. DEQ Generic RBCs dated May 2018, amended June 2023
U: Not detected. Reporting or detection limit shown.
Bolding indicates analyte detection.
Shading indicates analyte detection at a concentration greater than DEQ RBCs.

TABLE 11
Methane Monitoring Probes—Extraction System Turned Off
2800 NE 82nd Avenue
Portland, Oregon

Probe I.D.	Date	Temperature (°C)	Barometric Pressure (mbar)	Maximum Methane (percent)	Methane (percent)	Carbon Dioxide (percent)	Oxygen (percent)	Static Pressure (iow)
MW-8S	12/20/23	8	1,013	0.0	0.0	4.2	13.3	0.00
MW-8D	12/20/23	8	1,013	0.0	0.0	1.6	17.7	0.00
MW-10	12/20/23	7	1,013	0.1	0.0	9.3	8.8	0.00
MW-11	12/20/23	7	1,013	0.0	0.0	11.7	3.1	0.01
MW-12S	12/20/23	8	1,013	0.1	0.0	0.0	20.4	0.00
MW-12D	12/20/23	8	1,013	0.1	0.0	4.0	16.1	0.00
MW-13	12/20/23	8	1,013	0.1	0.0	0.8	20.4	0.02
MW-14	12/20/23	9	1,013	0.1	0.1	8.7	19.0	0.00
MW-15	12/20/23	9	1,013	0.0	0.0	2.3	11.1	0.00
MW-16	12/20/23	9	1,013	0.0	0.0	5.8	9.3	0.00
MW-17	12/20/23	9	1,013	0.1	0.0	0.0	20.9	0.00
MW-29	12/20/23	9	1,013	0.0	0.0	0.0	21.0	0.00
MW-30	12/20/23	9	1,013	0.1	0.0	0.3	17.3	0.00

TABLE 12
Methane Monitoring Probes—Extraction System Turned On
2800 NE 82nd Avenue
Portland, Oregon

Probe I.D.	Date	Temperature (°C)	Barometric Pressure (mbar)	Maximum Methane (percent)	Methane (percent)	Carbon Dioxide (percent)	Oxygen (percent)	Static Pressure (iow)
MW-8S	12/22/23	7	1,019	0.0	0.0	4.9	12.9	0.00
MW-8D	12/22/23	7	1,019	0.0	0.0	1.3	18.2	0.00
MW-10	12/22/23	7	1,019	0.1	0.0	8.7	9.2	0.00
MW-11	12/22/23	7	1,019	0.0	0.0	6.1	10.1	0.00
MW-12S	12/22/23	7	1,019	0.0	0.0	0.0	21.3	0.00
MW-12D	12/22/23	7	1,019	0.1	0.0	3.8	17.0	0.00
MW-13	12/22/23	7	1,019	0.1	0.0	1.2	18.4	0.01
MW-14	12/22/23	7	1,019	0.1	0.0	8.1	6.5	0.00
MW-15	12/22/23	7	1,019	0.0	0.0	3.0	13.9	0.00
MW-16	12/22/23	7	1,019	0.0	0.0	6.1	8.8	0.00
MW-17	12/22/23	7	1,019	0.0	0.0	0.2	21.1	0.00
MW-29	12/22/23	7	1,019	0.1	0.0	0.0	20.8	0.00
MW-30	12/22/23	7	1,019	0.1	0.0	1.1	16.8	0.00

TABLE 13
Methane Extraction Wells—Extraction System Turned Off
2800 NE 82nd Avenue
Portland, Oregon

Well I.D.	Date	Temperature (°C)	Barometric Pressure (mbar)	Methane (percent)	Carbon Dioxide (percent)	Oxygen (percent)	Static Pressure (iow)	Velocity (fpm)	Notes
Blower	12/20/23	9	1,013	0.0	0.1	20.6	0.00	NM	Anemometer does not fit in sampling valve—unable to measure velocity
EW-12	12/20/23	9	1,013	0.0	0.1	20.6	0.00	NM	No flow port—unable to measure velocity
EW-13	12/20/23	9	1,013	0.0	3.7	16.5	0.00	NM	No flow port—unable to measure velocity
EW-16	12/20/23	9	1,013	0.0	8.1	11.1	0.08	NM	No flow port—unable to measure velocity
EW-16a	12/20/23	9	1,013	0.0	6.3	13.8	0.00	0	Measured from flow port/no sampling port
EW-16b	12/20/23	9	1,013	0.0	0.1	20.7	0.00	0	Measured from flow port/no sampling port
EW-18	12/20/23	9	1,013	0.0	5.8	12.6	0.00	NM	No flow port—unable to measure velocity

TABLE 14
Methane Extraction Wells—Extraction System Turned On
2800 NE 82nd Avenue
Portland, Oregon

Well I.D.	Date	Temperature (°C)	Barometric Pressure (mbar)	Methane (percent)	Carbon Dioxide (percent)	Oxygen (percent)	Static Pressure (iow)	Velocity (fpm)	Notes
Blower	12/22/23	6	1,017	0.1	2.8	18.6	-23.16	NM	Anemometer does not fit in sampling valve—unable to measure velocity
EW-12	12/22/23	6	1,017	0.2	2.5	18.6	-4.26	NM	No flow port—unable to measure velocity
EW-13	12/22/23	6	1,017	0.1	0.0	20.8	-0.23	NM	No flow port—unable to measure velocity
EW-16	12/22/23	6	1,017	0.2	0.0	21.0	-0.09	NM	No flow port—unable to measure velocity
EW-16a	12/22/23	6	1,017	1.1	2.2	19.7	-0.13	60	Measured from flow port/no sampling port
EW-16b	12/22/23	6	1,017	0.2	0.0	21.1	-0.08	0	Measured from flow port/no sampling port
EW-18	12/22/23	6	1,017	0.2	2.9	18.5	-0.09	NM	No flow port—unable to measure velocity

APPENDIX A

APPENDIX A

FIELD PROCEDURES

EXPLORATIONS

On December 18 and 21, 2023, 16 direct-push borings (DP-1 through DP-16) were advanced to depths of up to 20 feet BGS at the subject property using equipment owned and operated by Cascade Environmental. An NV5 field representative observed the drilling activities and collected soil samples from the direct-push borings. The soil encountered in the direct-push borings was visually classified in general accordance with ASTM D2488.

The locations of the direct-push borings are shown on Figure 2. The exploration logs are presented in this appendix.

Soil Sampling

Soil samples collected from the direct-push borings were collected from 2-inch-diameter, 60-inch-long samplers lined with acrylic sleeves. Soil samples were collected into laboratory-provided containers and immediately placed in an ice chest and kept cool until delivery to the laboratory. Standard chain-of-custody procedures were observed during transport of the samples to the laboratory.

Soil Sampling Field Screening Methods

An NV5 representative performed field screening testing on select soil samples collected from the direct-push borings. Field screening results aided in the selection of soil samples for chemical analysis. Screening methods included visual examination, water sheen screening, and headspace vapor screening using a 10.6-eV MiniRAE 3000 PID.

Visual screening consisted of observing the soil for discoloration indicative of the presence of petroleum contamination in the sample. Water sheen screening involved placing soil in water and observing the water surface for signs of sheen. Sheen classifications are as follows:

No Sheen	No visible sheen on the water surface.
Slight Sheen	Light, colorless, dull sheen; spread is irregular, not rapid; sheen dissipates rapidly. Natural organic matter in the soil may produce a slight sheen.
Moderate Sheen	Light to heavy sheen; may have some color/iridescence; spread is irregular to flowing, may be rapid; few remaining areas of no sheen on water surface.
Heavy Sheen	Heavy sheen with color/iridescence; spread is rapid; entire water surface may be covered with sheen.

Headspace vapor screening is performed by placing a soil sample in a plastic bag. Air is captured in the bag, and the bag is shaken to expose the soil to the air trapped in the bag. The

probe of a MiniRAE 3000 PID is inserted into the bag, and the MiniRAE PID measures VOC vapor concentrations in units of ppm. The MiniRAE 3000 PID is calibrated to isobutylene. The MiniRAE PID is designed to quantify VOC vapor concentrations in the range between 10 and 2,000 ppm with an accuracy of 2 percent of the reading and between 2,000 and 10,000 ppm with an accuracy of 20 percent of the reading. Soil borings were also field screened for methane and hydrogen sulfide with a Landtec GEM 2000+ landfill gas analyzer. The tubing of the Landtec GEM 2000+ landfill gas analyzer is connected to the internal gas sensors and is inserted into the top of the borehole, quantifying detected concentrations of methane and hydrogen sulfide in the airspace. The breathing zone above the borehole was also continuously monitored with the Landtec GEM 2000+ landfill gas analyzer during drilling. Field screening results are site and exploration specific. The results may vary with temperature, soil moisture content, soil type, and type of contaminant.

Soil Gas Sampling

The soil gas samples were collected as follows:

- Advanced a Geoprobe® Post Run Tubing (PRT) system equipped with an expendable point to a depth of approximately 3.5 feet BGS at each proposed soil gas sampling location. Extracted the PRT system to a depth of approximately 3 feet BGS to dislodge the expendable point.
- Sealed the annular space between the soil gas probe and the boring sidewall with bentonite to minimize ambient air migration into the sampling zone.
- Connected the PRT system to a Landtec GEM 2000+ landfill gas analyzer using new disposable perfluoroalkoxy (PFA) tubing and screened for methane until readings stabilized, recording the concentrations of methane, carbon dioxide, oxygen, and hydrogen sulfide.
- Connected the PRT system to a laboratory-provided, 1-liter Summa canister using new disposal PFA tubing.
- Installed a leak-check system consisting of cloths saturated with isopropyl alcohol at each location following DEQ-established protocol.
- Allowed each soil gas sample to equilibrate for at least 30 minutes.
- Purged approximately two to three volumes of dead space.
- Collected the soil gas sample using laboratory-provided 1-liter Summa canisters.
- Removed the PRT system and repaired the ground surface.

DECONTAMINATION

All sampling equipment used in the collection of samples was decontaminated before use. Decontamination was performed on all sample reusable processing equipment that came into contact with sampling media, including tools, stainless steel implements, trowels, etc. Decontamination was performed before sampling each location using the following procedures:

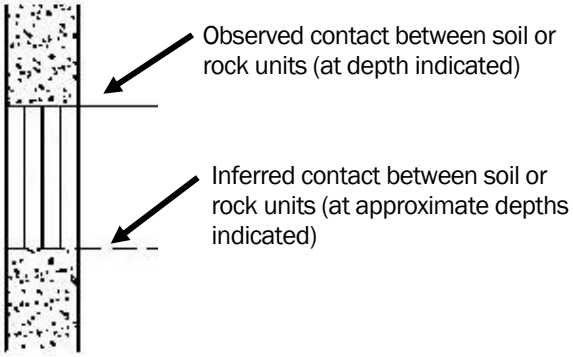
1. Rinsed with tap water and scrubbed with a scrub brush until free of large particles (e.g., sediment or soil).
2. Washed with phosphate-free (Alconox™) detergent solution.
3. Rinsed with tap water.
4. Rinsed with distilled water.

INVESTIGATION-DERIVED WASTE MANAGEMENT

Investigation-derived waste from the borings (soil cuttings) was stored in two labeled 55-gallon drums on the subject property pending disposal.

SYMBOL	SAMPLING DESCRIPTION
	Location of sample collected in general accordance with ASTM D1586 using Standard Penetration Test (SPT) with recovery
	Location of sample collected using thin-wall Shelby tube or Geoprobe® sampler in general accordance with ASTM D1587 with recovery
	Location of sample collected using Dames & Moore sampler and 300-pound hammer or pushed with recovery
	Location of sample collected using Dames & Moore sampler and 140-pound hammer or pushed with recovery
	Location of sample collected using 3-inch-outside diameter California split-spoon sampler and 140-pound hammer with recovery
	Location of grab sample
	Rock coring interval
	Water level during drilling
	Water level taken on date shown

Graphic Log of Soil and Rock Types



GEOTECHNICAL TESTING EXPLANATIONS

ATT	Atterberg Limits	P	Pushed Sample
CBR	California Bearing Ratio	PP	Pocket Penetrometer
CON	Consolidation	P200	Percent Passing U.S. Standard No. 200 Sieve
DD	Dry Density		
DS	Direct Shear	RES	Resilient Modulus
HYD	Hydrometer Gradation	SIEV	Sieve Gradation
MC	Moisture Content	TOR	Torvane
MD	Moisture-Density Relationship	UC	Unconfined Compressive Strength
NP	Non-Plastic	VS	Vane Shear
OC	Organic Content	kPa	Kilopascal

ENVIRONMENTAL TESTING EXPLANATIONS

CA	Sample Submitted for Chemical Analysis	ND	Not Detected
P	Pushed Sample	NS	No Visible Sheen
PID	Photoionization Detector Headspace Analysis	SS	Slight Sheen
		MS	Moderate Sheen
ppm	Parts per Million	HS	Heavy Sheen

RELATIVE DENSITY - COARSE-GRAINED SOIL

Relative Density	Standard Penetration Test (SPT) Resistance	Dames & Moore Sampler (140-pound hammer)	Dames & Moore Sampler (300-pound hammer)
Very loose	0 – 4	0 – 11	0 – 4
Loose	4 – 10	11 – 26	4 – 10
Medium dense	10 – 30	26 – 74	10 – 30
Dense	30 – 50	74 – 120	30 – 47
Very dense	More than 50	More than 120	More than 47

CONSISTENCY - FINE-GRAINED SOIL

Consistency	Standard Penetration Test (SPT) Resistance	Dames & Moore Sampler (140-pound hammer)	Dames & Moore Sampler (300-pound hammer)	Unconfined Compressive Strength (tsf)
Very soft	Less than 2	Less than 3	Less than 2	Less than 0.25
Soft	2 – 4	3 – 6	2 – 5	0.25 – 0.50
Medium stiff	4 – 8	6 – 12	5 – 9	0.50 – 1.0
Stiff	8 – 15	12 – 25	9 – 19	1.0 – 2.0
Very stiff	15 – 30	25 – 65	19 – 31	2.0 – 4.0
Hard	More than 30	More than 65	More than 31	More than 4.0

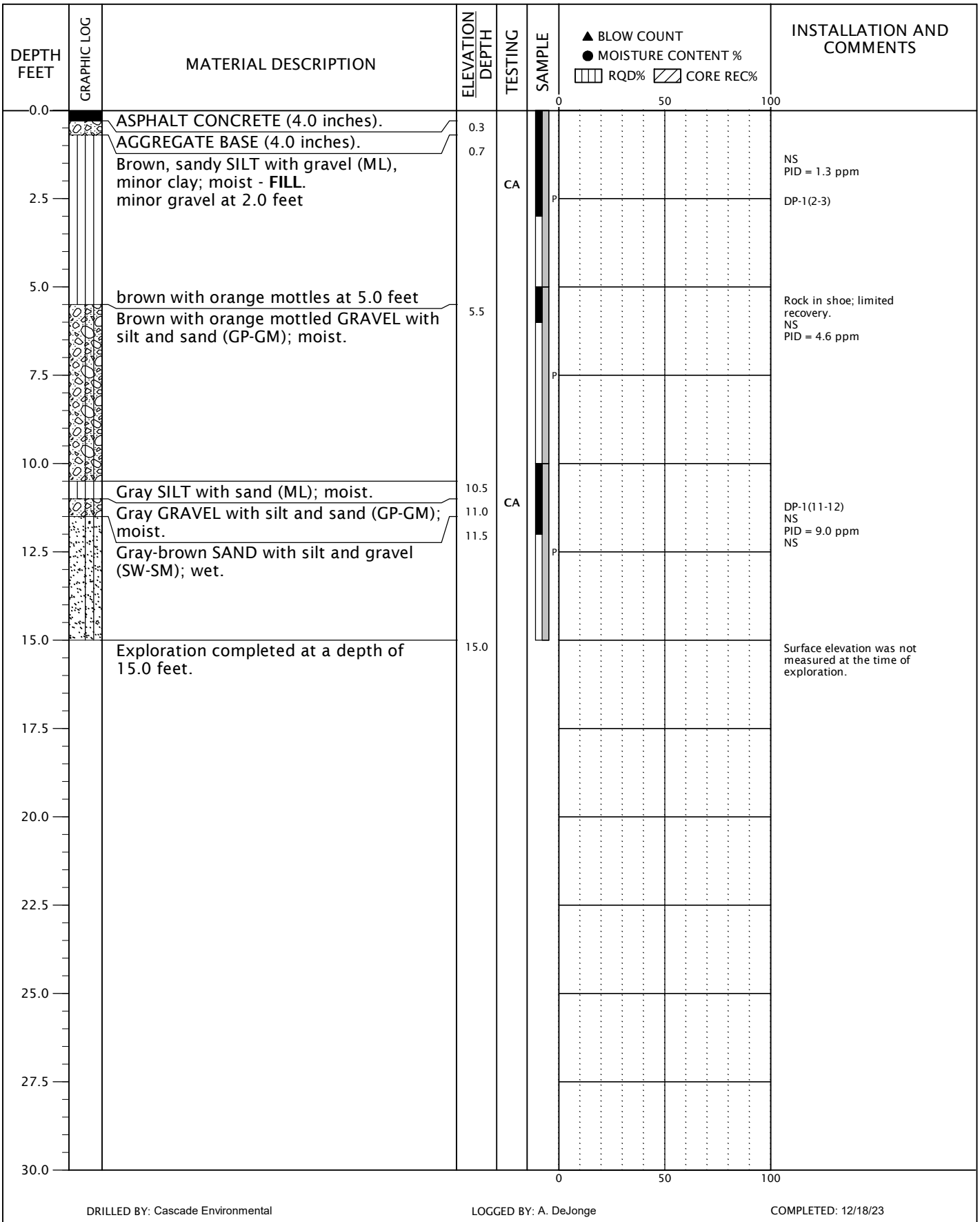
PRIMARY SOIL DIVISIONS			GROUP SYMBOL	GROUP NAME
COARSE-GRAINED SOIL (more than 50% retained on No. 200 sieve)	GRAVEL (more than 50% of coarse fraction retained on No. 4 sieve)	CLEAN GRAVEL (< 5% fines)	GW or GP	GRAVEL
		GRAVEL WITH FINES (≥ 5% and ≤ 12% fines)	GW-GM or GP-GM	GRAVEL with silt
			GW-GC or GP-GC	GRAVEL with clay
		GRAVEL WITH FINES (> 12% fines)	GM	silty GRAVEL
			GC	clayey GRAVEL
			GC-GM	silty, clayey GRAVEL
	SAND (50% or more of coarse fraction passing No. 4 sieve)	CLEAN SAND (<5% fines)	SW or SP	SAND
		SAND WITH FINES (≥ 5% and ≤ 12% fines)	SW-SM or SP-SM	SAND with silt
			SW-SC or SP-SC	SAND with clay
		SAND WITH FINES (> 12% fines)	SM	silty SAND
			SC	clayey SAND
			SC-SM	silty, clayey SAND
FINE-GRAINED SOIL (50% or more passing No. 200 sieve)	SILT AND CLAY	Liquid limit less than 50	ML	SILT
			CL	CLAY
			CL-ML	silty CLAY
			OL	ORGANIC SILT or ORGANIC CLAY
		Liquid limit 50 or greater	MH	SILT
			CH	CLAY
			OH	ORGANIC SILT or ORGANIC CLAY
HIGHLY ORGANIC SOIL			PT	PEAT

MOISTURE CLASSIFICATION		ADDITIONAL CONSTITUENTS					
		Secondary granular components or other materials such as organics, man-made debris, etc.					
			Silt and Clay In:			Sand and Gravel In:	
Term	Field Test	Percent	Fine-Grained Soil	Coarse-Grained Soil	Percent	Fine-Grained Soil	Coarse-Grained Soil
dry	very low moisture, dry to touch						
moist	damp, without visible moisture	< 5	trace	trace	< 5	trace	trace
		5 – 12	minor	with	5 – 15	minor	minor
wet	visible free water, usually saturated	> 12	some	silty/clayey	15 – 30	with	with
					> 30	sandy/gravelly	Indicate %

NV5

SOIL CLASSIFICATION SYSTEM

TABLE A-2



DRILLED BY: Cascade Environmental

LOGGED BY: A. DeJonge

COMPLETED: 12/18/23

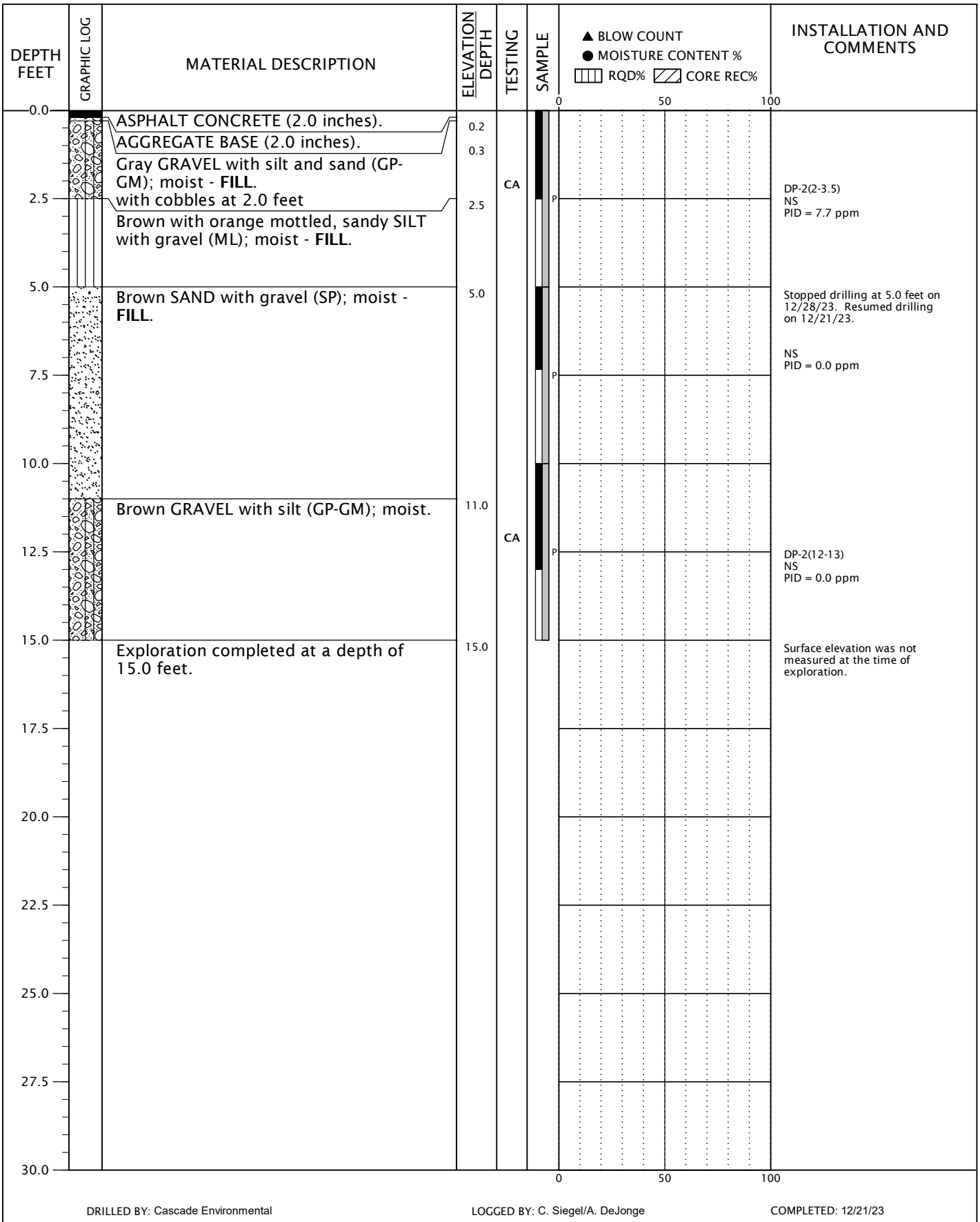
BORING METHOD: direct push (see document text)

BORING BIT DIAMETER: 2 1/4 inches

N|V|5	SOJ-7-03	**BORING DP-1**
	APRIL 2024	FORMER H.G. LAVELLE SOLID WASTE LANDFILL PORTLAND, OR

FIGURE A-1

BORING LOG - NV5 - 1 PER PAGE SOJ-7-03-DP1_16.GPJ GDI_NV5.GDT PRINT DATE: 4/15/24:SP:SN



DRILLED BY: Cascade Environmental

LOGGED BY: C. Siegel/A. DeJonge

COMPLETED: 12/21/23

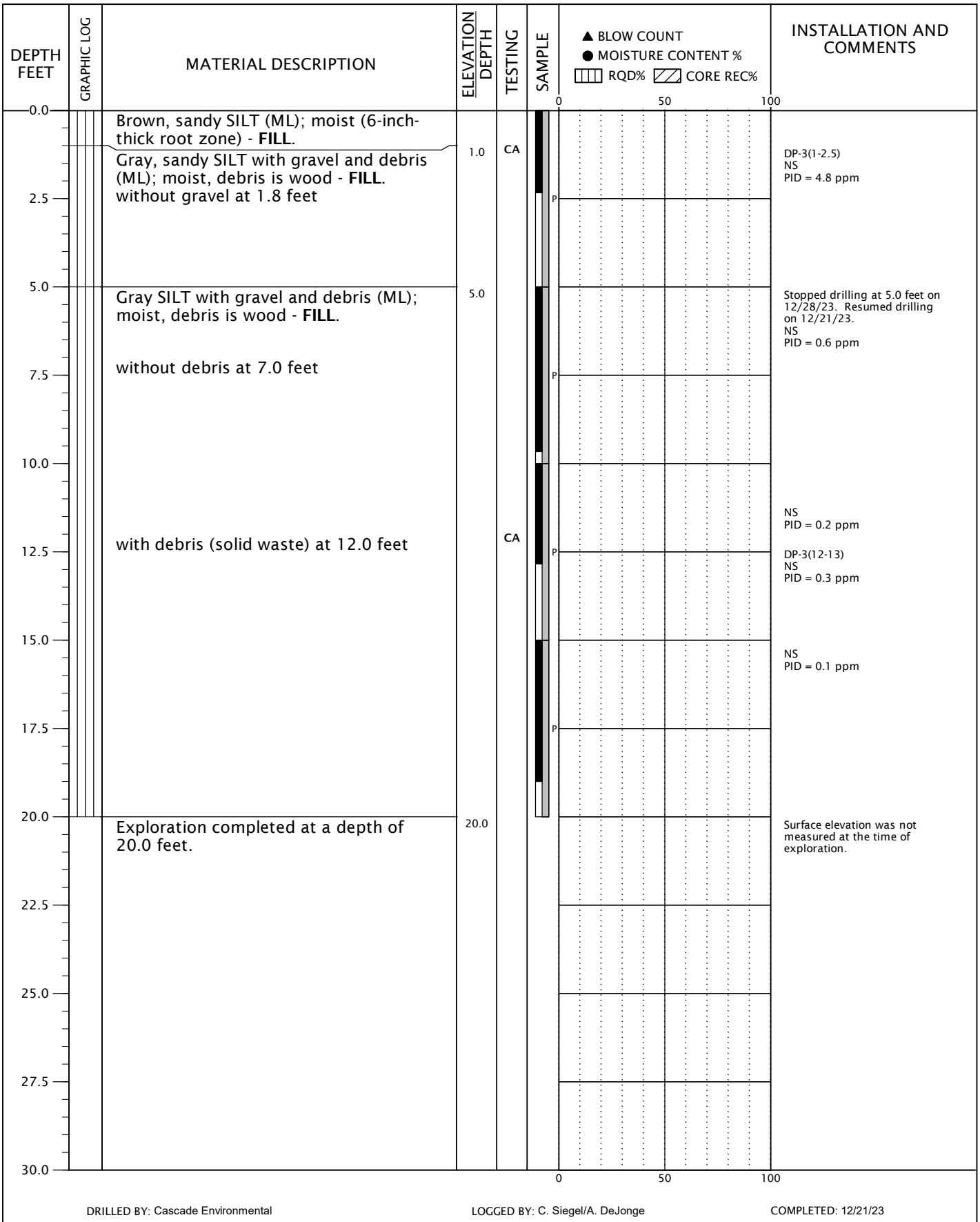
BORING METHOD: direct push (see document text)

BORING BIT DIAMETER: 2 1/4 inches

NV5	SOJ-7-03	**BORING DP-2**
	APRIL 2024	FORMER H.G. LAVELLE SOLID WASTE LANDFILL PORTLAND, OR

FIGURE A-2

BORING LOG - NV5 - 1 PER PAGE SOJ-7-03-DP1_16.GPJ GDI_NV5.GDT PRINT DATE: 4/15/24:SP:SN



DRILLED BY: Cascade Environmental

LOGGED BY: C. Siegel/A. DeJonge

COMPLETED: 12/21/23

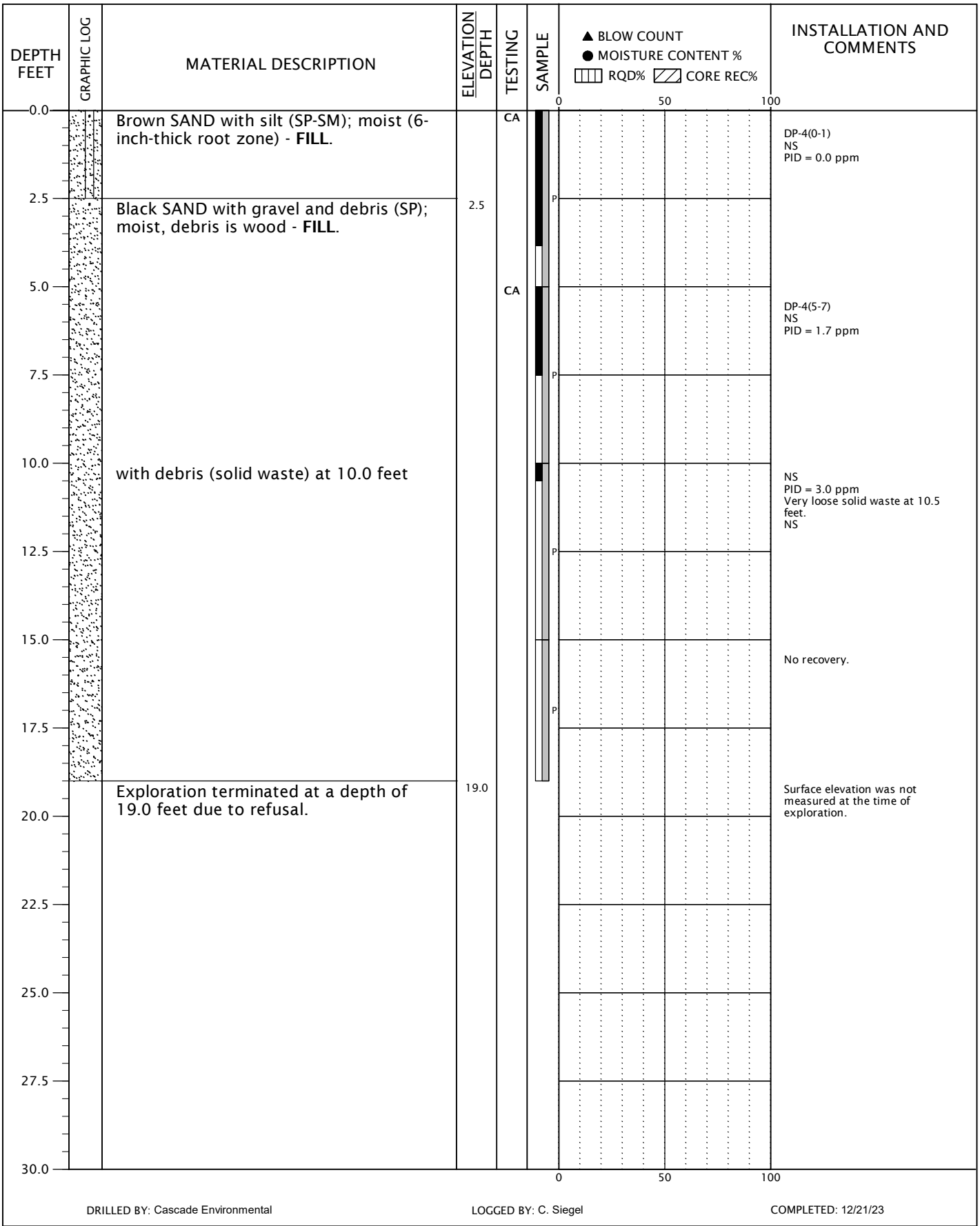
BORING METHOD: direct push (see document text)

BORING BIT DIAMETER: 2 1/4 inches

NV5	SOJ-7-03	**BORING DP-3**
	APRIL 2024	FORMER H.G. LAVELLE SOLID WASTE LANDFILL PORTLAND, OR

FIGURE A-3

BORING LOG - NV5 - 1 PER PAGE SOJ-7-03-DP1_16.GPJ GDI_NV5.GDT PRINT DATE: 4/15/24:SP:SN



DRILLED BY: Cascade Environmental

LOGGED BY: C. Siegel

COMPLETED: 12/21/23

BORING METHOD: direct push (see document text)

BORING BIT DIAMETER: 2 1/4 inches

NV5	SOJ-7-03	**BORING DP-4**
	APRIL 2024	FORMER H.G. LAVELLE SOLID WASTE LANDFILL PORTLAND, OR

FIGURE A-4

BORING LOG - NV5 - 1 PER PAGE SOJ-7-03-DP1_16.GPJ GDI_NV5.GDT PRINT DATE: 4/15/24:SP:SN

DEPTH FEET	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION / DEPTH	TESTING	SAMPLE	▲ BLOW COUNT ● MOISTURE CONTENT % RQD% CORE REC% (0 – 50 – 100)	INSTALLATION AND COMMENTS
0.0		Brown SILT with sand (ML); moist (6-inch-thick root zone) - **FILL**.		CA			DP-5(0-0.5) NS PID = 0.0 ppm
2.5		gray at 1.5 feet with debris (wood) at 2.0 feet		CA	P		DP-5(2-2.5) NS PID = 0.0 ppm
5.0		Exploration completed at a depth of 5.0 feet.	5.0				Surface elevation was not measured at the time of exploration.
7.5							
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							
25.0							
27.5							
30.0							

DRILLED BY: Cascade Environmental

LOGGED BY: C. Siegel

COMPLETED: 12/18/23

BORING METHOD: direct push (see document text)

BORING BIT DIAMETER: 2 1/4 inches

N|V|5

SOJ-7-03

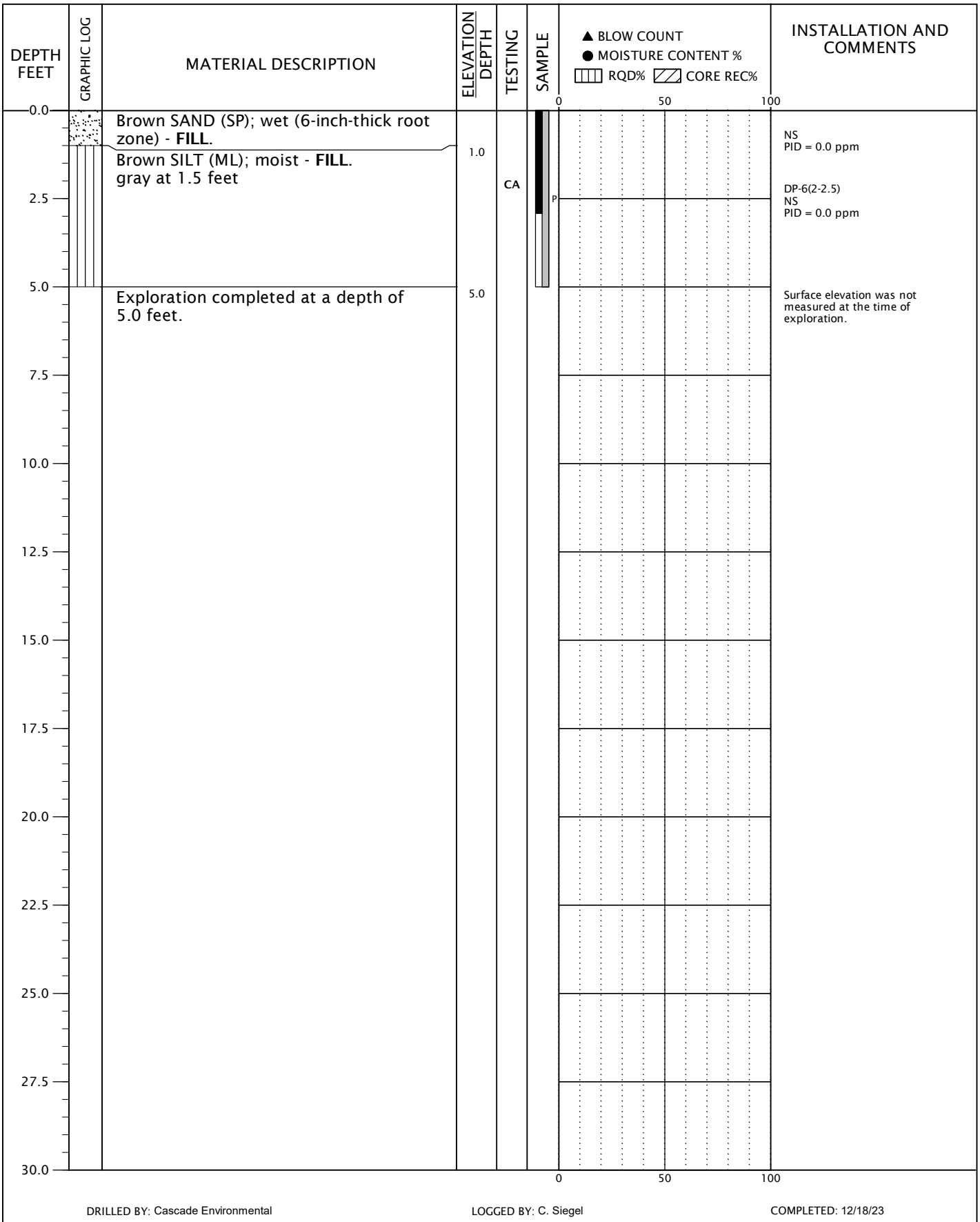
APRIL 2024

BORING DP-5

FORMER H.G. LAVELLE SOLID WASTE LANDFILL
PORTLAND, OR

FIGURE A-5

BORING LOG - NV5 - 1 PER PAGE SOJ-7-03-DP1_16.GPJ GDI_NV5.GDT PRINT DATE: 4/15/24:SP:SN



DRILLED BY: Cascade Environmental

LOGGED BY: C. Siegel

COMPLETED: 12/18/23

BORING METHOD: direct push (see document text)

BORING BIT DIAMETER: 2 1/4 inches

NV5	SOJ-7-03	**BORING DP-6**
	APRIL 2024	FORMER H.G. LAVELLE SOLID WASTE LANDFILL PORTLAND, OR

FIGURE A-6

BORING LOG - NV5 - 1 PER PAGE SOJ-7-03-DP1_16.GPJ GDI_NV5.GDT PRINT DATE: 4/15/24:SP:SN

DEPTH FEET	MATERIAL DESCRIPTION	ELEVATION / DEPTH	TESTING	SAMPLE	INSTALLATION AND COMMENTS
0.0	Brown SAND with silt and gravel (SP-SM); moist (6-inch-thick root zone) - **FILL**.		CA	P	DP-7(0-2) NS PID = 0.0 ppm
2.5					
	Black SAND with gravel and debris (SP); moist, debris is wood - **FILL**.	3.0	CA		DP-7(3-4) NS PID = 0.1 ppm
5.0	Exploration completed at a depth of 5.0 feet.	5.0			Surface elevation was not measured at the time of exploration.
7.5					
10.0					
12.5					
15.0					
17.5					
20.0					
22.5					
25.0					
27.5					
30.0					

GRAPHIC LOG

▲ BLOW COUNT
● MOISTURE CONTENT %
RQD% CORE REC%
0 50 100

DRILLED BY: Cascade Environmental

LOGGED BY: C. Siegel

COMPLETED: 12/21/23

BORING METHOD: direct push (see document text)

BORING BIT DIAMETER: 2 1/4 inches

N|V|5

SOJ-7-03

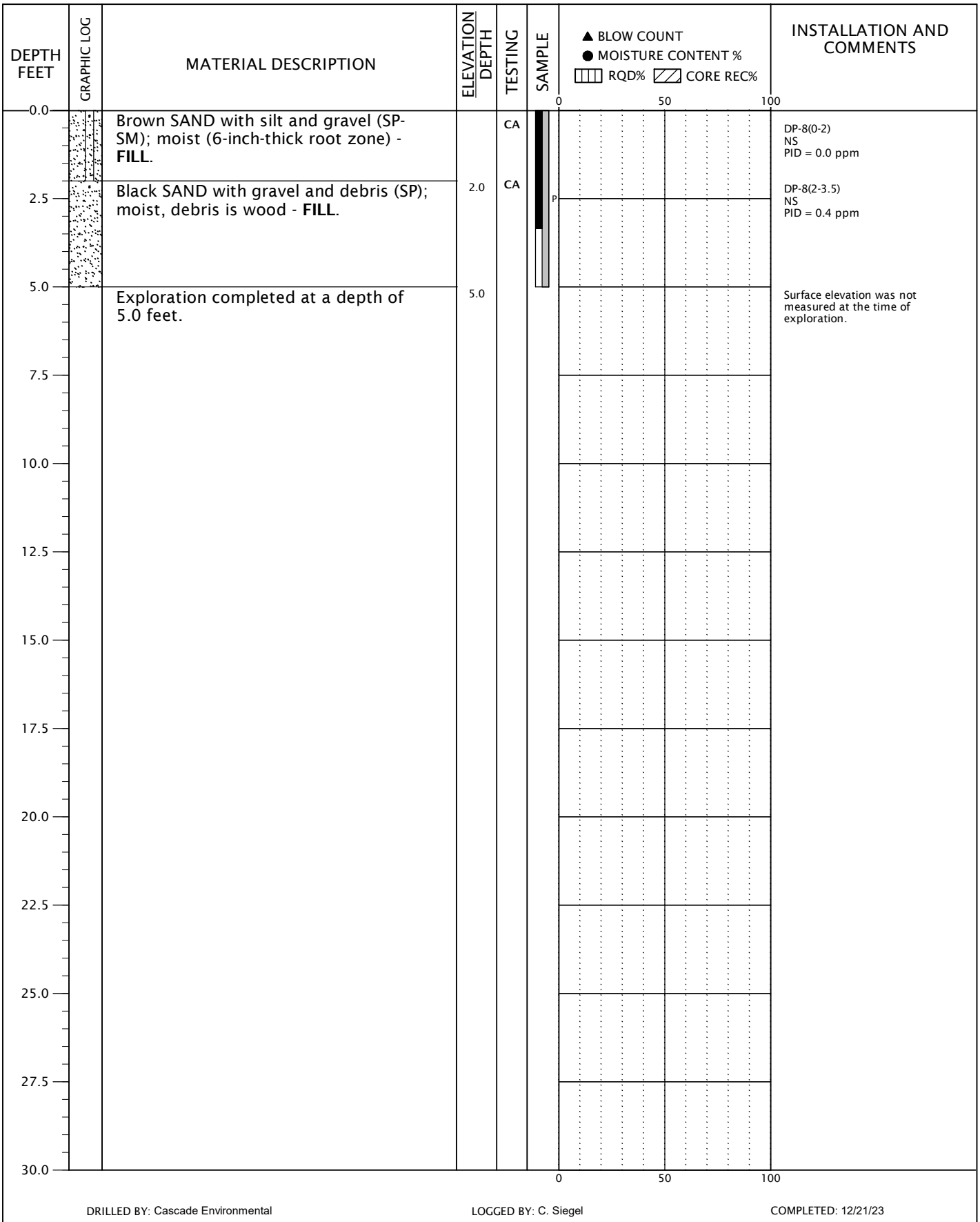
APRIL 2024

BORING DP-7

FORMER H.G. LAVELLE SOLID WASTE LANDFILL
PORTLAND, OR

FIGURE A-7

BORING LOG - NV5 - 1 PER PAGE SOJ-7-03-DP1_16.GPJ GDI_NV5.GDT PRINT DATE: 4/15/24:SP:SN



DRILLED BY: Cascade Environmental

LOGGED BY: C. Siegel

COMPLETED: 12/21/23

BORING METHOD: direct push (see document text)

BORING BIT DIAMETER: 2 1/4 inches

N|V|5	SOJ-7-03	**BORING DP-8**
	APRIL 2024	FORMER H.G. LAVELLE SOLID WASTE LANDFILL PORTLAND, OR

FIGURE A-8

BORING LOG - NV5 - 1 PER PAGE SOJ-7-03-DP1_16.GPJ GDI_NV5.GDT PRINT DATE: 4/15/24:SP:SN

DEPTH FEET	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION / DEPTH	TESTING	SAMPLE	▲ BLOW COUNT ● MOISTURE CONTENT % RQD% CORE REC% (0 – 50 – 100)	INSTALLATION AND COMMENTS
0.0		Brown SAND with silt and gravel (SP-SM); moist (6-inch-thick root zone) - **FILL**.		CA			DP-9(0-2) NS PID = 0.0 ppm
2.5		Black SAND with gravel and debris (SP); moist, debris is solid waste - **FILL**.	2.5		P		NS PID = 0.0 ppm
5.0		Exploration completed at a depth of 5.0 feet.	5.0				Surface elevation was not measured at the time of exploration.
7.5							
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							
25.0							
27.5							
30.0							

DRILLED BY: Cascade Environmental

LOGGED BY: C. Siegel

COMPLETED: 12/21/23

BORING METHOD: direct push (see document text)

BORING BIT DIAMETER: 2 1/4 inches

N|V|5

SOJ-7-03

APRIL 2024

BORING DP-9

FORMER H.G. LAVELLE SOLID WASTE LANDFILL
PORTLAND, OR

FIGURE A-9

BORING LOG - NV5 - 1 PER PAGE SOJ-7-03-DP1_16.GPJ GDI_NV5.GDT PRINT DATE: 4/15/24:SP:SN

DEPTH FEET	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION DEPTH	TESTING	SAMPLE	▲ BLOW COUNT ● MOISTURE CONTENT % RQD% CORE REC% (0 50 100)	INSTALLATION AND COMMENTS
0.0		Brown SAND with silt (SP-SM); moist (6-inch-thick root zone) - **FILL**.		CA			DP-10(0-1) NS PID = 0.0 ppm
2.5		with debris (wood) at 3.0 feet		CA	P		DP-10(3-4) NS PID = 0.0 ppm
5.0		Exploration completed at a depth of 5.0 feet.	5.0				Surface elevation was not measured at the time of exploration.
7.5							
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							
25.0							
27.5							
30.0							

DRILLED BY: Cascade Environmental

LOGGED BY: C. Siegel

COMPLETED: 12/18/23

BORING METHOD: direct push (see document text)

BORING BIT DIAMETER: 2 1/4 inches

N|V|5

SOJ-7-03

APRIL 2024

BORING DP-10

FORMER H.G. LAVELLE SOLID WASTE LANDFILL
PORTLAND, OR

FIGURE A-10

BORING LOG - NV5 - 1 PER PAGE SOJ-7-03-DP1_16.GPJ GDI_NV5.GDT PRINT DATE: 4/15/24:SP:SN

DEPTH FEET	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION / DEPTH	TESTING	SAMPLE	▲ BLOW COUNT ● MOISTURE CONTENT % RQD% CORE REC% (0 – 50 – 100)	INSTALLATION AND COMMENTS
0.0		Brown SILT with sand (ML); moist (6-inch-thick root zone) - **FILL**.		CA			DP-11(0-1) NS PID = 0.0 ppm
2.5		Brown SAND with debris (SP); moist, debris is wood - **FILL**. gray at 3.0 feet	2.0	CA	P		DP-11(2-3) NS PID = 0.0 ppm
5.0		Exploration completed at a depth of 5.0 feet.	5.0				Surface elevation was not measured at the time of exploration.
7.5							
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							
25.0							
27.5							
30.0							

DRILLED BY: Cascade Environmental

LOGGED BY: C. Siegel

COMPLETED: 12/18/23

BORING METHOD: direct push (see document text)

BORING BIT DIAMETER: 2 1/4 inches

N|V|5

SOJ-7-03

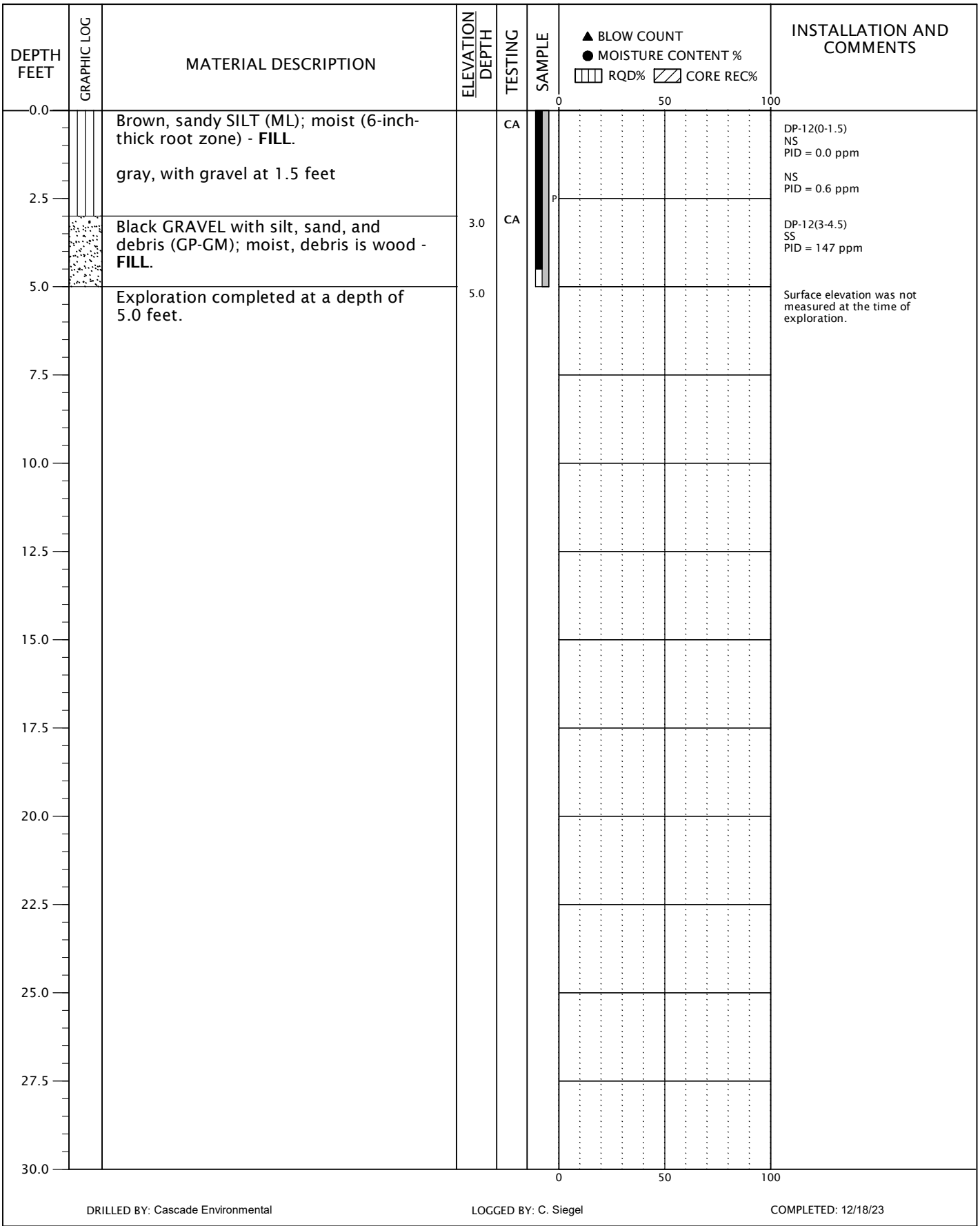
APRIL 2024

BORING DP-11

FORMER H.G. LAVELLE SOLID WASTE LANDFILL
PORTLAND, OR

FIGURE A-11

BORING LOG - NV5 - 1 PER PAGE SOJ-7-03-DP1_16.GPJ GDI_NV5.GDT PRINT DATE: 4/15/24:SP:SN



DRILLED BY: Cascade Environmental

LOGGED BY: C. Siegel

COMPLETED: 12/18/23

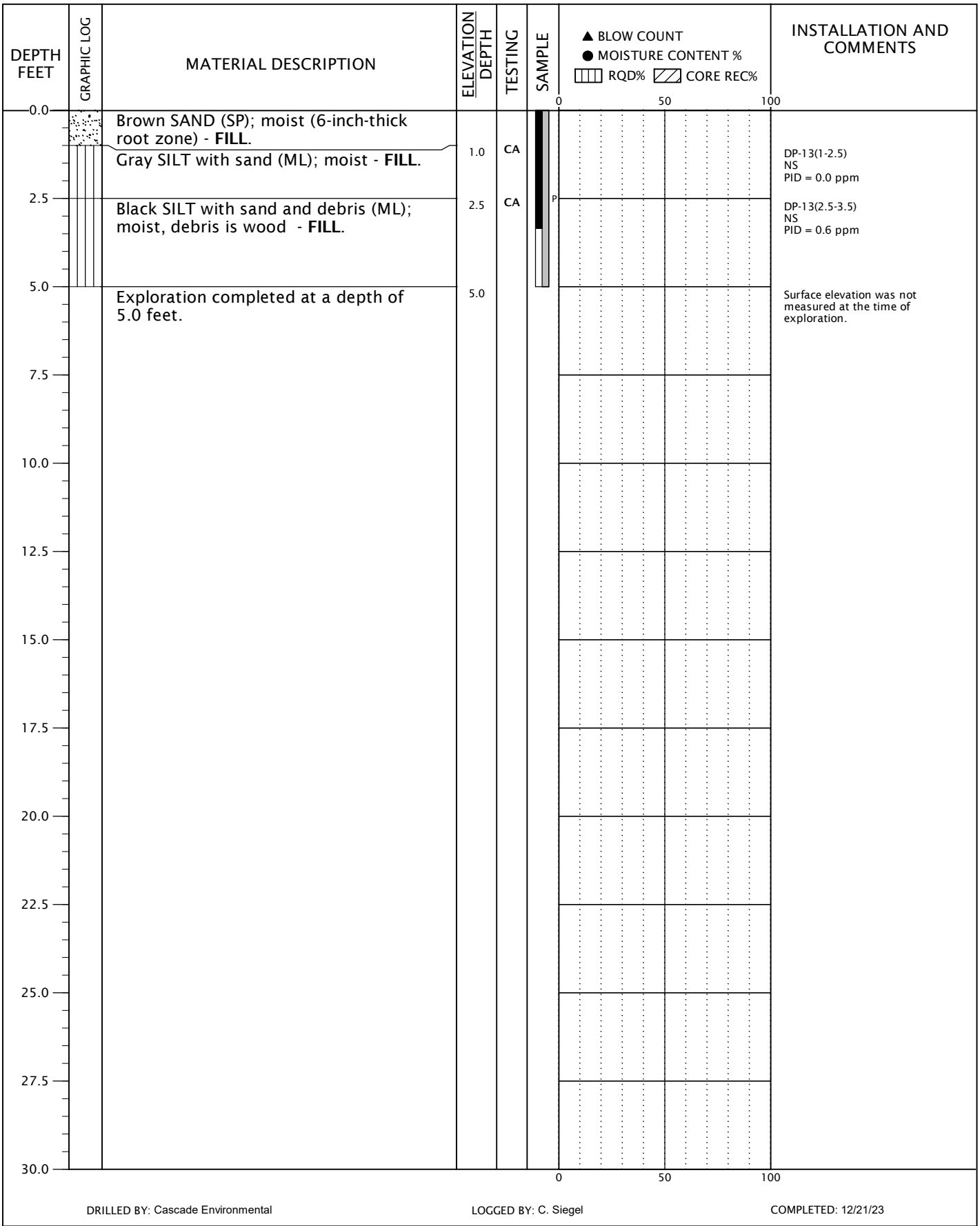
BORING METHOD: direct push (see document text)

BORING BIT DIAMETER: 2 1/4 inches

N|V|5	SOJ-7-03	**BORING DP-12**
	APRIL 2024	FORMER H.G. LAVELLE SOLID WASTE LANDFILL PORTLAND, OR

FIGURE A-12

BORING LOG - NV5 - 1 PER PAGE SOJ-7-03-DP1_16.GPJ GDI_NV5.GDT PRINT DATE: 4/15/24:SP:SN



DRILLED BY: Cascade Environmental

LOGGED BY: C. Siegel

COMPLETED: 12/21/23

BORING METHOD: direct push (see document text)

BORING BIT DIAMETER: 2 1/4 inches

N|V|5	SOJ-7-03	**BORING DP-13**
	APRIL 2024	FORMER H.G. LAVELLE SOLID WASTE LANDFILL PORTLAND, OR

FIGURE A-13

BORING LOG - NV5 - 1 PER PAGE SOJ-7-03-DP1_16.GPJ GDI_NV5.GDT PRINT DATE: 4/15/24:SP:SN

DEPTH FEET	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION / DEPTH	TESTING	SAMPLE	▲ BLOW COUNT ● MOISTURE CONTENT % RQD% CORE REC% (0 – 50 – 100)	INSTALLATION AND COMMENTS
0.0		Brown SAND with silt (SP-SM); moist (6-inch-thick root zone) - **FILL**.		CA			DP-14(0-2) NS PID = 0.0 ppm
2.5		gray at 3.5 feet			P		NS PID = 0.0 ppm
5.0		Exploration completed at a depth of 5.0 feet.	5.0				Surface elevation was not measured at the time of exploration.
7.5							
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							
25.0							
27.5							
30.0							

DRILLED BY: Cascade Environmental

LOGGED BY: C. Siegel

COMPLETED: 12/21/23

BORING METHOD: direct push (see document text)

BORING BIT DIAMETER: 2 1/4 inches

N|V|5

SOJ-7-03

APRIL 2024

BORING DP-14

FORMER H.G. LAVELLE SOLID WASTE LANDFILL
PORTLAND, OR

FIGURE A-14

BORING LOG - NV5 - 1 PER PAGE SOJ-7-03-DP1_16.GPJ GDI_NV5.GDT PRINT DATE: 4/15/24:SP:SN

DEPTH FEET	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION / DEPTH	TESTING	SAMPLE	▲ BLOW COUNT ● MOISTURE CONTENT % RQD% CORE REC% (0 – 50 – 100)	INSTALLATION AND COMMENTS
0.0		Brown SAND (SP); moist (6-inch-thick root zone) - **FILL**.		CA	P		DP-15(0-1.5) NS PID = 0.0 ppm NS
5.0		Exploration completed at a depth of 5.0 feet.	5.0				Surface elevation was not measured at the time of exploration.

DRILLED BY: Cascade Environmental

LOGGED BY: C. Siegel

COMPLETED: 12/21/23

BORING METHOD: direct push (see document text)

BORING BIT DIAMETER: 2 1/4 inches

N|V|5	SOJ-7-03	**BORING DP-15**
	APRIL 2024	FORMER H.G. LAVELLE SOLID WASTE LANDFILL PORTLAND, OR

FIGURE A-15

BORING LOG - NV5 - 1 PER PAGE SOJ-7-03-DP1_16.GPJ GDI_NV5.GDT PRINT DATE: 4/15/24:SP:SN

DEPTH FEET	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION / DEPTH	TESTING	SAMPLE	▲ BLOW COUNT ● MOISTURE CONTENT % ▥ RQD% ▨ CORE REC% (0 – 50 – 100)	INSTALLATION AND COMMENTS
0.0		Brown SAND with silt (SP-SM); moist (6-inch-thick root zone) - **FILL**.		CA			DP-16(0-2) NS PID = 0.0 ppm
2.5					P		
5.0		Exploration completed at a depth of 5.0 feet.	5.0				NS PID = 0.0 ppm Surface elevation was not measured at the time of exploration.
7.5							
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							
25.0							
27.5							
30.0							

DRILLED BY: Cascade Environmental

LOGGED BY: C. Siegel

COMPLETED: 12/21/23

BORING METHOD: direct push (see document text)

BORING BIT DIAMETER: 2 1/4 inches

N|V|5

SOJ-7-03

APRIL 2024

BORING DP-16

FORMER H.G. LAVELLE SOLID WASTE LANDFILL
PORTLAND, OR

FIGURE A-16

BORING LOG - NV5 - 1 PER PAGE SOJ-7-03-DP1_16.GPJ GDI_NV5.GDT PRINT DATE: 4/15/24:SP:SN

APPENDIX B

PACIFIC GEOPHYSICS

LETTER REPORT

PROJECT #: 230906
SURVEY DATE: 12/12/23

Caroline Siegel
NV5

GPR Survey
2800 NE 82nd Avenue
Portland, Oregon

A geophysical survey was conducted at the vacant property located at the address shown above for NV5. The scope of the survey was to detect an excavation from the removal of a known underground storage tank (UST) and to locate a possible cesspool in the perimeter of the building adjacent to NE 82nd Avenue. The approximate location of the former tank was known. No surface evidence of USTs, including fill ports and vent pipes, was seen at the site. An additional scope was to clear several proposed borehole locations across the property before a sampling program began. Figure 1 shows the survey location, area, and coverage.

The UST was reportedly removed from the area north of the building. The building's sewer stack was near the western wall, suggesting the cesspool is on this side. A SIR-4000 ground-penetrating radar (GPR) control unit connected to a 400-MHz antenna was used across the parking areas to the north and west of the building. No data were collected on the east side of the building due to access issues and the higher probability that the cesspool is located in the west parking area. A small section south of the building was accessible.

GPR traverses were made at three-foot intervals across the survey area. A disturbed-soil zone that is possibly the excavation from the removal of the known tank was detected in the area shown in Figure 2.

Two pipes heading to the west from the building were detected in north-south profiles across the west area. One of the pipes is possibly connected to a downspout. Suspicious reflectors were detected at the location where the two pipes converge. The object causing the reflectors is interpreted to be a drywell/cesspool. Its location is shown in Figure 2.

GPR, an Aqua-Tronics EM A6 Tracer electromagnetic metal detector, and a Radio Detection RD8000 PDL receiver in its passive mode were used to clear several proposed borehole locations of buried obstructions and piping across the open area east of the building. Two locations were cleared near the building.

Nikos Tzetos of Pacific Geophysics conducted the survey for Ms. Caroline Siegel of NV5 on December 12, 2023. This letter report was written by Nikos Tzetos and emailed to Ms. Siegel on January 2, 2024.

Limitations

The conclusions presented in this report were based upon widely accepted geophysical principles, methods, and equipment. This survey was conducted with limited knowledge of the site, the site history, and the subsurface conditions.

The goal of near-surface geophysics is to provide a rapid means of characterizing the subsurface using non-intrusive methods. Conclusions based upon these methods are generally reliable; however, due to the inherent ambiguity of the methods, no single interpretation of the data can be made. As an example, rocks and roots produce radar reflections that may appear the same as pipes and tanks.

Under reasonable conditions, geophysical surveys are good at detecting changes in the subsurface caused by fabricated objects or changes in subsurface conditions, but they are poor at actually identifying those objects or subsurface conditions.

Objects of interest are not always detectable due to surface and subsurface conditions. The deeper an object is buried, the more difficult it is to detect, and the less accurately it can be located.

The only way to see an object is to physically expose it.

Nikos Tzetos
Pacific Geophysics

January 2, 2024

Appendix A. Geophysical Survey Methods

Ground Penetrating Radar

A Geophysical Survey Systems, Inc. (GSSI) SIR-4000 or SIR-3000 GPR system coupled to GSSI antennas of various central frequencies is used to obtain the radar data for our surveys.

GPR antennas both transmit and receive electromagnetic energy. EM energy is transmitted into the material the antenna passes over. A portion of that energy is reflected back to the antenna and amplified. Reflections are displayed in real-time in a continuous cross section. Reflections are produced where there is a sufficient electrical contrast between two materials. Changes in the electrical properties (namely the dielectric constant) that produce radar reflections are caused by changes in the moisture content, porosity, mineralogy, and texture of the material. Metallic objects of interest exhibit a strong electrical contrast with the surrounding material and thus produce relatively strong reflections. Non-metallic objects of interest (septic tanks, cesspools, dry wells, and PVC and clay tile pipes) are not always good reflectors.

Radar data are ambiguous. It can be difficult to distinguish the reflection produced by an object of interest from the reflection caused by some natural feature. Rocks or tree roots have reflections that appear similar to reflections from pipes. In concrete investigations reflections produced by metal rebar look exactly like those from electrical conduit or post-tension cables. Objects with too small an electrical contrast may produce no reflections at all and may be missed. Target objects buried below objects with contrasting properties that also produce reflections may be missed (e.g., USTs below roots, concrete pieces, pipes, or rocks). If an object of interest like a UST is buried below the depth of penetration of the radar signal, it will be missed.

In addition to interpreting ambiguous data, radar has several limitations that cannot be controlled by the operator. The radar signal is severely attenuated by electrically conductive material, including wet, clay-rich soil and reinforced concrete. The quality of the data is affected by the surface conditions over which the antenna is pulled. Ideally the antenna should rest firmly on a smooth surface. Rough terrain and tall grass reduce the quality of radar data.

It is the job of an experienced interpreter to examine the GPR profiles and deduce if reflections are from objects of interest. A GPR interpreter cannot see underground but can only interpret reflections based on experience.

The only way to truly identify an object is to excavate.

Hand-held Metal detectors

Two small, non-recording metal detectors are used in our surveys.

Schonstedt Magnetic Gradiometer: This magnetometer has two magnetic sensors separated vertically by 10". The magnetic field surrounding a ferrous object is strongest near the object and decreases rapidly as the distance increases. If the magnitude measured by the sensor located in the tip of the Schonstedt is very high, and the magnetic field measured by the sensor located farther up the shaft of the Schonstedt is low, there is a large vertical magnetic gradient, and the instrument responds with a loud whistle indicating the object is near the surface. If there is a small difference in the magnitudes measured by the two sensors, the object is deeper. The instrument responds with a softer tone. A discussion of this instrument is available at Schonstedt.com.

Aqua-Tronics A-6 Tracer: The Aqua-Tronics A-6 Tracer uses a different method of detecting metallic objects. This instrument measures the electrical conductivity of a metal object. It is capable of detecting any electrically conductive metal, including non-ferrous aluminum and brass. The Tracer is capable of detecting three-dimensional objects as well as pipes.

The Tracer consists of a transmitter coil and a receiver coil. In the absence of any electrically conductive material in the vicinity of the Tracer, the electromagnetic field around each coil is balanced.

Basically, the electromagnetic field produced by the transmitter induces an electric current into the area surrounding the instrument. Nearby conductive objects distort the EM field. The balance between the two coils is disturbed and the instrument produces an audible tone and meter indication.

Radio Detection RD8000 PDL pipe and cable detector: This instrument may be used to detect buried, conductive pipes and utilities. It consists of a transmitter and a receiver and can be used in two configurations.

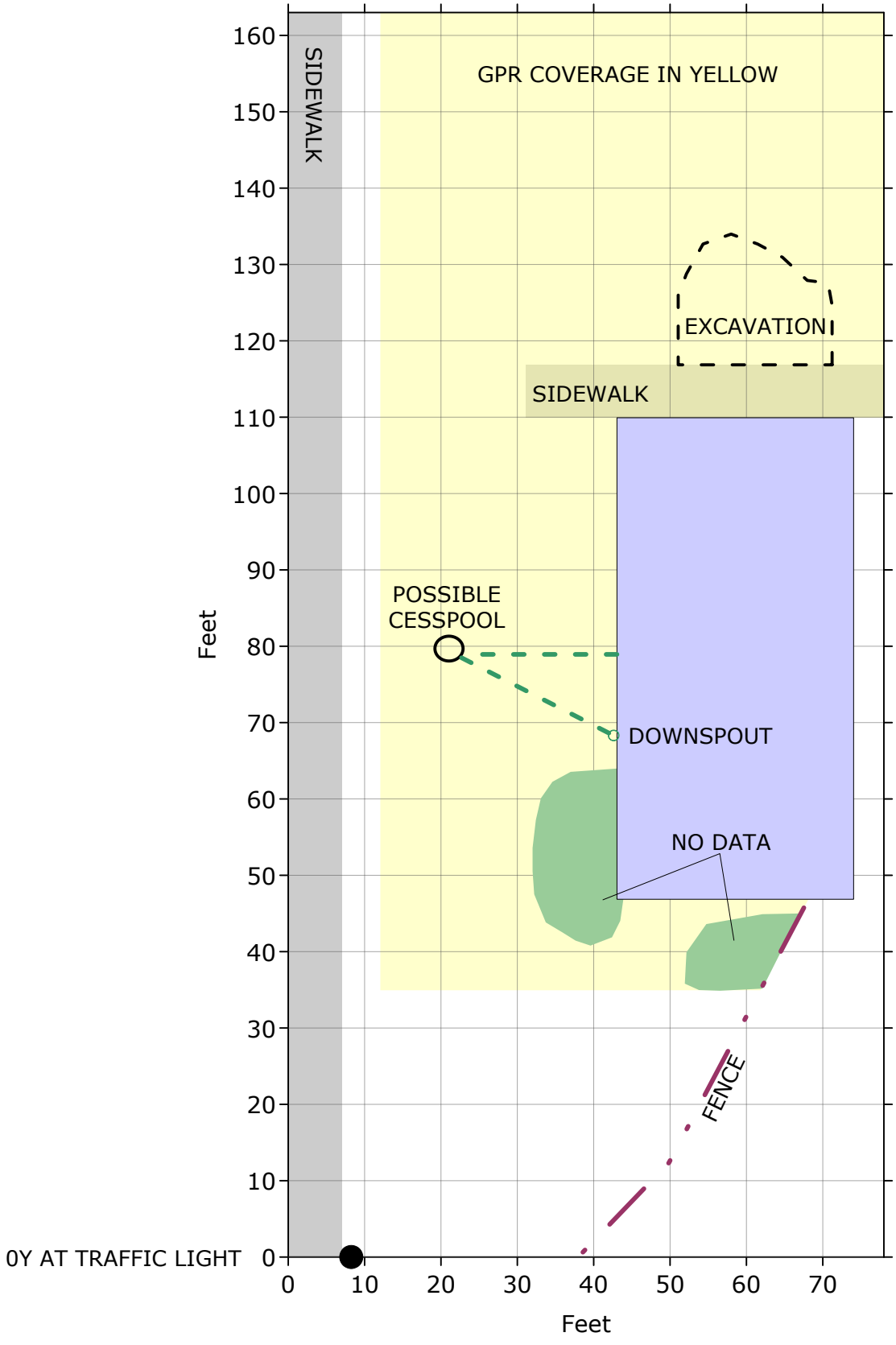
The transmitter may be used to directly apply a small electrical current to exposed, electrically conductive pipes and utilities. The RD receiver is then able to "trace" the underground portion of the pipe or utility, under some conditions for several hundred feet. The transmitter can also induce an electrical current into buried pipes and utilities where direct contact is not available.

The receiver can also be used alone. It has the capability to locate pipes and utilities by detecting the very small electrical currents induced into the features by nearby AM/FM radio stations.

The receiver also has an AC power function that may be used to detect underground power lines.

PACIFIC GEOPHYSICS

FIGURE 1	Survey Location ans Areas	
	Project: 230906	GPR Survey 2800 NE 82nd Avenue Portland, Oregon
	Drawn by : NT	Prepared for: NV5
		Base Photo from Google Earth



PACIFIC GEOPHYSICS

N

FIGURE 2	Site Diagram with Results	
	Project: 230906	GPR Survey 2800 NE 82nd Avenue Portland, Oregon
	Drawn by : NT	Prepared for: NV5
		Survey Date: December 12, 2023

APPENDIX C

APPENDIX C

CHEMICAL ANALYTICAL PROGRAM

GENERAL

Chain-of-custody procedures were followed during handling and transport of the soil samples to the analytical laboratory. The laboratory holds the samples in cold storage pending extraction and/or analysis. The analytical results, analytical methods reference, and laboratory QC records are presented in this appendix. The analytical results also are summarized in the tables of this report.

REVIEW OF ANALYTICAL DATA

The analytical laboratory used for this project maintains an internal QA program consisting of a combination of the following:

Blanks: Blanks are laboratory-prepared water samples that are free of contaminants. The blanks are carried through the analysis procedure along with the field samples to document that contaminants were not introduced to the samples during sample handling and analysis.

Surrogate Recoveries: Surrogates are organic compounds that are similar in nature to the analytes of concern but are not normally found in nature. The surrogates are added to QC and field samples before analysis. The percent recovery of the surrogate is calculated to demonstrate acceptable method performance.

Duplicates: Duplicates are obtained by splitting a sample into two parts. The two separate parts are carried through the analyses. The analytical results are then compared by calculating the RPD between the samples.

MS/MSD Recoveries: An MS sample is a sample that has been split into a second portion. The MSD is obtained by further splitting the MS sample. A known concentration of the analyte of interest is added to the MS and MSD samples. The analytical results for both samples are then compared for RPD and percent recovery to demonstrate acceptable method performance.

BS/BSD Recoveries: BS and BSD samples are obtained and analyzed in the same procedure as the MS/MSD samples; however, the laboratory blank sample is used to obtain the BS/BSD samples. The percent recovery and RPD of the known concentration of analyte of interest added to the BS/BSD sample is calculated after chemical analyses to demonstrate acceptable method performance.

SUMMARY OF ANALYTICAL DATA REVIEW

NV5 reviewed the attached analytical data reports for data quality exceptions and deviations from acceptable method performance criteria. Although reported concentrations of select analytes are estimates between the laboratory's method detection limits (the lowest level the instrument can detect) and the method reporting limits (the lowest concentration that can be

accurately quantified), the reported concentrations do not exceed applicable regulatory criteria. Discrete soil samples BD-1, DP-5(2-2.5), DO-10(3-4), DP-11(2-3), DP-12(3-4.5), and DP-13(2.5-3.5) were received and/or analyzed past the holding time for gasoline-range hydrocarbon and naphthalene analyses. The concentrations of gasoline-range hydrocarbons and naphthalene in these samples may be biased low. Although the detected concentrations exceed their corresponding CFSLs they are orders of magnitude less than their corresponding applicable DEQ RBCs. Therefore, it is unlikely that any potential bias caused by the hold time expiration of these few samples would impact the findings of the investigation or change our conclusions and recommendations. Based on our review of the analytical reports, the analytical data appear acceptable for their intended use.

ANALYTICAL REPORT

January 04, 2024

NV5 - Wilsonville, OR

Sample Delivery Group:	L1690988
Samples Received:	12/22/2023
Project Number:	SOJ-7-03
Description:	

Report To: Caroline Siegel
9450 SW Commerce Circle
Ste. 300
Wilsonville, OR 97070

Entire Report Reviewed By: Brian Ford

Brian Ford
Project Manager

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

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SG-1 L1690988-01 Air

Collected by: Julian Peter | Collected date/time: 12/20/23 10:44 | Received date/time: 12/22/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2199327	1	01/02/24 14:15	01/02/24 14:15	DBB	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG2199979	10	01/03/24 22:28	01/03/24 22:28	MNP	Mt. Juliet, TN
Organic Compounds (GC) by Method D1946	WG2197082	1	12/28/23 16:33	12/28/23 16:33	OK	Mt. Juliet, TN

SG-2 L1690988-02 Air

Collected by: Julian Peter | Collected date/time: 12/20/23 11:05 | Received date/time: 12/22/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2199327	1	01/02/24 15:02	01/02/24 15:02	DBB	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG2199881	5	01/03/24 17:49	01/03/24 17:49	DBB	Mt. Juliet, TN
Organic Compounds (GC) by Method D1946	WG2197082	1	12/28/23 16:39	12/28/23 16:39	OK	Mt. Juliet, TN

SG-3 L1690988-03 Air

Collected by: Julian Peter | Collected date/time: 12/20/23 11:30 | Received date/time: 12/22/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2199881	20	01/03/24 19:43	01/03/24 19:43	DBB	Mt. Juliet, TN
Organic Compounds (GC) by Method D1946	WG2197898	4	12/30/23 09:00	12/30/23 09:00	OK	Mt. Juliet, TN

SG-4 L1690988-04 Air

Collected by: Julian Peter | Collected date/time: 12/20/23 13:53 | Received date/time: 12/22/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2199881	20	01/03/24 20:20	01/03/24 20:20	DBB	Mt. Juliet, TN
Organic Compounds (GC) by Method D1946	WG2197082	1	12/28/23 16:44	12/28/23 16:44	OK	Mt. Juliet, TN

SG-5 L1690988-05 Air

Collected by: Julian Peter | Collected date/time: 12/20/23 13:29 | Received date/time: 12/22/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2199881	2	01/03/24 18:28	01/03/24 18:28	DBB	Mt. Juliet, TN
Organic Compounds (GC) by Method D1946	WG2197082	1	12/28/23 16:52	12/28/23 16:52	OK	Mt. Juliet, TN

SG-6 L1690988-06 Air

Collected by: Julian Peter | Collected date/time: 12/20/23 14:29 | Received date/time: 12/22/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2199881	20	01/03/24 20:57	01/03/24 20:57	DBB	Mt. Juliet, TN
Organic Compounds (GC) by Method D1946	WG2197082	1	12/28/23 16:55	12/28/23 16:55	OK	Mt. Juliet, TN

SG-7 L1690988-07 Air

Collected by: Julian Peter | Collected date/time: 12/20/23 15:14 | Received date/time: 12/22/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2199881	20	01/03/24 21:34	01/03/24 21:34	DBB	Mt. Juliet, TN
Organic Compounds (GC) by Method D1946	WG2197082	1	12/28/23 16:58	12/28/23 16:58	OK	Mt. Juliet, TN

SG-8 L1690988-08 Air

Collected by: Julian Peter | Collected date/time: 12/20/23 15:55 | Received date/time: 12/22/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2199881	20	01/03/24 22:12	01/03/24 22:12	DBB	Mt. Juliet, TN
Organic Compounds (GC) by Method D1946	WG2197898	1	12/30/23 09:05	12/30/23 09:05	OK	Mt. Juliet, TN

SG-9 L1690988-09 Air

Collected by: Julian Peter | Collected date/time: 12/20/23 16:15 | Received date/time: 12/22/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2199881	2	01/03/24 19:06	01/03/24 19:06	DBB	Mt. Juliet, TN
Organic Compounds (GC) by Method D1946	WG2197898	1	12/30/23 09:13	12/30/23 09:13	OK	Mt. Juliet, TN

SG-10 L1690988-10 Air

Collected by: Julian Peter | Collected date/time: 12/20/23 17:17 | Received date/time: 12/22/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2199881	20	01/03/24 22:49	01/03/24 22:49	DBB	Mt. Juliet, TN
Organic Compounds (GC) by Method D1946	WG2198613	10	12/30/23 11:23	12/30/23 11:23	OK	Mt. Juliet, TN

SG-11 L1690988-11 Air

Collected by: Julian Peter | Collected date/time: 12/20/23 18:07 | Received date/time: 12/22/23 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2199881	20	01/03/24 23:26	01/03/24 23:26	DBB	Mt. Juliet, TN
Organic Compounds (GC) by Method D1946	WG2199835	2	01/03/24 09:23	01/03/24 09:23	OK	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

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	55.3	131		1	WG2199327
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2199327
Benzene	71-43-2	78.10	0.200	0.639	29.4	93.9		1	WG2199327
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2199327
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2199327
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG2199327
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2199327
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2199327
Carbon disulfide	75-15-0	76.10	2.00	6.22	116	361		10	WG2199979
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2199327
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2199327
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG2199327
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG2199327
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG2199327
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2199327
Cyclohexane	110-82-7	84.20	0.200	0.689	66.1	228		1	WG2199327
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2199327
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2199327
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2199327
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2199327
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2199327
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2199327
1,1-Dichloroethane	75-34-3	98	0.200	0.802	0.208	0.834		1	WG2199327
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2199327
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG2199327
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2199327
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2199327
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2199327
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2199327
1,4-Dioxane	123-91-1	88.10	0.630	2.27	ND	ND		1	WG2199327
Ethanol	64-17-5	46.10	2.50	4.71	17.8	33.6		1	WG2199327
Ethylbenzene	100-41-4	106	0.200	0.867	8.84	38.3		1	WG2199327
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG2199327
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	ND	ND		1	WG2199327
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	1.62	8.01		1	WG2199327
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND	J3 J4	1	WG2199327
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	14.2	99.3		1	WG2199327
Heptane	142-82-5	100	0.200	0.818	69.8	285		1	WG2199327
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2199327
n-Hexane	110-54-3	86.20	6.30	22.2	116	409		10	WG2199979
Isopropylbenzene	98-82-8	120.20	0.200	0.983	27.5	135		1	WG2199327
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG2199327
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2199327
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	17.3	51.0		1	WG2199327
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2199327
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2199327
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2199327
Naphthalene	91-20-3	128	0.630	3.30	0.699	3.66		1	WG2199327
2-Propanol	67-63-0	60.10	1.25	3.07	25.2	61.9		1	WG2199327
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG2199327
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG2199327
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2199327
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG2199327
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG2199327
Toluene	108-88-3	92.10	0.500	1.88	8.35	31.5		1	WG2199327
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2199327

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG2199327
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2199327
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG2199327
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	5.16	25.3		1	WG2199327
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	7.76	38.1		1	WG2199327
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	12.5	58.4		1	WG2199327
Vinyl chloride	75-01-4	62.50	0.200	0.511	0.957	2.45		1	WG2199327
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2199327
Vinyl acetate	108-05-4	86.10	0.630	2.22	ND	ND		1	WG2199327
m&p-Xylene	179601-23-1	106	0.400	1.73	5.22	22.6		1	WG2199327
o-Xylene	95-47-6	106	0.200	0.867	2.45	10.6		1	WG2199327
TPH (GC/MS) Low Fraction	8006-61-9	101	2000	8260	13800	57000		10	WG2199979
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*431*		J1		WG2199327
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*113*				WG2199979

Sample Narrative:

L1690988-01 WG2199327: Surrogate failure due to matrix interference

Organic Compounds (GC) by Method D1946

Analyte	CAS #	Mol. Wt.	RDL %	Result %	Qualifier	Dilution	Batch
Methane	74-82-8	16	0.400	3.36		1	WG2197082

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

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	6.25	14.9	62.8	149		5	WG2199881
Allyl chloride	107-05-1	76.53	1.00	3.13	ND	ND		5	WG2199881
Benzene	71-43-2	78.10	1.00	3.19	ND	ND		5	WG2199881
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2199327
Bromodichloromethane	75-27-4	164	1.00	6.71	ND	ND		5	WG2199881
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG2199327
Bromomethane	74-83-9	94.90	1.00	3.88	ND	ND		5	WG2199881
1,3-Butadiene	106-99-0	54.10	10.0	22.1	ND	ND		5	WG2199881
Carbon disulfide	75-15-0	76.10	1.00	3.11	1.01	3.14		5	WG2199881
Carbon tetrachloride	56-23-5	154	1.00	6.30	ND	ND		5	WG2199881
Chlorobenzene	108-90-7	113	1.00	4.62	3.10	14.3		5	WG2199881
Chloroethane	75-00-3	64.50	1.00	2.64	ND	ND		5	WG2199881
Chloroform	67-66-3	119	1.00	4.87	ND	ND		5	WG2199881
Chloromethane	74-87-3	50.50	1.00	2.07	ND	ND		5	WG2199881
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2199327
Cyclohexane	110-82-7	84.20	1.00	3.44	21.4	73.7		5	WG2199881
Dibromochloromethane	124-48-1	208	1.00	8.51	ND	ND		5	WG2199881
1,2-Dibromoethane	106-93-4	188	1.00	7.69	ND	ND		5	WG2199881
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2199327
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2199327
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2199327
1,2-Dichloroethane	107-06-2	99	1.00	4.05	ND	ND		5	WG2199881
1,1-Dichloroethane	75-34-3	98	1.00	4.01	ND	ND		5	WG2199881
1,1-Dichloroethene	75-35-4	96.90	1.00	3.96	ND	ND		5	WG2199881
cis-1,2-Dichloroethene	156-59-2	96.90	1.00	3.96	ND	ND		5	WG2199881
trans-1,2-Dichloroethene	156-60-5	96.90	1.00	3.96	ND	ND		5	WG2199881
1,2-Dichloropropane	78-87-5	113	1.00	4.62	ND	ND		5	WG2199881
cis-1,3-Dichloropropene	10061-01-5	111	1.00	4.54	ND	ND		5	WG2199881
trans-1,3-Dichloropropene	10061-02-6	111	1.00	4.54	ND	ND		5	WG2199881
1,4-Dioxane	123-91-1	88.10	3.15	11.4	ND	ND		5	WG2199881
Ethanol	64-17-5	46.10	12.5	23.6	64.3	121		5	WG2199881
Ethylbenzene	100-41-4	106	0.200	0.867	3.34	14.5		1	WG2199327
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG2199327
Trichlorofluoromethane	75-69-4	137.40	1.00	5.62	ND	ND		5	WG2199881
Dichlorodifluoromethane	75-71-8	120.92	1.00	4.95	ND	ND		5	WG2199881
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	1.00	7.66	ND	ND		5	WG2199881
1,2-Dichlorotetrafluoroethane	76-14-2	171	1.00	6.99	6.26	43.8		5	WG2199881
Heptane	142-82-5	100	1.00	4.09	ND	ND		5	WG2199881
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2199327
n-Hexane	110-54-3	86.20	3.15	11.1	14.1	49.7		5	WG2199881
Isopropylbenzene	98-82-8	120.20	0.200	0.983	4.00	19.7		1	WG2199327
Methylene Chloride	75-09-2	84.90	1.00	3.47	2.96	10.3		5	WG2199881
Methyl Butyl Ketone	591-78-6	100	6.25	25.6	ND	ND		5	WG2199881
2-Butanone (MEK)	78-93-3	72.10	6.25	18.4	10.1	29.8		5	WG2199881
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	6.25	25.6	ND	ND		5	WG2199881
Methyl methacrylate	80-62-6	100.12	1.00	4.09	ND	ND		5	WG2199881
MTBE	1634-04-4	88.10	1.00	3.60	ND	ND		5	WG2199881
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2199327
2-Propanol	67-63-0	60.10	6.25	15.4	50.5	124		5	WG2199881
Propene	115-07-1	42.10	6.25	10.8	ND	ND		5	WG2199881
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG2199327
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2199327
Tetrachloroethylene	127-18-4	166	1.00	6.79	ND	ND		5	WG2199881
Tetrahydrofuran	109-99-9	72.10	1.00	2.95	ND	ND		5	WG2199881
Toluene	108-88-3	92.10	2.50	9.42	ND	ND		5	WG2199881
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2199327

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	1.00	5.44	ND	ND		5	WG2199881
1,1,2-Trichloroethane	79-00-5	133	1.00	5.44	ND	ND		5	WG2199881
Trichloroethylene	79-01-6	131	1.00	5.36	ND	ND		5	WG2199881
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.915	4.49		1	WG2199327
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.633	3.11		1	WG2199327
2,2,4-Trimethylpentane	540-84-1	114.22	1.00	4.67	5.52	25.8		5	WG2199881
Vinyl chloride	75-01-4	62.50	1.00	2.56	ND	ND		5	WG2199881
Vinyl Bromide	593-60-2	106.95	1.00	4.37	ND	ND		5	WG2199881
Vinyl acetate	108-05-4	86.10	3.15	11.1	ND	ND		5	WG2199881
m&p-Xylene	179601-23-1	106	0.400	1.73	6.11	26.5		1	WG2199327
o-Xylene	95-47-6	106	0.200	0.867	2.86	12.4		1	WG2199327
TPH (GC/MS) Low Fraction	8006-61-9	101	1000	4130	4980	20600		5	WG2199881
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*191*		J1		WG2199327
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*111*				WG2199881

Sample Narrative:

L1690988-02 WG2199327: Surrogate failure due to matrix interference

Organic Compounds (GC) by Method D1946

Analyte	CAS #	Mol. Wt.	RDL %	Result %	Qualifier	Dilution	Batch
Methane	74-82-8	16	0.400	3.38		1	WG2197082

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

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	25.0	59.4	138	328		20	WG2199881
Allyl chloride	107-05-1	76.53	4.00	12.5	ND	ND		20	WG2199881
Benzene	71-43-2	78.10	4.00	12.8	52.9	169		20	WG2199881
Benzyl Chloride	100-44-7	127	4.00	20.8	ND	ND		20	WG2199881
Bromodichloromethane	75-27-4	164	4.00	26.8	ND	ND		20	WG2199881
Bromoform	75-25-2	253	12.0	124	ND	ND		20	WG2199881
Bromomethane	74-83-9	94.90	4.00	15.5	ND	ND		20	WG2199881
1,3-Butadiene	106-99-0	54.10	40.0	88.5	ND	ND		20	WG2199881
Carbon disulfide	75-15-0	76.10	4.00	12.4	126	392		20	WG2199881
Carbon tetrachloride	56-23-5	154	4.00	25.2	ND	ND		20	WG2199881
Chlorobenzene	108-90-7	113	4.00	18.5	ND	ND		20	WG2199881
Chloroethane	75-00-3	64.50	4.00	10.6	5.54	14.6		20	WG2199881
Chloroform	67-66-3	119	4.00	19.5	ND	ND		20	WG2199881
Chloromethane	74-87-3	50.50	4.00	8.26	ND	ND		20	WG2199881
2-Chlorotoluene	95-49-8	126	4.00	20.6	ND	ND		20	WG2199881
Cyclohexane	110-82-7	84.20	4.00	13.8	230	792		20	WG2199881
Dibromochloromethane	124-48-1	208	4.00	34.0	ND	ND		20	WG2199881
1,2-Dibromoethane	106-93-4	188	4.00	30.8	ND	ND		20	WG2199881
1,2-Dichlorobenzene	95-50-1	147	4.00	24.0	ND	ND		20	WG2199881
1,3-Dichlorobenzene	541-73-1	147	4.00	24.0	ND	ND		20	WG2199881
1,4-Dichlorobenzene	106-46-7	147	4.00	24.0	ND	ND		20	WG2199881
1,2-Dichloroethane	107-06-2	99	4.00	16.2	ND	ND		20	WG2199881
1,1-Dichloroethane	75-34-3	98	4.00	16.0	ND	ND		20	WG2199881
1,1-Dichloroethene	75-35-4	96.90	4.00	15.9	ND	ND		20	WG2199881
cis-1,2-Dichloroethene	156-59-2	96.90	4.00	15.9	ND	ND		20	WG2199881
trans-1,2-Dichloroethene	156-60-5	96.90	4.00	15.9	ND	ND		20	WG2199881
1,2-Dichloropropane	78-87-5	113	4.00	18.5	ND	ND		20	WG2199881
cis-1,3-Dichloropropene	10061-01-5	111	4.00	18.2	ND	ND		20	WG2199881
trans-1,3-Dichloropropene	10061-02-6	111	4.00	18.2	ND	ND		20	WG2199881
1,4-Dioxane	123-91-1	88.10	12.6	45.4	ND	ND		20	WG2199881
Ethanol	64-17-5	46.10	50.0	94.3	ND	ND		20	WG2199881
Ethylbenzene	100-41-4	106	4.00	17.3	ND	ND		20	WG2199881
4-Ethyltoluene	622-96-8	120	4.00	19.6	ND	ND		20	WG2199881
Trichlorofluoromethane	75-69-4	137.40	4.00	22.5	ND	ND		20	WG2199881
Dichlorodifluoromethane	75-71-8	120.92	4.00	19.8	6.14	30.4		20	WG2199881
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	4.00	30.7	ND	ND		20	WG2199881
1,2-Dichlorotetrafluoroethane	76-14-2	171	4.00	28.0	21.8	152		20	WG2199881
Heptane	142-82-5	100	4.00	16.4	366	1500		20	WG2199881
Hexachloro-1,3-butadiene	87-68-3	261	12.6	135	ND	ND		20	WG2199881
n-Hexane	110-54-3	86.20	12.6	44.4	297	1050		20	WG2199881
Isopropylbenzene	98-82-8	120.20	4.00	19.7	43.0	211		20	WG2199881
Methylene Chloride	75-09-2	84.90	4.00	13.9	ND	ND		20	WG2199881
Methyl Butyl Ketone	591-78-6	100	25.0	102	ND	ND		20	WG2199881
2-Butanone (MEK)	78-93-3	72.10	25.0	73.7	29.7	87.6		20	WG2199881
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	25.0	102	ND	ND		20	WG2199881
Methyl methacrylate	80-62-6	100.12	4.00	16.4	ND	ND		20	WG2199881
MTBE	1634-04-4	88.10	4.00	14.4	ND	ND		20	WG2199881
Naphthalene	91-20-3	128	12.6	66.0	ND	ND		20	WG2199881
2-Propanol	67-63-0	60.10	25.0	61.5	ND	ND		20	WG2199881
Propene	115-07-1	42.10	25.0	43.0	ND	ND		20	WG2199881
Styrene	100-42-5	104	4.00	17.0	ND	ND		20	WG2199881
1,1,2,2-Tetrachloroethane	79-34-5	168	4.00	27.5	ND	ND		20	WG2199881
Tetrachloroethylene	127-18-4	166	4.00	27.2	ND	ND		20	WG2199881
Tetrahydrofuran	109-99-9	72.10	4.00	11.8	ND	ND		20	WG2199881
Toluene	108-88-3	92.10	10.0	37.7	10.2	38.4		20	WG2199881
1,2,4-Trichlorobenzene	120-82-1	181	12.6	93.3	ND	ND		20	WG2199881

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	4.00	21.8	ND	ND		20	WG2199881
1,1,2-Trichloroethane	79-00-5	133	4.00	21.8	ND	ND		20	WG2199881
Trichloroethylene	79-01-6	131	4.00	21.4	ND	ND		20	WG2199881
1,2,4-Trimethylbenzene	95-63-6	120	4.00	19.6	30.0	147		20	WG2199881
1,3,5-Trimethylbenzene	108-67-8	120	4.00	19.6	10.7	52.5		20	WG2199881
2,2,4-Trimethylpentane	540-84-1	114.22	4.00	18.7	34.1	159		20	WG2199881
Vinyl chloride	75-01-4	62.50	4.00	10.2	ND	ND		20	WG2199881
Vinyl Bromide	593-60-2	106.95	4.00	17.5	ND	ND		20	WG2199881
Vinyl acetate	108-05-4	86.10	12.6	44.4	ND	ND		20	WG2199881
m&p-Xylene	179601-23-1	106	8.00	34.7	20.1	87.1		20	WG2199881
o-Xylene	95-47-6	106	4.00	17.3	6.06	26.3		20	WG2199881
TPH (GC/MS) Low Fraction	8006-61-9	101	4000	16500	40900	169000		20	WG2199881
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*121*				WG2199881

Organic Compounds (GC) by Method D1946

Analyte	CAS #	Mol. Wt.	RDL %	Result %	Qualifier	Dilution	Batch
Methane	74-82-8	16	1.60	6.80		4	WG2197898

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	25.0	59.4	580	1380		20	WG2199881
Allyl chloride	107-05-1	76.53	4.00	12.5	ND	ND		20	WG2199881
Benzene	71-43-2	78.10	4.00	12.8	ND	ND		20	WG2199881
Benzyl Chloride	100-44-7	127	4.00	20.8	ND	ND		20	WG2199881
Bromodichloromethane	75-27-4	164	4.00	26.8	ND	ND		20	WG2199881
Bromoform	75-25-2	253	12.0	124	ND	ND		20	WG2199881
Bromomethane	74-83-9	94.90	4.00	15.5	ND	ND		20	WG2199881
1,3-Butadiene	106-99-0	54.10	40.0	88.5	ND	ND		20	WG2199881
Carbon disulfide	75-15-0	76.10	4.00	12.4	ND	ND		20	WG2199881
Carbon tetrachloride	56-23-5	154	4.00	25.2	ND	ND		20	WG2199881
Chlorobenzene	108-90-7	113	4.00	18.5	ND	ND		20	WG2199881
Chloroethane	75-00-3	64.50	4.00	10.6	ND	ND		20	WG2199881
Chloroform	67-66-3	119	4.00	19.5	ND	ND		20	WG2199881
Chloromethane	74-87-3	50.50	4.00	8.26	ND	ND		20	WG2199881
2-Chlorotoluene	95-49-8	126	4.00	20.6	ND	ND		20	WG2199881
Cyclohexane	110-82-7	84.20	4.00	13.8	ND	ND		20	WG2199881
Dibromochloromethane	124-48-1	208	4.00	34.0	ND	ND		20	WG2199881
1,2-Dibromoethane	106-93-4	188	4.00	30.8	ND	ND		20	WG2199881
1,2-Dichlorobenzene	95-50-1	147	4.00	24.0	ND	ND		20	WG2199881
1,3-Dichlorobenzene	541-73-1	147	4.00	24.0	ND	ND		20	WG2199881
1,4-Dichlorobenzene	106-46-7	147	4.00	24.0	ND	ND		20	WG2199881
1,2-Dichloroethane	107-06-2	99	4.00	16.2	ND	ND		20	WG2199881
1,1-Dichloroethane	75-34-3	98	4.00	16.0	ND	ND		20	WG2199881
1,1-Dichloroethene	75-35-4	96.90	4.00	15.9	ND	ND		20	WG2199881
cis-1,2-Dichloroethene	156-59-2	96.90	4.00	15.9	ND	ND		20	WG2199881
trans-1,2-Dichloroethene	156-60-5	96.90	4.00	15.9	ND	ND		20	WG2199881
1,2-Dichloropropane	78-87-5	113	4.00	18.5	ND	ND		20	WG2199881
cis-1,3-Dichloropropene	10061-01-5	111	4.00	18.2	ND	ND		20	WG2199881
trans-1,3-Dichloropropene	10061-02-6	111	4.00	18.2	ND	ND		20	WG2199881
1,4-Dioxane	123-91-1	88.10	12.6	45.4	ND	ND		20	WG2199881
Ethanol	64-17-5	46.10	50.0	94.3	ND	ND		20	WG2199881
Ethylbenzene	100-41-4	106	4.00	17.3	ND	ND		20	WG2199881
4-Ethyltoluene	622-96-8	120	4.00	19.6	ND	ND		20	WG2199881
Trichlorofluoromethane	75-69-4	137.40	4.00	22.5	ND	ND		20	WG2199881
Dichlorodifluoromethane	75-71-8	120.92	4.00	19.8	ND	ND		20	WG2199881
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	4.00	30.7	ND	ND		20	WG2199881
1,2-Dichlorotetrafluoroethane	76-14-2	171	4.00	28.0	ND	ND		20	WG2199881
Heptane	142-82-5	100	4.00	16.4	4.29	17.5		20	WG2199881
Hexachloro-1,3-butadiene	87-68-3	261	12.6	135	ND	ND		20	WG2199881
n-Hexane	110-54-3	86.20	12.6	44.4	ND	ND		20	WG2199881
Isopropylbenzene	98-82-8	120.20	4.00	19.7	ND	ND		20	WG2199881
Methylene Chloride	75-09-2	84.90	4.00	13.9	4.17	14.5		20	WG2199881
Methyl Butyl Ketone	591-78-6	100	25.0	102	ND	ND		20	WG2199881
2-Butanone (MEK)	78-93-3	72.10	25.0	73.7	ND	ND		20	WG2199881
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	25.0	102	ND	ND		20	WG2199881
Methyl methacrylate	80-62-6	100.12	4.00	16.4	ND	ND		20	WG2199881
MTBE	1634-04-4	88.10	4.00	14.4	ND	ND		20	WG2199881
Naphthalene	91-20-3	128	12.6	66.0	ND	ND		20	WG2199881
2-Propanol	67-63-0	60.10	25.0	61.5	3090	7600	E	20	WG2199881
Propene	115-07-1	42.10	25.0	43.0	ND	ND		20	WG2199881
Styrene	100-42-5	104	4.00	17.0	ND	ND		20	WG2199881
1,1,2,2-Tetrachloroethane	79-34-5	168	4.00	27.5	ND	ND		20	WG2199881
Tetrachloroethylene	127-18-4	166	4.00	27.2	ND	ND		20	WG2199881
Tetrahydrofuran	109-99-9	72.10	4.00	11.8	ND	ND		20	WG2199881
Toluene	108-88-3	92.10	10.0	37.7	ND	ND		20	WG2199881
1,2,4-Trichlorobenzene	120-82-1	181	12.6	93.3	ND	ND		20	WG2199881

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	4.00	21.8	ND	ND		20	WG2199881
1,1,2-Trichloroethane	79-00-5	133	4.00	21.8	ND	ND		20	WG2199881
Trichloroethylene	79-01-6	131	4.00	21.4	ND	ND		20	WG2199881
1,2,4-Trimethylbenzene	95-63-6	120	4.00	19.6	ND	ND		20	WG2199881
1,3,5-Trimethylbenzene	108-67-8	120	4.00	19.6	ND	ND		20	WG2199881
2,2,4-Trimethylpentane	540-84-1	114.22	4.00	18.7	4.74	22.1		20	WG2199881
Vinyl chloride	75-01-4	62.50	4.00	10.2	ND	ND		20	WG2199881
Vinyl Bromide	593-60-2	106.95	4.00	17.5	ND	ND		20	WG2199881
Vinyl acetate	108-05-4	86.10	12.6	44.4	ND	ND		20	WG2199881
m&p-Xylene	179601-23-1	106	8.00	34.7	ND	ND		20	WG2199881
o-Xylene	95-47-6	106	4.00	17.3	ND	ND		20	WG2199881
TPH (GC/MS) Low Fraction	8006-61-9	101	4000	16500	ND	ND		20	WG2199881
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*96.1*				WG2199881

Organic Compounds (GC) by Method D1946

Analyte	CAS #	Mol. Wt.	RDL %	Result %	Qualifier	Dilution	Batch
Methane	74-82-8	16	0.400	ND		1	WG2197082

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

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	15.8	37.5		2	WG2199881
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG2199881
Benzene	71-43-2	78.10	0.400	1.28	ND	ND		2	WG2199881
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG2199881
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG2199881
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG2199881
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG2199881
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG2199881
Carbon disulfide	75-15-0	76.10	0.400	1.24	ND	ND		2	WG2199881
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG2199881
Chlorobenzene	108-90-7	113	0.400	1.85	1.06	4.90		2	WG2199881
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG2199881
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG2199881
Chloromethane	74-87-3	50.50	0.400	0.826	ND	ND		2	WG2199881
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG2199881
Cyclohexane	110-82-7	84.20	0.400	1.38	ND	ND		2	WG2199881
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG2199881
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG2199881
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG2199881
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG2199881
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG2199881
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG2199881
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG2199881
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG2199881
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG2199881
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG2199881
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG2199881
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG2199881
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG2199881
1,4-Dioxane	123-91-1	88.10	1.26	4.54	ND	ND		2	WG2199881
Ethanol	64-17-5	46.10	5.00	9.43	5.04	9.50		2	WG2199881
Ethylbenzene	100-41-4	106	0.400	1.73	ND	ND		2	WG2199881
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG2199881
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG2199881
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	0.648	3.20		2	WG2199881
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG2199881
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	2.25	15.7		2	WG2199881
Heptane	142-82-5	100	0.400	1.64	4.16	17.0		2	WG2199881
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG2199881
n-Hexane	110-54-3	86.20	1.26	4.44	11.8	41.6		2	WG2199881
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG2199881
Methylene Chloride	75-09-2	84.90	0.400	1.39	ND	ND		2	WG2199881
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG2199881
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	ND	ND		2	WG2199881
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG2199881
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG2199881
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG2199881
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG2199881
2-Propanol	67-63-0	60.10	2.50	6.15	12.0	29.5		2	WG2199881
Propene	115-07-1	42.10	2.50	4.30	ND	ND		2	WG2199881
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG2199881
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG2199881
Tetrachloroethylene	127-18-4	166	0.400	2.72	ND	ND		2	WG2199881
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	ND	ND		2	WG2199881
Toluene	108-88-3	92.10	1.00	3.77	ND	ND		2	WG2199881
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG2199881

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG2199881
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG2199881
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG2199881
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	ND	ND		2	WG2199881
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG2199881
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	5.50	25.7		2	WG2199881
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG2199881
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG2199881
Vinyl acetate	108-05-4	86.10	1.26	4.44	ND	ND		2	WG2199881
m&p-Xylene	179601-23-1	106	0.800	3.47	ND	ND		2	WG2199881
o-Xylene	95-47-6	106	0.400	1.73	ND	ND		2	WG2199881
TPH (GC/MS) Low Fraction	8006-61-9	101	400	1650	1610	6650		2	WG2199881
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*107*				WG2199881

Organic Compounds (GC) by Method D1946

Analyte	CAS #	Mol. Wt.	RDL %	Result %	Qualifier	Dilution	Batch
Methane	74-82-8	16	0.400	1.54		1	WG2197082

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	25.0	59.4	ND	ND		20	WG2199881
Allyl chloride	107-05-1	76.53	4.00	12.5	ND	ND		20	WG2199881
Benzene	71-43-2	78.10	4.00	12.8	ND	ND		20	WG2199881
Benzyl Chloride	100-44-7	127	4.00	20.8	ND	ND		20	WG2199881
Bromodichloromethane	75-27-4	164	4.00	26.8	ND	ND		20	WG2199881
Bromoform	75-25-2	253	12.0	124	ND	ND		20	WG2199881
Bromomethane	74-83-9	94.90	4.00	15.5	ND	ND		20	WG2199881
1,3-Butadiene	106-99-0	54.10	40.0	88.5	ND	ND		20	WG2199881
Carbon disulfide	75-15-0	76.10	4.00	12.4	ND	ND		20	WG2199881
Carbon tetrachloride	56-23-5	154	4.00	25.2	ND	ND		20	WG2199881
Chlorobenzene	108-90-7	113	4.00	18.5	ND	ND		20	WG2199881
Chloroethane	75-00-3	64.50	4.00	10.6	ND	ND		20	WG2199881
Chloroform	67-66-3	119	4.00	19.5	ND	ND		20	WG2199881
Chloromethane	74-87-3	50.50	4.00	8.26	ND	ND		20	WG2199881
2-Chlorotoluene	95-49-8	126	4.00	20.6	ND	ND		20	WG2199881
Cyclohexane	110-82-7	84.20	4.00	13.8	ND	ND		20	WG2199881
Dibromochloromethane	124-48-1	208	4.00	34.0	ND	ND		20	WG2199881
1,2-Dibromoethane	106-93-4	188	4.00	30.8	ND	ND		20	WG2199881
1,2-Dichlorobenzene	95-50-1	147	4.00	24.0	ND	ND		20	WG2199881
1,3-Dichlorobenzene	541-73-1	147	4.00	24.0	ND	ND		20	WG2199881
1,4-Dichlorobenzene	106-46-7	147	4.00	24.0	ND	ND		20	WG2199881
1,2-Dichloroethane	107-06-2	99	4.00	16.2	ND	ND		20	WG2199881
1,1-Dichloroethane	75-34-3	98	4.00	16.0	ND	ND		20	WG2199881
1,1-Dichloroethene	75-35-4	96.90	4.00	15.9	ND	ND		20	WG2199881
cis-1,2-Dichloroethene	156-59-2	96.90	4.00	15.9	ND	ND		20	WG2199881
trans-1,2-Dichloroethene	156-60-5	96.90	4.00	15.9	ND	ND		20	WG2199881
1,2-Dichloropropane	78-87-5	113	4.00	18.5	ND	ND		20	WG2199881
cis-1,3-Dichloropropene	10061-01-5	111	4.00	18.2	ND	ND		20	WG2199881
trans-1,3-Dichloropropene	10061-02-6	111	4.00	18.2	ND	ND		20	WG2199881
1,4-Dioxane	123-91-1	88.10	12.6	45.4	ND	ND		20	WG2199881
Ethanol	64-17-5	46.10	50.0	94.3	ND	ND		20	WG2199881
Ethylbenzene	100-41-4	106	4.00	17.3	ND	ND		20	WG2199881
4-Ethyltoluene	622-96-8	120	4.00	19.6	ND	ND		20	WG2199881
Trichlorofluoromethane	75-69-4	137.40	4.00	22.5	ND	ND		20	WG2199881
Dichlorodifluoromethane	75-71-8	120.92	4.00	19.8	ND	ND		20	WG2199881
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	4.00	30.7	ND	ND		20	WG2199881
1,2-Dichlorotetrafluoroethane	76-14-2	171	4.00	28.0	ND	ND		20	WG2199881
Heptane	142-82-5	100	4.00	16.4	4.46	18.2		20	WG2199881
Hexachloro-1,3-butadiene	87-68-3	261	12.6	135	ND	ND		20	WG2199881
n-Hexane	110-54-3	86.20	12.6	44.4	ND	ND		20	WG2199881
Isopropylbenzene	98-82-8	120.20	4.00	19.7	ND	ND		20	WG2199881
Methylene Chloride	75-09-2	84.90	4.00	13.9	ND	ND		20	WG2199881
Methyl Butyl Ketone	591-78-6	100	25.0	102	ND	ND		20	WG2199881
2-Butanone (MEK)	78-93-3	72.10	25.0	73.7	ND	ND		20	WG2199881
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	25.0	102	ND	ND		20	WG2199881
Methyl methacrylate	80-62-6	100.12	4.00	16.4	ND	ND		20	WG2199881
MTBE	1634-04-4	88.10	4.00	14.4	ND	ND		20	WG2199881
Naphthalene	91-20-3	128	12.6	66.0	ND	ND		20	WG2199881
2-Propanol	67-63-0	60.10	25.0	61.5	4840	11900	E	20	WG2199881
Propene	115-07-1	42.10	25.0	43.0	ND	ND		20	WG2199881
Styrene	100-42-5	104	4.00	17.0	ND	ND		20	WG2199881
1,1,2,2-Tetrachloroethane	79-34-5	168	4.00	27.5	ND	ND		20	WG2199881
Tetrachloroethylene	127-18-4	166	4.00	27.2	ND	ND		20	WG2199881
Tetrahydrofuran	109-99-9	72.10	4.00	11.8	ND	ND		20	WG2199881
Toluene	108-88-3	92.10	10.0	37.7	ND	ND		20	WG2199881
1,2,4-Trichlorobenzene	120-82-1	181	12.6	93.3	ND	ND		20	WG2199881

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

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	4.00	21.8	ND	ND		20	WG2199881
1,1,2-Trichloroethane	79-00-5	133	4.00	21.8	ND	ND		20	WG2199881
Trichloroethylene	79-01-6	131	4.00	21.4	ND	ND		20	WG2199881
1,2,4-Trimethylbenzene	95-63-6	120	4.00	19.6	ND	ND		20	WG2199881
1,3,5-Trimethylbenzene	108-67-8	120	4.00	19.6	ND	ND		20	WG2199881
2,2,4-Trimethylpentane	540-84-1	114.22	4.00	18.7	ND	ND		20	WG2199881
Vinyl chloride	75-01-4	62.50	4.00	10.2	ND	ND		20	WG2199881
Vinyl Bromide	593-60-2	106.95	4.00	17.5	ND	ND		20	WG2199881
Vinyl acetate	108-05-4	86.10	12.6	44.4	ND	ND		20	WG2199881
m&p-Xylene	179601-23-1	106	8.00	34.7	ND	ND		20	WG2199881
o-Xylene	95-47-6	106	4.00	17.3	ND	ND		20	WG2199881
TPH (GC/MS) Low Fraction	8006-61-9	101	4000	16500	ND	ND		20	WG2199881
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*98.0*				WG2199881

Organic Compounds (GC) by Method D1946

Analyte	CAS #	Mol. Wt.	RDL %	Result %	Qualifier	Dilution	Batch
Methane	74-82-8	16	0.400	ND		1	WG2197082

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	25.0	59.4	ND	ND		20	WG2199881
Allyl chloride	107-05-1	76.53	4.00	12.5	ND	ND		20	WG2199881
Benzene	71-43-2	78.10	4.00	12.8	ND	ND		20	WG2199881
Benzyl Chloride	100-44-7	127	4.00	20.8	ND	ND		20	WG2199881
Bromodichloromethane	75-27-4	164	4.00	26.8	ND	ND		20	WG2199881
Bromoform	75-25-2	253	12.0	124	ND	ND		20	WG2199881
Bromomethane	74-83-9	94.90	4.00	15.5	ND	ND		20	WG2199881
1,3-Butadiene	106-99-0	54.10	40.0	88.5	ND	ND		20	WG2199881
Carbon disulfide	75-15-0	76.10	4.00	12.4	ND	ND		20	WG2199881
Carbon tetrachloride	56-23-5	154	4.00	25.2	ND	ND		20	WG2199881
Chlorobenzene	108-90-7	113	4.00	18.5	ND	ND		20	WG2199881
Chloroethane	75-00-3	64.50	4.00	10.6	ND	ND		20	WG2199881
Chloroform	67-66-3	119	4.00	19.5	ND	ND		20	WG2199881
Chloromethane	74-87-3	50.50	4.00	8.26	ND	ND		20	WG2199881
2-Chlorotoluene	95-49-8	126	4.00	20.6	ND	ND		20	WG2199881
Cyclohexane	110-82-7	84.20	4.00	13.8	ND	ND		20	WG2199881
Dibromochloromethane	124-48-1	208	4.00	34.0	ND	ND		20	WG2199881
1,2-Dibromoethane	106-93-4	188	4.00	30.8	ND	ND		20	WG2199881
1,2-Dichlorobenzene	95-50-1	147	4.00	24.0	ND	ND		20	WG2199881
1,3-Dichlorobenzene	541-73-1	147	4.00	24.0	ND	ND		20	WG2199881
1,4-Dichlorobenzene	106-46-7	147	4.00	24.0	ND	ND		20	WG2199881
1,2-Dichloroethane	107-06-2	99	4.00	16.2	ND	ND		20	WG2199881
1,1-Dichloroethane	75-34-3	98	4.00	16.0	ND	ND		20	WG2199881
1,1-Dichloroethene	75-35-4	96.90	4.00	15.9	ND	ND		20	WG2199881
cis-1,2-Dichloroethene	156-59-2	96.90	4.00	15.9	ND	ND		20	WG2199881
trans-1,2-Dichloroethene	156-60-5	96.90	4.00	15.9	ND	ND		20	WG2199881
1,2-Dichloropropane	78-87-5	113	4.00	18.5	ND	ND		20	WG2199881
cis-1,3-Dichloropropene	10061-01-5	111	4.00	18.2	ND	ND		20	WG2199881
trans-1,3-Dichloropropene	10061-02-6	111	4.00	18.2	ND	ND		20	WG2199881
1,4-Dioxane	123-91-1	88.10	12.6	45.4	ND	ND		20	WG2199881
Ethanol	64-17-5	46.10	50.0	94.3	ND	ND		20	WG2199881
Ethylbenzene	100-41-4	106	4.00	17.3	ND	ND		20	WG2199881
4-Ethyltoluene	622-96-8	120	4.00	19.6	ND	ND		20	WG2199881
Trichlorofluoromethane	75-69-4	137.40	4.00	22.5	ND	ND		20	WG2199881
Dichlorodifluoromethane	75-71-8	120.92	4.00	19.8	ND	ND		20	WG2199881
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	4.00	30.7	ND	ND		20	WG2199881
1,2-Dichlorotetrafluoroethane	76-14-2	171	4.00	28.0	ND	ND		20	WG2199881
Heptane	142-82-5	100	4.00	16.4	ND	ND		20	WG2199881
Hexachloro-1,3-butadiene	87-68-3	261	12.6	135	ND	ND		20	WG2199881
n-Hexane	110-54-3	86.20	12.6	44.4	ND	ND		20	WG2199881
Isopropylbenzene	98-82-8	120.20	4.00	19.7	ND	ND		20	WG2199881
Methylene Chloride	75-09-2	84.90	4.00	13.9	ND	ND		20	WG2199881
Methyl Butyl Ketone	591-78-6	100	25.0	102	ND	ND		20	WG2199881
2-Butanone (MEK)	78-93-3	72.10	25.0	73.7	ND	ND		20	WG2199881
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	25.0	102	ND	ND		20	WG2199881
Methyl methacrylate	80-62-6	100.12	4.00	16.4	ND	ND		20	WG2199881
MTBE	1634-04-4	88.10	4.00	14.4	ND	ND		20	WG2199881
Naphthalene	91-20-3	128	12.6	66.0	ND	ND		20	WG2199881
2-Propanol	67-63-0	60.10	25.0	61.5	4430	10900	E	20	WG2199881
Propene	115-07-1	42.10	25.0	43.0	ND	ND		20	WG2199881
Styrene	100-42-5	104	4.00	17.0	ND	ND		20	WG2199881
1,1,2,2-Tetrachloroethane	79-34-5	168	4.00	27.5	ND	ND		20	WG2199881
Tetrachloroethylene	127-18-4	166	4.00	27.2	ND	ND		20	WG2199881
Tetrahydrofuran	109-99-9	72.10	4.00	11.8	ND	ND		20	WG2199881
Toluene	108-88-3	92.10	10.0	37.7	ND	ND		20	WG2199881
1,2,4-Trichlorobenzene	120-82-1	181	12.6	93.3	ND	ND		20	WG2199881

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	4.00	21.8	ND	ND		20	WG2199881
1,1,2-Trichloroethane	79-00-5	133	4.00	21.8	ND	ND		20	WG2199881
Trichloroethylene	79-01-6	131	4.00	21.4	ND	ND		20	WG2199881
1,2,4-Trimethylbenzene	95-63-6	120	4.00	19.6	ND	ND		20	WG2199881
1,3,5-Trimethylbenzene	108-67-8	120	4.00	19.6	ND	ND		20	WG2199881
2,2,4-Trimethylpentane	540-84-1	114.22	4.00	18.7	ND	ND		20	WG2199881
Vinyl chloride	75-01-4	62.50	4.00	10.2	ND	ND		20	WG2199881
Vinyl Bromide	593-60-2	106.95	4.00	17.5	ND	ND		20	WG2199881
Vinyl acetate	108-05-4	86.10	12.6	44.4	ND	ND		20	WG2199881
m&p-Xylene	179601-23-1	106	8.00	34.7	ND	ND		20	WG2199881
o-Xylene	95-47-6	106	4.00	17.3	ND	ND		20	WG2199881
TPH (GC/MS) Low Fraction	8006-61-9	101	4000	16500	ND	ND		20	WG2199881
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*98.4*				WG2199881

Organic Compounds (GC) by Method D1946

Analyte	CAS #	Mol. Wt.	RDL %	Result %	Qualifier	Dilution	Batch
Methane	74-82-8	16	0.400	0.887		1	WG2197082

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	25.0	59.4	ND	ND		20	WG2199881
Allyl chloride	107-05-1	76.53	4.00	12.5	ND	ND		20	WG2199881
Benzene	71-43-2	78.10	4.00	12.8	ND	ND		20	WG2199881
Benzyl Chloride	100-44-7	127	4.00	20.8	ND	ND		20	WG2199881
Bromodichloromethane	75-27-4	164	4.00	26.8	ND	ND		20	WG2199881
Bromoform	75-25-2	253	12.0	124	ND	ND		20	WG2199881
Bromomethane	74-83-9	94.90	4.00	15.5	ND	ND		20	WG2199881
1,3-Butadiene	106-99-0	54.10	40.0	88.5	ND	ND		20	WG2199881
Carbon disulfide	75-15-0	76.10	4.00	12.4	ND	ND		20	WG2199881
Carbon tetrachloride	56-23-5	154	4.00	25.2	ND	ND		20	WG2199881
Chlorobenzene	108-90-7	113	4.00	18.5	ND	ND		20	WG2199881
Chloroethane	75-00-3	64.50	4.00	10.6	ND	ND		20	WG2199881
Chloroform	67-66-3	119	4.00	19.5	ND	ND		20	WG2199881
Chloromethane	74-87-3	50.50	4.00	8.26	ND	ND		20	WG2199881
2-Chlorotoluene	95-49-8	126	4.00	20.6	ND	ND		20	WG2199881
Cyclohexane	110-82-7	84.20	4.00	13.8	ND	ND		20	WG2199881
Dibromochloromethane	124-48-1	208	4.00	34.0	ND	ND		20	WG2199881
1,2-Dibromoethane	106-93-4	188	4.00	30.8	ND	ND		20	WG2199881
1,2-Dichlorobenzene	95-50-1	147	4.00	24.0	ND	ND		20	WG2199881
1,3-Dichlorobenzene	541-73-1	147	4.00	24.0	ND	ND		20	WG2199881
1,4-Dichlorobenzene	106-46-7	147	4.00	24.0	ND	ND		20	WG2199881
1,2-Dichloroethane	107-06-2	99	4.00	16.2	ND	ND		20	WG2199881
1,1-Dichloroethane	75-34-3	98	4.00	16.0	ND	ND		20	WG2199881
1,1-Dichloroethene	75-35-4	96.90	4.00	15.9	ND	ND		20	WG2199881
cis-1,2-Dichloroethene	156-59-2	96.90	4.00	15.9	ND	ND		20	WG2199881
trans-1,2-Dichloroethene	156-60-5	96.90	4.00	15.9	ND	ND		20	WG2199881
1,2-Dichloropropane	78-87-5	113	4.00	18.5	ND	ND		20	WG2199881
cis-1,3-Dichloropropene	10061-01-5	111	4.00	18.2	ND	ND		20	WG2199881
trans-1,3-Dichloropropene	10061-02-6	111	4.00	18.2	ND	ND		20	WG2199881
1,4-Dioxane	123-91-1	88.10	12.6	45.4	ND	ND		20	WG2199881
Ethanol	64-17-5	46.10	50.0	94.3	ND	ND		20	WG2199881
Ethylbenzene	100-41-4	106	4.00	17.3	ND	ND		20	WG2199881
4-Ethyltoluene	622-96-8	120	4.00	19.6	ND	ND		20	WG2199881
Trichlorofluoromethane	75-69-4	137.40	4.00	22.5	ND	ND		20	WG2199881
Dichlorodifluoromethane	75-71-8	120.92	4.00	19.8	ND	ND		20	WG2199881
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	4.00	30.7	ND	ND		20	WG2199881
1,2-Dichlorotetrafluoroethane	76-14-2	171	4.00	28.0	ND	ND		20	WG2199881
Heptane	142-82-5	100	4.00	16.4	ND	ND		20	WG2199881
Hexachloro-1,3-butadiene	87-68-3	261	12.6	135	ND	ND		20	WG2199881
n-Hexane	110-54-3	86.20	12.6	44.4	ND	ND		20	WG2199881
Isopropylbenzene	98-82-8	120.20	4.00	19.7	ND	ND		20	WG2199881
Methylene Chloride	75-09-2	84.90	4.00	13.9	ND	ND		20	WG2199881
Methyl Butyl Ketone	591-78-6	100	25.0	102	ND	ND		20	WG2199881
2-Butanone (MEK)	78-93-3	72.10	25.0	73.7	ND	ND		20	WG2199881
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	25.0	102	ND	ND		20	WG2199881
Methyl methacrylate	80-62-6	100.12	4.00	16.4	ND	ND		20	WG2199881
MTBE	1634-04-4	88.10	4.00	14.4	ND	ND		20	WG2199881
Naphthalene	91-20-3	128	12.6	66.0	ND	ND		20	WG2199881
2-Propanol	67-63-0	60.10	25.0	61.5	1920	4720		20	WG2199881
Propene	115-07-1	42.10	25.0	43.0	ND	ND		20	WG2199881
Styrene	100-42-5	104	4.00	17.0	ND	ND		20	WG2199881
1,1,2,2-Tetrachloroethane	79-34-5	168	4.00	27.5	ND	ND		20	WG2199881
Tetrachloroethylene	127-18-4	166	4.00	27.2	ND	ND		20	WG2199881
Tetrahydrofuran	109-99-9	72.10	4.00	11.8	ND	ND		20	WG2199881
Toluene	108-88-3	92.10	10.0	37.7	ND	ND		20	WG2199881
1,2,4-Trichlorobenzene	120-82-1	181	12.6	93.3	ND	ND		20	WG2199881

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	4.00	21.8	ND	ND		20	WG2199881
1,1,2-Trichloroethane	79-00-5	133	4.00	21.8	ND	ND		20	WG2199881
Trichloroethylene	79-01-6	131	4.00	21.4	ND	ND		20	WG2199881
1,2,4-Trimethylbenzene	95-63-6	120	4.00	19.6	ND	ND		20	WG2199881
1,3,5-Trimethylbenzene	108-67-8	120	4.00	19.6	ND	ND		20	WG2199881
2,2,4-Trimethylpentane	540-84-1	114.22	4.00	18.7	ND	ND		20	WG2199881
Vinyl chloride	75-01-4	62.50	4.00	10.2	ND	ND		20	WG2199881
Vinyl Bromide	593-60-2	106.95	4.00	17.5	ND	ND		20	WG2199881
Vinyl acetate	108-05-4	86.10	12.6	44.4	ND	ND		20	WG2199881
m&p-Xylene	179601-23-1	106	8.00	34.7	ND	ND		20	WG2199881
o-Xylene	95-47-6	106	4.00	17.3	ND	ND		20	WG2199881
TPH (GC/MS) Low Fraction	8006-61-9	101	4000	16500	ND	ND		20	WG2199881
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*97.1*				WG2199881

Organic Compounds (GC) by Method D1946

Analyte	CAS #	Mol. Wt.	RDL %	Result %	Qualifier	Dilution	Batch
Methane	74-82-8	16	0.400	ND		1	WG2197898

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	16.7	39.7		2	WG2199881
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG2199881
Benzene	71-43-2	78.10	0.400	1.28	0.517	1.65		2	WG2199881
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG2199881
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG2199881
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG2199881
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG2199881
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG2199881
Carbon disulfide	75-15-0	76.10	0.400	1.24	ND	ND		2	WG2199881
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG2199881
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG2199881
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG2199881
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG2199881
Chloromethane	74-87-3	50.50	0.400	0.826	ND	ND		2	WG2199881
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG2199881
Cyclohexane	110-82-7	84.20	0.400	1.38	ND	ND		2	WG2199881
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG2199881
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG2199881
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG2199881
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG2199881
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG2199881
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG2199881
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG2199881
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG2199881
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG2199881
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG2199881
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG2199881
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG2199881
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG2199881
1,4-Dioxane	123-91-1	88.10	1.26	4.54	ND	ND		2	WG2199881
Ethanol	64-17-5	46.10	5.00	9.43	21.9	41.3		2	WG2199881
Ethylbenzene	100-41-4	106	0.400	1.73	ND	ND		2	WG2199881
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG2199881
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	0.486	2.73		2	WG2199881
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	0.490	2.42		2	WG2199881
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG2199881
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG2199881
Heptane	142-82-5	100	0.400	1.64	ND	ND		2	WG2199881
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG2199881
n-Hexane	110-54-3	86.20	1.26	4.44	ND	ND		2	WG2199881
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG2199881
Methylene Chloride	75-09-2	84.90	0.400	1.39	1.14	3.96		2	WG2199881
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG2199881
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	2.54	7.49		2	WG2199881
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG2199881
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG2199881
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG2199881
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG2199881
2-Propanol	67-63-0	60.10	2.50	6.15	30.1	74.0		2	WG2199881
Propene	115-07-1	42.10	2.50	4.30	18.6	32.0		2	WG2199881
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG2199881
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG2199881
Tetrachloroethylene	127-18-4	166	0.400	2.72	ND	ND		2	WG2199881
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	ND	ND		2	WG2199881
Toluene	108-88-3	92.10	1.00	3.77	ND	ND		2	WG2199881
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG2199881

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG2199881
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG2199881
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG2199881
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	ND	ND		2	WG2199881
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG2199881
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	ND	ND		2	WG2199881
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG2199881
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG2199881
Vinyl acetate	108-05-4	86.10	1.26	4.44	ND	ND		2	WG2199881
m&p-Xylene	179601-23-1	106	0.800	3.47	ND	ND		2	WG2199881
o-Xylene	95-47-6	106	0.400	1.73	ND	ND		2	WG2199881
TPH (GC/MS) Low Fraction	8006-61-9	101	400	1650	ND	ND		2	WG2199881
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*97.9*				WG2199881

Organic Compounds (GC) by Method D1946

Analyte	CAS #	Mol. Wt.	RDL %	Result %	Qualifier	Dilution	Batch
Methane	74-82-8	16	0.400	ND		1	WG2197898

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

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	25.0	59.4	509	1210		20	WG2199881
Allyl chloride	107-05-1	76.53	4.00	12.5	ND	ND		20	WG2199881
Benzene	71-43-2	78.10	4.00	12.8	16.8	53.7		20	WG2199881
Benzyl Chloride	100-44-7	127	4.00	20.8	ND	ND		20	WG2199881
Bromodichloromethane	75-27-4	164	4.00	26.8	ND	ND		20	WG2199881
Bromoform	75-25-2	253	12.0	124	ND	ND		20	WG2199881
Bromomethane	74-83-9	94.90	4.00	15.5	ND	ND		20	WG2199881
1,3-Butadiene	106-99-0	54.10	40.0	88.5	ND	ND		20	WG2199881
Carbon disulfide	75-15-0	76.10	4.00	12.4	ND	ND		20	WG2199881
Carbon tetrachloride	56-23-5	154	4.00	25.2	ND	ND		20	WG2199881
Chlorobenzene	108-90-7	113	4.00	18.5	ND	ND		20	WG2199881
Chloroethane	75-00-3	64.50	4.00	10.6	ND	ND		20	WG2199881
Chloroform	67-66-3	119	4.00	19.5	ND	ND		20	WG2199881
Chloromethane	74-87-3	50.50	4.00	8.26	ND	ND		20	WG2199881
2-Chlorotoluene	95-49-8	126	4.00	20.6	ND	ND		20	WG2199881
Cyclohexane	110-82-7	84.20	4.00	13.8	104	358		20	WG2199881
Dibromochloromethane	124-48-1	208	4.00	34.0	ND	ND		20	WG2199881
1,2-Dibromoethane	106-93-4	188	4.00	30.8	ND	ND		20	WG2199881
1,2-Dichlorobenzene	95-50-1	147	4.00	24.0	ND	ND		20	WG2199881
1,3-Dichlorobenzene	541-73-1	147	4.00	24.0	ND	ND		20	WG2199881
1,4-Dichlorobenzene	106-46-7	147	4.00	24.0	ND	ND		20	WG2199881
1,2-Dichloroethane	107-06-2	99	4.00	16.2	ND	ND		20	WG2199881
1,1-Dichloroethane	75-34-3	98	4.00	16.0	ND	ND		20	WG2199881
1,1-Dichloroethene	75-35-4	96.90	4.00	15.9	ND	ND		20	WG2199881
cis-1,2-Dichloroethene	156-59-2	96.90	4.00	15.9	ND	ND		20	WG2199881
trans-1,2-Dichloroethene	156-60-5	96.90	4.00	15.9	ND	ND		20	WG2199881
1,2-Dichloropropane	78-87-5	113	4.00	18.5	ND	ND		20	WG2199881
cis-1,3-Dichloropropene	10061-01-5	111	4.00	18.2	ND	ND		20	WG2199881
trans-1,3-Dichloropropene	10061-02-6	111	4.00	18.2	ND	ND		20	WG2199881
1,4-Dioxane	123-91-1	88.10	12.6	45.4	ND	ND		20	WG2199881
Ethanol	64-17-5	46.10	50.0	94.3	ND	ND		20	WG2199881
Ethylbenzene	100-41-4	106	4.00	17.3	ND	ND		20	WG2199881
4-Ethyltoluene	622-96-8	120	4.00	19.6	ND	ND		20	WG2199881
Trichlorofluoromethane	75-69-4	137.40	4.00	22.5	ND	ND		20	WG2199881
Dichlorodifluoromethane	75-71-8	120.92	4.00	19.8	ND	ND		20	WG2199881
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	4.00	30.7	ND	ND		20	WG2199881
1,2-Dichlorotetrafluoroethane	76-14-2	171	4.00	28.0	ND	ND		20	WG2199881
Heptane	142-82-5	100	4.00	16.4	72.9	298		20	WG2199881
Hexachloro-1,3-butadiene	87-68-3	261	12.6	135	ND	ND		20	WG2199881
n-Hexane	110-54-3	86.20	12.6	44.4	91.5	323		20	WG2199881
Isopropylbenzene	98-82-8	120.20	4.00	19.7	ND	ND		20	WG2199881
Methylene Chloride	75-09-2	84.90	4.00	13.9	ND	ND		20	WG2199881
Methyl Butyl Ketone	591-78-6	100	25.0	102	ND	ND		20	WG2199881
2-Butanone (MEK)	78-93-3	72.10	25.0	73.7	ND	ND		20	WG2199881
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	25.0	102	ND	ND		20	WG2199881
Methyl methacrylate	80-62-6	100.12	4.00	16.4	ND	ND		20	WG2199881
MTBE	1634-04-4	88.10	4.00	14.4	ND	ND		20	WG2199881
Naphthalene	91-20-3	128	12.6	66.0	ND	ND		20	WG2199881
2-Propanol	67-63-0	60.10	25.0	61.5	470	1160		20	WG2199881
Propene	115-07-1	42.10	25.0	43.0	ND	ND		20	WG2199881
Styrene	100-42-5	104	4.00	17.0	ND	ND		20	WG2199881
1,1,2,2-Tetrachloroethane	79-34-5	168	4.00	27.5	ND	ND		20	WG2199881
Tetrachloroethylene	127-18-4	166	4.00	27.2	ND	ND		20	WG2199881
Tetrahydrofuran	109-99-9	72.10	4.00	11.8	ND	ND		20	WG2199881
Toluene	108-88-3	92.10	10.0	37.7	ND	ND		20	WG2199881
1,2,4-Trichlorobenzene	120-82-1	181	12.6	93.3	ND	ND		20	WG2199881

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	4.00	21.8	ND	ND		20	WG2199881
1,1,2-Trichloroethane	79-00-5	133	4.00	21.8	ND	ND		20	WG2199881
Trichloroethylene	79-01-6	131	4.00	21.4	ND	ND		20	WG2199881
1,2,4-Trimethylbenzene	95-63-6	120	4.00	19.6	ND	ND		20	WG2199881
1,3,5-Trimethylbenzene	108-67-8	120	4.00	19.6	ND	ND		20	WG2199881
2,2,4-Trimethylpentane	540-84-1	114.22	4.00	18.7	35.2	164		20	WG2199881
Vinyl chloride	75-01-4	62.50	4.00	10.2	ND	ND		20	WG2199881
Vinyl Bromide	593-60-2	106.95	4.00	17.5	ND	ND		20	WG2199881
Vinyl acetate	108-05-4	86.10	12.6	44.4	ND	ND		20	WG2199881
m&p-Xylene	179601-23-1	106	8.00	34.7	ND	ND		20	WG2199881
o-Xylene	95-47-6	106	4.00	17.3	ND	ND		20	WG2199881
TPH (GC/MS) Low Fraction	8006-61-9	101	4000	16500	4230	17500		20	WG2199881
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*99.5*				WG2199881

Organic Compounds (GC) by Method D1946

Analyte	CAS #	Mol. Wt.	RDL %	Result %	Qualifier	Dilution	Batch
Methane	74-82-8	16	4.00	6.15		10	WG2198613

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

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	25.0	59.4	130	309		20	WG2199881
Allyl chloride	107-05-1	76.53	4.00	12.5	ND	ND		20	WG2199881
Benzene	71-43-2	78.10	4.00	12.8	ND	ND		20	WG2199881
Benzyl Chloride	100-44-7	127	4.00	20.8	ND	ND		20	WG2199881
Bromodichloromethane	75-27-4	164	4.00	26.8	ND	ND		20	WG2199881
Bromoform	75-25-2	253	12.0	124	ND	ND		20	WG2199881
Bromomethane	74-83-9	94.90	4.00	15.5	ND	ND		20	WG2199881
1,3-Butadiene	106-99-0	54.10	40.0	88.5	ND	ND		20	WG2199881
Carbon disulfide	75-15-0	76.10	4.00	12.4	ND	ND		20	WG2199881
Carbon tetrachloride	56-23-5	154	4.00	25.2	ND	ND		20	WG2199881
Chlorobenzene	108-90-7	113	4.00	18.5	ND	ND		20	WG2199881
Chloroethane	75-00-3	64.50	4.00	10.6	ND	ND		20	WG2199881
Chloroform	67-66-3	119	4.00	19.5	ND	ND		20	WG2199881
Chloromethane	74-87-3	50.50	4.00	8.26	ND	ND		20	WG2199881
2-Chlorotoluene	95-49-8	126	4.00	20.6	ND	ND		20	WG2199881
Cyclohexane	110-82-7	84.20	4.00	13.8	105	362		20	WG2199881
Dibromochloromethane	124-48-1	208	4.00	34.0	ND	ND		20	WG2199881
1,2-Dibromoethane	106-93-4	188	4.00	30.8	ND	ND		20	WG2199881
1,2-Dichlorobenzene	95-50-1	147	4.00	24.0	ND	ND		20	WG2199881
1,3-Dichlorobenzene	541-73-1	147	4.00	24.0	ND	ND		20	WG2199881
1,4-Dichlorobenzene	106-46-7	147	4.00	24.0	ND	ND		20	WG2199881
1,2-Dichloroethane	107-06-2	99	4.00	16.2	ND	ND		20	WG2199881
1,1-Dichloroethane	75-34-3	98	4.00	16.0	ND	ND		20	WG2199881
1,1-Dichloroethene	75-35-4	96.90	4.00	15.9	ND	ND		20	WG2199881
cis-1,2-Dichloroethene	156-59-2	96.90	4.00	15.9	ND	ND		20	WG2199881
trans-1,2-Dichloroethene	156-60-5	96.90	4.00	15.9	ND	ND		20	WG2199881
1,2-Dichloropropane	78-87-5	113	4.00	18.5	ND	ND		20	WG2199881
cis-1,3-Dichloropropene	10061-01-5	111	4.00	18.2	ND	ND		20	WG2199881
trans-1,3-Dichloropropene	10061-02-6	111	4.00	18.2	ND	ND		20	WG2199881
1,4-Dioxane	123-91-1	88.10	12.6	45.4	ND	ND		20	WG2199881
Ethanol	64-17-5	46.10	50.0	94.3	84.5	159		20	WG2199881
Ethylbenzene	100-41-4	106	4.00	17.3	5.34	23.2		20	WG2199881
4-Ethyltoluene	622-96-8	120	4.00	19.6	ND	ND		20	WG2199881
Trichlorofluoromethane	75-69-4	137.40	4.00	22.5	ND	ND		20	WG2199881
Dichlorodifluoromethane	75-71-8	120.92	4.00	19.8	ND	ND		20	WG2199881
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	4.00	30.7	ND	ND		20	WG2199881
1,2-Dichlorotetrafluoroethane	76-14-2	171	4.00	28.0	ND	ND		20	WG2199881
Heptane	142-82-5	100	4.00	16.4	50.1	205		20	WG2199881
Hexachloro-1,3-butadiene	87-68-3	261	12.6	135	ND	ND		20	WG2199881
n-Hexane	110-54-3	86.20	12.6	44.4	40.6	143		20	WG2199881
Isopropylbenzene	98-82-8	120.20	4.00	19.7	ND	ND		20	WG2199881
Methylene Chloride	75-09-2	84.90	4.00	13.9	4.21	14.6		20	WG2199881
Methyl Butyl Ketone	591-78-6	100	25.0	102	ND	ND		20	WG2199881
2-Butanone (MEK)	78-93-3	72.10	25.0	73.7	ND	ND		20	WG2199881
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	25.0	102	ND	ND		20	WG2199881
Methyl methacrylate	80-62-6	100.12	4.00	16.4	ND	ND		20	WG2199881
MTBE	1634-04-4	88.10	4.00	14.4	ND	ND		20	WG2199881
Naphthalene	91-20-3	128	12.6	66.0	ND	ND		20	WG2199881
2-Propanol	67-63-0	60.10	25.0	61.5	312	767		20	WG2199881
Propene	115-07-1	42.10	25.0	43.0	ND	ND		20	WG2199881
Styrene	100-42-5	104	4.00	17.0	ND	ND		20	WG2199881
1,1,2,2-Tetrachloroethane	79-34-5	168	4.00	27.5	ND	ND		20	WG2199881
Tetrachloroethylene	127-18-4	166	4.00	27.2	ND	ND		20	WG2199881
Tetrahydrofuran	109-99-9	72.10	4.00	11.8	ND	ND		20	WG2199881
Toluene	108-88-3	92.10	10.0	37.7	ND	ND		20	WG2199881
1,2,4-Trichlorobenzene	120-82-1	181	12.6	93.3	ND	ND		20	WG2199881

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	4.00	21.8	ND	ND		20	WG2199881
1,1,2-Trichloroethane	79-00-5	133	4.00	21.8	ND	ND		20	WG2199881
Trichloroethylene	79-01-6	131	4.00	21.4	ND	ND		20	WG2199881
1,2,4-Trimethylbenzene	95-63-6	120	4.00	19.6	ND	ND		20	WG2199881
1,3,5-Trimethylbenzene	108-67-8	120	4.00	19.6	ND	ND		20	WG2199881
2,2,4-Trimethylpentane	540-84-1	114.22	4.00	18.7	25.6	120		20	WG2199881
Vinyl chloride	75-01-4	62.50	4.00	10.2	ND	ND		20	WG2199881
Vinyl Bromide	593-60-2	106.95	4.00	17.5	ND	ND		20	WG2199881
Vinyl acetate	108-05-4	86.10	12.6	44.4	ND	ND		20	WG2199881
m&p-Xylene	179601-23-1	106	8.00	34.7	ND	ND		20	WG2199881
o-Xylene	95-47-6	106	4.00	17.3	ND	ND		20	WG2199881
TPH (GC/MS) Low Fraction	8006-61-9	101	4000	16500	5750	23800		20	WG2199881
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*101*				WG2199881

Organic Compounds (GC) by Method D1946

Analyte	CAS #	Mol. Wt.	RDL %	Result %	Qualifier	Dilution	Batch
Methane	74-82-8	16	0.800	4.09		2	WG2199835

Method Blank (MB)

(MB) R4018809-3 01/02/24 10:03

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Acetone	U		0.584	1.25
Allyl chloride	U		0.114	0.200
Benzene	U		0.0715	0.200
Benzyl Chloride	U		0.0598	0.200
Bromodichloromethane	U		0.0702	0.200
Bromoform	U		0.0732	0.600
Bromomethane	U		0.0982	0.200
1,3-Butadiene	U		0.104	2.00
Carbon tetrachloride	U		0.0732	0.200
Chlorobenzene	U		0.0832	0.200
Chloroethane	U		0.0996	0.200
Chloroform	U		0.0717	0.200
Chloromethane	U		0.103	0.200
2-Chlorotoluene	U		0.0828	0.200
Cyclohexane	U		0.0753	0.200
Dibromochloromethane	U		0.0727	0.200
1,2-Dibromoethane	U		0.0721	0.200
1,2-Dichlorobenzene	U		0.128	0.200
1,3-Dichlorobenzene	U		0.182	0.200
1,4-Dichlorobenzene	U		0.0557	0.200
1,2-Dichloroethane	U		0.0700	0.200
1,1-Dichloroethane	U		0.0723	0.200
1,1-Dichloroethene	U		0.0762	0.200
cis-1,2-Dichloroethene	U		0.0784	0.200
trans-1,2-Dichloroethene	U		0.0673	0.200
1,2-Dichloropropane	U		0.0760	0.200
cis-1,3-Dichloropropene	U		0.0689	0.200
trans-1,3-Dichloropropene	U		0.0728	0.200
1,4-Dioxane	U		0.0833	0.630
Ethanol	0.843	J	0.265	2.50
Ethylbenzene	U		0.0835	0.200
4-Ethyltoluene	U		0.0783	0.200
Trichlorofluoromethane	U		0.0819	0.200
Dichlorodifluoromethane	U		0.137	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0793	0.200
1,2-Dichlorotetrafluoroethane	U		0.0890	0.200
Heptane	U		0.104	0.200
Hexachloro-1,3-butadiene	U		0.105	0.630
Isopropylbenzene	U		0.0777	0.200
Methylene Chloride	U		0.0979	0.200

Method Blank (MB)

(MB) R4018809-3 01/02/24 10:03

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Methyl Butyl Ketone	U		0.133	1.25
2-Butanone (MEK)	U		0.0814	1.25
4-Methyl-2-pentanone (MIBK)	U		0.0765	1.25
Methyl methacrylate	U		0.0876	0.200
MTBE	U		0.0647	0.200
Naphthalene	U		0.350	0.630
2-Propanol	U		0.264	1.25
Propene	U		0.0932	1.25
Styrene	U		0.0788	0.200
1,1,2,2-Tetrachloroethane	U		0.0743	0.200
Tetrachloroethylene	U		0.0814	0.200
Tetrahydrofuran	U		0.0734	0.200
Toluene	U		0.0870	0.500
1,2,4-Trichlorobenzene	U		0.148	0.630
1,1,1-Trichloroethane	U		0.0736	0.200
1,1,2-Trichloroethane	U		0.0775	0.200
Trichloroethylene	U		0.0680	0.200
1,2,4-Trimethylbenzene	U		0.0764	0.200
1,3,5-Trimethylbenzene	U		0.0779	0.200
2,2,4-Trimethylpentane	U		0.133	0.200
Vinyl chloride	U		0.0949	0.200
Vinyl Bromide	U		0.0852	0.200
Vinyl acetate	U		0.116	0.630
m&p-Xylene	U		0.135	0.400
o-Xylene	U		0.0828	0.200
(S) 1,4-Bromofluorobenzene	*99.5*			*60.0-140*

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

(LCS) R4018809-1 01/02/24 08:29 • (LCSD) R4018809-2 01/02/24 09:18

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	3.75	3.97	3.67	106	97.9	70.0-130			7.85	25
Allyl chloride	3.75	4.40	4.47	117	119	70.0-130			1.58	25
Benzene	3.75	3.82	3.69	102	98.4	70.0-130			3.46	25
Benzyl Chloride	3.75	3.81	3.74	102	99.7	70.0-152			1.85	25
Bromodichloromethane	3.75	3.74	3.78	99.7	101	70.0-130			1.06	25
Bromoform	3.75	3.78	3.74	101	99.7	70.0-130			1.06	25
Bromomethane	3.75	3.79	3.64	101	97.1	70.0-130			4.04	25

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

(LCS) R4018809-1 01/02/24 08:29 • (LCSD) R4018809-2 01/02/24 09:18

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,3-Butadiene	3.75	3.86	4.29	103	114	70.0-130			10.6	25
Carbon tetrachloride	3.75	3.58	3.69	95.5	98.4	70.0-130			3.03	25
Chlorobenzene	3.75	3.90	3.80	104	101	70.0-130			2.60	25
Chloroethane	3.75	3.72	4.01	99.2	107	70.0-130			7.50	25
Chloroform	3.75	3.63	3.62	96.8	96.5	70.0-130			0.276	25
Chloromethane	3.75	3.62	3.82	96.5	102	70.0-130			5.38	25
2-Chlorotoluene	3.75	3.83	3.80	102	101	70.0-130			0.786	25
Cyclohexane	3.75	3.85	3.74	103	99.7	70.0-130			2.90	25
Dibromochloromethane	3.75	3.67	3.74	97.9	99.7	70.0-130			1.89	25
1,2-Dibromoethane	3.75	3.88	3.81	103	102	70.0-130			1.82	25
1,2-Dichlorobenzene	3.75	3.77	3.74	101	99.7	70.0-130			0.799	25
1,3-Dichlorobenzene	3.75	3.72	3.76	99.2	100	70.0-130			1.07	25
1,4-Dichlorobenzene	3.75	3.76	3.80	100	101	70.0-130			1.06	25
1,2-Dichloroethane	3.75	3.65	3.65	97.3	97.3	70.0-130			0.000	25
1,1-Dichloroethane	3.75	3.51	3.48	93.6	92.8	70.0-130			0.858	25
1,1-Dichloroethene	3.75	4.02	4.08	107	109	70.0-130			1.48	25
cis-1,2-Dichloroethene	3.75	3.67	3.63	97.9	96.8	70.0-130			1.10	25
trans-1,2-Dichloroethene	3.75	4.14	3.40	110	90.7	70.0-130			19.6	25
1,2-Dichloropropane	3.75	3.93	3.83	105	102	70.0-130			2.58	25
cis-1,3-Dichloropropene	3.75	4.02	3.82	107	102	70.0-130			5.10	25
trans-1,3-Dichloropropene	3.75	3.87	3.87	103	103	70.0-130			0.000	25
1,4-Dioxane	3.75	3.94	3.59	105	95.7	70.0-140			9.30	25
Ethanol	3.75	3.91	4.10	104	109	55.0-148			4.74	25
Ethylbenzene	3.75	3.88	3.77	103	101	70.0-130			2.88	25
4-Ethyltoluene	3.75	3.82	3.86	102	103	70.0-130			1.04	25
Trichlorofluoromethane	3.75	3.58	3.71	95.5	98.9	70.0-130			3.57	25
Dichlorodifluoromethane	3.75	3.74	3.36	99.7	89.6	64.0-139			10.7	25
1,1,2-Trichlorotrifluoroethane	3.75	3.80	4.94	101	132	70.0-130		J3 J4	26.1	25
1,2-Dichlorotetrafluoroethane	3.75	4.00	4.13	107	110	70.0-130			3.20	25
Heptane	3.75	3.74	3.61	99.7	96.3	70.0-130			3.54	25
Hexachloro-1,3-butadiene	3.75	3.77	3.80	101	101	70.0-151			0.793	25
Isopropylbenzene	3.75	3.93	3.83	105	102	70.0-130			2.58	25
Methylene Chloride	3.75	3.87	3.89	103	104	70.0-130			0.515	25
Methyl Butyl Ketone	3.75	3.93	3.69	105	98.4	70.0-149			6.30	25
2-Butanone (MEK)	3.75	3.48	3.79	92.8	101	70.0-130			8.53	25
4-Methyl-2-pentanone (MIBK)	3.75	3.98	3.68	106	98.1	70.0-139			7.83	25
Methyl methacrylate	3.75	4.07	3.79	109	101	70.0-130			7.12	25
MTBE	3.75	4.06	3.69	108	98.4	70.0-130			9.55	25
Naphthalene	3.75	3.80	3.84	101	102	70.0-159			1.05	25
2-Propanol	3.75	3.77	3.85	101	103	70.0-139			2.10	25

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

(LCS) R4018809-1 01/02/24 08:29 • (LCSD) R4018809-2 01/02/24 09:18

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Propene	3.75	3.46	3.70	92.3	98.7	64.0-144			6.70	25
Styrene	3.75	3.84	3.80	102	101	70.0-130			1.05	25
1,1,2,2-Tetrachloroethane	3.75	3.86	3.81	103	102	70.0-130			1.30	25
Tetrachloroethylene	3.75	3.72	3.75	99.2	100	70.0-130			0.803	25
Tetrahydrofuran	3.75	3.70	3.88	98.7	103	70.0-137			4.75	25
Toluene	3.75	3.94	3.80	105	101	70.0-130			3.62	25
1,2,4-Trichlorobenzene	3.75	3.81	3.86	102	103	70.0-160			1.30	25
1,1,1-Trichloroethane	3.75	3.63	3.70	96.8	98.7	70.0-130			1.91	25
1,1,2-Trichloroethane	3.75	3.76	3.64	100	97.1	70.0-130			3.24	25
Trichloroethylene	3.75	3.88	3.86	103	103	70.0-130			0.517	25
1,2,4-Trimethylbenzene	3.75	3.91	3.99	104	106	70.0-130			2.03	25
1,3,5-Trimethylbenzene	3.75	3.89	3.80	104	101	70.0-130			2.34	25
2,2,4-Trimethylpentane	3.75	3.75	3.80	100	101	70.0-130			1.32	25
Vinyl chloride	3.75	4.07	4.32	109	115	70.0-130			5.96	25
Vinyl Bromide	3.75	3.62	3.72	96.5	99.2	70.0-130			2.72	25
Vinyl acetate	3.75	3.35	3.31	89.3	88.3	70.0-130			1.20	25
m&p-Xylene	7.50	7.82	7.57	104	101	70.0-130			3.25	25
o-Xylene	3.75	3.90	3.83	104	102	70.0-130			1.81	25
(S) 1,4-Bromofluorobenzene				*99.9*	*99.4*	*60.0-140*				

Method Blank (MB)

(MB) R4019376-3 01/03/24 10:15

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Acetone	U		0.584	1.25
Allyl chloride	U		0.114	0.200
Benzene	U		0.0715	0.200
Benzyl Chloride	U		0.0598	0.200
Bromodichloromethane	U		0.0702	0.200
Bromoform	U		0.0732	0.600
Bromomethane	U		0.0982	0.200
1,3-Butadiene	U		0.104	2.00
Carbon disulfide	U		0.102	0.200
Carbon tetrachloride	U		0.0732	0.200
Chlorobenzene	U		0.0832	0.200
Chloroethane	U		0.0996	0.200
Chloroform	U		0.0717	0.200
Chloromethane	U		0.103	0.200
2-Chlorotoluene	U		0.0828	0.200
Cyclohexane	U		0.0753	0.200
Dibromochloromethane	U		0.0727	0.200
1,2-Dibromoethane	U		0.0721	0.200
1,2-Dichlorobenzene	U		0.128	0.200
1,3-Dichlorobenzene	U		0.182	0.200
1,4-Dichlorobenzene	U		0.0557	0.200
1,2-Dichloroethane	U		0.0700	0.200
1,1-Dichloroethane	U		0.0723	0.200
1,1-Dichloroethene	U		0.0762	0.200
cis-1,2-Dichloroethene	U		0.0784	0.200
trans-1,2-Dichloroethene	U		0.0673	0.200
1,2-Dichloropropane	U		0.0760	0.200
cis-1,3-Dichloropropene	U		0.0689	0.200
trans-1,3-Dichloropropene	U		0.0728	0.200
1,4-Dioxane	U		0.0833	0.630
Ethanol	U		0.265	2.50
Ethylbenzene	U		0.0835	0.200
4-Ethyltoluene	U		0.0783	0.200
Trichlorofluoromethane	U		0.0819	0.200
Dichlorodifluoromethane	U		0.137	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0793	0.200
1,2-Dichlorotetrafluoroethane	U		0.0890	0.200
Heptane	U		0.104	0.200
Hexachloro-1,3-butadiene	U		0.105	0.630
n-Hexane	U		0.206	0.630

Method Blank (MB)

(MB) R4019376-3 01/03/24 10:15

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Isopropylbenzene	U		0.0777	0.200
Methylene Chloride	U		0.0979	0.200
Methyl Butyl Ketone	U		0.133	1.25
2-Butanone (MEK)	U		0.0814	1.25
4-Methyl-2-pentanone (MIBK)	U		0.0765	1.25
Methyl methacrylate	U		0.0876	0.200
MTBE	U		0.0647	0.200
Naphthalene	U		0.350	0.630
2-Propanol	U		0.264	1.25
Propene	U		0.0932	1.25
Styrene	U		0.0788	0.200
1,1,2,2-Tetrachloroethane	U		0.0743	0.200
Tetrachloroethylene	U		0.0814	0.200
Tetrahydrofuran	U		0.0734	0.200
Toluene	U		0.0870	0.500
1,2,4-Trichlorobenzene	U		0.148	0.630
1,1,1-Trichloroethane	U		0.0736	0.200
1,1,2-Trichloroethane	U		0.0775	0.200
Trichloroethylene	U		0.0680	0.200
1,2,4-Trimethylbenzene	U		0.0764	0.200
1,3,5-Trimethylbenzene	U		0.0779	0.200
2,2,4-Trimethylpentane	U		0.133	0.200
Vinyl chloride	U		0.0949	0.200
Vinyl Bromide	U		0.0852	0.200
Vinyl acetate	U		0.116	0.630
m&p-Xylene	U		0.135	0.400
o-Xylene	U		0.0828	0.200
TPH (GC/MS) Low Fraction	U		39.7	200
(S) 1,4-Bromofluorobenzene	*97.9*			*60.0-140*

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

(LCS) R4019376-1 01/03/24 08:56 • (LCSD) R4019376-2 01/03/24 09:36

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	3.75	3.92	3.95	105	105	70.0-130			0.762	25
Allyl chloride	3.75	3.78	3.73	101	99.5	70.0-130			1.33	25
Benzene	3.75	3.95	3.95	105	105	70.0-130			0.000	25
Benzyl Chloride	3.75	4.08	4.13	109	110	70.0-152			1.22	25

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

(LCS) R4019376-1 01/03/24 08:56 • (LCSD) R4019376-2 01/03/24 09:36

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromodichloromethane	3.75	3.89	3.91	104	104	70.0-130			0.513	25
Bromoform	3.75	3.89	3.88	104	103	70.0-130			0.257	25
Bromomethane	3.75	3.80	3.83	101	102	70.0-130			0.786	25
1,3-Butadiene	3.75	3.68	3.71	98.1	98.9	70.0-130			0.812	25
Carbon disulfide	3.75	3.94	3.94	105	105	70.0-130			0.000	25
Carbon tetrachloride	3.75	3.85	3.89	103	104	70.0-130			1.03	25
Chlorobenzene	3.75	3.94	3.96	105	106	70.0-130			0.506	25
Chloroethane	3.75	3.93	3.95	105	105	70.0-130			0.508	25
Chloroform	3.75	3.93	3.96	105	106	70.0-130			0.760	25
Chloromethane	3.75	3.87	3.84	103	102	70.0-130			0.778	25
2-Chlorotoluene	3.75	3.94	3.92	105	105	70.0-130			0.509	25
Cyclohexane	3.75	3.94	3.93	105	105	70.0-130			0.254	25
Dibromochloromethane	3.75	3.86	3.90	103	104	70.0-130			1.03	25
1,2-Dibromoethane	3.75	3.92	3.94	105	105	70.0-130			0.509	25
1,2-Dichlorobenzene	3.75	3.95	3.94	105	105	70.0-130			0.253	25
1,3-Dichlorobenzene	3.75	3.99	3.99	106	106	70.0-130			0.000	25
1,4-Dichlorobenzene	3.75	4.04	4.06	108	108	70.0-130			0.494	25
1,2-Dichloroethane	3.75	3.94	3.99	105	106	70.0-130			1.26	25
1,1-Dichloroethane	3.75	3.95	3.96	105	106	70.0-130			0.253	25
1,1-Dichloroethene	3.75	3.91	3.96	104	106	70.0-130			1.27	25
cis-1,2-Dichloroethene	3.75	3.93	3.92	105	105	70.0-130			0.255	25
trans-1,2-Dichloroethene	3.75	3.93	3.97	105	106	70.0-130			1.01	25
1,2-Dichloropropane	3.75	3.94	3.96	105	106	70.0-130			0.506	25
cis-1,3-Dichloropropene	3.75	3.92	3.96	105	106	70.0-130			1.02	25
trans-1,3-Dichloropropene	3.75	3.95	4.01	105	107	70.0-130			1.51	25
1,4-Dioxane	3.75	3.89	3.97	104	106	70.0-140			2.04	25
Ethanol	3.75	3.73	3.72	99.5	99.2	55.0-148			0.268	25
Ethylbenzene	3.75	3.96	3.95	106	105	70.0-130			0.253	25
4-Ethyltoluene	3.75	3.97	3.98	106	106	70.0-130			0.252	25
Trichlorofluoromethane	3.75	3.86	3.87	103	103	70.0-130			0.259	25
Dichlorodifluoromethane	3.75	3.89	3.90	104	104	64.0-139			0.257	25
1,1,2-Trichlorotrifluoroethane	3.75	3.89	3.87	104	103	70.0-130			0.515	25
1,2-Dichlorotetrafluoroethane	3.75	3.87	3.91	103	104	70.0-130			1.03	25
Heptane	3.75	4.04	4.07	108	109	70.0-130			0.740	25
Hexachloro-1,3-butadiene	3.75	3.78	3.85	101	103	70.0-151			1.83	25
n-Hexane	3.75	4.05	4.05	108	108	70.0-130			0.000	25
Isopropylbenzene	3.75	3.97	3.96	106	106	70.0-130			0.252	25
Methylene Chloride	3.75	3.98	3.96	106	106	70.0-130			0.504	25
Methyl Butyl Ketone	3.75	4.04	4.12	108	110	70.0-149			1.96	25
2-Butanone (MEK)	3.75	3.99	4.00	106	107	70.0-130			0.250	25

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

(LCS) R4019376-1 01/03/24 08:56 • (LCSD) R4019376-2 01/03/24 09:36

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
4-Methyl-2-pentanone (MIBK)	3.75	4.03	4.08	107	109	70.0-139			1.23	25
Methyl methacrylate	3.75	3.90	3.90	104	104	70.0-130			0.000	25
MTBE	3.75	3.98	3.99	106	106	70.0-130			0.251	25
Naphthalene	3.75	3.94	3.99	105	106	70.0-159			1.26	25
2-Propanol	3.75	3.99	3.96	106	106	70.0-139			0.755	25
Propene	3.75	3.91	3.90	104	104	64.0-144			0.256	25
Styrene	3.75	3.98	3.98	106	106	70.0-130			0.000	25
1,1,2,2-Tetrachloroethane	3.75	3.94	3.94	105	105	70.0-130			0.000	25
Tetrachloroethylene	3.75	3.86	3.88	103	103	70.0-130			0.517	25
Tetrahydrofuran	3.75	4.05	4.05	108	108	70.0-137			0.000	25
Toluene	3.75	3.94	3.95	105	105	70.0-130			0.253	25
1,2,4-Trichlorobenzene	3.75	3.82	3.91	102	104	70.0-160			2.33	25
1,1,1-Trichloroethane	3.75	3.84	3.86	102	103	70.0-130			0.519	25
1,1,2-Trichloroethane	3.75	3.86	3.90	103	104	70.0-130			1.03	25
Trichloroethylene	3.75	3.87	3.95	103	105	70.0-130			2.05	25
1,2,4-Trimethylbenzene	3.75	3.94	3.94	105	105	70.0-130			0.000	25
1,3,5-Trimethylbenzene	3.75	4.02	3.99	107	106	70.0-130			0.749	25
2,2,4-Trimethylpentane	3.75	4.03	4.03	107	107	70.0-130			0.000	25
Vinyl chloride	3.75	3.84	3.83	102	102	70.0-130			0.261	25
Vinyl Bromide	3.75	3.83	3.83	102	102	70.0-130			0.000	25
Vinyl acetate	3.75	4.17	4.21	111	112	70.0-130			0.955	25
m&p-Xylene	7.50	7.96	7.98	106	106	70.0-130			0.251	25
o-Xylene	3.75	3.98	3.98	106	106	70.0-130			0.000	25
TPH (GC/MS) Low Fraction	188	181	182	96.3	96.8	70.0-130			0.551	25
(S) 1,4-Bromofluorobenzene				*100*	*100*	*60.0-140*				

Method Blank (MB)

(MB) R4019362-3 01/03/24 10:44

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Carbon disulfide	0.155	J	0.102	0.200
n-Hexane	U		0.206	0.630
TPH (GC/MS) Low Fraction	U		39.7	200
(S) 1,4-Bromofluorobenzene	*94.7*			*60.0-140*

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

(LCS) R4019362-1 01/03/24 09:17 • (LCSD) R4019362-2 01/03/24 10:01

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Carbon disulfide	3.75	4.49	4.36	120	116	70.0-130			2.94	25
n-Hexane	3.75	4.18	4.20	111	112	70.0-130			0.477	25
TPH (GC/MS) Low Fraction	188	207	202	110	107	70.0-130			2.44	25
(S) 1,4-Bromofluorobenzene				*93.8*	*97.9*	*60.0-140*				

Method Blank (MB)

(MB) R4017792-3 12/28/23 15:37

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Methane	U		0.0584	0.400

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

(LCS) R4017792-1 12/28/23 15:31 • (LCSD) R4017792-2 12/28/23 15:34

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	%	%	%	%	%	%			%	%
Methane	2.00	2.05	1.80	103	90.0	70.0-130			13.0	20

Method Blank (MB)

(MB) R4018420-3 12/30/23 08:42

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Methane	U		0.0584	0.400

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

(LCS) R4018420-1 12/30/23 08:35 • (LCSD) R4018420-2 12/30/23 08:40

Analyte	Spike Amount %	LCS Result %	LCSD Result %	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methane	2.00	2.08	2.07	104	104	70.0-130			0.482	20

Method Blank (MB)

(MB) R4018444-3 12/30/23 11:20

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Methane	U		0.0584	0.400

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

(LCS) R4018444-1 12/30/23 11:04 • (LCSD) R4018444-2 12/30/23 11:17

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	%	%	%	%	%	%			%	%
Methane	2.00	2.09	2.06	104	103	70.0-130			1.45	20

Method Blank (MB)

(MB) R4019038-3 01/03/24 09:18

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Methane	U		0.0584	0.400

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

(LCS) R4019038-1 01/03/24 08:56 • (LCSD) R4019038-2 01/03/24 09:02

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	%	%	%	%	%	%			%	%
Methane	2.00	2.15	2.13	108	107	70.0-130			0.935	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.
(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.
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
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper 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.

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.

Pace

Pace® Location Requested (City/State):

Air CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

Sample Receipt Checklist

COC Seal Present/Intact: ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N

Airs
Size: ✓1L __6L __1.4L
Tage Color: G__ W✓ P__ B__
Tubing ___ Shunt ___

T/P#: ___

Scan QR code for instructions

L1690988 **H224**

Company Name: **NV5 - Wilsonville, OR**	Contact/Report To: **Caroline Siegel**
Street Address: **9450 SW Commerce Circle**	Phone #: **503-968-8787**
	E-Mail: **Caroline.Siegel@nv5.com;Kyle.Sattler@nv5.com**
City, State Zip:	Cc E-Mail:
Customer Project #: SOJ-7-03	Invoice to: NVS
Project Name: SOJ-7-03	Invoice E-Mail:
Site Collection Info/Facility ID (as applicable): **GEODESPOR-SIEGEL**	Purchase Order # (if applicable):
	Quote #:
Time Zone Collected: [ ] AK [✓] PT [ ] MT [ ] CT [ ] ET	State origin of sample(s):

Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other ______

Regulatory Program (CAA, RCRA, etc.) as applicable:

Rush (Pre-approval required): 2 Day 3 day 5 day Other______

Permit # as applicable:

Date Results Requested:

Units for Reporting: (ug/m³) PPBV mg/m³ PPMV

* Matrix Codes (Insert in Matrix box below): Ambient (A), Indoor (I), Soil Vapor (SV), Other (O)

Lab Use Only: TAT 12/13/23 | Proj. Manager: **110 - Brian Ford** | AcctNum / Client ID: **GEODESPOR** | Table #: | Profile / Template: **T243427** | Prelog / Bottle Ord. ID: **P1043366**

Customer Sample ID	Matrix *	Summa Canister ID	Flow Controller ID	Begin Collection Date	Begin Collection Time	End Collection Date	End Collection Time	Canister Start Pressure / Vacuum (in Hg)	Canister End Pressure / Vacuum (in Hg)	PUF / FILTER Duration (minutes)	Flow Rate m³/min or L/min	Total Volume Sampled m³ or L	Methane D1946 Summa	VOCs/GRO TO-15 Summa			Sample Comment
SG-1	SV	21922	6493	12/20/23	1040	12/20/23	1044	27.3	5.5				X	X			-01
SG-2	↓	20405	14524	↓	1101	↓	1105	27.0	6.0				↓	↓			-02
SG-3	↓	4392	28667	↓	1124	↓	1130	>30	6.0				↓	↓			-03
SG-4	↓	22059	11291	↓	1349	↓	1353	28.8	6.0				↓	↓			-04
SG-5	↓	28391	9490	↓	1322	↓	1329	>30	7.2				↓	↓			-05
SG-6	↓	12005	4093	↓	1425	↓	1429	29.0	6.0				↓	↓			-06
SG-7	↓	6891	7159	↓	1510	↓	1514	>30	7.0				↓	↓			-07
SG-8	↓	28307	12571	↓	1550	↓	1555	29.2	6.0				↓	↓			-08
SG-9	↓	7914	10339	↓	1611	↓	1616	28.0	6.0				↓	↓			-09
SG-10	↓	22927	28499	↓	1712	↓	1717	28.0	6.0				↓	↓			-10

Customer Remarks / Special Conditions / Possible Hazards: TO-15 VOCs plus methane

Collected By: Julian Peter
Printed Name:
Signature: [signature]

Additional Instructions from Pace®:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C):	Corrected Temp. (°C):

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	
				Tracking Number:
		[signature]	12/22 0915	Delivered by: In-Person Courier FedEX UPS Other

Page: ____ of: ____

Pace® Location Requested (City/State):

Air CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

Scan QR code for instructions L1690988

Company Name: **NV5 - Wilsonville, OR**

Street Address: **9450 SW Commerce Circle**

City, State Zip:

Customer Project #: 501-7-03

Project Name:

Site Collection Info/Facility ID (as applicable): **GEODESPOR-SIEGEL**

Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET

Contact/Report To: **Caroline Siegel**

Phone #: **503-968-8787**

E-Mail: **Caroline.Siegel@nv5.com;Kyle.Sattler@nv5.com**

Cc E-Mail:

Invoice to: NV5

Invoice E-Mail:

Purchase Order # (if applicable):

Quote #:

State origin of sample(s):

Data Deliverables:

[ ] Level II [ ] Level III [ ] Level IV

[ ] EQUIS

[ ] Other_____

Regulatory Program (CAA, RCRA, etc.) as applicable:

Rush (Pre-approval required): 2 Day 3 day 5 day Other_____

Date Results Requested:

Permit # as applicable:

Units for Reporting: (ug/m³) PPBV mg/m³ PPMV

* Matrix Codes (Insert in Matrix box below): Ambient (A), Indoor (I), Soil Vapor (SV), Other (O)

Customer Sample ID	Matrix *	Summa Canister ID	Flow Controller ID	Begin Collection Date	Begin Collection Time	End Collection Date	End Collection Time	Canister Pressure / Vacuum: Start Pressure / Vacuum (in Hg)	Canister Pressure / Vacuum: End Pressure / Vacuum (in Hg)	PUF / FILTER: Duration (minutes)	PUF / FILTER: Flow Rate m³/min or L/min	PUF / FILTER: Total Volume Sampled m³ or L	Analyses Requested: Methane D1946 Summa	Analyses Requested: VOCs/GRO TO-15 Summa	Analyses Requested:	Analyses Requested:	Sample Comment
SG-11	~~SV~~ SV	7330	11235	[redacted]	1239	12[redacted]	1807	30.0	8.0				X	X			-11

Customer Remarks / Special Conditions / Possible Hazards:

Collected By:
Printed Name: Julian Peter
Signature:

Additional Instructions from Pace®:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time: 12/22 0915
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

Coolers: Thermometer ID: Correction Factor (°C): Obs. Temp. (°C): Corrected Temp. (°C):

Tracking Number:

Delivered by: In- Person Courier FedEX UPS Other

Page: ____ of: ____

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

Lab Use Only

TAT 12/13/23

Proj. Manager: 110 - Brian Ford

AcctNum / Client ID: GEODESPOR

Table #:

Profile / Template: T243427

Prelog / Bottle Ord. ID: P1043366

ANALYTICAL REPORT

January 10, 2024

NV5 - Wilsonville, OR

Sample Delivery Group:	L1691303
Samples Received:	12/23/2023
Project Number:	SOJ-7-03
Description:	

Report To: Caroline Siegel
9450 SW Commerce Circle
Ste. 300
Wilsonville, OR 97070

Entire Report Reviewed By: Brian Ford

Brian Ford
Project Manager

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

TABLE OF CONTENTS

DP-1(2-3) L1691303-01 Solid

Collected by: Caroline Siegel | Collected date/time: 12/18/23 10:30 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2196665	1	12/27/23 16:48	12/27/23 17:03	CMK	Mt. Juliet, TN
Mercury by Method 7471B	WG2196939	1	12/29/23 15:37	12/30/23 14:02	LAS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2196274	5	12/27/23 11:23	12/30/23 12:41	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2197910	33.8	12/18/23 10:30	12/29/23 21:01	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2198385	1.35	12/18/23 10:30	12/31/23 04:13	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2196243	10	12/27/23 16:37	12/28/23 14:40	KAP	Mt. Juliet, TN
Chlorinated Acid Herbicides (GC) by Method 8151A	WG2198863	1	01/02/24 06:42	01/04/24 02:59	DLH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG2199072	1	01/02/24 10:47	01/02/24 19:26	MFM	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG2199072	1	01/02/24 10:47	01/02/24 19:26	MFM	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2196235	1	12/27/23 15:00	12/28/23 06:42	ALM	Mt. Juliet, TN

DP-1(11-12) L1691303-02 Solid

Collected by: Caroline Siegel | Collected date/time: 12/18/23 10:40 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2196665	1	12/27/23 16:48	12/27/23 17:03	CMK	Mt. Juliet, TN
Mercury by Method 7471B	WG2196939	1	12/29/23 15:37	12/30/23 14:05	LAS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2196274	5	12/27/23 11:23	12/30/23 12:45	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2197910	39.3	12/18/23 10:40	12/29/23 21:24	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2198385	1.57	12/18/23 10:40	12/31/23 04:32	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2196243	40	12/27/23 16:37	12/28/23 16:50	TJD	Mt. Juliet, TN
Chlorinated Acid Herbicides (GC) by Method 8151A	WG2198863	1	01/02/24 06:42	01/04/24 03:40	DLH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG2199072	1	01/02/24 10:47	01/02/24 19:36	MFM	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG2199072	1	01/02/24 10:47	01/02/24 19:36	MFM	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2196235	1	12/27/23 15:00	12/28/23 07:35	ALM	Mt. Juliet, TN

DP-2(2-3.5) L1691303-03 Solid

Collected by: Caroline Siegel | Collected date/time: 12/18/23 11:40 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2196665	1	12/27/23 16:48	12/27/23 17:03	CMK	Mt. Juliet, TN
Mercury by Method 7471B	WG2196939	1	12/29/23 15:37	12/30/23 14:07	LAS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2196274	5	12/27/23 11:23	12/30/23 12:48	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2197910	42.8	12/18/23 11:40	12/29/23 21:50	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2198385	1.71	12/18/23 11:40	12/31/23 04:51	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2196243	5	12/27/23 16:37	12/28/23 14:27	TJD	Mt. Juliet, TN
Chlorinated Acid Herbicides (GC) by Method 8151A	WG2198863	1	01/02/24 06:42	01/04/24 03:50	DLH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG2199072	1	01/02/24 10:47	01/02/24 19:46	MFM	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG2199072	1	01/02/24 10:47	01/02/24 19:46	MFM	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2196235	1	12/27/23 15:00	12/28/23 06:25	ALM	Mt. Juliet, TN

DP-2(12-13) L1691303-04 Solid

Collected by: Caroline Siegel | Collected date/time: 12/21/23 09:03 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2196668	1	12/28/23 09:22	12/28/23 09:30	CMK	Mt. Juliet, TN
Mercury by Method 7471B	WG2196939	1	12/29/23 15:37	12/30/23 14:10	LAS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2196274	5	12/27/23 11:23	12/30/23 12:51	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2200683	26.8	12/21/23 09:03	01/04/24 21:32	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2198759	1.07	12/21/23 09:03	12/31/23 12:28	KSD	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2196546	1	12/28/23 14:16	12/29/23 03:21	KAP	Mt. Juliet, TN
Chlorinated Acid Herbicides (GC) by Method 8151A	WG2198863	1	01/02/24 06:42	01/04/24 04:00	DLH	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG2199072	1	01/02/24 10:47	01/02/24 19:57	MFM	Mt. Juliet, TN

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

DP-2(12-13) L1691303-04 Solid

Collected by: Caroline Siegel | Collected date/time: 12/21/23 09:03 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Polychlorinated Biphenyls (GC) by Method 8082 A	WG2199072	1	01/02/24 10:47	01/02/24 19:57	MFM	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2196235	1	12/27/23 15:00	12/28/23 05:50	ALM	Mt. Juliet, TN

DP-3(1-2.3) L1691303-05 Solid

Collected by: Caroline Siegel | Collected date/time: 12/18/23 12:30 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2196668	1	12/28/23 09:22	12/28/23 09:30	CMK	Mt. Juliet, TN
Mercury by Method 7471B	WG2196939	1	12/29/23 15:37	12/30/23 14:13	LAS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2196274	5	12/27/23 11:23	12/30/23 12:55	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2198683	41.5	12/18/23 12:30	12/31/23 15:49	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2198385	1.66	12/18/23 12:30	12/31/23 05:10	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2196979	20	12/28/23 07:41	12/28/23 21:04	NH	Mt. Juliet, TN
Chlorinated Acid Herbicides (GC) by Method 8151A	WG2198864	1	01/03/24 15:16	01/05/24 23:38	LTB	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG2199072	1	01/02/24 10:47	01/02/24 20:07	MFM	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG2199072	1	01/02/24 10:47	01/02/24 20:07	MFM	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2196235	1	12/27/23 15:00	12/28/23 07:00	ALM	Mt. Juliet, TN

DP-3(12-13) L1691303-06 Solid

Collected by: Caroline Siegel | Collected date/time: 12/21/23 09:50 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2196668	1	12/28/23 09:22	12/28/23 09:30	CMK	Mt. Juliet, TN
Mercury by Method 7471B	WG2196939	1	12/29/23 15:37	12/30/23 14:15	LAS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2196274	5	12/27/23 11:23	12/30/23 12:58	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2200683	25.3	12/21/23 09:50	01/04/24 21:56	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2198759	1.01	12/21/23 09:50	12/31/23 12:47	KSD	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2196980	5	12/28/23 07:39	12/28/23 17:42	NH	Mt. Juliet, TN
Chlorinated Acid Herbicides (GC) by Method 8151A	WG2198864	1	01/03/24 15:16	01/05/24 23:48	LTB	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG2199072	1	01/02/24 10:47	01/02/24 20:17	MFM	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG2199072	1	01/02/24 10:47	01/02/24 20:17	MFM	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2196235	1	12/27/23 15:00	12/28/23 07:17	ALM	Mt. Juliet, TN

DP-4(0-1) L1691303-07 Solid

Collected by: Caroline Siegel | Collected date/time: 12/21/23 10:47 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2196668	1	12/28/23 09:22	12/28/23 09:30	CMK	Mt. Juliet, TN
Mercury by Method 7471B	WG2196939	1	12/29/23 15:37	12/30/23 14:18	LAS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2196274	5	12/27/23 11:23	12/30/23 13:08	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2200683	27	12/21/23 10:47	01/04/24 22:23	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2198759	1.08	12/21/23 10:47	12/31/23 13:06	KSD	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2196980	1	12/28/23 07:39	12/28/23 17:18	NH	Mt. Juliet, TN
Chlorinated Acid Herbicides (GC) by Method 8151A	WG2198864	1	01/03/24 15:16	01/05/24 23:58	LTB	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG2199072	1	01/02/24 10:47	01/02/24 20:27	MFM	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG2199072	1	01/02/24 10:47	01/02/24 20:27	MFM	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2196235	1	12/27/23 15:00	12/28/23 06:07	ALM	Mt. Juliet, TN

DP-4(5-7) L1691303-08 Solid

Collected by: Caroline Siegel | Collected date/time: 12/21/23 10:53 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2197015	1	12/28/23 10:02	12/28/23 10:14	CMK	Mt. Juliet, TN
Mercury by Method 7471B	WG2196939	1	12/29/23 15:37	12/30/23 14:20	LAS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2196274	5	12/27/23 11:23	12/30/23 13:12	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2200683	39	12/21/23 10:53	01/04/24 22:46	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2198759	1.56	12/21/23 10:53	12/31/23 13:25	KSD	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2196980	100	12/28/23 07:39	12/28/23 17:54	NH	Mt. Juliet, TN
Chlorinated Acid Herbicides (GC) by Method 8151A	WG2198864	1	01/03/24 15:16	01/06/24 00:09	LTB	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG2199072	1	01/02/24 10:47	01/02/24 20:37	MFM	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG2199072	1	01/02/24 10:47	01/02/24 20:37	MFM	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2196235	1	12/27/23 15:00	12/28/23 07:52	ALM	Mt. Juliet, TN

DP-5(0-0.5) L1691303-09 Solid

Collected by: Caroline Siegel | Collected date/time: 12/18/23 10:25 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2200556	1	01/04/24 09:20	01/04/24 09:38	CMK	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2200355	5	01/04/24 07:24	01/05/24 00:34	JPD	Mt. Juliet, TN

DP-5(2-2.5) L1691303-10 Solid

Collected by: Caroline Siegel | Collected date/time: 12/18/23 10:23 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2200556	1	01/04/24 09:20	01/04/24 09:38	CMK	Mt. Juliet, TN
Mercury by Method 7471B	WG2200342	1	01/03/24 16:44	01/04/24 10:50	NDL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2200355	5	01/04/24 07:24	01/05/24 00:50	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2199833	48	12/18/23 10:23	01/03/24 20:28	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2200372	1.92	12/18/23 10:23	01/03/24 21:12	JHH	Mt. Juliet, TN

DP-6(2-2.5) L1691303-11 Solid

Collected by: Caroline Siegel | Collected date/time: 12/18/23 10:03 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2200556	1	01/04/24 09:20	01/04/24 09:38	CMK	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2200355	5	01/04/24 07:24	01/05/24 00:53	JPD	Mt. Juliet, TN

DP-7(0-2) L1691303-12 Solid

Collected by: Caroline Siegel | Collected date/time: 12/21/23 13:42 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2200556	1	01/04/24 09:20	01/04/24 09:38	CMK	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2200355	5	01/04/24 07:24	01/05/24 00:56	JPD	Mt. Juliet, TN

DP-7(3-4) L1691303-13 Solid

Collected by: Caroline Siegel | Collected date/time: 12/21/23 13:47 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2200556	1	01/04/24 09:20	01/04/24 09:38	CMK	Mt. Juliet, TN
Mercury by Method 7471B	WG2200342	1	01/03/24 16:44	01/04/24 10:53	NDL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2200355	5	01/04/24 07:24	01/05/24 01:06	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2200683	29	12/21/23 13:47	01/04/24 23:13	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2200997	1.16	12/21/23 13:47	01/04/24 16:34	KSD	Mt. Juliet, TN

DP-8(0-2) L1691303-14 Solid

Collected by: Caroline Siegel | Collected date/time: 12/21/23 13:30 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2200556	1	01/04/24 09:20	01/04/24 09:38	CMK	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2200355	5	01/04/24 07:24	01/05/24 01:09	JPD	Mt. Juliet, TN

DP-8(2-3.5) L1691303-15 Solid

Collected by: Caroline Siegel | Collected date/time: 12/21/23 13:32 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2200556	1	01/04/24 09:20	01/04/24 09:38	CMK	Mt. Juliet, TN
Mercury by Method 7471B	WG2200342	1	01/03/24 16:44	01/04/24 10:55	NDL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2200355	5	01/04/24 07:24	01/05/24 01:13	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2200683	38.3	12/21/23 13:32	01/04/24 23:43	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2200372	1.53	12/21/23 13:32	01/03/24 21:50	JHH	Mt. Juliet, TN

DP-9(0-2) L1691303-16 Solid

Collected by: Caroline Siegel | Collected date/time: 12/21/23 13:21 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2200556	1	01/04/24 09:20	01/04/24 09:38	CMK	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2200355	5	01/04/24 07:24	01/05/24 01:16	JPD	Mt. Juliet, TN

DP-10(0-1) L1691303-17 Solid

Collected by: Caroline Siegel | Collected date/time: 12/18/23 11:44 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2200557	1	01/04/24 10:27	01/04/24 10:38	CMK	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2200355	5	01/04/24 07:24	01/05/24 01:19	JPD	Mt. Juliet, TN

DP-10(3-4) L1691303-18 Solid

Collected by: Caroline Siegel | Collected date/time: 12/18/23 11:44 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2200557	1	01/04/24 10:27	01/04/24 10:38	CMK	Mt. Juliet, TN
Mercury by Method 7471B	WG2200342	1	01/03/24 16:44	01/04/24 10:58	NDL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2200355	5	01/04/24 07:24	01/05/24 01:23	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2199833	49.5	12/18/23 11:44	01/03/24 20:51	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2200372	1.98	12/18/23 11:44	01/03/24 22:08	JHH	Mt. Juliet, TN

DP-11(0-1) L1691303-19 Solid

Collected by: Caroline Siegel | Collected date/time: 12/18/23 10:30 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2200557	1	01/04/24 10:27	01/04/24 10:38	CMK	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2200578	5	01/04/24 07:36	01/04/24 23:44	JPD	Mt. Juliet, TN

DP-11(2-3) L1691303-20 Solid

Collected by: Caroline Siegel | Collected date/time: 12/18/23 10:30 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2200557	1	01/04/24 10:27	01/04/24 10:38	CMK	Mt. Juliet, TN
Mercury by Method 7471B	WG2200631	1	01/04/24 08:24	01/04/24 11:59	NDL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2200578	5	01/04/24 07:36	01/04/24 23:47	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2199833	37.8	12/18/23 10:30	01/03/24 21:18	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2200372	1.51	12/18/23 10:30	01/03/24 22:28	JHH	Mt. Juliet, TN

DP-12(0-1.5) L1691303-21 Solid

Collected by: Caroline Siegel | Collected date/time: 12/18/23 13:35 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2200557	1	01/04/24 10:27	01/04/24 10:38	CMK	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2200578	5	01/04/24 07:36	01/04/24 23:51	JPD	Mt. Juliet, TN

DP-12(3-4.5) L1691303-22 Solid

Collected by: Caroline Siegel | Collected date/time: 12/18/23 13:50 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2200557	1	01/04/24 10:27	01/04/24 10:38	CMK	Mt. Juliet, TN
Mercury by Method 7471B	WG2200631	1	01/04/24 08:24	01/04/24 12:06	NDL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2200578	5	01/04/24 07:36	01/05/24 00:01	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2199833	65.5	12/18/23 13:50	01/03/24 21:42	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2200372	2.62	12/18/23 13:50	01/03/24 22:46	JHH	Mt. Juliet, TN

DP-13(1-2.5) L1691303-23 Solid

Collected by: Caroline Siegel | Collected date/time: 12/21/23 11:47 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2200557	1	01/04/24 10:27	01/04/24 10:38	CMK	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2200578	5	01/04/24 07:36	01/04/24 23:27	JPD	Mt. Juliet, TN

DP-13(2.5-3.5) L1691303-24 Solid

Collected by: Caroline Siegel | Collected date/time: 12/21/23 11:55 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2200557	1	01/04/24 10:27	01/04/24 10:38	CMK	Mt. Juliet, TN
Mercury by Method 7471B	WG2200631	1	01/04/24 08:24	01/04/24 12:08	NDL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2200578	5	01/04/24 07:36	01/05/24 00:04	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2200683	43.5	12/21/23 11:55	01/05/24 00:07	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2200372	1.74	12/21/23 11:55	01/03/24 23:05	JHH	Mt. Juliet, TN

DP-14(0-2) L1691303-25 Solid

Collected by: Caroline Siegel | Collected date/time: 12/21/23 12:10 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2200557	1	01/04/24 10:27	01/04/24 10:38	CMK	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2200578	5	01/04/24 07:36	01/05/24 00:07	JPD	Mt. Juliet, TN

DP-15(0-1.5) L1691303-26 Solid

Collected by: Caroline Siegel | Collected date/time: 12/21/23 12:00 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2200557	1	01/04/24 10:27	01/04/24 10:38	CMK	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2200578	5	01/04/24 07:36	01/05/24 00:11	JPD	Mt. Juliet, TN

DP-16(0-2) L1691303-27 Solid

Collected by: Caroline Siegel | Collected date/time: 12/21/23 15:12 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2200558	1	01/04/24 10:12	01/04/24 10:25	CMK	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2200578	5	01/04/24 07:36	01/05/24 00:14	JPD	Mt. Juliet, TN

BD-1 L1691303-28 Solid

Collected by: Caroline Siegel | Collected date/time: 12/21/23 10:58 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2197015	1	12/28/23 10:02	12/28/23 10:14	CMK	Mt. Juliet, TN
Mercury by Method 7471B	WG2196939	1	12/29/23 15:37	12/30/23 14:27	LAS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2196274	5	12/27/23 11:23	12/30/23 13:15	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2200683	27.3	12/21/23 10:58	01/05/24 00:37	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2199665	1.09	12/21/23 10:58	01/02/24 23:10	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2196980	100	12/28/23 07:39	12/28/23 18:07	NH	Mt. Juliet, TN
Chlorinated Acid Herbicides (GC) by Method 8151A	WG2198864	1	01/03/24 15:16	01/06/24 00:49	LTB	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG2199072	1	01/02/24 10:47	01/02/24 20:48	MFM	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG2199072	1	01/02/24 10:47	01/02/24 20:48	MFM	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2196235	1	12/27/23 15:00	12/28/23 08:10	ALM	Mt. Juliet, TN

COMP-1 L1691303-29 Solid

Collected by: Caroline Siegel | Collected date/time: 12/18/23 00:00 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2195907	1	12/26/23 14:19	12/26/23 14:26	MAS	Mt. Juliet, TN
Mercury by Method 7471B	WG2195339	1	12/26/23 16:35	12/27/23 09:08	LAS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2196072	5	12/26/23 14:58	12/26/23 18:10	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2196343	25	12/26/23 10:47	12/27/23 14:41	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2196204	1	12/26/23 10:47	12/27/23 02:02	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2195963	10	12/26/23 19:49	12/27/23 04:32	KAP	Mt. Juliet, TN
Chlorinated Acid Herbicides (GC) by Method 8151A	WG2194764	1	12/27/23 19:22	12/28/23 14:13	JMB	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG2196234	1	12/27/23 08:29	12/27/23 17:08	DLH	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG2196234	1	12/27/23 08:29	12/27/23 17:08	MFM	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2195971	1	12/26/23 16:08	12/27/23 03:44	ALM	Mt. Juliet, TN

COMP-2 L1691303-30 Solid

Collected by: Caroline Siegel | Collected date/time: 12/18/23 00:00 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2195907	1	12/26/23 14:19	12/26/23 14:26	MAS	Mt. Juliet, TN
Mercury by Method 7471B	WG2195339	1	12/26/23 16:35	12/27/23 10:09	LAS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2196072	5	12/26/23 14:58	12/26/23 18:26	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2196343	25	12/26/23 10:47	12/27/23 15:00	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2196204	1	12/26/23 10:47	12/27/23 02:22	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2195963	50	12/26/23 19:49	12/27/23 05:35	KAP	Mt. Juliet, TN
Chlorinated Acid Herbicides (GC) by Method 8151A	WG2194764	1	12/27/23 19:22	12/28/23 14:23	JMB	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG2196234	1	12/27/23 08:29	12/27/23 17:49	MFM	Mt. Juliet, TN

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

COMP-2 L1691303-30 Solid

Collected by: Caroline Siegel
Collected date/time: 12/18/23 00:00
Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Polychlorinated Biphenyls (GC) by Method 8082 A	WG2196961	2	12/27/23 08:29	12/28/23 12:42	JMB	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2195971	1	12/26/23 16:08	12/27/23 04:55	ALM	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

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.2		1	12/27/2023 17:03	WG2196665

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	U		0.0216	0.0481	1	12/30/2023 14:02	WG2196939

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	2.15		0.120	1.20	5	12/30/2023 12:41	WG2196274
Barium	198		0.183	3.00	5	12/30/2023 12:41	WG2196274
Cadmium	U		0.103	1.20	5	12/30/2023 12:41	WG2196274
Chromium	13.2		0.356	6.01	5	12/30/2023 12:41	WG2196274
Lead	5.82		0.119	2.40	5	12/30/2023 12:41	WG2196274
Selenium	0.605	J	0.216	3.00	5	12/30/2023 12:41	WG2196274
Silver	U		0.104	0.601	5	12/30/2023 12:41	WG2196274

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	1.91	J	1.55	4.57	33.8	12/29/2023 21:01	WG2197910
(S) a,a,a-Trifluorotoluene(FID)	*97.5*			*77.0-120*		*12/29/2023 21:01*	WG2197910

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	0.0714	C3 J	0.0666	0.0912	1.35	12/31/2023 04:13	WG2198385
Acrylonitrile	U		0.00658	0.0228	1.35	12/31/2023 04:13	WG2198385
Benzene	U		0.000851	0.00182	1.35	12/31/2023 04:13	WG2198385
Bromobenzene	U		0.00165	0.0228	1.35	12/31/2023 04:13	WG2198385
Bromodichloromethane	U		0.00132	0.00457	1.35	12/31/2023 04:13	WG2198385
Bromoform	U	C3	0.00214	0.0457	1.35	12/31/2023 04:13	WG2198385
Bromomethane	U		0.00359	0.0228	1.35	12/31/2023 04:13	WG2198385
n-Butylbenzene	U		0.00958	0.0228	1.35	12/31/2023 04:13	WG2198385
sec-Butylbenzene	U		0.00526	0.0228	1.35	12/31/2023 04:13	WG2198385
tert-Butylbenzene	U		0.00355	0.00912	1.35	12/31/2023 04:13	WG2198385
Carbon tetrachloride	U		0.00164	0.00912	1.35	12/31/2023 04:13	WG2198385
Chlorobenzene	U		0.000384	0.00457	1.35	12/31/2023 04:13	WG2198385
Chlorodibromomethane	U		0.00112	0.00457	1.35	12/31/2023 04:13	WG2198385
Chloroethane	U		0.00311	0.00912	1.35	12/31/2023 04:13	WG2198385
Chloroform	U		0.00188	0.00457	1.35	12/31/2023 04:13	WG2198385
Chloromethane	U		0.00793	0.0228	1.35	12/31/2023 04:13	WG2198385
2-Chlorotoluene	U		0.00158	0.00457	1.35	12/31/2023 04:13	WG2198385
4-Chlorotoluene	U		0.000822	0.00912	1.35	12/31/2023 04:13	WG2198385
1,2-Dibromo-3-Chloropropane	U		0.00712	0.0457	1.35	12/31/2023 04:13	WG2198385
1,2-Dibromoethane	U		0.00118	0.00457	1.35	12/31/2023 04:13	WG2198385
Dibromomethane	U		0.00136	0.00912	1.35	12/31/2023 04:13	WG2198385
1,2-Dichlorobenzene	U		0.000776	0.00912	1.35	12/31/2023 04:13	WG2198385
1,3-Dichlorobenzene	U		0.00109	0.00912	1.35	12/31/2023 04:13	WG2198385
1,4-Dichlorobenzene	U		0.00128	0.00912	1.35	12/31/2023 04:13	WG2198385
Dichlorodifluoromethane	U		0.00293	0.00912	1.35	12/31/2023 04:13	WG2198385
1,1-Dichloroethane	U		0.000896	0.00457	1.35	12/31/2023 04:13	WG2198385
1,2-Dichloroethane	U		0.00118	0.00457	1.35	12/31/2023 04:13	WG2198385

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.00111	0.00457	1.35	12/31/2023 04:13	WG2198385
cis-1,2-Dichloroethene	U		0.00134	0.00457	1.35	12/31/2023 04:13	WG2198385
trans-1,2-Dichloroethene	U		0.00189	0.00912	1.35	12/31/2023 04:13	WG2198385
1,2-Dichloropropane	U		0.00259	0.00912	1.35	12/31/2023 04:13	WG2198385
1,1-Dichloropropene	U		0.00147	0.00457	1.35	12/31/2023 04:13	WG2198385
1,3-Dichloropropane	U		0.000914	0.00912	1.35	12/31/2023 04:13	WG2198385
cis-1,3-Dichloropropene	U		0.00138	0.00457	1.35	12/31/2023 04:13	WG2198385
trans-1,3-Dichloropropene	U		0.00208	0.00912	1.35	12/31/2023 04:13	WG2198385
2,2-Dichloropropane	U		0.00251	0.00457	1.35	12/31/2023 04:13	WG2198385
Di-isopropyl ether	U		0.000749	0.00182	1.35	12/31/2023 04:13	WG2198385
Ethylbenzene	U		0.00134	0.00457	1.35	12/31/2023 04:13	WG2198385
Hexachloro-1,3-butadiene	U		0.0109	0.0457	1.35	12/31/2023 04:13	WG2198385
Isopropylbenzene	U		0.000776	0.00457	1.35	12/31/2023 04:13	WG2198385
p-Isopropyltoluene	U		0.00465	0.00912	1.35	12/31/2023 04:13	WG2198385
2-Butanone (MEK)	U		0.116	0.182	1.35	12/31/2023 04:13	WG2198385
Methylene Chloride	U		0.0121	0.0457	1.35	12/31/2023 04:13	WG2198385
4-Methyl-2-pentanone (MIBK)	U		0.00416	0.0457	1.35	12/31/2023 04:13	WG2198385
Methyl tert-butyl ether	U		0.000639	0.00182	1.35	12/31/2023 04:13	WG2198385
Naphthalene	U	C3	0.00891	0.0228	1.35	12/31/2023 04:13	WG2198385
n-Propylbenzene	U		0.00173	0.00912	1.35	12/31/2023 04:13	WG2198385
Styrene	U		0.000418	0.0228	1.35	12/31/2023 04:13	WG2198385
1,1,1,2-Tetrachloroethane	U		0.00173	0.00457	1.35	12/31/2023 04:13	WG2198385
1,1,2,2-Tetrachloroethane	U		0.00127	0.00457	1.35	12/31/2023 04:13	WG2198385
1,1,2-Trichlorotrifluoroethane	U		0.00138	0.00457	1.35	12/31/2023 04:13	WG2198385
Tetrachloroethene	U		0.00164	0.00457	1.35	12/31/2023 04:13	WG2198385
Toluene	U		0.00238	0.00912	1.35	12/31/2023 04:13	WG2198385
1,2,3-Trichlorobenzene	U	C3	0.0134	0.0228	1.35	12/31/2023 04:13	WG2198385
1,2,4-Trichlorobenzene	U	C3	0.00803	0.0228	1.35	12/31/2023 04:13	WG2198385
1,1,1-Trichloroethane	U		0.00169	0.00457	1.35	12/31/2023 04:13	WG2198385
1,1,2-Trichloroethane	U		0.00109	0.00457	1.35	12/31/2023 04:13	WG2198385
Trichloroethene	U		0.00106	0.00182	1.35	12/31/2023 04:13	WG2198385
Trichlorofluoromethane	U		0.00151	0.00457	1.35	12/31/2023 04:13	WG2198385
1,2,3-Trichloropropane	U		0.00296	0.0228	1.35	12/31/2023 04:13	WG2198385
1,2,4-Trimethylbenzene	U		0.00288	0.00912	1.35	12/31/2023 04:13	WG2198385
1,2,3-Trimethylbenzene	U		0.00288	0.00912	1.35	12/31/2023 04:13	WG2198385
1,3,5-Trimethylbenzene	U		0.00365	0.00912	1.35	12/31/2023 04:13	WG2198385
Vinyl chloride	U		0.00212	0.00457	1.35	12/31/2023 04:13	WG2198385
Xylenes, Total	U		0.00161	0.0119	1.35	12/31/2023 04:13	WG2198385
(S) Toluene-d8	*98.2*			*75.0-131*		*12/31/2023 04:13*	WG2198385
(S) 4-Bromofluorobenzene	*94.4*			*67.0-138*		*12/31/2023 04:13*	WG2198385
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*12/31/2023 04:13*	WG2198385

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	20.1	J	16.0	48.1	10	12/28/2023 14:40	WG2196243
Residual Range Organics (RRO)	293		40.0	120	10	12/28/2023 14:40	WG2196243
(S) o-Terphenyl	*36.3*			*18.0-148*		*12/28/2023 14:40*	WG2196243

Sample Narrative:

L1691303-01 WG2196243: Cannot run at lower dilution due to viscosity of extract. Resembles lab standard for Hydraulic Oil.

Chlorinated Acid Herbicides (GC) by Method 8151A

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4-D	U	T8	0.00844	0.0841	1	01/04/2024 02:59	WG2198863
Dalapon	U	T8	0.0136	0.0841	1	01/04/2024 02:59	WG2198863
2,4-DB	U	T8	0.0357	0.0841	1	01/04/2024 02:59	WG2198863
Dicamba	U	T8	0.0189	0.0841	1	01/04/2024 02:59	WG2198863
Dichloroprop	U	T8	0.0294	0.0841	1	01/04/2024 02:59	WG2198863
Dinoseb	U	T8	0.00838	0.0841	1	01/04/2024 02:59	WG2198863
MCPA	U	T8	0.532	7.81	1	01/04/2024 02:59	WG2198863
MCPP	U	T8	0.441	7.81	1	01/04/2024 02:59	WG2198863
2,4,5-T	U	T8	0.0102	0.0841	1	01/04/2024 02:59	WG2198863
2,4,5-TP (Silvex)	U	T8	0.0129	0.0841	1	01/04/2024 02:59	WG2198863
(S) 2,4-Dichlorophenyl Acetic Acid	*62.6*			*22.0-132*		*01/04/2024 02:59*	WG2198863

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	U	T8	0.00452	0.0240	1	01/02/2024 19:26	WG2199072
Alpha BHC	U	T8	0.00442	0.0240	1	01/02/2024 19:26	WG2199072
Beta BHC	U	T8	0.00455	0.0240	1	01/02/2024 19:26	WG2199072
Delta BHC	U	T8	0.00416	0.0240	1	01/02/2024 19:26	WG2199072
Gamma BHC	U	T8	0.00413	0.0240	1	01/02/2024 19:26	WG2199072
Chlordane	U	T8	0.124	0.361	1	01/02/2024 19:26	WG2199072
4,4-DDD	U	T8	0.00445	0.0240	1	01/02/2024 19:26	WG2199072
4,4-DDE	U	T8	0.00440	0.0240	1	01/02/2024 19:26	WG2199072
4,4-DDT	U	T8	0.00753	0.0240	1	01/02/2024 19:26	WG2199072
Dieldrin	U	T8	0.00413	0.0240	1	01/02/2024 19:26	WG2199072
Endosulfan I	U	T8	0.00436	0.0240	1	01/02/2024 19:26	WG2199072
Endosulfan II	U	T8	0.00403	0.0240	1	01/02/2024 19:26	WG2199072
Endosulfan sulfate	U	T8	0.00437	0.0240	1	01/02/2024 19:26	WG2199072
Endrin	U	T8	0.00421	0.0240	1	01/02/2024 19:26	WG2199072
Endrin aldehyde	U	T8	0.00407	0.0240	1	01/02/2024 19:26	WG2199072
Endrin ketone	U	T8	0.00854	0.0240	1	01/02/2024 19:26	WG2199072
Heptachlor	U	T8	0.00514	0.0240	1	01/02/2024 19:26	WG2199072
Heptachlor epoxide	U	T8	0.00407	0.0240	1	01/02/2024 19:26	WG2199072
Hexachlorobenzene	U	T8	0.00416	0.0240	1	01/02/2024 19:26	WG2199072
Methoxychlor	U	T8	0.00582	0.0240	1	01/02/2024 19:26	WG2199072
Toxaphene	U	T8	0.149	0.481	1	01/02/2024 19:26	WG2199072
(S) Decachlorobiphenyl	*66.6*			*10.0-135*		*01/02/2024 19:26*	WG2199072
(S) Tetrachloro-m-xylene	*61.3*			*10.0-139*		*01/02/2024 19:26*	WG2199072

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	U		0.0142	0.0409	1	01/02/2024 19:26	WG2199072
PCB 1221	U		0.0142	0.0409	1	01/02/2024 19:26	WG2199072
PCB 1232	U		0.0142	0.0409	1	01/02/2024 19:26	WG2199072
PCB 1242	U		0.0142	0.0409	1	01/02/2024 19:26	WG2199072
PCB 1248	U		0.00887	0.0204	1	01/02/2024 19:26	WG2199072
PCB 1254	U		0.00887	0.0204	1	01/02/2024 19:26	WG2199072
PCB 1260	U		0.00887	0.0204	1	01/02/2024 19:26	WG2199072
(S) Decachlorobiphenyl	*67.2*			*10.0-135*		*01/02/2024 19:26*	WG2199072
(S) Tetrachloro-m-xylene	*64.9*			*10.0-139*		*01/02/2024 19:26*	WG2199072

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.00276	0.00721	1	12/28/2023 06:42	WG2196235
Acenaphthene	U		0.00251	0.00721	1	12/28/2023 06:42	WG2196235
Acenaphthylene	U		0.00260	0.00721	1	12/28/2023 06:42	WG2196235
Benzo(a)anthracene	U		0.00208	0.00721	1	12/28/2023 06:42	WG2196235
Benzo(a)pyrene	U		0.00215	0.00721	1	12/28/2023 06:42	WG2196235
Benzo(b)fluoranthene	U		0.00184	0.00721	1	12/28/2023 06:42	WG2196235
Benzo(g,h,i)perylene	0.00233	J	0.00213	0.00721	1	12/28/2023 06:42	WG2196235
Benzo(k)fluoranthene	U		0.00258	0.00721	1	12/28/2023 06:42	WG2196235
Chrysene	U		0.00279	0.00721	1	12/28/2023 06:42	WG2196235
Dibenz(a,h)anthracene	U		0.00207	0.00721	1	12/28/2023 06:42	WG2196235
Fluoranthene	U		0.00273	0.00721	1	12/28/2023 06:42	WG2196235
Fluorene	U		0.00246	0.00721	1	12/28/2023 06:42	WG2196235
Indeno(1,2,3-cd)pyrene	U		0.00218	0.00721	1	12/28/2023 06:42	WG2196235
Naphthalene	U		0.00490	0.0240	1	12/28/2023 06:42	WG2196235
Phenanthrene	U		0.00278	0.00721	1	12/28/2023 06:42	WG2196235
Pyrene	U		0.00240	0.00721	1	12/28/2023 06:42	WG2196235
1-Methylnaphthalene	U		0.00540	0.0240	1	12/28/2023 06:42	WG2196235
2-Methylnaphthalene	U		0.00513	0.0240	1	12/28/2023 06:42	WG2196235
2-Chloronaphthalene	U		0.00560	0.0240	1	12/28/2023 06:42	WG2196235
(S) p-Terphenyl-d14	*66.7*			*23.0-120*		*12/28/2023 06:42*	WG2196235
(S) Nitrobenzene-d5	*59.6*			*14.0-149*		*12/28/2023 06:42*	WG2196235
(S) 2-Fluorobiphenyl	*56.3*			*34.0-125*		*12/28/2023 06:42*	WG2196235

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.0		1	12/27/2023 17:03	WG2196665

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	U		0.0209	0.0465	1	12/30/2023 14:05	WG2196939

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	1.31		0.116	1.16	5	12/30/2023 12:45	WG2196274
Barium	96.4		0.177	2.91	5	12/30/2023 12:45	WG2196274
Cadmium	U		0.0995	1.16	5	12/30/2023 12:45	WG2196274
Chromium	14.6		0.344	5.82	5	12/30/2023 12:45	WG2196274
Lead	3.81		0.115	2.33	5	12/30/2023 12:45	WG2196274
Selenium	0.418	J	0.209	2.91	5	12/30/2023 12:45	WG2196274
Silver	U		0.101	0.582	5	12/30/2023 12:45	WG2196274

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		1.69	4.98	39.3	12/29/2023 21:24	WG2197910
(S) a,a,a-Trifluorotoluene(FID)	*99.4*			*77.0-120*		*12/29/2023 21:24*	WG2197910

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	0.246	C3	0.0726	0.0995	1.57	12/31/2023 04:32	WG2198385
Acrylonitrile	U		0.00719	0.0248	1.57	12/31/2023 04:32	WG2198385
Benzene	U		0.000929	0.00199	1.57	12/31/2023 04:32	WG2198385
Bromobenzene	U		0.00179	0.0248	1.57	12/31/2023 04:32	WG2198385
Bromodichloromethane	U		0.00144	0.00498	1.57	12/31/2023 04:32	WG2198385
Bromoform	U	C3	0.00233	0.0498	1.57	12/31/2023 04:32	WG2198385
Bromomethane	U		0.00392	0.0248	1.57	12/31/2023 04:32	WG2198385
n-Butylbenzene	U		0.0104	0.0248	1.57	12/31/2023 04:32	WG2198385
sec-Butylbenzene	U		0.00573	0.0248	1.57	12/31/2023 04:32	WG2198385
tert-Butylbenzene	U		0.00388	0.00995	1.57	12/31/2023 04:32	WG2198385
Carbon tetrachloride	U		0.00179	0.00995	1.57	12/31/2023 04:32	WG2198385
Chlorobenzene	U		0.000418	0.00498	1.57	12/31/2023 04:32	WG2198385
Chlorodibromomethane	U		0.00122	0.00498	1.57	12/31/2023 04:32	WG2198385
Chloroethane	U		0.00338	0.00995	1.57	12/31/2023 04:32	WG2198385
Chloroform	U		0.00205	0.00498	1.57	12/31/2023 04:32	WG2198385
Chloromethane	U		0.00865	0.0248	1.57	12/31/2023 04:32	WG2198385
2-Chlorotoluene	U		0.00172	0.00498	1.57	12/31/2023 04:32	WG2198385
4-Chlorotoluene	U		0.000896	0.00995	1.57	12/31/2023 04:32	WG2198385
1,2-Dibromo-3-Chloropropane	U		0.00776	0.0498	1.57	12/31/2023 04:32	WG2198385
1,2-Dibromoethane	U		0.00129	0.00498	1.57	12/31/2023 04:32	WG2198385
Dibromomethane	U		0.00150	0.00995	1.57	12/31/2023 04:32	WG2198385
1,2-Dichlorobenzene	U		0.000845	0.00995	1.57	12/31/2023 04:32	WG2198385
1,3-Dichlorobenzene	U		0.00119	0.00995	1.57	12/31/2023 04:32	WG2198385
1,4-Dichlorobenzene	U		0.00139	0.00995	1.57	12/31/2023 04:32	WG2198385
Dichlorodifluoromethane	U		0.00321	0.00995	1.57	12/31/2023 04:32	WG2198385
1,1-Dichloroethane	U		0.000977	0.00498	1.57	12/31/2023 04:32	WG2198385
1,2-Dichloroethane	U		0.00129	0.00498	1.57	12/31/2023 04:32	WG2198385

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.00121	0.00498	1.57	12/31/2023 04:32	WG2198385
cis-1,2-Dichloroethene	U		0.00146	0.00498	1.57	12/31/2023 04:32	WG2198385
trans-1,2-Dichloroethene	U		0.00207	0.00995	1.57	12/31/2023 04:32	WG2198385
1,2-Dichloropropane	U		0.00283	0.00995	1.57	12/31/2023 04:32	WG2198385
1,1-Dichloropropene	U		0.00161	0.00498	1.57	12/31/2023 04:32	WG2198385
1,3-Dichloropropane	U		0.000997	0.00995	1.57	12/31/2023 04:32	WG2198385
cis-1,3-Dichloropropene	U		0.00151	0.00498	1.57	12/31/2023 04:32	WG2198385
trans-1,3-Dichloropropene	U		0.00227	0.00995	1.57	12/31/2023 04:32	WG2198385
2,2-Dichloropropane	U		0.00275	0.00498	1.57	12/31/2023 04:32	WG2198385
Di-isopropyl ether	U		0.000816	0.00199	1.57	12/31/2023 04:32	WG2198385
Ethylbenzene	U		0.00147	0.00498	1.57	12/31/2023 04:32	WG2198385
Hexachloro-1,3-butadiene	U		0.0119	0.0498	1.57	12/31/2023 04:32	WG2198385
Isopropylbenzene	U		0.000845	0.00498	1.57	12/31/2023 04:32	WG2198385
p-Isopropyltoluene	U		0.00507	0.00995	1.57	12/31/2023 04:32	WG2198385
2-Butanone (MEK)	U		0.126	0.199	1.57	12/31/2023 04:32	WG2198385
Methylene Chloride	U		0.0132	0.0498	1.57	12/31/2023 04:32	WG2198385
4-Methyl-2-pentanone (MIBK)	U		0.00454	0.0498	1.57	12/31/2023 04:32	WG2198385
Methyl tert-butyl ether	U		0.000697	0.00199	1.57	12/31/2023 04:32	WG2198385
Naphthalene	U	C3	0.00971	0.0248	1.57	12/31/2023 04:32	WG2198385
n-Propylbenzene	U		0.00189	0.00995	1.57	12/31/2023 04:32	WG2198385
Styrene	U		0.000456	0.0248	1.57	12/31/2023 04:32	WG2198385
1,1,1,2-Tetrachloroethane	U		0.00189	0.00498	1.57	12/31/2023 04:32	WG2198385
1,1,2,2-Tetrachloroethane	U		0.00138	0.00498	1.57	12/31/2023 04:32	WG2198385
1,1,2-Trichlorotrifluoroethane	U		0.00150	0.00498	1.57	12/31/2023 04:32	WG2198385
Tetrachloroethene	U		0.00179	0.00498	1.57	12/31/2023 04:32	WG2198385
Toluene	U		0.00259	0.00995	1.57	12/31/2023 04:32	WG2198385
1,2,3-Trichlorobenzene	U	C3	0.0146	0.0248	1.57	12/31/2023 04:32	WG2198385
1,2,4-Trichlorobenzene	U	C3	0.00876	0.0248	1.57	12/31/2023 04:32	WG2198385
1,1,1-Trichloroethane	U		0.00184	0.00498	1.57	12/31/2023 04:32	WG2198385
1,1,2-Trichloroethane	U		0.00119	0.00498	1.57	12/31/2023 04:32	WG2198385
Trichloroethene	U		0.00116	0.00199	1.57	12/31/2023 04:32	WG2198385
Trichlorofluoromethane	U		0.00165	0.00498	1.57	12/31/2023 04:32	WG2198385
1,2,3-Trichloropropane	U		0.00322	0.0248	1.57	12/31/2023 04:32	WG2198385
1,2,4-Trimethylbenzene	U		0.00314	0.00995	1.57	12/31/2023 04:32	WG2198385
1,2,3-Trimethylbenzene	U		0.00314	0.00995	1.57	12/31/2023 04:32	WG2198385
1,3,5-Trimethylbenzene	U		0.00398	0.00995	1.57	12/31/2023 04:32	WG2198385
Vinyl chloride	U		0.00231	0.00498	1.57	12/31/2023 04:32	WG2198385
Xylenes, Total	U		0.00175	0.0129	1.57	12/31/2023 04:32	WG2198385
(S) Toluene-d8	*98.5*			*75.0-131*		*12/31/2023 04:32*	WG2198385
(S) 4-Bromofluorobenzene	*94.4*			*67.0-138*		*12/31/2023 04:32*	WG2198385
(S) 1,2-Dichloroethane-d4	*100*			*70.0-130*		*12/31/2023 04:32*	WG2198385

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	64.3	J	61.9	186	40	12/28/2023 16:50	WG2196243
Residual Range Organics (RRO)	1070		155	465	40	12/28/2023 16:50	WG2196243
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*12/28/2023 16:50*	WG2196243

Sample Narrative:

L1691303-02 WG2196243: Cannot run at lower dilution due to viscosity of extract. Resembles lab standard for Hydraulic Oil.

Chlorinated Acid Herbicides (GC) by Method 8151A

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4-D	U	T8	0.00817	0.0814	1	01/04/2024 03:40	WG2198863
Dalapon	U	T8	0.0131	0.0814	1	01/04/2024 03:40	WG2198863
2,4-DB	U	T8	0.0346	0.0814	1	01/04/2024 03:40	WG2198863
Dicamba	U	T8	0.0183	0.0814	1	01/04/2024 03:40	WG2198863
Dichloroprop	U	T8	0.0285	0.0814	1	01/04/2024 03:40	WG2198863
Dinoseb	U	T8	0.00811	0.0814	1	01/04/2024 03:40	WG2198863
MCPA	U	T8	0.515	7.56	1	01/04/2024 03:40	WG2198863
MCPP	U	T8	0.427	7.56	1	01/04/2024 03:40	WG2198863
2,4,5-T	U	T8	0.00991	0.0814	1	01/04/2024 03:40	WG2198863
2,4,5-TP (Silvex)	U	T8	0.0124	0.0814	1	01/04/2024 03:40	WG2198863
(S) 2,4-Dichlorophenyl Acetic Acid	*41.2*			*22.0-132*		*01/04/2024 03:40*	WG2198863

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	U	T8	0.00437	0.0233	1	01/02/2024 19:36	WG2199072
Alpha BHC	U	T8	0.00428	0.0233	1	01/02/2024 19:36	WG2199072
Beta BHC	U	T8	0.00441	0.0233	1	01/02/2024 19:36	WG2199072
Delta BHC	U	T8	0.00403	0.0233	1	01/02/2024 19:36	WG2199072
Gamma BHC	U	T8	0.00400	0.0233	1	01/02/2024 19:36	WG2199072
Chlordane	U	T8	0.120	0.349	1	01/02/2024 19:36	WG2199072
4,4-DDD	U	T8	0.00430	0.0233	1	01/02/2024 19:36	WG2199072
4,4-DDE	U	T8	0.00426	0.0233	1	01/02/2024 19:36	WG2199072
4,4-DDT	U	T8	0.00729	0.0233	1	01/02/2024 19:36	WG2199072
Dieldrin	U	T8	0.00400	0.0233	1	01/02/2024 19:36	WG2199072
Endosulfan I	U	T8	0.00422	0.0233	1	01/02/2024 19:36	WG2199072
Endosulfan II	U	T8	0.00390	0.0233	1	01/02/2024 19:36	WG2199072
Endosulfan sulfate	U	T8	0.00423	0.0233	1	01/02/2024 19:36	WG2199072
Endrin	U	T8	0.00407	0.0233	1	01/02/2024 19:36	WG2199072
Endrin aldehyde	U	T8	0.00394	0.0233	1	01/02/2024 19:36	WG2199072
Endrin ketone	U	T8	0.00827	0.0233	1	01/02/2024 19:36	WG2199072
Heptachlor	U	T8	0.00498	0.0233	1	01/02/2024 19:36	WG2199072
Heptachlor epoxide	U	T8	0.00394	0.0233	1	01/02/2024 19:36	WG2199072
Hexachlorobenzene	U	T8	0.00403	0.0233	1	01/02/2024 19:36	WG2199072
Methoxychlor	U	T8	0.00563	0.0233	1	01/02/2024 19:36	WG2199072
Toxaphene	U	T8	0.144	0.465	1	01/02/2024 19:36	WG2199072
(S) Decachlorobiphenyl	*46.1*			*10.0-135*		*01/02/2024 19:36*	WG2199072
(S) Tetrachloro-m-xylene	*53.9*			*10.0-139*		*01/02/2024 19:36*	WG2199072

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	U		0.0137	0.0396	1	01/02/2024 19:36	WG2199072
PCB 1221	U		0.0137	0.0396	1	01/02/2024 19:36	WG2199072
PCB 1232	U		0.0137	0.0396	1	01/02/2024 19:36	WG2199072
PCB 1242	U		0.0137	0.0396	1	01/02/2024 19:36	WG2199072
PCB 1248	U		0.00859	0.0198	1	01/02/2024 19:36	WG2199072
PCB 1254	U		0.00859	0.0198	1	01/02/2024 19:36	WG2199072
PCB 1260	U		0.00859	0.0198	1	01/02/2024 19:36	WG2199072
(S) Decachlorobiphenyl	*46.2*			*10.0-135*		*01/02/2024 19:36*	WG2199072
(S) Tetrachloro-m-xylene	*57.3*			*10.0-139*		*01/02/2024 19:36*	WG2199072

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.00268	0.00698	1	12/28/2023 07:35	WG2196235
Acenaphthene	U		0.00243	0.00698	1	12/28/2023 07:35	WG2196235
Acenaphthylene	U		0.00251	0.00698	1	12/28/2023 07:35	WG2196235
Benzo(a)anthracene	0.00732		0.00201	0.00698	1	12/28/2023 07:35	WG2196235
Benzo(a)pyrene	0.00643	J	0.00208	0.00698	1	12/28/2023 07:35	WG2196235
Benzo(b)fluoranthene	0.00584	J	0.00178	0.00698	1	12/28/2023 07:35	WG2196235
Benzo(g,h,i)perylene	0.00980		0.00206	0.00698	1	12/28/2023 07:35	WG2196235
Benzo(k)fluoranthene	U		0.00250	0.00698	1	12/28/2023 07:35	WG2196235
Chrysene	0.0145		0.00270	0.00698	1	12/28/2023 07:35	WG2196235
Dibenz(a,h)anthracene	0.00304	J	0.00200	0.00698	1	12/28/2023 07:35	WG2196235
Fluoranthene	0.00297	J	0.00264	0.00698	1	12/28/2023 07:35	WG2196235
Fluorene	U		0.00238	0.00698	1	12/28/2023 07:35	WG2196235
Indeno(1,2,3-cd)pyrene	0.00249	J	0.00211	0.00698	1	12/28/2023 07:35	WG2196235
Naphthalene	U		0.00475	0.0233	1	12/28/2023 07:35	WG2196235
Phenanthrene	0.0131		0.00269	0.00698	1	12/28/2023 07:35	WG2196235
Pyrene	0.0120		0.00233	0.00698	1	12/28/2023 07:35	WG2196235
1-Methylnaphthalene	U		0.00522	0.0233	1	12/28/2023 07:35	WG2196235
2-Methylnaphthalene	U		0.00497	0.0233	1	12/28/2023 07:35	WG2196235
2-Chloronaphthalene	U		0.00542	0.0233	1	12/28/2023 07:35	WG2196235
(S) p-Terphenyl-d14	*61.9*			*23.0-120*		*12/28/2023 07:35*	WG2196235
(S) Nitrobenzene-d5	*63.9*			*14.0-149*		*12/28/2023 07:35*	WG2196235
(S) 2-Fluorobiphenyl	*55.3*			*34.0-125*		*12/28/2023 07:35*	WG2196235

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.7		1	12/27/2023 17:03	WG2196665

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	U		0.0212	0.0472	1	12/30/2023 14:07	WG2196939

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	2.32		0.118	1.18	5	12/30/2023 12:48	WG2196274
Barium	126		0.179	2.95	5	12/30/2023 12:48	WG2196274
Cadmium	0.127	J	0.101	1.18	5	12/30/2023 12:48	WG2196274
Chromium	11.0		0.349	5.90	5	12/30/2023 12:48	WG2196274
Lead	24.1		0.117	2.36	5	12/30/2023 12:48	WG2196274
Selenium	0.753	J	0.212	2.95	5	12/30/2023 12:48	WG2196274
Silver	U		0.102	0.590	5	12/30/2023 12:48	WG2196274

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		1.86	5.50	42.8	12/29/2023 21:50	WG2197910
(S) a,a,a-Trifluorotoluene(FID)	*97.8*			*77.0-120*		*12/29/2023 21:50*	WG2197910

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U	C3	0.0802	0.110	1.71	12/31/2023 04:51	WG2198385
Acrylonitrile	U		0.00793	0.0275	1.71	12/31/2023 04:51	WG2198385
Benzene	U		0.00103	0.00220	1.71	12/31/2023 04:51	WG2198385
Bromobenzene	U		0.00198	0.0275	1.71	12/31/2023 04:51	WG2198385
Bromodichloromethane	U		0.00159	0.00550	1.71	12/31/2023 04:51	WG2198385
Bromoform	U	C3	0.00257	0.0550	1.71	12/31/2023 04:51	WG2198385
Bromomethane	U		0.00433	0.0275	1.71	12/31/2023 04:51	WG2198385
n-Butylbenzene	U		0.0115	0.0275	1.71	12/31/2023 04:51	WG2198385
sec-Butylbenzene	U		0.00633	0.0275	1.71	12/31/2023 04:51	WG2198385
tert-Butylbenzene	U		0.00428	0.0110	1.71	12/31/2023 04:51	WG2198385
Carbon tetrachloride	U		0.00198	0.0110	1.71	12/31/2023 04:51	WG2198385
Chlorobenzene	U		0.000462	0.00550	1.71	12/31/2023 04:51	WG2198385
Chlorodibromomethane	U		0.00135	0.00550	1.71	12/31/2023 04:51	WG2198385
Chloroethane	U		0.00374	0.0110	1.71	12/31/2023 04:51	WG2198385
Chloroform	U		0.00226	0.00550	1.71	12/31/2023 04:51	WG2198385
Chloromethane	U		0.00957	0.0275	1.71	12/31/2023 04:51	WG2198385
2-Chlorotoluene	U		0.00190	0.00550	1.71	12/31/2023 04:51	WG2198385
4-Chlorotoluene	U		0.000990	0.0110	1.71	12/31/2023 04:51	WG2198385
1,2-Dibromo-3-Chloropropane	U		0.00858	0.0550	1.71	12/31/2023 04:51	WG2198385
1,2-Dibromoethane	U		0.00143	0.00550	1.71	12/31/2023 04:51	WG2198385
Dibromomethane	U		0.00165	0.0110	1.71	12/31/2023 04:51	WG2198385
1,2-Dichlorobenzene	U		0.000935	0.0110	1.71	12/31/2023 04:51	WG2198385
1,3-Dichlorobenzene	U		0.00132	0.0110	1.71	12/31/2023 04:51	WG2198385
1,4-Dichlorobenzene	0.0141		0.00154	0.0110	1.71	12/31/2023 04:51	WG2198385
Dichlorodifluoromethane	U		0.00354	0.0110	1.71	12/31/2023 04:51	WG2198385
1,1-Dichloroethane	U		0.00108	0.00550	1.71	12/31/2023 04:51	WG2198385
1,2-Dichloroethane	U		0.00143	0.00550	1.71	12/31/2023 04:51	WG2198385

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.00134	0.00550	1.71	12/31/2023 04:51	WG2198385
cis-1,2-Dichloroethene	U		0.00162	0.00550	1.71	12/31/2023 04:51	WG2198385
trans-1,2-Dichloroethene	U		0.00229	0.0110	1.71	12/31/2023 04:51	WG2198385
1,2-Dichloropropane	U		0.00313	0.0110	1.71	12/31/2023 04:51	WG2198385
1,1-Dichloropropene	U		0.00177	0.00550	1.71	12/31/2023 04:51	WG2198385
1,3-Dichloropropane	U		0.00110	0.0110	1.71	12/31/2023 04:51	WG2198385
cis-1,3-Dichloropropene	U		0.00166	0.00550	1.71	12/31/2023 04:51	WG2198385
trans-1,3-Dichloropropene	U		0.00251	0.0110	1.71	12/31/2023 04:51	WG2198385
2,2-Dichloropropane	U		0.00304	0.00550	1.71	12/31/2023 04:51	WG2198385
Di-isopropyl ether	U		0.000902	0.00220	1.71	12/31/2023 04:51	WG2198385
Ethylbenzene	U		0.00162	0.00550	1.71	12/31/2023 04:51	WG2198385
Hexachloro-1,3-butadiene	U		0.0132	0.0550	1.71	12/31/2023 04:51	WG2198385
Isopropylbenzene	U		0.000935	0.00550	1.71	12/31/2023 04:51	WG2198385
p-Isopropyltoluene	U		0.00561	0.0110	1.71	12/31/2023 04:51	WG2198385
2-Butanone (MEK)	U		0.140	0.220	1.71	12/31/2023 04:51	WG2198385
Methylene Chloride	0.0181	J	0.0147	0.0550	1.71	12/31/2023 04:51	WG2198385
4-Methyl-2-pentanone (MIBK)	U		0.00502	0.0550	1.71	12/31/2023 04:51	WG2198385
Methyl tert-butyl ether	U		0.000770	0.00220	1.71	12/31/2023 04:51	WG2198385
Naphthalene	U	C3	0.0107	0.0275	1.71	12/31/2023 04:51	WG2198385
n-Propylbenzene	U		0.00208	0.0110	1.71	12/31/2023 04:51	WG2198385
Styrene	U		0.000504	0.0275	1.71	12/31/2023 04:51	WG2198385
1,1,1,2-Tetrachloroethane	U		0.00208	0.00550	1.71	12/31/2023 04:51	WG2198385
1,1,2,2-Tetrachloroethane	U		0.00153	0.00550	1.71	12/31/2023 04:51	WG2198385
1,1,2-Trichlorotrifluoroethane	U		0.00166	0.00550	1.71	12/31/2023 04:51	WG2198385
Tetrachloroethene	U		0.00197	0.00550	1.71	12/31/2023 04:51	WG2198385
Toluene	U		0.00285	0.0110	1.71	12/31/2023 04:51	WG2198385
1,2,3-Trichlorobenzene	U	C3	0.0161	0.0275	1.71	12/31/2023 04:51	WG2198385
1,2,4-Trichlorobenzene	U	C3	0.00967	0.0275	1.71	12/31/2023 04:51	WG2198385
1,1,1-Trichloroethane	U		0.00203	0.00550	1.71	12/31/2023 04:51	WG2198385
1,1,2-Trichloroethane	U		0.00131	0.00550	1.71	12/31/2023 04:51	WG2198385
Trichloroethene	U		0.00128	0.00220	1.71	12/31/2023 04:51	WG2198385
Trichlorofluoromethane	U		0.00181	0.00550	1.71	12/31/2023 04:51	WG2198385
1,2,3-Trichloropropane	U		0.00356	0.0275	1.71	12/31/2023 04:51	WG2198385
1,2,4-Trimethylbenzene	U		0.00347	0.0110	1.71	12/31/2023 04:51	WG2198385
1,2,3-Trimethylbenzene	U		0.00347	0.0110	1.71	12/31/2023 04:51	WG2198385
1,3,5-Trimethylbenzene	U		0.00440	0.0110	1.71	12/31/2023 04:51	WG2198385
Vinyl chloride	U		0.00255	0.00550	1.71	12/31/2023 04:51	WG2198385
Xylenes, Total	U		0.00193	0.0143	1.71	12/31/2023 04:51	WG2198385
(S) Toluene-d8	*98.0*			*75.0-131*		*12/31/2023 04:51*	WG2198385
(S) 4-Bromofluorobenzene	*93.6*			*67.0-138*		*12/31/2023 04:51*	WG2198385
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*12/31/2023 04:51*	WG2198385

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		7.85	23.6	5	12/28/2023 14:27	WG2196243
Residual Range Organics (RRO)	103		19.6	59.0	5	12/28/2023 14:27	WG2196243
(S) o-Terphenyl	*38.7*			*18.0-148*		*12/28/2023 14:27*	WG2196243

Sample Narrative:

L1691303-03 WG2196243: Cannot run at lower dilution due to viscosity of extract. Resembles lab standard for Hydraulic Oil.

Chlorinated Acid Herbicides (GC) by Method 8151A

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4-D	U	T8	0.00829	0.0826	1	01/04/2024 03:50	WG2198863
Dalapon	U	T8	0.0133	0.0826	1	01/04/2024 03:50	WG2198863
2,4-DB	U	T8	0.0351	0.0826	1	01/04/2024 03:50	WG2198863
Dicamba	U	T8	0.0185	0.0826	1	01/04/2024 03:50	WG2198863
Dichloroprop	U	T8	0.0289	0.0826	1	01/04/2024 03:50	WG2198863
Dinoseb	U	T8	0.00823	0.0826	1	01/04/2024 03:50	WG2198863
MCPA	U	T8	0.523	7.67	1	01/04/2024 03:50	WG2198863
MCPP	U	T8	0.433	7.67	1	01/04/2024 03:50	WG2198863
2,4,5-T	U	T8	0.0101	0.0826	1	01/04/2024 03:50	WG2198863
2,4,5-TP (Silvex)	U	T8	0.0126	0.0826	1	01/04/2024 03:50	WG2198863
(S) 2,4-Dichlorophenyl Acetic Acid	*61.6*			*22.0-132*		*01/04/2024 03:50*	WG2198863

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	U	T8	0.00444	0.0236	1	01/02/2024 19:46	WG2199072
Alpha BHC	U	T8	0.00434	0.0236	1	01/02/2024 19:46	WG2199072
Beta BHC	U	T8	0.00447	0.0236	1	01/02/2024 19:46	WG2199072
Delta BHC	U	T8	0.00408	0.0236	1	01/02/2024 19:46	WG2199072
Gamma BHC	U	T8	0.00406	0.0236	1	01/02/2024 19:46	WG2199072
Chlordane	U	T8	0.122	0.354	1	01/02/2024 19:46	WG2199072
4,4-DDD	U	T8	0.00437	0.0236	1	01/02/2024 19:46	WG2199072
4,4-DDE	U	T8	0.00432	0.0236	1	01/02/2024 19:46	WG2199072
4,4-DDT	U	T8	0.00740	0.0236	1	01/02/2024 19:46	WG2199072
Dieldrin	U	T8	0.00406	0.0236	1	01/02/2024 19:46	WG2199072
Endosulfan I	U	T8	0.00429	0.0236	1	01/02/2024 19:46	WG2199072
Endosulfan II	U	T8	0.00395	0.0236	1	01/02/2024 19:46	WG2199072
Endosulfan sulfate	U	T8	0.00430	0.0236	1	01/02/2024 19:46	WG2199072
Endrin	U	T8	0.00413	0.0236	1	01/02/2024 19:46	WG2199072
Endrin aldehyde	U	T8	0.00400	0.0236	1	01/02/2024 19:46	WG2199072
Endrin ketone	U	T8	0.00839	0.0236	1	01/02/2024 19:46	WG2199072
Heptachlor	U	T8	0.00505	0.0236	1	01/02/2024 19:46	WG2199072
Heptachlor epoxide	U	T8	0.00400	0.0236	1	01/02/2024 19:46	WG2199072
Hexachlorobenzene	U	T8	0.00408	0.0236	1	01/02/2024 19:46	WG2199072
Methoxychlor	U	T8	0.00571	0.0236	1	01/02/2024 19:46	WG2199072
Toxaphene	U	T8	0.146	0.472	1	01/02/2024 19:46	WG2199072
(S) Decachlorobiphenyl	*59.9*			*10.0-135*		*01/02/2024 19:46*	WG2199072
(S) Tetrachloro-m-xylene	*58.1*			*10.0-139*		*01/02/2024 19:46*	WG2199072

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	U		0.0139	0.0401	1	01/02/2024 19:46	WG2199072
PCB 1221	U		0.0139	0.0401	1	01/02/2024 19:46	WG2199072
PCB 1232	U		0.0139	0.0401	1	01/02/2024 19:46	WG2199072
PCB 1242	U		0.0139	0.0401	1	01/02/2024 19:46	WG2199072
PCB 1248	U		0.00871	0.0201	1	01/02/2024 19:46	WG2199072
PCB 1254	U		0.00871	0.0201	1	01/02/2024 19:46	WG2199072
PCB 1260	U		0.00871	0.0201	1	01/02/2024 19:46	WG2199072
(S) Decachlorobiphenyl	*60.1*			*10.0-135*		*01/02/2024 19:46*	WG2199072
(S) Tetrachloro-m-xylene	*61.8*			*10.0-139*		*01/02/2024 19:46*	WG2199072

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.00272	0.00708	1	12/28/2023 06:25	WG2196235
Acenaphthene	U		0.00247	0.00708	1	12/28/2023 06:25	WG2196235
Acenaphthylene	U		0.00255	0.00708	1	12/28/2023 06:25	WG2196235
Benzo(a)anthracene	U		0.00204	0.00708	1	12/28/2023 06:25	WG2196235
Benzo(a)pyrene	U		0.00211	0.00708	1	12/28/2023 06:25	WG2196235
Benzo(b)fluoranthene	0.00201	J	0.00181	0.00708	1	12/28/2023 06:25	WG2196235
Benzo(g,h,i)perylene	0.00246	J	0.00209	0.00708	1	12/28/2023 06:25	WG2196235
Benzo(k)fluoranthene	U		0.00254	0.00708	1	12/28/2023 06:25	WG2196235
Chrysene	U		0.00274	0.00708	1	12/28/2023 06:25	WG2196235
Dibenz(a,h)anthracene	U		0.00203	0.00708	1	12/28/2023 06:25	WG2196235
Fluoranthene	U		0.00268	0.00708	1	12/28/2023 06:25	WG2196235
Fluorene	U		0.00242	0.00708	1	12/28/2023 06:25	WG2196235
Indeno(1,2,3-cd)pyrene	U		0.00214	0.00708	1	12/28/2023 06:25	WG2196235
Naphthalene	U		0.00482	0.0236	1	12/28/2023 06:25	WG2196235
Phenanthrene	U		0.00273	0.00708	1	12/28/2023 06:25	WG2196235
Pyrene	U		0.00236	0.00708	1	12/28/2023 06:25	WG2196235
1-Methylnaphthalene	U		0.00530	0.0236	1	12/28/2023 06:25	WG2196235
2-Methylnaphthalene	U		0.00504	0.0236	1	12/28/2023 06:25	WG2196235
2-Chloronaphthalene	U		0.00550	0.0236	1	12/28/2023 06:25	WG2196235
(S) p-Terphenyl-d14	*60.9*			*23.0-120*		*12/28/2023 06:25*	WG2196235
(S) Nitrobenzene-d5	*61.6*			*14.0-149*		*12/28/2023 06:25*	WG2196235
(S) 2-Fluorobiphenyl	*56.0*			*34.0-125*		*12/28/2023 06:25*	WG2196235

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.5		1	12/28/2023 09:30	WG2196668

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	U		0.0199	0.0442	1	12/30/2023 14:10	WG2196939

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	1.01	J	0.110	1.10	5	12/30/2023 12:51	WG2196274
Barium	124		0.168	2.76	5	12/30/2023 12:51	WG2196274
Cadmium	U		0.0945	1.10	5	12/30/2023 12:51	WG2196274
Chromium	9.03		0.327	5.52	5	12/30/2023 12:51	WG2196274
Lead	4.60		0.109	2.21	5	12/30/2023 12:51	WG2196274
Selenium	0.594	J	0.199	2.76	5	12/30/2023 12:51	WG2196274
Silver	U		0.0956	0.552	5	12/30/2023 12:51	WG2196274

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	1.10	B J	1.09	3.22	26.8	01/04/2024 21:32	WG2200683
(S) a,a,a-Trifluorotoluene(FID)	*99.6*			*77.0-120*		*01/04/2024 21:32*	WG2200683

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U	C3	0.0470	0.0643	1.07	12/31/2023 12:28	WG2198759
Acrylonitrile	U		0.00464	0.0161	1.07	12/31/2023 12:28	WG2198759
Benzene	U		0.000601	0.00129	1.07	12/31/2023 12:28	WG2198759
Bromobenzene	U		0.00116	0.0161	1.07	12/31/2023 12:28	WG2198759
Bromodichloromethane	U		0.000933	0.00322	1.07	12/31/2023 12:28	WG2198759
Bromoform	U		0.00150	0.0322	1.07	12/31/2023 12:28	WG2198759
Bromomethane	U		0.00254	0.0161	1.07	12/31/2023 12:28	WG2198759
n-Butylbenzene	U		0.00676	0.0161	1.07	12/31/2023 12:28	WG2198759
sec-Butylbenzene	U		0.00370	0.0161	1.07	12/31/2023 12:28	WG2198759
tert-Butylbenzene	U		0.00251	0.00643	1.07	12/31/2023 12:28	WG2198759
Carbon tetrachloride	U		0.00116	0.00643	1.07	12/31/2023 12:28	WG2198759
Chlorobenzene	U		0.000271	0.00322	1.07	12/31/2023 12:28	WG2198759
Chlorodibromomethane	U		0.000788	0.00322	1.07	12/31/2023 12:28	WG2198759
Chloroethane	U		0.00219	0.00643	1.07	12/31/2023 12:28	WG2198759
Chloroform	U		0.00132	0.00322	1.07	12/31/2023 12:28	WG2198759
Chloromethane	U		0.00559	0.0161	1.07	12/31/2023 12:28	WG2198759
2-Chlorotoluene	U		0.00111	0.00322	1.07	12/31/2023 12:28	WG2198759
4-Chlorotoluene	U		0.000579	0.00643	1.07	12/31/2023 12:28	WG2198759
1,2-Dibromo-3-Chloropropane	U		0.00502	0.0322	1.07	12/31/2023 12:28	WG2198759
1,2-Dibromoethane	U		0.000834	0.00322	1.07	12/31/2023 12:28	WG2198759
Dibromomethane	U		0.000966	0.00643	1.07	12/31/2023 12:28	WG2198759
1,2-Dichlorobenzene	U		0.000547	0.00643	1.07	12/31/2023 12:28	WG2198759
1,3-Dichlorobenzene	U		0.000772	0.00643	1.07	12/31/2023 12:28	WG2198759
1,4-Dichlorobenzene	U		0.000901	0.00643	1.07	12/31/2023 12:28	WG2198759
Dichlorodifluoromethane	U		0.00207	0.00643	1.07	12/31/2023 12:28	WG2198759
1,1-Dichloroethane	U		0.000631	0.00322	1.07	12/31/2023 12:28	WG2198759
1,2-Dichloroethane	U		0.000835	0.00322	1.07	12/31/2023 12:28	WG2198759

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.000779	0.00322	1.07	12/31/2023 12:28	WG2198759
cis-1,2-Dichloroethene	U		0.000944	0.00322	1.07	12/31/2023 12:28	WG2198759
trans-1,2-Dichloroethene	U		0.00134	0.00643	1.07	12/31/2023 12:28	WG2198759
1,2-Dichloropropane	U		0.00183	0.00643	1.07	12/31/2023 12:28	WG2198759
1,1-Dichloropropene	U		0.00104	0.00322	1.07	12/31/2023 12:28	WG2198759
1,3-Dichloropropane	U		0.000645	0.00643	1.07	12/31/2023 12:28	WG2198759
cis-1,3-Dichloropropene	U		0.000974	0.00322	1.07	12/31/2023 12:28	WG2198759
trans-1,3-Dichloropropene	U		0.00147	0.00643	1.07	12/31/2023 12:28	WG2198759
2,2-Dichloropropane	U		0.00178	0.00322	1.07	12/31/2023 12:28	WG2198759
Di-isopropyl ether	U		0.000528	0.00129	1.07	12/31/2023 12:28	WG2198759
Ethylbenzene	U		0.000949	0.00322	1.07	12/31/2023 12:28	WG2198759
Hexachloro-1,3-butadiene	U		0.00772	0.0322	1.07	12/31/2023 12:28	WG2198759
Isopropylbenzene	U		0.000547	0.00322	1.07	12/31/2023 12:28	WG2198759
p-Isopropyltoluene	U		0.00328	0.00643	1.07	12/31/2023 12:28	WG2198759
2-Butanone (MEK)	U		0.0817	0.129	1.07	12/31/2023 12:28	WG2198759
Methylene Chloride	U		0.00854	0.0322	1.07	12/31/2023 12:28	WG2198759
4-Methyl-2-pentanone (MIBK)	U		0.00293	0.0322	1.07	12/31/2023 12:28	WG2198759
Methyl tert-butyl ether	U		0.000450	0.00129	1.07	12/31/2023 12:28	WG2198759
Naphthalene	U	C3	0.00628	0.0161	1.07	12/31/2023 12:28	WG2198759
n-Propylbenzene	U		0.00123	0.00643	1.07	12/31/2023 12:28	WG2198759
Styrene	U		0.000295	0.0161	1.07	12/31/2023 12:28	WG2198759
1,1,1,2-Tetrachloroethane	U		0.00121	0.00322	1.07	12/31/2023 12:28	WG2198759
1,1,2,2-Tetrachloroethane	U		0.000895	0.00322	1.07	12/31/2023 12:28	WG2198759
1,1,2-Trichlorotrifluoroethane	U		0.000971	0.00322	1.07	12/31/2023 12:28	WG2198759
Tetrachloroethene	U		0.00115	0.00322	1.07	12/31/2023 12:28	WG2198759
Toluene	U		0.00167	0.00643	1.07	12/31/2023 12:28	WG2198759
1,2,3-Trichlorobenzene	U		0.00943	0.0161	1.07	12/31/2023 12:28	WG2198759
1,2,4-Trichlorobenzene	U		0.00567	0.0161	1.07	12/31/2023 12:28	WG2198759
1,1,1-Trichloroethane	U		0.00119	0.00322	1.07	12/31/2023 12:28	WG2198759
1,1,2-Trichloroethane	U		0.000769	0.00322	1.07	12/31/2023 12:28	WG2198759
Trichloroethene	U		0.000752	0.00129	1.07	12/31/2023 12:28	WG2198759
Trichlorofluoromethane	U		0.00106	0.00322	1.07	12/31/2023 12:28	WG2198759
1,2,3-Trichloropropane	U		0.00208	0.0161	1.07	12/31/2023 12:28	WG2198759
1,2,4-Trimethylbenzene	U		0.00203	0.00643	1.07	12/31/2023 12:28	WG2198759
1,2,3-Trimethylbenzene	U		0.00203	0.00643	1.07	12/31/2023 12:28	WG2198759
1,3,5-Trimethylbenzene	U		0.00257	0.00643	1.07	12/31/2023 12:28	WG2198759
Vinyl chloride	U		0.00149	0.00322	1.07	12/31/2023 12:28	WG2198759
Xylenes, Total	U		0.00113	0.00837	1.07	12/31/2023 12:28	WG2198759
(S) Toluene-d8	*96.4*			*75.0-131*		*12/31/2023 12:28*	WG2198759
(S) 4-Bromofluorobenzene	*92.8*			*67.0-138*		*12/31/2023 12:28*	WG2198759
(S) 1,2-Dichloroethane-d4	*111*			*70.0-130*		*12/31/2023 12:28*	WG2198759

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		1.47	4.42	1	12/29/2023 03:21	WG2196546
Residual Range Organics (RRO)	U		3.68	11.0	1	12/29/2023 03:21	WG2196546
(S) o-Terphenyl	*51.0*			*18.0-148*		*12/29/2023 03:21*	WG2196546

Chlorinated Acid Herbicides (GC) by Method 8151A

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4-D	U		0.00776	0.0773	1	01/04/2024 04:00	WG2198863
Dalapon	U		0.0125	0.0773	1	01/04/2024 04:00	WG2198863
2,4-DB	U		0.0328	0.0773	1	01/04/2024 04:00	WG2198863
Dicamba	U		0.0173	0.0773	1	01/04/2024 04:00	WG2198863
Dichloroprop	U		0.0271	0.0773	1	01/04/2024 04:00	WG2198863
Dinoseb	U		0.00770	0.0773	1	01/04/2024 04:00	WG2198863
MCPA	U		0.489	7.18	1	01/04/2024 04:00	WG2198863
MCPP	U		0.405	7.18	1	01/04/2024 04:00	WG2198863
2,4,5-T	U		0.00941	0.0773	1	01/04/2024 04:00	WG2198863
2,4,5-TP (Silvex)	U		0.0118	0.0773	1	01/04/2024 04:00	WG2198863
(S) 2,4-Dichlorophenyl Acetic Acid	*56.2*			*22.0-132*		*01/04/2024 04:00*	WG2198863

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	U		0.00415	0.0221	1	01/02/2024 19:57	WG2199072
Alpha BHC	U		0.00407	0.0221	1	01/02/2024 19:57	WG2199072
Beta BHC	U		0.00419	0.0221	1	01/02/2024 19:57	WG2199072
Delta BHC	U		0.00382	0.0221	1	01/02/2024 19:57	WG2199072
Gamma BHC	U		0.00380	0.0221	1	01/02/2024 19:57	WG2199072
Chlordane	U		0.114	0.331	1	01/02/2024 19:57	WG2199072
4,4-DDD	U		0.00409	0.0221	1	01/02/2024 19:57	WG2199072
4,4-DDE	U		0.00404	0.0221	1	01/02/2024 19:57	WG2199072
4,4-DDT	U		0.00693	0.0221	1	01/02/2024 19:57	WG2199072
Dieldrin	U		0.00380	0.0221	1	01/02/2024 19:57	WG2199072
Endosulfan I	U		0.00401	0.0221	1	01/02/2024 19:57	WG2199072
Endosulfan II	U		0.00370	0.0221	1	01/02/2024 19:57	WG2199072
Endosulfan sulfate	U		0.00402	0.0221	1	01/02/2024 19:57	WG2199072
Endrin	U		0.00387	0.0221	1	01/02/2024 19:57	WG2199072
Endrin aldehyde	U		0.00375	0.0221	1	01/02/2024 19:57	WG2199072
Endrin ketone	U		0.00785	0.0221	1	01/02/2024 19:57	WG2199072
Heptachlor	U		0.00473	0.0221	1	01/02/2024 19:57	WG2199072
Heptachlor epoxide	U		0.00375	0.0221	1	01/02/2024 19:57	WG2199072
Hexachlorobenzene	U		0.00382	0.0221	1	01/02/2024 19:57	WG2199072
Methoxychlor	U		0.00535	0.0221	1	01/02/2024 19:57	WG2199072
Toxaphene	U		0.137	0.442	1	01/02/2024 19:57	WG2199072
(S) Decachlorobiphenyl	*63.4*			*10.0-135*		*01/02/2024 19:57*	WG2199072
(S) Tetrachloro-m-xylene	*64.0*			*10.0-139*		*01/02/2024 19:57*	WG2199072

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	U		0.0130	0.0376	1	01/02/2024 19:57	WG2199072
PCB 1221	U		0.0130	0.0376	1	01/02/2024 19:57	WG2199072
PCB 1232	U		0.0130	0.0376	1	01/02/2024 19:57	WG2199072
PCB 1242	U		0.0130	0.0376	1	01/02/2024 19:57	WG2199072
PCB 1248	U		0.00815	0.0188	1	01/02/2024 19:57	WG2199072
PCB 1254	U		0.00815	0.0188	1	01/02/2024 19:57	WG2199072
PCB 1260	U		0.00815	0.0188	1	01/02/2024 19:57	WG2199072
(S) Decachlorobiphenyl	*65.1*			*10.0-135*		*01/02/2024 19:57*	WG2199072
(S) Tetrachloro-m-xylene	*67.8*			*10.0-139*		*01/02/2024 19:57*	WG2199072

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.00254	0.00663	1	12/28/2023 05:50	WG2196235
Acenaphthene	U		0.00231	0.00663	1	12/28/2023 05:50	WG2196235
Acenaphthylene	U		0.00239	0.00663	1	12/28/2023 05:50	WG2196235
Benzo(a)anthracene	U		0.00191	0.00663	1	12/28/2023 05:50	WG2196235
Benzo(a)pyrene	U		0.00198	0.00663	1	12/28/2023 05:50	WG2196235
Benzo(b)fluoranthene	U		0.00169	0.00663	1	12/28/2023 05:50	WG2196235
Benzo(g,h,i)perylene	U		0.00196	0.00663	1	12/28/2023 05:50	WG2196235
Benzo(k)fluoranthene	U		0.00238	0.00663	1	12/28/2023 05:50	WG2196235
Chrysene	U		0.00256	0.00663	1	12/28/2023 05:50	WG2196235
Dibenz(a,h)anthracene	U		0.00190	0.00663	1	12/28/2023 05:50	WG2196235
Fluoranthene	U		0.00251	0.00663	1	12/28/2023 05:50	WG2196235
Fluorene	U		0.00226	0.00663	1	12/28/2023 05:50	WG2196235
Indeno(1,2,3-cd)pyrene	U		0.00200	0.00663	1	12/28/2023 05:50	WG2196235
Naphthalene	U		0.00451	0.0221	1	12/28/2023 05:50	WG2196235
Phenanthrene	U		0.00255	0.00663	1	12/28/2023 05:50	WG2196235
Pyrene	U		0.00221	0.00663	1	12/28/2023 05:50	WG2196235
1-Methylnaphthalene	U		0.00496	0.0221	1	12/28/2023 05:50	WG2196235
2-Methylnaphthalene	U		0.00472	0.0221	1	12/28/2023 05:50	WG2196235
2-Chloronaphthalene	U		0.00515	0.0221	1	12/28/2023 05:50	WG2196235
(S) p-Terphenyl-d14	*71.7*			*23.0-120*		*12/28/2023 05:50*	WG2196235
(S) Nitrobenzene-d5	*65.9*			*14.0-149*		*12/28/2023 05:50*	WG2196235
(S) 2-Fluorobiphenyl	*58.5*			*34.0-125*		*12/28/2023 05:50*	WG2196235

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	77.7		1	12/28/2023 09:30	WG2196668

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0649		0.0232	0.0515	1	12/30/2023 14:13	WG2196939

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	2.29		0.129	1.29	5	12/30/2023 12:55	WG2196274
Barium	96.6		0.196	3.22	5	12/30/2023 12:55	WG2196274
Cadmium	0.198	J	0.110	1.29	5	12/30/2023 12:55	WG2196274
Chromium	14.8		0.381	6.43	5	12/30/2023 12:55	WG2196274
Lead	42.3		0.127	2.57	5	12/30/2023 12:55	WG2196274
Selenium	0.331	J	0.232	3.22	5	12/30/2023 12:55	WG2196274
Silver	U		0.111	0.643	5	12/30/2023 12:55	WG2196274

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	11.0	B	2.06	6.05	41.5	12/31/2023 15:49	WG2198683
(S) a,a,a-Trifluorotoluene(FID)	*99.1*			*77.0-120*		*12/31/2023 15:49*	WG2198683

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	0.117	C3 J	0.0884	0.121	1.66	12/31/2023 05:10	WG2198385
Acrylonitrile	U		0.00874	0.0303	1.66	12/31/2023 05:10	WG2198385
Benzene	0.00145	J	0.00113	0.00242	1.66	12/31/2023 05:10	WG2198385
Bromobenzene	U		0.00217	0.0303	1.66	12/31/2023 05:10	WG2198385
Bromodichloromethane	U		0.00175	0.00605	1.66	12/31/2023 05:10	WG2198385
Bromoform	U	C3	0.00283	0.0605	1.66	12/31/2023 05:10	WG2198385
Bromomethane	U		0.00477	0.0303	1.66	12/31/2023 05:10	WG2198385
n-Butylbenzene	U		0.0127	0.0303	1.66	12/31/2023 05:10	WG2198385
sec-Butylbenzene	0.00709	J	0.00697	0.0303	1.66	12/31/2023 05:10	WG2198385
tert-Butylbenzene	U		0.00473	0.0121	1.66	12/31/2023 05:10	WG2198385
Carbon tetrachloride	U		0.00217	0.0121	1.66	12/31/2023 05:10	WG2198385
Chlorobenzene	0.00896		0.000509	0.00605	1.66	12/31/2023 05:10	WG2198385
Chlorodibromomethane	U		0.00149	0.00605	1.66	12/31/2023 05:10	WG2198385
Chloroethane	U		0.00411	0.0121	1.66	12/31/2023 05:10	WG2198385
Chloroform	U		0.00249	0.00605	1.66	12/31/2023 05:10	WG2198385
Chloromethane	U		0.0105	0.0303	1.66	12/31/2023 05:10	WG2198385
2-Chlorotoluene	U		0.00210	0.00605	1.66	12/31/2023 05:10	WG2198385
4-Chlorotoluene	U		0.00109	0.0121	1.66	12/31/2023 05:10	WG2198385
1,2-Dibromo-3-Chloropropane	U		0.00944	0.0605	1.66	12/31/2023 05:10	WG2198385
1,2-Dibromoethane	U		0.00158	0.00605	1.66	12/31/2023 05:10	WG2198385
Dibromomethane	U		0.00182	0.0121	1.66	12/31/2023 05:10	WG2198385
1,2-Dichlorobenzene	0.00400	J	0.00103	0.0121	1.66	12/31/2023 05:10	WG2198385
1,3-Dichlorobenzene	U		0.00145	0.0121	1.66	12/31/2023 05:10	WG2198385
1,4-Dichlorobenzene	0.0286		0.00169	0.0121	1.66	12/31/2023 05:10	WG2198385
Dichlorodifluoromethane	U		0.00390	0.0121	1.66	12/31/2023 05:10	WG2198385
1,1-Dichloroethane	U		0.00119	0.00605	1.66	12/31/2023 05:10	WG2198385
1,2-Dichloroethane	U		0.00158	0.00605	1.66	12/31/2023 05:10	WG2198385

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.00147	0.00605	1.66	12/31/2023 05:10	WG2198385
cis-1,2-Dichloroethene	U		0.00178	0.00605	1.66	12/31/2023 05:10	WG2198385
trans-1,2-Dichloroethene	U		0.00252	0.0121	1.66	12/31/2023 05:10	WG2198385
1,2-Dichloropropane	U		0.00344	0.0121	1.66	12/31/2023 05:10	WG2198385
1,1-Dichloropropene	U		0.00195	0.00605	1.66	12/31/2023 05:10	WG2198385
1,3-Dichloropropane	U		0.00121	0.0121	1.66	12/31/2023 05:10	WG2198385
cis-1,3-Dichloropropene	U		0.00184	0.00605	1.66	12/31/2023 05:10	WG2198385
trans-1,3-Dichloropropene	U		0.00276	0.0121	1.66	12/31/2023 05:10	WG2198385
2,2-Dichloropropane	U		0.00334	0.00605	1.66	12/31/2023 05:10	WG2198385
Di-isopropyl ether	U		0.000993	0.00242	1.66	12/31/2023 05:10	WG2198385
Ethylbenzene	0.00727		0.00178	0.00605	1.66	12/31/2023 05:10	WG2198385
Hexachloro-1,3-butadiene	U		0.0145	0.0605	1.66	12/31/2023 05:10	WG2198385
Isopropylbenzene	0.00551	J	0.00103	0.00605	1.66	12/31/2023 05:10	WG2198385
p-Isopropyltoluene	U		0.00617	0.0121	1.66	12/31/2023 05:10	WG2198385
2-Butanone (MEK)	U		0.153	0.242	1.66	12/31/2023 05:10	WG2198385
Methylene Chloride	U		0.0160	0.0605	1.66	12/31/2023 05:10	WG2198385
4-Methyl-2-pentanone (MIBK)	U		0.00551	0.0605	1.66	12/31/2023 05:10	WG2198385
Methyl tert-butyl ether	U		0.000848	0.00242	1.66	12/31/2023 05:10	WG2198385
Naphthalene	0.0284	C3 J	0.0118	0.0303	1.66	12/31/2023 05:10	WG2198385
n-Propylbenzene	0.0125		0.00231	0.0121	1.66	12/31/2023 05:10	WG2198385
Styrene	0.000727	J	0.000554	0.0303	1.66	12/31/2023 05:10	WG2198385
1,1,1,2-Tetrachloroethane	U		0.00229	0.00605	1.66	12/31/2023 05:10	WG2198385
1,1,2,2-Tetrachloroethane	U		0.00168	0.00605	1.66	12/31/2023 05:10	WG2198385
1,1,2-Trichlorotrifluoroethane	U		0.00182	0.00605	1.66	12/31/2023 05:10	WG2198385
Tetrachloroethene	U		0.00217	0.00605	1.66	12/31/2023 05:10	WG2198385
Toluene	0.00896	J	0.00315	0.0121	1.66	12/31/2023 05:10	WG2198385
1,2,3-Trichlorobenzene	U	C3	0.0178	0.0303	1.66	12/31/2023 05:10	WG2198385
1,2,4-Trichlorobenzene	U	C3	0.0106	0.0303	1.66	12/31/2023 05:10	WG2198385
1,1,1-Trichloroethane	U		0.00223	0.00605	1.66	12/31/2023 05:10	WG2198385
1,1,2-Trichloroethane	U		0.00145	0.00605	1.66	12/31/2023 05:10	WG2198385
Trichloroethene	U		0.00141	0.00242	1.66	12/31/2023 05:10	WG2198385
Trichlorofluoromethane	U		0.00200	0.00605	1.66	12/31/2023 05:10	WG2198385
1,2,3-Trichloropropane	U		0.00392	0.0303	1.66	12/31/2023 05:10	WG2198385
1,2,4-Trimethylbenzene	0.0110	J	0.00382	0.0121	1.66	12/31/2023 05:10	WG2198385
1,2,3-Trimethylbenzene	0.00448	J	0.00382	0.0121	1.66	12/31/2023 05:10	WG2198385
1,3,5-Trimethylbenzene	U		0.00484	0.0121	1.66	12/31/2023 05:10	WG2198385
Vinyl chloride	U		0.00282	0.00605	1.66	12/31/2023 05:10	WG2198385
Xylenes, Total	0.00781	J	0.00213	0.0158	1.66	12/31/2023 05:10	WG2198385
(S) Toluene-d8	*98.8*			*75.0-131*		*12/31/2023 05:10*	WG2198385
(S) 4-Bromofluorobenzene	*96.6*			*67.0-138*		*12/31/2023 05:10*	WG2198385
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*12/31/2023 05:10*	WG2198385

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	55.8	J	34.2	103	20	12/28/2023 21:04	WG2196979
Residual Range Organics (RRO)	457		85.7	257	20	12/28/2023 21:04	WG2196979
(S) o-Terphenyl	*68.4*	J7		*18.0-148*		*12/28/2023 21:04*	WG2196979

Sample Narrative:

L1691303-05 WG2196979: Sample resembles laboratory standard for Hydraulic Oil.

Chlorinated Acid Herbicides (GC) by Method 8151A

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4-D	U	Q	0.00903	0.0901	1	01/05/2024 23:38	WG2198864
Dalapon	U	Q	0.0145	0.0901	1	01/05/2024 23:38	WG2198864
2,4-DB	U	Q	0.0382	0.0901	1	01/05/2024 23:38	WG2198864
Dicamba	U	Q	0.0202	0.0901	1	01/05/2024 23:38	WG2198864
Dichloroprop	U	Q	0.0315	0.0901	1	01/05/2024 23:38	WG2198864
Dinoseb	U	Q	0.00897	0.0901	1	01/05/2024 23:38	WG2198864
MCPA	U	Q	0.570	8.36	1	01/05/2024 23:38	WG2198864
MCPP	U	Q	0.472	8.36	1	01/05/2024 23:38	WG2198864
2,4,5-T	U	Q	0.0110	0.0901	1	01/05/2024 23:38	WG2198864
2,4,5-TP (Silvex)	U	Q	0.0138	0.0901	1	01/05/2024 23:38	WG2198864
(S) 2,4-Dichlorophenyl Acetic Acid	*59.5*			*22.0-132*		*01/05/2024 23:38*	WG2198864

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	U	T8	0.00484	0.0257	1	01/02/2024 20:07	WG2199072
Alpha BHC	U	T8	0.00473	0.0257	1	01/02/2024 20:07	WG2199072
Beta BHC	U	T8	0.00488	0.0257	1	01/02/2024 20:07	WG2199072
Delta BHC	U	T8	0.00445	0.0257	1	01/02/2024 20:07	WG2199072
Gamma BHC	U	T8	0.00443	0.0257	1	01/02/2024 20:07	WG2199072
Chlordane	U	T8	0.133	0.386	1	01/02/2024 20:07	WG2199072
4,4-DDD	U	T8	0.00476	0.0257	1	01/02/2024 20:07	WG2199072
4,4-DDE	U	T8	0.00471	0.0257	1	01/02/2024 20:07	WG2199072
4,4-DDT	U	T8	0.00807	0.0257	1	01/02/2024 20:07	WG2199072
Dieldrin	U	T8	0.00443	0.0257	1	01/02/2024 20:07	WG2199072
Endosulfan I	U	T8	0.00467	0.0257	1	01/02/2024 20:07	WG2199072
Endosulfan II	U	T8	0.00431	0.0257	1	01/02/2024 20:07	WG2199072
Endosulfan sulfate	U	T8	0.00468	0.0257	1	01/02/2024 20:07	WG2199072
Endrin	U	T8	0.00450	0.0257	1	01/02/2024 20:07	WG2199072
Endrin aldehyde	U	T8	0.00436	0.0257	1	01/02/2024 20:07	WG2199072
Endrin ketone	U	T8	0.00915	0.0257	1	01/02/2024 20:07	WG2199072
Heptachlor	U	T8	0.00551	0.0257	1	01/02/2024 20:07	WG2199072
Heptachlor epoxide	U	T8	0.00436	0.0257	1	01/02/2024 20:07	WG2199072
Hexachlorobenzene	U	T8	0.00445	0.0257	1	01/02/2024 20:07	WG2199072
Methoxychlor	U	T8	0.00623	0.0257	1	01/02/2024 20:07	WG2199072
Toxaphene	U	T8	0.160	0.515	1	01/02/2024 20:07	WG2199072
(S) Decachlorobiphenyl	*53.3*			*10.0-135*		*01/02/2024 20:07*	WG2199072
(S) Tetrachloro-m-xylene	*58.0*			*10.0-139*		*01/02/2024 20:07*	WG2199072

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	U		0.0152	0.0437	1	01/02/2024 20:07	WG2199072
PCB 1221	U		0.0152	0.0437	1	01/02/2024 20:07	WG2199072
PCB 1232	U		0.0152	0.0437	1	01/02/2024 20:07	WG2199072
PCB 1242	U		0.0152	0.0437	1	01/02/2024 20:07	WG2199072
PCB 1248	U		0.00950	0.0219	1	01/02/2024 20:07	WG2199072
PCB 1254	U		0.00950	0.0219	1	01/02/2024 20:07	WG2199072
PCB 1260	U		0.00950	0.0219	1	01/02/2024 20:07	WG2199072
(S) Decachlorobiphenyl	*54.4*			*10.0-135*		*01/02/2024 20:07*	WG2199072
(S) Tetrachloro-m-xylene	*61.3*			*10.0-139*		*01/02/2024 20:07*	WG2199072

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.00296	0.00772	1	12/28/2023 07:00	WG2196235
Acenaphthene	U		0.00269	0.00772	1	12/28/2023 07:00	WG2196235
Acenaphthylene	U		0.00278	0.00772	1	12/28/2023 07:00	WG2196235
Benzo(a)anthracene	0.0149		0.00223	0.00772	1	12/28/2023 07:00	WG2196235
Benzo(a)pyrene	0.0210		0.00230	0.00772	1	12/28/2023 07:00	WG2196235
Benzo(b)fluoranthene	0.0205		0.00197	0.00772	1	12/28/2023 07:00	WG2196235
Benzo(g,h,i)perylene	0.0183		0.00228	0.00772	1	12/28/2023 07:00	WG2196235
Benzo(k)fluoranthene	0.00686	J	0.00277	0.00772	1	12/28/2023 07:00	WG2196235
Chrysene	0.0193		0.00298	0.00772	1	12/28/2023 07:00	WG2196235
Dibenz(a,h)anthracene	0.00309	J	0.00221	0.00772	1	12/28/2023 07:00	WG2196235
Fluoranthene	0.0289		0.00292	0.00772	1	12/28/2023 07:00	WG2196235
Fluorene	0.00643	J	0.00264	0.00772	1	12/28/2023 07:00	WG2196235
Indeno(1,2,3-cd)pyrene	0.0171		0.00233	0.00772	1	12/28/2023 07:00	WG2196235
Naphthalene	0.0237	J	0.00525	0.0257	1	12/28/2023 07:00	WG2196235
Phenanthrene	0.0305		0.00297	0.00772	1	12/28/2023 07:00	WG2196235
Pyrene	0.0383		0.00257	0.00772	1	12/28/2023 07:00	WG2196235
1-Methylnaphthalene	0.0107	J	0.00578	0.0257	1	12/28/2023 07:00	WG2196235
2-Methylnaphthalene	0.0144	J	0.00549	0.0257	1	12/28/2023 07:00	WG2196235
2-Chloronaphthalene	U		0.00600	0.0257	1	12/28/2023 07:00	WG2196235
(S) p-Terphenyl-d14	*77.1*			*23.0-120*		*12/28/2023 07:00*	WG2196235
(S) Nitrobenzene-d5	*76.5*			*14.0-149*		*12/28/2023 07:00*	WG2196235
(S) 2-Fluorobiphenyl	*68.8*			*34.0-125*		*12/28/2023 07:00*	WG2196235

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.3		1	12/28/2023 09:30	WG2196668

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.134		0.0224	0.0498	1	12/30/2023 14:15	WG2196939

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	7.64		0.125	1.25	5	12/30/2023 12:58	WG2196274
Barium	247		0.189	3.11	5	12/30/2023 12:58	WG2196274
Cadmium	6.89		0.107	1.25	5	12/30/2023 12:58	WG2196274
Chromium	32.2		0.369	6.23	5	12/30/2023 12:58	WG2196274
Lead	306		0.123	2.49	5	12/30/2023 12:58	WG2196274
Selenium	0.358	J	0.224	3.11	5	12/30/2023 12:58	WG2196274
Silver	U		0.108	0.623	5	12/30/2023 12:58	WG2196274

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	12.0	B	1.28	3.77	25.3	01/04/2024 21:56	WG2200683
(S) a,a,a-Trifluorotoluene(FID)	*98.9*			*77.0-120*		*01/04/2024 21:56*	WG2200683

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U	C3	0.0549	0.0752	1.01	12/31/2023 12:47	WG2198759
Acrylonitrile	U		0.00543	0.0188	1.01	12/31/2023 12:47	WG2198759
Benzene	U		0.000703	0.00150	1.01	12/31/2023 12:47	WG2198759
Bromobenzene	U		0.00135	0.0188	1.01	12/31/2023 12:47	WG2198759
Bromodichloromethane	U		0.00109	0.00377	1.01	12/31/2023 12:47	WG2198759
Bromoform	U		0.00176	0.0377	1.01	12/31/2023 12:47	WG2198759
Bromomethane	U		0.00296	0.0188	1.01	12/31/2023 12:47	WG2198759
n-Butylbenzene	U		0.00789	0.0188	1.01	12/31/2023 12:47	WG2198759
sec-Butylbenzene	0.00493	J	0.00433	0.0188	1.01	12/31/2023 12:47	WG2198759
tert-Butylbenzene	U		0.00293	0.00752	1.01	12/31/2023 12:47	WG2198759
Carbon tetrachloride	U		0.00135	0.00752	1.01	12/31/2023 12:47	WG2198759
Chlorobenzene	0.00188	J	0.000316	0.00377	1.01	12/31/2023 12:47	WG2198759
Chlorodibromomethane	U		0.000920	0.00377	1.01	12/31/2023 12:47	WG2198759
Chloroethane	U		0.00256	0.00752	1.01	12/31/2023 12:47	WG2198759
Chloroform	U		0.00155	0.00377	1.01	12/31/2023 12:47	WG2198759
Chloromethane	U		0.00654	0.0188	1.01	12/31/2023 12:47	WG2198759
2-Chlorotoluene	0.00170	J	0.00130	0.00377	1.01	12/31/2023 12:47	WG2198759
4-Chlorotoluene	U		0.000677	0.00752	1.01	12/31/2023 12:47	WG2198759
1,2-Dibromo-3-Chloropropane	U		0.00587	0.0377	1.01	12/31/2023 12:47	WG2198759
1,2-Dibromoethane	U		0.000974	0.00377	1.01	12/31/2023 12:47	WG2198759
Dibromomethane	U		0.00113	0.00752	1.01	12/31/2023 12:47	WG2198759
1,2-Dichlorobenzene	U		0.000639	0.00752	1.01	12/31/2023 12:47	WG2198759
1,3-Dichlorobenzene	U		0.000902	0.00752	1.01	12/31/2023 12:47	WG2198759
1,4-Dichlorobenzene	0.0198		0.00105	0.00752	1.01	12/31/2023 12:47	WG2198759
Dichlorodifluoromethane	U		0.00243	0.00752	1.01	12/31/2023 12:47	WG2198759
1,1-Dichloroethane	U		0.000738	0.00377	1.01	12/31/2023 12:47	WG2198759
1,2-Dichloroethane	U		0.000975	0.00377	1.01	12/31/2023 12:47	WG2198759

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.000911	0.00377	1.01	12/31/2023 12:47	WG2198759
cis-1,2-Dichloroethene	U		0.00110	0.00377	1.01	12/31/2023 12:47	WG2198759
trans-1,2-Dichloroethene	U		0.00156	0.00752	1.01	12/31/2023 12:47	WG2198759
1,2-Dichloropropane	U		0.00213	0.00752	1.01	12/31/2023 12:47	WG2198759
1,1-Dichloropropene	U		0.00122	0.00377	1.01	12/31/2023 12:47	WG2198759
1,3-Dichloropropane	U		0.000753	0.00752	1.01	12/31/2023 12:47	WG2198759
cis-1,3-Dichloropropene	U		0.00114	0.00377	1.01	12/31/2023 12:47	WG2198759
trans-1,3-Dichloropropene	U		0.00171	0.00752	1.01	12/31/2023 12:47	WG2198759
2,2-Dichloropropane	U		0.00207	0.00377	1.01	12/31/2023 12:47	WG2198759
Di-isopropyl ether	U		0.000616	0.00150	1.01	12/31/2023 12:47	WG2198759
Ethylbenzene	0.00924		0.00111	0.00377	1.01	12/31/2023 12:47	WG2198759
Hexachloro-1,3-butadiene	U		0.00902	0.0377	1.01	12/31/2023 12:47	WG2198759
Isopropylbenzene	0.00271	J	0.000639	0.00377	1.01	12/31/2023 12:47	WG2198759
p-Isopropyltoluene	0.0269		0.00384	0.00752	1.01	12/31/2023 12:47	WG2198759
2-Butanone (MEK)	U		0.0954	0.150	1.01	12/31/2023 12:47	WG2198759
Methylene Chloride	U		0.00999	0.0377	1.01	12/31/2023 12:47	WG2198759
4-Methyl-2-pentanone (MIBK)	U		0.00342	0.0377	1.01	12/31/2023 12:47	WG2198759
Methyl tert-butyl ether	U		0.000526	0.00150	1.01	12/31/2023 12:47	WG2198759
Naphthalene	U	C3	0.00734	0.0188	1.01	12/31/2023 12:47	WG2198759
n-Propylbenzene	0.00508	J	0.00143	0.00752	1.01	12/31/2023 12:47	WG2198759
Styrene	U		0.000344	0.0188	1.01	12/31/2023 12:47	WG2198759
1,1,1,2-Tetrachloroethane	U		0.00142	0.00377	1.01	12/31/2023 12:47	WG2198759
1,1,2,2-Tetrachloroethane	U		0.00105	0.00377	1.01	12/31/2023 12:47	WG2198759
1,1,2-Trichlorotrifluoroethane	U		0.00113	0.00377	1.01	12/31/2023 12:47	WG2198759
Tetrachloroethene	U		0.00135	0.00377	1.01	12/31/2023 12:47	WG2198759
Toluene	0.00447	J	0.00195	0.00752	1.01	12/31/2023 12:47	WG2198759
1,2,3-Trichlorobenzene	U		0.0110	0.0188	1.01	12/31/2023 12:47	WG2198759
1,2,4-Trichlorobenzene	U		0.00661	0.0188	1.01	12/31/2023 12:47	WG2198759
1,1,1-Trichloroethane	U		0.00139	0.00377	1.01	12/31/2023 12:47	WG2198759
1,1,2-Trichloroethane	U		0.000898	0.00377	1.01	12/31/2023 12:47	WG2198759
Trichloroethene	U		0.000878	0.00150	1.01	12/31/2023 12:47	WG2198759
Trichlorofluoromethane	U		0.00124	0.00377	1.01	12/31/2023 12:47	WG2198759
1,2,3-Trichloropropane	U		0.00244	0.0188	1.01	12/31/2023 12:47	WG2198759
1,2,4-Trimethylbenzene	0.0201		0.00238	0.00752	1.01	12/31/2023 12:47	WG2198759
1,2,3-Trimethylbenzene	0.0128		0.00238	0.00752	1.01	12/31/2023 12:47	WG2198759
1,3,5-Trimethylbenzene	0.00621	J	0.00301	0.00752	1.01	12/31/2023 12:47	WG2198759
Vinyl chloride	U		0.00174	0.00377	1.01	12/31/2023 12:47	WG2198759
Xylenes, Total	0.0185		0.00132	0.00977	1.01	12/31/2023 12:47	WG2198759
(S) Toluene-d8	*101*			*75.0-131*		*12/31/2023 12:47*	WG2198759
(S) 4-Bromofluorobenzene	*96.4*			*67.0-138*		*12/31/2023 12:47*	WG2198759
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*12/31/2023 12:47*	WG2198759

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	174		8.28	24.9	5	12/28/2023 17:42	WG2196980
Residual Range Organics (RRO)	300		20.7	62.3	5	12/28/2023 17:42	WG2196980
(S) o-Terphenyl	*59.9*			*18.0-148*		*12/28/2023 17:42*	WG2196980

Chlorinated Acid Herbicides (GC) by Method 8151A

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4-D	U		0.00874	0.0872	1	01/05/2024 23:48	WG2198864
Dalapon	U		0.0141	0.0872	1	01/05/2024 23:48	WG2198864
2,4-DB	U		0.0370	0.0872	1	01/05/2024 23:48	WG2198864
Dicamba	U		0.0196	0.0872	1	01/05/2024 23:48	WG2198864
Dichloroprop	U		0.0305	0.0872	1	01/05/2024 23:48	WG2198864
Dinoseb	U		0.00868	0.0872	1	01/05/2024 23:48	WG2198864
MCPA	U		0.552	8.10	1	01/05/2024 23:48	WG2198864
MCPP	U		0.457	8.10	1	01/05/2024 23:48	WG2198864
2,4,5-T	U		0.0106	0.0872	1	01/05/2024 23:48	WG2198864
2,4,5-TP (Silvex)	U		0.0133	0.0872	1	01/05/2024 23:48	WG2198864
(S) 2,4-Dichlorophenyl Acetic Acid	*48.7*			*22.0-132*		*01/05/2024 23:48*	WG2198864

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	U		0.00468	0.0249	1	01/02/2024 20:17	WG2199072
Alpha BHC	U		0.00458	0.0249	1	01/02/2024 20:17	WG2199072
Beta BHC	U		0.00472	0.0249	1	01/02/2024 20:17	WG2199072
Delta BHC	U		0.00431	0.0249	1	01/02/2024 20:17	WG2199072
Gamma BHC	U		0.00429	0.0249	1	01/02/2024 20:17	WG2199072
Chlordane	U		0.128	0.374	1	01/02/2024 20:17	WG2199072
4,4-DDD	U		0.00461	0.0249	1	01/02/2024 20:17	WG2199072
4,4-DDE	U		0.00456	0.0249	1	01/02/2024 20:17	WG2199072
4,4-DDT	U		0.00781	0.0249	1	01/02/2024 20:17	WG2199072
Dieldrin	U		0.00429	0.0249	1	01/02/2024 20:17	WG2199072
Endosulfan I	U		0.00452	0.0249	1	01/02/2024 20:17	WG2199072
Endosulfan II	U		0.00417	0.0249	1	01/02/2024 20:17	WG2199072
Endosulfan sulfate	U		0.00453	0.0249	1	01/02/2024 20:17	WG2199072
Endrin	U		0.00436	0.0249	1	01/02/2024 20:17	WG2199072
Endrin aldehyde	U		0.00422	0.0249	1	01/02/2024 20:17	WG2199072
Endrin ketone	U		0.00886	0.0249	1	01/02/2024 20:17	WG2199072
Heptachlor	U		0.00533	0.0249	1	01/02/2024 20:17	WG2199072
Heptachlor epoxide	U		0.00422	0.0249	1	01/02/2024 20:17	WG2199072
Hexachlorobenzene	U		0.00431	0.0249	1	01/02/2024 20:17	WG2199072
Methoxychlor	U		0.00603	0.0249	1	01/02/2024 20:17	WG2199072
Toxaphene	U		0.154	0.498	1	01/02/2024 20:17	WG2199072
(S) Decachlorobiphenyl	*39.8*			*10.0-135*		*01/02/2024 20:17*	WG2199072
(S) Tetrachloro-m-xylene	*47.2*			*10.0-139*		*01/02/2024 20:17*	WG2199072

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	U		0.0147	0.0424	1	01/02/2024 20:17	WG2199072
PCB 1221	U		0.0147	0.0424	1	01/02/2024 20:17	WG2199072
PCB 1232	U		0.0147	0.0424	1	01/02/2024 20:17	WG2199072
PCB 1242	U		0.0147	0.0424	1	01/02/2024 20:17	WG2199072
PCB 1248	U		0.00919	0.0212	1	01/02/2024 20:17	WG2199072
PCB 1254	U		0.00919	0.0212	1	01/02/2024 20:17	WG2199072
PCB 1260	U		0.00919	0.0212	1	01/02/2024 20:17	WG2199072
(S) Decachlorobiphenyl	*39.8*			*10.0-135*		*01/02/2024 20:17*	WG2199072
(S) Tetrachloro-m-xylene	*50.2*			*10.0-139*		*01/02/2024 20:17*	WG2199072

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	0.0106		0.00287	0.00747	1	12/28/2023 07:17	WG2196235
Acenaphthene	0.00705	J	0.00260	0.00747	1	12/28/2023 07:17	WG2196235
Acenaphthylene	0.00893		0.00269	0.00747	1	12/28/2023 07:17	WG2196235
Benzo(a)anthracene	0.0249		0.00216	0.00747	1	12/28/2023 07:17	WG2196235
Benzo(a)pyrene	0.0399		0.00223	0.00747	1	12/28/2023 07:17	WG2196235
Benzo(b)fluoranthene	0.0426		0.00191	0.00747	1	12/28/2023 07:17	WG2196235
Benzo(g,h,i)perylene	0.0358		0.00220	0.00747	1	12/28/2023 07:17	WG2196235
Benzo(k)fluoranthene	0.0132		0.00268	0.00747	1	12/28/2023 07:17	WG2196235
Chrysene	0.0304		0.00289	0.00747	1	12/28/2023 07:17	WG2196235
Dibenz(a,h)anthracene	0.00868		0.00214	0.00747	1	12/28/2023 07:17	WG2196235
Fluoranthene	0.0719		0.00283	0.00747	1	12/28/2023 07:17	WG2196235
Fluorene	0.00481	J	0.00255	0.00747	1	12/28/2023 07:17	WG2196235
Indeno(1,2,3-cd)pyrene	0.0356		0.00225	0.00747	1	12/28/2023 07:17	WG2196235
Naphthalene	U		0.00508	0.0249	1	12/28/2023 07:17	WG2196235
Phenanthrene	0.00997		0.00288	0.00747	1	12/28/2023 07:17	WG2196235
Pyrene	0.0840		0.00249	0.00747	1	12/28/2023 07:17	WG2196235
1-Methylnaphthalene	U		0.00559	0.0249	1	12/28/2023 07:17	WG2196235
2-Methylnaphthalene	U		0.00532	0.0249	1	12/28/2023 07:17	WG2196235
2-Chloronaphthalene	U		0.00580	0.0249	1	12/28/2023 07:17	WG2196235
(S) p-Terphenyl-d14	*74.5*			*23.0-120*		*12/28/2023 07:17*	WG2196235
(S) Nitrobenzene-d5	*68.3*			*14.0-149*		*12/28/2023 07:17*	WG2196235
(S) 2-Fluorobiphenyl	*63.8*			*34.0-125*		*12/28/2023 07:17*	WG2196235

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.1		1	12/28/2023 09:30	WG2196668

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	U		0.0222	0.0493	1	12/30/2023 14:18	WG2196939

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	3.98		0.123	1.23	5	12/30/2023 13:08	WG2196274
Barium	126		0.187	3.08	5	12/30/2023 13:08	WG2196274
Cadmium	0.127	J	0.105	1.23	5	12/30/2023 13:08	WG2196274
Chromium	12.7		0.365	6.16	5	12/30/2023 13:08	WG2196274
Lead	11.0		0.122	2.47	5	12/30/2023 13:08	WG2196274
Selenium	0.431	J	0.222	3.08	5	12/30/2023 13:08	WG2196274
Silver	U		0.107	0.616	5	12/30/2023 13:08	WG2196274

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		1.33	3.91	27	01/04/2024 22:23	WG2200683
(S) a,a,a-Trifluorotoluene(FID)	*97.9*			*77.0-120*		*01/04/2024 22:23*	WG2200683

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	0.0611	C3 J	0.0571	0.0782	1.08	12/31/2023 13:06	WG2198759
Acrylonitrile	U		0.00565	0.0196	1.08	12/31/2023 13:06	WG2198759
Benzene	U		0.000730	0.00156	1.08	12/31/2023 13:06	WG2198759
Bromobenzene	U		0.00141	0.0196	1.08	12/31/2023 13:06	WG2198759
Bromodichloromethane	U		0.00113	0.00391	1.08	12/31/2023 13:06	WG2198759
Bromoform	U		0.00182	0.0391	1.08	12/31/2023 13:06	WG2198759
Bromomethane	U		0.00308	0.0196	1.08	12/31/2023 13:06	WG2198759
n-Butylbenzene	U		0.00821	0.0196	1.08	12/31/2023 13:06	WG2198759
sec-Butylbenzene	U		0.00450	0.0196	1.08	12/31/2023 13:06	WG2198759
tert-Butylbenzene	U		0.00306	0.00782	1.08	12/31/2023 13:06	WG2198759
Carbon tetrachloride	U		0.00140	0.00782	1.08	12/31/2023 13:06	WG2198759
Chlorobenzene	U		0.000329	0.00391	1.08	12/31/2023 13:06	WG2198759
Chlorodibromomethane	U		0.000957	0.00391	1.08	12/31/2023 13:06	WG2198759
Chloroethane	U		0.00266	0.00782	1.08	12/31/2023 13:06	WG2198759
Chloroform	U		0.00161	0.00391	1.08	12/31/2023 13:06	WG2198759
Chloromethane	U		0.00681	0.0196	1.08	12/31/2023 13:06	WG2198759
2-Chlorotoluene	U		0.00135	0.00391	1.08	12/31/2023 13:06	WG2198759
4-Chlorotoluene	U		0.000704	0.00782	1.08	12/31/2023 13:06	WG2198759
1,2-Dibromo-3-Chloropropane	U		0.00610	0.0391	1.08	12/31/2023 13:06	WG2198759
1,2-Dibromoethane	U		0.00101	0.00391	1.08	12/31/2023 13:06	WG2198759
Dibromomethane	U		0.00117	0.00782	1.08	12/31/2023 13:06	WG2198759
1,2-Dichlorobenzene	U		0.000665	0.00782	1.08	12/31/2023 13:06	WG2198759
1,3-Dichlorobenzene	U		0.000939	0.00782	1.08	12/31/2023 13:06	WG2198759
1,4-Dichlorobenzene	U		0.00109	0.00782	1.08	12/31/2023 13:06	WG2198759
Dichlorodifluoromethane	U		0.00252	0.00782	1.08	12/31/2023 13:06	WG2198759
1,1-Dichloroethane	U		0.000768	0.00391	1.08	12/31/2023 13:06	WG2198759
1,2-Dichloroethane	U		0.00102	0.00391	1.08	12/31/2023 13:06	WG2198759

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.000947	0.00391	1.08	12/31/2023 13:06	WG2198759
cis-1,2-Dichloroethene	U		0.00115	0.00391	1.08	12/31/2023 13:06	WG2198759
trans-1,2-Dichloroethene	U		0.00162	0.00782	1.08	12/31/2023 13:06	WG2198759
1,2-Dichloropropane	U		0.00222	0.00782	1.08	12/31/2023 13:06	WG2198759
1,1-Dichloropropene	U		0.00127	0.00391	1.08	12/31/2023 13:06	WG2198759
1,3-Dichloropropane	U		0.000784	0.00782	1.08	12/31/2023 13:06	WG2198759
cis-1,3-Dichloropropene	U		0.00118	0.00391	1.08	12/31/2023 13:06	WG2198759
trans-1,3-Dichloropropene	U		0.00178	0.00782	1.08	12/31/2023 13:06	WG2198759
2,2-Dichloropropane	U		0.00216	0.00391	1.08	12/31/2023 13:06	WG2198759
Di-isopropyl ether	U		0.000642	0.00156	1.08	12/31/2023 13:06	WG2198759
Ethylbenzene	U		0.00115	0.00391	1.08	12/31/2023 13:06	WG2198759
Hexachloro-1,3-butadiene	U		0.00939	0.0391	1.08	12/31/2023 13:06	WG2198759
Isopropylbenzene	U		0.000665	0.00391	1.08	12/31/2023 13:06	WG2198759
p-Isopropyltoluene	U		0.00398	0.00782	1.08	12/31/2023 13:06	WG2198759
2-Butanone (MEK)	U		0.0994	0.156	1.08	12/31/2023 13:06	WG2198759
Methylene Chloride	U		0.0104	0.0391	1.08	12/31/2023 13:06	WG2198759
4-Methyl-2-pentanone (MIBK)	U		0.00356	0.0391	1.08	12/31/2023 13:06	WG2198759
Methyl tert-butyl ether	U		0.000547	0.00156	1.08	12/31/2023 13:06	WG2198759
Naphthalene	U	C3	0.00763	0.0196	1.08	12/31/2023 13:06	WG2198759
n-Propylbenzene	U		0.00149	0.00782	1.08	12/31/2023 13:06	WG2198759
Styrene	U		0.000358	0.0196	1.08	12/31/2023 13:06	WG2198759
1,1,1,2-Tetrachloroethane	U		0.00148	0.00391	1.08	12/31/2023 13:06	WG2198759
1,1,2,2-Tetrachloroethane	U		0.00109	0.00391	1.08	12/31/2023 13:06	WG2198759
1,1,2-Trichlorotrifluoroethane	U		0.00118	0.00391	1.08	12/31/2023 13:06	WG2198759
Tetrachloroethene	U		0.00140	0.00391	1.08	12/31/2023 13:06	WG2198759
Toluene	U		0.00203	0.00782	1.08	12/31/2023 13:06	WG2198759
1,2,3-Trichlorobenzene	U		0.0115	0.0196	1.08	12/31/2023 13:06	WG2198759
1,2,4-Trichlorobenzene	U		0.00688	0.0196	1.08	12/31/2023 13:06	WG2198759
1,1,1-Trichloroethane	U		0.00144	0.00391	1.08	12/31/2023 13:06	WG2198759
1,1,2-Trichloroethane	U		0.000934	0.00391	1.08	12/31/2023 13:06	WG2198759
Trichloroethene	U		0.000914	0.00156	1.08	12/31/2023 13:06	WG2198759
Trichlorofluoromethane	U		0.00129	0.00391	1.08	12/31/2023 13:06	WG2198759
1,2,3-Trichloropropane	U		0.00253	0.0196	1.08	12/31/2023 13:06	WG2198759
1,2,4-Trimethylbenzene	U		0.00248	0.00782	1.08	12/31/2023 13:06	WG2198759
1,2,3-Trimethylbenzene	U		0.00248	0.00782	1.08	12/31/2023 13:06	WG2198759
1,3,5-Trimethylbenzene	U		0.00313	0.00782	1.08	12/31/2023 13:06	WG2198759
Vinyl chloride	U		0.00181	0.00391	1.08	12/31/2023 13:06	WG2198759
Xylenes, Total	U		0.00138	0.0102	1.08	12/31/2023 13:06	WG2198759
(S) Toluene-d8	*99.8*			*75.0-131*		*12/31/2023 13:06*	WG2198759
(S) 4-Bromofluorobenzene	*92.4*			*67.0-138*		*12/31/2023 13:06*	WG2198759
(S) 1,2-Dichloroethane-d4	*112*			*70.0-130*		*12/31/2023 13:06*	WG2198759

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	1.89	J	1.64	4.93	1	12/28/2023 17:18	WG2196980
Residual Range Organics (RRO)	6.12	J	4.11	12.3	1	12/28/2023 17:18	WG2196980
(S) o-Terphenyl	*61.3*			*18.0-148*		*12/28/2023 17:18*	WG2196980

Chlorinated Acid Herbicides (GC) by Method 8151A

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4-D	U		0.00866	0.0863	1	01/05/2024 23:58	WG2198864
Dalapon	U		0.0139	0.0863	1	01/05/2024 23:58	WG2198864
2,4-DB	U		0.0366	0.0863	1	01/05/2024 23:58	WG2198864
Dicamba	U		0.0194	0.0863	1	01/05/2024 23:58	WG2198864
Dichloroprop	U		0.0302	0.0863	1	01/05/2024 23:58	WG2198864
Dinoseb	U		0.00859	0.0863	1	01/05/2024 23:58	WG2198864
MCPA	U		0.546	8.01	1	01/05/2024 23:58	WG2198864
MCPP	U		0.452	8.01	1	01/05/2024 23:58	WG2198864
2,4,5-T	U		0.0105	0.0863	1	01/05/2024 23:58	WG2198864
2,4,5-TP (Silvex)	U		0.0132	0.0863	1	01/05/2024 23:58	WG2198864
(S) 2,4-Dichlorophenyl Acetic Acid	*45.6*			*22.0-132*		*01/05/2024 23:58*	WG2198864

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	U		0.00464	0.0247	1	01/02/2024 20:27	WG2199072
Alpha BHC	U		0.00454	0.0247	1	01/02/2024 20:27	WG2199072
Beta BHC	U		0.00467	0.0247	1	01/02/2024 20:27	WG2199072
Delta BHC	U		0.00427	0.0247	1	01/02/2024 20:27	WG2199072
Gamma BHC	U		0.00424	0.0247	1	01/02/2024 20:27	WG2199072
Chlordane	U		0.127	0.370	1	01/02/2024 20:27	WG2199072
4,4-DDD	U		0.00456	0.0247	1	01/02/2024 20:27	WG2199072
4,4-DDE	U		0.00451	0.0247	1	01/02/2024 20:27	WG2199072
4,4-DDT	U		0.00773	0.0247	1	01/02/2024 20:27	WG2199072
Dieldrin	U		0.00424	0.0247	1	01/02/2024 20:27	WG2199072
Endosulfan I	U		0.00448	0.0247	1	01/02/2024 20:27	WG2199072
Endosulfan II	U		0.00413	0.0247	1	01/02/2024 20:27	WG2199072
Endosulfan sulfate	U		0.00449	0.0247	1	01/02/2024 20:27	WG2199072
Endrin	U		0.00432	0.0247	1	01/02/2024 20:27	WG2199072
Endrin aldehyde	U		0.00418	0.0247	1	01/02/2024 20:27	WG2199072
Endrin ketone	U		0.00877	0.0247	1	01/02/2024 20:27	WG2199072
Heptachlor	U		0.00528	0.0247	1	01/02/2024 20:27	WG2199072
Heptachlor epoxide	U		0.00418	0.0247	1	01/02/2024 20:27	WG2199072
Hexachlorobenzene	U		0.00427	0.0247	1	01/02/2024 20:27	WG2199072
Methoxychlor	U		0.00597	0.0247	1	01/02/2024 20:27	WG2199072
Toxaphene	U		0.153	0.493	1	01/02/2024 20:27	WG2199072
(S) Decachlorobiphenyl	*43.9*			*10.0-135*		*01/02/2024 20:27*	WG2199072
(S) Tetrachloro-m-xylene	*50.2*			*10.0-139*		*01/02/2024 20:27*	WG2199072

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	U		0.0145	0.0419	1	01/02/2024 20:27	WG2199072
PCB 1221	U		0.0145	0.0419	1	01/02/2024 20:27	WG2199072
PCB 1232	U		0.0145	0.0419	1	01/02/2024 20:27	WG2199072
PCB 1242	U		0.0145	0.0419	1	01/02/2024 20:27	WG2199072
PCB 1248	U		0.00910	0.0210	1	01/02/2024 20:27	WG2199072
PCB 1254	U		0.00910	0.0210	1	01/02/2024 20:27	WG2199072
PCB 1260	U		0.00910	0.0210	1	01/02/2024 20:27	WG2199072
(S) Decachlorobiphenyl	*42.8*			*10.0-135*		*01/02/2024 20:27*	WG2199072
(S) Tetrachloro-m-xylene	*53.4*			*10.0-139*		*01/02/2024 20:27*	WG2199072

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.00284	0.00740	1	12/28/2023 06:07	WG2196235
Acenaphthene	U		0.00258	0.00740	1	12/28/2023 06:07	WG2196235
Acenaphthylene	U		0.00266	0.00740	1	12/28/2023 06:07	WG2196235
Benzo(a)anthracene	U		0.00213	0.00740	1	12/28/2023 06:07	WG2196235
Benzo(a)pyrene	U		0.00221	0.00740	1	12/28/2023 06:07	WG2196235
Benzo(b)fluoranthene	U		0.00189	0.00740	1	12/28/2023 06:07	WG2196235
Benzo(g,h,i)perylene	U		0.00218	0.00740	1	12/28/2023 06:07	WG2196235
Benzo(k)fluoranthene	U		0.00265	0.00740	1	12/28/2023 06:07	WG2196235
Chrysene	U		0.00286	0.00740	1	12/28/2023 06:07	WG2196235
Dibenz(a,h)anthracene	U		0.00212	0.00740	1	12/28/2023 06:07	WG2196235
Fluoranthene	U		0.00280	0.00740	1	12/28/2023 06:07	WG2196235
Fluorene	U		0.00253	0.00740	1	12/28/2023 06:07	WG2196235
Indeno(1,2,3-cd)pyrene	U		0.00223	0.00740	1	12/28/2023 06:07	WG2196235
Naphthalene	U		0.00503	0.0247	1	12/28/2023 06:07	WG2196235
Phenanthrene	U		0.00285	0.00740	1	12/28/2023 06:07	WG2196235
Pyrene	U		0.00247	0.00740	1	12/28/2023 06:07	WG2196235
1-Methylnaphthalene	U		0.00554	0.0247	1	12/28/2023 06:07	WG2196235
2-Methylnaphthalene	U		0.00526	0.0247	1	12/28/2023 06:07	WG2196235
2-Chloronaphthalene	U		0.00575	0.0247	1	12/28/2023 06:07	WG2196235
(S) p-Terphenyl-d14	*73.1*			*23.0-120*		*12/28/2023 06:07*	WG2196235
(S) Nitrobenzene-d5	*64.3*			*14.0-149*		*12/28/2023 06:07*	WG2196235
(S) 2-Fluorobiphenyl	*59.5*			*34.0-125*		*12/28/2023 06:07*	WG2196235

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	70.8		1	12/28/2023 10:14	WG2197015

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.367		0.0254	0.0565	1	12/30/2023 14:20	WG2196939

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	13.6		0.141	1.41	5	12/30/2023 13:12	WG2196274
Barium	121		0.215	3.53	5	12/30/2023 13:12	WG2196274
Cadmium	2.00		0.121	1.41	5	12/30/2023 13:12	WG2196274
Chromium	109		0.418	7.06	5	12/30/2023 13:12	WG2196274
Lead	107		0.140	2.82	5	12/30/2023 13:12	WG2196274
Selenium	0.441	J	0.254	3.53	5	12/30/2023 13:12	WG2196274
Silver	2.31		0.122	0.706	5	12/30/2023 13:12	WG2196274

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	43.1		2.21	6.54	39	01/04/2024 22:46	WG2200683
(S) a,a,a-Trifluorotoluene(FID)	*99.2*			*77.0-120*		*01/04/2024 22:46*	WG2200683

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U	C3	0.0954	0.131	1.56	12/31/2023 13:25	WG2198759
Acrylonitrile	U		0.00944	0.0327	1.56	12/31/2023 13:25	WG2198759
Benzene	0.0230		0.00122	0.00261	1.56	12/31/2023 13:25	WG2198759
Bromobenzene	U		0.00235	0.0327	1.56	12/31/2023 13:25	WG2198759
Bromodichloromethane	U		0.00189	0.00654	1.56	12/31/2023 13:25	WG2198759
Bromoform	U		0.00307	0.0654	1.56	12/31/2023 13:25	WG2198759
Bromomethane	U		0.00515	0.0327	1.56	12/31/2023 13:25	WG2198759
n-Butylbenzene	U		0.0137	0.0327	1.56	12/31/2023 13:25	WG2198759
sec-Butylbenzene	0.0580		0.00753	0.0327	1.56	12/31/2023 13:25	WG2198759
tert-Butylbenzene	0.0118	J	0.00510	0.0131	1.56	12/31/2023 13:25	WG2198759
Carbon tetrachloride	U		0.00235	0.0131	1.56	12/31/2023 13:25	WG2198759
Chlorobenzene	0.00660		0.000550	0.00654	1.56	12/31/2023 13:25	WG2198759
Chlorodibromomethane	U		0.00160	0.00654	1.56	12/31/2023 13:25	WG2198759
Chloroethane	U		0.00444	0.0131	1.56	12/31/2023 13:25	WG2198759
Chloroform	U		0.00270	0.00654	1.56	12/31/2023 13:25	WG2198759
Chloromethane	U		0.0114	0.0327	1.56	12/31/2023 13:25	WG2198759
2-Chlorotoluene	0.00987		0.00226	0.00654	1.56	12/31/2023 13:25	WG2198759
4-Chlorotoluene	U		0.00118	0.0131	1.56	12/31/2023 13:25	WG2198759
1,2-Dibromo-3-Chloropropane	U		0.0102	0.0654	1.56	12/31/2023 13:25	WG2198759
1,2-Dibromoethane	U		0.00169	0.00654	1.56	12/31/2023 13:25	WG2198759
Dibromomethane	U		0.00196	0.0131	1.56	12/31/2023 13:25	WG2198759
1,2-Dichlorobenzene	U		0.00111	0.0131	1.56	12/31/2023 13:25	WG2198759
1,3-Dichlorobenzene	U		0.00157	0.0131	1.56	12/31/2023 13:25	WG2198759
1,4-Dichlorobenzene	0.0194		0.00183	0.0131	1.56	12/31/2023 13:25	WG2198759
Dichlorodifluoromethane	U		0.00421	0.0131	1.56	12/31/2023 13:25	WG2198759
1,1-Dichloroethane	U		0.00128	0.00654	1.56	12/31/2023 13:25	WG2198759
1,2-Dichloroethane	U		0.00169	0.00654	1.56	12/31/2023 13:25	WG2198759

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.00158	0.00654	1.56	12/31/2023 13:25	WG2198759
cis-1,2-Dichloroethene	U		0.00193	0.00654	1.56	12/31/2023 13:25	WG2198759
trans-1,2-Dichloroethene	U		0.00272	0.0131	1.56	12/31/2023 13:25	WG2198759
1,2-Dichloropropane	U		0.00372	0.0131	1.56	12/31/2023 13:25	WG2198759
1,1-Dichloropropene	U		0.00211	0.00654	1.56	12/31/2023 13:25	WG2198759
1,3-Dichloropropane	U		0.00131	0.0131	1.56	12/31/2023 13:25	WG2198759
cis-1,3-Dichloropropene	U		0.00198	0.00654	1.56	12/31/2023 13:25	WG2198759
trans-1,3-Dichloropropene	U		0.00298	0.0131	1.56	12/31/2023 13:25	WG2198759
2,2-Dichloropropane	U		0.00360	0.00654	1.56	12/31/2023 13:25	WG2198759
Di-isopropyl ether	U		0.00107	0.00261	1.56	12/31/2023 13:25	WG2198759
Ethylbenzene	0.305		0.00193	0.00654	1.56	12/31/2023 13:25	WG2198759
Hexachloro-1,3-butadiene	U		0.0157	0.0654	1.56	12/31/2023 13:25	WG2198759
Isopropylbenzene	0.320		0.00111	0.00654	1.56	12/31/2023 13:25	WG2198759
p-Isopropyltoluene	0.0841		0.00667	0.0131	1.56	12/31/2023 13:25	WG2198759
2-Butanone (MEK)	U		0.166	0.261	1.56	12/31/2023 13:25	WG2198759
Methylene Chloride	U		0.0174	0.0654	1.56	12/31/2023 13:25	WG2198759
4-Methyl-2-pentanone (MIBK)	U		0.00597	0.0654	1.56	12/31/2023 13:25	WG2198759
Methyl tert-butyl ether	U		0.000915	0.00261	1.56	12/31/2023 13:25	WG2198759
Naphthalene	0.122	C3	0.0128	0.0327	1.56	12/31/2023 13:25	WG2198759
n-Propylbenzene	0.138		0.00248	0.0131	1.56	12/31/2023 13:25	WG2198759
Styrene	U		0.000598	0.0327	1.56	12/31/2023 13:25	WG2198759
1,1,1,2-Tetrachloroethane	U		0.00248	0.00654	1.56	12/31/2023 13:25	WG2198759
1,1,2,2-Tetrachloroethane	U		0.00181	0.00654	1.56	12/31/2023 13:25	WG2198759
1,1,2-Trichlorotrifluoroethane	U		0.00198	0.00654	1.56	12/31/2023 13:25	WG2198759
Tetrachloroethene	U		0.00235	0.00654	1.56	12/31/2023 13:25	WG2198759
Toluene	0.0102	J	0.00340	0.0131	1.56	12/31/2023 13:25	WG2198759
1,2,3-Trichlorobenzene	U		0.0191	0.0327	1.56	12/31/2023 13:25	WG2198759
1,2,4-Trichlorobenzene	U		0.0115	0.0327	1.56	12/31/2023 13:25	WG2198759
1,1,1-Trichloroethane	U		0.00241	0.00654	1.56	12/31/2023 13:25	WG2198759
1,1,2-Trichloroethane	0.0226		0.00156	0.00654	1.56	12/31/2023 13:25	WG2198759
Trichloroethene	U		0.00153	0.00261	1.56	12/31/2023 13:25	WG2198759
Trichlorofluoromethane	U		0.00216	0.00654	1.56	12/31/2023 13:25	WG2198759
1,2,3-Trichloropropane	U		0.00424	0.0327	1.56	12/31/2023 13:25	WG2198759
1,2,4-Trimethylbenzene	0.218		0.00412	0.0131	1.56	12/31/2023 13:25	WG2198759
1,2,3-Trimethylbenzene	0.161		0.00412	0.0131	1.56	12/31/2023 13:25	WG2198759
1,3,5-Trimethylbenzene	0.0801		0.00523	0.0131	1.56	12/31/2023 13:25	WG2198759
Vinyl chloride	U		0.00303	0.00654	1.56	12/31/2023 13:25	WG2198759
Xylenes, Total	0.0624		0.00230	0.0169	1.56	12/31/2023 13:25	WG2198759
(S) Toluene-d8	*99.2*			*75.0-131*		*12/31/2023 13:25*	WG2198759
(S) 4-Bromofluorobenzene	*81.6*			*67.0-138*		*12/31/2023 13:25*	WG2198759
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*12/31/2023 13:25*	WG2198759

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	1110		188	565	100	12/28/2023 17:54	WG2196980
Residual Range Organics (RRO)	4790		470	1410	100	12/28/2023 17:54	WG2196980
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*12/28/2023 17:54*	WG2196980

Chlorinated Acid Herbicides (GC) by Method 8151A

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4-D	U		0.00991	0.0988	1	01/06/2024 00:09	WG2198864
Dalapon	U		0.0160	0.0988	1	01/06/2024 00:09	WG2198864
2,4-DB	U		0.0419	0.0988	1	01/06/2024 00:09	WG2198864
Dicamba	U		0.0222	0.0988	1	01/06/2024 00:09	WG2198864
Dichloroprop	U		0.0346	0.0988	1	01/06/2024 00:09	WG2198864
Dinoseb	U		0.00984	0.0988	1	01/06/2024 00:09	WG2198864
MCPA	U		0.625	9.18	1	01/06/2024 00:09	WG2198864
MCPP	U		0.518	9.18	1	01/06/2024 00:09	WG2198864
2,4,5-T	U		0.0120	0.0988	1	01/06/2024 00:09	WG2198864
2,4,5-TP (Silvex)	U		0.0151	0.0988	1	01/06/2024 00:09	WG2198864
(S) 2,4-Dichlorophenyl Acetic Acid	*552*	J1		*22.0-132*		*01/06/2024 00:09*	WG2198864

Sample Narrative:

L1691303-08 WG2198864: Surrogate failure due to matrix interference

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	U		0.00531	0.0282	1	01/02/2024 20:37	WG2199072
Alpha BHC	U		0.00520	0.0282	1	01/02/2024 20:37	WG2199072
Beta BHC	U		0.00535	0.0282	1	01/02/2024 20:37	WG2199072
Delta BHC	U		0.00488	0.0282	1	01/02/2024 20:37	WG2199072
Gamma BHC	U		0.00486	0.0282	1	01/02/2024 20:37	WG2199072
Chlordane	U		0.145	0.424	1	01/02/2024 20:37	WG2199072
4,4-DDD	U		0.00522	0.0282	1	01/02/2024 20:37	WG2199072
4,4-DDE	U		0.00517	0.0282	1	01/02/2024 20:37	WG2199072
4,4-DDT	U		0.00885	0.0282	1	01/02/2024 20:37	WG2199072
Dieldrin	U		0.00486	0.0282	1	01/02/2024 20:37	WG2199072
Endosulfan I	U		0.00512	0.0282	1	01/02/2024 20:37	WG2199072
Endosulfan II	U		0.00473	0.0282	1	01/02/2024 20:37	WG2199072
Endosulfan sulfate	U		0.00514	0.0282	1	01/02/2024 20:37	WG2199072
Endrin	U		0.00494	0.0282	1	01/02/2024 20:37	WG2199072
Endrin aldehyde	U		0.00479	0.0282	1	01/02/2024 20:37	WG2199072
Endrin ketone	U		0.0100	0.0282	1	01/02/2024 20:37	WG2199072
Heptachlor	U		0.00604	0.0282	1	01/02/2024 20:37	WG2199072
Heptachlor epoxide	U		0.00479	0.0282	1	01/02/2024 20:37	WG2199072
Hexachlorobenzene	U		0.00488	0.0282	1	01/02/2024 20:37	WG2199072
Methoxychlor	U		0.00683	0.0282	1	01/02/2024 20:37	WG2199072
Toxaphene	U		0.175	0.565	1	01/02/2024 20:37	WG2199072
(S) Decachlorobiphenyl	*46.7*			*10.0-135*		*01/02/2024 20:37*	WG2199072
(S) Tetrachloro-m-xylene	*52.2*			*10.0-139*		*01/02/2024 20:37*	WG2199072

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	U		0.0167	0.0480	1	01/02/2024 20:37	WG2199072
PCB 1221	U		0.0167	0.0480	1	01/02/2024 20:37	WG2199072
PCB 1232	U		0.0167	0.0480	1	01/02/2024 20:37	WG2199072
PCB 1242	U		0.0167	0.0480	1	01/02/2024 20:37	WG2199072
PCB 1248	U		0.0104	0.0240	1	01/02/2024 20:37	WG2199072
PCB 1254	U		0.0104	0.0240	1	01/02/2024 20:37	WG2199072
PCB 1260	U		0.0104	0.0240	1	01/02/2024 20:37	WG2199072
(S) Decachlorobiphenyl	*46.7*			*10.0-135*		*01/02/2024 20:37*	WG2199072
(S) Tetrachloro-m-xylene	*56.9*			*10.0-139*		*01/02/2024 20:37*	WG2199072

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	0.130		0.00325	0.00847	1	12/28/2023 07:52	WG2196235
Acenaphthene	0.186		0.00295	0.00847	1	12/28/2023 07:52	WG2196235
Acenaphthylene	0.0340		0.00305	0.00847	1	12/28/2023 07:52	WG2196235
Benzo(a)anthracene	0.287		0.00244	0.00847	1	12/28/2023 07:52	WG2196235
Benzo(a)pyrene	0.240		0.00253	0.00847	1	12/28/2023 07:52	WG2196235
Benzo(b)fluoranthene	0.263		0.00216	0.00847	1	12/28/2023 07:52	WG2196235
Benzo(g,h,i)perylene	0.171		0.00250	0.00847	1	12/28/2023 07:52	WG2196235
Benzo(k)fluoranthene	0.0685		0.00304	0.00847	1	12/28/2023 07:52	WG2196235
Chrysene	0.580		0.00328	0.00847	1	12/28/2023 07:52	WG2196235
Dibenz(a,h)anthracene	0.0448		0.00243	0.00847	1	12/28/2023 07:52	WG2196235
Fluoranthene	0.953		0.00320	0.00847	1	12/28/2023 07:52	WG2196235
Fluorene	0.354		0.00289	0.00847	1	12/28/2023 07:52	WG2196235
Indeno(1,2,3-cd)pyrene	0.155		0.00256	0.00847	1	12/28/2023 07:52	WG2196235
Naphthalene	0.237		0.00576	0.0282	1	12/28/2023 07:52	WG2196235
Phenanthrene	1.20		0.00326	0.00847	1	12/28/2023 07:52	WG2196235
Pyrene	0.848		0.00282	0.00847	1	12/28/2023 07:52	WG2196235
1-Methylnaphthalene	0.176		0.00634	0.0282	1	12/28/2023 07:52	WG2196235
2-Methylnaphthalene	0.195		0.00603	0.0282	1	12/28/2023 07:52	WG2196235
2-Chloronaphthalene	0.0388		0.00658	0.0282	1	12/28/2023 07:52	WG2196235
(S) p-Terphenyl-d14	*48.1*			*23.0-120*		*12/28/2023 07:52*	WG2196235
(S) Nitrobenzene-d5	*0.000*	J2		*14.0-149*		*12/28/2023 07:52*	WG2196235
(S) 2-Fluorobiphenyl	*38.7*			*34.0-125*		*12/28/2023 07:52*	WG2196235

Sample Narrative:

L1691303-08 WG2196235: Surrogate failure due to matrix interference

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.1		1	01/04/2024 09:38	WG2200556

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Lead	8.20		0.127	2.56	5	01/05/2024 00:34	WG2200355

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	53.6		1	01/04/2024 09:38	WG2200556

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	1.37		0.0336	0.0746	1	01/04/2024 10:50	WG2200342

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	4.64		0.187	1.87	5	01/05/2024 00:50	WG2200355
Lead	411		0.185	3.73	5	01/05/2024 00:50	WG2200355

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	151	T8	3.78	11.1	48	01/03/2024 20:28	WG2199833
(S) a,a,a-Trifluorotoluene(FID)	*99.0*			*77.0-120*		*01/03/2024 20:28*	WG2199833

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Naphthalene	2.31	T8	0.0217	0.0556	1.92	01/03/2024 21:12	WG2200372
(S) Toluene-d8	*102*			*75.0-131*		*01/03/2024 21:12*	WG2200372
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*01/03/2024 21:12*	WG2200372
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*01/03/2024 21:12*	WG2200372

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.3		1	01/04/2024 09:38	WG2200556

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Lead	12.5		0.123	2.49	5	01/05/2024 00:53	WG2200355

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	67.4		1	01/04/2024 09:38	WG2200556

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Lead	512		0.147	2.97	5	01/05/2024 00:56	WG2200355

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.2		1	01/04/2024 09:38	WG2200556

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0403	J	0.0209	0.0464	1	01/04/2024 10:53	WG2200342

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	3.67		0.116	1.16	5	01/05/2024 01:06	WG2200355
Lead	33.5		0.115	2.32	5	01/05/2024 01:06	WG2200355

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	1.63	B J	1.28	3.76	29	01/04/2024 23:13	WG2200683
(S) a,a,a-Trifluorotoluene(FID)	*99.4*			*77.0-120*		*01/04/2024 23:13*	WG2200683

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Naphthalene	U	C3	0.00734	0.0188	1.16	01/04/2024 16:34	WG2200997
(S) Toluene-d8	*102*			*75.0-131*		*01/04/2024 16:34*	WG2200997
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*01/04/2024 16:34*	WG2200997
(S) 1,2-Dichloroethane-d4	*94.5*			*70.0-130*		*01/04/2024 16:34*	WG2200997

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.4		1	01/04/2024 09:38	WG2200556

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Lead	33.4		0.117	2.37	5	01/05/2024 01:09	WG2200355

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.2		1	01/04/2024 09:38	WG2200556

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0681		0.0214	0.0475	1	01/04/2024 10:55	WG2200342

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	3.35		0.119	1.19	5	01/05/2024 01:13	WG2200355
Lead	49.3		0.118	2.38	5	01/05/2024 01:13	WG2200355

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	114		1.70	5.02	38.3	01/04/2024 23:43	WG2200683
(S) a,a,a-Trifluorotoluene(FID)	*99.4*			*77.0-120*		*01/04/2024 23:43*	WG2200683

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Naphthalene	U		0.00979	0.0250	1.53	01/03/2024 21:50	WG2200372
(S) Toluene-d8	*103*			*75.0-131*		*01/03/2024 21:50*	WG2200372
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*01/03/2024 21:50*	WG2200372
(S) 1,2-Dichloroethane-d4	*92.6*			*70.0-130*		*01/03/2024 21:50*	WG2200372

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	68.5		1	01/04/2024 09:38	WG2200556

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Lead	113		0.145	2.92	5	01/05/2024 01:16	WG2200355

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.7		1	01/04/2024 10:38	WG2200557

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Lead	13.6		0.124	2.51	5	01/05/2024 01:19	WG2200355

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	64.3		1	01/04/2024 10:38	WG2200557

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.179		0.0280	0.0622	1	01/04/2024 10:58	WG2200342

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	8.75		0.155	1.55	5	01/05/2024 01:23	WG2200355
Lead	376		0.154	3.11	5	01/05/2024 01:23	WG2200355

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	63.9	T8	3.08	9.08	49.5	01/03/2024 20:51	WG2199833
(S) a,a,a-Trifluorotoluene(FID)	*99.4*			*77.0-120*		*01/03/2024 20:51*	WG2199833

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Naphthalene	0.175	T8	0.0177	0.0455	1.98	01/03/2024 22:08	WG2200372
(S) Toluene-d8	*101*			*75.0-131*		*01/03/2024 22:08*	WG2200372
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*01/03/2024 22:08*	WG2200372
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*01/03/2024 22:08*	WG2200372

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.6		1	01/04/2024 10:38	WG2200557

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Lead	11.2		0.118	2.39	5	01/04/2024 23:44	WG2200578

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	69.0		1	01/04/2024 10:38	WG2200557

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.344		0.0261	0.0579	1	01/04/2024 11:59	WG2200631

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	4.86		0.145	1.45	5	01/04/2024 23:47	WG2200578
Lead	259		0.143	2.90	5	01/04/2024 23:47	WG2200578

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	38.8	T8	2.23	6.60	37.8	01/03/2024 21:18	WG2199833
(S) a,a,a-Trifluorotoluene(FID)	*98.1*			*77.0-120*		*01/03/2024 21:18*	WG2199833

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Naphthalene	0.279	T8	0.0129	0.0330	1.51	01/03/2024 22:28	WG2200372
(S) Toluene-d8	*104*			*75.0-131*		*01/03/2024 22:28*	WG2200372
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*01/03/2024 22:28*	WG2200372
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*01/03/2024 22:28*	WG2200372

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.4		1	01/04/2024 10:38	WG2200557

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Lead	20.2		0.123	2.49	5	01/04/2024 23:51	WG2200578

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	77.6		1	01/04/2024 10:38	WG2200557

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.594		0.0232	0.0515	1	01/04/2024 12:06	WG2200631

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	4.48		0.129	1.29	5	01/05/2024 00:01	WG2200578
Lead	439		0.128	2.58	5	01/05/2024 00:01	WG2200578

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	220	T8	3.11	9.16	65.5	01/03/2024 21:42	WG2199833
(S) a,a,a-Trifluorotoluene(FID)	*97.8*			*77.0-120*		*01/03/2024 21:42*	WG2199833

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Naphthalene	0.0860	T8	0.0179	0.0459	2.62	01/03/2024 22:46	WG2200372
(S) Toluene-d8	*103*			*75.0-131*		*01/03/2024 22:46*	WG2200372
(S) 4-Bromofluorobenzene	*105*			*67.0-138*		*01/03/2024 22:46*	WG2200372
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*01/03/2024 22:46*	WG2200372

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.3		1	01/04/2024 10:38	WG2200557

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Lead	16.9		0.125	2.52	5	01/04/2024 23:27	WG2200578

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	55.3		1	01/04/2024 10:38	WG2200557

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.257		0.0325	0.0723	1	01/04/2024 12:08	WG2200631

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	12.6		0.181	1.81	5	01/05/2024 00:04	WG2200578
Lead	167		0.179	3.62	5	01/05/2024 00:04	WG2200578

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	49.3	Q	3.34	9.88	43.5	01/05/2024 00:07	WG2200683
(S) a,a,a-Trifluorotoluene(FID)	*104*			*77.0-120*		*01/05/2024 00:07*	WG2200683

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Naphthalene	0.0725		0.0193	0.0495	1.74	01/03/2024 23:05	WG2200372
(S) Toluene-d8	*101*			*75.0-131*		*01/03/2024 23:05*	WG2200372
(S) 4-Bromofluorobenzene	*105*			*67.0-138*		*01/03/2024 23:05*	WG2200372
(S) 1,2-Dichloroethane-d4	*99.3*			*70.0-130*		*01/03/2024 23:05*	WG2200372

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.4		1	01/04/2024 10:38	WG2200557

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Lead	25.0		0.119	2.40	5	01/05/2024 00:07	WG2200578

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.8		1	01/04/2024 10:38	WG2200557

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Lead	3.15		0.121	2.44	5	01/05/2024 00:11	WG2200578

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.9		1	01/04/2024 10:25	WG2200558

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Lead	19.6		0.115	2.33	5	01/05/2024 00:14	WG2200578

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.6		1	12/28/2023 10:14	WG2197015

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.261		0.0229	0.0509	1	12/30/2023 14:27	WG2196939

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	6.79		0.127	1.27	5	12/30/2023 13:15	WG2196274
Barium	179		0.193	3.18	5	12/30/2023 13:15	WG2196274
Cadmium	8.70		0.109	1.27	5	12/30/2023 13:15	WG2196274
Chromium	59.7		0.377	6.36	5	12/30/2023 13:15	WG2196274
Lead	209		0.126	2.54	5	12/30/2023 13:15	WG2196274
Selenium	0.324	J	0.229	3.18	5	12/30/2023 13:15	WG2196274
Silver	U		0.110	0.636	5	12/30/2023 13:15	WG2196274

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	80.2	Q	1.41	4.15	27.3	01/05/2024 00:37	WG2200683
(S) a,a,a-Trifluorotoluene(FID)	*96.8*			*77.0-120*		*01/05/2024 00:37*	WG2200683

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U	C3	0.0606	0.0829	1.09	01/02/2024 23:10	WG2199665
Acrylonitrile	U		0.00598	0.0207	1.09	01/02/2024 23:10	WG2199665
Benzene	0.0449		0.000774	0.00166	1.09	01/02/2024 23:10	WG2199665
Bromobenzene	U		0.00149	0.0207	1.09	01/02/2024 23:10	WG2199665
Bromodichloromethane	U		0.00120	0.00415	1.09	01/02/2024 23:10	WG2199665
Bromoform	U		0.00195	0.0415	1.09	01/02/2024 23:10	WG2199665
Bromomethane	U		0.00327	0.0207	1.09	01/02/2024 23:10	WG2199665
n-Butylbenzene	U		0.00870	0.0207	1.09	01/02/2024 23:10	WG2199665
sec-Butylbenzene	0.0712		0.00478	0.0207	1.09	01/02/2024 23:10	WG2199665
tert-Butylbenzene	0.00942		0.00324	0.00829	1.09	01/02/2024 23:10	WG2199665
Carbon tetrachloride	U	J4	0.00149	0.00829	1.09	01/02/2024 23:10	WG2199665
Chlorobenzene	0.0140		0.000348	0.00415	1.09	01/02/2024 23:10	WG2199665
Chlorodibromomethane	U		0.00101	0.00415	1.09	01/02/2024 23:10	WG2199665
Chloroethane	U		0.00281	0.00829	1.09	01/02/2024 23:10	WG2199665
Chloroform	U		0.00170	0.00415	1.09	01/02/2024 23:10	WG2199665
Chloromethane	U		0.00721	0.0207	1.09	01/02/2024 23:10	WG2199665
2-Chlorotoluene	U		0.00143	0.00415	1.09	01/02/2024 23:10	WG2199665
4-Chlorotoluene	U		0.000747	0.00829	1.09	01/02/2024 23:10	WG2199665
1,2-Dibromo-3-Chloropropane	U		0.00647	0.0415	1.09	01/02/2024 23:10	WG2199665
1,2-Dibromoethane	U		0.00107	0.00415	1.09	01/02/2024 23:10	WG2199665
Dibromomethane	U		0.00124	0.00829	1.09	01/02/2024 23:10	WG2199665
1,2-Dichlorobenzene	0.0167		0.000704	0.00829	1.09	01/02/2024 23:10	WG2199665
1,3-Dichlorobenzene	0.0193		0.000995	0.00829	1.09	01/02/2024 23:10	WG2199665
1,4-Dichlorobenzene	0.275		0.00116	0.00829	1.09	01/02/2024 23:10	WG2199665
Dichlorodifluoromethane	U	J4	0.00266	0.00829	1.09	01/02/2024 23:10	WG2199665
1,1-Dichloroethane	U		0.000814	0.00415	1.09	01/02/2024 23:10	WG2199665
1,2-Dichloroethane	U		0.00108	0.00415	1.09	01/02/2024 23:10	WG2199665

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.00101	0.00415	1.09	01/02/2024 23:10	WG2199665
cis-1,2-Dichloroethene	0.00447		0.00122	0.00415	1.09	01/02/2024 23:10	WG2199665
trans-1,2-Dichloroethene	U		0.00172	0.00829	1.09	01/02/2024 23:10	WG2199665
1,2-Dichloropropane	U		0.00236	0.00829	1.09	01/02/2024 23:10	WG2199665
1,1-Dichloropropene	U		0.00134	0.00415	1.09	01/02/2024 23:10	WG2199665
1,3-Dichloropropane	U		0.000831	0.00829	1.09	01/02/2024 23:10	WG2199665
cis-1,3-Dichloropropene	U		0.00126	0.00415	1.09	01/02/2024 23:10	WG2199665
trans-1,3-Dichloropropene	U		0.00189	0.00829	1.09	01/02/2024 23:10	WG2199665
2,2-Dichloropropane	U		0.00228	0.00415	1.09	01/02/2024 23:10	WG2199665
Di-isopropyl ether	U		0.000680	0.00166	1.09	01/02/2024 23:10	WG2199665
Ethylbenzene	0.186		0.00122	0.00415	1.09	01/02/2024 23:10	WG2199665
Hexachloro-1,3-butadiene	U		0.00995	0.0415	1.09	01/02/2024 23:10	WG2199665
Isopropylbenzene	0.187		0.000704	0.00415	1.09	01/02/2024 23:10	WG2199665
p-Isopropyltoluene	0.0425		0.00423	0.00829	1.09	01/02/2024 23:10	WG2199665
2-Butanone (MEK)	U		0.105	0.166	1.09	01/02/2024 23:10	WG2199665
Methylene Chloride	0.0225	J	0.0110	0.0415	1.09	01/02/2024 23:10	WG2199665
4-Methyl-2-pentanone (MIBK)	U		0.00379	0.0415	1.09	01/02/2024 23:10	WG2199665
Methyl tert-butyl ether	U		0.000580	0.00166	1.09	01/02/2024 23:10	WG2199665
Naphthalene	0.140	C3	0.00809	0.0207	1.09	01/02/2024 23:10	WG2199665
n-Propylbenzene	0.126		0.00158	0.00829	1.09	01/02/2024 23:10	WG2199665
Styrene	0.0612		0.000380	0.0207	1.09	01/02/2024 23:10	WG2199665
1,1,1,2-Tetrachloroethane	U		0.00157	0.00415	1.09	01/02/2024 23:10	WG2199665
1,1,2,2-Tetrachloroethane	U		0.00115	0.00415	1.09	01/02/2024 23:10	WG2199665
1,1,2-Trichlorotrifluoroethane	U	J4	0.00125	0.00415	1.09	01/02/2024 23:10	WG2199665
Tetrachloroethene	0.0139		0.00149	0.00415	1.09	01/02/2024 23:10	WG2199665
Toluene	0.564		0.00216	0.00829	1.09	01/02/2024 23:10	WG2199665
1,2,3-Trichlorobenzene	U	C3	0.0122	0.0207	1.09	01/02/2024 23:10	WG2199665
1,2,4-Trichlorobenzene	U	C3	0.00730	0.0207	1.09	01/02/2024 23:10	WG2199665
1,1,1-Trichloroethane	U		0.00154	0.00415	1.09	01/02/2024 23:10	WG2199665
1,1,2-Trichloroethane	U		0.000991	0.00415	1.09	01/02/2024 23:10	WG2199665
Trichloroethene	0.0161		0.000969	0.00166	1.09	01/02/2024 23:10	WG2199665
Trichlorofluoromethane	0.00817	C5 J4	0.00137	0.00415	1.09	01/02/2024 23:10	WG2199665
1,2,3-Trichloropropane	U		0.00269	0.0207	1.09	01/02/2024 23:10	WG2199665
1,2,4-Trimethylbenzene	0.178		0.00262	0.00829	1.09	01/02/2024 23:10	WG2199665
1,2,3-Trimethylbenzene	0.108		0.00262	0.00829	1.09	01/02/2024 23:10	WG2199665
1,3,5-Trimethylbenzene	0.0253		0.00332	0.00829	1.09	01/02/2024 23:10	WG2199665
Vinyl chloride	U		0.00192	0.00415	1.09	01/02/2024 23:10	WG2199665
Xylenes, Total	0.160		0.00146	0.0108	1.09	01/02/2024 23:10	WG2199665
(S) Toluene-d8	*100*			*75.0-131*		*01/02/2024 23:10*	WG2199665
(S) 4-Bromofluorobenzene	*126*			*67.0-138*		*01/02/2024 23:10*	WG2199665
(S) 1,2-Dichloroethane-d4	*112*			*70.0-130*		*01/02/2024 23:10*	WG2199665

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	808		169	509	100	12/28/2023 18:07	WG2196980
Residual Range Organics (RRO)	3420		424	1270	100	12/28/2023 18:07	WG2196980
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*12/28/2023 18:07*	WG2196980

Chlorinated Acid Herbicides (GC) by Method 8151A

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4-D	U		0.00893	0.0891	1	01/06/2024 00:49	WG2198864
Dalapon	U		0.0144	0.0891	1	01/06/2024 00:49	WG2198864
2,4-DB	U		0.0378	0.0891	1	01/06/2024 00:49	WG2198864
Dicamba	U		0.0200	0.0891	1	01/06/2024 00:49	WG2198864
Dichloroprop	U		0.0312	0.0891	1	01/06/2024 00:49	WG2198864
Dinoseb	U		0.00887	0.0891	1	01/06/2024 00:49	WG2198864
MCPA	U		0.564	8.27	1	01/06/2024 00:49	WG2198864
MCPP	U		0.467	8.27	1	01/06/2024 00:49	WG2198864
2,4,5-T	U		0.0108	0.0891	1	01/06/2024 00:49	WG2198864
2,4,5-TP (Silvex)	U		0.0136	0.0891	1	01/06/2024 00:49	WG2198864
(S) 2,4-Dichlorophenyl Acetic Acid	*57.1*			*22.0-132*		*01/06/2024 00:49*	WG2198864

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	U		0.00478	0.0254	1	01/02/2024 20:48	WG2199072
Alpha BHC	U		0.00468	0.0254	1	01/02/2024 20:48	WG2199072
Beta BHC	U		0.00482	0.0254	1	01/02/2024 20:48	WG2199072
Delta BHC	U		0.00440	0.0254	1	01/02/2024 20:48	WG2199072
Gamma BHC	U		0.00438	0.0254	1	01/02/2024 20:48	WG2199072
Chlordane	U		0.131	0.382	1	01/02/2024 20:48	WG2199072
4,4-DDD	U		0.00471	0.0254	1	01/02/2024 20:48	WG2199072
4,4-DDE	U		0.00466	0.0254	1	01/02/2024 20:48	WG2199072
4,4-DDT	U		0.00798	0.0254	1	01/02/2024 20:48	WG2199072
Dieldrin	U		0.00438	0.0254	1	01/02/2024 20:48	WG2199072
Endosulfan I	U		0.00462	0.0254	1	01/02/2024 20:48	WG2199072
Endosulfan II	U		0.00426	0.0254	1	01/02/2024 20:48	WG2199072
Endosulfan sulfate	U		0.00463	0.0254	1	01/02/2024 20:48	WG2199072
Endrin	U		0.00445	0.0254	1	01/02/2024 20:48	WG2199072
Endrin aldehyde	U		0.00431	0.0254	1	01/02/2024 20:48	WG2199072
Endrin ketone	U		0.00905	0.0254	1	01/02/2024 20:48	WG2199072
Heptachlor	U		0.00544	0.0254	1	01/02/2024 20:48	WG2199072
Heptachlor epoxide	U		0.00431	0.0254	1	01/02/2024 20:48	WG2199072
Hexachlorobenzene	U		0.00440	0.0254	1	01/02/2024 20:48	WG2199072
Methoxychlor	U		0.00616	0.0254	1	01/02/2024 20:48	WG2199072
Toxaphene	U		0.158	0.509	1	01/02/2024 20:48	WG2199072
(S) Decachlorobiphenyl	*58.5*			*10.0-135*		*01/02/2024 20:48*	WG2199072
(S) Tetrachloro-m-xylene	*56.7*			*10.0-139*		*01/02/2024 20:48*	WG2199072

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	U		0.0150	0.0433	1	01/02/2024 20:48	WG2199072
PCB 1221	U		0.0150	0.0433	1	01/02/2024 20:48	WG2199072
PCB 1232	U		0.0150	0.0433	1	01/02/2024 20:48	WG2199072
PCB 1242	U		0.0150	0.0433	1	01/02/2024 20:48	WG2199072
PCB 1248	U		0.00939	0.0216	1	01/02/2024 20:48	WG2199072
PCB 1254	U		0.00939	0.0216	1	01/02/2024 20:48	WG2199072
PCB 1260	U		0.00939	0.0216	1	01/02/2024 20:48	WG2199072
(S) Decachlorobiphenyl	*59.9*			*10.0-135*		*01/02/2024 20:48*	WG2199072
(S) Tetrachloro-m-xylene	*61.8*			*10.0-139*		*01/02/2024 20:48*	WG2199072

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	0.0832		0.00293	0.00763	1	12/28/2023 08:10	WG2196235
Acenaphthene	0.0871		0.00266	0.00763	1	12/28/2023 08:10	WG2196235
Acenaphthylene	0.0356		0.00275	0.00763	1	12/28/2023 08:10	WG2196235
Benzo(a)anthracene	0.253		0.00220	0.00763	1	12/28/2023 08:10	WG2196235
Benzo(a)pyrene	0.232		0.00228	0.00763	1	12/28/2023 08:10	WG2196235
Benzo(b)fluoranthene	0.260		0.00195	0.00763	1	12/28/2023 08:10	WG2196235
Benzo(g,h,i)perylene	0.191		0.00225	0.00763	1	12/28/2023 08:10	WG2196235
Benzo(k)fluoranthene	0.0772		0.00274	0.00763	1	12/28/2023 08:10	WG2196235
Chrysene	0.322		0.00295	0.00763	1	12/28/2023 08:10	WG2196235
Dibenz(a,h)anthracene	0.0441		0.00219	0.00763	1	12/28/2023 08:10	WG2196235
Fluoranthene	0.536		0.00289	0.00763	1	12/28/2023 08:10	WG2196235
Fluorene	0.167		0.00261	0.00763	1	12/28/2023 08:10	WG2196235
Indeno(1,2,3-cd)pyrene	0.188		0.00230	0.00763	1	12/28/2023 08:10	WG2196235
Naphthalene	0.215		0.00519	0.0254	1	12/28/2023 08:10	WG2196235
Phenanthrene	0.472		0.00294	0.00763	1	12/28/2023 08:10	WG2196235
Pyrene	0.527		0.00254	0.00763	1	12/28/2023 08:10	WG2196235
1-Methylnaphthalene	0.531		0.00571	0.0254	1	12/28/2023 08:10	WG2196235
2-Methylnaphthalene	0.677		0.00543	0.0254	1	12/28/2023 08:10	WG2196235
2-Chloronaphthalene	U		0.00593	0.0254	1	12/28/2023 08:10	WG2196235
(S) p-Terphenyl-d14	*58.0*			*23.0-120*		*12/28/2023 08:10*	WG2196235
(S) Nitrobenzene-d5	*0.000*	J2		*14.0-149*		*12/28/2023 08:10*	WG2196235
(S) 2-Fluorobiphenyl	*47.5*			*34.0-125*		*12/28/2023 08:10*	WG2196235

Sample Narrative:

L1691303-28 WG2196235: Surrogate failure due to matrix interference

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.5		1	12/26/2023 14:26	WG2195907

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0322	J	0.0227	0.0503	1	12/27/2023 09:08	WG2195339

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	4.33		0.126	1.26	5	12/26/2023 18:10	WG2196072
Barium	142	J6	0.191	3.15	5	12/26/2023 18:10	WG2196072
Cadmium	0.245	J	0.108	1.26	5	12/26/2023 18:10	WG2196072
Chromium	15.3		0.373	6.29	5	12/26/2023 18:10	WG2196072
Lead	37.8		0.125	2.52	5	12/26/2023 18:10	WG2196072
Selenium	0.543	J	0.227	3.15	5	12/26/2023 18:10	WG2196072
Silver	U		0.109	0.629	5	12/26/2023 18:10	WG2196072

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	5.36		1.29	3.79	25	12/27/2023 14:41	WG2196343
(S) a,a,a-Trifluorotoluene(FID)	*95.7*			*77.0-120*		*12/27/2023 14:41*	WG2196343

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U	C3	0.0554	0.0759	1	12/27/2023 02:02	WG2196204
Acrylonitrile	U		0.00548	0.0190	1	12/27/2023 02:02	WG2196204
Benzene	0.00114	J	0.000709	0.00152	1	12/27/2023 02:02	WG2196204
Bromobenzene	U		0.00137	0.0190	1	12/27/2023 02:02	WG2196204
Bromodichloromethane	U		0.00110	0.00379	1	12/27/2023 02:02	WG2196204
Bromoform	U		0.00178	0.0379	1	12/27/2023 02:02	WG2196204
Bromomethane	U	C3	0.00299	0.0190	1	12/27/2023 02:02	WG2196204
n-Butylbenzene	U		0.00797	0.0190	1	12/27/2023 02:02	WG2196204
sec-Butylbenzene	U		0.00437	0.0190	1	12/27/2023 02:02	WG2196204
tert-Butylbenzene	U		0.00296	0.00759	1	12/27/2023 02:02	WG2196204
Carbon tetrachloride	U		0.00136	0.00759	1	12/27/2023 02:02	WG2196204
Chlorobenzene	U		0.000319	0.00379	1	12/27/2023 02:02	WG2196204
Chlorodibromomethane	U		0.000929	0.00379	1	12/27/2023 02:02	WG2196204
Chloroethane	U		0.00258	0.00759	1	12/27/2023 02:02	WG2196204
Chloroform	U		0.00156	0.00379	1	12/27/2023 02:02	WG2196204
Chloromethane	U		0.00660	0.0190	1	12/27/2023 02:02	WG2196204
2-Chlorotoluene	U		0.00131	0.00379	1	12/27/2023 02:02	WG2196204
4-Chlorotoluene	U		0.000683	0.00759	1	12/27/2023 02:02	WG2196204
1,2-Dibromo-3-Chloropropane	U		0.00592	0.0379	1	12/27/2023 02:02	WG2196204
1,2-Dibromoethane	U		0.000983	0.00379	1	12/27/2023 02:02	WG2196204
Dibromomethane	U		0.00114	0.00759	1	12/27/2023 02:02	WG2196204
1,2-Dichlorobenzene	U		0.000645	0.00759	1	12/27/2023 02:02	WG2196204
1,3-Dichlorobenzene	U		0.000910	0.00759	1	12/27/2023 02:02	WG2196204
1,4-Dichlorobenzene	0.0110		0.00106	0.00759	1	12/27/2023 02:02	WG2196204
Dichlorodifluoromethane	U		0.00244	0.00759	1	12/27/2023 02:02	WG2196204
1,1-Dichloroethane	U		0.000745	0.00379	1	12/27/2023 02:02	WG2196204
1,2-Dichloroethane	U		0.000985	0.00379	1	12/27/2023 02:02	WG2196204

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.000920	0.00379	1	12/27/2023 02:02	WG2196204
cis-1,2-Dichloroethene	U		0.00111	0.00379	1	12/27/2023 02:02	WG2196204
trans-1,2-Dichloroethene	U		0.00158	0.00759	1	12/27/2023 02:02	WG2196204
1,2-Dichloropropane	U		0.00215	0.00759	1	12/27/2023 02:02	WG2196204
1,1-Dichloropropene	U		0.00123	0.00379	1	12/27/2023 02:02	WG2196204
1,3-Dichloropropane	U		0.000760	0.00759	1	12/27/2023 02:02	WG2196204
cis-1,3-Dichloropropene	U		0.00115	0.00379	1	12/27/2023 02:02	WG2196204
trans-1,3-Dichloropropene	U		0.00173	0.00759	1	12/27/2023 02:02	WG2196204
2,2-Dichloropropane	U		0.00209	0.00379	1	12/27/2023 02:02	WG2196204
Di-isopropyl ether	U		0.000622	0.00152	1	12/27/2023 02:02	WG2196204
Ethylbenzene	0.00202	J	0.00112	0.00379	1	12/27/2023 02:02	WG2196204
Hexachloro-1,3-butadiene	U		0.00910	0.0379	1	12/27/2023 02:02	WG2196204
Isopropylbenzene	0.00698		0.000645	0.00379	1	12/27/2023 02:02	WG2196204
p-Isopropyltoluene	U		0.00387	0.00759	1	12/27/2023 02:02	WG2196204
2-Butanone (MEK)	U		0.0964	0.152	1	12/27/2023 02:02	WG2196204
Methylene Chloride	U		0.0101	0.0379	1	12/27/2023 02:02	WG2196204
4-Methyl-2-pentanone (MIBK)	U		0.00346	0.0379	1	12/27/2023 02:02	WG2196204
Methyl tert-butyl ether	U		0.000531	0.00152	1	12/27/2023 02:02	WG2196204
Naphthalene	0.0511		0.00741	0.0190	1	12/27/2023 02:02	WG2196204
n-Propylbenzene	0.00687	J	0.00144	0.00759	1	12/27/2023 02:02	WG2196204
Styrene	U		0.000347	0.0190	1	12/27/2023 02:02	WG2196204
1,1,1,2-Tetrachloroethane	U		0.00144	0.00379	1	12/27/2023 02:02	WG2196204
1,1,2,2-Tetrachloroethane	U		0.00105	0.00379	1	12/27/2023 02:02	WG2196204
1,1,2-Trichlorotrifluoroethane	U		0.00114	0.00379	1	12/27/2023 02:02	WG2196204
Tetrachloroethene	U		0.00136	0.00379	1	12/27/2023 02:02	WG2196204
Toluene	0.0234		0.00197	0.00759	1	12/27/2023 02:02	WG2196204
1,2,3-Trichlorobenzene	U		0.0111	0.0190	1	12/27/2023 02:02	WG2196204
1,2,4-Trichlorobenzene	U		0.00668	0.0190	1	12/27/2023 02:02	WG2196204
1,1,1-Trichloroethane	U		0.00140	0.00379	1	12/27/2023 02:02	WG2196204
1,1,2-Trichloroethane	U		0.000906	0.00379	1	12/27/2023 02:02	WG2196204
Trichloroethene	U		0.000886	0.00152	1	12/27/2023 02:02	WG2196204
Trichlorofluoromethane	U		0.00125	0.00379	1	12/27/2023 02:02	WG2196204
1,2,3-Trichloropropane	U		0.00246	0.0190	1	12/27/2023 02:02	WG2196204
1,2,4-Trimethylbenzene	0.00642	J	0.00240	0.00759	1	12/27/2023 02:02	WG2196204
1,2,3-Trimethylbenzene	0.00475	J	0.00240	0.00759	1	12/27/2023 02:02	WG2196204
1,3,5-Trimethylbenzene	U		0.00303	0.00759	1	12/27/2023 02:02	WG2196204
Vinyl chloride	U		0.00176	0.00379	1	12/27/2023 02:02	WG2196204
Xylenes, Total	0.00232	J	0.00134	0.00986	1	12/27/2023 02:02	WG2196204
(S) Toluene-d8	*102*			*75.0-131*		*12/27/2023 02:02*	WG2196204
(S) 4-Bromofluorobenzene	*105*			*67.0-138*		*12/27/2023 02:02*	WG2196204
(S) 1,2-Dichloroethane-d4	*116*			*70.0-130*		*12/27/2023 02:02*	WG2196204

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	22.7	J	16.7	50.3	10	12/27/2023 04:32	WG2195963
Residual Range Organics (RRO)	184		41.9	126	10	12/27/2023 04:32	WG2195963
(S) o-Terphenyl	*54.0*			*18.0-148*		*12/27/2023 04:32*	WG2195963

Sample Narrative:

L1691303-29 WG2195963: Sample resembles laboratory standard for Hydraulic Oil.

Chlorinated Acid Herbicides (GC) by Method 8151A

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4-D	U		0.00884	0.0881	1	12/28/2023 14:13	WG2194764
Dalapon	U		0.0142	0.0881	1	12/28/2023 14:13	WG2194764
2,4-DB	U		0.0374	0.0881	1	12/28/2023 14:13	WG2194764
Dicamba	U		0.0198	0.0881	1	12/28/2023 14:13	WG2194764
Dichloroprop	U		0.0308	0.0881	1	12/28/2023 14:13	WG2194764
Dinoseb	U		0.00877	0.0881	1	12/28/2023 14:13	WG2194764
MCPA	U		0.558	8.18	1	12/28/2023 14:13	WG2194764
MCPP	U		0.462	8.18	1	12/28/2023 14:13	WG2194764
2,4,5-T	U		0.0107	0.0881	1	12/28/2023 14:13	WG2194764
2,4,5-TP (Silvex)	U		0.0135	0.0881	1	12/28/2023 14:13	WG2194764
(S) 2,4-Dichlorophenyl Acetic Acid	*75.9*			*22.0-132*		*12/28/2023 14:13*	WG2194764

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	U		0.00473	0.0252	1	12/27/2023 17:08	WG2196234
Alpha BHC	U		0.00463	0.0252	1	12/27/2023 17:08	WG2196234
Beta BHC	U		0.00477	0.0252	1	12/27/2023 17:08	WG2196234
Delta BHC	U		0.00435	0.0252	1	12/27/2023 17:08	WG2196234
Gamma BHC	U		0.00433	0.0252	1	12/27/2023 17:08	WG2196234
Chlordane	U		0.130	0.378	1	12/27/2023 17:08	WG2196234
4,4-DDD	U		0.00466	0.0252	1	12/27/2023 17:08	WG2196234
4,4-DDE	U		0.00461	0.0252	1	12/27/2023 17:08	WG2196234
4,4-DDT	U		0.00789	0.0252	1	12/27/2023 17:08	WG2196234
Dieldrin	U		0.00433	0.0252	1	12/27/2023 17:08	WG2196234
Endosulfan I	U		0.00457	0.0252	1	12/27/2023 17:08	WG2196234
Endosulfan II	U		0.00422	0.0252	1	12/27/2023 17:08	WG2196234
Endosulfan sulfate	U		0.00458	0.0252	1	12/27/2023 17:08	WG2196234
Endrin	U		0.00441	0.0252	1	12/27/2023 17:08	WG2196234
Endrin aldehyde	U		0.00427	0.0252	1	12/27/2023 17:08	WG2196234
Endrin ketone	U		0.00895	0.0252	1	12/27/2023 17:08	WG2196234
Heptachlor	U		0.00539	0.0252	1	12/27/2023 17:08	WG2196234
Heptachlor epoxide	U		0.00427	0.0252	1	12/27/2023 17:08	WG2196234
Hexachlorobenzene	U		0.00435	0.0252	1	12/27/2023 17:08	WG2196234
Methoxychlor	U		0.00609	0.0252	1	12/27/2023 17:08	WG2196234
Toxaphene	U		0.156	0.503	1	12/27/2023 17:08	WG2196234
(S) Decachlorobiphenyl	*46.4*			*10.0-135*		*12/27/2023 17:08*	WG2196234
(S) Tetrachloro-m-xylene	*59.2*			*10.0-139*		*12/27/2023 17:08*	WG2196234

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	U	J3	0.0149	0.0428	1	12/27/2023 17:08	WG2196234
PCB 1221	U		0.0149	0.0428	1	12/27/2023 17:08	WG2196234
PCB 1232	U		0.0149	0.0428	1	12/27/2023 17:08	WG2196234
PCB 1242	U		0.0149	0.0428	1	12/27/2023 17:08	WG2196234
PCB 1248	U		0.00929	0.0214	1	12/27/2023 17:08	WG2196234
PCB 1254	U		0.00929	0.0214	1	12/27/2023 17:08	WG2196234
PCB 1260	U		0.00929	0.0214	1	12/27/2023 17:08	WG2196234
(S) Decachlorobiphenyl	*46.1*			*10.0-135*		*12/27/2023 17:08*	WG2196234
(S) Tetrachloro-m-xylene	*61.6*			*10.0-139*		*12/27/2023 17:08*	WG2196234

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	0.00491	J	0.00289	0.00755	1	12/27/2023 03:44	WG2195971
Acenaphthene	0.00351	J	0.00263	0.00755	1	12/27/2023 03:44	WG2195971
Acenaphthylene	U		0.00272	0.00755	1	12/27/2023 03:44	WG2195971
Benzo(a)anthracene	0.0177		0.00218	0.00755	1	12/27/2023 03:44	WG2195971
Benzo(a)pyrene	0.0278		0.00225	0.00755	1	12/27/2023 03:44	WG2195971
Benzo(b)fluoranthene	0.0279		0.00193	0.00755	1	12/27/2023 03:44	WG2195971
Benzo(g,h,i)perylene	0.0269		0.00223	0.00755	1	12/27/2023 03:44	WG2195971
Benzo(k)fluoranthene	0.00843		0.00271	0.00755	1	12/27/2023 03:44	WG2195971
Chrysene	0.0204		0.00292	0.00755	1	12/27/2023 03:44	WG2195971
Dibenz(a,h)anthracene	0.00335	J	0.00216	0.00755	1	12/27/2023 03:44	WG2195971
Fluoranthene	0.0467		0.00286	0.00755	1	12/27/2023 03:44	WG2195971
Fluorene	0.00534	J	0.00258	0.00755	1	12/27/2023 03:44	WG2195971
Indeno(1,2,3-cd)pyrene	0.0210		0.00228	0.00755	1	12/27/2023 03:44	WG2195971
Naphthalene	0.0115	J	0.00514	0.0252	1	12/27/2023 03:44	WG2195971
Phenanthrene	0.0341		0.00291	0.00755	1	12/27/2023 03:44	WG2195971
Pyrene	0.0505		0.00252	0.00755	1	12/27/2023 03:44	WG2195971
1-Methylnaphthalene	U		0.00565	0.0252	1	12/27/2023 03:44	WG2195971
2-Methylnaphthalene	0.00537	J	0.00537	0.0252	1	12/27/2023 03:44	WG2195971
2-Chloronaphthalene	U		0.00587	0.0252	1	12/27/2023 03:44	WG2195971
(S) p-Terphenyl-d14	*67.4*			*23.0-120*		*12/27/2023 03:44*	WG2195971
(S) Nitrobenzene-d5	*62.9*			*14.0-149*		*12/27/2023 03:44*	WG2195971
(S) 2-Fluorobiphenyl	*68.1*			*34.0-125*		*12/27/2023 03:44*	WG2195971

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	77.8		1	12/26/2023 14:26	WG2195907

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.312		0.0231	0.0514	1	12/27/2023 10:09	WG2195339

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	11.6		0.128	1.28	5	12/26/2023 18:26	WG2196072
Barium	171		0.195	3.21	5	12/26/2023 18:26	WG2196072
Cadmium	0.552	J	0.110	1.28	5	12/26/2023 18:26	WG2196072
Chromium	24.4		0.380	6.42	5	12/26/2023 18:26	WG2196072
Lead	176		0.127	2.57	5	12/26/2023 18:26	WG2196072
Selenium	0.491	J	0.231	3.21	5	12/26/2023 18:26	WG2196072
Silver	0.127	J	0.111	0.642	5	12/26/2023 18:26	WG2196072

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	38.8		1.33	3.92	25	12/27/2023 15:00	WG2196343
(S) a,a,a-Trifluorotoluene(FID)	*96.4*			*77.0-120*		*12/27/2023 15:00*	WG2196343

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U	C3	0.0573	0.0785	1	12/27/2023 02:22	WG2196204
Acrylonitrile	U		0.00567	0.0196	1	12/27/2023 02:22	WG2196204
Benzene	0.00424		0.000733	0.00157	1	12/27/2023 02:22	WG2196204
Bromobenzene	U		0.00141	0.0196	1	12/27/2023 02:22	WG2196204
Bromodichloromethane	U		0.00114	0.00392	1	12/27/2023 02:22	WG2196204
Bromoform	U		0.00184	0.0392	1	12/27/2023 02:22	WG2196204
Bromomethane	U	C3	0.00309	0.0196	1	12/27/2023 02:22	WG2196204
n-Butylbenzene	0.0322		0.00824	0.0196	1	12/27/2023 02:22	WG2196204
sec-Butylbenzene	0.0243		0.00452	0.0196	1	12/27/2023 02:22	WG2196204
tert-Butylbenzene	0.00317	J	0.00306	0.00785	1	12/27/2023 02:22	WG2196204
Carbon tetrachloride	U		0.00141	0.00785	1	12/27/2023 02:22	WG2196204
Chlorobenzene	0.00259	J	0.000330	0.00392	1	12/27/2023 02:22	WG2196204
Chlorodibromomethane	U		0.000960	0.00392	1	12/27/2023 02:22	WG2196204
Chloroethane	U		0.00267	0.00785	1	12/27/2023 02:22	WG2196204
Chloroform	0.00180	B J	0.00162	0.00392	1	12/27/2023 02:22	WG2196204
Chloromethane	U		0.00683	0.0196	1	12/27/2023 02:22	WG2196204
2-Chlorotoluene	U		0.00136	0.00392	1	12/27/2023 02:22	WG2196204
4-Chlorotoluene	U		0.000706	0.00785	1	12/27/2023 02:22	WG2196204
1,2-Dibromo-3-Chloropropane	U		0.00612	0.0392	1	12/27/2023 02:22	WG2196204
1,2-Dibromoethane	U		0.00102	0.00392	1	12/27/2023 02:22	WG2196204
Dibromomethane	U		0.00118	0.00785	1	12/27/2023 02:22	WG2196204
1,2-Dichlorobenzene	U		0.000667	0.00785	1	12/27/2023 02:22	WG2196204
1,3-Dichlorobenzene	U		0.000942	0.00785	1	12/27/2023 02:22	WG2196204
1,4-Dichlorobenzene	0.0242		0.00110	0.00785	1	12/27/2023 02:22	WG2196204
Dichlorodifluoromethane	U		0.00253	0.00785	1	12/27/2023 02:22	WG2196204
1,1-Dichloroethane	U		0.000771	0.00392	1	12/27/2023 02:22	WG2196204
1,2-Dichloroethane	U		0.00102	0.00392	1	12/27/2023 02:22	WG2196204

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.000951	0.00392	1	12/27/2023 02:22	WG2196204
cis-1,2-Dichloroethene	U		0.00115	0.00392	1	12/27/2023 02:22	WG2196204
trans-1,2-Dichloroethene	U		0.00163	0.00785	1	12/27/2023 02:22	WG2196204
1,2-Dichloropropane	U		0.00223	0.00785	1	12/27/2023 02:22	WG2196204
1,1-Dichloropropene	U		0.00127	0.00392	1	12/27/2023 02:22	WG2196204
1,3-Dichloropropane	U		0.000786	0.00785	1	12/27/2023 02:22	WG2196204
cis-1,3-Dichloropropene	U		0.00119	0.00392	1	12/27/2023 02:22	WG2196204
trans-1,3-Dichloropropene	U		0.00179	0.00785	1	12/27/2023 02:22	WG2196204
2,2-Dichloropropane	U		0.00217	0.00392	1	12/27/2023 02:22	WG2196204
Di-isopropyl ether	U		0.000643	0.00157	1	12/27/2023 02:22	WG2196204
Ethylbenzene	0.0220		0.00116	0.00392	1	12/27/2023 02:22	WG2196204
Hexachloro-1,3-butadiene	U		0.00942	0.0392	1	12/27/2023 02:22	WG2196204
Isopropylbenzene	0.0278		0.000667	0.00392	1	12/27/2023 02:22	WG2196204
p-Isopropyltoluene	0.0177		0.00400	0.00785	1	12/27/2023 02:22	WG2196204
2-Butanone (MEK)	U		0.0997	0.157	1	12/27/2023 02:22	WG2196204
Methylene Chloride	U		0.0104	0.0392	1	12/27/2023 02:22	WG2196204
4-Methyl-2-pentanone (MIBK)	U		0.00358	0.0392	1	12/27/2023 02:22	WG2196204
Methyl tert-butyl ether	U		0.000549	0.00157	1	12/27/2023 02:22	WG2196204
Naphthalene	0.150		0.00766	0.0196	1	12/27/2023 02:22	WG2196204
n-Propylbenzene	0.0322		0.00149	0.00785	1	12/27/2023 02:22	WG2196204
Styrene	U		0.000359	0.0196	1	12/27/2023 02:22	WG2196204
1,1,1,2-Tetrachloroethane	U		0.00149	0.00392	1	12/27/2023 02:22	WG2196204
1,1,2,2-Tetrachloroethane	U		0.00109	0.00392	1	12/27/2023 02:22	WG2196204
1,1,2-Trichlorotrifluoroethane	U		0.00118	0.00392	1	12/27/2023 02:22	WG2196204
Tetrachloroethene	0.00358	J	0.00141	0.00392	1	12/27/2023 02:22	WG2196204
Toluene	0.0562		0.00204	0.00785	1	12/27/2023 02:22	WG2196204
1,2,3-Trichlorobenzene	U		0.0115	0.0196	1	12/27/2023 02:22	WG2196204
1,2,4-Trichlorobenzene	U		0.00691	0.0196	1	12/27/2023 02:22	WG2196204
1,1,1-Trichloroethane	U		0.00145	0.00392	1	12/27/2023 02:22	WG2196204
1,1,2-Trichloroethane	U		0.000937	0.00392	1	12/27/2023 02:22	WG2196204
Trichloroethene	0.00212		0.000917	0.00157	1	12/27/2023 02:22	WG2196204
Trichlorofluoromethane	U		0.00130	0.00392	1	12/27/2023 02:22	WG2196204
1,2,3-Trichloropropane	U		0.00254	0.0196	1	12/27/2023 02:22	WG2196204
1,2,4-Trimethylbenzene	0.0135		0.00248	0.00785	1	12/27/2023 02:22	WG2196204
1,2,3-Trimethylbenzene	0.0190		0.00248	0.00785	1	12/27/2023 02:22	WG2196204
1,3,5-Trimethylbenzene	0.00612	J	0.00314	0.00785	1	12/27/2023 02:22	WG2196204
Vinyl chloride	U		0.00182	0.00392	1	12/27/2023 02:22	WG2196204
Xylenes, Total	0.0449		0.00138	0.0102	1	12/27/2023 02:22	WG2196204
(S) Toluene-d8	*101*			*75.0-131*		*12/27/2023 02:22*	WG2196204
(S) 4-Bromofluorobenzene	*120*			*67.0-138*		*12/27/2023 02:22*	WG2196204
(S) 1,2-Dichloroethane-d4	*119*			*70.0-130*		*12/27/2023 02:22*	WG2196204

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	150	J	85.4	257	50	12/27/2023 05:35	WG2195963
Residual Range Organics (RRO)	1610		213	642	50	12/27/2023 05:35	WG2195963
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*12/27/2023 05:35*	WG2195963

Sample Narrative:

L1691303-30 WG2195963: Sample resembles laboratory standard for Hydraulic Oil.

Chlorinated Acid Herbicides (GC) by Method 8151A

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4-D	U		0.00902	0.0899	1	12/28/2023 14:23	WG2194764
Dalapon	U		0.0145	0.0899	1	12/28/2023 14:23	WG2194764
2,4-DB	U		0.0382	0.0899	1	12/28/2023 14:23	WG2194764
Dicamba	U		0.0202	0.0899	1	12/28/2023 14:23	WG2194764
Dichloroprop	U		0.0315	0.0899	1	12/28/2023 14:23	WG2194764
Dinoseb	U		0.00895	0.0899	1	12/28/2023 14:23	WG2194764
MCPA	U		0.569	8.35	1	12/28/2023 14:23	WG2194764
MCPP	U		0.471	8.35	1	12/28/2023 14:23	WG2194764
2,4,5-T	U		0.0109	0.0899	1	12/28/2023 14:23	WG2194764
2,4,5-TP (Silvex)	U		0.0137	0.0899	1	12/28/2023 14:23	WG2194764
(S) 2,4-Dichlorophenyl Acetic Acid	*62.8*			*22.0-132*		*12/28/2023 14:23*	WG2194764

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	U		0.00483	0.0257	1	12/27/2023 17:49	WG2196234
Alpha BHC	U		0.00473	0.0257	1	12/27/2023 17:49	WG2196234
Beta BHC	U		0.00487	0.0257	1	12/27/2023 17:49	WG2196234
Delta BHC	U		0.00444	0.0257	1	12/27/2023 17:49	WG2196234
Gamma BHC	U		0.00442	0.0257	1	12/27/2023 17:49	WG2196234
Chlordane	U		0.132	0.385	1	12/27/2023 17:49	WG2196234
4,4-DDD	0.0421	P	0.00475	0.0257	1	12/27/2023 17:49	WG2196234
4,4-DDE	U		0.00470	0.0257	1	12/27/2023 17:49	WG2196234
4,4-DDT	U		0.00805	0.0257	1	12/27/2023 17:49	WG2196234
Dieldrin	U		0.00442	0.0257	1	12/27/2023 17:49	WG2196234
Endosulfan I	U		0.00466	0.0257	1	12/27/2023 17:49	WG2196234
Endosulfan II	U		0.00430	0.0257	1	12/27/2023 17:49	WG2196234
Endosulfan sulfate	U		0.00468	0.0257	1	12/27/2023 17:49	WG2196234
Endrin	U		0.00450	0.0257	1	12/27/2023 17:49	WG2196234
Endrin aldehyde	U		0.00435	0.0257	1	12/27/2023 17:49	WG2196234
Endrin ketone	U		0.00913	0.0257	1	12/27/2023 17:49	WG2196234
Heptachlor	U		0.00550	0.0257	1	12/27/2023 17:49	WG2196234
Heptachlor epoxide	U		0.00435	0.0257	1	12/27/2023 17:49	WG2196234
Hexachlorobenzene	U		0.00444	0.0257	1	12/27/2023 17:49	WG2196234
Methoxychlor	U		0.00622	0.0257	1	12/27/2023 17:49	WG2196234
Toxaphene	U		0.159	0.514	1	12/27/2023 17:49	WG2196234
(S) Decachlorobiphenyl	*48.1*			*10.0-135*		*12/27/2023 17:49*	WG2196234
(S) Tetrachloro-m-xylene	*60.5*			*10.0-139*		*12/27/2023 17:49*	WG2196234

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	U		0.0303	0.0873	2	12/28/2023 12:42	WG2196961
PCB 1221	U		0.0303	0.0873	2	12/28/2023 12:42	WG2196961
PCB 1232	U		0.0303	0.0873	2	12/28/2023 12:42	WG2196961
PCB 1242	U		0.0303	0.0873	2	12/28/2023 12:42	WG2196961
PCB 1248	U		0.0190	0.0437	2	12/28/2023 12:42	WG2196961
PCB 1254	U		0.0190	0.0437	2	12/28/2023 12:42	WG2196961
PCB 1260	U		0.0190	0.0437	2	12/28/2023 12:42	WG2196961
(S) Decachlorobiphenyl	*52.4*			*10.0-135*		*12/28/2023 12:42*	WG2196961
(S) Tetrachloro-m-xylene	*53.6*			*10.0-139*		*12/28/2023 12:42*	WG2196961

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	0.0206		0.00295	0.00771	1	12/27/2023 04:55	WG2195971
Acenaphthene	0.0158		0.00268	0.00771	1	12/27/2023 04:55	WG2195971
Acenaphthylene	0.0164	J3	0.00277	0.00771	1	12/27/2023 04:55	WG2195971
Benzo(a)anthracene	0.0732	J3	0.00222	0.00771	1	12/27/2023 04:55	WG2195971
Benzo(a)pyrene	0.0830	J3	0.00230	0.00771	1	12/27/2023 04:55	WG2195971
Benzo(b)fluoranthene	0.0998	J3	0.00197	0.00771	1	12/27/2023 04:55	WG2195971
Benzo(g,h,i)perylene	0.0766		0.00227	0.00771	1	12/27/2023 04:55	WG2195971
Benzo(k)fluoranthene	0.0265		0.00276	0.00771	1	12/27/2023 04:55	WG2195971
Chrysene	0.102	J3	0.00298	0.00771	1	12/27/2023 04:55	WG2195971
Dibenz(a,h)anthracene	0.0119		0.00221	0.00771	1	12/27/2023 04:55	WG2195971
Fluoranthene	0.274	J3 J5	0.00292	0.00771	1	12/27/2023 04:55	WG2195971
Fluorene	0.0379		0.00263	0.00771	1	12/27/2023 04:55	WG2195971
Indeno(1,2,3-cd)pyrene	0.0581		0.00233	0.00771	1	12/27/2023 04:55	WG2195971
Naphthalene	0.0644		0.00524	0.0257	1	12/27/2023 04:55	WG2195971
Phenanthrene	0.126	J3 J5	0.00297	0.00771	1	12/27/2023 04:55	WG2195971
Pyrene	0.270	J3 J5	0.00257	0.00771	1	12/27/2023 04:55	WG2195971
1-Methylnaphthalene	0.0220	J	0.00577	0.0257	1	12/27/2023 04:55	WG2195971
2-Methylnaphthalene	0.0247	J	0.00549	0.0257	1	12/27/2023 04:55	WG2195971
2-Chloronaphthalene	0.0125	J	0.00599	0.0257	1	12/27/2023 04:55	WG2195971
(S) p-Terphenyl-d14	*49.0*			*23.0-120*		*12/27/2023 04:55*	WG2195971
(S) Nitrobenzene-d5	*69.7*			*14.0-149*		*12/27/2023 04:55*	WG2195971
(S) 2-Fluorobiphenyl	*50.4*			*34.0-125*		*12/27/2023 04:55*	WG2195971

Method Blank (MB)

(MB) R4017009-1 12/26/23 14:26

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

L1690908-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1690908-09 12/26/23 14:26 • (DUP) R4017009-3 12/26/23 14:26

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	78.2	77.5	1	0.862		10

Laboratory Control Sample (LCS)

(LCS) R4017009-2 12/26/23 14:26

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	90.0-110	

Method Blank (MB)

(MB) R4017423-1 12/27/23 17:03

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

L1691065-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1691065-07 12/27/23 17:03 • (DUP) R4017423-3 12/27/23 17:03

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	87.5	88.8	1	1.48		10

Laboratory Control Sample (LCS)

(LCS) R4017423-2 12/27/23 17:03

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	90.0-110	

Method Blank (MB)

(MB) R4017953-1 12/28/23 09:30

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00400			

L1691303-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1691303-07 12/28/23 09:30 • (DUP) R4017953-3 12/28/23 09:30

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	81.1	82.1	1	1.18		10

Laboratory Control Sample (LCS)

(LCS) R4017953-2 12/28/23 09:30

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	90.0-110	

Method Blank (MB)

(MB) R4017954-1 12/28/23 10:14

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00400			

L1691315-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1691315-01 12/28/23 10:14 • (DUP) R4017954-3 12/28/23 10:14

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	97.7	97.6	1	0.111		10

Laboratory Control Sample (LCS)

(LCS) R4017954-2 12/28/23 10:14

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	90.0-110	

Method Blank (MB)

(MB) R4020016-1 01/04/24 09:38

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L1692542-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1692542-01 01/04/24 09:38 • (DUP) R4020016-3 01/04/24 09:38

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	83.5	76.6	1	8.62		10

Laboratory Control Sample (LCS)

(LCS) R4020016-2 01/04/24 09:38

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	90.0-110	

Method Blank (MB)

(MB) R4020033-1 01/04/24 10:38

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L1691303-18 Original Sample (OS) • Duplicate (DUP)

(OS) L1691303-18 01/04/24 10:38 • (DUP) R4020033-3 01/04/24 10:38

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	64.3	68.9	1	6.86		10

Laboratory Control Sample (LCS)

(LCS) R4020033-2 01/04/24 10:38

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	90.0-110	

Method Blank (MB)

(MB) R4020031-1 01/04/24 10:25

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

L1692611-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1692611-01 01/04/24 10:25 • (DUP) R4020031-3 01/04/24 10:25

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	17.4	17.6	1	1.13		10

Laboratory Control Sample (LCS)

(LCS) R4020031-2 01/04/24 10:25

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	99.9	90.0-110	

QUALITY CONTROL SUMMARY

L1691303-29,30

Method Blank (MB)

(MB) R4017127-1 12/27/23 09:03

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

Laboratory Control Sample (LCS)

(LCS) R4017127-5 12/27/23 10:52

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.500	0.544	109	80.0-120	

L1691303-29 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1691303-29 12/27/23 09:08 • (MS) R4017127-3 12/27/23 09:10 • (MSD) R4017127-4 12/27/23 09:13

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 %
Mercury	0.629	0.0322	0.584	0.635	87.7	95.8	1	75.0-125			8.32	20

QUALITY CONTROL SUMMARY

L1691303-01,02,03,04,05,06,07,08,28

Method Blank (MB)

(MB) R4018486-1 12/30/23 13:15

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

Laboratory Control Sample (LCS)

(LCS) R4018486-2 12/30/23 13:17

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.500	0.524	105	80.0-120	

L1691141-14 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1691141-14 12/30/23 13:27 • (MS) R4018486-3 12/30/23 13:30 • (MSD) R4018486-4 12/30/23 13:32

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 %
Mercury	0.500	0.0227	0.458	0.489	87.2	93.3	1	75.0-125			6.46	20

Method Blank (MB)

(MB) R4019665-1 01/04/24 10:38

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

Laboratory Control Sample (LCS)

(LCS) R4019665-2 01/04/24 10:41

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.500	0.468	93.7	80.0-120	

L1692542-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1692542-01 01/04/24 10:43 • (MS) R4019665-3 01/04/24 10:46 • (MSD) R4019665-4 01/04/24 10:48

Analyte	Spike Amount (dry) mg/kg	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.599	0.0244	0.734	0.647	118	104	1	75.0-125			12.5	20

Method Blank (MB)

(MB) R4019694-1 01/04/24 11:46

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

Laboratory Control Sample (LCS)

(LCS) R4019694-2 01/04/24 11:49

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.500	0.485	97.0	80.0-120	

L1692616-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1692616-04 01/04/24 11:51 • (MS) R4019694-3 01/04/24 11:54 • (MSD) R4019694-4 01/04/24 11:56

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 %
Mercury	0.500	0.0195	0.449	0.487	85.9	93.4	1	75.0-125			8.06	20

Method Blank (MB)

(MB) R4016786-1 12/26/23 18:03

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.100	1.00
Barium	U		0.152	2.50
Cadmium	U		0.0855	1.00
Chromium	U		0.297	5.00
Lead	U		0.0990	2.00
Selenium	U		0.180	2.50
Silver	U		0.0865	0.500

Laboratory Control Sample (LCS)

(LCS) R4016786-2 12/26/23 18:07

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	97.2	97.2	80.0-120	
Barium	100	92.5	92.5	80.0-120	
Cadmium	100	102	102	80.0-120	
Chromium	100	98.4	98.4	80.0-120	
Lead	100	99.6	99.6	80.0-120	
Selenium	100	99.7	99.7	80.0-120	
Silver	20.0	20.4	102	80.0-120	

L1691303-29 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1691303-29 12/26/23 18:10 • (MS) R4016786-5 12/26/23 18:20 • (MSD) R4016786-6 12/26/23 18:23

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 %
Arsenic	126	4.33	119	118	91.2	90.1	5	75.0-125			1.21	20
Barium	126	142	266	229	98.4	69.5	5	75.0-125		J6	14.7	20
Cadmium	126	0.245	125	117	98.9	92.8	5	75.0-125			6.39	20
Chromium	126	15.3	134	133	94.4	93.5	5	75.0-125			0.858	20
Lead	126	37.8	137	149	79.2	88.4	5	75.0-125			8.07	20
Selenium	126	0.543	121	116	95.9	91.5	5	75.0-125			4.64	20
Silver	25.2	U	24.6	23.4	97.7	92.8	5	75.0-125			5.14	20

Method Blank (MB)

(MB) R4018461-1 12/30/23 11:48

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.100	1.00
Barium	U		0.152	2.50
Cadmium	U		0.0855	1.00
Chromium	U		0.297	5.00
Lead	U		0.0990	2.00
Selenium	U		0.180	2.50
Silver	U		0.0865	0.500

Laboratory Control Sample (LCS)

(LCS) R4018461-2 12/30/23 11:52

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	99.5	99.5	80.0-120	
Barium	100	99.0	99.0	80.0-120	
Cadmium	100	105	105	80.0-120	
Chromium	100	101	101	80.0-120	
Lead	100	102	102	80.0-120	
Selenium	100	104	104	80.0-120	
Silver	20.0	20.2	101	80.0-120	

L1691004-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1691004-01 12/30/23 11:55 • (MS) R4018461-5 12/30/23 12:05 • (MSD) R4018461-6 12/30/23 12:08

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 %
Arsenic	100	5.31	113	108	108	103	5	75.0-125			4.75	20
Barium	100	83.9	187	169	103	85.1	5	75.0-125			10.1	20
Cadmium	100	0.162	111	108	111	108	5	75.0-125			3.35	20
Chromium	100	11.1	118	111	107	100	5	75.0-125			5.84	20
Lead	100	7.36	117	114	110	107	5	75.0-125			2.47	20
Silver	20.0	U	22.0	21.4	110	107	5	75.0-125			2.78	20

Method Blank (MB)

(MB) R4020043-1 01/05/24 00:27

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.100	1.00
Lead	U		0.0990	2.00

Laboratory Control Sample (LCS)

(LCS) R4020043-2 01/05/24 00:31

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	99.8	99.8	80.0-120	
Lead	100	100	100	80.0-120	

L1691303-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1691303-09 01/05/24 00:34 • (MS) R4020043-5 01/05/24 00:44 • (MSD) R4020043-6 01/05/24 00:47

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 %
Arsenic	128	4.54	121	131	91.2	98.6	5	75.0-125			7.52	20
Lead	128	8.20	131	140	96.0	103	5	75.0-125			6.45	20

Method Blank (MB)

(MB) R4020034-1 01/04/24 23:21

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.100	1.00
Lead	U		0.0990	2.00

Laboratory Control Sample (LCS)

(LCS) R4020034-2 01/04/24 23:24

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	105	105	80.0-120	
Lead	100	100	100	80.0-120	

L1691303-23 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1691303-23 01/04/24 23:27 • (MS) R4020034-5 01/04/24 23:37 • (MSD) R4020034-6 01/04/24 23:41

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 %
Arsenic	126	4.80	114	113	86.4	86.1	5	75.0-125			0.257	20
Lead	126	16.9	125	135	85.8	93.7	5	75.0-125			7.73	20

Method Blank (MB)

(MB) R4017282-2 12/27/23 11:27

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	U		0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	*94.2*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R4017282-1 12/27/23 10:29

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5.50	5.75	105	71.0-124	
(S) a,a,a-Trifluorotoluene(FID)			*101*	*77.0-120*	

L1689815-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1689815-04 12/27/23 17:28 • (MS) R4017282-3 12/27/23 19:04 • (MSD) R4017282-4 12/27/23 19:24

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 %
Gasoline Range Organics-NWTPH	163	2.03	128	128	77.2	77.2	28.7	50.0-150			0.000	27
(S) a,a,a-Trifluorotoluene(FID)					*100*	*99.3*		*77.0-120*				

Method Blank (MB)

(MB) R4018978-2 12/29/23 17:52

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	U		0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	*98.2*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R4018978-1 12/29/23 17:03

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5.50	6.01	109	71.0-124	
(S) a,a,a-Trifluorotoluene(FID)			*104*	*77.0-120*	

L1690637-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1690637-01 12/30/23 00:23 • (MS) R4018978-3 12/30/23 07:41 • (MSD) R4018978-4 12/30/23 08:04

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 %
Gasoline Range Organics-NWTPH	4510	1620	5680	5710	89.8	90.6	500	50.0-150			0.619	27
(S) a,a,a-Trifluorotoluene(FID)					*107*	*106*		*77.0-120*				

Method Blank (MB)

(MB) R4018976-2 12/31/23 12:03

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	1.38	J	0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	*96.9*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R4018976-1 12/31/23 10:11

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5.50	5.64	103	71.0-124	
(S) a,a,a-Trifluorotoluene(FID)			*103*	*77.0-120*	

Method Blank (MB)

(MB) R4019622-3 01/03/24 12:10

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	U		0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	*99.7*			*77.0-120*

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

(LCS) R4019622-1 01/03/24 10:31 • (LCSD) R4019622-2 01/03/24 10:58

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 %
Gasoline Range Organics-NWTPH	5.50	6.15	6.12	112	111	71.0-124			0.489	20
(S) a,a,a-Trifluorotoluene(FID)				*104*	*104*	*77.0-120*				

Method Blank (MB)

(MB) R4020368-2 01/04/24 16:51

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	1.21	J	0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	*98.2*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R4020368-1 01/04/24 15:40

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5.50	6.73	122	71.0-124	
(S) a,a,a-Trifluorotoluene(FID)			*106*	*77.0-120*	

L1691268-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1691268-01 01/04/24 18:48 • (MS) R4020368-3 01/05/24 01:48 • (MSD) R4020368-4 01/05/24 02:11

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 %
Gasoline Range Organics-NWTPH	199	U	199	193	100	97.0	30	50.0-150			3.08	27
(S) a,a,a-Trifluorotoluene(FID)					*103*	*103*		*77.0-120*				

Method Blank (MB)

(MB) R4017008-3 12/26/23 23:01

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	0.00138	J	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	0.00500
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) R4017008-3 12/26/23 23:01

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	*104*			*75.0-131*
(S) 4-Bromofluorobenzene	*106*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*119*			*70.0-130*

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

(LCS) R4017008-1 12/26/23 21:19 • (LCSD) R4017008-2 12/26/23 21:38

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	0.432	0.409	69.1	65.4	10.0-160			5.47	31
Acrylonitrile	0.625	0.710	0.715	114	114	45.0-153			0.702	22
Benzene	0.125	0.130	0.127	104	102	70.0-123			2.33	20
Bromobenzene	0.125	0.133	0.135	106	108	73.0-121			1.49	20
Bromodichloromethane	0.125	0.130	0.133	104	106	73.0-121			2.28	20

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

(LCS) R4017008-1 12/26/23 21:19 • (LCSD) R4017008-2 12/26/23 21:38

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	0.129	0.128	103	102	64.0-132			0.778	20
Bromomethane	0.125	0.0987	0.0991	79.0	79.3	56.0-147			0.404	20
n-Butylbenzene	0.125	0.111	0.113	88.8	90.4	68.0-135			1.79	20
sec-Butylbenzene	0.125	0.119	0.121	95.2	96.8	74.0-130			1.67	20
tert-Butylbenzene	0.125	0.114	0.117	91.2	93.6	75.0-127			2.60	20
Carbon tetrachloride	0.125	0.131	0.128	105	102	66.0-128			2.32	20
Chlorobenzene	0.125	0.117	0.112	93.6	89.6	76.0-128			4.37	20
Chlorodibromomethane	0.125	0.117	0.120	93.6	96.0	74.0-127			2.53	20
Chloroethane	0.125	0.128	0.129	102	103	61.0-134			0.778	20
Chloroform	0.125	0.124	0.126	99.2	101	72.0-123			1.60	20
Chloromethane	0.125	0.126	0.139	101	111	51.0-138			9.81	20
2-Chlorotoluene	0.125	0.116	0.112	92.8	89.6	75.0-124			3.51	20
4-Chlorotoluene	0.125	0.136	0.136	109	109	75.0-124			0.000	20
1,2-Dibromo-3-Chloropropane	0.125	0.124	0.125	99.2	100	59.0-130			0.803	20
1,2-Dibromoethane	0.125	0.126	0.123	101	98.4	74.0-128			2.41	20
Dibromomethane	0.125	0.118	0.119	94.4	95.2	75.0-122			0.844	20
1,2-Dichlorobenzene	0.125	0.123	0.122	98.4	97.6	76.0-124			0.816	20
1,3-Dichlorobenzene	0.125	0.135	0.134	108	107	76.0-125			0.743	20
1,4-Dichlorobenzene	0.125	0.125	0.127	100	102	77.0-121			1.59	20
Dichlorodifluoromethane	0.125	0.123	0.124	98.4	99.2	43.0-156			0.810	20
1,1-Dichloroethane	0.125	0.127	0.133	102	106	70.0-127			4.62	20
1,2-Dichloroethane	0.125	0.127	0.133	102	106	65.0-131			4.62	20
1,1-Dichloroethene	0.125	0.126	0.132	101	106	65.0-131			4.65	20
cis-1,2-Dichloroethene	0.125	0.120	0.120	96.0	96.0	73.0-125			0.000	20
trans-1,2-Dichloroethene	0.125	0.103	0.0998	82.4	79.8	71.0-125			3.16	20
1,2-Dichloropropane	0.125	0.135	0.135	108	108	74.0-125			0.000	20
1,1-Dichloropropene	0.125	0.118	0.118	94.4	94.4	73.0-125			0.000	20
1,3-Dichloropropane	0.125	0.130	0.129	104	103	80.0-125			0.772	20
cis-1,3-Dichloropropene	0.125	0.125	0.128	100	102	76.0-127			2.37	20
trans-1,3-Dichloropropene	0.125	0.126	0.123	101	98.4	73.0-127			2.41	20
2,2-Dichloropropane	0.125	0.140	0.142	112	114	59.0-135			1.42	20
Di-isopropyl ether	0.125	0.151	0.155	121	124	60.0-136			2.61	20
Ethylbenzene	0.125	0.117	0.118	93.6	94.4	74.0-126			0.851	20
Hexachloro-1,3-butadiene	0.125	0.118	0.122	94.4	97.6	57.0-150			3.33	20
Isopropylbenzene	0.125	0.113	0.112	90.4	89.6	72.0-127			0.889	20
p-Isopropyltoluene	0.125	0.118	0.119	94.4	95.2	72.0-133			0.844	20
2-Butanone (MEK)	0.625	0.590	0.628	94.4	100	30.0-160			6.24	24
Methylene Chloride	0.125	0.114	0.116	91.2	92.8	68.0-123			1.74	20
4-Methyl-2-pentanone (MIBK)	0.625	0.773	0.761	124	122	56.0-143			1.56	20
Methyl tert-butyl ether	0.125	0.123	0.117	98.4	93.6	66.0-132			5.00	20

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

(LCS) R4017008-1 12/26/23 21:19 • (LCSD) R4017008-2 12/26/23 21:38

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	0.111	0.122	88.8	97.6	59.0-130			9.44	20
n-Propylbenzene	0.125	0.123	0.124	98.4	99.2	74.0-126			0.810	20
Styrene	0.125	0.106	0.107	84.8	85.6	72.0-127			0.939	20
1,1,1,2-Tetrachloroethane	0.125	0.111	0.110	88.8	88.0	74.0-129			0.905	20
1,1,2,2-Tetrachloroethane	0.125	0.133	0.132	106	106	68.0-128			0.755	20
1,1,2-Trichlorotrifluoroethane	0.125	0.128	0.136	102	109	61.0-139			6.06	20
Tetrachloroethene	0.125	0.118	0.114	94.4	91.2	70.0-136			3.45	20
Toluene	0.125	0.120	0.119	96.0	95.2	75.0-121			0.837	20
1,2,3-Trichlorobenzene	0.125	0.102	0.104	81.6	83.2	59.0-139			1.94	20
1,2,4-Trichlorobenzene	0.125	0.103	0.112	82.4	89.6	62.0-137			8.37	20
1,1,1-Trichloroethane	0.125	0.134	0.130	107	104	69.0-126			3.03	20
1,1,2-Trichloroethane	0.125	0.125	0.121	100	96.8	78.0-123			3.25	20
Trichloroethene	0.125	0.121	0.120	96.8	96.0	76.0-126			0.830	20
Trichlorofluoromethane	0.125	0.109	0.111	87.2	88.8	61.0-142			1.82	20
1,2,3-Trichloropropane	0.125	0.137	0.131	110	105	67.0-129			4.48	20
1,2,4-Trimethylbenzene	0.125	0.128	0.130	102	104	70.0-126			1.55	20
1,2,3-Trimethylbenzene	0.125	0.129	0.129	103	103	74.0-124			0.000	20
1,3,5-Trimethylbenzene	0.125	0.122	0.120	97.6	96.0	73.0-127			1.65	20
Vinyl chloride	0.125	0.110	0.112	88.0	89.6	63.0-134			1.80	20
Xylenes, Total	0.375	0.353	0.304	94.1	81.1	72.0-127			14.9	20
(S) Toluene-d8				*99.0*	*98.0*	*75.0-131*				
(S) 4-Bromofluorobenzene				*102*	*102*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*122*	*122*	*70.0-130*				

L1690518-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1690518-05 12/27/23 08:04 • (MS) R4017008-4 12/27/23 08:23 • (MSD) R4017008-5 12/27/23 08:42

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 %
Acetone	14.5	U	34.2	28.6	236	197	20	10.0-160	J5	J5	17.7	40
Acrylonitrile	14.5	U	20.8	23.0	143	159	20	10.0-160			10.3	40
Benzene	2.91	U	3.39	3.63	117	125	20	10.0-149			6.87	37
Bromobenzene	2.91	U	3.74	3.99	128	137	20	10.0-156			6.63	38
Bromodichloromethane	2.91	U	3.19	3.46	110	119	20	10.0-143			8.14	37
Bromoform	2.91	U	3.49	3.66	120	126	20	10.0-146			4.63	36
Bromomethane	2.91	U	1.81	1.81	62.2	62.2	20	10.0-149			0.000	38
n-Butylbenzene	2.91	U	4.49	4.79	154	165	20	10.0-160		J5	6.49	40
sec-Butylbenzene	2.91	1.24	4.61	4.78	116	122	20	10.0-159			3.53	39
tert-Butylbenzene	2.91	U	4.26	3.74	147	128	20	10.0-156			13.2	39

L1690518-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1690518-05 12/27/23 08:04 • (MS) R4017008-4 12/27/23 08:23 • (MSD) R4017008-5 12/27/23 08:42

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 %
Carbon tetrachloride	2.91	U	3.99	4.29	137	148	20	10.0-145		J5	7.27	37
Chlorobenzene	2.91	U	3.22	3.39	111	117	20	10.0-152			5.01	39
Chlorodibromomethane	2.91	U	3.40	3.51	117	121	20	10.0-146			3.05	37
Chloroethane	2.91	U	3.49	3.71	120	127	20	10.0-146			5.86	40
Chloroform	2.91	U	3.95	3.93	136	135	20	10.0-146			0.382	37
Chloromethane	2.91	U	3.86	4.07	133	140	20	10.0-159			5.32	37
2-Chlorotoluene	2.91	U	3.31	3.63	114	125	20	10.0-159			9.11	38
4-Chlorotoluene	2.91	U	3.87	3.95	133	136	20	10.0-155			1.93	39
1,2-Dibromo-3-Chloropropane	2.91	U	3.30	3.65	113	125	20	10.0-151			9.98	39
1,2-Dibromoethane	2.91	U	3.59	3.83	123	132	20	10.0-148			6.50	34
Dibromomethane	2.91	U	3.49	3.74	120	128	20	10.0-147			6.67	35
1,2-Dichlorobenzene	2.91	U	3.40	3.68	117	126	20	10.0-155			7.66	37
1,3-Dichlorobenzene	2.91	U	3.87	4.13	133	142	20	10.0-153			6.40	38
1,4-Dichlorobenzene	2.91	U	3.62	3.68	124	126	20	10.0-151			1.65	38
Dichlorodifluoromethane	2.91	U	4.05	4.16	139	143	20	10.0-160			2.57	35
1,1-Dichloroethane	2.91	U	3.78	3.99	130	137	20	10.0-147			5.43	37
1,2-Dichloroethane	2.91	U	3.74	4.10	128	141	20	10.0-148			9.23	35
1,1-Dichloroethene	2.91	U	4.25	4.43	146	152	20	10.0-155			4.17	37
cis-1,2-Dichloroethene	2.91	U	3.37	3.45	116	119	20	10.0-149			2.21	37
trans-1,2-Dichloroethene	2.91	U	3.01	3.04	104	105	20	10.0-150			0.995	37
1,2-Dichloropropane	2.91	U	3.84	4.11	132	141	20	10.0-148			6.82	37
1,1-Dichloropropene	2.91	U	3.68	3.90	126	134	20	10.0-153			5.96	35
1,3-Dichloropropane	2.91	U	3.75	3.86	129	133	20	10.0-154			2.77	35
cis-1,3-Dichloropropene	2.91	U	3.51	3.78	121	130	20	10.0-151			7.44	37
trans-1,3-Dichloropropene	2.91	U	3.42	3.59	118	123	20	10.0-148			4.73	37
2,2-Dichloropropane	2.91	U	3.34	3.30	115	113	20	10.0-138			1.36	36
Di-isopropyl ether	2.91	U	4.32	4.56	149	157	20	10.0-147	J5	J5	5.42	36
Ethylbenzene	2.91	0.556	3.72	3.93	109	116	20	10.0-160			5.51	38
Hexachloro-1,3-butadiene	2.91	U	3.92	4.26	135	147	20	10.0-160			8.47	40
Isopropylbenzene	2.91	1.64	4.37	4.62	93.8	103	20	10.0-155			5.70	38
p-Isopropyltoluene	2.91	0.413	4.44	4.72	139	148	20	10.0-160			5.92	40
2-Butanone (MEK)	14.5	U	13.5	11.8	92.8	81.0	20	10.0-160			13.6	40
Methylene Chloride	2.91	U	3.22	3.07	111	106	20	10.0-141			4.78	37
4-Methyl-2-pentanone (MIBK)	14.5	U	21.1	22.4	145	155	20	10.0-160			6.23	35
Methyl tert-butyl ether	2.91	U	3.18	3.42	109	118	20	11.0-147			7.31	35
Naphthalene	2.91	0.499	4.14	4.52	125	138	20	10.0-160			8.70	36
n-Propylbenzene	2.91	8.24	8.87	9.25	21.8	34.7	20	10.0-158			4.16	38
Styrene	2.91	U	3.04	3.27	105	112	20	10.0-160			7.16	40
1,1,1,2-Tetrachloroethane	2.91	U	3.04	3.25	105	112	20	10.0-149			6.70	39

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

L1690518-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1690518-05 12/27/23 08:04 • (MS) R4017008-4 12/27/23 08:23 • (MSD) R4017008-5 12/27/23 08:42

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 %
1,1,2,2-Tetrachloroethane	2.91	U	3.34	3.36	115	116	20	10.0-160			0.449	35
1,1,2-Trichlorotrifluoroethane	2.91	U	4.56	4.76	157	164	20	10.0-160		J5	4.20	36
Tetrachloroethene	2.91	U	3.53	3.84	121	132	20	10.0-156			8.59	39
Toluene	2.91	U	3.34	3.51	115	121	20	10.0-156			4.84	38
1,2,3-Trichlorobenzene	2.91	U	4.28	4.50	147	155	20	10.0-160			5.15	40
1,2,4-Trichlorobenzene	2.91	U	3.66	3.90	126	134	20	10.0-160			6.37	40
1,1,1-Trichloroethane	2.91	U	4.10	4.22	141	145	20	10.0-144		J5	2.90	35
1,1,2-Trichloroethane	2.91	U	3.24	3.78	111	130	20	10.0-160			15.5	35
Trichloroethene	2.91	U	3.42	3.75	118	129	20	10.0-156			9.24	38
Trichlorofluoromethane	2.91	U	3.56	3.86	122	133	20	10.0-160			8.13	40
1,2,3-Trichloropropane	2.91	U	3.60	3.63	124	125	20	10.0-156			0.833	35
1,2,4-Trimethylbenzene	2.91	0.746	4.01	4.28	112	122	20	10.0-160			6.55	36
1,2,3-Trimethylbenzene	2.91	0.547	4.05	4.28	121	128	20	10.0-160			5.42	36
1,3,5-Trimethylbenzene	2.91	0.908	4.13	4.34	111	118	20	10.0-160			4.98	38
Vinyl chloride	2.91	U	3.07	3.51	106	121	20	10.0-160			13.3	37
Xylenes, Total	8.69	U	9.99	10.6	115	122	20	10.0-160			5.86	38
(S) Toluene-d8					*98.6*	*97.5*		*75.0-131*				
(S) 4-Bromofluorobenzene					*106*	*104*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*119*	*119*		*70.0-130*				

Sample Narrative:

OS: Non-target compounds too high to run at a lower dilution.

Method Blank (MB)

(MB) R4019150-3 12/30/23 23:06

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	0.00397		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	0.00500
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) R4019150-3 12/30/23 23:06

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	*95.1*			*75.0-131*
(S) 4-Bromofluorobenzene	*94.0*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*

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

(LCS) R4019150-1 12/30/23 21:49 • (LCSD) R4019150-2 12/30/23 22:08

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	0.460	0.429	73.6	68.6	10.0-160			6.97	31
Acrylonitrile	0.625	0.643	0.723	103	116	45.0-153			11.7	22
Benzene	0.125	0.124	0.133	99.2	106	70.0-123			7.00	20
Bromobenzene	0.125	0.132	0.129	106	103	73.0-121			2.30	20
Bromodichloromethane	0.125	0.127	0.139	102	111	73.0-121			9.02	20

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

(LCS) R4019150-1 12/30/23 21:49 • (LCSD) R4019150-2 12/30/23 22:08

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	0.0990	0.109	79.2	87.2	64.0-132			9.62	20
Bromomethane	0.125	0.124	0.126	99.2	101	56.0-147			1.60	20
n-Butylbenzene	0.125	0.113	0.111	90.4	88.8	68.0-135			1.79	20
sec-Butylbenzene	0.125	0.135	0.136	108	109	74.0-130			0.738	20
tert-Butylbenzene	0.125	0.134	0.129	107	103	75.0-127			3.80	20
Carbon tetrachloride	0.125	0.127	0.132	102	106	66.0-128			3.86	20
Chlorobenzene	0.125	0.112	0.115	89.6	92.0	76.0-128			2.64	20
Chlorodibromomethane	0.125	0.104	0.110	83.2	88.0	74.0-127			5.61	20
Chloroethane	0.125	0.136	0.135	109	108	61.0-134			0.738	20
Chloroform	0.125	0.128	0.130	102	104	72.0-123			1.55	20
Chloromethane	0.125	0.118	0.120	94.4	96.0	51.0-138			1.68	20
2-Chlorotoluene	0.125	0.117	0.119	93.6	95.2	75.0-124			1.69	20
4-Chlorotoluene	0.125	0.144	0.134	115	107	75.0-124			7.19	20
1,2-Dibromo-3-Chloropropane	0.125	0.106	0.112	84.8	89.6	59.0-130			5.50	20
1,2-Dibromoethane	0.125	0.113	0.114	90.4	91.2	74.0-128			0.881	20
Dibromomethane	0.125	0.126	0.119	101	95.2	75.0-122			5.71	20
1,2-Dichlorobenzene	0.125	0.118	0.117	94.4	93.6	76.0-124			0.851	20
1,3-Dichlorobenzene	0.125	0.124	0.123	99.2	98.4	76.0-125			0.810	20
1,4-Dichlorobenzene	0.125	0.118	0.116	94.4	92.8	77.0-121			1.71	20
Dichlorodifluoromethane	0.125	0.129	0.133	103	106	43.0-156			3.05	20
1,1-Dichloroethane	0.125	0.129	0.133	103	106	70.0-127			3.05	20
1,2-Dichloroethane	0.125	0.129	0.138	103	110	65.0-131			6.74	20
1,1-Dichloroethene	0.125	0.128	0.129	102	103	65.0-131			0.778	20
cis-1,2-Dichloroethene	0.125	0.119	0.122	95.2	97.6	73.0-125			2.49	20
trans-1,2-Dichloroethene	0.125	0.125	0.124	100	99.2	71.0-125			0.803	20
1,2-Dichloropropane	0.125	0.136	0.144	109	115	74.0-125			5.71	20
1,1-Dichloropropene	0.125	0.138	0.140	110	112	73.0-125			1.44	20
1,3-Dichloropropane	0.125	0.124	0.130	99.2	104	80.0-125			4.72	20
cis-1,3-Dichloropropene	0.125	0.133	0.137	106	110	76.0-127			2.96	20
trans-1,3-Dichloropropene	0.125	0.121	0.127	96.8	102	73.0-127			4.84	20
2,2-Dichloropropane	0.125	0.124	0.129	99.2	103	59.0-135			3.95	20
Di-isopropyl ether	0.125	0.119	0.127	95.2	102	60.0-136			6.50	20
Ethylbenzene	0.125	0.113	0.117	90.4	93.6	74.0-126			3.48	20
Hexachloro-1,3-butadiene	0.125	0.150	0.141	120	113	57.0-150			6.19	20
Isopropylbenzene	0.125	0.115	0.117	92.0	93.6	72.0-127			1.72	20
p-Isopropyltoluene	0.125	0.131	0.127	105	102	72.0-133			3.10	20
2-Butanone (MEK)	0.625	0.627	0.756	100	121	30.0-160			18.7	24
Methylene Chloride	0.125	0.114	0.117	91.2	93.6	68.0-123			2.60	20
4-Methyl-2-pentanone (MIBK)	0.625	0.646	0.673	103	108	56.0-143			4.09	20
Methyl tert-butyl ether	0.125	0.126	0.134	101	107	66.0-132			6.15	20

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

(LCS) R4019150-1 12/30/23 21:49 • (LCSD) R4019150-2 12/30/23 22:08

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	0.0782	0.0902	62.6	72.2	59.0-130			14.3	20
n-Propylbenzene	0.125	0.144	0.137	115	110	74.0-126			4.98	20
Styrene	0.125	0.104	0.106	83.2	84.8	72.0-127			1.90	20
1,1,1,2-Tetrachloroethane	0.125	0.112	0.110	89.6	88.0	74.0-129			1.80	20
1,1,2,2-Tetrachloroethane	0.125	0.135	0.135	108	108	68.0-128			0.000	20
1,1,2-Trichlorotrifluoroethane	0.125	0.122	0.125	97.6	100	61.0-139			2.43	20
Tetrachloroethene	0.125	0.123	0.121	98.4	96.8	70.0-136			1.64	20
Toluene	0.125	0.124	0.124	99.2	99.2	75.0-121			0.000	20
1,2,3-Trichlorobenzene	0.125	0.0803	0.0935	64.2	74.8	59.0-139			15.2	20
1,2,4-Trichlorobenzene	0.125	0.0933	0.102	74.6	81.6	62.0-137			8.91	20
1,1,1-Trichloroethane	0.125	0.131	0.129	105	103	69.0-126			1.54	20
1,1,2-Trichloroethane	0.125	0.124	0.126	99.2	101	78.0-123			1.60	20
Trichloroethene	0.125	0.115	0.120	92.0	96.0	76.0-126			4.26	20
Trichlorofluoromethane	0.125	0.129	0.138	103	110	61.0-142			6.74	20
1,2,3-Trichloropropane	0.125	0.137	0.141	110	113	67.0-129			2.88	20
1,2,4-Trimethylbenzene	0.125	0.130	0.127	104	102	70.0-126			2.33	20
1,2,3-Trimethylbenzene	0.125	0.124	0.126	99.2	101	74.0-124			1.60	20
1,3,5-Trimethylbenzene	0.125	0.133	0.131	106	105	73.0-127			1.52	20
Vinyl chloride	0.125	0.121	0.125	96.8	100	63.0-134			3.25	20
Xylenes, Total	0.375	0.341	0.334	90.9	89.1	72.0-127			2.07	20
(S) Toluene-d8				*95.2*	*96.1*	*75.0-131*				
(S) 4-Bromofluorobenzene				*91.5*	*92.6*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*105*	*106*	*70.0-130*				

L1690550-36 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1690550-36 12/31/23 05:29 • (MS) R4019150-4 12/31/23 05:48 • (MSD) R4019150-5 12/31/23 06:07

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 %
Acetone	29.1	U	25.6	27.8	88.2	95.6	40	10.0-160			8.11	40
Acrylonitrile	29.1	U	35.9	36.3	124	125	40	10.0-160			1.06	40
Benzene	5.80	0.0314	7.26	7.00	125	120	40	10.0-149			3.75	37
Bromobenzene	5.80	U	7.32	7.15	126	123	40	10.0-156			2.29	38
Bromodichloromethane	5.80	U	7.39	7.24	127	125	40	10.0-143			2.09	37
Bromoform	5.80	U	6.12	6.13	105	106	40	10.0-146			0.208	36
Bromomethane	5.80	U	6.42	6.07	111	105	40	10.0-149			5.71	38
n-Butylbenzene	5.80	U	6.61	7.09	114	122	40	10.0-160			6.88	40
sec-Butylbenzene	5.80	0.642	8.23	8.53	131	136	40	10.0-159			3.50	39
tert-Butylbenzene	5.80	U	7.83	7.95	135	137	40	10.0-156			1.62	39

L1690550-36 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1690550-36 12/31/23 05:29 • (MS) R4019150-4 12/31/23 05:48 • (MSD) R4019150-5 12/31/23 06:07

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 %
Carbon tetrachloride	5.80	U	8.02	7.29	138	126	40	10.0-145			9.49	37
Chlorobenzene	5.80	U	6.59	6.47	114	112	40	10.0-152			1.76	39
Chlorodibromomethane	5.80	U	6.53	6.31	113	109	40	10.0-146			3.38	37
Chloroethane	5.80	U	6.73	6.70	116	116	40	10.0-146			0.380	40
Chloroform	5.80	U	7.07	6.90	122	119	40	10.0-146			2.55	37
Chloromethane	5.80	U	6.54	6.13	113	106	40	10.0-159			6.44	37
2-Chlorotoluene	5.80	U	6.97	6.91	120	119	40	10.0-159			0.918	38
4-Chlorotoluene	5.80	U	7.66	7.89	132	136	40	10.0-155			2.95	39
1,2-Dibromo-3-Chloropropane	5.80	U	6.91	6.64	119	115	40	10.0-151			3.95	39
1,2-Dibromoethane	5.80	U	6.67	6.60	115	114	40	10.0-148			0.961	34
Dibromomethane	5.80	U	7.21	6.67	124	115	40	10.0-147			7.90	35
1,2-Dichlorobenzene	5.80	U	6.95	7.01	120	121	40	10.0-155			0.913	37
1,3-Dichlorobenzene	5.80	U	7.11	7.24	123	125	40	10.0-153			1.78	38
1,4-Dichlorobenzene	5.80	U	7.00	6.74	121	116	40	10.0-151			3.71	38
Dichlorodifluoromethane	5.80	U	8.32	7.83	144	135	40	10.0-160			6.16	35
1,1-Dichloroethane	5.80	U	7.28	6.96	125	120	40	10.0-147			4.48	37
1,2-Dichloroethane	5.80	U	7.49	7.44	129	128	40	10.0-148			0.683	35
1,1-Dichloroethene	5.80	U	7.80	7.14	135	123	40	10.0-155			8.87	37
cis-1,2-Dichloroethene	5.80	U	6.72	6.47	116	112	40	10.0-149			3.67	37
trans-1,2-Dichloroethene	5.80	U	7.05	6.65	122	115	40	10.0-150			5.77	37
1,2-Dichloropropane	5.80	U	8.14	7.75	140	134	40	10.0-148			4.97	37
1,1-Dichloropropene	5.80	U	8.02	7.62	138	131	40	10.0-153			5.05	35
1,3-Dichloropropane	5.80	U	7.39	7.06	127	122	40	10.0-154			4.59	35
cis-1,3-Dichloropropene	5.80	U	7.47	7.04	129	121	40	10.0-151			5.98	37
trans-1,3-Dichloropropene	5.80	U	6.82	6.76	118	116	40	10.0-148			0.939	37
2,2-Dichloropropane	5.80	U	5.38	5.24	92.7	90.3	40	10.0-138			2.64	36
Di-isopropyl ether	5.80	U	7.14	6.83	123	118	40	10.0-147			4.38	36
Ethylbenzene	5.80	1.95	7.77	7.66	100	98.5	40	10.0-160			1.49	38
Hexachloro-1,3-butadiene	5.80	U	9.15	9.33	158	161	40	10.0-160		J5	1.93	40
Isopropylbenzene	5.80	0.851	7.47	7.43	114	113	40	10.0-155			0.513	38
p-Isopropyltoluene	5.80	0.454	7.72	7.61	125	123	40	10.0-160			1.50	40
2-Butanone (MEK)	29.1	U	43.5	40.0	150	138	40	10.0-160			8.24	40
Methylene Chloride	5.80	U	6.32	6.41	109	111	40	10.0-141			1.40	37
4-Methyl-2-pentanone (MIBK)	29.1	U	40.7	38.6	140	133	40	10.0-160			5.14	35
Methyl tert-butyl ether	5.80	U	7.01	6.74	121	116	40	11.0-147			3.89	35
Naphthalene	5.80	0.937	5.94	6.18	86.3	90.4	40	10.0-160			4.00	36
n-Propylbenzene	5.80	1.72	8.97	9.01	125	126	40	10.0-158			0.425	38
Styrene	5.80	U	6.23	6.19	107	107	40	10.0-160			0.615	40
1,1,1,2-Tetrachloroethane	5.80	U	6.39	6.18	110	107	40	10.0-149			3.25	39

L1690550-36 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1690550-36 12/31/23 05:29 • (MS) R4019150-4 12/31/23 05:48 • (MSD) R4019150-5 12/31/23 06:07

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 %
1,1,2,2-Tetrachloroethane	5.80	U	7.25	7.15	125	123	40	10.0-160			1.42	35
1,1,2-Trichlorotrifluoroethane	5.80	U	7.57	7.02	131	121	40	10.0-160			7.51	36
Tetrachloroethene	5.80	U	6.97	6.78	120	117	40	10.0-156			2.78	39
Toluene	5.80	U	7.05	7.01	122	121	40	10.0-156			0.544	38
1,2,3-Trichlorobenzene	5.80	U	5.34	5.76	92.1	99.3	40	10.0-160			7.58	40
1,2,4-Trichlorobenzene	5.80	U	6.22	6.40	107	110	40	10.0-160			2.83	40
1,1,1-Trichloroethane	5.80	U	7.79	7.53	134	130	40	10.0-144			3.33	35
1,1,2-Trichloroethane	5.80	U	7.65	7.55	132	130	40	10.0-160			1.34	35
Trichloroethene	5.80	U	7.46	7.12	129	123	40	10.0-156			4.55	38
Trichlorofluoromethane	5.80	U	8.28	7.52	143	130	40	10.0-160			9.68	40
1,2,3-Trichloropropane	5.80	U	7.72	7.32	133	126	40	10.0-156			5.42	35
1,2,4-Trimethylbenzene	5.80	16.6	16.4	16.6	0.000	0.000	40	10.0-160	J6	J6	0.772	36
1,2,3-Trimethylbenzene	5.80	1.99	8.36	8.22	110	107	40	10.0-160			1.69	36
1,3,5-Trimethylbenzene	5.80	U	7.53	7.57	130	131	40	10.0-160			0.506	38
Vinyl chloride	5.80	U	6.81	6.49	117	112	40	10.0-160			4.79	37
Xylenes, Total	17.5	0.126	20.3	19.4	115	110	40	10.0-160			4.50	38
(S) Toluene-d8					*98.1*	*95.4*		*75.0-131*				
(S) 4-Bromofluorobenzene					*97.2*	*94.4*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*115*	*110*		*70.0-130*				

Sample Narrative:

OS: Non-target compounds too high to run at a lower dilution.

Method Blank (MB)

(MB) R4019173-2 12/31/23 08:20

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	0.00390		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	0.00500
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) R4019173-2 12/31/23 08:20

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	*99.7*			*75.0-131*
(S) 4-Bromofluorobenzene	*92.5*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R4019173-1 12/31/23 07:04

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.463	74.1	10.0-160	
Acrylonitrile	0.625	0.624	99.8	45.0-153	
Benzene	0.125	0.126	101	70.0-123	
Bromobenzene	0.125	0.134	107	73.0-121	
Bromodichloromethane	0.125	0.131	105	73.0-121	

Laboratory Control Sample (LCS)

(LCS) R4019173-1 12/31/23 07:04

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Bromoform	0.125	0.114	91.2	64.0-132	
Bromomethane	0.125	0.112	89.6	56.0-147	
n-Butylbenzene	0.125	0.112	89.6	68.0-135	
sec-Butylbenzene	0.125	0.138	110	74.0-130	
tert-Butylbenzene	0.125	0.139	111	75.0-127	
Carbon tetrachloride	0.125	0.130	104	66.0-128	
Chlorobenzene	0.125	0.116	92.8	76.0-128	
Chlorodibromomethane	0.125	0.115	92.0	74.0-127	
Chloroethane	0.125	0.116	92.8	61.0-134	
Chloroform	0.125	0.124	99.2	72.0-123	
Chloromethane	0.125	0.108	86.4	51.0-138	
2-Chlorotoluene	0.125	0.123	98.4	75.0-124	
4-Chlorotoluene	0.125	0.145	116	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.118	94.4	59.0-130	
1,2-Dibromoethane	0.125	0.119	95.2	74.0-128	
Dibromomethane	0.125	0.117	93.6	75.0-122	
1,2-Dichlorobenzene	0.125	0.125	100	76.0-124	
1,3-Dichlorobenzene	0.125	0.131	105	76.0-125	
1,4-Dichlorobenzene	0.125	0.125	100	77.0-121	
Dichlorodifluoromethane	0.125	0.124	99.2	43.0-156	
1,1-Dichloroethane	0.125	0.124	99.2	70.0-127	
1,2-Dichloroethane	0.125	0.136	109	65.0-131	
1,1-Dichloroethene	0.125	0.125	100	65.0-131	
cis-1,2-Dichloroethene	0.125	0.112	89.6	73.0-125	
trans-1,2-Dichloroethene	0.125	0.116	92.8	71.0-125	
1,2-Dichloropropane	0.125	0.138	110	74.0-125	
1,1-Dichloropropene	0.125	0.130	104	73.0-125	
1,3-Dichloropropane	0.125	0.136	109	80.0-125	
cis-1,3-Dichloropropene	0.125	0.131	105	76.0-127	
trans-1,3-Dichloropropene	0.125	0.130	104	73.0-127	
2,2-Dichloropropane	0.125	0.108	86.4	59.0-135	
Di-isopropyl ether	0.125	0.125	100	60.0-136	
Ethylbenzene	0.125	0.119	95.2	74.0-126	
Hexachloro-1,3-butadiene	0.125	0.147	118	57.0-150	
Isopropylbenzene	0.125	0.125	100	72.0-127	
p-Isopropyltoluene	0.125	0.133	106	72.0-133	
2-Butanone (MEK)	0.625	0.663	106	30.0-160	
Methylene Chloride	0.125	0.119	95.2	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.705	113	56.0-143	
Methyl tert-butyl ether	0.125	0.124	99.2	66.0-132	

Laboratory Control Sample (LCS)

(LCS) R4019173-1 12/31/23 07:04

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Naphthalene	0.125	0.0979	78.3	59.0-130	
n-Propylbenzene	0.125	0.145	116	74.0-126	
Styrene	0.125	0.111	88.8	72.0-127	
1,1,1,2-Tetrachloroethane	0.125	0.115	92.0	74.0-129	
1,1,2,2-Tetrachloroethane	0.125	0.119	95.2	68.0-128	
1,1,2-Trichlorotrifluoroethane	0.125	0.118	94.4	61.0-139	
Tetrachloroethene	0.125	0.128	102	70.0-136	
Toluene	0.125	0.127	102	75.0-121	
1,2,3-Trichlorobenzene	0.125	0.103	82.4	59.0-139	
1,2,4-Trichlorobenzene	0.125	0.116	92.8	62.0-137	
1,1,1-Trichloroethane	0.125	0.128	102	69.0-126	
1,1,2-Trichloroethane	0.125	0.133	106	78.0-123	
Trichloroethene	0.125	0.133	106	76.0-126	
Trichlorofluoromethane	0.125	0.128	102	61.0-142	
1,2,3-Trichloropropane	0.125	0.145	116	67.0-129	
1,2,4-Trimethylbenzene	0.125	0.137	110	70.0-126	
1,2,3-Trimethylbenzene	0.125	0.134	107	74.0-124	
1,3,5-Trimethylbenzene	0.125	0.138	110	73.0-127	
Vinyl chloride	0.125	0.114	91.2	63.0-134	
Xylenes, Total	0.375	0.359	95.7	72.0-127	
(S) Toluene-d8			*98.8*	*75.0-131*	
(S) 4-Bromofluorobenzene			*92.1*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*113*	*70.0-130*	

Method Blank (MB)

(MB) R4020091-3 01/02/24 20:07

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	0.00150	J	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	0.00500
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) R4020091-3 01/02/24 20:07

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	*103*			*75.0-131*
(S) 4-Bromofluorobenzene	*93.9*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*111*			*70.0-130*

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

(LCS) R4020091-1 01/02/24 18:50 • (LCSD) R4020091-2 01/02/24 19:10

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	0.349	0.374	55.8	59.8	10.0-160			6.92	31
Acrylonitrile	0.625	0.560	0.595	89.6	95.2	45.0-153			6.06	22
Benzene	0.125	0.132	0.141	106	113	70.0-123			6.59	20
Bromobenzene	0.125	0.134	0.136	107	109	73.0-121			1.48	20
Bromodichloromethane	0.125	0.136	0.141	109	113	73.0-121			3.61	20

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

(LCS) R4020091-1 01/02/24 18:50 • (LCSD) R4020091-2 01/02/24 19:10

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	0.137	0.145	110	116	64.0-132			5.67	20
Bromomethane	0.125	0.149	0.153	119	122	56.0-147			2.65	20
n-Butylbenzene	0.125	0.116	0.124	92.8	99.2	68.0-135			6.67	20
sec-Butylbenzene	0.125	0.126	0.133	101	106	74.0-130			5.41	20
tert-Butylbenzene	0.125	0.118	0.127	94.4	102	75.0-127			7.35	20
Carbon tetrachloride	0.125	0.159	0.166	127	133	66.0-128		J4	4.31	20
Chlorobenzene	0.125	0.119	0.126	95.2	101	76.0-128			5.71	20
Chlorodibromomethane	0.125	0.132	0.134	106	107	74.0-127			1.50	20
Chloroethane	0.125	0.151	0.151	121	121	61.0-134			0.000	20
Chloroform	0.125	0.131	0.140	105	112	72.0-123			6.64	20
Chloromethane	0.125	0.136	0.150	109	120	51.0-138			9.79	20
2-Chlorotoluene	0.125	0.117	0.124	93.6	99.2	75.0-124			5.81	20
4-Chlorotoluene	0.125	0.128	0.133	102	106	75.0-124			3.83	20
1,2-Dibromo-3-Chloropropane	0.125	0.109	0.118	87.2	94.4	59.0-130			7.93	20
1,2-Dibromoethane	0.125	0.132	0.136	106	109	74.0-128			2.99	20
Dibromomethane	0.125	0.125	0.135	100	108	75.0-122			7.69	20
1,2-Dichlorobenzene	0.125	0.117	0.126	93.6	101	76.0-124			7.41	20
1,3-Dichlorobenzene	0.125	0.134	0.143	107	114	76.0-125			6.50	20
1,4-Dichlorobenzene	0.125	0.123	0.130	98.4	104	77.0-121			5.53	20
Dichlorodifluoromethane	0.125	0.190	0.205	152	164	43.0-156		J4	7.59	20
1,1-Dichloroethane	0.125	0.129	0.137	103	110	70.0-127			6.02	20
1,2-Dichloroethane	0.125	0.134	0.140	107	112	65.0-131			4.38	20
1,1-Dichloroethene	0.125	0.140	0.146	112	117	65.0-131			4.20	20
cis-1,2-Dichloroethene	0.125	0.126	0.139	101	111	73.0-125			9.81	20
trans-1,2-Dichloroethene	0.125	0.121	0.128	96.8	102	71.0-125			5.62	20
1,2-Dichloropropane	0.125	0.130	0.131	104	105	74.0-125			0.766	20
1,1-Dichloropropene	0.125	0.133	0.151	106	121	73.0-125			12.7	20
1,3-Dichloropropane	0.125	0.135	0.142	108	114	80.0-125			5.05	20
cis-1,3-Dichloropropene	0.125	0.136	0.143	109	114	76.0-127			5.02	20
trans-1,3-Dichloropropene	0.125	0.131	0.135	105	108	73.0-127			3.01	20
2,2-Dichloropropane	0.125	0.151	0.162	121	130	59.0-135			7.03	20
Di-isopropyl ether	0.125	0.128	0.136	102	109	60.0-136			6.06	20
Ethylbenzene	0.125	0.119	0.129	95.2	103	74.0-126			8.06	20
Hexachloro-1,3-butadiene	0.125	0.116	0.136	92.8	109	57.0-150			15.9	20
Isopropylbenzene	0.125	0.114	0.122	91.2	97.6	72.0-127			6.78	20
p-Isopropyltoluene	0.125	0.117	0.126	93.6	101	72.0-133			7.41	20
2-Butanone (MEK)	0.625	0.506	0.518	81.0	82.9	30.0-160			2.34	24
Methylene Chloride	0.125	0.126	0.131	101	105	68.0-123			3.89	20
4-Methyl-2-pentanone (MIBK)	0.625	0.607	0.651	97.1	104	56.0-143			7.00	20
Methyl tert-butyl ether	0.125	0.119	0.124	95.2	99.2	66.0-132			4.12	20

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

(LCS) R4020091-1 01/02/24 18:50 • (LCSD) R4020091-2 01/02/24 19:10

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	0.0891	0.0979	71.3	78.3	59.0-130			9.41	20
n-Propylbenzene	0.125	0.121	0.130	96.8	104	74.0-126			7.17	20
Styrene	0.125	0.105	0.113	84.0	90.4	72.0-127			7.34	20
1,1,1,2-Tetrachloroethane	0.125	0.116	0.123	92.8	98.4	74.0-129			5.86	20
1,1,2,2-Tetrachloroethane	0.125	0.125	0.131	100	105	68.0-128			4.69	20
1,1,2-Trichlorotrifluoroethane	0.125	0.169	0.176	135	141	61.0-139		J4	4.06	20
Tetrachloroethene	0.125	0.133	0.148	106	118	70.0-136			10.7	20
Toluene	0.125	0.127	0.132	102	106	75.0-121			3.86	20
1,2,3-Trichlorobenzene	0.125	0.0892	0.0927	71.4	74.2	59.0-139			3.85	20
1,2,4-Trichlorobenzene	0.125	0.0955	0.101	76.4	80.8	62.0-137			5.60	20
1,1,1-Trichloroethane	0.125	0.146	0.158	117	126	69.0-126			7.89	20
1,1,2-Trichloroethane	0.125	0.130	0.133	104	106	78.0-123			2.28	20
Trichloroethene	0.125	0.132	0.144	106	115	76.0-126			8.70	20
Trichlorofluoromethane	0.125	0.170	0.182	136	146	61.0-142		J4	6.82	20
1,2,3-Trichloropropane	0.125	0.131	0.141	105	113	67.0-129			7.35	20
1,2,4-Trimethylbenzene	0.125	0.115	0.126	92.0	101	70.0-126			9.13	20
1,2,3-Trimethylbenzene	0.125	0.125	0.131	100	105	74.0-124			4.69	20
1,3,5-Trimethylbenzene	0.125	0.121	0.128	96.8	102	73.0-127			5.62	20
Vinyl chloride	0.125	0.140	0.148	112	118	63.0-134			5.56	20
Xylenes, Total	0.375	0.353	0.369	94.1	98.4	72.0-127			4.43	20
(S) Toluene-d8				*102*	*99.9*	*75.0-131*				
(S) 4-Bromofluorobenzene				*100*	*99.6*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*113*	*116*	*70.0-130*				

L1692070-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1692070-01 01/03/24 01:42 • (MS) R4020091-4 01/03/24 02:39 • (MSD) R4020091-5 01/03/24 02:58

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 %
Acetone	0.625	U	0.165	0.169	26.4	27.0	1	10.0-160			2.40	40
Acrylonitrile	0.625	U	0.560	0.671	89.6	107	1	10.0-160			18.0	40
Benzene	0.125	U	0.148	0.159	118	127	1	10.0-149			7.17	37
Bromobenzene	0.125	U	0.169	0.163	135	130	1	10.0-156			3.61	38
Bromodichloromethane	0.125	U	0.142	0.155	114	124	1	10.0-143			8.75	37
Bromoform	0.125	U	0.153	0.164	122	131	1	10.0-146			6.94	36
Bromomethane	0.125	U	0.101	0.106	80.8	84.8	1	10.0-149			4.83	38
n-Butylbenzene	0.125	U	0.124	0.153	99.2	122	1	10.0-160			20.9	40
sec-Butylbenzene	0.125	U	0.147	0.164	118	131	1	10.0-159			10.9	39
tert-Butylbenzene	0.125	U	0.144	0.151	115	121	1	10.0-156			4.75	39

L1692070-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1692070-01 01/03/24 01:42 • (MS) R4020091-4 01/03/24 02:39 • (MSD) R4020091-5 01/03/24 02:58

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 %
Carbon tetrachloride	0.125	U	0.174	0.186	139	149	1	10.0-145		J5	6.67	37
Chlorobenzene	0.125	U	0.136	0.145	109	116	1	10.0-152			6.41	39
Chlorodibromomethane	0.125	U	0.149	0.152	119	122	1	10.0-146			1.99	37
Chloroethane	0.125	U	0.124	0.120	99.2	96.0	1	10.0-146			3.28	40
Chloroform	0.125	U	0.146	0.157	117	126	1	10.0-146			7.26	37
Chloromethane	0.125	U	0.151	0.148	121	118	1	10.0-159			2.01	37
2-Chlorotoluene	0.125	U	0.138	0.147	110	118	1	10.0-159			6.32	38
4-Chlorotoluene	0.125	U	0.156	0.165	125	132	1	10.0-155			5.61	39
1,2-Dibromo-3-Chloropropane	0.125	U	0.103	0.114	82.4	91.2	1	10.0-151			10.1	39
1,2-Dibromoethane	0.125	U	0.159	0.162	127	130	1	10.0-148			1.87	34
Dibromomethane	0.125	U	0.137	0.152	110	122	1	10.0-147			10.4	35
1,2-Dichlorobenzene	0.125	U	0.133	0.148	106	118	1	10.0-155			10.7	37
1,3-Dichlorobenzene	0.125	U	0.151	0.162	121	130	1	10.0-153			7.03	38
1,4-Dichlorobenzene	0.125	U	0.144	0.155	115	124	1	10.0-151			7.36	38
Dichlorodifluoromethane	0.125	U	0.200	0.209	160	167	1	10.0-160		J5	4.40	35
1,1-Dichloroethane	0.125	U	0.139	0.149	111	119	1	10.0-147			6.94	37
1,2-Dichloroethane	0.125	U	0.135	0.166	108	133	1	10.0-148			20.6	35
1,1-Dichloroethene	0.125	U	0.215	0.225	172	180	1	10.0-155	J5	J5	4.55	37
cis-1,2-Dichloroethene	0.125	U	0.141	0.147	113	118	1	10.0-149			4.17	37
trans-1,2-Dichloroethene	0.125	U	0.129	0.141	103	113	1	10.0-150			8.89	37
1,2-Dichloropropane	0.125	U	0.142	0.155	114	124	1	10.0-148			8.75	37
1,1-Dichloropropene	0.125	U	0.146	0.171	117	137	1	10.0-153			15.8	35
1,3-Dichloropropane	0.125	U	0.157	0.163	126	130	1	10.0-154			3.75	35
cis-1,3-Dichloropropene	0.125	U	0.145	0.157	116	126	1	10.0-151			7.95	37
trans-1,3-Dichloropropene	0.125	U	0.156	0.157	125	126	1	10.0-148			0.639	37
2,2-Dichloropropane	0.125	U	0.126	0.140	101	112	1	10.0-138			10.5	36
Di-isopropyl ether	0.125	U	0.137	0.156	110	125	1	10.0-147			13.0	36
Ethylbenzene	0.125	U	0.137	0.152	110	122	1	10.0-160			10.4	38
Hexachloro-1,3-butadiene	0.125	U	0.128	0.180	102	144	1	10.0-160			33.8	40
Isopropylbenzene	0.125	U	0.128	0.149	102	119	1	10.0-155			15.2	38
p-Isopropyltoluene	0.125	U	0.138	0.158	110	126	1	10.0-160			13.5	40
2-Butanone (MEK)	0.625	U	0.538	0.376	86.1	60.2	1	10.0-160			35.4	40
Methylene Chloride	0.125	U	0.168	0.183	134	146	1	10.0-141		J5	8.55	37
4-Methyl-2-pentanone (MIBK)	0.625	U	0.676	0.710	108	114	1	10.0-160			4.91	35
Methyl tert-butyl ether	0.125	U	0.110	0.130	88.0	104	1	11.0-147			16.7	35
Naphthalene	0.125	U	0.113	0.134	90.4	107	1	10.0-160			17.0	36
n-Propylbenzene	0.125	U	0.150	0.154	120	123	1	10.0-158			2.63	38
Styrene	0.125	U	0.121	0.135	96.8	108	1	10.0-160			10.9	40
1,1,1,2-Tetrachloroethane	0.125	U	0.127	0.140	102	112	1	10.0-149			9.74	39
1,1,2,2-Tetrachloroethane	0.125	U	0.142	0.129	114	103	1	10.0-160			9.59	35

L1692070-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1692070-01 01/03/24 01:42 • (MS) R4020091-4 01/03/24 02:39 • (MSD) R4020091-5 01/03/24 02:58

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 %
1,1,2-Trichlorotrifluoroethane	0.125	U	0.208	0.220	166	176	1	10.0-160	J5	J5	5.61	36
Tetrachloroethene	0.125	U	0.151	0.173	121	138	1	10.0-156			13.6	39
Toluene	0.125	U	0.143	0.155	114	124	1	10.0-156			8.05	38
1,2,3-Trichlorobenzene	0.125	U	0.138	0.168	110	134	1	10.0-160			19.6	40
1,2,4-Trichlorobenzene	0.125	U	0.116	0.144	92.8	115	1	10.0-160			21.5	40
1,1,1-Trichloroethane	0.125	U	0.162	0.181	130	145	1	10.0-144		J5	11.1	35
1,1,2-Trichloroethane	0.125	U	0.152	0.150	122	120	1	10.0-160			1.32	35
Trichloroethene	0.125	U	0.159	0.176	127	141	1	10.0-156			10.1	38
Trichlorofluoromethane	0.125	U	0.165	0.149	132	119	1	10.0-160			10.2	40
1,2,3-Trichloropropane	0.125	U	0.157	0.150	126	120	1	10.0-156			4.56	35
1,2,4-Trimethylbenzene	0.125	U	0.139	0.153	111	122	1	10.0-160			9.59	36
1,2,3-Trimethylbenzene	0.125	U	0.143	0.158	114	126	1	10.0-160			9.97	36
1,3,5-Trimethylbenzene	0.125	U	0.142	0.153	114	122	1	10.0-160			7.46	38
Vinyl chloride	0.125	U	0.147	0.165	118	132	1	10.0-160			11.5	37
Xylenes, Total	0.375	U	0.389	0.433	104	115	1	10.0-160			10.7	38
(S) Toluene-d8					*105*	*101*		*75.0-131*				
(S) 4-Bromofluorobenzene					*97.8*	*99.2*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*110*	*116*		*70.0-130*				

Method Blank (MB)

(MB) R4019761-3 01/03/24 20:35

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Naphthalene	U		0.00488	0.0125
(S) Toluene-d8	*102*			*75.0-131*
(S) 4-Bromofluorobenzene	*104*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*

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

(LCS) R4019761-1 01/03/24 18:45 • (LCSD) R4019761-2 01/03/24 19:04

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	0.114	0.108	91.2	86.4	59.0-130			5.41	20
(S) Toluene-d8				*101*	*103*	*75.0-131*				
(S) 4-Bromofluorobenzene				*105*	*104*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*110*	*109*	*70.0-130*				

Method Blank (MB)

(MB) R4020082-3 01/04/24 06:22

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Naphthalene	U		0.00488	0.0125
(S) Toluene-d8	*103*			*75.0-131*
(S) 4-Bromofluorobenzene	*103*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*

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

(LCS) R4020082-1 01/04/24 04:46 • (LCSD) R4020082-2 01/04/24 05:05

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	0.0936	0.105	74.9	84.0	59.0-130			11.5	20
(S) Toluene-d8				*101*	*101*	*75.0-131*				
(S) 4-Bromofluorobenzene				*103*	*103*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*108*	*108*	*70.0-130*				

Method Blank (MB)

(MB) R4016925-1 12/27/23 00:43

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Diesel Range Organics (DRO)	U		1.33	4.00
Residual Range Organics (RRO)	U		3.33	10.0
(S) o-Terphenyl	*63.1*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R4016925-2 12/27/23 00:56

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	50.0	35.9	71.8	50.0-150	
(S) o-Terphenyl			*70.1*	*18.0-148*	

L1690744-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1690744-06 12/27/23 02:00 • (MS) R4016925-3 12/27/23 02:12 • (MSD) R4016925-4 12/27/23 02:25

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 %
Diesel Range Organics (DRO)	61.6	U	35.6	27.2	57.8	44.9	1	50.0-150		J3 J6	26.7	20
(S) o-Terphenyl					*44.6*	*38.4*		*18.0-148*				

Method Blank (MB)

(MB) R4017890-1 12/28/23 11:37

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Diesel Range Organics (DRO)	U		1.33	4.00
Residual Range Organics (RRO)	U		3.33	10.0
(S) o-Terphenyl	*58.3*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R4017890-2 12/28/23 11:50

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	50.0	37.5	75.0	50.0-150	
(S) o-Terphenyl			*59.8*	*18.0-148*	

L1690971-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1690971-01 12/28/23 15:58 • (MS) R4017890-3 12/28/23 16:11 • (MSD) R4017890-4 12/28/23 16:24

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 %
Diesel Range Organics (DRO)	50.0	105000	103000	162000	0.000	114000	200	50.0-150	E V	E J3 V	44.5	20
(S) o-Terphenyl					*0.000*	*0.000*		*18.0-148*	J7	J7		

Method Blank (MB)

(MB) R4017970-1 12/29/23 01:23

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Diesel Range Organics (DRO)	U		1.33	4.00
Residual Range Organics (RRO)	U		3.33	10.0
(S) o-Terphenyl	*57.2*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R4017970-2 12/29/23 01:37

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	50.0	29.2	58.4	50.0-150	
(S) o-Terphenyl			*39.6*	*18.0-148*	

L1691060-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1691060-01 12/29/23 02:29 • (MS) R4017970-3 12/29/23 02:42 • (MSD) R4017970-4 12/29/23 02:55

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 %
Diesel Range Organics (DRO)	48.9	1.92	25.3	25.8	47.8	48.8	1	50.0-150	J6	J6	1.96	20
(S) o-Terphenyl					*26.1*	*22.5*		*18.0-148*				

Method Blank (MB)

(MB) R4018656-1 12/28/23 15:37

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Diesel Range Organics (DRO)	U		1.33	4.00
Residual Range Organics (RRO)	U		3.33	10.0
(S) o-Terphenyl	*61.4*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R4018656-2 12/28/23 15:49

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	50.0	32.9	65.8	50.0-150	
(S) o-Terphenyl			*63.5*	*18.0-148*	

L1691300-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1691300-03 12/28/23 18:48 • (MS) R4018656-3 12/28/23 19:01 • (MSD) R4018656-4 12/28/23 19:22

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 %
Diesel Range Organics (DRO)	56.5	U	34.0	37.9	60.2	67.6	1	50.0-150			11.0	20
(S) o-Terphenyl					*50.2*	*54.7*		*18.0-148*				

Method Blank (MB)

(MB) R4018074-1 12/28/23 13:23

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Diesel Range Organics (DRO)	U		1.33	4.00
Residual Range Organics (RRO)	U		3.33	10.0
(S) o-Terphenyl	*75.2*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R4018074-2 12/28/23 13:37

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	50.0	38.6	77.2	50.0-150	
(S) o-Terphenyl			*76.0*	*18.0-148*	

L1691484-14 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1691484-14 12/28/23 15:52 • (MS) R4018074-3 12/28/23 16:04 • (MSD) R4018074-4 12/28/23 16:17

Analyte	Spike Amount (dry) mg/kg	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	54.5	6.80	41.8	38.6	64.2	58.2	1	50.0-150			7.91	20
(S) o-Terphenyl					*68.0*	*63.3*		*18.0-148*				

Method Blank (MB)

(MB) R4017699-1 12/28/23 13:52

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
2,4-D	U		0.00702	0.0700
Dalapon	U		0.0113	0.0700
2,4-DB	U		0.0297	0.0700
Dicamba	U		0.0157	0.0700
Dichloroprop	U		0.0245	0.0700
Dinoseb	U		0.00697	0.0700
MCPA	U		0.443	6.50
MCPP	U		0.367	6.50
2,4,5-T	U		0.00852	0.0700
2,4,5-TP (Silvex)	U		0.0107	0.0700
(S) 2,4-Dichlorophenyl Acetic Acid	*73.5*			*22.0-132*

Laboratory Control Sample (LCS)

(LCS) R4017699-2 12/28/23 14:02

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
2,4-D	0.167	0.192	115	40.0-120	E P
Dalapon	0.167	0.113	67.7	15.0-120	
2,4-DB	0.167	0.153	91.6	25.0-143	
Dicamba	0.167	0.157	94.0	43.0-120	
Dichloroprop	0.167	0.158	94.6	32.0-129	
Dinoseb	0.167	0.132	79.0	10.0-120	
MCPA	16.7	16.6	99.4	31.0-121	
MCPP	16.7	16.3	97.6	28.0-133	P
2,4,5-T	0.167	0.172	103	41.0-120	E
2,4,5-TP (Silvex)	0.167	0.165	98.8	42.0-120	
(S) 2,4-Dichlorophenyl Acetic Acid			*77.2*	*22.0-132*	

L1690247-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1690247-01 12/28/23 21:09 • (MS) R4017699-3 12/28/23 21:19 • (MSD) R4017699-4 12/28/23 21:29

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 %
2,4-D	0.229	U	0.276	0.268	120	117	1	10.0-160	E P	E P	3.03	24
Dalapon	0.229	U	0.161	0.135	70.1	59.1	1	10.0-121			17.6	27
2,4-DB	0.229	U	0.247	0.242	108	106	1	10.0-160	E	E	2.25	22

L1690247-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1690247-01 12/28/23 21:09 • (MS) R4017699-3 12/28/23 21:19 • (MSD) R4017699-4 12/28/23 21:29

Analyte	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
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Dicamba	0.229	U	0.228	0.220	99.4	96.4	1	10.0-154			3.68	21
Dichloroprop	0.229	U	0.232	0.224	101	98.2	1	10.0-158	E		3.61	20
Dinoseb	0.229	U	0.210	0.194	91.6	84.9	1	10.0-120			8.16	40
MCPA	22.9	U	25.3	26.2	110	115	1	10.0-160	E	E	3.73	40
MCPP	22.9	U	23.3	22.1	102	97.0	1	10.0-160	E P	P	5.44	40
2,4,5-T	0.229	U	0.246	0.239	107	105	1	10.0-157	E	E	2.83	20
2,4,5-TP (Silvex)	0.229	U	0.240	0.233	105	102	1	10.0-156	E	E	2.90	20
(S) 2,4-Dichlorophenyl Acetic Acid					*80.2*	*79.5*		*22.0-132*				

Method Blank (MB)

(MB) R4019251-1 01/03/24 03:53

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
2,4-D	U		0.00702	0.0700
Dalapon	U		0.0113	0.0700
2,4-DB	U		0.0297	0.0700
Dicamba	U		0.0157	0.0700
Dichloroprop	U		0.0245	0.0700
Dinoseb	U		0.00697	0.0700
MCPA	U		0.443	6.50
MCPP	U		0.367	6.50
2,4,5-T	U		0.00852	0.0700
2,4,5-TP (Silvex)	U		0.0107	0.0700
(S) 2,4-Dichlorophenyl Acetic Acid	*56.9*			*22.0-132*

Laboratory Control Sample (LCS)

(LCS) R4019251-2 01/03/24 04:03

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
2,4-D	0.167	0.185	111	40.0-120	E
Dalapon	0.167	0.0881	52.8	15.0-120	
2,4-DB	0.167	0.142	85.0	25.0-143	
Dicamba	0.167	0.138	82.6	43.0-120	
Dichloroprop	0.167	0.136	81.4	32.0-129	
Dinoseb	0.167	0.0999	59.8	10.0-120	
MCPA	16.7	13.9	83.2	31.0-121	
MCPP	16.7	13.6	81.4	28.0-133	P
2,4,5-T	0.167	0.157	94.0	41.0-120	
2,4,5-TP (Silvex)	0.167	0.141	84.4	42.0-120	
(S) 2,4-Dichlorophenyl Acetic Acid			*65.3*	*22.0-132*	

L1691683-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1691683-01 01/04/24 04:10 • (MS) R4019828-1 01/04/24 04:20 • (MSD) R4019828-2 01/04/24 04:30

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 %
2,4-D	0.166	U	0.182	0.174	110	105	1	10.0-160	E	E	4.49	24
Dalapon	0.166	U	0.0909	0.0881	54.8	53.1	1	10.0-121			3.13	27
2,4-DB	0.166	U	0.131	0.126	78.9	75.9	1	10.0-160			3.89	22
Dicamba	0.166	U	0.122	0.116	73.5	69.9	1	10.0-154			5.04	21

L1691683-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1691683-01 01/04/24 04:10 • (MS) R4019828-1 01/04/24 04:20 • (MSD) R4019828-2 01/04/24 04:30

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 %
Dichloroprop	0.166	U	0.117	0.112	70.5	67.5	1	10.0-158			4.37	20
Dinoseb	0.166	U	0.106	0.105	63.9	63.3	1	10.0-120			0.948	40
MCPA	16.6	U	19.8	18.0	119	108	1	10.0-160	E	E	9.52	40
MCPP	16.6	U	15.2	14.9	91.6	89.8	1	10.0-160			1.99	40
2,4,5-T	0.166	U	0.137	0.132	82.5	79.5	1	10.0-157			3.72	20
2,4,5-TP (Silvex)	0.166	U	0.118	0.113	71.1	68.1	1	10.0-156			4.33	20
(S) 2,4-Dichlorophenyl Acetic Acid					*64.5*	*60.2*		*22.0-132*				

Method Blank (MB)

(MB) R4020487-1 01/05/24 19:35

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
2,4-D	U		0.00702	0.0700
Dalapon	U		0.0113	0.0700
2,4-DB	U		0.0297	0.0700
Dicamba	U		0.0157	0.0700
Dichloroprop	U		0.0245	0.0700
Dinoseb	U		0.00697	0.0700
MCPA	U		0.443	6.50
MCPP	U		0.367	6.50
2,4,5-T	U		0.00852	0.0700
2,4,5-TP (Silvex)	U		0.0107	0.0700
(S) 2,4-Dichlorophenyl Acetic Acid	*62.0*			*22.0-132*

Laboratory Control Sample (LCS)

(LCS) R4020487-2 01/05/24 19:56

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
2,4-D	0.167	0.163	97.6	40.0-120	
Dalapon	0.167	0.0938	56.2	15.0-120	
2,4-DB	0.167	0.162	97.0	25.0-143	P
Dicamba	0.167	0.124	74.3	43.0-120	
Dichloroprop	0.167	0.135	80.8	32.0-129	
Dinoseb	0.167	0.111	66.5	10.0-120	
MCPA	16.7	11.2	67.1	31.0-121	
MCPP	16.7	10.2	61.1	28.0-133	
2,4,5-T	0.167	0.149	89.2	41.0-120	
2,4,5-TP (Silvex)	0.167	0.152	91.0	42.0-120	P
(S) 2,4-Dichlorophenyl Acetic Acid			*68.3*	*22.0-132*	

L1691811-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1691811-10 01/05/24 20:36 • (MS) R4020487-3 01/05/24 20:46 • (MSD) R4020487-4 01/05/24 20:56

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 %
2,4-D	0.199	U	0.191	0.202	95.8	102	1	10.0-160		E	5.54	24
Dalapon	0.199	U	0.108	0.103	54.1	51.9	1	10.0-121			4.82	27
2,4-DB	0.199	U	0.169	0.181	84.8	91.5	1	10.0-160			6.90	22

L1691811-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1691811-10 01/05/24 20:36 • (MS) R4020487-3 01/05/24 20:46 • (MSD) R4020487-4 01/05/24 20:56

Analyte	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
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Dicamba	0.199	U	0.142	0.150	71.5	75.6	1	10.0-154			4.96	21
Dichloroprop	0.199	U	0.158	0.165	79.4	83.5	1	10.0-158			4.48	20
Dinoseb	0.199	0.518	0.374	0.428	0.000	0.000	1	10.0-120	E J6	E J6	13.5	40
MCPA	19.9	U	13.4	13.9	67.3	70.1	1	10.0-160			3.54	40
MCPP	19.9	U	12.5	13.2	63.0	66.5	1	10.0-160			4.69	40
2,4,5-T	0.199	U	0.174	0.182	87.3	92.1	1	10.0-157			4.75	20
2,4,5-TP (Silvex)	0.199	U	0.177	0.185	89.1	93.3	1	10.0-156	P	P	4.00	20
(S) 2,4-Dichlorophenyl Acetic Acid					*60.6*	*62.8*		*22.0-132*				

Method Blank (MB)

(MB) R4017378-1 12/27/23 16:29

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Aldrin	U		0.00376	0.0200
Alpha BHC	U		0.00368	0.0200
Beta BHC	U		0.00379	0.0200
Delta BHC	U		0.00346	0.0200
Gamma BHC	U		0.00344	0.0200
Chlordane	U		0.103	0.300
4,4-DDD	U		0.00370	0.0200
4,4-DDE	U		0.00366	0.0200
4,4-DDT	U		0.00627	0.0200
Dieldrin	U		0.00344	0.0200
Endosulfan I	U		0.00363	0.0200
Endosulfan II	U		0.00335	0.0200
Endosulfan sulfate	U		0.00364	0.0200
Endrin	U		0.00350	0.0200
Endrin aldehyde	U		0.00339	0.0200
Endrin ketone	U		0.00711	0.0200
Heptachlor	U		0.00428	0.0200
Heptachlor epoxide	U		0.00339	0.0200
Hexachlorobenzene	U		0.00346	0.0200
Methoxychlor	U		0.00484	0.0200
Toxaphene	U		0.124	0.400
(S) Decachlorobiphenyl	*56.9*			*10.0-135*
(S) Tetrachloro-m-xylene	*66.1*			*10.0-139*

Laboratory Control Sample (LCS)

(LCS) R4017378-5 12/27/23 16:39

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aldrin	0.0666	0.0312	46.8	34.0-136	
Alpha BHC	0.0666	0.0324	48.6	34.0-139	
Beta BHC	0.0666	0.0324	48.6	34.0-133	
Delta BHC	0.0666	0.0310	46.5	34.0-135	
Gamma BHC	0.0666	0.0343	51.5	34.0-136	
4,4-DDD	0.0666	0.0302	45.3	33.0-141	
4,4-DDE	0.0666	0.0287	43.1	34.0-134	
4,4-DDT	0.0666	0.0324	48.6	30.0-143	
Dieldrin	0.0666	0.0295	44.3	35.0-137	
Endosulfan I	0.0666	0.0329	49.4	34.0-134	

Laboratory Control Sample (LCS)

(LCS) R4017378-5 12/27/23 16:39

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Endosulfan II	0.0666	0.0310	46.5	35.0-132	
Endosulfan sulfate	0.0666	0.0315	47.3	35.0-132	
Endrin	0.0666	0.0333	50.0	34.0-137	
Endrin aldehyde	0.0666	0.0276	41.4	23.0-121	
Endrin ketone	0.0666	0.0319	47.9	35.0-144	
Heptachlor	0.0666	0.0332	49.8	36.0-141	
Heptachlor epoxide	0.0666	0.0318	47.7	36.0-134	
Hexachlorobenzene	0.0666	0.0311	46.7	33.0-129	
Methoxychlor	0.0666	0.0337	50.6	28.0-150	
(S) Decachlorobiphenyl			*46.8*	*10.0-135*	
(S) Tetrachloro-m-xylene			*49.4*	*10.0-139*	

L1688930-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1688930-05 12/28/23 00:18 • (MS) R4017444-1 12/28/23 00:28 • (MSD) R4017444-2 12/28/23 00:39

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 %
Aldrin	0.0663	U	0.0440	0.0420	66.4	64.3	1	20.0-135			4.65	37
Alpha BHC	0.0663	U	0.0403	0.0399	60.8	61.1	1	27.0-140			0.998	35
Beta BHC	0.0663	U	0.0482	0.0473	72.7	72.4	1	23.0-141			1.88	37
Delta BHC	0.0663	U	0.0458	0.0445	69.1	68.1	1	21.0-138			2.88	35
Gamma BHC	0.0663	U	0.0470	0.0467	70.9	71.5	1	27.0-137			0.640	36
4,4-DDD	0.0663	U	0.141	0.130	213	199	1	15.0-152	J5	J5	8.12	39
4,4-DDE	0.0663	0.413	0.508	0.448	143	53.6	1	10.0-152	E	E	12.6	40
4,4-DDT	0.0663	0.0959	0.207	0.151	168	84.4	1	10.0-151	J5 P	P	31.3	40
Dieldrin	0.0663	U	0.138	0.119	208	182	1	17.0-145	J5	J5	14.8	37
Endosulfan I	0.0663	U	0.0591	0.0581	89.1	89.0	1	20.0-137		P	1.71	36
Endosulfan II	0.0663	U	0.181	0.0971	273	149	1	15.0-141	J5	J3 J5	60.3	37
Endosulfan sulfate	0.0663	U	0.0743	0.0713	112	109	1	15.0-143			4.12	38
Endrin	0.0663	U	0.0473	0.0516	71.3	79.0	1	19.0-143	P	P	8.70	37
Endrin aldehyde	0.0663	U	0.202	0.189	305	289	1	10.0-139	J5	J5	6.65	40
Endrin ketone	0.0663	U	0.0869	0.0725	131	111	1	17.0-149			18.1	38
Heptachlor	0.0663	U	0.0474	0.0465	71.5	71.2	1	22.0-138			1.92	37
Heptachlor epoxide	0.0663	U	0.0760	0.0711	115	109	1	22.0-138	P	P	6.66	36
Hexachlorobenzene	0.0663	U	0.0430	0.0423	64.9	64.8	1	25.0-126			1.64	35
Methoxychlor	0.0663	U	0.162	0.142	244	217	1	10.0-159	J5	J5	13.2	40
(S) Decachlorobiphenyl					*64.9*	*60.9*		*10.0-135*				
(S) Tetrachloro-m-xylene					*59.3*	*57.7*		*10.0-139*				

QUALITY CONTROL SUMMARY

L1691303-01,02,03,04,05,06,07,08,28

Method Blank (MB)

(MB) R4019469-1 01/02/24 18:01

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Aldrin	U		0.00376	0.0200
Alpha BHC	U		0.00368	0.0200
Beta BHC	U		0.00379	0.0200
Delta BHC	U		0.00346	0.0200
Gamma BHC	U		0.00344	0.0200
Chlordane	U		0.103	0.300
4,4-DDD	U		0.00370	0.0200
4,4-DDE	U		0.00366	0.0200
4,4-DDT	U		0.00627	0.0200
Dieldrin	U		0.00344	0.0200
Endosulfan I	U		0.00363	0.0200
Endosulfan II	U		0.00335	0.0200
Endosulfan sulfate	U		0.00364	0.0200
Endrin	U		0.00350	0.0200
Endrin aldehyde	U		0.00339	0.0200
Endrin ketone	U		0.00711	0.0200
Heptachlor	U		0.00428	0.0200
Heptachlor epoxide	U		0.00339	0.0200
Hexachlorobenzene	U		0.00346	0.0200
Methoxychlor	U		0.00484	0.0200
Toxaphene	U		0.124	0.400
(S) Decachlorobiphenyl	*93.1*			*10.0-135*
(S) Tetrachloro-m-xylene	*78.7*			*10.0-139*

Laboratory Control Sample (LCS)

(LCS) R4019469-2 01/02/24 18:14

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aldrin	0.0666	0.0528	79.3	34.0-136	
Alpha BHC	0.0666	0.0527	79.1	34.0-139	
Beta BHC	0.0666	0.0596	89.5	34.0-133	
Delta BHC	0.0666	0.0543	81.5	34.0-135	
Gamma BHC	0.0666	0.0614	92.2	34.0-136	
4,4-DDD	0.0666	0.0612	91.9	33.0-141	
4,4-DDE	0.0666	0.0565	84.8	34.0-134	
4,4-DDT	0.0666	0.0633	95.0	30.0-143	
Dieldrin	0.0666	0.0558	83.8	35.0-137	
Endosulfan I	0.0666	0.0555	83.3	34.0-134	

QUALITY CONTROL SUMMARY

L1691303-01,02,03,04,05,06,07,08,28

Laboratory Control Sample (LCS)

(LCS) R4019469-2 01/02/24 18:14

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Endosulfan II	0.0666	0.0591	88.7	35.0-132	
Endosulfan sulfate	0.0666	0.0581	87.2	35.0-132	
Endrin	0.0666	0.0583	87.5	34.0-137	
Endrin aldehyde	0.0666	0.0514	77.2	23.0-121	
Endrin ketone	0.0666	0.0691	104	35.0-144	
Heptachlor	0.0666	0.0650	97.6	36.0-141	
Heptachlor epoxide	0.0666	0.0571	85.7	36.0-134	
Hexachlorobenzene	0.0666	0.0565	84.8	33.0-129	
Methoxychlor	0.0666	0.0704	106	28.0-150	
(S) Decachlorobiphenyl			*93.5*	*10.0-135*	
(S) Tetrachloro-m-xylene			*75.8*	*10.0-139*	

L1692204-19 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1692204-19 01/02/24 23:22 • (MS) R4019469-4 01/02/24 22:00 • (MSD) R4019469-5 01/02/24 22:10

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 %
Aldrin	0.0786	U	0.0395	0.0425	50.2	53.9	1	20.0-135			7.45	37
Alpha BHC	0.0786	U	0.0409	0.0433	52.1	54.8	1	27.0-140			5.52	35
Beta BHC	0.0786	U	0.0447	0.0469	56.9	59.4	1	23.0-141			4.80	37
Delta BHC	0.0786	U	0.0423	0.0444	53.8	56.2	1	21.0-138			4.80	35
Gamma BHC	0.0786	U	0.0478	0.0503	60.8	63.8	1	27.0-137			5.23	36
4,4-DDD	0.0786	U	0.0463	0.0486	58.9	61.6	1	15.0-152			4.89	39
4,4-DDE	0.0786	U	0.0397	0.0419	50.5	53.1	1	10.0-152			5.39	40
4,4-DDT	0.0786	U	0.0442	0.0470	56.3	59.6	1	10.0-151			6.16	40
Dieldrin	0.0786	U	0.0403	0.0426	51.3	54.0	1	17.0-145			5.60	37
Endosulfan I	0.0786	U	0.0406	0.0434	51.6	55.0	1	20.0-137			6.70	36
Endosulfan II	0.0786	U	0.0426	0.0450	54.3	57.0	1	15.0-141			5.30	37
Endosulfan sulfate	0.0786	U	0.0406	0.0439	51.6	55.6	1	15.0-143			7.81	38
Endrin	0.0786	U	0.0433	0.0457	55.1	57.9	1	19.0-143			5.49	37
Endrin aldehyde	0.0786	U	0.0392	0.0418	49.9	52.9	1	10.0-139			6.33	40
Endrin ketone	0.0786	U	0.0485	0.0524	61.7	66.4	1	17.0-149			7.75	38
Heptachlor	0.0786	U	0.0481	0.0516	61.3	65.3	1	22.0-138			6.86	37
Heptachlor epoxide	0.0786	U	0.0418	0.0442	53.2	56.0	1	22.0-138			5.68	36
Hexachlorobenzene	0.0786	U	0.0430	0.0455	54.7	57.6	1	25.0-126			5.52	35
Methoxychlor	0.0786	U	0.0456	0.0503	58.0	63.8	1	10.0-159			9.94	40
(S) Decachlorobiphenyl					*59.7*	*61.3*		*10.0-135*				
(S) Tetrachloro-m-xylene					*57.1*	*59.0*		*10.0-139*				

Method Blank (MB)

(MB) R4017378-1 12/27/23 16:29

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
PCB 1016	U		0.0118	0.0340
PCB 1221	U		0.0118	0.0340
PCB 1232	U		0.0118	0.0340
PCB 1242	U		0.0118	0.0340
PCB 1248	U		0.00738	0.0170
PCB 1254	U		0.00738	0.0170
PCB 1260	U		0.00738	0.0170
(S) Decachlorobiphenyl	*58.3*			*10.0-135*
(S) Tetrachloro-m-xylene	*68.2*			*10.0-139*

Laboratory Control Sample (LCS)

(LCS) R4017378-2 12/27/23 16:48

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
PCB 1016	0.167	0.128	76.6	36.0-141	
PCB 1260	0.167	0.120	71.9	37.0-145	
(S) Decachlorobiphenyl			*69.1*	*10.0-135*	
(S) Tetrachloro-m-xylene			*79.3*	*10.0-139*	

L1691303-29 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1691303-29 12/27/23 17:08 • (MS) R4017378-3 12/27/23 17:18 • (MSD) R4017378-4 12/27/23 17:27

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 %
PCB 1016	0.204	U	0.305	0.171	149	84.0	1	10.0-160		J3 P	56.1	37
PCB 1260	0.204	U	0.108	0.0957	52.8	46.9	1	10.0-160	P		11.9	38
(S) Decachlorobiphenyl					*42.2*	*44.4*		*10.0-135*				
(S) Tetrachloro-m-xylene					*61.3*	*66.6*		*10.0-139*				

Method Blank (MB)

(MB) R4017766-1 12/28/23 12:02

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
PCB 1016	U		0.0236	0.0680
PCB 1221	U		0.0236	0.0680
PCB 1232	U		0.0236	0.0680
PCB 1242	U		0.0236	0.0680
PCB 1248	U		0.0148	0.0340
PCB 1254	U		0.0148	0.0340
PCB 1260	U		0.0148	0.0340
(S) Decachlorobiphenyl	*69.1*			*10.0-135*
(S) Tetrachloro-m-xylene	*63.4*			*10.0-139*

Laboratory Control Sample (LCS)

(LCS) R4017766-2 12/28/23 12:12

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
PCB 1016	0.167	0.116	69.5	36.0-141	
PCB 1260	0.167	0.120	71.9	37.0-145	
(S) Decachlorobiphenyl			*67.0*	*10.0-135*	
(S) Tetrachloro-m-xylene			*69.1*	*10.0-139*	

Method Blank (MB)

(MB) R4019469-1 01/02/24 18:01

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
PCB 1016	U		0.0118	0.0340
PCB 1221	U		0.0118	0.0340
PCB 1232	U		0.0118	0.0340
PCB 1242	U		0.0118	0.0340
PCB 1248	U		0.00738	0.0170
PCB 1254	U		0.00738	0.0170
PCB 1260	U		0.00738	0.0170
(S) Decachlorobiphenyl	*94.0*			*10.0-135*
(S) Tetrachloro-m-xylene	*83.6*			*10.0-139*

Laboratory Control Sample (LCS)

(LCS) R4019469-3 01/02/24 18:24

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
PCB 1016	0.167	0.133	79.6	36.0-141	
PCB 1260	0.167	0.145	86.8	37.0-145	
(S) Decachlorobiphenyl			*95.6*	*10.0-135*	
(S) Tetrachloro-m-xylene			*82.1*	*10.0-139*	

L1692204-19 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1692204-19 01/04/24 01:55 • (MS) R4019581-1 01/04/24 02:06 • (MSD) R4019581-2 01/04/24 02:16

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 %
PCB 1016	0.197	U	0.114	0.133	58.2	67.3	1	10.0-160			15.1	37
PCB 1260	0.197	U	0.134	0.158	68.3	79.6	1	10.0-160			15.9	38
(S) Decachlorobiphenyl					*60.3*	*66.4*		*10.0-135*				
(S) Tetrachloro-m-xylene					*59.6*	*64.6*		*10.0-139*				

Method Blank (MB)

(MB) R4016979-2 12/26/23 23:18

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.00230	0.00600
Acenaphthene	U		0.00209	0.00600
Acenaphthylene	U		0.00216	0.00600
Benzo(a)anthracene	U		0.00173	0.00600
Benzo(a)pyrene	U		0.00179	0.00600
Benzo(b)fluoranthene	U		0.00153	0.00600
Benzo(g,h,i)perylene	U		0.00177	0.00600
Benzo(k)fluoranthene	U		0.00215	0.00600
Chrysene	U		0.00232	0.00600
Dibenz(a,h)anthracene	U		0.00172	0.00600
Fluoranthene	U		0.00227	0.00600
Fluorene	U		0.00205	0.00600
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600
Naphthalene	U		0.00408	0.0200
Phenanthrene	U		0.00231	0.00600
Pyrene	U		0.00200	0.00600
1-Methylnaphthalene	U		0.00449	0.0200
2-Methylnaphthalene	U		0.00427	0.0200
2-Chloronaphthalene	U		0.00466	0.0200
(S) p-Terphenyl-d14	*68.3*			*23.0-120*
(S) Nitrobenzene-d5	*51.6*			*14.0-149*
(S) 2-Fluorobiphenyl	*63.9*			*34.0-125*

Laboratory Control Sample (LCS)

(LCS) R4016979-1 12/26/23 23:00

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0526	65.8	50.0-126	
Acenaphthene	0.0800	0.0515	64.4	50.0-120	
Acenaphthylene	0.0800	0.0551	68.9	50.0-120	
Benzo(a)anthracene	0.0800	0.0527	65.9	45.0-120	
Benzo(a)pyrene	0.0800	0.0429	53.6	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0533	66.6	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0523	65.4	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0517	64.6	49.0-125	
Chrysene	0.0800	0.0553	69.1	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0537	67.1	47.0-125	
Fluoranthene	0.0800	0.0586	73.3	49.0-129	

Laboratory Control Sample (LCS)

(LCS) R4016979-1 12/26/23 23:00

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluorene	0.0800	0.0578	72.3	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0517	64.6	46.0-125	
Naphthalene	0.0800	0.0527	65.9	50.0-120	
Phenanthrene	0.0800	0.0548	68.5	47.0-120	
Pyrene	0.0800	0.0539	67.4	43.0-123	
1-Methylnaphthalene	0.0800	0.0539	67.4	51.0-121	
2-Methylnaphthalene	0.0800	0.0534	66.8	50.0-120	
2-Chloronaphthalene	0.0800	0.0553	69.1	50.0-120	
(S) p-Terphenyl-d14			*66.5*	*23.0-120*	
(S) Nitrobenzene-d5			*53.0*	*14.0-149*	
(S) 2-Fluorobiphenyl			*62.2*	*34.0-125*	

L1691303-30 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1691303-30 12/27/23 04:55 • (MS) R4016979-3 12/27/23 05:13 • (MSD) R4016979-4 12/27/23 05:32

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 %
Anthracene	0.103	0.0206	0.0843	0.113	62.0	89.5	1	10.0-145			28.7	30
Acenaphthene	0.103	0.0158	0.0732	0.0754	55.9	58.0	1	14.0-127			2.94	27
Acenaphthylene	0.103	0.0164	0.0768	0.113	58.7	94.4	1	21.0-124		J3	38.5	25
Benzo(a)anthracene	0.103	0.0732	0.130	0.195	55.0	119	1	10.0-139		J3	40.3	30
Benzo(a)pyrene	0.103	0.0830	0.126	0.181	42.0	95.5	1	10.0-141		J3	35.8	31
Benzo(b)fluoranthene	0.103	0.0998	0.143	0.221	41.6	118	1	10.0-140		J3	43.1	36
Benzo(g,h,i)perylene	0.103	0.0766	0.137	0.164	59.3	85.5	1	10.0-140			17.9	33
Benzo(k)fluoranthene	0.103	0.0265	0.0748	0.0983	47.0	69.9	1	10.0-137			27.2	31
Chrysene	0.103	0.102	0.154	0.238	50.6	132	1	10.0-145		J3	42.6	30
Dibenz(a,h)anthracene	0.103	0.0119	0.0704	0.0822	56.9	68.4	1	10.0-132			15.5	31
Fluoranthene	0.103	0.274	0.362	0.699	86.3	414	1	10.0-153		J3 J5	63.4	33
Fluorene	0.103	0.0379	0.108	0.120	67.9	80.0	1	11.0-130			10.9	29
Indeno(1,2,3-cd)pyrene	0.103	0.0581	0.108	0.149	48.9	88.5	1	10.0-137			31.7	32
Naphthalene	0.103	0.0644	0.154	0.145	87.4	78.6	1	10.0-135			6.01	27
Phenanthrene	0.103	0.126	0.171	0.337	43.5	205	1	10.0-144		J3 J5	65.3	31
Pyrene	0.103	0.270	0.349	0.579	77.5	301	1	10.0-148		J3 J5	49.5	35
1-Methylnaphthalene	0.103	0.0220	0.0863	0.0891	62.6	65.4	1	10.0-142			3.22	28
2-Methylnaphthalene	0.103	0.0247	0.0891	0.0948	62.8	68.2	1	10.0-137			6.15	28
2-Chloronaphthalene	0.103	0.0125	0.0545	0.0649	40.8	50.9	1	29.0-120			17.4	24
(S) p-Terphenyl-d14					*47.6*	*54.7*		*23.0-120*				
(S) Nitrobenzene-d5					*73.3*	*64.1*		*14.0-149*				
(S) 2-Fluorobiphenyl					*49.5*	*55.2*		*34.0-125*				

Method Blank (MB)

(MB) R4018245-2 12/28/23 02:19

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.00230	0.00600
Acenaphthene	U		0.00209	0.00600
Acenaphthylene	U		0.00216	0.00600
Benzo(a)anthracene	U		0.00173	0.00600
Benzo(a)pyrene	U		0.00179	0.00600
Benzo(b)fluoranthene	U		0.00153	0.00600
Benzo(g,h,i)perylene	U		0.00177	0.00600
Benzo(k)fluoranthene	U		0.00215	0.00600
Chrysene	U		0.00232	0.00600
Dibenz(a,h)anthracene	U		0.00172	0.00600
Fluoranthene	U		0.00227	0.00600
Fluorene	U		0.00205	0.00600
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600
Naphthalene	U		0.00408	0.0200
Phenanthrene	U		0.00231	0.00600
Pyrene	U		0.00200	0.00600
1-Methylnaphthalene	U		0.00449	0.0200
2-Methylnaphthalene	U		0.00427	0.0200
2-Chloronaphthalene	U		0.00466	0.0200
(S) p-Terphenyl-d14	*78.2*			*23.0-120*
(S) Nitrobenzene-d5	*67.7*			*14.0-149*
(S) 2-Fluorobiphenyl	*68.1*			*34.0-125*

Laboratory Control Sample (LCS)

(LCS) R4018245-1 12/28/23 02:02

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0662	82.8	50.0-126	
Acenaphthene	0.0800	0.0622	77.8	50.0-120	
Acenaphthylene	0.0800	0.0697	87.1	50.0-120	
Benzo(a)anthracene	0.0800	0.0733	91.6	45.0-120	
Benzo(a)pyrene	0.0800	0.0633	79.1	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0667	83.4	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0629	78.6	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0653	81.6	49.0-125	
Chrysene	0.0800	0.0715	89.4	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0706	88.3	47.0-125	
Fluoranthene	0.0800	0.0693	86.6	49.0-129	

Laboratory Control Sample (LCS)

(LCS) R4018245-1 12/28/23 02:02

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluorene	0.0800	0.0692	86.5	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0776	97.0	46.0-125	
Naphthalene	0.0800	0.0608	76.0	50.0-120	
Phenanthrene	0.0800	0.0642	80.3	47.0-120	
Pyrene	0.0800	0.0722	90.3	43.0-123	
1-Methylnaphthalene	0.0800	0.0653	81.6	51.0-121	
2-Methylnaphthalene	0.0800	0.0653	81.6	50.0-120	
2-Chloronaphthalene	0.0800	0.0613	76.6	50.0-120	
(S) p-Terphenyl-d14			*80.9*	*23.0-120*	
(S) Nitrobenzene-d5			*75.2*	*14.0-149*	
(S) 2-Fluorobiphenyl			*70.6*	*34.0-125*	

L1689054-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1689054-01 12/28/23 02:37 • (MS) R4018245-3 12/28/23 02:54 • (MSD) R4018245-4 12/28/23 03:12

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 %
Anthracene	0.0952	U	0.0616	0.0662	64.7	67.8	1	10.0-145			7.18	30
Acenaphthene	0.0952	U	0.0565	0.0594	59.4	60.8	1	14.0-127			4.92	27
Acenaphthylene	0.0952	U	0.0623	0.0654	65.4	66.9	1	21.0-124			4.86	25
Benzo(a)anthracene	0.0952	U	0.0703	0.0750	73.8	76.8	1	10.0-139			6.48	30
Benzo(a)pyrene	0.0952	U	0.0724	0.0774	76.0	79.2	1	10.0-141			6.62	31
Benzo(b)fluoranthene	0.0952	U	0.0625	0.0672	65.6	68.8	1	10.0-140			7.27	36
Benzo(g,h,i)perylene	0.0952	U	0.0600	0.0636	63.0	65.1	1	10.0-140			5.82	33
Benzo(k)fluoranthene	0.0952	U	0.0629	0.0678	66.0	69.4	1	10.0-137			7.59	31
Chrysene	0.0952	U	0.0706	0.0759	74.1	77.7	1	10.0-145			7.28	30
Dibenz(a,h)anthracene	0.0952	U	0.0686	0.0737	72.0	75.4	1	10.0-132			7.15	31
Fluoranthene	0.0952	U	0.0635	0.0681	66.7	69.7	1	10.0-153			6.97	33
Fluorene	0.0952	U	0.0626	0.0666	65.8	68.1	1	11.0-130			6.14	29
Indeno(1,2,3-cd)pyrene	0.0952	U	0.0740	0.0781	77.7	79.9	1	10.0-137			5.38	32
Naphthalene	0.0952	0.0743	0.126	0.135	54.8	62.3	1	10.0-135			6.64	27
Phenanthrene	0.0952	U	0.0595	0.0634	62.5	64.8	1	10.0-144			6.26	31
Pyrene	0.0952	U	0.0668	0.0709	70.2	72.6	1	10.0-148			5.94	35
1-Methylnaphthalene	0.0952	0.0675	0.122	0.131	57.6	65.5	1	10.0-142			7.23	28
2-Methylnaphthalene	0.0952	0.106	0.160	0.171	57.0	67.0	1	10.0-137			6.74	28
2-Chloronaphthalene	0.0952	U	0.0583	0.0598	61.2	61.2	1	29.0-120			2.52	24
(S) p-Terphenyl-d14					*60.2*	*69.8*		*23.0-120*				
(S) Nitrobenzene-d5					*69.7*	*74.7*		*14.0-149*				
(S) 2-Fluorobiphenyl					*53.1*	*56.5*		*34.0-125*				

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.
C3	The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Method sensitivity check is acceptable.
C5	The reported concentration is an estimate. The continuing calibration standard associated with this data responded high. Data is likely to show a high bias concerning the result.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.

GLOSSARY OF TERMS

Qualifier	Description
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.
P	RPD between the primary and confirmatory analysis exceeded 40%.
Q	Sample was prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.
T8	Sample(s) received past/too close to holding time expiration.
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.

Company Name/Address:
NV5 - Wilsonville, OR

9450 SW Commerce Circle
Ste. 300
Wilsonville. OR 97070

Billing Information:
Accounts Payable
9450 SW Commerce Circle
Ste. 300
Wilsonville, OR 97070

Pres Chk

Report to: **Caroline Siegel**

Email To: Caroline.Siegel@nv5.com;Kyle.Sattler@nv5.com

Project Description:

City/State Collected: Portland, OR

Please Circle: (PT) MT CT ET

Phone: **503-968-8787**

Client Project # 505-7-03

Lab Project # **GEODESPOR-SIEGEL**

Collected by (print): Caroline Siegel

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	ASBESTOS 4ozClr-NoPres	Herbicides 8151 8ozClr-NoPres	NWTPHDX no SGT 8ozClr-NoPres	NWTPHGX 40mlAmb/MeOH10ml/Syr	OCPs 8081 8ozClr-NoPres	PAHs 8270SIM 8ozClr-NoPres	PCBs 8082 8ozClr-NoPres	RCRA8 Metals 4ozClr-NoPres	VOCs 8260 40mlAmb/MeOH10ml/Syr	Remarks	Sample # (lab only)
DP-1 (2-3)		SS		12/18/23	1030	4	✓	✓	✓	✓	✓	✓	✓	✓	✓		-01
DP-1 (11-12)		SS		12/18/23	1040												-02
DP-2 (2-3.5)		SS		12/18/23	1140												-03
DP-2 (12-13)		SS		12/21/23	0903												-04
DP-3 (1-2.3)		SS		12/18/23	1230												-05
DP-3 (12-13)		SS		12/21/23	0950												-06
DP-4 (0-1)		SS		12/21/23	1047												-07
DP-4 (5-7)		SS		12/21/23	1053												-08
DP-5 (0-0.5)		SS		12/18/23	1025												-09
DP-5 (2-2.5)		SS		12/18/23	1023	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		-10

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 169303

G073

Acctnum: **GEODESPOR**
Template: **T243365**
Prelogin: **P1043087**
PM: **110 - Brian Ford**
PB: 12/8/23 cam
Shipped Via: **FedEX Ground**

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Emailing composite instructions

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

12/23/23 TD

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeOH TBR
Caroline Siegel	12/22/23	1500		9
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: 12
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 12/23/23 Time: 1000

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Company Name/Address:
NV5 - Wilsonville, OR

9450 SW Commerce Circle
Ste. 300
Wilsonville. OR 97070

Billing Information:
Accounts Payable
9450 SW Commerce Circle
Ste. 300
Wilsonville, OR 97070

Pres Chk

Report to: **Caroline Siegel**

Email To: Caroline.Siegel@nv5.com;Kyle.Sattler@nv5.com

Project Description:

City/State Collected: Portland, OR

Please Circle: (PT) MT CT ET

Phone: **503-968-8787**

Client Project # 505-7-03

Lab Project # **GEODESPOR-SIEGEL**

Collected by (print): Caroline Siegel

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	ASBESTOS 4ozClr-NoPres	Herbicides 8151 8ozClr-NoPres	NWTPHDX no SGT 8ozClr-NoPres	NWTPHGX 40mlAmb/MeOH10ml/Syr	OCPs 8081 8ozClr-NoPres	PAHs 8270SIM 8ozClr-NoPres	PCBs 8082 8ozClr-NoPres	RCRA8 Metals 4ozClr-NoPres	VOCs 8260 40mlAmb/MeOH10ml/Syr	Remarks	Sample # (lab only)
DP-6 (2-2.5)		SS		12/18/23	1003	4	✓	✓	✓	✓	✓	✓	✓	✓	✓		-11
DP-7 (0-2)		SS		12/21/23	1342												-12
DP-7 (3-4)		SS		12/21/23	1347												-13
DP-8 (0-2)		SS		12/21/23	1330												-14
DP-8 (2-3.5)		SS		12/21/23	1332												-15
DP-9 (0-2)		SS		12/21/23	1321												-16
DP-10 (0-1)		SS		12/18/23	1144												-17
DP-10 (3-4)		SS		12/18/23	1144												-18
DP-11 (0-1)		SS		12/18/23	1030												-19
DP-11 (2-3)		SS		12/18/23	1030												-20

Chain of Custody Page ___ of ___

Pace
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MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 169130?

Table #

Acctnum: **GEODESPOR**
Template: **T243365**
Prelogin: **P1043087**
PM: **110 - Brian Ford**
PB: 12/18/23 CLM

Shipped Via: **FedEX Ground**

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Emailing composite nomenclature

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR	If preservation required by Login: Date/Time
	12/22/23	1500		9	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: 112	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) TRench	Date: 12/23/23 Time: 1000	Hold: Condition: NCF / OK

Company Name/Address:
NV5 - Wilsonville, OR

9450 SW Commerce Circle
Ste. 300
Wilsonville. OR 97070

Billing Information:
Accounts Payable
9450 SW Commerce Circle
Ste. 300
Wilsonville, OR 97070

Pres Chk

Report to: **Caroline Siegel**

Email To: Caroline.Siegel@nv5.com;Kyle.Sattler@nv5.com

Project Description:

City/State Collected: Portland, OR

Please Circle: (PT) MT CT ET

Phone: **503-968-8787**

Client Project # 505-7-03

Lab Project # **GEODESPOR-SIEGEL**

Collected by (print): Caroline Siegel

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	ASBESTOS 4ozClr-NoPres	Herbicides 8151 8ozClr-NoPres	NWTPHDX no SGT 8ozClr-NoPres	NWTPHGX 40mlAmb/MeOH10ml/Syr	OCPs 8081 8ozClr-NoPres	PAHs 8270SIM 8ozClr-NoPres	PCBs 8082 8ozClr-NoPres	RCRA8 Metals 4ozClr-NoPres	VOCs 8260 40mlAmb/MeOH10ml/Syr	Remarks	Sample # (lab only)
DP-12(0-1.5)		SS		12/18/23	1335	4	✓	✓	✓	✓	✓	✓	✓	✓	✓		-21
DP-12 (3-4.5)		SS		12/18/23	1350												-22
DP-13(1-2.5)		SS		12/21/23	1147												-23
DP-13 (2.5-3.5)		SS		12/21/23	1155												-24
DP-14 (0-2)		SS		12/21/23	1210												-25
DP-15 (0-1.5)		SS		12/21/23	1200												-26
DP-16 (0-2)		SS		12/21/23	1512												-27
BD-1		SS		12/21/23	1058	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		-28
		SS															
		SS															

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 169303

Table #

Acctnum: **GEODESPOR**
Template: **T243365**
Prelogin: **P1043087**
PM: **110 - Brian Ford**
PB: 12/18/23 CAM

Shipped Via: **FedEX Ground**

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Emailing composite instructions

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: (Yes) / No HCl / MeOH TBR	If preservation required by Login: Date/Time
	12/22/23	1500			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: 16	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 12/23/23 Time: 1000	Hold: Condition: NCF / OK

L/69/303

Tracking Numbers	Temperature
6727 1912 0319	4.6 to 4.5 <48
6727 1912 0410	4.5 to 9.5 <48
6727 1912 0394	4.3 to 9.3 <48

Name

Date

L1691303/L1691306 GEODESPOR update R1

L1691306/
L1691703

R0/R1

all samples currently on hold due to compositing note on the COC.

Please log the following off hold for all analysis on the COC:

create lab composite Comp-1 from DP-5(0-0.5), DP-6(2-2.5), DP-7(0-2), DP-8(0-2), DP-9(0-2), DP-10(0-1), DP-11(0-1), DP-12(0-1.5), DP-13(1-2.5), DP-14(0-2), DP-15(0-1.5), and DP-16(0-2)

create lab composite Comp-2 from DP-5(2-2.5), DP-7(3-4), DP-8(2-3.5), DP-10(3-4), DP-11(2-3), DP-12(3-4.5), and DP-13(2.5-3.5)

log any discrete sample which is not listed in the above lab composites for all analysis on the COC.

L1691303 only: lab composites Comp-1 and Comp-2 as R1 due 12/27.

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

Members

BF Brian Ford  Jimmy Huckaba

Brian Ford

From: Brian Ford
Sent: Tuesday, January 2, 2024 2:41 PM
To: Brian Ford
Subject: L1691303 follow ups

Add PCBs DP-1(2-3), DP-1(11-12), and DP-2(2-3.5)

Based on the preliminary data received so far, please run lead on the following discrete samples:

- DP-5(0-0.5)
- DP-6(2-2.5)
- DP-7(0-2)
- DP-8(0-2)
- DP-9(0-2)
- DP-10(0-1)
- DP-11(0-1)
- DP-12(0-1.5)
- DP-13(1-2.5)
- DP-14(0-2)
- DP-15(0-1.5), and
- DP-16(0-2)

Also, based on lab results received so far, please run gasoline-range hydrocarbons, naphthalene, arsenic, lead, and mercury on the following discrete samples:

- DP-5(2-2.5)
- DP-7(3-4)
- DP-8(2-3.5)
- DP-10(3-4)
- DP-11(2-3)
- DP-12(3-4.5), and
- DP-13(2.5-3.5)

Per request of Kyle Sattler

Thanks,

Brian Ford
Project Manager 2 / Pace National
12065 Lebanon Road | Mt. Juliet, TN 37122
Office: 615.773.9772
brian.ford@pacelabs.com

Pace National will not be accepting BOD Samples on the following dates: Wednesday, 12/20, Wednesday, 12/27 as the 5-day BOD take off run falls on a holiday.

ANALYTICAL REPORT

January 17, 2024

NV5 - Wilsonville, OR

Sample Delivery Group:	L1691306
Samples Received:	12/23/2023
Project Number:	SOJ-7-03
Description:	

Report To: Caroline Siegel
9450 SW Commerce Circle
Ste. 300
Wilsonville, OR 97070

Entire Report Reviewed By: Brian Ford

Brian Ford
Project Manager

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

TABLE OF CONTENTS

DP-1(2-3) L1691306-01 Solid

Collected by: Caroline Siegel | Collected date/time: 12/18/23 10:30 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2195814	1	01/05/24 00:00	01/05/24 00:00	-	Golden, CO 80401

DP-1(11-12) L1691306-02 Solid

Collected by: Caroline Siegel | Collected date/time: 12/18/23 10:40 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2195814	1	01/05/24 00:00	01/05/24 00:00	-	Golden, CO 80401

DP-2(2-3.5) L1691306-03 Solid

Collected by: Caroline Siegel | Collected date/time: 12/18/23 11:40 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2195814	1	01/05/24 00:00	01/05/24 00:00	-	Golden, CO 80401

DP-2(12-13) L1691306-04 Solid

Collected by: Caroline Siegel | Collected date/time: 12/21/23 09:03 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2195814	1	01/05/24 00:00	01/05/24 00:00	-	Golden, CO 80401

DP-3(1-2.3) L1691306-05 Solid

Collected by: Caroline Siegel | Collected date/time: 12/18/23 12:30 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2195814	1	01/05/24 00:00	01/05/24 00:00	-	Golden, CO 80401

DP-3(12-13) L1691306-06 Solid

Collected by: Caroline Siegel | Collected date/time: 12/21/23 09:50 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2195814	1	01/05/24 00:00	01/05/24 00:00	-	Golden, CO 80401

DP-4(0-1) L1691306-07 Solid

Collected by: Caroline Siegel | Collected date/time: 12/21/23 10:47 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2195814	1	01/05/24 00:00	01/05/24 00:00	-	Golden, CO 80401

DP-4(5-7) L1691306-08 Solid

Collected by: Caroline Siegel | Collected date/time: 12/21/23 10:53 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2195814	1	01/05/24 00:00	01/05/24 00:00	-	Golden, CO 80401

SAMPLE SUMMARY

BD-1 L1691306-28 Solid

Collected by: Caroline Siegel
Collected date/time: 12/21/23 10:58
Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2195814	1	01/05/24 00:00	01/05/24 00:00	-	Golden, CO 80401

COMP-1 L1691306-29 Solid

Collected by: Caroline Siegel
Collected date/time: 12/18/23 00:00
Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2195814	1	01/05/24 00:00	01/05/24 00:00	-	Golden, CO 80401

COMP-2 L1691306-30 Solid

Collected by: Caroline Siegel
Collected date/time: 12/18/23 00:00
Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2195814	1	01/05/24 00:00	01/05/24 00:00	-	Golden, CO 80401

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

Project Narrative

L1691306 -01, -02, -03, -04, -05, -06, -07, -08, -28, -29, -30 contains subout data that is included after the chain of custody.

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

SDG	Sample Delivery Group.
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.

NV5 - Wilsonville, OR

9450 SW Commerce Circle
Ste. 300
Wilsonville. OR 97070

Accounts Payable
9450 SW Commerce Circle
Ste. 300
Wilsonville, OR 97070

Report to: Caroline Siegel

Email To: Caroline.Siegel@nv5.com;Kyle.Sattler@nv5.com

Project Description:

City/State Collected: Portland, OR

Please Circle: (PT) MT CT ET

Phone: 503-968-8787

Client Project # SOS-7-03

Lab Project # GEODESPOR-SIEGEL

Collected by (print): Caroline Siegel

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Pres Chk

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	ASBESTOS 4ozClr-NoPres	Herbicides 8151 8ozClr-NoPres	NWTPHDX no SGT 8ozClr-NoPres	NWTPHGX 40mlAmb/MeOH10ml/Syr	OCPs 8081 8ozClr-NoPres	PAHs 8270SIM 8ozClr-NoPres	PCBs 8082 8ozClr-NoPres	RCRA8 Metals 4ozClr-NoPres	VOCs 8260 40mlAmb/MeOH10ml/Syr	Remarks	Sample # (lab only)
DP-1 (2-3)		SS		12/18/23	1030	4	✓	✓	✓	✓	✓	✓	✓	✓	✓		-01
DP-1 (11-12)		SS		12/18/23	1040												-02
DP-2 (2-3.5)		SS		12/18/23	1140												-03
DP-2 (12-13)		SS		12/21/23	0903												-04
DP-3 (1-2.3)		SS		12/18/23	1230												-05
DP-3 (12-13)		SS		12/21/23	0950												-06
DP-4 (0-1)		SS		12/21/23	1047												-07
DP-4 (5-7)		SS		12/21/23	1053												-08
DP-5 (0-0.5)		SS		12/18/23	1025												-09
DP-5 (2-2.5)		SS		12/18/23	1023		↓	↓	↓	↓	↓	↓	↓	↓	↓		-10

Chain of Custody Page ___ of ___

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PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
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SDG # 169306

G073

Acctnum: GEODESPOR
Template: T243365
Prelogin: P1043087
PM: 110 - Brian Ford
PB: 12/8/23 cam
Shipped Via: FedEX Ground

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Emailing composite instructions

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: ✓Y __N
RAD Screen <0.5 mR/hr: ✓Y __N

12/23 TO

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Caroline Siegel	12/22/23	1500		9	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: 12	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 12/23/23 Time: 1000	Hold: Condition: NCF / OK

NV5 - Wilsonville, OR

9450 SW Commerce Circle
Ste. 300
Wilsonville. OR 97070

Report to: **Caroline Siegel**

Accounts Payable
9450 SW Commerce Circle
Ste. 300
Wilsonville, OR 97070

Email To: Caroline.Siegel@nv5.com;Kyle.Sattler@nv5.com

Project Description:

City/State Collected: Portland, OR

Please Circle: PT MT CT ET

Phone: **503-968-8787**

Client Project # 505-7-03

Lab Project # GEODESPOR-SIEGEL

Collected by (print): Caroline Siegel

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N___ Y✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Chain of Custody Page ___ of ___

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SDG # 169306

Table #

Acctnum: GEODESPOR
Template: T243365
Prelogin: P1043087
PM: 110 - Brian Ford
PB: 12/18/23 CLM

Shipped Via: FedEX Ground

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Pres Chk	ASBESTOS 4ozClr-NoPres	Herbicides 8151 8ozClr-NoPres	NWTPHDX no SGT 8ozClr-NoPres	NWTPHGX 40mlAmb/MeOH10ml/Syr	OCPs 8081 8ozClr-NoPres	PAHs 8270SIM 8ozClr-NoPres	PCBs 8082 8ozClr-NoPres	RCRA8 Metals 4ozClr-NoPres	VOCs 8260 40mlAmb/MeOH10ml/Syr	Remarks	Sample # (lab only)
DP-6 (2-2.5)		SS		12/18/23	1003	4		✓	✓	✓	✓	✓	✓	✓	✓	✓		-11
DP-7 (0-2)		SS		12/21/23	1342													-12
DP-7 (3-4)		SS		12/21/23	1347													-13
DP-8 (0-2)		SS		12/21/23	1330													-14
DP-8 (2-3.5)		SS		12/21/23	1332													-15
DP-9 (0-2)		SS		12/21/23	1321													-16
DP-10 (0-1)		SS		12/18/23	1144													-17
DP-10 (3-4)		SS		12/18/23	1144													-18
DP-11 (0-1)		SS		12/18/23	1030													-19
DP-11 (2-3)		SS		12/18/23	1030	↓		↓	↓	↓	↓	↓	↓	↓	↓	↓		-20

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Emailing composite measurements

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received:	If preservation required by Login: Date/Time
	12/22/23	1500		Yes / No HCl / MeOH TBR	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: 112	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 12/23/23 Time: 1000	Hold: Condition: NCF / OK

NV5 - Wilsonville, OR

9450 SW Commerce Circle
Ste. 300
Wilsonville, OR 97070

Accounts Payable
9450 SW Commerce Circle
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Wilsonville, OR 97070

Report to: Caroline Siegel

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Client Project # 505-7-03

Lab Project # GEODESPOR-SIEGEL

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Site/Facility ID #

P.O. #

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Immediately Packed on Ice N ___ Y ✓

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Chain of Custody Page ___ of ___

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Prelogin: P1043087
PM: 110 - Brian Ford
PB: 12/8/23 CAM

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Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Pres Chk	ASBESTOS 4ozClr-NoPres	Herbicides 8151 8ozClr-NoPres	NWTPHDX no SGT 8ozClr-NoPres	NWTPHGX 40mlAmb/MeOH10ml/Syr	OCPs 8081 8ozClr-NoPres	PAHs 8270SIM 8ozClr-NoPres	PCBs 8082 8ozClr-NoPres	RCRA8 Metals 4ozClr-NoPres	VOCs 8260 40mlAmb/MeOH10ml/Syr		Remarks	Sample # (lab only)
DP-12(0-1.5)		SS		12/18/23	1335	4		✓	✓	✓	✓	✓	✓	✓	✓	✓			-21
DP-12(3-4.5)		SS		12/18/23	1350														-22
DP-13(1-2.5)		SS		12/21/23	1147														-23
DP-13(2.5-3.5)		SS		12/21/23	1155														-24
DP-14 (0-2)		SS		12/21/23	1210														-25
DP-15(0-1.5)		SS		12/21/23	1200														-26
DP-16(0-2)		SS		12/21/23	1512														-27
BD-1		SS		12/21/23	1058	↓		↓	↓	↓	↓	↓	↓	↓	↓	↓			-28
		SS																	
		SS																	

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Emailing composite instructions

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist

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

Relinquished by : (Signature)	Date: 12/22/23	Time: 1500	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C	Bottles Received: 12
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 12/23/23	Time: 1000

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

L1691306

Tracking Numbers	Temperature
6727 1912 0409	4.6 to 4.5 <48
6727 1912 0410	4.5 to 4.5 <48
6727 1912 0394	4.3 to 4.3 <48

Name

Date

L1691303/L1691306 GEODESPOR update R1

L1691306/
L1691703

R0/R1

all samples currently on hold due to compositing note on the COC.

Please log the following off hold for all analysis on the COC:

create lab composite Comp-1 from DP-5(0-0.5), DP-6(2-2.5), DP-7(0-2), DP-8(0-2), DP-9(0-2), DP-10(0-1), DP-11(0-1), DP-12(0-1.5), DP-13(1-2.5), DP-14(0-2), DP-15(0-1.5), and DP-16(0-2)

create lab composite Comp-2 from DP-5(2-2.5), DP-7(3-4), DP-8(2-3.5), DP-10(3-4), DP-11(2-3), DP-12(3-4.5), and DP-13(2.5-3.5)

log any discrete sample which is not listed in the above lab composites for all analysis on the COC.

L1691303 only: lab composites Comp-1 and Comp-2 as R1 due 12/27.

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

Members

BF Brian Ford  Jimmy Huckaba

Aerobiology Laboratory Associates, Incorporated
A Pace Analytical® Laboratory

780 Simms Street
Suite 104
Golden, CO, 80401
303.232.3746
www.aerobiology.net

Certificate of Analysis

NVLAP TESTING
NVLAP Lab Code 200860-0

Client Name	Pace Analytical Services, Inc	Date Collected:	12/18/2023
Street Address	12065 Lebanon Rd.	Date Received:	12/27/2023
City, State ZIP	Mt. Juliet, TN 37122	Date Analyzed:	1/10/2024
Attn:	Davian F Edwards	Date Reported:	1/10/2024
Client Project Name:	WG2195814 / L1691306	Project ID:	23052989

Test Requested: **3002, Asbestos in Bulk Samples**
Method: EPA 600/R-93/116: Method for Asbestos in Bulk Building Materials, EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method for Asbestos in Bulk Insulation Samples

Sample Identification		Layer Percentage	Physical Description of Sample/Layer	Asbestos Detected	Asbestos Percentage	Non-Asbestos Fiber Percentage	Non-Fibrous Material Percentage	Matrix Material Composition	Homo-geneous (Y/N)
Client	Lab Sample Number								
DP-1 (2-3)	23052989-1	100	Brown Soil	ND			100	Q	N
DP-1 (11-12)	23052989-2	100	Brown Soil	ND			100	Q	N
DP-2 (2-3.5)	23052989-3A	100	Brown Soil	ND			100	Q	N
	23052989-3B	Tr	Silver Foil	ND			100		N
DP-2(12-13)	23052989-4	100	Brown Soil	ND			100	Q	N
DP-3(1-2.3)	23052989-5A	100	Brown Soil	ND		5 CELL	95	Q	N
	23052989-5B	Tr	Blue/Gold Resinous Material	ND			100	B	N
DP-3(12-13)	23052989-6A	100	Brown Soil	ND		Tr CELL	100	Q	N
	23052989-6B	Tr	Colorless Glass	ND			100		N
DP-4(0-1)	23052989-7	100	Brown Soil	ND		Tr CELL	100	Q	N

Emily R. Thompson
Emily Thompson
Laboratory Analyst

Emily R. Thompson
Emily Thompson
Asbestos Lab Supervisor

AC = Actinolite
AM = Amosite
AN = Anthophyllite
CHRY = Chrysotile
CR = Crocidolite
TRM = Tremolite
Tr = Trace
ND = None Detected

AH = Animal Hair
CELL = Cellulose
FG = Fibrous Glass
MW = Mineral Wool
OT = Other
SYN = Synthetic
TL = Talc
W = Wollastonite

B = Binder
C = Calcite
D = Diatoms
G = Gypsum
M = Mica
OR = Organic
OP = Opaques
P = Perlite

Q = Quartz
T = Tar
V = Vermiculite

AEROBIOLOGY LABORATORY ASSOCIATES, INCORPORATED
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Certificate of Analysis

Client Name	Pace Analytical Services, Inc		Date Collected: 12/18/2023
Street Address	12065 Lebanon Rd.	NVLAP TESTING	Date Received: 12/27/2023
City, State ZIP	Mt. Juliet, TN 37122	NVLAP Lab Code 200860-0	Date Analyzed: 1/10/2024
Attn:	Davian F Edwards		Date Reported: 1/10/2024
Client Project Name:	WG2195814 / L1691306		Project ID: 23052989

Test Requested: **3002, Asbestos in Bulk Samples**
Method: EPA 600/R-93/116: Method for Asbestos in Bulk Building Materials, EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method for Asbestos in Bulk Insulation Samples

Sample Identification		Layer Percentage	Physical Description of Sample/Layer	Asbestos Detected	Asbestos Percentage	Non-Asbestos Fiber Percentage	Non-Fibrous Material Percentage	Matrix Material Composition	Homo-geneous (Y/N)
Client	Lab Sample Number								
DP-4(5-7)	23052989-8A	100	Brown Soil with Charred Wood	ND		15 CELL	85	Q	N
	23052989-8B	Tr	Black Tar	ND			100	T	N
BD-1	23052989-9A	94	Brown Soil	ND		5 CELL	95	Q	N
	23052989-9B	2	Colorless Glass	ND			100		N
	23052989-9C	1	Black Tar	ND			100	T	N
	23052989-9D	1	Green Resinous Material with Colorless Resinous Material	ND			100	B	N
	23052989-9E	1	Gray Cementitious Material with White Paint	ND			100	C	N
	23052989-9F	1	White Fibrous Material	ND		90 FG	10		N
COMP-1	23052989-10A	97	Brown Soil	ND		Tr CELL	100	Q	N
	23052989-10B	1	Black Tar	ND			100	T	N

Emily R. Thompson
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Laboratory Analyst

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Emily Thompson
Asbestos Lab Supervisor

AC = Actinolite
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AN = Anthophyllite
CHRY = Chrysotile
CR = Crocidolite
TRM = Tremolite
Tr = Trace
ND = None Detected

AH = Animal Hair
CELL = Cellulose
FG = Fibrous Glass
MW = Mineral Wool
OT = Other
SYN = Synthetic
TL = Talc
W = Wollastonite

B = Binder
C = Calcite
D = Diatoms
G = Gypsum
M = Mica
OR = Organic
OP = Opaques
P = Perlite

Q = Quartz
T = Tar
V = Vermiculite

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Certificate of Analysis

Client Name	Pace Analytical Services, Inc		Date Collected: 12/18/2023
Street Address	12065 Lebanon Rd.	NVLAP® TESTING	Date Received: 12/27/2023
City, State ZIP	Mt. Juliet, TN 37122	NVLAP Lab Code 200860-0	Date Analyzed: 1/10/2024
Attn:	Davian F Edwards		Date Reported: 1/10/2024
Client Project Name:	WG2195814 / L1691306		Project ID: 23052989

Test Requested: **3002, Asbestos in Bulk Samples**
Method: EPA 600/R-93/116: Method for Asbestos in Bulk Building Materials, EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method for Asbestos in Bulk Insulation Samples

Sample Identification		Layer Percentage	Physical Description of Sample/Layer	Asbestos Detected	Asbestos Percentage	Non-Asbestos Fiber Percentage	Non-Fibrous Material Percentage	Matrix Material Composition	Homo-geneous (Y/N)
Client	Lab Sample Number								
COMP-1	23052989-10C	1	Off-White Resinous Material	ND			100	B	N
	23052989-10D	1	Tan Fibrous Material with Off-White/Charred Paint	ND		90 CELL	10		N
COMP-2	23052989-11A	97	Brown Soil	ND		5 CELL	95	Q	N
	23052989-11B	1	Colorless Glass	ND			100		N
	23052989-11C	1	White Shingle	ND		10 CELL	90	T,Q	N
	23052989-11D	1	Black Fibrous Tar	ND		10 FG	90	T	N

Emily R. Thompson
Emily Thompson
Laboratory Analyst

Emily R. Thompson
Emily Thompson
Asbestos Lab Supervisor

AC = Actinolite	AH = Animal Hair	B = Binder	Q = Quartz
AM = Amosite	CELL = Cellulose	C = Calcite	T = Tar
AN = Anthophyllite	FG = Fibrous Glass	D = Diatoms	V = Vermiculite
CHRY = Chrysotile	MW = Mineral Wool	G = Gypsum	
CR = Crocidolite	OT = Other	M = Mica	
TRM = Tremolite	SYN = Synthetic	OR = Organic	
Tr = Trace	TL = Talc	OP = Opaques	
ND = None Detected	W = Wollastonite	P = Perlite	

ANALYTICAL REPORT

January 25, 2024

NV5 - Wilsonville, OR

Sample Delivery Group:	L1696593
Samples Received:	12/23/2023
Project Number:	SOJ-7-03
Description:	

Report To: Caroline Siegel
9450 SW Commerce Circle
Ste. 300
Wilsonville, OR 97070

Entire Report Reviewed By: Brian Ford

Brian Ford
Project Manager

TABLE OF CONTENTS

DP-3(12-13) L1696593-01 Waste

Collected by: Caroline Siegel | Collected date/time: 12/21/23 09:50 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG2211017	1	01/23/24 09:15	01/23/24 09:15	PNK	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2212080	1	01/24/24 09:59	01/24/24 14:57	DJS	Mt. Juliet, TN

DP-4(5-7) L1696593-02 Waste

Collected by: Caroline Siegel | Collected date/time: 12/21/23 10:53 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG2211017	1	01/23/24 09:15	01/23/24 09:15	PNK	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2212080	1	01/24/24 09:59	01/24/24 15:00	DJS	Mt. Juliet, TN

DP-5(2-2.5) L1696593-03 Waste

Collected by: Caroline Siegel | Collected date/time: 12/18/23 10:23 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG2211017	1	01/23/24 09:15	01/23/24 09:15	PNK	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2212080	1	01/24/24 09:59	01/24/24 15:03	DJS	Mt. Juliet, TN

DP-7(0-2) L1696593-04 Waste

Collected by: Caroline Siegel | Collected date/time: 12/21/23 13:42 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG2211017	1	01/23/24 09:15	01/23/24 09:15	PNK	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2212080	1	01/24/24 09:59	01/24/24 15:06	DJS	Mt. Juliet, TN

DP-9(0-2) L1696593-05 Waste

Collected by: Caroline Siegel | Collected date/time: 12/21/23 13:21 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG2211017	1	01/23/24 09:15	01/23/24 09:15	PNK	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2212080	1	01/24/24 09:59	01/24/24 12:34	JTM	Mt. Juliet, TN

DP-10(3-4) L1696593-06 Waste

Collected by: Caroline Siegel | Collected date/time: 12/18/23 11:44 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG2211017	1	01/23/24 09:15	01/23/24 09:15	PNK	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2212080	1	01/24/24 09:59	01/24/24 15:09	DJS	Mt. Juliet, TN

DP-11(2-3) L1696593-07 Waste

Collected by: Caroline Siegel | Collected date/time: 12/18/23 10:30 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG2211017	1	01/23/24 13:16	01/23/24 13:16	PNK	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2212080	1	01/24/24 09:59	01/24/24 15:12	DJS	Mt. Juliet, TN

DP-12(3-4.5) L1696593-08 Waste

Collected by: Caroline Siegel | Collected date/time: 12/18/23 13:50 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG2211017	1	01/23/24 09:15	01/23/24 09:15	PNK	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2212080	1	01/24/24 09:59	01/24/24 15:15	DJS	Mt. Juliet, TN

DP-13(2.5-3.5) L1696593-09 Waste

Collected by: Caroline Siegel | Collected date/time: 12/21/23 11:55 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG2211017	1	01/23/24 09:15	01/23/24 09:15	PNK	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2212080	1	01/24/24 09:59	01/24/24 15:18	DJS	Mt. Juliet, TN

BD-1 L1696593-10 Waste

Collected by: Caroline Siegel | Collected date/time: 12/21/23 10:58 | Received date/time: 12/23/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG2211017	1	01/23/24 09:15	01/23/24 09:15	PNK	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2212080	1	01/24/24 09:59	01/24/24 15:21	DJS	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

Sample quantity was not sufficient to complete analysis per recommended method guidelines for the following samples.

Lab Sample ID	Project Sample ID	Method
L1696593-07	DP-11(2-3)	1311

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		1/23/2024 9:15:40 AM	WG2211017
Initial pH	8.47		1/23/2024 9:15:40 AM	WG2211017
Final pH	5.58		1/23/2024 9:15:40 AM	WG2211017

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	ND		0.100	5	1	01/24/2024 14:57	WG2212080

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		1/23/2024 9:15:40 AM	WG2211017
Initial pH	8.91		1/23/2024 9:15:40 AM	WG2211017
Final pH	5.59		1/23/2024 9:15:40 AM	WG2211017

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	ND		0.100	5	1	01/24/2024 15:00	WG2212080

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		1/23/2024 9:15:40 AM	WG2211017
Initial pH	6.68		1/23/2024 9:15:40 AM	WG2211017
Final pH	5.60		1/23/2024 9:15:40 AM	WG2211017

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	ND		0.100	5	1	01/24/2024 15:03	WG2212080

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		1/23/2024 9:15:40 AM	WG2211017
Initial pH	8.71		1/23/2024 9:15:40 AM	WG2211017
Final pH	5.58		1/23/2024 9:15:40 AM	WG2211017

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	0.732		0.100	5	1	01/24/2024 15:06	WG2212080

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		1/23/2024 9:15:40 AM	WG2211017
Initial pH	5.77		1/23/2024 9:15:40 AM	WG2211017
Final pH	5.57		1/23/2024 9:15:40 AM	WG2211017

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	ND		0.100	5	1	01/24/2024 12:34	WG2212080

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		1/23/2024 9:15:40 AM	WG2211017
Initial pH	8.22		1/23/2024 9:15:40 AM	WG2211017
Final pH	5.98		1/23/2024 9:15:40 AM	WG2211017

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	0.368		0.100	5	1	01/24/2024 15:09	WG2212080

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		1/23/2024 1:16:09 PM	WG2211017
Initial pH	9.77		1/23/2024 1:16:09 PM	WG2211017
Final pH	5.56		1/23/2024 1:16:09 PM	WG2211017

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	0.649		0.100	5	1	01/24/2024 15:12	WG2212080

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		1/23/2024 9:15:40 AM	WG2211017
Initial pH	9.18		1/23/2024 9:15:40 AM	WG2211017
Final pH	5.58		1/23/2024 9:15:40 AM	WG2211017

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	ND		0.100	5	1	01/24/2024 15:15	WG2212080

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		1/23/2024 9:15:40 AM	WG2211017
Initial pH	7.43		1/23/2024 9:15:40 AM	WG2211017
Final pH	5.56		1/23/2024 9:15:40 AM	WG2211017

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	ND		0.100	5	1	01/24/2024 15:18	WG2212080

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		1/23/2024 9:15:40 AM	WG2211017
Initial pH	9.11		1/23/2024 9:15:40 AM	WG2211017
Final pH	5.54		1/23/2024 9:15:40 AM	WG2211017

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	ND		0.100	5	1	01/24/2024 15:21	WG2212080

Method Blank (MB)

(MB) R4025822-1 01/24/24 12:28

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Lead	U		0.0333	0.100

Laboratory Control Sample (LCS)

(LCS) R4025822-2 01/24/24 12:31

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Lead	10.0	9.73	97.3	80.0-120	

L1696593-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1696593-05 01/24/24 12:34 • (MS) R4025822-4 01/24/24 12:40 • (MSD) R4025822-5 01/24/24 12:43

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	9.69	9.73	96.9	97.3	1	75.0-125			0.365	20

L1697430-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1697430-01 01/24/24 12:46 • (MS) R4025822-6 01/24/24 12:49 • (MSD) R4025822-7 01/24/24 12:51

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	9.78	9.90	97.8	99.0	1	75.0-125			1.27	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.

Company Name/Address:
NV5 - Wilsonville, OR

9450 SW Commerce Circle
Ste. 300
Wilsonville. OR 97070

Billing Information:
Accounts Payable
9450 SW Commerce Circle
Ste. 300
Wilsonville, OR 97070

Pres Chk

Report to: Caroline Siegel

Email To: Caroline.Siegel@nv5.com;Kyle.Sattler@nv5.com

Project Description:

City/State Collected: Portland, OR

Please Circle: (PT) MT CT ET

Phone: 503-968-8787

Client Project # 505-7-03

Lab Project # GEODESPOR-SIEGEL

Collected by (print): Caroline Siegel

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	ASBESTOS 4ozClr-NoPres	Herbicides 8151 8ozClr-NoPres	NWTPHDX no SGT 8ozClr-NoPres	NWTPHGX 40mlAmb/MeOH10ml/Syr	OCPs 8081 8ozClr-NoPres	PAHs 8270SIM 8ozClr-NoPres	PCBs 8082 8ozClr-NoPres	RCRA8 Metals 4ozClr-NoPres	VOCs 8260 40mlAmb/MeOH10ml/Syr		Remarks	Sample # (lab only)
DP-1 (2-3)		SS		12/18/23	1030	4	✓	✓	✓	✓	✓	✓	✓	✓	✓			-01
DP-1 (11-12)		SS		12/18/23	1040													-02
DP-2 (2-3.5)		SS		12/18/23	1140													-03
DP-2 (12-13)		SS		12/21/23	0903													-04
DP-3 (1-2.3)		SS		12/18/23	1230													-05
DP-3 (12-13)		SS		12/21/23	0950												-01	-06
DP-4 (0-1)		SS		12/21/23	1047													-07
DP-4 (5-7)		SS		12/21/23	1053												-02	-08
DP-5 (0-0.5)		SS		12/18/23	1025													-09
DP-5 (2-2.5)		SS		12/18/23	1023	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		-03	-10

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE
1169593
MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # ~~169303~~
G073

Acctnum: GEODESPOR
Template: T243365
Prelogin: P1043087
PM: 110 - Brian Ford
PB: 12/8/23 cam
Shipped Via: FedEX Ground

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Emailing composite instructions

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

12/23/23 TD

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
	12/22/23	1500		9
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:
				1|2
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:
			TRENA	12/23/23 1000

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

Company Name/Address:
NV5 - Wilsonville, OR
9450 SW Commerce Circle
Ste. 300
Wilsonville, OR 97070

Billing Information:
Accounts Payable
9450 SW Commerce Circle
Ste. 300
Wilsonville, OR 97070

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace® PEOPLE ADVANCING SCIENCE
L1696593
MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

Report to: Caroline Siegel

Email To: Caroline.Siegel@nv5.com;Kyle.Sattler@nv5.com

Project Description:

City/State Collected: Portland, OR

Please Circle: PT (circled) MT CT ET

Phone: 503-968-8787

Client Project #: 505-7-03

Lab Project #: GEODESPOR-SIEGEL

SDG #: ~~1691307~~

Table #

Collected by (print): Caroline Siegel

Site/Facility ID #

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Immediately Packed on Ice N ___ Y ✓

Acctnum: GEODESPOR
Template: T243365
Prelogin: P1043087
PM: 110 - Brian Ford
PB: 12/18/23 CMM
Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	ASBESTOS 4ozClr-NoPres	Herbicides 8151 8ozClr-NoPres	NWTPHDX no SGT 8ozClr-NoPres	NWTPHGX 40mlAmb/MeOH10ml/Syr	OCPs 8081 8ozClr-NoPres	PAHs 8270SIM 8ozClr-NoPres	PCBs 8082 8ozClr-NoPres	RCRA8 Metals 4ozClr-NoPres	VOCs 8260 40mlAmb/MeOH10ml/Syr	Remarks	Sample # (lab only)
DP-6 (2-2.5)		SS		12/18/23	1003	4	✓	✓	✓	✓	✓	✓	✓	✓	✓		-11
DP-7 (0-2)		SS		12/21/23	1342	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	-04	-12
DP-7 (3-4)		SS		12/21/23	1347	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		-13
DP-8 (0-2)		SS		12/21/23	1330	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		-14
DP-8 (2-3.5)		SS		12/21/23	1332	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		-15
DP-9 (0-2)		SS		12/21/23	1321	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	-05	-16
DP-10 (0-1)		SS		12/18/23	1144	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		-17
DP-10 (3-4)		SS		12/18/23	1144	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	-06	-18
DP-11 (0-1)		SS		12/18/23	1030	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		-19
DP-11 (2-3)		SS		12/18/23	1030	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	-07	-20

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other ________

Remarks: Emailing composite memo/notes

pH ______ Temp ______
Flow ______ Other ______

Samples returned via:
__ UPS __ FedEx __ Courier ________

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ~~NP~~ __Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: ✓Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes (circled) / No; HCl (circled) / MeoH; TBR	
[signature]	12/22/23	1500		9	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: 112	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) [signature]	Date: 12/23/23 Time: 1000	Hold: Condition: NCF / OK (circled)

Company Name/Address:
NV5 - Wilsonville, OR

9450 SW Commerce Circle
Ste. 300
Wilsonville. OR 97070

Billing Information:
Accounts Payable
9450 SW Commerce Circle
Ste. 300
Wilsonville, OR 97070

Pres Chk

Report to: Caroline Siegel

Email To: Caroline.Siegel@nv5.com;Kyle.Sattler@nv5.com

Project Description:

City/State Collected: Portland, OR

Please Circle: (PT) MT CT ET

Phone: 503-968-8787

Client Project # 505-7-03

Lab Project # GEODESPOR-SIEGEL

Collected by (print): Caroline Siegel

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

No. of Cntrs

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	ASBESTOS 4ozClr-NoPres	Herbicides 8151 8ozClr-NoPres	NWTPHDX no SGT 8ozClr-NoPres	NWTPHGX 40mlAmb/MeOH10ml/Syr	OCPs 8081 8ozClr-NoPres	PAHs 8270SIM 8ozClr-NoPres	PCBs 8082 8ozClr-NoPres	RCRA8 Metals 4ozClr-NoPres	VOCs 8260 40mlAmb/MeOH10ml/Syr	Remarks	Sample # (lab only)
DP-12(0-1.5)		SS		12/18/23	1335	4	✓	✓	✓	✓	✓	✓	✓	✓	✓		21
DP-12 (3-4.5)		SS		12/18/23	1350											-08	22
DP-13(1-2.5)		SS		12/21/23	1147												23
DP-13 (2.5-3.5)		SS		12/21/23	1155											-09	24
DP-14 (0-2)		SS		12/21/23	1210												25
DP-15 (0-1.5)		SS		12/21/23	1200												26
DP-16 (0-2)		SS		12/21/23	1512												27
BD-1		SS		12/21/23	1058	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-10	28
		SS															
		SS															

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE
L1696593
MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 169303

Table #

Acctnum: GEODESPOR

Template: T243365

Prelogin: P1043087

PM: 110 - Brian Ford

PB: 12/18/23 cam

Shipped Via: FedEX Ground

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Emailing composite instructions

pH _____ Temp _____

Flow _____ Other _____

Samples returned via: __UPS __FedEx __Courier _____

Tracking #

Sample Receipt Checklist

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

Relinquished by : (Signature)	Date: 12/22/23	Time: 1500	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: 12	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) DRoth	Date: 12/23/23 Time: 1000	Hold: / Condition: NCF / OK

L1696593

L1691303 GEODESPOR re-log

R5

Please re-log the following as R5 due 01/24 for TCLP PBICP..

DP-3(12-13)
DP-4(5-7)
BD-1
DP-5(2-2.5)
DP-7(0-2)
DP-9(0-2)
DP-10(3-4)
DP-11(2-3)
DP-12(3-4.5)
DP-13(2.5-3.5)

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

Members

BF Brian Ford [redacted] Troy Dunlap

APPENDIX D

U.S. Fish and Wildlife Service

National Wetlands Inventory

2800 NE 82nd Avenue, Portland

February 22, 2024

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

NV5

Delivering Solutions
Improving Lives