



**Underground Storage Tank  
System Removal and Cleanup  
Action Report**

**The Hungry Whale  
1680 North Montesano Street  
Westport, Washington 98595**

Ecology Facility Site ID: #1127  
Ecology Cleanup Site ID: #4988  
Ecology Agreed Order ID: DE 20344

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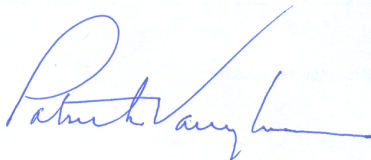
## Sign Off Sheet

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## Abbreviations and Acronyms

ACM	asbestos-containing material
AEC	Anderson Environmental Contracting, LLC
BTEX	Assessor Parcel Number
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and total xylenes
CAP	Cleanup Action Plan
CAR	cleanup action report
CDF	Control Density Fill
cPAH	Carcinogenic Polycyclic Aromatic Hydrocarbon
CSWGP	Construction Stormwater General Permit
CUL	Cleanup Level
DNS	Determination of Non-Significance
Ecology	Washington State Department of Ecology
EDR	Engineering Design Report
EPA	United States Environmental Protection Agency
Guidance	Ecology's <i>Site Assessment Guidance for Underground Storage Tank Systems</i> , January 2021 – revised October 2022
HASP	Health and Safety Plan
ICC	International Code Council
LBP	lead-based paint
MTCA	Model Toxics Control Act
ORCAA	Olympic Region Clean Air Agency
PID	Photoionization Detector
Port	Ports of Grays Harbor
Property	Hungry Whale parcel of land at 1680 North Montesano Street, Westport
QAPP	Quality Assurance Program Plan
RI/FS	Remedial Investigation/Feasibility Study
RBM	regulated building material
RL	remediation level
SAP	Sampling and Analysis Plan
SEPA	State Environmental Policy Act
SPH	separate phase hydrocarbons
Stantec	Stantec Consulting Services Inc.



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SWPPP	Stormwater Pollution Prevention Plan
TPH-D	Total Petroleum Hydrocarbons as Diesel
TPH-G	Total Petroleum Hydrocarbons as Gasoline
TPH-O	Total Petroleum Hydrocarbons as Oil
UDC	Under Dispenser Containment
UST	Underground Storage Tank
VPH/EPH	Volatile Petroleum Hydrocarbon/Extractable Petroleum Hydrocarbon
WAC	Washington Administrative Code



Introduction  
January 3, 2024

## 1.0 INTRODUCTION

Stantec Consulting Services Inc. (Stantec) was retained by the Port of Grays Harbor (Port) to provide oversight, soil sampling, and documentation for the removal of the underground storage tank (UST) system; excavation and offsite disposal of impacted soil; and extraction, treatment, and offsite discharge of impacted shallow groundwater at the Hungry Whale site (Site) located at 1680 North Montesano Street in Westport, Washington (**Figures 1 and 2**). This combined UST removal and Cleanup Action Report (CAR) was prepared in accordance with Washington Administrative Code (WAC) 173-340-400 (6)(b) and with Appendix F of Washington State Department of Ecology (Ecology) *Site Assessment Guidance for Underground Storage Tank Systems (Guidance Publication 21-09-050* dated January 2021, revised October 2022).

Field activities were preceded by the submittal of project planning documents to and approval by Ecology, including a *Remedial Investigation/Feasibility Study* (RI/FS; Stantec 2020), the *Cleanup Action Plan* (CAP; Ecology, 2022), and the *Engineering Design Report* (EDR; Stantec 2022). As detailed herein, additional project approvals were obtained from Ecology and other local oversight agencies. Work was performed under Ecology Agreed Order DE20344.

The UST removal work, excavation dewatering, and associated impacted soil excavation with offsite transportation and disposal was conducted in August 2023, with site restoration and equipment demobilization continuing into September 2023.

All earthwork, building demolition/infrastructure removals, monitoring well abandonments, UST and impacted soil removal, excavation dewatering/treatment, and site restoration work were performed by Anderson Environmental Contracting, LLC (AEC of Kelso, WA; the Port's General Contractor). Work was conducted in accordance with Ecology's *Guidance Publication 21-09-050* and with Ecology's updated UST regulations under WAC 173-360A (July 2018). UST decommissioning and site assessment sampling activities were performed by a certified UST Decommissioner and a certified Site Assessor as required by WAC 173-360A-930(4) and 173-360A-930(3), respectively.

### 1.1 PROJECT PURPOSE

As outlined in the CAP, the purpose of the work was to observe and document the removal of three pre-existing USTs, the UST system components (dispensers, under dispenser containment [UDC], product piping, vent piping), and the removal of as much impacted soil as feasible from the Site. The work included documentation of subsurface soil conditions and identification of remaining impacted soil following excavation.

As detailed in this report, the three former USTs at the Site consisted of one 20,000-gallon, 3-compartment steel UST (the only recently-active UST); one 10,000-gallon previously abandoned-in-place steel UST (originally thought to be a 6,000-gallon UST); and one 2,000-gallon previously abandoned-in-place steel UST. The UST abandoned-in-place work had been performed by others in March 1991 and consisted of filling the two USTs with controlled density fill (CDF).



## 1.2 SCOPE OF WORK

The project's primary scope of work consisted of the following tasks:

- Preparation of a Site-specific Health and Safety Plan (HASP).
- Conducting pre-demolition regulated building materials (RBM) surveys for suspect asbestos-containing materials [ACM] and lead-based paint [LBP]. Work was performed in mid-2021.
- Obtaining permits/approvals from local agencies for the planned building demolition, groundwater monitoring abandonments, soil excavation, dewatering/treatment, and backfilling activities.
- Contacting OneCall/Northwest Utility Notification Center for the public utility locate and subcontracting a private utility-locating firm to mark and identify onsite utilities.
- Excavating several test pits along the perimeter of the planned soil remediation footprint to evaluate current soil conditions (no soil sampling had been conducted since 2007).
- Abandoning on-Property groundwater monitoring wells located within the excavation footprint prior to and during remedial excavation.
- Conducting building demolition and infrastructure removal.
- Submitting the 30-day UST removal notification to Ecology.
- Observing and documenting the UST, dispensers/UDC, product and vent piping removals.
- Inspecting the condition of the USTs, UDCs, and product and vent piping upon removal.
- Collecting and analyzing compliance soil samples from UST excavations, from beneath the product lines and dispensers, and from the soil stockpile per Ecology *Guidance Publication 21-09-050*.
- Excavating and loading impacted soil with subsequent offsite transportation and disposal.
- Extracting and treating impacted shallow groundwater with subsequent permitted offsite discharge.
- Collecting and analyzing post-excavation confirmation soil samples.
- Preparing this UST removal and CAR for the Site.

Soil and shallow groundwater assessment, periodic groundwater monitoring and sampling, and previous interim actions have been conducted at the Site since 1991. Details of these activities and Site history have been submitted to Ecology and are included in the RI/FS and the CAP and are summarized in **Section 2.2**. A Site Plan with these historic sample locations is provided as **Figure 2**, and tabulated soil and groundwater data and iso-concentration maps are provided in **Appendix A**.



Site Description  
January 2, 2024

## 2.0 SITE DESCRIPTION

### 2.1 SITE LOCATION AND DESCRIPTION

The Site is located at 1680 North Montesano Street in Westport, Washington at the east corner of the intersection of North Montesano Street and Wilson Avenue (**Figure 1**).

The Site is owned by the Port and until recently, was operated as a convenience store and fuel dispensing facility. The Site is a small portion of the larger, Port-owned, Grays Harbor County Tax Assessor Parcel Number (APN) #616120142001 and is situated in the western-most corner of the same APN #616120142001. The Site is a nearly square-shaped parcel with sides of approximately 150, 151, 155, and 173 feet in length. The Site is in the northeast quarter of the southeast quarter of Section 1, Township 16 North, Range 12 West, Willamette Baseline and Meridian.

As shown in **Figure 2**, the former convenience store and two dispenser pumps were located in the west portion of the Site. The single active 20,000-gallon UST was located in the south portion of the Site and the two previously abandoned-in-place USTs were located close to the south corner of the convenience store and near the dispensers in the west-central portion of the Site. According to Ecology, a third former UST was removed from the Site. An above-ground propane tank was previously located in the south portion of the Site. A storage building and a residence were located in the north and east portions of the Site, respectively, and were demolished as part of these project activities.

### 2.2 SITE ENVIRONMENTAL HISTORY

As noted at the end of **Section 1.2**, prior reports detailing Site history and results of prior subsurface investigations have been submitted to Ecology. In summary, the recently-demolished facility has been constructed in the mid-1970s and, since that time, the Site had always operated as a convenience store and fueling station. The original USTs were decommissioned/abandoned in March 1991 and the single 20,000-gallon UST was installed in the south portion of the Site.

Subsurface investigations reveal impacted soil and shallow groundwater with gasoline-related constituents above Model Toxics Control Act (MTCA) Method A cleanup levels (CULs).

A brief summary of Site environmental work is as follows:

- March 1991: soil samples collected during original UST abandonment work revealed impacted soil with fuel-related petroleum hydrocarbons at concentrations above MTCA Method A CULs.
- November 1991 and May 1992: nine (9) shallow groundwater monitoring wells were installed at the Site and impacted shallow groundwater revealed fuel-related dissolved-phase petroleum hydrocarbons above MTCA Method A CULs. Measurable thicknesses of separate phase hydrocarbons (SPH) were reported in several monitoring wells at the Site during four groundwater monitoring and sampling events conducted between late 1991 and 1993.



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- From July 1997 to October 1999, a bio-spargue remediation system (consisting of injection and extraction wells) operated. Hydrocarbon concentrations in shallow groundwater declined during system operation but rebounded to pre-treatment concentrations by November 2000.
- January 2005: three additional on-Property soil borings/groundwater monitoring wells and four off-Property monitoring wells were installed with the highest concentrations in shallow groundwater well samples observed in the south portion of the Hungry Whale parcel. An unrecorded thickness of SPH was reported in a metal culvert offsite and south of the Hungry Whale parcel.
- April, June, and October 2007: additional on- and off-Property assessment was conducted (21 direct-push soil borings were advanced and six [6] shallow groundwater monitoring wells were installed). Impacted soil and shallow groundwater above MTCA Method A CULs were detected in on-Property borings, in off-Property borings beneath North Montesano Street (west/southwest of the Hungry Whale parcel), and in off-Property borings beneath Wilson Avenue (north of the Hungry Whale parcel). Groundwater samples from the on-Property wells revealed impacted groundwater above MTCA Method A CULs. Groundwater samples from the two off-Property wells (MW-24 located west of the Hungry Whale parcel and MW-25 located southwest of the Hungry Whale parcel), however, did not contain detectable hydrocarbons. Remediation of the SPH in the metal culvert south of the Hungry Whale parcel was performed.
- From November 2011 to May 2021: periodic groundwater well monitoring and sampling were conducted, the results of which reveal gasoline-related impacted groundwater above MTCA Method A CULs at on-Property wells MW-02, MW-04, MW-07, MW-09, MW-10, MW-12, and MW-20 through MW-23. Remaining on-Property wells MW-11 and MW-21 showed no impacts (except MW-11 revealed a one-time MTCA Method A CUL exceedance of benzene in November 2011). Off-Property wells MW-01, MW-03(JR), MW-05, MW-06, MW-13, MW-14, MW-24, and MW-25 showed no MTCA Method A CUL exceedances (except MW-25 revealed one-time exceedance of total petroleum hydrocarbons as gasoline [TPH-G] and benzene in April 2016).
- In December 2011 and March 2012, soil gas sampling and vapor intrusion assessment were conducted at the Site. Seven (7) exterior soil gas probes were installed. Elevated soil gas concentrations above screening levels at the time (Table B-1 of Ecology's *Guidance for Evaluating Soil Vapor Intrusion in Washington State, Review Draft, October 2009*) were detected in the central and southern portions of the Site (mirroring elevated soil and shallow groundwater impacts) with some of the two highest detections recorded in the two probes closest to the convenience store building. As such, indoor and outdoor vapor samples were subsequently collected, the results of which were below the 2009 *Table B-1* screening levels.

**Figure 2** shows the pre-remediation sample locations. For ease of review, pre-remediation tabulated soil and shallow groundwater data (including iso-concentration maps) are provided in **Appendix A**. In addition to the Site history summarized above, Stantec conducted preliminary, low-flow, steady-state, groundwater drawdown testing in May 2021, the results of which showed no to very little response at the closest monitoring wells located at lateral distances of 35 to 40 feet from the pumping well.



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### 2.3 SITE ZONING AND SURROUNDING LAND USE

The Site is subject to commercial and industrial use (consistent with Site’s former use as a fueling station and consistent with surrounding current land use) and, per Grays Harbor tax assessor information, is within a Mixed-Use Tourist Commercial I (MUTC-1) zoning district.

Surrounding land use is as follows:

Direction	Bordering Properties
North	Wilson Avenue is located to the north with vacant land across Wilson Avenue and with several large warehouses occupied by Westport Shipyard further north/northwest beyond the vacant land. To the northeast (approximately 50 feet of the Site boundary) is a currently vacant restaurant.
East	Vacant land is located east (owned by the Port) and additional vacant land is located to the southeast. Further southeast is a small commercial building with a small former go-cart racetrack. East of the go-cart racetrack is the Ocean Cold, LLC facility (a cold-storage seafood warehouse).
South	Vacant land (owned by the Port) is located to the south. Further south and south/southwest of the go-cart racetrack is the Westport Airport (a general aviation facility with a single runway) and several small commercial businesses.
West	West of the Site is the intersection of North Montesano Street and Wilson Avenue. West/northwest of the intersection is the 79-acre, open-space Westhaven State Park. Southwest of the intersection and west of the Site (across North Montesano Street) is Englund Marine Supply. West/southwest of Englund Marine is the Holand Center RV Park and several small marine-related commercial businesses. South of Englund Marine is vacant land and further south is a relatively large self-service storage facility (lockable units with rollup doors and exterior motor-home/boat/vehicle storage). South of the storage facility is a three-pump, self-service fueling facility operated by Masco Petroleum.





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## 2.4 TOPOGRAPHY, GEOLOGY, AND HYDROLOGY

Detailed descriptions of the regional and Site topography, geology, and hydrology were included in our prior reports and a brief summary of Site data is included herein. The ground surface elevation at the Site is approximately 12.5 to 14 feet above mean sea level and is relatively flat. Surface topography beyond the Site boundaries gently undulates.

Based on Site boring logs, near-surface material at the Hungry Whale parcel (from ground surface to depths ranging from approximately 5 to 7 feet below ground surface [bgs]) consists of fine-grained sand with minor silt and gravel, interpreted to be fill or marsh deposits. In the center and the southeast portions of the Hungry Whale parcel, a silty clay/clayey silt layer was observed at the base of the fill/marsh deposits at depths of approximately 6.5 feet that may be representative of dredged marsh or tidal flat sediments that were historically imported as fill. The thickness of the fill decreases significantly at the off-parcel borings.

Native soil beneath the fill consists of fine- to medium-grained sand with varying amounts of silt, interpreted to be eolian and/or shallow marine deposits. The exception to this overall lithology is found at B-20/MW-20 (located in the center of the property between the former USTs and the current USTs) and drilled to a depth of 30 feet bgs (deeper than most of the other borings/wells). At this location, native soil has a higher percentage of silt as indicated by “silty sand (SM)” on the boring log to a depth of 25 feet. From 25 to 30 feet bgs, soil coarsens to medium-grained sand with some coarse sand and fine gravel.

This near-surface fill and underlying predominantly sand native lithology were observed and confirmed during the remedial impacted soil excavation documented herein (**Section 4.2**)

Based on shallow groundwater gauging data measured between 2007 and 2021, depth to groundwater ranges from approximately 4 to 8 feet bgs with higher groundwater levels occurring during the wet seasons and lower levels during the drier summer months. Shallow groundwater was confirmed at depths of approximately 8 to 9 feet bgs during the recently-completed remedial soil excavation that required dewatering so that soil excavation could reach to depths of 15 feet bgs.

## 2.5 FORMER UNDERGROUND STORAGE TANKS

Based on UST removal work documented herein and on Ecology UST records, the following table summarizes the former USTs at the Site.

Tank ID	Tank Type and Volume	Substance Stored	Date Installed	Date Decommissioned	Date Removed
1-U*/ UST1**	10,000-gallon*** steel	Unleaded Gasoline*	~mid 1970s	March 1991 (abandoned in place; filled with CDF)	8/4/2023



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Tank ID	Tank Type and Volume	Substance Stored	Date Installed	Date Decommissioned	Date Removed
2-R*/ UST3**	2,000-gallon**	Leaded Gasoline*	~mid 1970s	March 1991 (abandoned in place; filled with CDF)	8/9/2023
1- 20,000*/ UST2**	20,000-gallon, 3-compartment steel	10K Unleaded 6K Unleaded 4K Diesel	1991	---	8/11/2023
3-D*	Unknown size, steel*	Diesel*	~mid 1970s	March 1991*	March 1991*

\* Ecology information/identifier.

\*\* Stantec information/identifier.

\*\*\* Originally thought to be 6,000 gallons but as measured in the field by Stantec on August 4, 2023, it is a 10,000-gallon UST.

## 2.6 REGULATORY STATUS

As outlined in **Section 1**, the Site is currently under Ecology Agreed Order DE 20344. Based on Ecology databases, additional Site/facility identifiers are shown in the following table.

Ecology Database	Regulatory Site Identification (ID) Numbers
Facility Site Identification (ID):	1127
Cleanup Site ID:	4988
UST ID:	3488
Agreed Order (current):	DE 20344
Agreed Order (former):	DE 94-S388; DE 3812



Permitting and Initial Field Activities  
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## 3.0 PERMITTING AND INITIAL FIELD ACTIVITIES

### 3.1 PERMITTING AND PROJECT APPROVALS

As outlined in the CAP and EDR documents, the following agencies were identified and contacted for their known or anticipated project permits/notices and/or approvals:

- Ecology UST closure/removal form (“30-day Notice”).
- Ecology Construction Stormwater General Permit (CSWGP).
- Ecology State Environmental Policy Act (SEPA) Determination of Nonsignificance (DNS).
- Olympic Region Clean Air Agency (ORCAA) Notification of Demolition.
- City of Westport Demolition Permit.
- City of Westport Sewer and Water Permit.
- City of Westport Fill and Grade Permit.

#### Ecology Permits/Notifications/Approvals

For initial project permitting purposes and on behalf of the Port, Stantec completed the SEPA Checklist (dated July 15, 2021) which outlined project highlights and which the Port subsequently submitted to Ecology. A *draft CAP* (dCAP with detailed Site environmental history, RIFS’ summary of remedial options, anticipated CULs and Site-specific remediation levels [RLs], the selected remedial alternative, and a proposed schedule of project implementation) was prepared by Stantec and submitted to Ecology on October 18, 2021.

On May 3, 2022, Ecology issued its DNS, a copy of which is provided in **Appendix B**. The *Final CAP* was prepared and issued on July 14, 2022. Stantec prepared and submitted to Ecology the *Engineering Design Report* (EDR; dated December 22, 2022) which included details of the planned field work, a Sampling and Analysis Plan/Quality Assurance Program Plan (SAP/QAPP), a Site-specific HASP, and a Civil Plan Set of construction drawings.

A Notice of Intent/Application for coverage under an Ecology CSWGP was submitted by the Port to Ecology. As part of the application package, Stantec prepared and submitted a *Stormwater Pollution Prevention Plan* (SWPPP; dated February 15, 2023) to Ecology. On April 18, 2023, Ecology issued CSWGP Number WAR312143 which included requirements for the submittal of discharge monitoring reports and Ecology contacts/information for the potential submittal of additional planning documents. A copy of Ecology’s April 18, 2023 issued permit is provided in **Appendix B**.

Following email correspondence with Ecology, Stantec prepared and submitted a *Technical Memorandum* (dated July 7, 2023) providing details of the temporary dewatering treatment system and requesting Ecology approval. Via July 12, 2023 email from Ecology, approval was granted (**Appendix B**).



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In anticipation of the UST removals, the 30-Day Notice was prepared and submitted to Ecology by AEC on June 21, 2023, and again on July 13, 2023. A copy of the Notice is provided in **Appendix B**. AEC also made the requested three-day email notification to Ecology representative Mr. Dustin Mimnaugh (**Appendix B**).

In anticipation of well abandonment for groundwater monitoring wells located within the impacted soil remedial excavation footprint, Stantec contacted Ecology regarding abandonment methods for wells with boring logs/well construction details/well tags, inaccessible or “unable to locate” wells without boring logs/well construction details, and/or “not-drilled” tank pit observation wells. Ecology responded with approved well abandonment methods for all three types of wells (**Appendix C**).

### **City of Westport Notifications/Approvals**

On April 17, 2023, the City of Westport granted approval of the project’s planned discharge of treated groundwater to the City’s “stormwater ditch system.” A copy of the City’s approval email is provided in **Appendix D**.

The City of Westport permits (demolition, sewer and water, and fill and grade) were facilitated by the Port and in-place during demolition, sewer and water line decommissioning, and fill and grade activities.

### **ORCAA Notifications/Approvals**

On behalf of the Port and for the planned building demolition work, Stantec completed and submitted the preliminary notification form to ORCAA on January 9, 2023.

Backup ACM and LBP documentation (including a copy of Stantec’s *Regulated Building Materials Survey Report* dated August 24, 2021, for field and analytical work conducted in late June - early July 2021) was subsequently submitted to ORCAA with the final notifications made to ORCAA on July 11, 2023 (14 days prior to the planned demolition activities). Copies of the ORCAA notifications/responses are provided in **Appendix D**.

## **3.2 HEALTH AND SAFETY PLAN (HASP)**

Stantec prepared a Site-specific HASP for the planned UST removals, impacted soil excavation/loading/offsite transport, and excavation dewatering/treatment/offsite discharge. The HASP identified potential physical, chemical, and biological hazards associated with the proposed field activities; established personal protection standards and mandatory safety practices; and included information on suspected chemical compounds to be encountered, monitoring equipment, required protective clothing and equipment, maps and directions to the nearest hospital and Urgent Care clinic, and emergency telephone numbers.

The HASP was available on-Site during the field activities. Stantec personnel and all contractors working on-Site were required to review, sign, and comply with the HASP.



### 3.3 EXPLORATORY TEST PITS

On June 26 and 27, 2023, Stantec oversaw the excavation of nine test pits (TPs) located along the perimeter of the footprint of the planned impacted soil remedial excavation: TP-1, TP-3, TP-4, TP-6, and TP-10 through TP-14 (refer to Test Pit Location **Figure E1** in **Appendix E**). The primary purpose of the test pits was to document current soil conditions as no soil samples had been collected or analyzed since 2007.

A secondary purpose for the test pits was to evaluate estimated depth to shallow groundwater shortly before UST removal and impacted soil remedial excavation work, and to observe a rough order-of-magnitude seepage rate for shallow groundwater entering the test pits (information that was used for the subsequent remedial excavation dewatering activities).

Prior to TP excavation, OneCall/Northwest Utility Notification Center (1-800-454-5555 or 811) and a private utility locator were contacted to locate and mark underground utilities. AEC performed the TP excavation work. The nine test pits ranged in depth from 7.5 to 13.5 feet bgs. Excavated soil was field-screened by Stantec for potential hydrocarbon impacts using a portable photoionization detector (PID; see detailed field-screening methods described in **Section 4.3**). Test pit locations, total depths, and PID measurements at each test pit are shown on **Figure E1** in **Appendix E**.

One to two soil samples per test pit were collected in accordance with Environmental Protection Agency (EPA) Sampling Method 5035A and transported to a WA-certified environmental laboratory (PACE Analytical based in Mt. Juliet, TN). Details of sample collection, handling, and chain-of-custody protocols are also described in **Section 4.3**.

A total of 13 soil samples were collected from the test pits: 11 assessment samples, one duplicate (DUP-01, the original sample was TP-3-8'), and one Trip Blank.

All 13 soil samples were analyzed for the following:

- TPH-G using Ecology method NWTPH-Gx; and
- Benzene, toluene, ethylbenzene, total xylenes (BTEX) using EPA Test Method 8260D.

Four of the 13 samples (TP-1-8'; TP-6-7.5'; TP-10-7.5'; and TP-11-11') were additionally analyzed for:

- Total petroleum hydrocarbons as diesel and oil (TPH-D and TPH-O) using Ecology NWTPH-Dx;
- Carcinogenic polycyclic aromatic hydrocarbons (cPAHs) using EPA Test Method 8270E-SIM; and
- Resource Conservation and Recovery Act 8 Priority Pollutants Metals (total, not soluble or leachable) using EPA Test Method 7471B/6010D.

Except for two soil samples (TP-12-11.5' and TP-14-13.5'), soil from the test pits was impacted with petroleum hydrocarbons at concentrations above MTCA Method A CULs. Soil analytical results are shown in **Tables 1A and 1B**. These data were also used for waste profiling purposes. Laboratory certificates of analyses are provided in **Appendix E**.



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Following soil sampling, the test pits were temporarily backfilled with their excavated material (for final removal during subsequent remedial soil excavation work; see **Section 4.2**).

### 3.4 MONITORING WELL ABANDONMENTS

Groundwater monitoring well abandonments for wells located within the impacted soil remedial excavation footprint were performed by AEC prior to and during impacted soil excavation/UST removal.

Four groundwater monitoring wells for which boring logs/well construction details and/or well tags existed included: MW-02/AKF-194; MW-20/APL-950; MW-22/ALN-595; and MW-23/ALN-851. These four wells were abandoned on July 27, 2023 (prior to impacted soil excavation) by filling the well casings with bentonite chips. Copies of AEC's well abandonment logs are provided in **Appendix C**.

During excavation/UST removal activities, "lost" groundwater monitoring well MW-4 (for which there was no boring log/well construction details/well tag) and MW-7 (located very close to the 20,000-gallon UST) were encountered. Excavation at these two locations extended to depths of 15 feet bgs: this is deeper than the approximate 10-foot depth of MW-7 and slightly above the approximate 17-foot depth of MW-4 (the total well depths as measured by Stantec during past groundwater monitoring and sampling events). The casings and other construction materials for both wells were removed. The casings were disposed offsite along with other construction debris and the sand pack/bentonite were added to the impacted soil stockpile that was transported offsite.

Tank pit observation well MW-12 (not drilled but simply placed in the 20,000-gallon UST backfill gravel during tank installation in 1991) was removed when this 20,000-gallon tank (UST3) was removed. Its casing was removed and disposed offsite along with other construction debris.

### 3.5 BUILDING DEMOLITION AND INFRASTRUCTURE REMOVAL

Building demolition (convenience store, the northern storage warehouse, and the eastern residence), the removal of the dispenser island canopy, and infrastructure removal were coordinated and/or conducted by AEC. Stantec's August 24, 2021 *Regulated Building Materials Survey Report* was provided to AEC.

Prior to demolition, all utility services to the Site were shut off.

Known and suspect RBMs were removed by Safeguard Abatement, LLC (a licensed abatement contractor based in Yakima, WA) with planned disposal of these materials at Finley Buttes Regional Landfill in Boardman, OR.

Regular construction waste (drywall, cement, wood, metal, glass, etc.) generated during demolition activities was transported offsite as inert construction debris. As foundations were removed, subsurface water and sewer piping and electrical lines/conduits were removed and/or cut and capped near the parcel boundaries.

The above-ground propane tank in the southern portion of the Site and the several catch basins at the Site were also removed.



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Because Stantec was not onsite for these activities, the preceding summary is based on information provided by AEC. If needed, additional information for these activities is available from AEC.



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## 4.0 UST REMOVALS AND COMPLIANCE SOIL SAMPLING, REMEDIAL SOIL EXCAVATION, EXCAVATION DEWATERING/TREATMENT, CONFIRMATION SOIL SAMPLING, AND BACKFILLING/SITE RESTORATION

### 4.1 UST REMOVAL ACTIVITIES

Following building demolition, dispenser canopy removal, and removal of some of the pavement, AEC continued Site work with near-surface soil excavation to expose the three USTs for subsequent removal. As previously noted, the three USTs consisted of the following: the 3-compartment, steel 20,000-gallon UST (the only recently-active UST) and the two previously abandoned-in-place steel USTs.

Mr. David Walker, AEC Foreman, is certified through the International Code Council (ICC) for UST Decommissioning. A copy of Mr. Walker's ICC Certification is included in **Appendix F**. Mr. Paul Janney, Stantec Geologist, performed the UST Site Assessment activities. Mr. Janney is certified through the ICC as a UST Site Assessor. A copy of Mr. Janney's certification is also included in **Appendix F**.

Prior to UST removals, AEC submitted the 30-Day Notice to Ecology (**Appendix B**).

The 3-compartment, steel 20,000-gallon UST and its vent lines were located in the south portion of the Site and the two previously abandoned-in-place USTs were located close to the former convenience store building. The canopied dispenser area (formerly located in the western portion of the Site) contained two pumps, dispensing both gasoline and diesel fuels. Product piping ran from the south portion of the Site northerly to the dispenser area.

Prior to removal of the USTs, the following activities were completed at the Site:

- The OneCall/Northwest Utility Notification Center and a private utility locator had previously been contacted (for the prior test pits) to locate and mark underground utilities/pipelines.
- Electrical service to the dispenser islands and the 20,000-gallon UST had already been de-activated during the prior demolition work.
- The 3 compartments of the 20,000-gallon UST were triple-rinsed, and pumped free of rinsate water.
- The 20,000-gallon UST was inerted by a certified marine chemist and inspected for removal.

#### Continued Pavement Removal, Initial Soil Excavation, and Soil Screening

Pavement continued to be removed in the UST and dispenser areas. Initial soil excavation to expose the tops of the USTs began on August 1, 2023. Stantec was onsite to field screen the soils for the potential presence of petroleum hydrocarbon impacts using a portable PID and observing the soil for staining. Field





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impacts were noted in near-surface soil and in some locations, directly beneath pavement. Impacted soils were temporarily stockpiled onsite, sampled, and subsequently transported offsite.

### Ongoing UST-Related Soil Excavation, UST Removals, and Compliance Soil Sampling

Soil excavation continued and the sequence of UST removals was as follows:

- The 10,000-gallon, previously abandoned-in-place, steel UST (originally thought to be a 6,000-gallon tank) was the first tank to be exposed for removal. Identified by Stantec as UST1, sidewall samples were collected on August 3, 2023 as soil around the tank was excavated. CDF used to previously abandon the tank began to be removed from the inside of the tank on August 3, 2023. Following removal of all CDF, UST1 was removed on August 4, 2023, with additional compliance soil samples collected that same day.
- The 3-compartment, recently-active, steel 20,000-gallon UST was the next tank to be exposed for removal. Identified by Stantec as UST2, it was exposed and an initial piping soil sample was collected on August 8, 2023. Additional soil excavation and sidewall samples were collected on August 9, 2023, with UST removal and final base confirmation soil samples collected on August 10 and 11, 2023.
- The 2,000-gallon, previously abandoned-in-place, steel UST was the third and final tank to be exposed for removal. Identified by Stantec as UST3, it was also exposed on August 8, 2023, removed on August 9, 2023 (after its internal CDF had been removed), and with compliance sidewall and base soil samples collected on both days.

Field screening of excavated soil (described in **Section 4.3**) was ongoing during UST removals that continued through August 10, 2023. Again, field impacts were noted and, similar to the initial excavated soils, these UST-related field-impacted soils were added to the impacted soil stockpile. Sampling of the soil stockpile continued during this timeframe.

According to *Section 4.2.3* of Ecology's Guidance document, UST-related soil samples are generally collected where field instruments indicate contamination exists, or where contamination is most likely to occur: the lowest point of the interface between the backfill material and native soil. Soil samples were collected from each of the excavation sidewalls, beneath the USTs, beneath the dispensers, and along the fuel product lines and vent lines.

In this case, there was no lateral vent line piping run for the 3-compartment, steel 20,000-gallon UST: the vent lines from each compartment were immediately adjacent to the UST within the UST backfill material and ran vertically up a vent line support frame/stand. Vent lines for the two abandoned-in-place USTs had been previously removed.

A total of 19 compliance soil samples were collected between August 3 and 10, 2023: 18 assessment samples and one duplicate. Samples were collected from the sidewalls ("SW") and base/floor ("FL") of the UST basins, dispenser pumps, and product lines. These 19 soil samples were collected, handled, and analyzed as described in **Section 4.3**.



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As shown in **Tables 1A and 1B**, 13 of the 18 assessment compliance samples revealed impacted soil with petroleum hydrocarbons above MTCA Method A CULs. The five (5) soil samples that did not show impacts were sidewall samples from the UST3 excavation (the previously abandoned-in-place 2,000-gallon steel UST); however, the UST3 excavation base sample did reveal impacts above MTCA Method A CULs.

Because subsequent remedial soil excavation was conducted and these impacted soils were removed, a Site Plan showing the locations of the UST compliance soil samples is not provided. Locations of the former USTs are shown on **Figure 2**.

Ecology's *Permanent Closure Notice for USTs* and Site Check/Site Assessment Checklist for USTs were completed, copies of which are provided in **Appendix F**. Photographs of the soil excavation and UST removals are included in **Appendix G**.

Offsite transport and waste manifests/disposal documentation for the removed USTs and impacted soil are provided in **Appendix H**. Impacted soil was transported to and disposed at Headquarters Landfill located at 3434 South Silver Lake Road, Castle Rock, WA 98611 (the landfill is owned by Cowlitz County and operated by the County's Public Works Department). The removed USTs were transported to and disposed at Pay More Recycle and Salvage, LLC located at 1813 Westport Road, Aberdeen, WA 98520.

### 4.2 REMEDIAL SOIL EXCAVATION AND CONFIRMATION SOIL SAMPLING

The extent of the excavation is depicted on **Figure 3** and shows the excavation limits coinciding with the property limits. The CAP prescribed that the excavation would not extend beyond the property limits. All the property's subsurface soils were excavated to between 12 and 15 feet in depth, except for remaining soils along the property lines adjacent to Wilson Avenue and North Montesano Street. These remaining (non-excavated) perimeter soils extend into the property approximately 15 feet and were sloped to the bottom of the excavation at a 2:1 angle<sup>1</sup>. A porous filter fabric (Marafi 140N) was placed between the soils left in place (adjacent to Wilson Ave and North Montesano Street) and the clean backfill placed on top. The purpose of this filter fabric is to provide demarcation between native and fill materials during potential future excavation.

Approximately 3,755 tons of impacted soil were removed during UST decommissioning with remedial soil excavation occurring concurrently, continuing through August 29, 2023, and with the final confirmation soil samples collected on August 28, 2023. Throughout this time, Stantec was onsite performing soil screening, collecting confirmation soil samples from the base areas of the excavation, assisting with excavation dewatering activities (see **Section 4.4**), and conducting perimeter air monitoring during excavation and impacted soil loading.

As impacted soil was generated, it was added to the impacted soil stockpile. Routine stockpile soil sampling was conducted in accordance with Ecology *Guidance Publication 21-09-050*. Periodic loading of impacted soil from the stockpile into truck-trailers for offsite transport and disposal occurred.

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<sup>1</sup> 2 feet horizontal for every 1 foot vertical



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Excavation base/floor soil samples were collected at depths ranging from 12 to 15 feet bgs. As noted in the beginning of this section, the CAP prescribed the maximum excavation depth of 15 feet.

### Confirmation Soil Sampling from the Excavation and Sample Nomenclature

As excavation progressed with total excavation depths and lateral limits being reached at locations across the Hungry Whale parcel, confirmation soil samples were collected. For ease of sample tracking and to provide unique sample identification numbers per Section 1.8 of the project SAP/QAPP, Stantec created a temporary, lettered and numbered sample grid across the excavation: A1 through F5 (**Figure 3**). Soil sampling nomenclature also included sample depth and sample location within the excavation: “SW” for sidewall and “FL” for floor/base. Sidewall samples was assigned an additional identifier as 1 through 4 for which sidewall was sampled: 1 = west; 2 = north; 3 = east; and 4 = south. For example, Sample A3-SW1-8’ was a west sidewall sample collected at a depth of 8 feet bgs in grid A3. Sample date, time, and sampler name were also recorded.

At the completion of remedial soil excavation and removal, a total of 51 confirmation soil samples had been collected: 47 assessment samples and four (4) duplicates. Sample locations are shown on **Figure 3**. Soil screening, sample collection, and sample handling were conducted in accordance with Section 1.7, Section 1.8, and Table 1 of the project SAP/QAPP and as described in **Section 4.3**. Soil samples were analyzed for the constituents listed in Section 1.4 of the project SAP/QAPP and as described in **Section 4.3**.

### Stockpile Soil Sampling

Routine stockpile soil sampling was performed by Stantec. Per Ecology *Guidance Publication 21-09-050*, a total of 16 stockpile samples were collected, handled, and analyzed as described in **Section 4.3**.

### Perimeter Air Monitoring

On field days of the highest volume of impacted soil excavation and/or loading, Stantec conducted perimeter air monitoring using a PID. PID readings ranged from 0.0 to 2.2 parts per million except for an one-time instantaneous 20 ppm reading on the south (downwind) end of the property while loading trucks on August 9, 2023.

### Impacted Soil Off-Site Transportation and Disposal

Approximately 7,203 tons of impacted soil were excavated, transported offsite, and properly disposed. Soil disposal was coordinated by AEC and all soil was transported to Cowlitz County’s Headquarters Landfill located at 3434 South Silver Lake Road, Castle Rock, WA 98611. The last load of impacted soil was transported offsite on August 29, 2023. Soil disposal documentation is provided in **Appendix H**.

## 4.3 FIELD SCREENING, SOIL SAMPLING, AND ANALYSIS

### Field Screening Methods

Field screening consisted of visual observations of potential hydrocarbon impacts and headspace analysis for volatile organic compound vapors using a MiniRae PID. A sample of the soil matrix was placed in a



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re-sealable plastic bag and allowed to equilibrate for approximately 10 minutes. The tip of the PID probe was used to pierce the plastic and then extended into the headspace above the soil surface. The highest vapor reading obtained during the next 60 seconds was then recorded. Prior to use, the PID was calibrated to a known concentration of isobutylene, in accordance with the manufacturer's specifications.

### 4.3.1 Soil Sampling and Analytical Methods

As noted in **Section 4.1**, nineteen (19) UST-related compliance soil samples were collected and as noted in **Section 4.2**, fifty-one (51) post-remedial-excavation confirmation soil samples were collected.

Soil samples submitted for laboratory analysis were collected per Section 1.4 of the project's SAP/QAPP and in accordance with EPA Sampling Method 5035A using a syringe-type sampler to obtain approximately 10 grams of soil at the sample location. The samples were then placed directly into pre-weighed, methanol preserved, 40-milliliter vials (supplied by the analytical laboratory). Additional soil was collected by hand and placed directly into a clean 4-ounce glass jar. A clean, disposable glove was used for each sample.

Care was taken to obtain representative soil samples and to place the soils quickly and directly into the sample container to minimize loss of volatile constituents. Each jar was filled to minimize headspace and sealed with a Teflon™-lined screw cap. Each sample container was then labeled, placed in Ziplock bags, and stored on ice in coolers for transport to PACE Analytical (a WA-certified laboratory in Mt. Juliet, TN). Trip blank (TB) samples were prepared, labeled, placed in the coolers, and accompanied the samples to the laboratory. Chain-of-custody protocols were followed.

Due to safety concerns, soil samples were collected from the center of the excavator bucket to avoid entering the UST and remedial excavations. Reasonable care was taken not to touch the sides of the bucket or to include surface soils in the sample.

The UST-related compliance samples (and the single duplicate sample) were analyzed for the following:

- TPH-G by Ecology method NWTPH-Gx;
- TPH-D and TPH-O by Ecology method NWTPH-Dx;
- BTEX by EPA Test Method 8260D; and
- Total Lead by EPA Test Method 6010D.

One UST-related soil sample (UST1-Disp2-7') was additionally analyzed for Volatile Petroleum Hydrocarbon/Extractable Petroleum Hydrocarbon (VPH/EPH) using Ecology method VPHWA and "TPH by Method EPH", and for cPAHs using EPA Test Method 8270E-SIM.

All of the remedial excavation confirmation samples, the five duplicate samples, and stockpile soil samples were analyzed for:

- TPH-G by Ecology method NWTPH-Gx; and
- BTEX by EPA Test Method 8260D.

Several remedial confirmation samples were additionally analyzed for the noted constituents as follows:



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- Samples F5-SW3-12', B1-SW1-12', and A5-SW1-12' were analyzed for VPH/EPH.
- Samples B5-FL-15' and B1-SW1-12' were analyzed for Total Lead.
- Samples A1-FL-14' and A2-SW2-12' were analyzed for VPH/EPH, cPAHs, TPH-D, TPH-O, and Total Lead.

The trip blank (TB) samples were analyzed for BTEX. The 8/14/2023 and the 8/28/2023 TB samples were also analyzed for TPH-G.

### 4.3.2 Confirmation Soil Analytical Results

As shown in **Tables 1A and 1B**, post-remedial-excavation confirmation soil analytical results reveal that one or more samples from the following grids contain petroleum hydrocarbons above MTCA A Method A CULs: A4, B1, B3, B5, C1, C2, C3, C5, D2, D4, D5, E2, E3, E4, E5, F3, F4, and F5. Grids with impacted base soil samples are shown graphically in red on **Figure 3**. Similarly, grid borders with impacted sidewall samples are also graphically represented with red borders on **Figure 3**. Complete soil laboratory reports and chain-of-custody documentation are included in **Appendix I**.

## 4.4 EXCAVATION DEWATERING, TREATMENT, AND DISCHARGE

During remedial soil excavation, excavation dewatering, groundwater treatment, and discharge occurred. This work was conducted in accordance with the Ecology-approved dewatering plan and the City of Westport-approved discharge of treated water to the nearby surface swale. Tidewater Environmental Services (under contract to AEC) provide equipment, labor, and expendable supplies for this work.

As outlined in the dewatering plan, groundwater was extracted from the excavation using suction hoses attached to temporary above-ground portable trash pumps staged around the rim of the excavation. The pumps' discharge ports were connected to two Baker Tanks via temporary PVC piping. The Baker Tanks (21,000-gallon surge and settling tanks) contained the extracted groundwater prior to the water running through filters (to remove excessive sediment), then treated via activated carbon vessels.

Six (6) pre-discharge samples (DC-1 through DC-6) were collected per the permit with the field parameters of pH (unitless) and turbidity (measured in units of NTU). Sample DC-1 was analyzed for: TPH-G, TPH-D, TPH-O, BTEX, Naphthalene, VPH/EPH, and total lead using the previously-identified test methods. Samples DC-2 and DC-3 were analyzed for TPH-G and BTEX. Samples DC-4 and DC-5 were analyzed for TPH-G, TPH-D, TPH-O, and BTEX. Sample DC-6 was analyzed for TPH-G, TPH-D, TPH-O, BTEX, and cPAHs. A duplicate sample was collected for DC-6. Trip blanks were prepared and accompanied the discharge samples on each of the six sampling days, and were analyzed for TPH-G and BTEX.

As shown in **Tables 2A and 2B**, all discharge samples were in compliance with the permit requirements. Copies of the groundwater discharge laboratory reports are provided in **Appendix J**.

Approximately 85,000 to 90,000 gallons of shallow groundwater was extracted, properly treated, and discharged from the Site.



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## 4.5 EXCAVATION BACKFILLING AND SITE RESTORATION

Upon reaching target depths and following confirmation soil sampling, the excavation was backfilled with permeable ballast material as specified on Sheet 5 of 6 of the project's design drawings (Appendix A of the *EDR*). The permeable ballast was brought up to 8 inches below final grade. The upper 8 inches was backfilled with a gravel-sand mixture (as specified in the design drawings) and was compacted. This upper fill was compaction-tested and all tests passed the 95% compaction requirement. Copies of the compaction report and the specifications of the Marafi 140N used on the perimeter property slopes are provided in *Appendix K*.

## 4.6 SWPPP MONITORING AND COMPLIANCE

During UST removals, remedial soil excavation, and site restoration activities, Stantec inspected the SWPPP BMPs and instructed AEC to adjust BMPs as needed to remain in compliance with the SWPPP. No significant adjustments were needed and no major "track-out" from Site equipment was observed.



## 5.0 REMEDIATION SUMMARY, CONCLUSIONS, AND FUTURE GROUNDWATER MONITORING

Stantec observed the removal of three USTs, two fuel dispensers, and associated product piping; supervised the remedial impacted soil excavation; and oversaw backfilling activities at the Hungry Whale parcel between August 1 and September 1, 2023. The removed three USTs consisted of one recently-active 20,000-gallon steel UST and two previously abandoned-in-place steel USTs.

A summary of the work performed and the soil analytical results is provided below.

- Upon exposure and visual inspection prior to and following removal, the three USTs appeared to be in overall good condition and no apparent failures were observed.
- A total of 19 UST-related compliance soil samples and 51 post-excavation confirmation soil samples were collected at the Site.
- As shown in **Table 1A**, soil analytical results indicated that approximately two-thirds of the UST-related compliance samples contained fuel-related petroleum hydrocarbons above MTCA Method A CULs. These materials were removed; however, approximately half of the post-excavation confirmation soil samples (either base or sidewall samples) still contained fuel-related hydrocarbons above MTCA Method A CULs.
- As shown on **Figure 3**, approximately half of the excavation sampling grids revealed “clean” base soil samples and the remaining half (primarily in the southern portion of the Hungry Whale parcel) revealed impacted base samples.
- Approximately 7,203 tons of impacted soil and 85,000 to 90,000 gallons of impacted shallow groundwater were properly removed and disposed from the Site.
- Seven (7) groundwater monitoring wells were removed prior to or during remedial soil excavation activities; however, as noted below, replacement wells will be installed and ongoing groundwater monitoring and sampling will be conducted.

Stantec concludes that as much impacted soil as feasibly possible and in accordance with the limits of the excavation specified in the CAP were removed during these remedial activities.

Based on the Site’s subsurface conditions consisting of large fluctuation in groundwater levels and widespread contaminant dispersion, the chosen remedial approach (soil excavation and off-site disposal) was validated as the most effective remedial approach resulting in the greatest risk reduction and the most permanent solution. Subsurface conditions are not favorable to an in-situ remedial approach such as injection technologies (carbon trap and treat, chemical or bioremediation). The long term effectiveness of the remedial action will be evaluated by results of planned groundwater monitoring described in a separate, post-excavation Operations and Maintenance Plan (OMP).

The OMP was prepared as separate document and includes details for the replacement wells whose locations are shown on Figure 4 of this Cleanup Action Report. The OMP includes provisions for future



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confirmational groundwater monitoring and sampling to evaluate the long-term effectiveness of the remedial activities as required by WAC 173-340-410(1)(c).





References

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# TABLES



**TABLE 1A**  
**SOIL ANALYTICAL RESULTS - TPH, BTEX, AND METALS**  
Hungry Whale Remediation  
1680 North Montesano St, Westport, WA 98595  
All results are in milligrams per kilogram (mg/kg)

Sample Location	Sample Identification	Date	Depth (feet bgs)	PID (ppm)	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-G	TPH-D	TPH-O	Mercury	Arsenic	Barium	Cadmium	Chromium	Lead	Selenium	Silver
<b>Exploratory Test Pit Subsurface Investigation, June 2023</b>																			
TP-1	TP-1-8	06/26/23	8	5200	1.32	75.8	86.2	455	2470	58.7	<4.22	0.0323	1.4	9.58	0.0919	14.1	1.25	<0.969	<0.161
TP-1	TP-1-11	06/26/23	11	357.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TP-3	TP-3-8	06/27/23	8	4580	0.327	4.75	203	380	6090	--	--	--	--	--	--	--	--	--	--
TP-3	DUP-01	06/27/23	8	4580	0.156	2.19	110	399	5920	--	--	--	--	--	--	--	--	--	--
TP-4	TP-4-3	06/27/23	3	51.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TP-4	TP-4-8.5	06/27/23	8.5	2180	0.029	0.101	2.02	4.28	21.5	--	--	--	--	--	--	--	--	--	--
TP-6	TP-6-3	06/27/23	3	9999	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TP-6	TP-6-7.5	06/27/23	7.5	4567	17.1	69.9	165	443	5160	119	4.19 <sup>J</sup>	0.0241	1.4	3.66	<0.0588	12.1	6.05	<0.953	<0.158
TP-10	TP-10-3	06/26/23	3	9999	1.35	0.674	88.1	458	5340	--	--	--	--	--	--	--	--	--	--
TP-10	TP-10-7.5	06/26/23	7.5	9999	0.293	1.72	12.4	89	516	19.4	<4.22	0.03	2.32	8.24	0.0692	18.1	1.72	<0.967	<0.161
TP-11	TP-11-5.5	06/26/23	5.5	3963	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TP-11	TP-11-11	06/26/23	11	4309	0.705	31.8	74.4	418	4520	122	8.43	0.0256	1.88	8.75	0.0997	17.5	4.02	<0.995	<0.165
TP-12	TP-12-11.5	06/26/23	11.5	55.7	0.00182	0.0168	0.0132	0.136	3.91	--	--	--	--	--	--	--	--	--	--
TP-13	TP-13-8	06/26/23	8	3613	U	0.172	21.2	136	1520	--	--	--	--	--	--	--	--	--	--
TP-14	TP-14-3.5	06/26/23	3.5	43.5	0.299	0.0639	0.0957	0.479	99	--	--	--	--	--	--	--	--	--	--
TP-14	TP-14-9	06/26/23	9	460.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TP-14	TP-14-13.5	06/26/23	13.5	128	0.014	0.021	0.0223	0.0757	2.24	--	--	--	--	--	--	--	--	--	--
<b>UST Removal Samples</b>																			
UST1	UST1-Disp1-7	08/07/23	7	2700	1.79	16.8	148	598	2010 <sup>B</sup>	44.9 <sup>J3,J5</sup>	<4.15	--	--	--	--	--	4.47	--	--
UST1	UST1-Disp2-7	08/07/23	7	3000	0.542	24.7	33.3	201	2630	150	<3.83	--	--	--	--	--	0.884	--	--
UST1	UST1-SW1-5	08/03/23	5	--	1.13	0.0846	21.7	0.806	1790	127	24.5	--	--	--	--	--	7.85	--	--
UST1	UST1-SW2-5	08/03/23	5	--	1.79	0.098 <sup>B</sup>	57.7	6.83	4450	130	<21.2	--	--	--	--	--	8.81	--	--
UST1	UST1-SW3-5	08/03/23	5	--	1.05	6.45	34.2	187	6130	552	<89.1	--	--	--	--	--	7.6	--	--
UST1	UST1-SW4-5	08/03/23	5	--	89.3	308	258	1700	31300	1120	<203	--	--	--	--	--	6.24	--	--
UST1	UST1-FL-10	08/03/23	10	--	57.3	205	154	1010	39300	1650	<185	--	--	--	--	--	4.94	--	--
UST2	UST2-Piping-3	08/08/23	3	500	1.87	8.88 <sup>B</sup>	26.3	227	3800	97.3	7.6 <sup>J</sup>	--	--	--	--	--	3.22	--	--
UST2	DUP-01	08/08/23	3	500	0.695	2.28	6.69	71.9	1990	160	20.1	--	--	--	--	--	3.99	--	--
UST2	UST2-SW4-8	08/09/23	8	2867	14.4	109	101	1010	7600	625	18.7 <sup>J</sup>	--	--	--	--	--	4.65	--	--
UST2	UST2-SW1-8	08/09/23	8	2517	26.5	107	271	2510	15900	1630	<41.3	--	--	--	--	--	6.32	--	--
UST2	UST2-SW2-7	08/10/23	7	93.7	0.268	0.262	1.56	4.26	126	27.5	23.5	--	--	--	--	--	8.63	--	--
UST2	UST2-SW3-7	08/10/23	7	2953	7.5	130	134	1330	9160	1340	36.7	--	--	--	--	--	5.69	--	--
UST2	UST2-FL-11	08/10/23	11	3001	17.4	149	154	1280	7930	923	<20	--	--	--	--	--	4.67	--	--
UST3	UST3-SW3-3	08/08/23	3	150	0.00539	0.0106	0.0676	0.0238	23.3	31.1	<4.15	--	--	--	--	--	10.5	--	--
UST3	UST3-SW2-3	08/08/23	3	40	<0.00128	0.00425 <sup>J</sup>	<0.00321	0.0121	2.67 <sup>B,J</sup>	4.65	17.4	--	--	--	--	--	11.9	--	--
UST3	UST3-SW4-4	08/08/23	4	30	0.00102 <sup>J</sup>	0.0126	0.00913	0.0723	3.4 <sup>B</sup>	<1.37	<3.43	--	--	--	--	--	6.43	--	--
UST3	UST3-SW1-5	08/08/23	5	50	0.00262	0.00627 <sup>J</sup>	<0.00408	0.0117	5.86 <sup>B</sup>	25.6	66.1	--	--	--	--	--	8.42	--	--
UST3	UST3-FL-8	08/09/23	8	1300	0.236	0.102	31.1	256	2880	233	<20.8	--	--	--	--	--	17.2	--	--
<b>Remedial Excavation Samples</b>																			
A1	A1-SW1-4	08/10/23	4	10.7	0.00349	0.0111	0.0124	0.0627	2.99	--	--	--	--	--	--	--	--	--	--
A1	A1-FL-14	08/14/23	14	3.1	0.00418	0.0256	0.0182	0.0757	<3.92	1.68	4.21	--	--	--	--	--	--	--	--
A2	A2-FL-14	08/14/23	14	4.3	<0.00155	0.00323 <sup>J</sup>	<0.00388	0.00671	2.04 <sup>B,J</sup>	--	--	--	--	--	--	--	--	--	--
A2	A2-SW1-12	08/14/23	12	1773	0.00226	0.105	0.532	2.8	73	6.42	<3.88	--	--	--	--	--	1.73	--	--
A2	A2-FL-14-ADD	08/14/23	14	16.3	<0.00158	0.0041 <sup>J</sup>	0.00181 <sup>J</sup>	0.00525 <sup>J</sup>	3.49 <sup>B,J</sup>	--	--	--	--	--	--	--	--	--	--
A2	DUP-02	08/14/23	14	16.3	0.0013 <sup>J</sup>	0.0161	0.0594	0.297	4.93 <sup>B</sup>	--	--	--	--	--	--	--	--	--	--
A3	A3-SW1-6	08/10/23	6	60.8	0.0235	0.199	3.92	13.3	195	--	--	--	--	--	--	--	--	--	--
A3	A3-SW1-13	08/14/23	13	448	0.000791 <sup>J</sup>	0.0101	0.0465	0.244	4.59 <sup>B</sup>	--	--	--	--	--	--	--	--	--	--
A3	A3-FL-12	08/14/23	12	19.9	0.00411	0.0111	0.00775	0.0159	2.4 <sup>B,J</sup>	--	--	--	--	--	--	--	--	--	--
A4	A4-SW1-8	08/10/23	8	2744	0.166	15.4	28.3	144	1360	--	--	--	--	--	--	--	--	--	--
A4	A4-SW4-12	08/14/23	12	2399	1.52	5.88	19.1	131	1280	--	--	--	--	--	--	--	--	--	--
A4	A4-FL-12	08/08/23	12	19.9	0.00411	0.0111	0.00775	0.0159	2.4 <sup>B,J</sup>	--	--	--	--	--	--	--	--	--	--
B1	B1-FL-15	08/14/23	15	155.3	0.187	0.172	1.03	4.95	142	--	--	--	--	--	--	--	--	--	--
B1	B1-SW2-12	08/14/23	12	1169	0.137	0.0196	1.94	4.46	405	--	--	--	--	--	--	--	1.43	--	--
B2	B2-FL-13	08/14/23	13	18.8	0.0208	0.145	0.218	1.4	24.5	--	--	--	--	--	--	--	--	--	--
B2	B2-FL-15-ADD	08/14/23	15	278.9	0.0374	0.33	0.803	2.91	72.7	--	--	--	--	--	--	--	--	--	--
B3	B3-FL-15	08/14/23	15	758.3	0.113	0.425	1.13	3.33	104	--	--	--	--	--	--	--	1.93	--	--
B4	B4-FL-15	08/14/23	15	7.3	0.00079 <sup>J</sup>	0.007 <sup>J</sup>	0.00274 <sup>J</sup>	0.0104	2.2 <sup>B,J</sup>	--	--	--	--	--	--	--	--	--	--
B5	B5-SW4-12	08/14/23	12	446.8	1.71	0.145	1.01	27.3	728	--	--	--	--	--	--	--	--	--	--
C1	C1-FL-15	08/14/23	15	115.3	0.132	0.0205	0.0833	0.306	7.39	--	--	--	--	--	--	--	--	--	--
C1	C1-SW2-12	08/14/23	12	55.6	0.127	0.0217	0.798	2.29	33.6	--	--	--	--	--	--	--	--	--	--
C2	C2-FL-15	08/14/23	15	1430	0.0382	0.436	2.59	19.3	223	--	--	--	--	--	--	--	--	--	--
C2	C2-FL-15-ADD	08/14/23	15	157.6	0.0144	0.00762 <sup>J</sup>	0.0277	0.0275	8.62	--	--	--	--	--	--	--	--	--	--
C3	C3-FL-15	08/14/23	15	15.4	0.11	0.00396 <sup>J</sup>	0.00290 <sup>J</sup>	0.00868 <sup>J</sup>	5.81 <sup>J</sup>	--	--	--	--	--	--	--	--	--	--
C4	C4-FL-15	08/14/23	15	6.3	<0.00165	0.00231 <sup>J</sup>	<0.00413	0.00416 <sup>J</sup>	5.58 <sup>B</sup>	--	--	--	--	--	--	--	--	--	--
C5	C5-SW4-8	08/10/23	8	3010	28.5	183	123	1110	14800	--	--	--	--	--	--	--	--	--	--

**TABLE 1A**  
**SOIL ANALYTICAL RESULTS - TPH, BTEX, AND METALS**  
 Hungry Whale Remediation  
 1680 North Montesano St, Westport, WA 98595  
 All results are in milligrams per kilogram (mg/kg)

Sample Location	Sample Identification	Date	Depth (feet bgs)	PID (ppm)	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-G	TPH-D	TPH-O	Mercury	Arsenic	Barium	Cadmium	Chromium	Lead	Selenium	Silver
C5	C5-SW4-6	08/15/23	6	2466	5.8	13.2	113	1160	11100	--	--	--	--	--	--	--	--	--	--
D1	D1-SW2-12	08/15/23	12	78.6	<0.00159	0.00412 <sup>J</sup>	0.00437	0.0257	4.77	--	--	--	--	--	--	--	--	--	--
D2	D2-FL-15	08/14/23	15	4035	0.107	0.403	1.94	9.35	64.5	--	--	--	--	--	--	--	--	--	--
D3	D3-FL-15	08/14/23	15	248.9	0.0277	0.603	0.541	3.18	10.4 <sup>B</sup>	--	--	--	--	--	--	--	--	--	--
D3	DUP-03	08/14/23	15	248.9	0.0214	0.577	0.506	2.97	10.8 <sup>B</sup>	--	--	--	--	--	--	--	--	--	--
D4	D4-FL-15	08/28/23	15	1723	5.9	34.5	41	296	5200	--	--	--	--	--	--	--	--	--	--
D5	D5-SW4-10	08/15/23	10	839	0.0839	0.482	0.696	5.77	140	--	--	--	--	--	--	--	--	--	--
D5	DUP-04	08/15/23	10	839	0.109	0.615	0.97	7.06	155	--	--	--	--	--	--	--	--	--	--
E2	E2-FL-15	08/28/23	15	20.8	0.00385	0.0961	0.03	0.708	6.26	--	--	--	--	--	--	--	--	--	--
E2	E2-SW2-13	08/28/23	13	88.8	0.156	0.44	0.336	3.36	18.9	--	--	--	--	--	--	--	--	--	--
E2	DUP-06	08/28/23	13	88.8	0.13	0.277	0.254	2.84	17.8	--	--	--	--	--	--	--	--	--	--
E3	E3-FL-15	08/28/23	15	2087	3.49	64.9	54.8	333	7590	--	--	--	--	--	--	--	--	--	--
E4	E4-FL-15	08/28/23	15	1415	0.779	4.59	6.92	39.5	3420	--	--	--	--	--	--	--	--	--	--
E5	E5-SW4-8	08/10/23	8	3132	87.1	850	278	2080	22800	--	--	--	--	--	--	--	--	--	--
E5	E5-SW4-6-ADD	08/10/23	6	2799	0.454	0.706	25.2	31.7	5480	--	--	--	--	--	--	--	--	--	--
F2	F2-FL-15	08/28/23	15	5.1	0.00111 <sup>J</sup>	0.00473 <sup>J</sup>	0.00209 <sup>J</sup>	0.0134	2.7 <sup>J</sup>	--	--	--	--	--	--	--	--	--	--
F2	F2-SW2-15	08/28/23	15	12.2	0.00742	0.0664	0.0111	0.287	5.22	--	--	--	--	--	--	--	--	--	--
F2	F2-SW3-12	08/28/23	12	2.4	0.00139 <sup>J</sup>	0.00256 <sup>J</sup>	0.00287 <sup>J</sup>	0.00732 <sup>J</sup>	3.49 <sup>J</sup>	--	--	--	--	--	--	--	--	--	--
F3	F3-FL-15	08/28/23	15	100.8	0.715	0.0127	0.206	0.034	16.9 <sup>B</sup>	--	--	--	--	--	--	--	--	--	--
F3	F3-SW3-12	08/28/23	12	48.6	0.645	0.0137 <sup>J</sup>	0.0498	0.552	59.7	--	--	--	--	--	--	--	--	--	--
F4	F4-FL-15	08/28/23	15	451.7	0.781	2.83	1.64	11.4	110	--	--	--	--	--	--	--	--	--	--
F4	F4-SW3-12	08/28/23	12	142.5	1.18	0.0155	0.189	0.0783	21 <sup>B</sup>	--	--	--	--	--	--	--	--	--	--
F5	F5-SW4-15	08/15/23	15	2799	0.454	0.706	25.2	31.7	5480	--	--	--	--	--	--	--	--	--	--
F5	F5-SW3-12	08/15/23	12	216.8	0.892	0.0195	0.855	0.322	13.4 <sup>B</sup>	--	--	--	--	--	--	--	1.26	--	--
F5	F5-SW4-13	08/15/23	13	267.5	1.02	0.0344	0.627	0.855	22.6	--	--	--	--	--	--	--	--	--	--
F5	DUP-05	08/15/23	13	267.5	1.26	0.0322	0.698	0.704	28.1	--	--	--	--	--	--	--	--	--	--
<b>Stockpile Samples</b>																			
SP	SP-SC-1	08/03/23	--	--	0.00121	0.00483	0.00163	0.0193	3.89	--	--	--	--	--	--	--	--	--	--
SP	SP-SI-1	08/03/23	--	--	0.244	0.956	5.21	25.5	958	--	--	--	--	--	--	--	--	--	--
SP	SP-SI-2	08/03/23	--	--	0.0713	0.117	2.94	9.28	268	--	--	--	--	--	--	--	--	--	--
SP	SP-SI-3	08/09/23	--	1374	0.0392	1.64	5.09	27.5	648	--	--	--	--	--	--	--	--	--	--
SP	SP-SI-4	08/10/23	--	--	0.057	0.182	0.24	1.87	110	--	--	--	--	--	--	--	--	--	--
SP	SP-SI-5	08/11/23	--	532	0.447	7.22	44.6	295	4240	--	--	--	--	--	--	--	--	--	--
SP	SP-SI-6	08/11/23	--	829	0.0681	2.92	10.9	127	961	--	--	--	--	--	--	--	--	--	--
SP	SP-SI-7	08/14/23	--	1327	0.0318	0.312	2.41	29.7	1330	--	--	--	--	--	--	--	--	--	--
SP	SP-SI-8	08/14/23	--	1865	0.278	2.64	7.97	53.7	1240	--	--	--	--	--	--	--	--	--	--
SP	SP-SI-9	08/14/23	--	1865	0.0363	1.42	5.34	31.3	398	--	--	--	--	--	--	--	--	--	--
SP	SP-SI-10	08/15/23	--	1067	0.00575	0.0277	0.041	11.3	250	--	--	--	--	--	--	--	--	--	--
SP	SP-SI-11	08/16/23	--	1930	0.163	5.51	13.8	125	1730	--	--	--	--	--	--	--	--	--	--
SP	SP-SI-12	08/16/23	--	1411	0.185	8.21	14	130	1160	--	--	--	--	--	--	--	--	--	--
SP	SP-SI-13	08/28/23	--	12	0.00565	0.0176	0.0149	0.105	18.3	--	--	--	--	--	--	--	--	--	--
SP	SP-SI-14	08/28/23	--	26.1	0.00488	0.0524	0.0667	1.17	5.44	--	--	--	--	--	--	--	--	--	--
SP	SP-SI-15	08/28/23	--	54.4	0.00348	0.0225	0.0466	0.435	21.7	--	--	--	--	--	--	--	--	--	--
<b>MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses</b>					--	0.03	7	6	9	30/100 <sup>1</sup>	2,000	2,000	2	20	--	2	19	250	--

**Abbreviations and Notes**

Field sample only - no sample sent for laboratory analysis.

TPH-G = total petroleum hydrocarbons as gasoline

TPH-D = total petroleum hydrocarbons as diesel

TPH-O = total petroleum hydrocarbons as oil/residual range organics

MTCA = Model Toxics Control Act

**Bold** = value exceeds the MTCA Method A Cleanup Level

bgs = below ground surface

DUP = Duplicate

PID = Photoionization Detector

ppm = Parts Per Million

mg/kg = milligrams per kilogram

UST = Underground Storage Tank

FL = Floor Sample

SW = Sidewall sample; each sidewall sample is further identified with a number (1 through 4): 1 = west wall; 2 = north wall; 3 = east wall; and 4 = west wall.

SP = Stockpile Sample

SI = Suspected Impacted

SC = Suspected Clean

< = less than the specified analytical laboratory practical quantitation limit

-- = not analyzed or, in the case of the CULs, not established.

**TABLE 1A**  
**SOIL ANALYTICAL RESULTS - TPH, BTEX, AND METALS**  
 Hungry Whale Remediation  
 1680 North Montesano St, Westport, WA 98595  
 All results are in milligrams per kilogram (mg/kg)

Sample Location	Sample Identification	Date	Depth (feet bgs)	PID (ppm)	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-G	TPH-D	TPH-O	Mercury	Arsenic	Barium	Cadmium	Chromium	Lead	Selenium	Silver
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J = The identification of the analyte is acceptable; the reported value is an estimate.

J3 = The associated batch QC was outside the established quality control range for precision.

J5 = The sample matrix interfered with the ability to make any accurate determination; spike value is high.

B = The same analyte is found in the associated blank.

ADD = Additional sample taken within grid.

<sup>1</sup> = Gasoline mixtures without benzene and where the total of ethylbenzene, toluene, & xylenes is less than 1% of the mixture have a cleanup level of 100 mg/kg; for all other mixtures, CUL is 30 mg/kg.

**TABLE 1B**  
**SOIL ANALYTICAL RESULTS - Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs)**  
 Hungry Whale Remediation  
 1680 North Montesano St, Westport, WA 98595  
 All results in milligrams per kilograms (mg/kg)

Soil Sample ID	Sample Date	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Chrysene	Dibenz (a,h) anthracene	Indeno (1,2,3-cd) pyrene	Total cPAHs	Acenaphthene	Acenaphthylene	Anthracene	Benzo (g,h,i) perylene	Fluoranthene	Fluorene	Phenanthrene	Pyrene	2-Chloronaphthalene	Naphthalene	1-Methyl Naphthalene	2-Methyl Naphthalene
<b>Remedial Excavation Samples</b>																					
UST1-Disp2-7'	08/07/23	0.00429(J)	0.00238(J)	<0.00176	<0.00247	0.00359(J)	<0.00198	<0.00208	0.003807	0.0486	<0.00249	<0.00265	0.00322(J)	0.0129	0.0490	0.0640	0.0168	<0.00536	<b>22</b>	<b>13.9</b>	<b>30.5</b>
A1-FL-14'	08/14/23	<0.00218	<0.00226	<0.00193	<0.00272	<0.00293	<0.00217	<0.00229	0.003418	<0.00264	<0.00273	<0.00290	<0.00224	<0.00287	<0.00259	<0.00292	<0.00253	<0.00588	0.0351	0.0272	0.0533
A2-SW2-12'	08/14/23	<0.00201	<0.00208	<0.00178	<0.00250	<0.00270	<0.00200	<0.00211	0.003147	0.00263(J)	<0.00251	<0.00268	<0.00206	<0.00264	0.00325(J)	0.00547(J)	<0.00233	<0.00542	0.67	0.562	1.23
<b>MTCA Method A CULs</b>		--	--	--	--	--	--	--	<b>0.03</b>	--	--	--	--	--	--	--	--	--	--	<b>5</b>	

Abbreviations and Notes:

- < = Less than the specified analytical laboratory practical quantitation limit
- = Not analyzed or, in the case of the CULs, not established

MTCA = Model Toxics Control Act

CULs = Cleanup Levels

**Bold** = Value exceeds the MTCA Method A Cleanup Level

J = The identification of the analyte is acceptable: the reported value is an estimate.

TEQ cPAH calcs are provided in Table 3.

**TABLE 2A**  
**GROUNDWATER DISCHARGE ANALYTICAL RESULTS - TPH, BTEX, and Naphthalene**

Hungry Whale Remediation  
 1680 North Montesano St, Westport, WA 98595  
 All results in micrograms per liter (µg/L)

Sample Identification	Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-G	TPH-D	TPH-O	Total Lead	Naphthalene (by 8260D)	Naphthalene (by 8270E-SIM)
<b>Groundwater Discharge Samples</b>											
DC-1	08/14/23	0.092	0.445	0.326	4.02	<100	<200	<250	<2.99	0.353 J	0.106 J
DC-2	08/17/23	<1	<1	<1	<3	42.9 B J	--	--	--	--	--
DC-3	08/18/23	<1	<1	<1	<3	<100	--	--	--	--	--
DC-4	08/22/23	<1	<1	<1	<3	<100	70.2 J	<250	--	--	<0.250
DC-5	08/22/23	<1	<1	<1	<3	<100	76.8 J	<250	--	--	<0.250
DC-6	08/29/23	<1	<1	<1	<3	<100	<200	<250	--	--	<0.250
DC-6 (DC-DUP)	08/29/23	<1	<1	<1	<3	<100	<200	<250	--	--	<0.250
<b>MTC Method A CULs</b>		<b>5</b>	<b>1,000</b>	<b>700</b>	<b>1,000</b>	<b>800/1,000<sup>a</sup></b>	<b>500</b>	<b>500</b>		<b>160</b>	<b>160</b>



**TABLE 2B - cPAHs**  
**GROUNDWATER DISCHARGE ANALYTICAL RESULTS - Polycyclic Aromatic Hydrocarbons (PAHs)**  
 Hungry Whale Remediation  
 1680 North Montezano St, Westport, WA 98595  
 All results in micrograms per liter (µg/L)\*\*

Sample ID	Sample Date	benzo(a) anthracene	benzo(a) pyrene	benzo(b) fluoranthene	benzo(k) fluoranthene	Chrysene	bbenz(a,h) anthracene	indeno(1,2,3-cd) pyrene	Total cPAHs	Acenaphthene	Acenaphthylene	Anthracene	benzo(g,h,i) perylene	fluoranthene	fluorene	fluoranthrene	Pyrene	2-Chloronaphthalene	Naphthalene	1-Methyl Naphthalene	2-Methyl Naphthalene
DC-6 (DUP)	08/29/23	<0.0203	<0.0184	<0.0168(J4)	<0.0202	<0.0179	<0.0160	<0.0158	0.013745	<0.0190	<0.0171	<0.0190	<0.0184	<0.0270	<0.0169	<0.0180	<0.0169	<0.0682	<0.0917	<0.0687	<0.0674
	08/29/23	<0.0203	<0.0184	<0.0168(J4)	<0.0202	<0.0179	<0.0160	<0.0158	0.013745	<0.0190	<0.0171	<0.0190	<0.0184	<0.0270	<0.0169	<0.0180	<0.0169	<0.0682	<0.0917	<0.0687	<0.0674
<b>MTC A CULs</b>		--	--	--	--	--	--	--	<b>0.1</b>	--	--	--	--	--	--	--	--	--	--	--	<b>160</b>

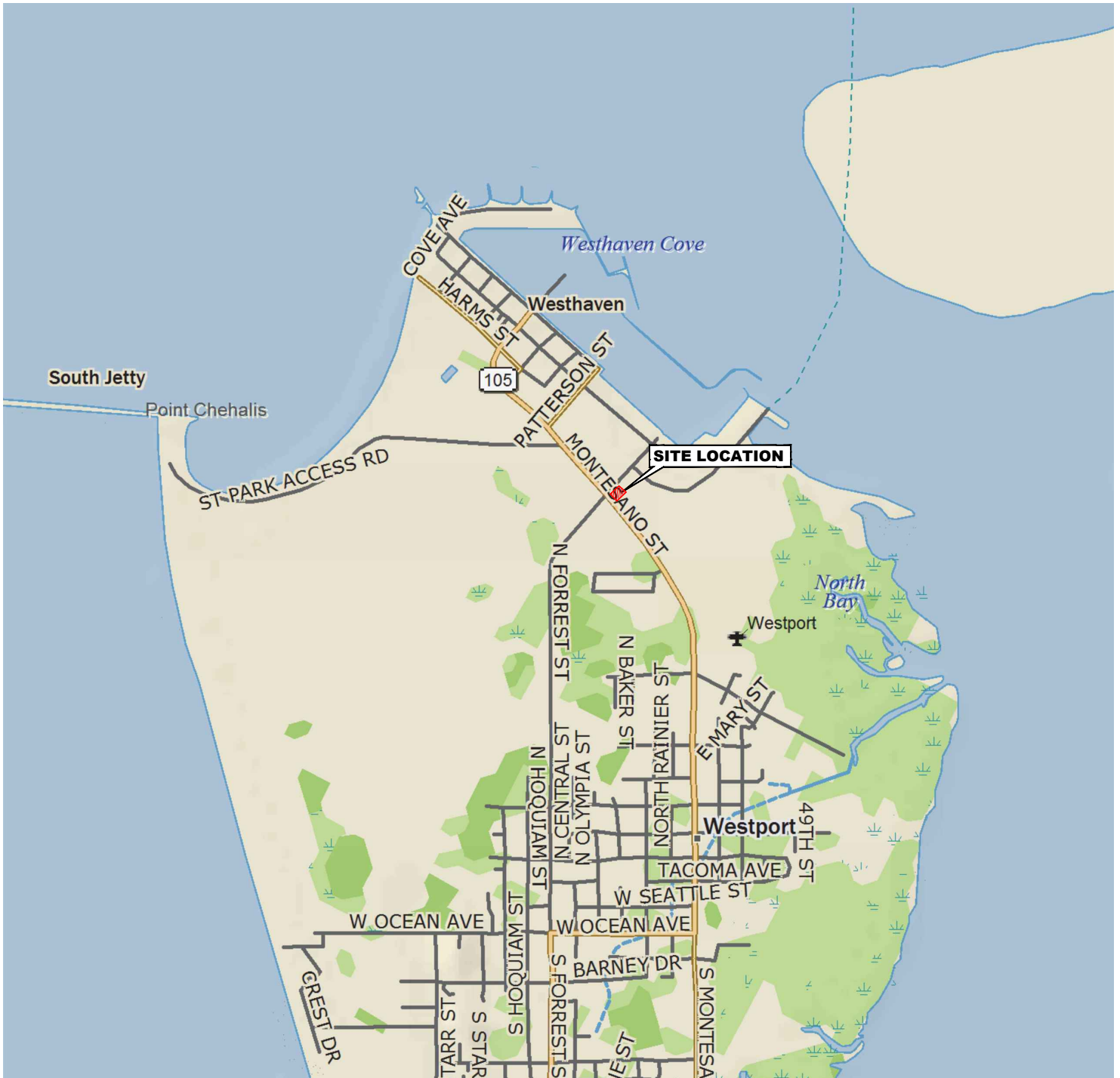
\*\*\* Total cPAH calculations are reported in accordance with Toxicity Equivalency Factors, where not detected is expected to be 50% of the reporting limit

**Abbreviations and Notes:**

- cPAHs = Carcinogenic Polycyclic Aromatic Hydrocarbons
- < = Less than the specified analytical laboratory practical quantitation limit
- MTC A = Model Toxics Control Act
- CULs = Cleanup Levels
- = Not analyzed or, in the case of the CULs, not established
- J4 = The associated batch QC was outside the established quality control range for accuracy.
- TEQ cPAH calcs are provided in Table 4.

# FIGURES





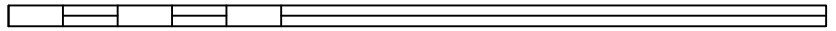
North



WASHINGTON

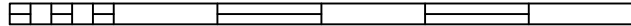
REFERENCE: USGS 7.5 MINUTE QUADRANGLE, WESTPORT, WASHINGTON

1/2 0 1



SCALE (MILES)

1000 0 1000 2000 3000 4000 5000



SCALE (FEET)



11130 NE 33RD PLACE, SUITE 200  
BELLEVUE, WASHINGTON  
PHONE: (425) 869-9448 FAX: (425) 869-1190

FOR:  
**THE HUNGRY WHALE**  
1680 NORTH MONTESANO STREET  
WESTPORT, WASHINGTON

JOB NUMBER:  
185703328

DRAWN BY:  
MDR

CHECKED BY:  
DH

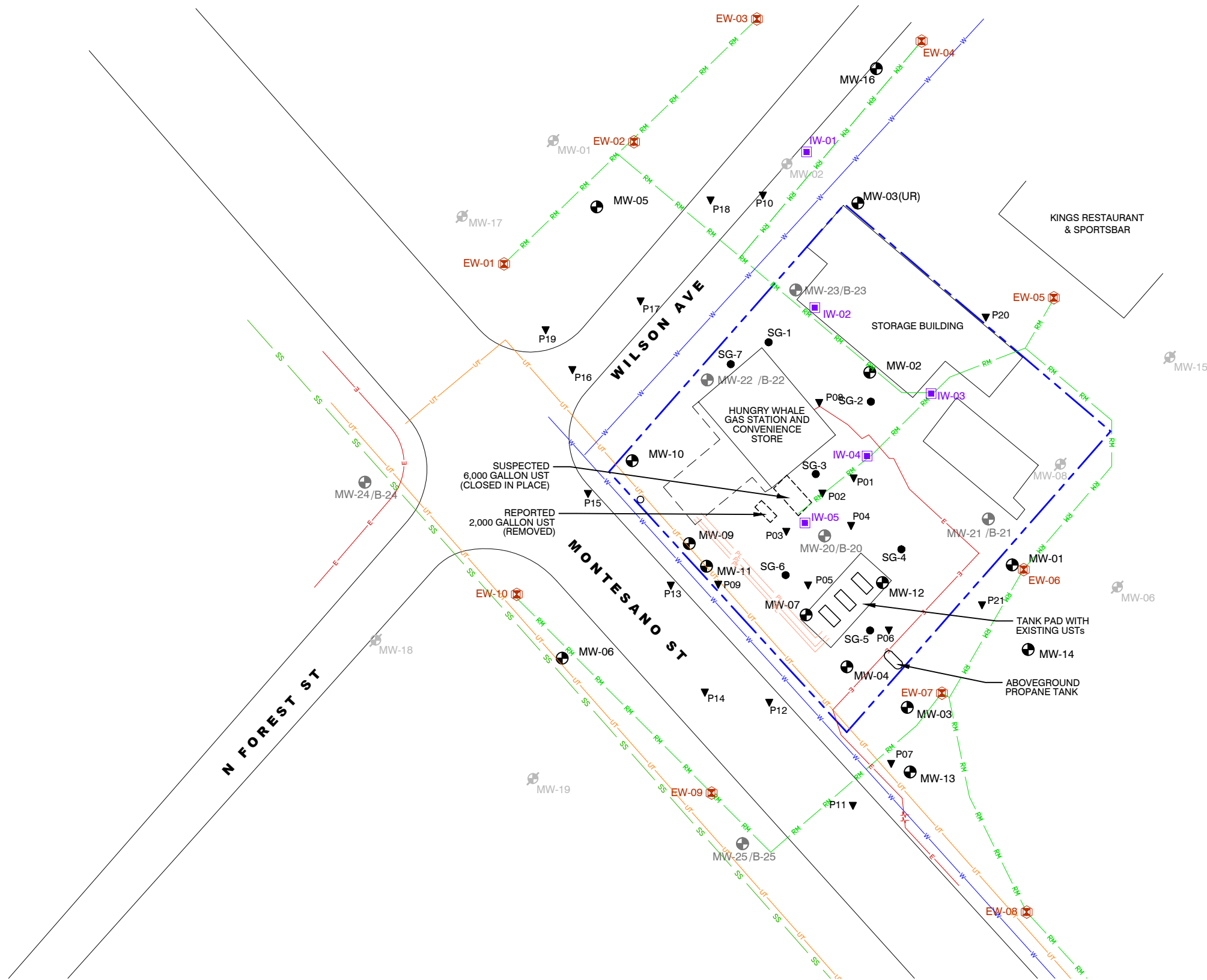
APPROVED BY:  
--

FIGURE:  
**1**  
DATE:  
SEPT 2016

**SITE LOCATION MAP**

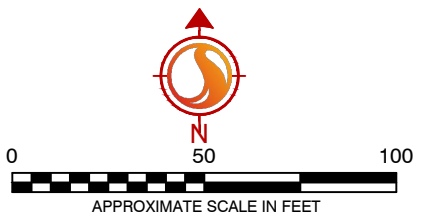
**LEGEND**

- MW-1 MONITORING WELL (pre-2007)
- MW-1 MONITORING WELL/BORING (2007)
- EW-01 EXTRACTION WELL (OPERATED 7/1997-10/1999)
- IW-01 INJECTION WELL (OPERATED 7/1997-10/1999)
- SG-1 SOIL GAS POINT (2011)
- P01 SOIL BORING (DIRECT PUSH, 2007)
- DESTROYED/ABANDONED WELL
- POWER POLE
- LEASEHOLD BOUNDARY
- ELECTRIC LINE
- SANITARY SEWER LINE
- UNDERGROUND TELEPHONE LINE
- WATER LINE
- REMEDIATION SYSTEM PIPING
- STATION FUEL/PRODUCT LINE



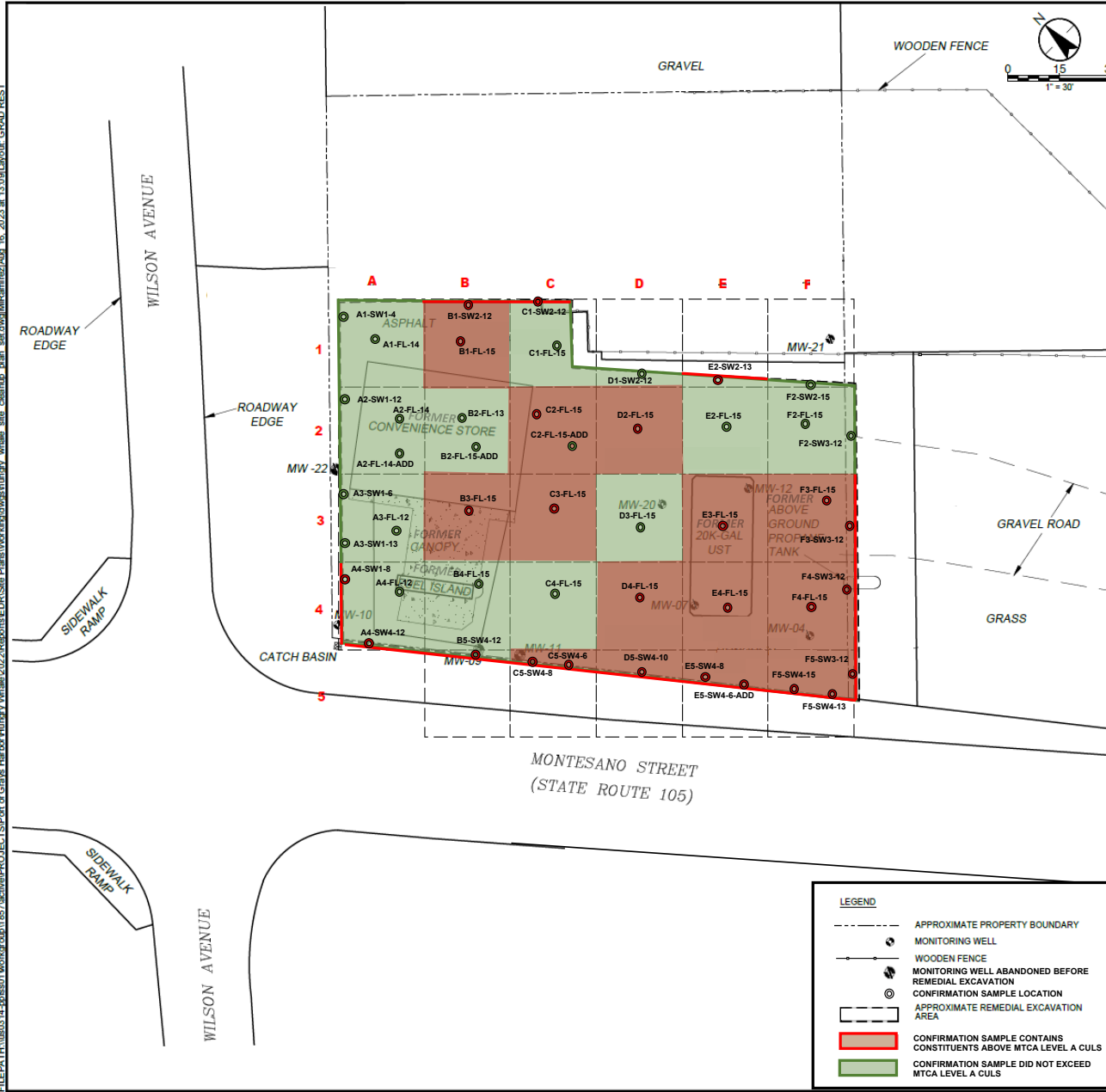
SUSPECTED 6,000 GALLON UST (CLOSED IN PLACE)  
 REPORTED 2,000 GALLON UST (REMOVED)

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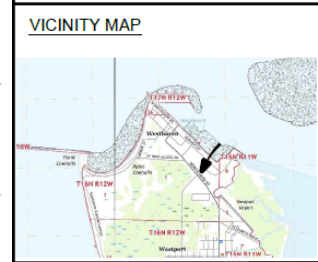
<p>11130 NE 33RD PLACE, SUITE 200                  BELLEVUE, WASHINGTON                  PHONE: (425) 869-9448 FAX: (425) 869-1190</p>	FOR: THE HUNGRY WHALE 1680 NORTH MONTESANO STREET WESTPORT, WASHINGTON		FIGURE: <b>2</b>	
	JOB NUMBER: 185703328	DRAWN BY: MDR	CHECKED BY: CS	APPROVED BY:

FILEPATH: \\us0314-prod001-wdworkgroup\1857\active\PROJECTS\Port of Grays Harbor\hungry whale\Site Plans\Work\Drawings\unprov. whole site cleanup plan set.dwg; MBRamirez/Aug. 18, 2023 at 10:09L; layout\_GRAV REST



**PROPERTY INFORMATION**  
 SITE ADDRESS: 1680 NORTH MONTESANO STREET  
 PORTION OF PORT-OWNED APN NO.616120142001, PROPERTY IS SITUATED IN THE WESTERN-MOST CORNER OF APN NO. 616120142991  
 TOWNSHIP, RANGE, SECTION: T21N R05E S07  
 LEGAL DESCRIPTION OF PROJECT SITE: PROPERTY IS LOCATED IN THE NORTHEAST QUARTER OF THE THE SOUTHEAST QUARTER OF SECTION 1, TOWNSHIP 16 NORTH, RANGE 12 WEST.

**CONTACT INFORMATION**  
**OWNER'S REPRESENTATIVE:**  
 RANDY LEWIS  
 DIRECTOR OF HEALTH, SAFETY AND ENVIRONMENT  
 PORT OF GRAYS HARBOR  
 111 SOUTH WOODING STREET  
 ABERDEEN WA 98520  
 RLEWIS@PORTGRAYS.ORG  
 (360) 533-9513  
**ENGINEER:**  
 MARC SAUZE  
 STANTEC CONSULTING SERVICES  
 1687 114TH AVENUE SE, SUITE 100  
 BELLEVUE, WA 98004  
 marc.sauze@stantec.com  
 (425) 684-2323



**PREPARED BY:**  
  
 1687 114TH AVENUE SE, SUITE 100  
 BELLEVUE, WASHINGTON 98004-6684  
 PHONE: 425-289-7300 FAX: 425-866-1190

**FOR:**  
  
 THE HUNGRY WHALE  
 1680 NORTH MONTESANO STREET  
 WESTPORT, WASHINGTON






**TITLE:**  
**REMEDIAL EXCAVATION**

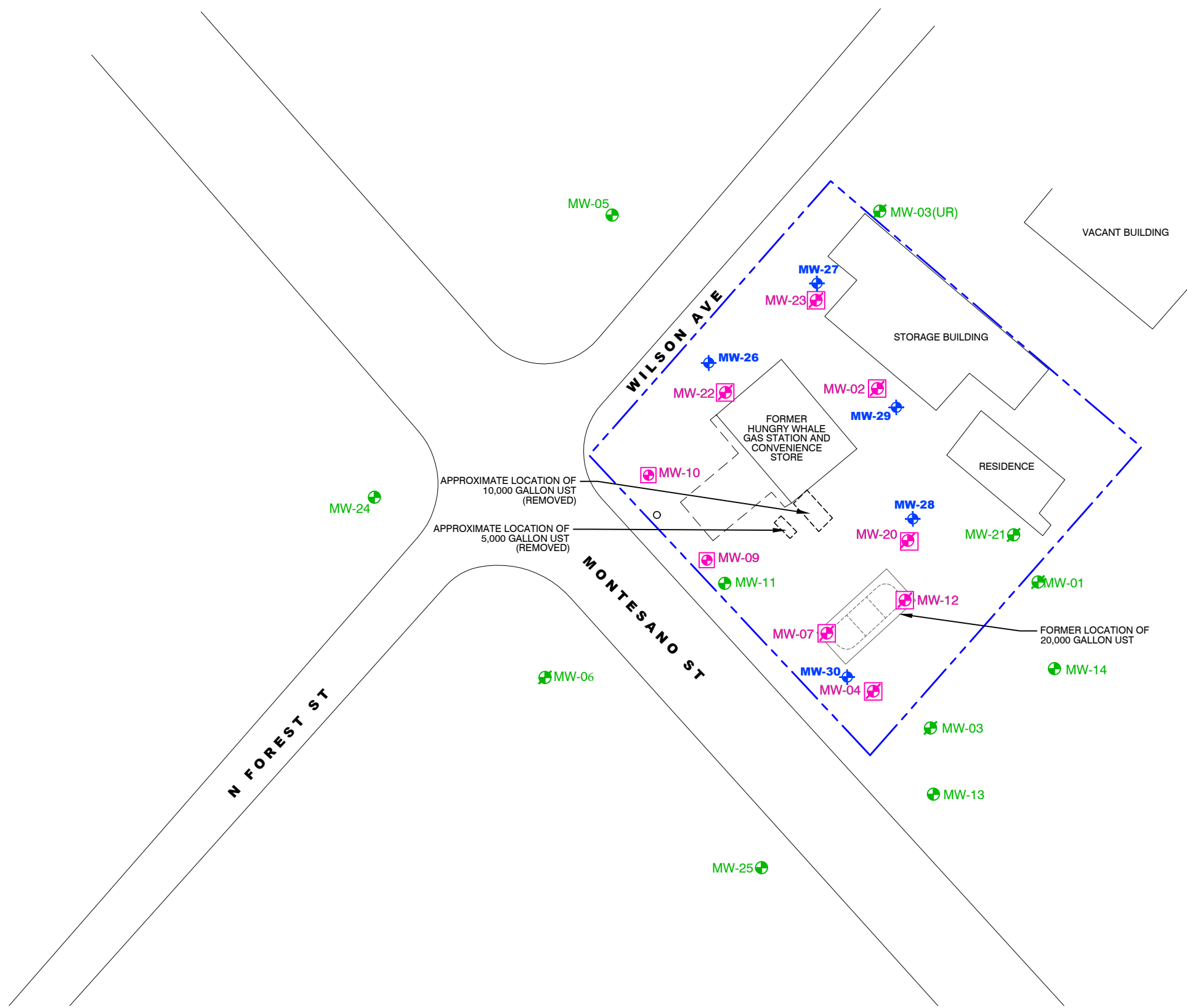
<b>DRAWN BY:</b>	ZA	<b>DESIGNED BY:</b>	
<b>CHECKED BY:</b>	CS	<b>APPROVED BY:</b>	MS
<b>PROJECT NUMBER:</b>	185751446	<b>SCALE:</b>	PROVIDED AT TOP OF SHEET
<b>DATE:</b>	NOVEMBER 2023	<b>FILE PATH:</b>	V:\1857... \Site Plans
<b>SHEET:</b>		<b>3</b>	

**LEGEND**

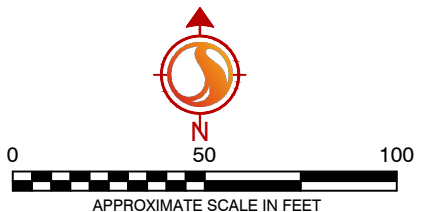
	APPROXIMATE PROPERTY BOUNDARY
	MONITORING WELL
	WOODEN FENCE MONITORING WELL ABANDONED BEFORE REMEDIAL EXCAVATION
	CONFIRMATION SAMPLE LOCATION
	APPROXIMATE REMEDIAL EXCAVATION AREA
	CONFIRMATION SAMPLE CONTAINS CONSTITUENTS ABOVE MTCA LEVEL A CULS
	CONFIRMATION SAMPLE DID NOT EXCEED MTCA LEVEL A CULS


**LEGEND**

- MW-05  EXISTING MONITORING WELL  
GROUNDWATER RESULTS < MTCA A LEVELS
- MW-26  PROPOSED MONITORING WELL
-  EXISTING MONITORING WELL  
GROUNDWATER RESULTS > MTCA A LEVELS
-  DESTROYED MONITORING WELL  
GROUNDWATER RESULTS < MTCA A LEVELS
-  DESTROYED MONITORING WELL  
GROUNDWATER RESULTS > MTCA A LEVELS



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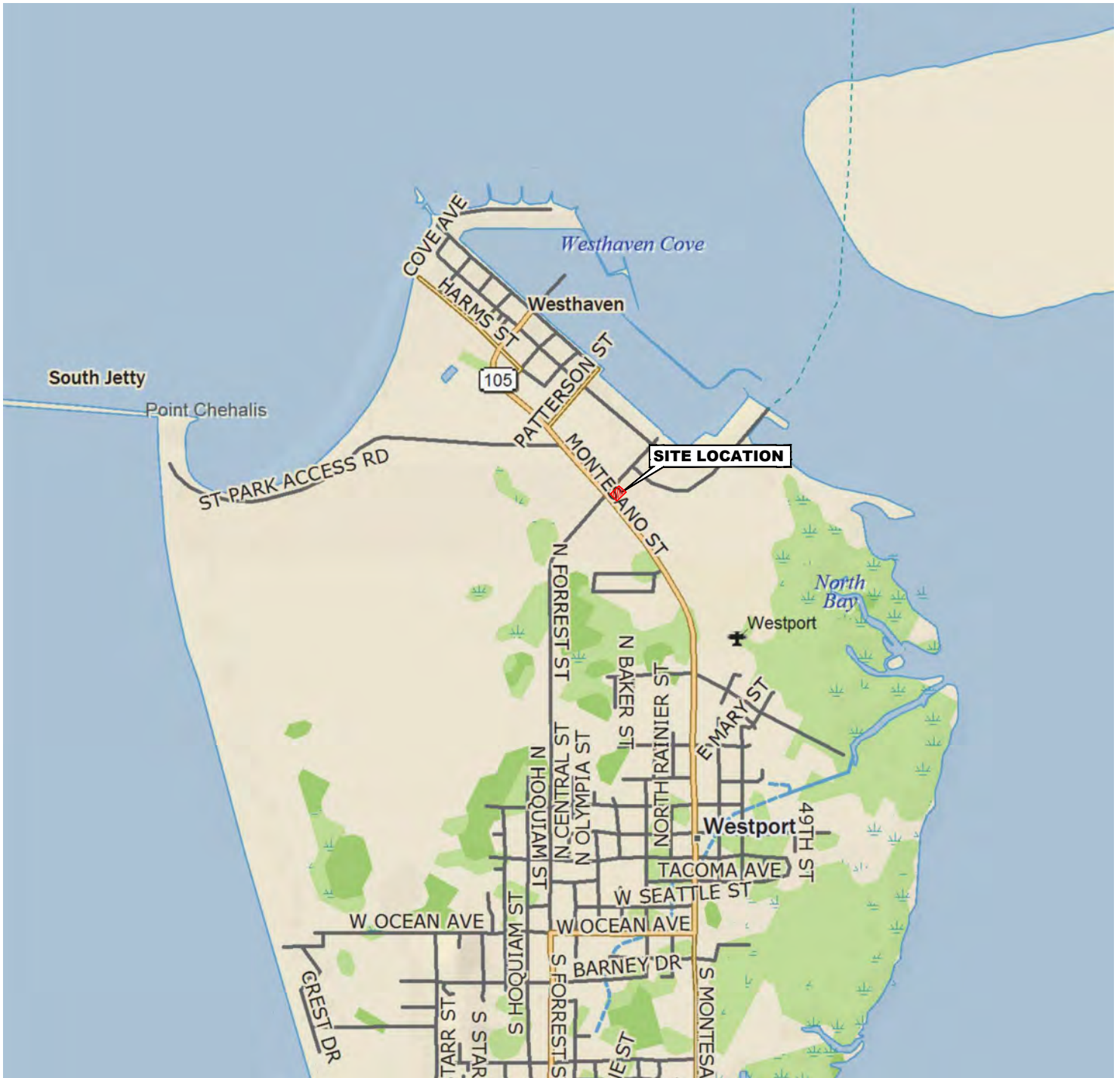
 1687 114 AVE SE SUITE 100 BELLEVUE, WASHINGTON 98004 PHONE: (425) 869-9448 FAX: (425) 869-1190	FOR: <b>THE HUNGRY WHALE</b> 1680 NORTH MONTESANO STREET WESTPORT, WASHINGTON		<b>SITE PLAN WITH                  FORMER, CURRENT AND PROPOSED                  MONITORING WELL LOCATIONS</b>		FIGURE: <b>4</b>
	JOB NUMBER: 185703328	DRAWN BY: MDR/JBL	CHECKED BY: MS	APPROVED BY: MS	DATE: 09/13/23

# APPENDIX A

## Pre-Remedial (pre-2023) Soil and Groundwater Data





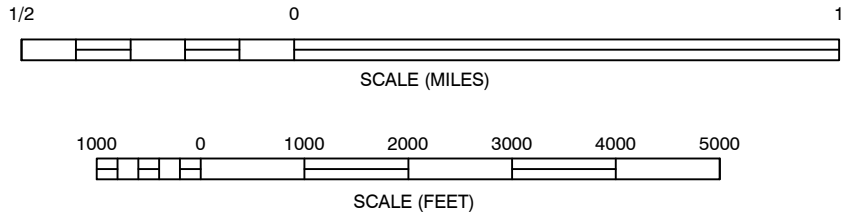


North



WASHINGTON

REFERENCE: USGS 7.5 MINUTE QUADRANGLE, WESTPORT, WASHINGTON



11130 NE 33RD PLACE, SUITE 200  
 BELLEVUE, WASHINGTON  
 PHONE: (425) 869-9448 FAX: (425) 869-1190

FOR:  
 THE HUNGRY WHALE  
 1680 NORTH MONTESANO STREET  
 WESTPORT, WASHINGTON

**SITE LOCATION MAP**

FIGURE:

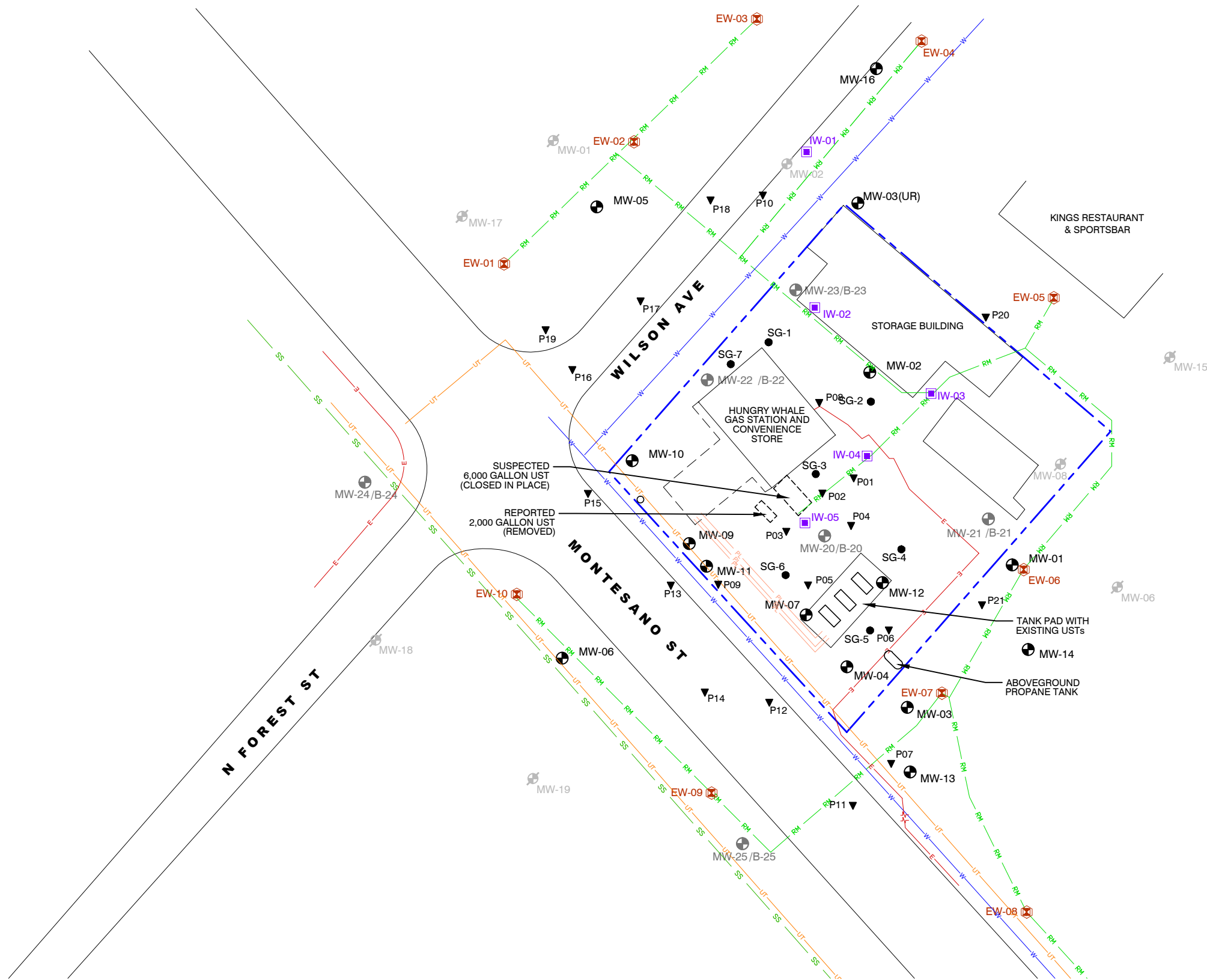
**1**

JOB NUMBER: 185703328	DRAWN BY: MDR	CHECKED BY: DH	APPROVED BY: --	DATE: SEPT 2016
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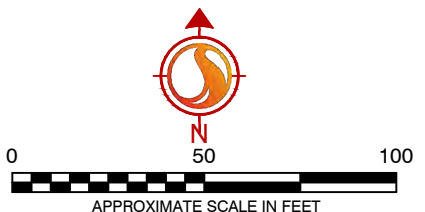
**LEGEND**

- MW-1 MONITORING WELL (pre-2007)
- MW-1 MONITORING WELL/BORING (2007)
- EW-01 EXTRACTION WELL (OPERATED 7/1997-10/1999)
- IW-01 INJECTION WELL (OPERATED 7/1997-10/1999)
- SG-1 SOIL GAS POINT (2011)
- P01 SOIL BORING (DIRECT PUSH, 2007)
- DESTROYED/ABANDONED WELL
- POWER POLE
- LEASEHOLD BOUNDARY
- ELECTRIC LINE
- SANITARY SEWER LINE
- UNDERGROUND TELEPHONE LINE
- WATER LINE
- REMEDIATION SYSTEM PIPING
- STATION FUEL/PRODUCT LINE

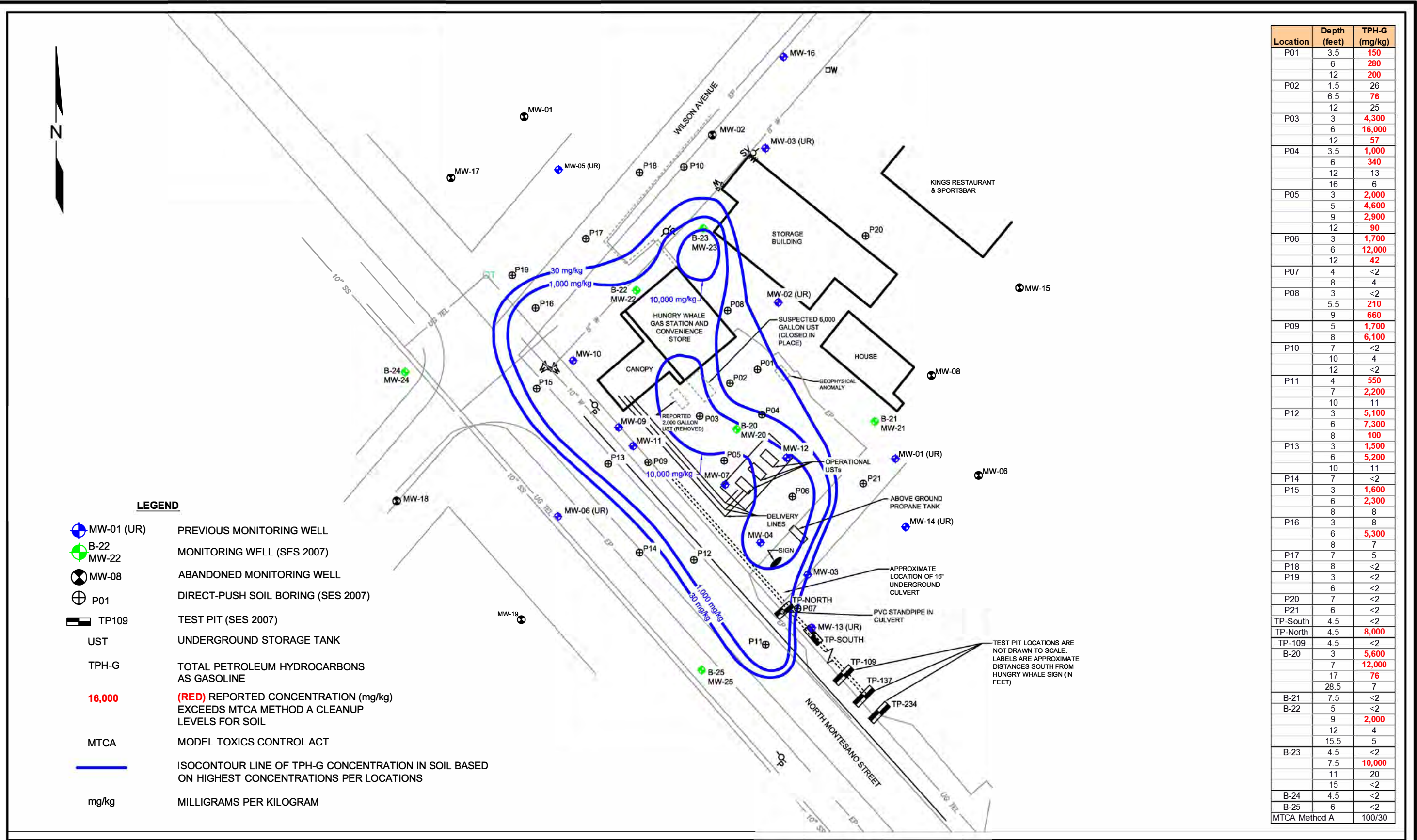


SUSPECTED 6,000 GALLON UST (CLOSED IN PLACE)  
 REPORTED 2,000 GALLON UST (REMOVED)

No warranty is made by Stantec Consulting Services Inc. as to the accuracy, reliability, or completeness of these data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed electronically, and may be updated without notification. Any reproduction may result in a loss of scale and or information.



<p>11130 NE 33RD PLACE, SUITE 200                  BELLEVUE, WASHINGTON                  PHONE: (425) 869-9448 FAX: (425) 869-1190</p>	FOR: THE HUNGRY WHALE 1680 NORTH MONTESANO STREET WESTPORT, WASHINGTON		<b>SITE PLAN</b>		FIGURE: <b>2</b>
	JOB NUMBER: 185703328	DRAWN BY: MDR	CHECKED BY: CS	APPROVED BY:	DATE: JAN 2017

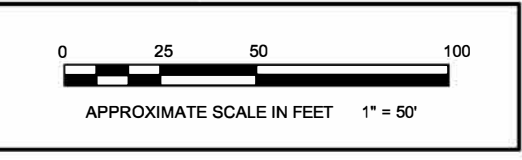
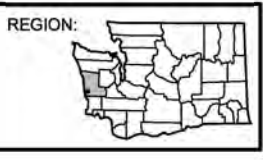


Location	Depth (feet)	TPH-G (mg/kg)
P01	3.5	150
	6	280
	12	200
P02	1.5	26
	6.5	76
	12	25
P03	3	4,300
	6	16,000
	12	57
P04	3.5	1,000
	6	340
	12	13
	16	6
P05	3	2,000
	5	4,600
	9	2,900
	12	90
P06	3	1,700
	6	12,000
	12	42
P07	4	<2
	8	4
P08	3	<2
	5.5	210
	9	660
P09	5	1,700
	8	6,100
P10	7	<2
	10	4
	12	<2
P11	4	550
	7	2,200
	10	11
P12	3	5,100
	6	7,300
	8	100
P13	3	1,500
	6	5,200
	10	11
P14	7	<2
P15	3	1,600
	6	2,300
	8	8
P16	3	8
	6	5,300
	8	7
P17	7	5
P18	8	<2
P19	3	<2
	6	<2
P20	7	<2
P21	6	<2
TP-South	4.5	<2
TP-North	4.5	8,000
TP-109	4.5	<2
B-20	3	5,600
	7	12,000
	17	76
	28.5	7
B-21	7.5	<2
B-22	5	<2
	9	2,000
	12	4
	15.5	5
B-23	4.5	<2
	7.5	10,000
	11	20
	15	<2
B-24	4.5	<2
B-25	6	<2
MTCA Method A		100/30



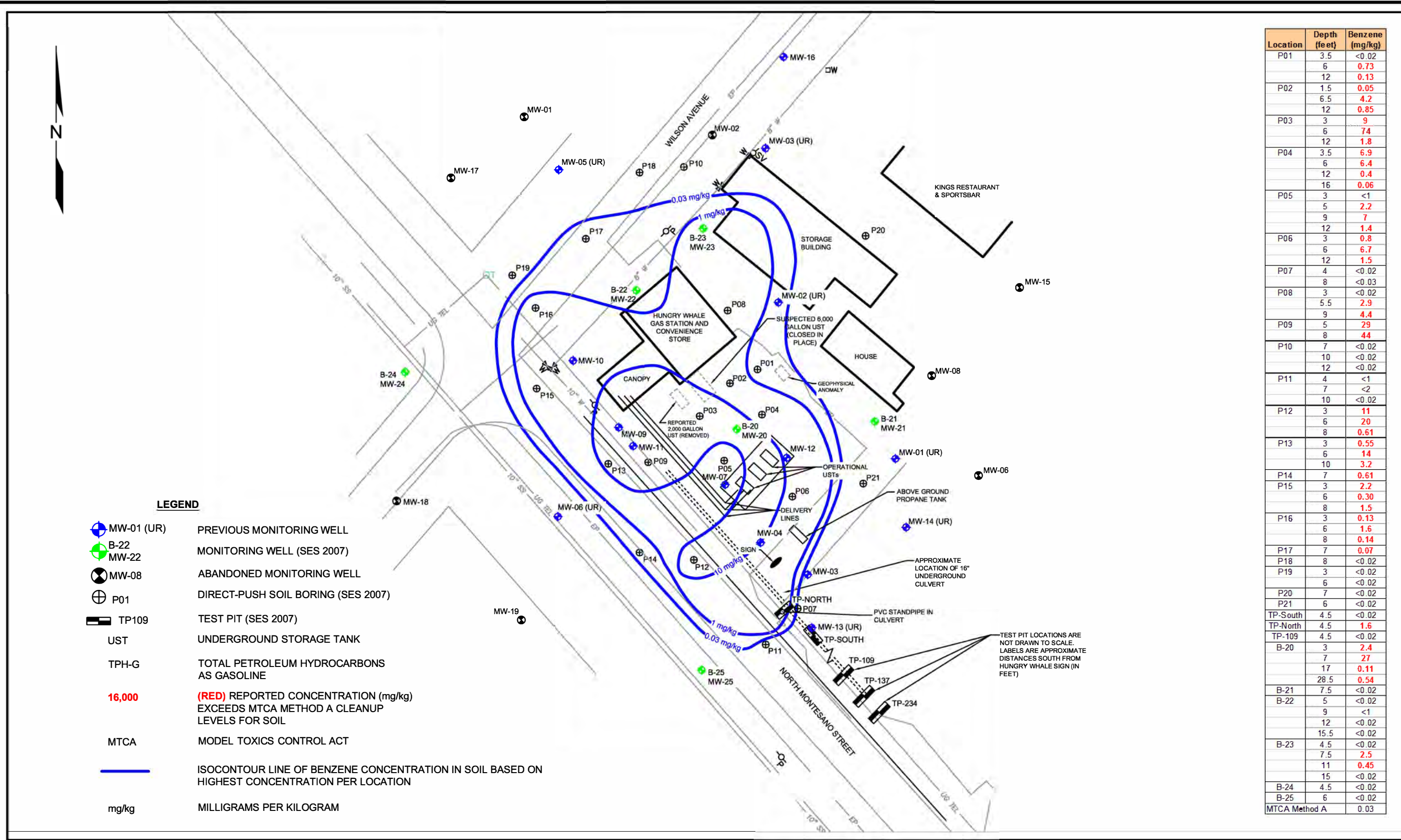
DATE: .....01/09/08  
 DRAWN BY: .....BLR  
 CHECKED BY: .....RKB  
 CAD FILE: .....0461-001-02 FIG10 SD TPHG

PROJECT NAME: .....THE HUNGRY WHALE  
 SES PROJECT NUMBER: .....0461-001-02  
 STREET ADDRESS: .....1680 NORTH MONTESANO STREET  
 CITY, STATE: .....WESTPORT, WASHINGTON



**FIGURE 3**  
 ISOCONCENTRATION MAP  
 FOR TPH-G IN SOIL





**LEGEND**

- MW-01 (UR) PREVIOUS MONITORING WELL
- B-22 MONITORING WELL (SES 2007)
- MW-22 MONITORING WELL (SES 2007)
- MW-08 ABANDONED MONITORING WELL
- P01 DIRECT-PUSH SOIL BORING (SES 2007)
- TP109 TEST PIT (SES 2007)
- UST UNDERGROUND STORAGE TANK
- TPH-G TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
- 16,000** (RED) REPORTED CONCENTRATION (mg/kg) EXCEEDS MTCA METHOD A CLEANUP LEVELS FOR SOIL
- MTCA MODEL TOXICS CONTROL ACT
- ISOCONTOUR LINE OF BENZENE CONCENTRATION IN SOIL BASED ON HIGHEST CONCENTRATION PER LOCATION
- mg/kg MILLIGRAMS PER KILOGRAM

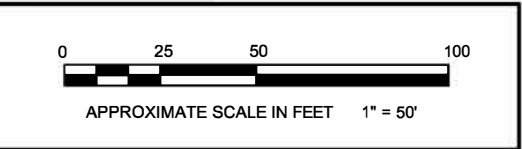
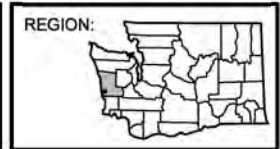
Location	Depth (feet)	Benzene (mg/kg)
P01	3.5	<0.02
	6	0.73
	12	0.13
P02	1.5	0.05
	6.5	4.2
	12	0.85
P03	3	9
	6	74
	12	1.8
P04	3.5	6.9
	6	6.4
	12	0.4
P05	16	0.06
	3	<1
	5	2.2
P06	9	7
	12	1.4
	3	0.8
P07	6	6.7
	12	1.5
	4	<0.02
P08	8	<0.03
	3	<0.02
	5.5	2.9
P09	9	4.4
	5	29
	8	44
P10	7	<0.02
	10	<0.02
	12	<0.02
P11	4	<1
	7	<2
	10	<0.02
P12	3	11
	6	20
	8	0.61
P13	3	0.55
	6	14
	10	3.2
P14	7	0.61
	3	2.2
	6	0.30
P15	8	1.5
	3	0.13
	6	1.6
P16	8	0.14
	7	0.07
	8	<0.02
P17	8	<0.02
	3	<0.02
	6	<0.02
P18	7	<0.02
	6	<0.02
	6	<0.02
P19	4.5	1.6
	4.5	<0.02
	4.5	<0.02
P20	4.5	<0.02
	4.5	<0.02
	4.5	<0.02
P21	4.5	<0.02
	4.5	<0.02
	4.5	<0.02
TP-South	4.5	<0.02
	4.5	<0.02
	4.5	<0.02
TP-North	4.5	<0.02
	4.5	<0.02
	4.5	<0.02
TP-109	4.5	<0.02
	4.5	<0.02
	4.5	<0.02
B-20	3	2.4
	7	27
	17	0.11
B-21	28.5	0.54
	7.5	<0.02
	5	<0.02
B-22	9	<1
	12	<0.02
	15.5	<0.02
B-23	4.5	<0.02
	7.5	2.5
	11	0.45
B-24	15	<0.02
	4.5	<0.02
	6	<0.02
B-25	6	<0.02
	6	<0.02
	6	<0.02
MTCA Method A		0.03

TEST PIT LOCATIONS ARE NOT DRAWN TO SCALE. LABELS ARE APPROXIMATE DISTANCES SOUTH FROM HUNGRY WHALE SIGN (IN FEET)



DATE: .....01/09/08  
 DRAWN BY: .....BLR  
 CHECKED BY: .....RKB  
 CAD FILE: ..... 0461-001-02 FIG11 SD BENZ

PROJECT NAME: .....THE HUNGRY WHALE  
 SES PROJECT NUMBER:.....0461-001-02  
 STREET ADDRESS: .....1680 NORTH MONTESANO STREET  
 CITY, STATE:.....WESTPORT, WASHINGTON



**FIGURE 4**  
 ISOCONCENTRATION MAP  
 FOR BENZENE IN SOIL

**Table 1**  
**Summary of Soil Analytical Results**  
**The Hungry Whale**  
**1680 North Montesano Street, Westport, Washington**

Sample ID	Date Sampled	Location	Depth (feet)	PID Headspace (ppm)	TPH-G <sup>1</sup>	Benzene <sup>2</sup>	Toluene <sup>2</sup>	Ethylbenzene <sup>2</sup>	Total Xylenes <sup>2</sup>	Naphthalene <sup>2</sup>
<b>Direct Push Investigation</b>										
P01-03.5	04/26/07	P01	3.5	118	<b>150</b>	<0.02	0.03	0.30	1.9	--
P01-06	04/26/07	P01	6	216	<b>280</b>	<b>0.73</b>	5.3	6.9	<b>43</b>	<b>6.0</b>
P01-12	04/26/07	P01	12	357	<b>200</b>	<b>0.13</b>	0.36	1.7	<b>9.3</b>	--
P02-01.5	04/26/07	P02	1.5	209	26	<b>0.05</b>	0.13	0.32	1.8	--
P02-06.5	04/26/07	P02	6.5	1,660	<b>76</b>	<b>4.2</b>	<b>13</b>	<b>10</b>	<b>57</b>	<b>5.5</b>
P02-12	04/26/07	P02	12	281	25	<b>0.85</b>	3.2	0.45	2.7	--
P03-03	04/26/07	P03	3	4,001	<b>4,300</b>	<b>9.0</b>	<b>140</b>	<b>68</b>	<b>420</b>	--
P03-06	04/26/07	P03	6	4,484	<b>16,000</b>	<b>74</b>	<b>580</b>	<b>230</b>	<b>1,380</b>	<b>89</b>
P03-12	04/26/07	P03	12	--	<b>57</b>	<b>1.8</b>	0.57	0.92	2.4	--
P04-03.5	04/26/07	P04	3.5	>4,600	<b>1,000</b>	<b>6.9</b>	<b>130</b>	<b>88</b>	<b>570</b>	<b>49</b>
P04-06	04/26/07	P04	6	766	<b>340</b>	<b>6.4</b>	<b>8.1</b>	<b>11</b>	<b>60</b>	--
P04-12	04/26/07	P04	12	230	13	<b>0.40</b>	0.07	0.50	2.0	--
P04-16	04/26/07	P04	16	136	6	<b>0.06</b>	0.08	0.12	0.39	--
P05-03	04/26/07	P05	3	3,516	<b>2,000</b>	<1	<b>13</b>	3.5	<b>140</b>	--
P05-05	04/26/07	P05	5	3,055	<b>4,600</b>	<b>2.2</b>	<b>26</b>	<b>24</b>	<b>285</b>	<b>26</b>
P05-09	04/26/07	P05	9	3,333	<b>2,900</b>	<b>7</b>	<b>48</b>	<b>23</b>	<b>190</b>	--
P05-12	04/26/07	P05	12	473	<b>90</b>	<b>1.4</b>	0.58	0.37	1.2	--
P06-03	04/26/07	P06	3	3,479	<b>1,700</b>	<b>0.80</b>	<b>21</b>	<b>16</b>	<b>120</b>	--
P06-06	04/26/07	P06	6	3,046	<b>12,000</b>	<b>6.7</b>	<b>220</b>	<b>160</b>	<b>1,270</b>	<b>100</b>
P06-12	04/26/07	P06	12	240	<b>42</b>	<b>1.5</b>	4.4	0.69	4.3	--
P07-04	04/26/07	P07	4	8.1	<2	<0.02	<0.02	<0.02	<0.06	--
P07-08	04/26/07	P07	8	35.9	4	<0.03	<0.05	<0.05	<0.15	<0.05
P08-03	04/26/07	P08	3	4.8	<2	<0.02	<0.02	<0.02	<0.06	--
P08-05.5	04/26/07	P08	5.5	26.8	<b>210</b>	<b>2.9</b>	3.2	4.9	<b>25</b>	--
P08-09	04/26/07	P08	9	2,607	<b>660</b>	<b>4.4</b>	<b>12</b>	<b>18</b>	<b>102</b>	4.6
P09-05	04/26/07	P09	5	2,732	<b>1,700</b>	<b>29</b>	<b>260</b>	<b>75</b>	<b>790</b>	<b>65</b>
P09-08	04/26/07	P09	8	2,708	<b>6,100</b>	<b>44</b>	<b>340<sup>ve</sup></b>	<b>100</b>	<b>650</b>	--

**Table 1**  
**Summary of Soil Analytical Results**  
**The Hungry Whale**  
**1680 North Montesano Street, Westport, Washington**

Sample ID	Date Sampled	Location	Depth (feet)	PID Headspace (ppm)	TPH-G <sup>1</sup>	Benzene <sup>2</sup>	Toluene <sup>2</sup>	Ethylbenzene <sup>2</sup>	Total Xylenes <sup>2</sup>	Naphthalene <sup>2</sup>
<b>Test Pits</b>										
TP-North	04/26/07	TP-North	4.5	--	<b>8,000</b>	<b>1.6</b>	<b>120</b>	<b>96</b>	<b>800</b>	--
TP-South	04/26/07	TP-South	4.5	--	<2	<0.02	0.03	<0.02	<0.06	--
TP109-04.5	04/26/07	TP-109	4.5	--	<2	<0.02	<0.02	<0.02	<0.06	--
<b>Soil Borings - Well Installations</b>										
B-20-03	06/11/07	B-20	3	2,980	<b>5,600</b>	<b>2.4</b>	<b>110</b>	<b>69</b>	<b>500</b>	--
B-20-07	06/11/07	B-20	7	1,677	<b>12,000</b>	<b>27</b>	<b>430</b>	<b>180</b>	<b>1,200</b>	--
B-20-17	06/11/07	B-20	17	100	<b>76</b>	<b>0.11</b>	0.64	0.70	3.4	--
B-20-28.5	06/11/07	B-20	28.5	49.9	7	<b>0.54</b>	0.28	0.08	0.28	--
B-21-07.5	06/11/07	B-21	7.5	2.1	<2	<0.02	<0.02	<0.02	<0.06	--
B-22-05	06/12/07	B-22	5	6.8	<2	<0.02	<0.02	<0.02	<0.06	--
B-22-09	06/12/07	B-22	9	764	<b>2,000</b>	<1	5.6	<b>9.3</b>	<b>49</b>	--
B-22-12	06/12/07	B-22	12	83.1	4	<0.02	<0.02	0.03	0.09	--
B-22-15.5	06/12/07	B-22	15.5	28.7	5	<0.02	<0.02	<0.02	0.10	--
B-23-04.5	06/12/07	B-23	4.5	2.2	<2	<0.02	<0.02	<0.02	<0.06	--
B-23-07.5	06/12/07	B-23	7.5	2,442	<b>10,000</b>	<b>2.5</b>	<b>120</b>	<b>150</b>	<b>850</b>	--
B-23-11	06/12/07	B-23	11	63.0	20	<b>0.45</b>	2.7	0.42	2.1	--
B-23-15	06/12/07	B-23	15	8.6	<2	<0.02	<0.02	<0.02	<0.06	--
B-24-04.5	06/12/07	B-24	4.5	2.4	<2	<0.02	<0.02	<0.02	<0.06	--
B-25-06	06/13/07	B-25	6	0.3	<2	<0.02	<0.02	<0.02	<0.06	--
P10-07	06/13/07	P10	7	5.4	<2	<0.02	<0.02	<0.02	<0.06	--
P10-10	06/13/07	P10	10	50.9	4	<0.02	<0.02	0.03	0.15	--
P10-12	06/13/07	P10	12	5.0	<2	<0.02	<0.02	<0.02	<0.06	--
P11-04	10/02/07	P11	4	911	<b>550</b>	<1	<1	2.8	<b>24</b>	--
P11-07	10/02/07	P11	7	1,990	<b>2,200</b>	<2	71	<b>33</b>	<b>250</b>	--
P11-10	10/02/07	P11	10	37.3	11	<0.02	0.08	0.18	1.4	--
P12-03	10/02/07	P12	3	2,449	<b>5,100</b>	<b>11</b>	<b>73</b>	<b>67</b>	<b>480</b>	--
P12-06	10/02/07	P12	6	>2,500	<b>7,300</b>	<b>20</b>	<b>150</b>	<b>95</b>	<b>680</b>	--
P12-08	10/02/07	P12	8	1,872	<b>100</b>	<b>0.61</b>	0.36	1.8	1.2	--
P13-03	10/02/07	P13	3	1,774	<b>1,500</b>	<b>0.55</b>	<b>11</b>	<b>14</b>	<b>110</b> <sup>ve</sup>	--

**Table 1**  
**Summary of Soil Analytical Results**  
**The Hungry Whale**  
**1680 North Montesano Street, Westport, Washington**

Sample ID	Date Sampled	Location	Depth (feet)	PID Headspace (ppm)	TPH-G <sup>1</sup>	Benzene <sup>2</sup>	Toluene <sup>2</sup>	Ethylbenzene <sup>2</sup>	Total Xylenes <sup>2</sup>	Naphthalene <sup>2</sup>
P13-06	10/02/07	P13	6	2,131	<b>5,200</b>	<b>14</b>	<b>110</b>	<b>66</b>	<b>480</b>	--
P13-10	10/02/07	P13	10	79.2	11	<b>3.2</b>	0.06	0.19	0.10	--
P14-07	10/02/07	P14	7	16.9	<2	<b>0.61</b>	<0.02	<0.02	<0.06	--
P15-03	10/02/07	P15	3	2,194	<b>1,600</b>	<b>2.2</b>	<b>34</b>	<b>24</b>	<b>150</b>	--
P15-06	10/02/07	P15	6	>2,500	<b>2,300</b>	<b>0.30</b>	<b>30</b>	<b>35</b>	<b>230</b>	--
P15-08	10/02/07	P15	8	112	8	<b>1.5</b>	0.09	0.48	0.29	--
P16-03	10/02/07	P16	3	14.7	8	<b>0.13</b>	0.03	0.07	0.07	--
P16-06	10/02/07	P16	6	2,050	<b>5,300</b>	<b>1.6</b>	<b>9.9</b>	<b>99</b>	<b>520</b>	--
P16-08	10/02/07	P16	8	200	7	<b>0.14</b>	0.03	0.39	0.42	--
P17-07	10/02/07	P17	7	47.4	5	<b>0.07</b>	<0.02	<0.02	<0.06	--
P18-08	10/02/07	P18	8	0.0	<2	<0.02	<0.02	<0.02	<0.06	--
P19-03	10/02/07	P19	3	1.8	<2	<0.02	<0.02	<0.02	<0.06	--
P19-06	10/02/07	P19	6	0.0	<2	<0.02	<0.02	<0.02	<0.06	
P20-07	10/02/07	P20	7	0.0	<2	<0.02	<0.02	<0.02	<0.06	
P21-06	10/02/07	P21	6	0.0	<2	<0.02	<0.02	<0.02	<0.06	--
MTCA Method A Cleanup Levels for Soil <sup>3</sup>					100/30 <sup>a</sup>	0.03	7	6	9	5

**NOTES:**

**Bold** indicates concentrations that exceed MTCA Method A Cleanup Levels for unrestricted land use.

Results reported in milligrams per kilogram unless otherwise indicated.

Chemical analyses conducted by Friedman & Bruya, Inc. of Seattle, Washington.

<sup>1</sup>Analyzed by Northwest Method NWT PH-Gx.

<sup>2</sup>Analyzed by EPA Method 8021B or 8260B.

<sup>3</sup>MTCA Method A Cleanup Levels for Soil from Table 740-1 of Washington Administrative Code 173-340-900 Tables.

<sup>a</sup>100 mg/kg when benzene is not present and 30 mg/kg when benzene is present.

-- = not analyzed

< = not detected at a concentration exceeding the laboratory reporting limit

> = detected at a concentration exceeding the operational range of the instrument

EPA = United States Environmental Protection Agency

MTCA = Model Toxics Control Act

PID = photoionization detector

PPM = parts per million

TPH-G = gasoline-range petroleum hydrocarbons



**Table 2  
Summary of Groundwater Analytical Results  
The Hungry Whale  
1680 North Montesano Street  
Westport, Washington**

Well/Sample ID	Sample Date	Depth to Groundwater <sup>1</sup> (feet)	Groundwater Elevation (feet)	TPH-G <sup>2</sup>	Benzene <sup>3</sup>	Toluene <sup>3</sup>	Ethylbenzene <sup>3</sup>	Total Xylenes <sup>3</sup>	Naphthalene <sup>3</sup>	MTBE <sup>3</sup>	EDC <sup>3</sup>		
<b>Monitoring Wells</b>													
MW01 (UR) TOC: No elevation					Not Located								
MW02 (UR) TOC: 100.00	06/27/07	7.51	92.49	44,000	5,400	5,900	1,300	5,200	--	--	--		
MW03 (UR) TOC: 100.40	06/27/07	7.91	92.49	<100	<1	<1	<1	<3	--	--	--		
MW04* TOC: 99.17	06/27/07	6.90	92.27	SPH	SPH	SPH	SPH	SPH	--	--	--		
MW05 (UR) TOC: 99.60	06/27/07	6.79	92.81	<100	<1	<1	<1	<3	--	--	--		
MW06 (UR) TOC: 98.52	06/27/07	5.98	92.54	<100	<1	<1	<1	<3	--	--	--		
MW07 TOC: 99.73	06/27/07	7.29	92.44	110,000	15,000	13,000	2,600	18,000	--	--	--		
MW09* TOC: 99.01	06/27/07	6.50	92.51	SPH	SPH	SPH	SPH	SPH	--	--	--		
MW10 TOC: 99.18	06/27/07	6.51	92.67	50,000	1,300	2,200	1,200	6,700	--	--	--		
MW11 TOC: 98.97	06/27/07	6.89	92.08	<100	<1	<1	<1	<3	--	--	--		
MW12 TOC: 100.17	06/27/07	7.82	92.35	20,000	14,000	28,000	1,700	21,000	--	--	--		
MW13 (UR) TOC: 98.70	06/27/07	6.49	92.21	<100	<1	<1	<1	<3	--	--	--		
MW14 (UR) TOC: 99.53	06/27/07	7.36	92.17	<100	<1	<1	<1	<3	--	--	--		
MW16 TOC: No elevation					Not Located								
MW20 TOC: 100.09	06/27/07	7.82	92.27	130,000	6,900	14,000	2,800	15,000	--	--	--		
MW21 TOC: 99.88	06/27/07	7.62	92.26	<100	<1	<1	<1	<3	--	--	--		
MW22 TOC: 100.09	06/27/07	7.45	92.64	7,100	78	42	57	520	--	--	--		
MW23 TOC: 99.57	06/27/07	7.01	92.56	92,000	1,500	9,300	2,000	14,000	--	--	--		
MW24 TOC: 97.93	06/27/07	5.15	92.78	<100	<1	<1	<1	<3	--	--	--		
MW25 TOC: 98.74	06/27/07	6.45	92.29	<100	<1	<1	<1	<3	--	--	--		





**Table 2  
Summary of Groundwater Analytical Results  
The Hungry Whale  
1680 North Montesano Street  
Westport, Washington**

Well/Sample ID	Sample Date	Depth to Groundwater <sup>1</sup> (feet)	Groundwater Elevation (feet)	TPH-G <sup>2</sup>	Benzene <sup>3</sup>	Toluene <sup>3</sup>	Ethylbenzene <sup>3</sup>	Total Xylenes <sup>3</sup>	Naphthalene <sup>3</sup>	MTBE <sup>3</sup>	EDC <sup>3</sup>
<b>Push-Probe Investigations</b>											
P01	04/26/07	--	--	110,000	780	10,000	3,600	21,000	--	--	--
P02	04/26/07	--	--	120,000	5,400	22,000 <sup>ve</sup>	3,200	19,000	--	--	--
P03	04/26/07	--	--	250,000	29,000	47,000	4,300	26,200	720	<100	<100
P04	04/26/07	--	--	150,000	8,500	25,000 <sup>ve</sup>	3,600	22,000	--	--	--
P05	04/26/07	--	--	100,000	9,500	10,000	1,700	14,000	--	--	--
P06	04/26/07	--	--	140,000	8,700	20,000 <sup>ve</sup>	2,700	19,000	--	--	--
P07	04/26/07	--	--	15,000	<10	21	210	1,580	100	<10	<10
P08	04/26/07	--	--	71,000	4,100	4,000	2,000	11,000	--	--	--
P11	10/02/07	--	--	87,000	1,200	9,300	2,500	19,000	--	--	--
P14	10/02/07	--	--	5,400	1,800	12	12	12	--	--	--
P18	10/02/07	--	--	5,500	11	7	300	980	--	--	--
P19	10/02/07	--	--	140	4	2	<1	<3	--	--	--
P20	10/02/07	--	--	<100	<1	<1	<1	<3	--	--	--
<b>Drinking Water Sampling</b>											
DW-C1	05/04/07	--	--	<100	<1	<1	<1	<3	--	--	--
DW-C2	05/04/07	--	--	<100	<1	<1	<1	<3	--	--	--
DW-H1	05/04/07	--	--	<100	<1	<1	<1	<3	--	--	--
DW-H2	05/04/07	--	--	<100	<1	<1	<1	<3	--	--	--
MTCA Method A Cleanup Levels for Groundwater <sup>4</sup>				1,000/800 <sup>a</sup>	5	1,000	700	1,000	160	20	5

**NOTES:**

Results reported in µg/L.

Concentrations exceeding MTCA Method A cleanup levels for groundwater are shown in red.

Samples analyzed by Friedman & Bruya, Inc. of Seattle, Washington.

<sup>1</sup>Depth to water as measured from a fixed spot on the well casing rim.

<sup>2</sup>Analyzed by Northwest Method NWTPH-Gx.

<sup>3</sup>Analyzed by EPA Method 8260B or 8021B.

<sup>4</sup>MTCA Method A Cleanup Levels from Table 720-1 of Washington Administrative Code 173-340-900.

<sup>a</sup>Cleanup level is 1,000 µg/L if benzene is not present and 800 µg/L if benzene is present.

<sup>ve</sup>The value reported exceeded the calibration range for the analyte. The reported concentration is an estimate.

<sup>\*</sup>Groundwater elevation corrected for the presence of separate-phase hydrocarbons

< = not detected at a concentration exceeding the laboratory reporting limit

-- = not analyzed/measured

µg/L = micrograms per liter

EDC = 1,2-dichloroethane (ethylene dichloride)

EPA = United States Environmental Protection Agency

MTBE = methyl tertiary-butyl ether

MTCA = Model Toxics Control Act

SPH = separate-phase hydrocarbons

TOC = Top of casing elevation based on a relative site datum of 100.00 feet.

TPH-G = gasoline-range petroleum hydrocarbons



Table 2. Cumulative Summary (2007 - 2021) of Groundwater Analytical Results - TPH, VOCs, and Geochemical Parameters The Hungry Whale  
1680 North Montesano Street Westport, Washington

Well Number (TOC in feet)	Sample Date	Depth to Groundwater (feet)	SPH Thickness (feet)	Groundwater Elevation (feet)	TPH-G <sup>1</sup> (µg/L)	Volatile Organic Compounds <sup>2</sup> (VOCs)					Geochemical Parameters							
						Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	Dissolved Oxygen <sup>3</sup> (mg/L)	Oxygen Reduction Potential (ORP) <sup>4</sup> (mV)	Ferrous Iron <sup>5</sup> (mg/L)	Nitrate <sup>6</sup> as NO <sub>3</sub> (mg/L)	Sulfate <sup>6</sup> as SO <sub>4</sub> (mg/L)	Methane <sup>7</sup> (µg/L)	Total Alkalinity <sup>8</sup> as CaCO <sub>3</sub> (mg/L)	Manganese <sup>9</sup> , Dissolved (µg/L)	
MW-01 (13.72)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4/12/16	5.81	0.00	7.91	<100	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--	--	--	--	--
	6/19/19 (13.72)	7.81	0.00	5.91	<50	<1	<1	<1	<1	--	--	--	--	--	--	--	--	--
	5/24/21	--	--	--	--	--	--	--	--	Unable to Locate								
MW-02 (100.00)	8/27/07	7.51	0.00	92.49	44,000	5,400	5,900	1,300	5,200	--	--	--	--	--	--	--	--	--
	11/30/11	4.55	0.00	95.45	43,000	3,700	5,800	1,600	6,100	4.90 H	-196	5.6 H	<0.100	11.0	--	--	--	--
	3/6/12	4.61	0.00	95.39	6,200	1,400	68	250	230	0.79	-92	17.4	0.141	6.8	642	246	--	--
	6/13/12	5.60	0.00	94.40	14,000	1,400	1,800	550	1,500	3.36	-88.2	16 H	<0.50	3.6	817	228	--	--
	10/4/12	8.30	0.00	91.70	51,500	5,990	5,100	1,780	6,810	2.88	-120.4	27.2	<0.20	<1.0	3,320	297	257	--
	6/4/13	5.98	0.00	94.02	21,000	1,600	2,800	750	2,500	--	--	--	--	--	--	--	--	--
	4/12/16	5.28	0.00	8.41	5,340	211	16.1	73.1	106	1.0	-103	21,500	<0.250	15.5	--	146	209	--
	6/20/19 (13.69)	7.52	0.00	6.17	10,600	1,160	474	410	1,101	--	--	--	--	--	--	--	--	--
	6/20/2019 DUP (13.69)	7.52	0.00	6.17	12,100	1,370	627	452	1,283	--	--	--	--	--	--	--	--	--
	5/25/2021 (13.69)	7.12	0.00	6.57	3,500	227	26.5	116	102	0.46	-285.4	--	--	--	--	--	--	--
MW-03 (UR) (100.40)	6/27/07	7.91	0.00	92.49	<100	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--
	12/1/11	4.74	0.00	95.66	<250	<0.50	<0.50	<0.50	<3	--	-121	--	--	--	--	146	--	--
	3/6/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/13/12	7.00	0.00	93.40	<50	<1.0	<1.0	<1.0	<3.0	2.30	-30.8	0.21	<0.20	2.4	<6.6	17.3	35.0	--
	6/4/13	6.28	0.00	94.12	<80	<0.20	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--	--
	4/12/16 (14.07)	5.65	0.00	8.42	<100	<0.200	<1.00	<0.500	<1.50	6.4	67	4,220	0.488	14.8	--	66.0	12.4	--
	6/26/19 (14.07)	8.10	0.00	5.97	<50	<1	<1	<1	<1	--	--	--	--	--	--	--	--	--
	5/24/21	--	--	--	--	--	--	--	--	Unable to Locate								
MW-04 (99.17)	6/27/07	6.90	0.02	92.29	SPH (0.02)	SPH (0.02)	SPH (0.02)	SPH (0.02)	SPH (0.02)	--	--	--	--	--	--	--	--	--
	12/1/11	4.20	0.10	95.05	SPH (0.10)	SPH (0.10)	SPH (0.10)	SPH (0.10)	SPH (0.10)	--	--	--	--	--	--	66.0	--	--
	3/6/12	4.16	0.01	95.02	74,000/SPH	4,700/SPH	5,800/SPH	2,300/SPH	16,000/SPH	0.26	-80	--	--	--	--	--	--	--
	6/13/12	5.10	0.00	94.07	75,000	6,900	9,700	2,000	13,000	1.64	-19.0	--	--	--	--	--	--	--
	10/4/12	7.60	0.15	91.69	116,000/SPH	13,800/SPH	13,200/SPH	2,670/SPH	14,900/SPH	3.79	-39.4	39.6	<0.20	<1.0	13,000	283	1,130	--
	6/4/13	5.51	0.00	93.66	120,000/sheen	7,000/sheen	6,400/sheen	2,400/sheen	19,000/sheen	--	--	--	--	--	--	--	--	--
	4/14/16 (12.85)	4.51	0.01	8.35	106,000/SPH	3,170/SPH	748/SPH	1,740/SPH	9,130/SPH	1.3	-100	45,200	<0.250	<1.00	--	112	714	--
	6/20/19 (12.85)	6.97	0.01	5.89	66,000/SPH	8,310/SPH	5,910/SPH	1,620/SPH	6,890/SPH	--	--	--	--	--	--	--	--	--
	5/25/21 (12.85)	6.32	0.00	6.53	91,500	4750	5980	1510	8800	0.22	-359.9	--	--	--	--	--	--	--
MW-05 (99.60)	6/27/07	6.79	0.00	92.81	<100	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--
	11/30/11	3.55	0.00	96.05	<250	<0.50	<0.50	<0.50	<0.50	10.1 H	-113	0.15 H	0.104	5.26	--	74.8	--	--
	3/6/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/13/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/4/12	7.80	0.00	91.80	704	314	2.5	77.0	12.7	4.79	-114.2	2.5	0.30	19.1	293	150	92.2	--
	6/4/13	5.14	0.00	94.46	<80	<0.20	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--	--
	4/12/16 (13.30)	4.53	0.00	8.77	<100	<0.200	<1.00	<0.500	<1.50	6.2	89	3,540	0.271	12.7	--	74.8	<1.00	--
	6/20/19 (13.30)	6.91	0.00	6.39	64.7	<1	3.63	3.56	21.27	--	--	--	--	--	--	--	--	--
	5/26/21 (13.30)	6.25	0.00	7.05	<100	<0.200	<1.00	<0.500	<1.50	#	-168.2	--	--	--	--	--	--	--
MW-06 (98.52)	6/27/07	5.98	0.00	92.54	<100	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--
	12/1/11	3.14	0.00	95.38	<250	<0.50	<0.50	<0.50	<0.50	--	-137	--	--	--	--	--	--	--
	3/6/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/13/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/4/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/4/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4/12/16	4.46	0.00	94.06	<80	<0.20	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--	--
	6/19/19	--	--	--	--	--	--	--	--	Unable to Locate								
	5/24/21	--	--	--	--	--	--	--	--	Unable to Locate								
MW-07 (99.73)	6/27/07	7.29	0.00	92.44	110,000	15,000	13,000	2,600	18,000	--	--	--	--	--	--	--	--	--
	11/29/11	4.48	0.00	95.25	110,000	6,200	15,000	2,400	23,000	7.70 H	-114	5.1 H	<0.100 H	2.10 H	--	--	--	--
	3/6/12	4.50	0.00	95.23	100,000	4,300	13,000	1,800	18,000	0.29	25	10.0	<0.100	0.60	692	53.0	--	--
	6/13/12	5.40	0.00	94.33	71,000	6,600	13,000	2,100	19,000	8.60	-24.8	31	<0.50	<0.50	1,490	160	--	--
	10/4/12	8.05	0.05	91.72	129,000/SPH	9,350/SPH	12,600/SPH	2,320/SPH	22,100/SPH	14.02	98.7	39.3	<0.20	<1.0	4,730	230	1,250	--
	6/4/13 (13.41)	5.80	0.00	93.93	140,000/sheen	8,200/sheen	14,000/sheen	2,200/sheen	23,000/sheen	--	--	--	--	--	--	--	--	--
	4/14/16 (13.41)	4.97	0.00	8.44	214,000	5,730	12,500	2,400	24,900	1.4	-44	44,200	<0.250	<1.00	--	129	743	--
	6/20/19 (13.41)	7.63	0.00	5.78	105,000	8,440	8,820	2,160	15,470	--	--	--	--	--	--	--	--	--
	5/26/21 (13.41)	6.90	0.00	6.51	164,000	8,700	9,500	2,170	24,000	0.38	-161	--	--	--	--	--	--	--
MW-09 (99.01)	6/27/07	6.50	0.08	92.57	SPH (0.08)	SPH (0.08)	SPH (0.08)	SPH (0.08)	SPH (0.08)	--	--	--	--	--	--	--	--	--
	12/1/11	3.57	0.01	95.45	1,000	110	26	21	84	--	636	--	--	--	--	--	--	--
	3/6/12	3.55	0.01	95.47	1,800	460	8.8	36	55	0.14	-135	--	--	--	--	--	--	--
	6/13/12	4.50	0.00	94.51	7,200	1,600	460	200	810	1.10	-79.90	--	--	--	--	--	--	--
	10/4/12	7.28	0.00	91.73	22,200	4,630	1,340	603	3,600	1.14	-13.8	26.4	<0.20	<1.0	7,190	164	466	--
	6/4/13	4.92	0.00	94.09	8,300	1,800	180	120	270	--	--	--	--	--	--	--	--	--
	4/14/16 (12.69)	4.06	0.00	8.63	36,500	4,250	455	455	2,620	1.1	-141	63,100	<0.250	<1.00	--	228	1,290	--
	6/20/19 (12.69)	6.54	0.00	6.15	16,500	4,390	60.5	436	778.8	--	--	--	--	--	--	--	--	--
	5/26/21 (12.69)	6.02	0.00	6.67	15,100	2,450	<50.0	209	503	0.4	-155.9	--	--	--	--	--	--	--
MW-10	6/27/07	6.51	0.00	92.67	50,000	1,300	2,200	1,200	6,700	--	--	--	--	--	--	--	--	--
	11/30/11	3.59	0.00	95.99	6,200	610	53	390	390	4.80 H	-103	7.0 H	<0.100	9.99	--	--	--	--
	3/6/12	3.53	0.00	95.65	2,200	150	13	43	140	0.00	-125	9						



(13.23)	5/25/21	6.78	0.00	6.45	82,500	194	4,450	2,080	11,700	0.40	-252.1	--	--	--	--	--	--
(13.23)	5/25/21 DUP	6.78	0.00	6.45	88,000	214	4,650	2,200	12,400	--	--	--	--	--	--	--	--
MW-24	6/27/07	5.15	0.00	92.78	<100	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	12/1/11	2.14	0.00	95.79	<250	<0.50	<0.50	<0.50	<0.50	--	-133	--	--	--	--	--	--
	3/6/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(97.93)	6/13/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/4/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/4/13	3.47	0.00	94.46	<80	<0.20	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--
(11.61)	4/12/16	2.74	0.00	8.87	<100	<0.200	<1.00	<0.500	<1.50	1.4	99	5,170	<0.250	<1.00	--	35.6	105
(11.61)	6/26/19	5.51	0.00	6.10	<50	<1	<1	<1	<1	--	--	--	--	--	--	--	--
MW-25	6/27/07	6.45	0.00	92.29	<100	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	12/1/11	3.68	0.00	95.06	<250	<0.50	<0.50	<0.50	<0.50	--	123	--	--	--	--	--	--
	3/6/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(98.74)	6/13/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/4/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/4/13	5.02	0.00	93.72	<80	<0.20	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--
	4/13/16	4.25	0.00	8.16	2,820	76.3	<1.00	45.5	101	1.2	25	9,690	<0.250	6.24	--	65.0	235
(12.41)	5/20/16	5.77	0.00	6.64	94.4	<1.00	<1.00	1.10	1.08	--	--	--	--	--	--	--	--
(12.41)	1/9/18	3.36	0.00	9.05	123	2.15	<1.00	<1.00	33.7	--	--	--	--	--	--	--	--
(12.41)	6/19/19	6.52	0.00	5.89	<50	<1	<1	<1	1.60	--	--	--	--	--	--	--	--
MTCA Method A Cleanup Levels <sup>10</sup>		N/A	N/A	N/A	800/1,000 <sup>11</sup>	5	1,000	700	1,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

<sup>3</sup> Dissolved Oxygen analysis collected as a field parameter, except samples collected November 2011, which were analyzed by laboratory

<sup>4</sup> Oxygen Reduction Potential collected as a field parameter

<sup>5</sup> Ferrous Iron analysis by Method SM3500-Fe B

<sup>6</sup> Nitrate and Sulfate analysis by Ion Chromatography by EPA Method 300.0

<sup>7</sup> Methane analysis by Method RSK-175M

<sup>8</sup> Total Alkalinity analysis by Method SM 2320B

<sup>9</sup> Manganese analysis by EPA Method 6010

<sup>10</sup> Washington State Department of Ecology Model Toxics Control Act (MTCA) Method A Cleanup Level for groundwater. November 2007.

<sup>11</sup> MTCA Method A Cleanup Level for TPH-G in groundwater is 800 µg/L if benzene is detected; but is 1,000 µg/L if benzene is not detected. SPH = Separate Phase Hydrocarbons Groundwater Elevation calculated using "Groundwater Elevation = TOC-(Depth to Water -(SPH thickness\*0.77))" where 0.77 is a generic density of gasoline.

MW-5	11/30/11	3/6/12	6/3/12	10/4/12	6/4/13	4/12/16	6/20/19
TPH-G	<250	--	--	704	<80	<100	64.7
B	<0.50	--	--	<b>314</b>	<0.20	<0.200	<1
T	<0.50	--	--	2.5	<0.50	<1.00	3.63
E	<0.50	--	--	77.0	<0.50	<0.500	3.56
X	<0.50	--	--	12.7	<1.0	<1.50	21.27

MW-23	11/30/11	DUP.	3/6/12	6/3/12	10/4/12	6/4/13	4/13/16	6/20/19
TPH-G	<b>51,000</b>	<b>47,000</b>	<b>55,000</b>	<b>56,000</b>	<b>70,500</b>	<b>88,000</b>	<b>158,000</b>	<b>52,100</b>
B	<b>470</b>	<b>560</b>	<b>630</b>	<b>830</b>	<b>1,320</b>	<b>770</b>	<b>280</b>	<b>374</b>
T	<b>3,700</b>	<b>4,000</b>	<b>5,700</b>	<b>5,600</b>	<b>6,850</b>	<b>5,200</b>	<b>4,860</b>	<b>4,350</b>
E	<b>1,100</b>	<b>1,200</b>	<b>2,200</b>	<b>2,300</b>	<b>1,580</b>	<b>2,800</b>	<b>3,230</b>	<b>1,840</b>
X	<b>7,100</b>	<b>7,700</b>	<b>12,000</b>	<b>15,000</b>	<b>10,000</b>	<b>17,000</b>	<b>21,700</b>	<b>10,450</b>

MW-22	11/30/11	3/6/12	6/3/12	10/4/12	6/4/13	4/13/16	6/21/19
TPH-G	<b>3,000</b>	<250	<b>1,500</b>	<b>3,230</b>	730	<b>2,010</b>	<b>1,490</b>
B	<2.00	0.90	0.92	<b>8.8</b>	0.23	<0.200	1.78
T	17	2.2	4.9	21.2	1.2	1.15	1.87
E	47	1.6	61	118	6.1	7.08	15.30
X	160	9.3	43	121	33	19.1	47.78

MW-10	11/30/11	3/6/12	6/3/12	10/4/12	6/4/13	4/13/16	6/21/19
TPH-G	<b>6,200</b>	<b>2,200</b>	<b>6,900</b>	<b>16,900</b>	<b>15,000</b>	<b>22,800</b>	<b>5,640</b>
B	<b>610</b>	<b>150</b>	<b>640</b>	<b>1,340</b>	<b>1,300</b>	<b>1,390</b>	<b>296</b>
T	53	13	440	464	360	63.9	11.4
E	390	43	330	<b>930</b>	<b>500</b>	555	312
X	390	140	<b>1,400</b>	<b>2,620</b>	<b>1,400</b>	<b>2,300</b>	293.6

MW-9	12/1/11	3/6/12	6/3/12	10/4/12	6/4/13	4/14/16	6/20/19
TPH-G	<b>1,000</b>	<b>1,800</b>	<b>7,200</b>	<b>22,200</b>	<b>8,300</b>	<b>36,500</b>	<b>16,500</b>
B	<b>110</b>	<b>460</b>	<b>1,600</b>	<b>4,630</b>	<b>1,800</b>	<b>4,250</b>	<b>4,390</b>
T	26	8.8	460	<b>1,340</b>	180	<b>1,030</b>	60.5
E	21	36	200	603	120	455	436
X	84	55	810	<b>3,600</b>	270	<b>2,620</b>	778.8

MW-24	12/1/11	3/6/12	6/3/12	10/4/12	6/4/13	4/12/16	6/26/19
TPH-G	<250	--	--	--	<80	<100	<50
B	<0.50	--	--	--	<0.20	<0.200	<1
T	<0.50	--	--	--	<0.50	<1.00	<1
E	<0.50	--	--	--	<0.50	<0.500	<1
X	<0.50	--	--	--	<1.0	<1.50	<1

MW-6	12/1/11	3/6/12	6/3/12	10/4/12	6/4/13
TPH-G	<250	--	--	--	<80
B	<0.50	--	--	--	<0.20
T	<0.50	--	--	--	<0.50
E	<0.50	--	--	--	<0.50
X	<0.50	--	--	--	<1.0

MW-20	6/4/13	4/13/16	6/20/19
TPH-G	<b>100,000</b>	<b>184,000</b>	<b>88,400</b>
B	<b>8,800</b>	<b>6,500</b>	<b>7,550</b>
T	<b>9,800</b>	<b>14,500</b>	<b>9,040</b>
E	<b>2,600</b>	<b>3,240</b>	<b>3,440</b>
X	<b>11,000</b>	<b>19,400</b>	<b>11,460</b>

MW-11	11/30/11	3/6/12	6/3/12	10/4/12	6/4/13	4/14/16	6/20/19
TPH-G	<250	--	--	--	<80	<100	<50
B	<b>20</b>	--	--	--	<0.20	<0.200	<1
T	27	--	--	--	<0.50	<1.00	<1
E	3.7	--	--	--	<0.50	<0.500	<1
X	16	--	--	--	<1.0	<1.50	2.50

MW-25	12/1/11	3/6/12	6/3/12	10/4/12	6/4/13	4/13/16	5/20/16	1/9/18	6/19/19
TPH-G	<250	--	--	--	<80	<b>2,820</b>	94.4	123	<50
B	<0.50	--	--	--	<0.20	<b>76.3</b>	<1.00	<1	<1
T	<0.50	--	--	--	<0.50	<1.00	<1.00	<1	<1
E	<0.50	--	--	--	<0.50	45.5	1.10	<1	1
X	<0.50	--	--	--	<1.0	101	1.08	1.60	1.60

MW-4	12/1/11	3/6/12	6/3/12	10/4/12	6/4/13	4/14/16	6/20/19
TPH-G	<b>SPH</b>	<b>74,000</b>	<b>75,000</b>	<b>116,000</b>	<b>120,000</b>	<b>106,000</b>	<b>66,000</b>
B	<b>SPH</b>	<b>4,700</b>	<b>6,900</b>	<b>13,800</b>	<b>7,000</b>	<b>3,170</b>	<b>8,310</b>
T	<b>SPH</b>	<b>5,800</b>	<b>9,700</b>	<b>13,200</b>	<b>6,400</b>	748	<b>5,910</b>
E	<b>SPH</b>	<b>2,000</b>	<b>2,000</b>	<b>2,570</b>	<b>2,400</b>	<b>1,740</b>	<b>1,620</b>
X	<b>SPH</b>	<b>16,000</b>	<b>13,000</b>	<b>14,900</b>	<b>19,000</b>	<b>9,130</b>	<b>6,890</b>

MW-3	12/1/11	3/6/12	6/3/12	10/4/12	6/4/13	4/12/16	6/26/19
TPH-G	<250	--	--	<50	<80	<100	<50
B	<0.50	--	--	<1	<0.20	<0.200	<1
T	<0.50	--	--	<1	<0.50	<1.00	<1
E	<0.50	--	--	<1	<0.50	<0.500	<1
X	<0.50	--	--	<3	<1.0	<1.50	<1

MW-2	11/30/11	3/6/12	6/3/12	10/4/12	6/4/13	4/12/16	6/20/19
TPH-G	<b>43,000</b>	<b>6,200</b>	<b>14,000</b>	<b>51,500</b>	<b>21,000</b>	<b>5,340</b>	<b>12,100</b>
B	<b>3,700</b>	<b>1,400</b>	<b>1,400</b>	<b>5,990</b>	<b>1,600</b>	211	<b>1,370</b>
T	<b>5,800</b>	68	<b>1,800</b>	<b>5,100</b>	<b>2,800</b>	16.1	627
E	<b>1,600</b>	250	550	<b>1,780</b>	<b>750</b>	73.1	452
X	<b>6,100</b>	230	<b>1,500</b>	<b>6,810</b>	<b>2,500</b>	106	<b>1,283</b>

MW-21	11/30/11	3/6/12	6/3/12	10/4/12	6/4/13	4/12/16	6/19/19
TPH-G	<250	--	--	--	<80	<100	<50
B	<0.50	--	--	--	<0.20	<0.200	<1
T	<0.50	--	--	--	<0.50	<1.00	<1
E	<0.50	--	--	--	<0.50	<0.500	<1
X	<0.50	--	--	--	<1.0	<1.50	<1

MW-12	11/29/11	3/6/12	6/3/12	10/4/12	6/4/13	4/14/16	6/19/19
TPH-G	<b>130,000</b>	<b>100,000</b>	<b>100,000</b>	<b>SPH</b>	<b>160,000</b>	<b>252,000</b>	<b>109,000</b>
B	<b>9,000</b>	<b>8,900</b>	<b>6,800</b>	<b>SPH</b>	<b>8,600</b>	<b>5,020</b>	<b>3,440</b>
T	<b>20,000</b>	<b>24,000</b>	<b>19,000</b>	<b>SPH</b>	<b>21,000</b>	<b>16,300</b>	<b>13,200</b>
E	<b>2,700</b>	<b>2,700</b>	<b>2,500</b>	<b>SPH</b>	<b>2,400</b>	<b>2,650</b>	<b>2,600</b>
X	<b>20,000</b>	<b>22,000</b>	<b>21,000</b>	<b>SPH</b>	<b>22,000</b>	<b>29,600</b>	<b>19,240</b>

MW-01	4/12/16	6/19/19
TPH-G	<100	<50
B	<0.200	<1
T	<1.00	<1
E	<0.500	<1
X	<1.50	<1

MW-14	11/30/11	3/6/12	6/3/12	10/4/12	6/4/13	4/12/16	6/19/19
TPH-G	<250	--	--	--	<80	<100	<50
B	<0.50	--	--	--	<0.20	<0.200	<1
T	<0.50	--	--	--	<0.50	<1.00	<1
E	<0.50	--	--	--	<0.50	<0.500	<1
X	<0.50	--	--	--	<1.0	<1.50	<1

MW-7	11/29/11	3/6/12	6/3/12	10/4/12	6/4/13	4/14/16	6/20/19
TPH-G	<b>110,000</b>	<b>100,000</b>	<b>71,000</b>	<b>129,000</b>	<b>140,000</b>	<b>214,000</b>	<b>105,000</b>
B	<b>6,200</b>	<b>4,300</b>	<b>6,600</b>	<b>9,350</b>	<b>8,200</b>	<b>5,730</b>	<b>8,440</b>
T	<b>15,000</b>	<b>13,000</b>	<b>13,000</b>	<b>12,600</b>	<b>14,000</b>	<b>12,500</b>	<b>8,820</b>
E	<b>2,400</b>	<b>1,800</b>	<b>2,100</b>	<b>2,320</b>	<b>2,200</b>	<b>2,400</b>	<b>2,160</b>
X	<b>23,000</b>	<b>18,000</b>	<b>19,000</b>	<b>22,100</b>	<b>23,000</b>	<b>24,900</b>	<b>15,470</b>

MW-13	11/30/11	3/6/12	6/3/12	10/4/12	6/4/13	4/14/16	6/19/19
TPH-G	<250	--	--	--	<80	<100	<50
B	<0.50	--	--	--	<0.20	<0.200	<1
T	<0.50	--	--	--	<0.50	<1.00	<1
E	<0.50	--	--	--	<0.50	<0.500	<1
X	<0.50	--	--	--	<1.0	<1.50	1.44

**LEGEND**

- APPROXIMATE BOUNDARY
- E ELECTRIC LINE
- SA SANITARY SEWER LINE
- UT UNDERGROUND TELEPHONE LINE
- W WATER LINE
- P SYSTEM PIPING
- PR PRODUCT LINE
- MW-03 MONITORING WELL (1992 & 2005)
- MW-20 MONITORING WELL (2007)
- EW-05 EXTRACTION WELL (1997-1999)
- IW-01 INJECTION WELL (1997-1999)

**ANALYTE**

WELL ID	ANALYTE
TPH-G	TOTAL PETROLEUM HYDROCARBONS GASOLINE RANGE
B	BENZENE
T	TOLUENE
E	ETHYL BENZENE
X	TOTAL XYLENES

NS NOT SAMPLED  
µg/L MICROGRAMS PER LITER  
**BOLD** EXCEEDS MTCA METHOD A CLEANUP LEVELS  
SPH SEPARATE PHASE HYDROCARBONS  
-- NOT MEASURED OR ANALYZED  
<0.20 NOT DETECTED ABOVE METHOD REPORTING LIMIT OF 0.20 µg/L  
ALL ANALYTICAL DATA REPORTED IN µg/L

← GENERALIZED GROUNDWATER GRADIENT AND DIRECTION. GROUNDWATER CONTOURS BASED ON JUNE 2019 DATA; SEE FIG-3i

0 60 120  
APPROXIMATE SCALE IN FEET

No warranty is made by Stantec as to the accuracy, reliability, or completeness of these data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed electronically, and may be updated without notification. Any reproduction may result in a loss of scale and/or information.

 11130 NE 33RD PLACE, SUITE 200 BELLEVUE, WASHINGTON PHONE: (425) 869-9448 FAX: (425) 869-1190	FOR: <b>THE HUNGRY WHALE</b> 1680 NORTH MONTESANO STREET WESTPORT, WASHINGTON	<b>GROUNDWATER ANALYTICAL RESULTS (2011-2019) AND GRADIENT MAP (JUNE 2019)</b>		FIGURE: <b>4</b>
	JOB NUMBER: 185751088	DRAWN BY: MDR	CHECKED BY: CBS	APPROVED BY: MS

# APPENDIX B

## Project Approvals/Issued Permits – Department of Ecology





**STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY**

**Southwest Regional Office**

PO Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300

***STATE ENVIRONMENTAL POLICY ACT*  
DETERMINATION OF NONSIGNIFICANCE**

**Date of Issuance:** May 3, 2022

**Lead agency:** Department of Ecology, Toxics Cleanup Program, Southwest Region

**Agency Contact:** Andrew Smith  
Cleanup Project Manager  
[andrew.smith@ecy.wa.gov](mailto:andrew.smith@ecy.wa.gov)  
(360)-407-6316

**Permit Number:** Work is to be performed under the authority of a Model Toxics Control Act Agreed Order No. DE 20344

**Description of proposal:**

The project consists of decommissioning the Hungry Whale Site and a remedial action consisting of excavating contaminated soil and dewatering contaminated groundwater from the excavation. This action is required by the Department of Ecology (Ecology) through an Agreed Order between the Port of Grays Harbor and Ecology.

Decommissioning will include removal of the convenience store, all underground storage tanks (USTs), and one fuel dispenser island equipped with four fuel dispensers. In addition, the product lines, vent lines, canopy, and canopy footings will be removed.

A remedial excavation will be implemented to remove soils contaminated with petroleum. The current projection is that up to 5,200 cubic yards (CY) of soil may be excavated and transported off-site for disposal. In addition to soil excavation, remedial actions will include pumping contaminated groundwater from the excavation. The contaminated groundwater will be treated with activated carbon to remove contaminants before being discharged under a Department of Ecology General Construction Stormwater Permit to the City of Westport stormwater system. The excavation will be backfilled with clean construction fill to site grade.

The groundwater will be monitored following the remedial action to assess the condition of the groundwater with respect to contamination. An environmental covenant will be placed on the property if it is determined that soil or groundwater contamination remains on the site.

**Location of proposal:** The work will be employed at 1680 N. Montesano St, Westport, WA.

**Applicant/Proponent:** Port of Grays Harbor

**Project Representative:** Randy Lewis  
Director of Health, Safety, and Environment  
PO Box 660  
Aberdeen, WA 98520  
360-533-9513  
[rlewis@portgrays.org](mailto:rlewis@portgrays.org)

Ecology has determined that this proposal will not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). We have reviewed the attached Environmental Checklist, as well as the Remedial Investigation/Feasibility Study and Public Review Draft Cleanup Action Plan.

**These documents are available at:**

Port of Grays Harbor Main Office 111 S Wooding St Aberdeen, WA 98520	Westport Timberland Library 101 E. Harms Drive Westport, WA 98595	Ecology Lacey Office (by appointment) 300 Desmond Drive SE Lacey, WA 98503
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**This determination is based on the following findings and conclusions:**

- The project will reduce concentrations of petroleum hydrocarbons and constituents in the soil and groundwater.
- Engineering design documents will be prepared and approved by Ecology to ensure all on-site work will be performed in accordance with applicable standards and use of best management construction and erosion control practices.
- Contaminated soils will be managed in accordance with a previously-approved (by Ecology) soils testing and disposal plan.
- The work will be conducted under the requirements of a construction stormwater NPDES permit, which requires adherence with a stormwater pollution prevention plan.
- The Ecology cleanup project manager will provide oversight during project construction.

The comment period for this DNS corresponds with the comment period for the Remedial Investigation/Feasibility Study, Public Review Draft Cleanup Action Plan, and associated Agreed Order. The comment period begins on June 2, 2022, and ends on July 5, 2022.

**Responsible Official:** Rebecca S. Lawson, P.E., LHG  
Section Manager  
Toxics Cleanup Program  
Southwest Regional Office  
Department of Ecology  
P.O. Box 47775  
Olympia, WA 98504-7600  
360-407-6241  
[rebecca.lawson@ecy.wa.gov](mailto:rebecca.lawson@ecy.wa.gov)

Signature: 

Date: May 3, 2022



**DNS Letter Attachment - SEPA Checklist (7/15/2021)**

# SEPA ENVIRONMENTAL CHECKLIST

## ***Purpose of checklist:***

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

## ***Instructions for applicants:***

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

## ***Instructions for Lead Agencies:***

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

## ***Use of checklist for nonproject proposals:***

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the [SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS \(part D\)](#). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

## ***A. Background*** [\[HELP\]](#)

1. Name of proposed project, if applicable:

**The Hungry Whale Site**

2. Name of applicant:

**The Port of Grays Harbor**

3. Address and phone number of applicant and contact person:

**Port of Grays Harbor  
PO Box 660  
Aberdeen, WA 98520  
Contact: Randy Lewis  
360.533.9513**

4. Date checklist prepared:

**July 15, 2021**

5. Agency requesting checklist:

**Washington Department of Ecology**

6. Proposed timing or schedule (including phasing, if applicable):

**Construction is planned for August through September 2022. There are several approvals and permits required which may delay construction until the same period in 2023**

7. Do you have any plans for future addition, or further activity related to or connected with this proposal? If yes, explain.

**No. The current facility is to be removed and made available for redevelopment by a future developer.**

**No current redevelopment plans**

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

**A detailed summary of the environmental history of the Site is provided in the following document (publicly available on The Department of Ecology's Clean-up Site List)**

**<https://apps.ecology.wa.gov/gsp/Sitepage.aspx?csid=4988> :**

**Environmental Information currently prepared:**

- **Remedial Investigation and Feasibility Study (RIFS) The Hungry Whale dated April 22, 2020**
- **Clean up Action Plan (dCAP) The Hungry Whale dated July 15, 2021**

**Environmental Information to be prepared:**

- **A UST Closure and Site Assessment will be prepared following Site decommissioning. USTs will be closed in accordance with Washington Department of Ecology (Ecology) document: 'Guidance for Site Checks and Site**

**Assessments for Underground Storage Tanks' (Ecology, February 1991 (revised October 2018)). Site assessment activities to be completed by a certified Washington State Site Assessor (8025441-U7) as required by Washington Administrative Code (WAC) 173-360-610**

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

- **There are no other proposals directly affecting the property**

10. List any government approvals or permits that will be needed for your proposal, if known.

**Several permits approvals will follow the SEPA approval:**

- **Olympic Region Clean Air Agency (ORCAA) demolition permit;**
- **Department of Ecology (Ecology) Construction Stormwater General Permit**
- **Department of Ecology 30-Day Notice for Underground Storage Tank System**

**The City of Westport will require:**

- **A demolition permit;**
- **Permits to cap sewer and water lines;**
- **A fill and grade permit**

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

**The project consists of decommissioning the Hungry Whale Site and a remedial action consisting of excavating contaminated soil and dewatering contaminated groundwater from the excavation. This action is required by the Department of Ecology (Ecology) through an Agreed Order between the Port of Grays Harbor and Ecology.**

**Decommissioning will include removal of the convenience store, the underground storage tank (UST) and one fuel dispenser island equipped with four fuel dispensers. In addition, the product lines, vent lines, canopy and canopy footings will be removed.**

**A remedial excavation will be implemented to remove soils contaminated with petroleum. The current projection is that up to 5,200 cubic yards (CY) of soil may be excavated and transported off-site for disposal. In addition to soil excavation, remedial actions will include pumping contaminated groundwater from the excavation. The groundwater will be treated with activated carbon to remove contaminants before being discharged under a Department of Ecology General Construction Stormwater Permit to the City of Westport stormwater system.**

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you

are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

Project Location:

**1680 N Montesano Street, Westport WA. The property is the northeast quarter of the southeast quarter of Section 1, Township 16 North, Range 12 West. See attached Figure X**

**B. Environmental Elements** [\[HELP\]](#)

**1. Earth** [\[help\]](#)

a. General description of the site:

(circle one): Flat, rolling, hilly, steep slopes, mountainous, other \_\_\_\_\_

b. What is the steepest slope on the site (approximate percent slope)?

**The topographic surface of the site is relatively flat with elevations ranging from 12.5 to 14 feet above mean sea level (msl). Based on these measurements the slope on the site does not exceed approximately 2 %.**

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

**Based on boring logs, the near surface material (ground surface approximately 5 feet) consists of fine-grained sand with minor silt and gravel, interpreted to be fill or marsh deposits. In the center and southeastern parts of the property a silty clay/clayey silt layer has been observed at the base of the fill/marsh deposits at depths of approximately 6.5 feet. This layer may be representative of dredged marsh or tidal flat sediments that were historically imported as fill. The thickness of the fill decreases significantly beyond the property limits. Soils beneath the fill material were observed at depths greater than approximately 7 feet and consist of fine to medium sand with varying amounts of silt, interpreted to be eolian and/or shallow marine deposits. The maximum depth explored was 30 feet in one soil boring (approximately twice as deep as the other borings).**

**The proposed remedial excavation will extend to a maximum depth of 12 feet.**

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

**No**

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

The project includes decommissioning and removal of one, 20,000-gallon UST with three compartments (10,000-gallon gasoline, 6,000-gallon gasoline and 4,000-gallon diesel). In addition, the product lines, vent lines, dispenser island, canopy and canopy footings will be removed. Excavations for removal of these improvements will be subsequently backfilled and compacted and the surface will be finished with gravel.

The maximum quantity of disturbed soils is currently estimated at up to 5,200 cubic yards (CY). During the remedial excavation, soils will be field screened and if soils are determined to be free of petroleum hydrocarbons those soils will not be excavated and this will result in excavation of less than 5,200 CY. All of the excavated areas will be backfilled with clean imported soil. The quantity of backfill will not exceed 5,200 CY and will depend on the actual volume of soil excavated.

- **Maximum Total Area Excavated: 14,800 ft<sup>2</sup> (see Figure 12 attached with maximum area shown)**
- **Type of Backfill: Clean structural fill that will be compacted to 95%**
- **Source of Backfill: Source to be determined by the contractor**
- **Area to be resurfaced with gravel (equal total disturbed) 14,000 ft<sup>2</sup>**

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

**Erosion could occur during excavation activities and/or while soil is stockpiled for transportation to the disposal facility.**

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

**If the maximum area (14,800 ft<sup>2</sup>) is disturbed approximately 30% of the site will remain undisturbed and covered with asphalt or buildings. The remaining 70% of the area will be finished with gravel cover.**

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

**The excavation work is planned for mid-August through end of September 2022. This period is typically free of significant rainfall and the lack of rainfall will reduce and control erosion.**

**Catch basin protection will be installed in all catch basins located on the Site. Stockpiled soils will be placed on and covered with visqueen.**

## **2. Air** [\[help\]](#)

- a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

**Minimal dust and emissions from construction equipment will occur during construction.**

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

No

- c. Proposed measures to reduce or control emissions or other impacts to air, if any:

**Appropriate dust control measures (e.g., soil wetting and/or application of Simple Green™ for odor control if needed) will be implemented during excavation activities. Vehicles and equipment will be equipped with emission control equipment.**

### **3. Water** [\[help\]](#)

- a. Surface Water: [\[help\]](#)

**The property is situated near a large barrier beach at the end of a peninsula that is surrounded by Grays Harbor (approximately 800 feet to the east) and the Pacific Ocean (approximately 0.8 miles to the west). Grays Harbor is the closest surface water body to the property. Based on the distance of the surface water bodies from the property and the lack of a surface water conduit, the Pacific Ocean and Grays Harbor will not be impacted by run-off from the property during construction.**

- 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

**No streams, saltwater, lakes, ponds or wetlands immediately adjacent to the property.**

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

**There are open stormwater ditches which are part of the City of Westport's stormwater system within 200 feet of the property. These ditches direct water to two stormwater retention ponds before eventually directing stormwater through a tide gate connected to tidelands adjacent to Grays Harbor. The location of these ditches are shown on a site plan (attached) to be submitted to the Department of Ecology as part of a submittal package to secure a Construction Stormwater General permit. Further details regarding treatment of water pumped to the stormwater ditch is provided in the answer to Question # 6 below.**

- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

**Not applicable**

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

No

- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

No

- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

**The project involves excavating soils to a maximum depth of 12 feet throughout the property. Groundwater levels are at an approximate depth of 7 feet and will infiltrate the excavation. Groundwater entering the excavation will need to be pumped out of the excavation to facilitate soil removal. The water pumped from the excavation will be contaminated with gasoline. The contaminated water will be run through an on-site water treatment system equipped with a two-stage treatment system of activated carbon vessels to remove contamination before discharge to the City of Westport stormwater system. Samples of the treated groundwater will be collected from the discharge end of the treatment system and submitted for analysis. The treatment system is designed to remove over 99% of contaminants from the water and meet discharge levels suitable for acceptance to the City of Westport's stormwater system.**

**The total volume of groundwater to be removed and the pumping rate is currently being determined. Initial calculations indicate a flow rate of less than 100 gallons per minute.**

**A schematic figure of the water treatment system is attached and will be provided to the Department of Ecology in a submittal to secure a Construction Stormwater Discharge permit.**

b. Ground Water: [\[help\]](#)

- 1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.

**No – groundwater will not be withdrawn for drinking water or other purposes.  
No water will be discharged to groundwater.**

- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . .; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

**None**

c. Water runoff (including stormwater):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

**Runoff is directed to two on-site catch basins situated on the north side of the property near Wilson Avenue. Prior to excavation activities a catch basin bag filter will be placed in each catch basin. Water within the catch basin flows to the City of Westport Stormwater system consisting of open ditches running along Montesano Street and Wilson Avenue.**



2) Could waste materials enter ground or surface waters? If so, generally describe.

**No – the pumped groundwater will be treated.**

3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

**No – the open stormwater ditches are designed to accept the currently estimated flow volume of less than 100 gallons per minute pumped from the excavation.**

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

**Excavation may be completed in sections approximately 40' by 40' if needed to limit the dewatering flow rate.**

**Excavation is planned for mid-August 2022, this is a the 'dry season' when groundwater is typically at its lowest level. As a result, less groundwater will require removal than if the excavation was implemented during a wetter period.**

**There will less surface and runoff water to manage because of lack of rainfall in August.**

#### 4. **Plants** [\[help\]](#)

a. Check the types of vegetation found on the site:

- deciduous tree: alder, maple, aspen, other
- evergreen tree: fir, cedar, pine, other
- shrubs
- grass
- pasture
- crop or grain
- Orchards, vineyards or other permanent crops.
- wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
- water plants: water lily, eelgrass, milfoil, other
- other types of vegetation (weeds)

**The entire site is covered with either buildings, concrete or asphalt. There are no planters or vegetated landscaping. Any vegetation is at the edges of the property.**

b. What kind and amount of vegetation will be removed or altered?

**Project activity will be limited to paved and gravel lot areas. No vegetation on or near the site will be removed.**

c. List threatened and endangered species known to be on or near the site.

**A review of the USFWS IPaC resource list report for the site and the Washington Department of Natural Resources' Washington Natural Heritage Program Element Occurrences GIS Open Data**

**( <https://data-wadnr.opendata.arcgis.com/datasets/washington-natural-heritage-program-element-occurrences-current/explore> )**

**indicates no federally listed plant species on or near the site.**

- d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

**Because the project activities will be conducted in paved and gravel lot areas, no vegetation will be disturbed, and no additional landscaping will be conducted.**

- e. List all noxious weeds and invasive species known to be on or near the site.

**On the parcel: Field bindweed, Himalayan blackberry (both Class C)**

**In adjacent parcels: Scotch broom, Reed canary grass (both Class C)**

## **5. Animals** [\[help\]](#)

- a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site.

**Birds: Various nearby local waterfowl and shorebirds, Bald Eagles, various songbirds (sparrows, towhees, robins, juncos, finches) Mammals: raccoons, gray squirrels.**

**Fish: none, Project Site is 1,000 feet from Grays Harbor waters.**

- b. List any threatened and endangered species known to be on or near the site.

**Review of the USFWS IPaC resource list report for the site indicates the following federally listed species to be potentially present within the Project Area: Marbled Murrelet, Streaked Horned Lark, Western Snowy Plover, Yellow-billed Cuckoo, Bull Trout, and Oregon Silverspot Butterfly. A review of the WDF&W PHS website indicated there are no Priority Habitats for these species at this Site location.**

- **Murrelets** nest in forested stands varying in size from several acres to thousands of acres. However, larger, unfragmented stands of old growth appear to be the highest quality habitat for marbled murrelet nesting. Forested habitat is not present in Project Area, which is located in a commercial urban area. The nearest critical habitat is located approximately 7.75 miles southeast of the Project Area.
- **Streaked horned larks** breeding and nesting habitat consists of large expanses of grass-dominated habitat, such as airports or native prairies, with very few trees or woody shrubs. The Project Area does not offer this habitat. The nearest critical habitat is located approximately 3.5 miles north of the Project Area at Damon Point and Oyhut Wildlife Recreation Area.
- **Western Snowy Plovers** snowy plovers are found (in any season) on coastal beaches, sand spits, dune-backed beaches, and sparsely vegetated dunes. They nest on the ground on broad open beaches or salt or dry mud flats, where vegetation is sparse or absent. The Project area does not offer this habitat. The

nearest critical habitat is located approximately 3.5 miles north of the Project Area at Damon Point and Oyhut Wildlife Recreation Area.

- The **Western Yellow-Billed Cuckoo** nesting occurs almost exclusively in low to moderate elevation mature riparian woodlands dominated by cottonwoods and willows, covering 50 acres or more. Given these requirements, there is no suitable breeding habitat currently present or available within the proposed Project Area.
- **Bull Trout** are present in Grays Harbor waters. Bull trout utilize these waters for foraging, migration, and overwintering habitat. Approximately 143.0 km (88.8 mi) of nearshore marine habitat in Grays Harbor and 327 km (203.1 mi) of rivers draining into Grays Harbor are designated as critical habitat.
- **Oregon Silverspot Butterfly** populations are restricted to the immediate coast, centered around salt-spray meadows, or within a few miles of the coastline in similar meadow-type habitat. The Washington population is restricted to one small area on the Long Beach peninsula, where intensive searches have revealed few adult butterflies. The most recent surveys in 1991 found no butterflies. It is likely that there is no longer a viable population in Washington.

c. Is the site part of a migration route? If so, explain.

**Grays Harbor is located on the Pacific Flyway for migratory waterfowl. The project site offers no habitat for migrating birds. The USFSW IPaC resource list report for the site indicates that a number of migratory birds that occur on USFWS Birds of Conservation Concern and Bald and Golden Eagle Protection Act could be within the vicinity of the project location. These include: Bald Eagle, Black Oystercatcher, Black Turnstone, Clark's Grebe, Great Blue Heron, Lesser Yellowlegs, Long-billed Curlew, Marbled Godwit, Olive-sided Flycatcher, Red-throated Loon, Rufous Hummingbird, Semipalmated Sandpiper, Short-billed Dowitcher, Whimbrel, and Willet. Additionally, the state-listed American white pelican may also be found in the Grays Harbor area. These shorebird and marine species would be concentrated in the estuarine wetlands and salt marshes bordering the nearby South Bay (Elk River estuary) and along the jetties at the Mouth of Grays Harbor.**

d. Proposed measures to preserve or enhance wildlife, if any:

**Activities within the Site will be conducted in paved and gravel lot areas around building structures. No wildlife habitat is present on the site; therefore, no additional habitat preservation or enhancement will be conducted.**

e. List any invasive animal species known to be on or near the site.

**No invasive animal species are known to be on or near the site.**

## **6. Energy and Natural Resources** [\[help\]](#)

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

**Gasoline and diesel will be required for the excavation and trucking equipment used**

during the demolition/removal of the convenience store, other structures and underground storage tanks (USTs). The area will be left as a level unpaved lot and will not require any additional energy needs.

- b. Would your project affect the potential use of solar energy by adjacent properties?  
If so, generally describe.

No

- c. What kinds of energy conservation features are included in the plans of this proposal?  
List other proposed measures to reduce or control energy impacts, if any:

**Construction vehicle idling will be minimized to reduce gasoline and diesel consumption.**

## **7. Environmental Health** [\[help\]](#)

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal?  
If so, describe.

Fuel in the UST will be removed, and the tank will be triple rinsed and inerted prior to removal from the ground; environmental hazards associated with the tank will be minimal. The likelihood of a spill occurring during removal of the fuel from the USTs is remote. However, in the event that a spill occurs, the risk of fire/explosion will be minimized by use of safety controls such as: spill kits, the implementation of BMPs, and the presence of a vacuum truck to vacuum spilled contents. Stantec will be on-site to monitor vapors with a photoionization detector (PID). When the PID readings indicate soil impacted with petroleum is encountered, Stantec will direct staff and contractors on the appropriate action and will comply with company, City, State, and Federal health and safety and reporting protocols. Soil impacted with petroleum will either be placed directly in trucks and hauled for off-site disposal at a facility authorized and permitted to receive such wastes or placed on and under visqueen plastic sheeting to prevent material from being washed into storm drains by rain or wind.

It is anticipated that groundwater impacted with petroleum hydrocarbons will be encountered. This groundwater will be pumped from the excavation and through a treatment system designed to remove contaminants before discharge to the City of Westport Stormwater system. Section 3 of this application describes the treatment system.

- 1) Describe any known or possible contamination at the site from present or past uses.

Subsurface soil and groundwater are impacted with petroleum hydrocarbons as a result of a historical release from the former UST(s). The release(s) appears to have occurred in 1986 when approximately 2,000 gallons of gasoline were released from a leaking product line. The horizontal extent of impacted soil and groundwater is throughout the site, the vertical extent of impacted soils varies throughout the site and is encountered from a depth of approximately 2 feet below ground surface to an approximate depth of 12 feet. Figure 4 and Figure 6 (both attached) show the extent of soil and groundwater contamination.

**A detailed summary of the environmental history of the Site is provided in the following document (publicly available on The Department of Ecology's Clean-up Site List):**

**Most recent environmental information is located in these reports:**

- **Remedial Investigation and Feasibility Study (RIFS) The Hungry Whale dated April 22, 2020**
  - **Draft Clean up Action Plan (dCAP) The Hungry Whale submitted on July 15, 2021**
- 2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

**Asbestos: A pre-demolition asbestos survey was recently completed by a certified hazardous materials inspector. The survey identified asbestos containing material (ACM) in the flooring of the convenience store. A plan for removal and disposal of the identified materials will be submitted to Olympic Regional Clean Air Authority along with the demolition permit application.**

**They survey included testing for lead, which was not found in any of the samples taken and analyzed.**

**The existing fueling system consists of one 20,000-gallon UST with three compartments (10,000-gallon gasoline, 6,000-gallon gasoline and 4,000-gallon diesel).**

- 3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

**As described above the site stores gasoline and diesel in separate compartments in a 20,000-gallon UST.**

- 4) Describe special emergency services that might be required.

**The Westport Fire Department will be notified prior to removal of the UST.**

- 5) Proposed measures to reduce or control environmental health hazards, if any:

**Proper fuel transfer methods will be used during removal of tank contents. Tank removal will be supervised by an ICC-certified UST Supervisor and tanks will be inerted and certified as safe for removal**

*b. Noise*

- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

**Noise in the area includes street traffic, which will not affect the project**

- 2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)?  
Indicate what hours noise would come from the site.

**Short-term noise from construction equipment will occur between the hours of 7:00 am and 6:00 pm and will cease at the completion of the project.**

- 3) Proposed measures to reduce or control noise impacts, if any:

**Construction equipment will be equipped with appropriate muffler devices to limit noise, and equipment will not remain at idle unnecessarily**

## **8. Land and Shoreline Use** [\[help\]](#)

- a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

**The site is bound by:**

- **East/Northeast: A vacant restaurant with vacant land adjacent.**
- **North/Northeast: Wilson Avenue with vacant land to the northeast and Westport Shipyards further to the northwest.**
- **West/Northwest: Northwest and across the intersection of Montesano Street and Wilson Avenue is the 79-acre open space Westhaven State Park. West there is Montesano Street and across the street Englund Marine and Industrial Supply. Further northwest is an RV park**
- **South/Southwest: Vacant land followed by a former go-cart track and then further south Ocean Cold LLC (a cold storage seafood warehouse)**

**These adjacent parcels should not be affected by the short-term nature of proposed work at the site.**

- b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

**The site was vacant undeveloped land before being developed into a gas station/convenience store in 1976. The site is currently paved commercial land.**

- 1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:

**No**

c. Describe any structures on the site.

**All areas are approximate. There is a 2,000 square foot convenience store, a 3,000 square foot storage building, a 1,500 square foot residence and a 400 square foot canopy.**

d. Will any structures be demolished? If so, what?

**The convenience store and canopy are the only structures currently designated for demolition.**

e. What is the current zoning classification of the site?

**Mixed-Use Tourist Commercial 1 (MUTC-1)**

f. What is the current comprehensive plan designation of the site?

**Mixed-Use Tourist Commercial 1 (MUTC-1)**

g. If applicable, what is the current shoreline master program designation of the site?

**The Project Site area is outside of the City of Westport Shoreline Master Program designated shorelines. The site is approximately 700 feet from the High Intensity Shoreline to the northeast, and 750 feet from the High Intensity Shoreline to the southeast.**

h. Has any part of the site been classified as a critical area by the city or county? If so, specify.  
**The Project Site is not classified as a critical area by the City of Westport or Grays Harbor county. The nearest critical area is a wetland area approximately 415 feet to the west in Westport Light State Park.**

i. Approximately how many people would reside or work in the completed project?

**None. Redevelopment plans for the site have not yet been proposed.**

j. Approximately how many people would the completed project displace?

**Up to ten people (part-time and full-time). People working at the convenience store may be offered employment at other businesses operated by the current leaseholder or future developer.**

k. Proposed measures to avoid or reduce displacement impacts, if any:

**The purpose of the project is to remediate the site by removing contamination to prevent impacts to human health and the environment. This action is required by the Department of Ecology through an Agreed Order between the Port of Grays Harbor and Ecology.**

**Remedial action to comply with the Order requires removal of the facilities and displacement impacts cannot be avoided.**

L. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

**Project is consistent with zoning (Mixed Use Tourist Commercial 1). The remedial excavation will result in a property suitable for redevelopment compatible with the current zoning.**

m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:

**No agricultural and forest lands in the vicinity.**

### **9. Housing** [\[help\]](#)

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

**Not applicable, the proposed project does not create any new housing on the commercially developed lot.**

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

**N/A**

c. Proposed measures to reduce or control housing impacts, if any:

**N/A**

### **10. Aesthetics** [\[help\]](#)

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

**The site will be completed as a level unpaved lot.**

b. What views in the immediate vicinity would be altered or obstructed?

**None**

b. Proposed measures to reduce or control aesthetic impacts, if any:

**The site will be fenced to prevent dumping or accumulation of debris.**

### **11. Light and Glare** [\[help\]](#)

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?



N/A

b. Could light or glare from the finished project be a safety hazard or interfere with views?

N/A

c. What existing off-site sources of light or glare may affect your proposal?

N/A

d. Proposed measures to reduce or control light and glare impacts, if any:

N/A

## 12. Recreation [\[help\]](#)

a. What designated and informal recreational opportunities are in the immediate vicinity?

**There is a boat launch situated approximately 500 feet northeast of the site. It is accessed by Wilson Ave.**

b. Would the proposed project displace any existing recreational uses? If so, describe.

No

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

**No recreational opportunities will be displaced by the project**

## 13. Historic and cultural preservation [\[help\]](#)

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers? If so, specifically describe.

No

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

**A Draft Department of Ecology Inadvertent Discovery Plan (IDP) has been completed and submitted to Ecology for review. As part of the submittal, a record search was conducted by an archaeologist who determined that no archaeological sites, NRHP or State register properties, cemeteries, or TCPs have been previously reported on or adjacent to the property and that the existing buildings or structures on or adjacent to the parcel have not been inventoried. One maritime resource polygon encompasses the area, but there**

were no associated records identified during the search. The nearest surveys (1691547 and 1347428) yielded no identified resources.

- c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

**A Department of Ecology formal Cultural Resource Review (Executive 05-05 or Section 106) was completed and a Draft Inadvertent Discovery Plan has been submitted to Ecology. The Draft IDP provides the names of tribes requiring consultation and specifies procedures to perform in the event of a discovery of archaeological materials or human remains, in accordance with applicable state and federal laws. Once finalized, the IDP will be kept at the project site during all project activities. All staff and contractors, will be familiar with its contents and know where to find it**

- d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

**No permits are required. The Draft IDP provides measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources.**

#### **14. Transportation** [\[help\]](#)

- a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.

**Access to the property is via either Montesano Street or Wilson Avenue as shown on Figure 2 (attached).**

- b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

**Grays Harbor Transit operates a bus service in the area. There are no transit stops within at least 0.5 miles of the site.**

- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?

**The site will be left as an unpaved open lot ready for development. The current parking spaces will be eliminated but not needed as no facilities will remain after completion.**

- d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).

**No**

- e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

**No**

- f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would

be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?

**No vehicular trips generated by completed project – vacant unpaved lot.**

g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

**No**

i. Proposed measures to reduce or control transportation impacts, if any:

**Do not anticipate transportation impacts therefore no proposed measures.**

**15. Public Services** [\[help\]](#)

a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.

**No**

b. Proposed measures to reduce or control direct impacts on public services, if any.

**N/A**

**16. Utilities** [\[help\]](#)

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other \_\_\_\_\_

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

**No new utilities are proposed. The planned work includes removing the 20,000-gallon UST, convenience store, product lines, vent lines, dispensers, and canopy.**

**C. Signature** [\[HELP\]](#)

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature:  \_\_\_\_\_

Name of signee Randy D. Lewis

Position and Agency/Organization Director of Environmental & Engineering Services

Date Submitted: July 15, 2021



STATE OF WASHINGTON  
**DEPARTMENT OF ECOLOGY**

PO Box 47600, Olympia, WA 98504-7600 • 360-407-6000

April 18, 2023

Gary Nelson  
Port of Grays Harbor, Washington  
PO Box 660  
Aberdeen, WA 98520

**RE: Coverage under the Construction Stormwater General Permit (CSWGP)**

**Permit number:** WAR312143  
**Site Name:** Hungry Whale Grocery  
**Location:** 1680 North Montesano St  
Westport County: Grays Harbor  
**Disturbed Acres:** 0.34

Dear Gary Nelson:

The Washington State Department of Ecology (Ecology) received your Notice of Intent for coverage under Ecology's Construction Stormwater General Permit (CSWGP). This is your permit coverage letter. Your permit coverage is effective April 18, 2023.

Retain this letter as an official record of permit coverage for your site. You may keep your records in electronic format if you can easily access them from your construction site. You can get the CSWGP, permit forms, and other information at Ecology's [CSWGP eCoverage Packet webpage](#)<sup>1</sup>. Contact your Permit Administrator, listed below, if you want a copy of the CSWGP mailed to you. Please read the permit and contact Ecology if you have any questions.

#### **Additional Monitoring**

Please refer to the attached Administrative Order, number 21690, for additional monitoring requirements.

#### **Electronic Discharge Monitoring Reports (WQWebDMR)**

This permit requires you to submit monthly discharge monitoring reports (DMRs) for the full duration of permit coverage (from first full month of coverage to termination). Your first sampling and reporting period will be for the month of **May** and your first DMR must be submitted by **June 15, 2023**. You must submit DMRs electronically using Ecology's secure online

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<sup>1</sup> <http://www.ecology.wa.gov/eCoverage-packet>

Gary Nelson  
April 18, 2023  
Page 2

system, WQWebDMR. To sign up for WQWebDMR go to Ecology's [WQWebPortal guidance webpage](#)<sup>2</sup>. If you have questions, contact the portal staff at (360) 407-7097 (Olympia area), or (800) 633-6193/option 3, or email [WQWebPortal@ecy.wa.gov](mailto:WQWebPortal@ecy.wa.gov).

### **Appeal Process**

You have a right to appeal coverage under the general permit to the Pollution Control Hearing Board (PCHB). Appeals must be filed within 30 days of the date of receipt of this letter. Any appeal is limited to the general permit's applicability or non-applicability to a specific discharger. The appeal process is governed by chapter 43.21B RCW and chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2). For more information regarding your right to appeal, please reference Ecology's Focus Sheet: [Appeal of General Permit Coverage](#)<sup>3</sup>.

### **Annual Permit Fees**

RCW 90.48.465 requires Ecology to recover the costs of managing the permit program. Permit fees are invoiced annually until the permit is terminated. Termination conditions are described in the permit. For permit fee related questions, please contact the Water Quality Fee Unit at [wqfeeunit@ecy.wa.gov](mailto:wqfeeunit@ecy.wa.gov) or (800) 633-6193, Option 2.

### **Ecology Field Inspector Assistance**

If you have questions regarding stormwater management at your construction site, please contact your Regional Inspector, Evan Wood of Ecology's Southwest Regional Office in Lacey at [evan.wood@ecy.wa.gov](mailto:evan.wood@ecy.wa.gov), or (360) 706-4599.

### **Questions or Additional Information**

Ecology is here to help. Please review our [Construction Stormwater General Permit webpage](#)<sup>4</sup> for more information. If you have questions about the Construction Stormwater General Permit, please contact your Permit Administrator, Joyce Smith at [joyce.smith@ecy.wa.gov](mailto:joyce.smith@ecy.wa.gov), or (360) 628-2138.

Sincerely,



Jeff Killelea, Manager  
Program Development Services Section  
Water Quality Program

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<sup>2</sup> <https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Water-quality-permits-guidance/WQWebPortal-guidance>

<sup>3</sup> <https://apps.ecology.wa.gov/publications/summarypages/1710007.html>

<sup>4</sup> [www.ecology.wa.gov/constructionstormwaterpermit](http://www.ecology.wa.gov/constructionstormwaterpermit)

**From:** [Wood, Evan \(ECY\)](#)  
**To:** [Sauze, Marc](#)  
**Subject:** FW: Hungry Whale Treatment System Review - Technical Memo: Request for Approval  
**Date:** Wednesday, July 12, 2023 2:15:22 PM  
**Attachments:** [~WRD3183.jpg](#)  
[Technical Memo - Hungry Whale Cleanup Dewatering System.pdf](#)

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Hey Marc,

The engineers had time to review you submitted memo and they have approved the treatment system, see previous email in this chain. Please keep a copy of this email approval for your records. Let me know when you get going out there so I can stop by and check it out. Let me know if you have any questions.

Thank you,

**Evan Wood** (He/Him)

Contaminated Construction Stormwater Inspector  
Department of Ecology | SW Regional Office | Water Quality Program  
(360) 706-4599 cell | Email [ewoo461@ecy.wa.gov](mailto:ewoo461@ecy.wa.gov)  
Tuesday-Friday 7:00 AM - 5:30 PM

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**From:** Eberl, Steve (ECY) <SEBE461@ECY.WA.GOV>  
**Sent:** Wednesday, July 12, 2023 1:33 PM  
**To:** Wood, Evan (ECY) <ewoo461@ECY.WA.GOV>  
**Cc:** Diamant, John (ECY) <JDIA461@ECY.WA.GOV>; Moseley, Will J. (ECY) <wmos461@ECY.WA.GOV>  
**Subject:** FW: Hungry Whale Treatment System Review - Technical Memo: Request for Approval

Good afternoon Evan,

I reviewed the attached technical memo dated July 7, 2023, submitted by Stantec Consulting Services. The memo addresses the items I had questions on, and the proposed treatment system should be successful at meeting the Indicator levels in Table 1 of the administrative order.

Testing prior to discharge will confirm the Indicator levels are not exceeded and the system is anticipated to be completed in about three weeks. Please consider this email as my approval.

Steven G. Eberl, P.E.

Supervisor, Industrial Operations  
Water Quality Program Southwest Regional Office  
Washington State Department of Ecology  
(564) 999-3584 agency cell  
[sebe461@ecy.wa.gov](mailto:sebe461@ecy.wa.gov)

Washington Civil Engineer license No: 26772  
Expiration: 09-11-2023

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**From:** Wood, Evan (ECY) <[ewoo461@ECY.WA.GOV](mailto:ewoo461@ECY.WA.GOV)>  
**Sent:** Wednesday, July 12, 2023 8:43 AM  
**To:** Moseley, Will J. (ECY) <[wmos461@ECY.WA.GOV](mailto:wmos461@ECY.WA.GOV)>  
**Cc:** Diamant, John (ECY) <[JDIA461@ECY.WA.GOV](mailto:JDIA461@ECY.WA.GOV)>; Eberl, Steve (ECY) <[SEBE461@ECY.WA.GOV](mailto:SEBE461@ECY.WA.GOV)>  
**Subject:** FW: Hungry Whale Treatment System Review - Technical Memo: Request for Approval

Good Morning Engineer Team,

My permittee at the Hungry Whale got back to me with a technical memo that hopefully answers the questions you had. Please look this over when you get a chance and let me know if there is anything else that we will need from them in order to approve this temporary treatment system. If we have more back and forth that needs to happen I can schedule a meeting with all of us so we can get on the same page. Let me know how you would like to proceed. Thank you for helping me with this!

**Evan Wood** (He/Him)

Contaminated Construction Stormwater Inspector  
Department of Ecology | SW Regional Office | Water Quality Program  
(360) 706-4599 cell | Email [ewoo461@ecy.wa.gov](mailto:ewoo461@ecy.wa.gov)  
Tuesday-Friday 7:00 AM - 5:30 PM

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**From:** Sauze, Marc <[Marc.Sauze@stantec.com](mailto:Marc.Sauze@stantec.com)>  
**Sent:** Friday, July 7, 2023 8:38 AM  
**To:** Wood, Evan (ECY) <[ewoo461@ECY.WA.GOV](mailto:ewoo461@ECY.WA.GOV)>  
**Cc:** Aaron Aschim <[aaschim@portgrays.org](mailto:aaschim@portgrays.org)>; David Walker <[davidw@aecllc.net](mailto:davidw@aecllc.net)>; Pentzke, Marta <[Marta.Pentzke@stantec.com](mailto:Marta.Pentzke@stantec.com)>; rlewis <[rlewis@portgrays.org](mailto:rlewis@portgrays.org)>



**Subject:** RE: Hungry Whale Treatment System Review - Technical Memo: Request for Approval

Hello Evan,

We've prepared the attached Technical Memo to address all of Ecology Engineer's comments and questions regarding the Hungry Whale Cleanup Dewatering System provided in the 06/21/2023 e-mail below.

As detailed in the Technical Memo, the temporary dewatering system will operate for approximately 3 weeks and we estimate a total treatment volume of 60,000 gallons. The system includes a discharge holding tank from which we will collect a sample before discharge to the storm system – there will be no discharge of effluent containing contaminant concentrations above limits in the Administrative Order.

Contractor mobilization is scheduled for 07/24/2023, we're requesting your timely approval to allow time to procure equipment.

Please contact me if you have any questions or comments.

Thanks for your help with this.

**Marc Sauze PE**

Principal Engineer

425-894-2329

[Marc.Sauze@stantec.com](mailto:Marc.Sauze@stantec.com)

**Stantec**

1687 114 Ave SE Suite 100

Bellevue WA 98004



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**From:** Wood, Evan (ECY) <[ewoo461@ECY.WA.GOV](mailto:ewoo461@ECY.WA.GOV)>

**Sent:** Wednesday, June 21, 2023 7:37 AM



**To:** Sauze, Marc <[Marc.Sauze@stantec.com](mailto:Marc.Sauze@stantec.com)>

**Subject:** Hungry Whale Treatment System Review

Good Morning Marc,

I have heard back from Doug Howie and apparently I was incorrect in thinking that he managed treatment systems like the one needed for this project. I reached out to the appropriate engineers and they compiled a list of things that they will need in order to approve the system. Below are the comments from our engineers:

The proposed treatment system is typical for cleanup sites containing petroleum contamination, using two activated carbon vessels in series, as the primary removal of hydrocarbons. The schematic by itself is not an engineering report. It does not provide the data I would need to thoroughly evaluate the system to attain the AO Table 1 indicator levels specified:

- Influent characterization, specifically for the BETX, TPH-D, TPH-G, and Naphthalene
- Expected average and maximum flow rates thru the system
- Size and flowrate capacity data for the bag filtration and activated carbon adsorption vessels
- How will pre-carbon filtration unit be checked for blinding and headloss changes
- Expected effluent concentrations and expected percent removals of key constituents

The system does not provide a treated effluent storage tank following activated carbon, to hold a batch and test to confirm the discharge meets the Table 1 indicator levels before discharge. If they added a post treatment holding tank and can sample before discharge that would provide us added assurance the AO limits will be met.

How long is the expected time period the system will be in place (days, weeks, months?). I don't recall us (the Industrial unit) reviewing treatment system proposals for these contaminated CSGP sites in the past. The AO as written appears effective as a self-implementing compliance assurance program (sample and confirm compliance prior to discharge).

Additionally:

We need more than just a conceptual plan drawing. They could probably submit a paired down engineering report (like a technical memo) but we need more details and it must be stamped by a PE.

- Preliminary construction drawings would be helpful to show how it will laid out, and where everything is located.

How many units are they thinking?

- Will there be redundancy?
  - It's important to know the contaminant pollutant concentrations to be able to assess if carbon filtration (and how much carbon) will be sufficient.
  - Flows/volumes are also important here to know how big (or many) units are needed.
- How long will the project last?
- The ER should include a schedule for construction of the treatment system and the dewatering project.
  - I also agree they should have an effluent tank for holding each batch as per the AO.

Please feel free to let me know if you have any questions for either myself or the engineers. I will forward anything that you need from them.

Thank you,

Evan Wood (He/Him)

Contaminated Construction Stormwater Inspector  
Department of Ecology | SW Regional Office | Water Quality Program  
(360) 706-4599 cell | Email [ewoo461@ecy.wa.gov](mailto:ewoo461@ecy.wa.gov)  
Tuesday-Friday 7:00 AM - 5:30 PM

**Caution:** This email originated from outside of Stantec. Please take extra precaution.

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**Atención:** Este correo electrónico proviene de fuera de Stantec. Por favor, tome precauciones adicionales.

**Caution:** This email originated from outside of Stantec. Please take extra precaution.

**Attention:** Ce courriel provient de l'extérieur de Stantec. Veuillez prendre des précautions supplémentaires.

**Atención:** Este correo electrónico proviene de fuera de Stantec. Por favor, tome precauciones adicionales.



# 30-DAY NOTICE

## FOR UNDERGROUND STORAGE TANK SYSTEMS

UST ID #: 3488  
 County: Grays Harbor

*This form provides Ecology 30-days' advanced notice for projects, as required by Chapter 173-360A WAC. Instructions are on the back page.*

Please ✓ the appropriate box:     Intent to Install     Intent to Close     Change-in-Service

I. SITE INFORMATION			II. OWNER/OPERATOR INFORMATION			
Tag or UBI # (if applicable): A5021			Owner/Operator Name: Port of Grays Harbor			
UST ID # (if applicable): 3488			Business Name: Port of Grays Harbor			
Site Name: Hungry Whale Mini Mart			Mailing Address: PO Box 660			
Site Address: 1680 N Montesano Street			City: Aberdeen	State: WA	Zip: 98520	
City: Westport			Phone: 360-533-9518			
Phone: 360-533-9518			Email: aaschim@portgrays.org			
III. CERTIFIED SERVICE PROVIDER(S)						
Check the appropriate boxes. If more than one service provider is required for this project, fill out both sections.						
<b>Note: Individuals performing UST services MUST be ICC-certified or have passed another qualifying exam approved by the Department of Ecology.</b>						
1) <input type="checkbox"/> Installer <input checked="" type="checkbox"/> Decommissioner <input type="checkbox"/> Site Assessor						
Company Name: Anderson Environmental Contracting LLC			Certification Type: UST Decommissioning			
Service Provider Name: David Walker			Cert. No.: 8159957	Exp. Date: 8/3/24		
Provider Phone: 360-577-9194			Provider Email: davidw@aecllc.net			
2) <input type="checkbox"/> Installer <input checked="" type="checkbox"/> Decommissioner <input type="checkbox"/> Site Assessor						
Company Name: Anderson Environmental Contracting LLC			Certification Type: UST Decommissioning			
Service Provider Name: Kyle Johnson			Cert. No.: 10286368	Exp. Date: 4/4/25		
Provider Phone: 360-577-9194			Provider Email: kylej@aecllc.net			
IV. TANK AND/OR PIPING INFORMATION						
TANK ID	TANK CAPACITY	SUBSTANCE STORED	PIPING		DATE PROJECT IS EXPECTED TO BEGIN	COMMENTS
			INSTALLATION OR REPLACEMENT ONLY (Y/N)			
1-20000	10,000	Unleaded			7/24/2023	1-20000 is one tank with three compartments.
	6,000	Unleaded				
	4,000	Diesel				

**shestag, carol**

---

**From:** David Walker <davidw@aecllc.net>  
**Sent:** Tuesday, August 8, 2023 9:32 AM  
**To:** aaschim@portgrays.org  
**Cc:** Sauze, Marc  
**Subject:** FW: 30 Day Notice - Hungry Whale UST Removal  
**Attachments:** 30 Day Notice.pdf

Aaron,

Just keeping you in the loop, we intend to remove the 20,000-gallon UST on Friday.

Also for your records the previously decommissioned tank that was removed measured approximately 27' x 8' making it a 10,000 gallon tank and not a 6,000 gallon tank as suspected in the plans/specs.

**David Walker** | Sr. Project Manager  
Anderson Environmental Contracting, LLC  
C: 503.351.0150 | O: 360.577.9194

---

**From:** David Walker  
**Sent:** Tuesday, August 8, 2023 9:08 AM  
**To:** Mimnaugh, Dustin (ECY) <dmim461@ECY.WA.GOV>; Kari Kaiser <karik@aecllc.net>  
**Cc:** Sweitzer, Lisa (ECY) <lswe461@ECY.WA.GOV>; Jason Genn <JasonG@aecllc.net>; Steve Anderson <stevea@aecllc.net>  
**Subject:** RE: 30 Day Notice - Hungry Whale UST Removal

Dustin,

Please take this email as our 3-day notice for the removal of the 20,000-gallon tank in Westport, WA at the Hungry Whale project site. We anticipate removing the tank from the remedial excavation area on Friday 8-11-23.

**David Walker** | Sr. Project Manager  
Anderson Environmental Contracting, LLC  
C: 503.351.0150 | O: 360.577.9194

---

**From:** Mimnaugh, Dustin (ECY) <[dmim461@ECY.WA.GOV](mailto:dmim461@ECY.WA.GOV)>  
**Sent:** Tuesday, August 1, 2023 5:03 PM  
**To:** David Walker <[davidw@aecllc.net](mailto:davidw@aecllc.net)>; Kari Kaiser <[karik@aecllc.net](mailto:karik@aecllc.net)>  
**Cc:** Sweitzer, Lisa (ECY) <[lswe461@ECY.WA.GOV](mailto:lswe461@ECY.WA.GOV)>  
**Subject:** RE: 30 Day Notice - Hungry Whale UST Removal

Hi David,

Thank you for the great status update. A couple of us who hoped to witness the removal could no longer make it this week so I'm happy to hear the date has been pushed. Thanks again.

V/r  
Dustin

Dustin Mimnaugh  
He/Him

Underground Storage Tank Inspector  
Toxics Cleanup Program  
Southwestern Regional Office  
Washington State Department of Ecology  
Work Cell: (360) 819-7692  
E-mail: [dmim461@ecy.wa.gov](mailto:dmim461@ecy.wa.gov)

---

**From:** David Walker <[davidw@aecllc.net](mailto:davidw@aecllc.net)>  
**Sent:** Tuesday, August 1, 2023 4:56 PM  
**To:** Mimnaugh, Dustin (ECY) <[dmim461@ECY.WA.GOV](mailto:dmim461@ECY.WA.GOV)>; Kari Kaiser <[karik@aecllc.net](mailto:karik@aecllc.net)>  
**Cc:** Sweitzer, Lisa (ECY) <[lswe461@ECY.WA.GOV](mailto:lswe461@ECY.WA.GOV)>  
**Subject:** RE: 30 Day Notice - Hungry Whale UST Removal

Dustin,

We just completed the demo and are prepping for some of the soil removal, we don't anticipate removing the UST until we get our remedial efforts closer to that portion of the site. I will make sure to provide you an update as we get closer to removal of the tank. The dispensers were removed before we arrived onsite but we purged the lines back to the tank and cleared the dispenser sumps. Tank appears to have 7" or so of product in the tank at the moment.

Thanks,

**David Walker** | Sr. Project Manager  
Anderson Environmental Contracting, LLC  
C: 503.351.0150 | O: 360.577.9194

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**From:** Mimnaugh, Dustin (ECY) <[dmim461@ECY.WA.GOV](mailto:dmim461@ECY.WA.GOV)>  
**Sent:** Tuesday, August 1, 2023 4:49 PM  
**To:** Kari Kaiser <[karik@aecllc.net](mailto:karik@aecllc.net)>  
**Cc:** Sweitzer, Lisa (ECY) <[lswe461@ECY.WA.GOV](mailto:lswe461@ECY.WA.GOV)>; David Walker <[davidw@aecllc.net](mailto:davidw@aecllc.net)>  
**Subject:** RE: 30 Day Notice - Hungry Whale UST Removal

Hi Kari,

I hadn't seen the 3-day notice for the tank removal tentatively scheduled for tomorrow. Do you know if that is still the plan or had the removal been pushed to a later date? Thank you.

V/r  
Dustin

Dustin Mimnaugh  
He/Him  
Underground Storage Tank Inspector  
Toxics Cleanup Program  
Southwestern Regional Office  
Washington State Department of Ecology  
Work Cell: (360) 819-7692  
E-mail: [dmim461@ecy.wa.gov](mailto:dmim461@ecy.wa.gov)

---

**From:** Kari Kaiser <[karik@aecllc.net](mailto:karik@aecllc.net)>  
**Sent:** Friday, June 30, 2023 1:40 PM  
**To:** Mimnaugh, Dustin (ECY) <[dmim461@ECY.WA.GOV](mailto:dmim461@ECY.WA.GOV)>

**Cc:** Sweitzer, Lisa (ECY) <[lswe461@ecy.wa.gov](mailto:lswe461@ecy.wa.gov)>; David Walker <[davidw@aecllc.net](mailto:davidw@aecllc.net)>

**Subject:** RE: 30 Day Notice - Hungry Whale UST Removal

Hi Dustin,

Thank you for the information. I will keep you posted on the schedule and make sure the 3 day notice is given.

Have a great 4<sup>th</sup> of July holiday.

**Kari Kaiser** | Project Coordinator  
Anderson Environmental Contracting, LLC  
O: 360.577.9194 | D: 360.703.6515 | F: 360.577.9198  
[karik@aecllc.net](mailto:karik@aecllc.net) | [www.aecllc.net](http://www.aecllc.net)



---

**From:** Mimnaugh, Dustin (ECY) <[dmim461@ecy.wa.gov](mailto:dmim461@ecy.wa.gov)>

**Sent:** Thursday, June 29, 2023 5:07 PM

**To:** Kari Kaiser <[karik@aecllc.net](mailto:karik@aecllc.net)>

**Cc:** Sweitzer, Lisa (ECY) <[lswe461@ecy.wa.gov](mailto:lswe461@ecy.wa.gov)>

**Subject:** RE: 30 Day Notice - Hungry Whale UST Removal

Hi Kari,

I just wanted to clarify that we will not require a Site Assessment Report for this UST removal. We require a Site Assessment report with most UST removals but as this site is already a formal site which is already in the Cleanup-Construction phase we do not require one. Instead a different report will be later submitted to the Ecology Site Manager as the cleanup progresses.

We do still need a 3-day notice for when the final removal date is confirmed. Please keep us updated with any new developments or changes. Thank you.

V/r  
Dustin

Dustin Mimnaugh  
He/Him  
Underground Storage Tank Inspector  
Toxics Cleanup Program  
Southwestern Regional Office  
Washington State Department of Ecology  
Work Cell: (360) 819-7692  
E-mail: [dmim461@ecy.wa.gov](mailto:dmim461@ecy.wa.gov)

---

**From:** Kari Kaiser <[karik@aecllc.net](mailto:karik@aecllc.net)>

**Sent:** Friday, June 23, 2023 10:06 AM

**To:** Mimnaugh, Dustin (ECY) <[dmim461@ecy.wa.gov](mailto:dmim461@ecy.wa.gov)>

**Cc:** Sweitzer, Lisa (ECY) <[lswe461@ecy.wa.gov](mailto:lswe461@ecy.wa.gov)>

**Subject:** RE: 30 Day Notice - Hungry Whale UST Removal

Good morning Dustin,

Our approximate removal date will be August 2<sup>nd</sup> so I'll make sure to contact you prior for the three day notice and to set up the site assessment.

Since this is a cleanup site we are anticipating there to be contamination.

Please let me know if you need additional information.

Thank you,

**Kari Kaiser** | Project Coordinator  
Anderson Environmental Contracting, LLC  
O: 360.577.9194 | D: 360.703.6515 | F: 360.577.9198  
[karik@aecllc.net](mailto:karik@aecllc.net) | [www.aecllc.net](http://www.aecllc.net)



---

**From:** Manning, Brett (ECY) <[bman461@ECY.WA.GOV](mailto:bman461@ECY.WA.GOV)>  
**Sent:** Wednesday, June 21, 2023 3:47 PM  
**To:** Kari Kaiser <[karik@aecllc.net](mailto:karik@aecllc.net)>  
**Cc:** Mimnaugh, Dustin (ECY) <[dmim461@ECY.WA.GOV](mailto:dmim461@ECY.WA.GOV)>; Sweitzer, Lisa (ECY) <[lswe461@ECY.WA.GOV](mailto:lswe461@ECY.WA.GOV)>  
**Subject:** FW: 30 Day Notice - Hungry Whale UST Removal

Hi Kari,

Please work with Dustin Mimnaugh, Ecology (360) 819-7692 on this. We're gonna need a site assessor and a three day notice for this as well.

Thanks,

Brett Manning  
Department of Ecology  
Underground Storage Tank Section  
Cell (360) 790-3524

---

**From:** Kari Kaiser <[karik@aecllc.net](mailto:karik@aecllc.net)>  
**Sent:** Wednesday, June 21, 2023 3:30 PM  
**To:** Manning, Brett (ECY) <[bman461@ECY.WA.GOV](mailto:bman461@ECY.WA.GOV)>  
**Subject:** 30 Day Notice - Hungry Whale UST Removal

Good afternoon Brett,

I've attached the 30 Day Notice for Port of Grays Harbor Hungry Whale site located at 16820 N Montesano Street – Westport, WA for your review and approval.

Please let me know if I need to submit this to someone else.

Thank you, I appreciate your help.

**Kari Kaiser** | Project Coordinator  
Anderson Environmental Contracting, LLC

O: 360.577.9194 | D: 360.703.6515 | F: 360.577.9198

[karik@aecllc.net](mailto:karik@aecllc.net) | [www.aecllc.net](http://www.aecllc.net)



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# APPENDIX C

## Groundwater Monitoring Wells: Abandonment Approvals and Driller Logs



# Resource Protection Well Report

Submit one well report per well installed. See page two for instructions.

## Type of Work:

- Construction  
 Decommission ⇒ Original NOI No. R065122

Ecology Well ID Tag No. AKF-194

Site Well Name MW-02

Consulting Firm AEC

Was a variance approved for this well/boring?  Yes  No

If yes, what was the variance for? \_\_\_\_\_

**WELL CONSTRUCTION CERTIFICATION:** I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported are true to my best knowledge and belief.

Driller  Trainee  Engineer

Name (Print Last, First Name) Phillips, Blake

Driller/Engineer/Trainee Signature Blake Phillips

License No. 3328

Company Name Anderson Environmental Contracting LLC

If trainee box is checked, sponsor's license number: \_\_\_\_\_

Sponsor's signature \_\_\_\_\_

Notice of Intent No. AE78911

## Type of Well:

- Resource Protection Well  Injection Point  
 Remediation Well  Grounding Well  
 Geotechnical Soil Boring  Ground Source Heat Pump  
 Environmental Boring  Other \_\_\_\_\_  
 Soil-  Vapor-  Water-sampling

Property Owner PORT OF GRAYS HARBOR

Well Street Address 1680 N MONTESANO ST.

City WESTPORT County GRAYS HARBOR

Tax Parcel No. 616120142001

Location (see instructions): WWM  or EWM

SE  $\frac{1}{4}$ - $\frac{1}{4}$  NE  $\frac{1}{4}$ , Section 1 Town 16N Range 12W

Latitude (Example: 47.12345) 46.90230

Longitude (Example: -120.12345) -124.10814

(WGS 84 Coordinate System)

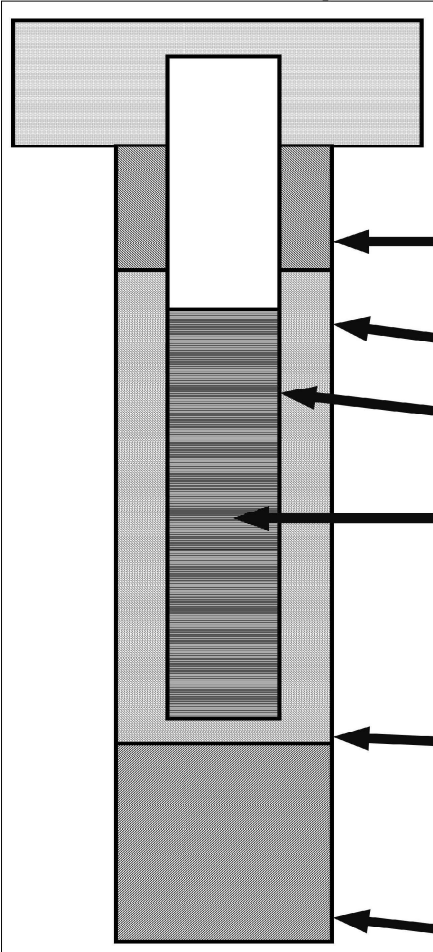
Borehole diameter 4 inches Casing diameter 2 inches

Static water level \_\_\_\_\_ ft below top of casing Date \_\_\_\_\_

Above-ground completion with bollards  Flush monument

Stick-up of top of well casing \_\_\_\_\_ ft above ground surface

Start Date 07/27/2023 Completed Date 07/27/2023

Construction/Design	Well Data	Formation Description
	Concrete Surface Seal Depth _____ FT	<u>1' - 13'</u> FT
	Blank Casing (dia x dep) _____	<b>CHIP IN PLACE</b>
	Material _____	
	Backfill <u>13'</u> FT	
	Type <u>CHIPS</u>	
	Seal _____ FT	
	Gravel Pack _____ FT	
	Material _____	
	Screen (dia x dep) _____	
	Slot Size _____	
Material _____		
Well Depth _____ FT		
Backfill _____		
Material _____		
Total Hole Depth <u>13'</u> FT		

# Resource Protection Well Report

Submit one well report per well installed. See page two for instructions.

## Type of Work:

- Construction  
 Decommission ⇒ Original NOI No. R065242

Ecology Well ID Tag No. ALN-595

Site Well Name MW-22

Consulting Firm AEC

Was a variance approved for this well/boring?  Yes  No

If yes, what was the variance for? \_\_\_\_\_

**WELL CONSTRUCTION CERTIFICATION:** I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported are true to my best knowledge and belief.

Driller  Trainee  Engineer  
 Name (Print Last, First Name) Phillips, Blake  
 Driller/Engineer/Trainee Signature Blake Phillips  
 License No. 3328  
 Company Name Anderson Environmental Contracting LLC

If trainee box is checked, sponsor's license number: \_\_\_\_\_

Sponsor's signature \_\_\_\_\_

Notice of Intent No. AE78911

## Type of Well:

- Resource Protection Well  Injection Point  
 Remediation Well  Grounding Well  
 Geotechnical Soil Boring  Ground Source Heat Pump  
 Environmental Boring  Other \_\_\_\_\_  
 Soil-  Vapor-  Water-sampling

Property Owner PORT OF GRAYS HARBOR

Well Street Address 1680 N MONTESANO ST.

City WESTPORT County GRAYS HARBOR

Tax Parcel No. 616120142001

Location (see instructions): WWM  or EWM

SE  $\frac{1}{4}$ - $\frac{1}{4}$  NE  $\frac{1}{4}$ , Section 1 Town 16N Range 12W

Latitude (Example: 47.12345) 46.90230

Longitude (Example: -120.12345) -124.10840

(WGS 84 Coordinate System)

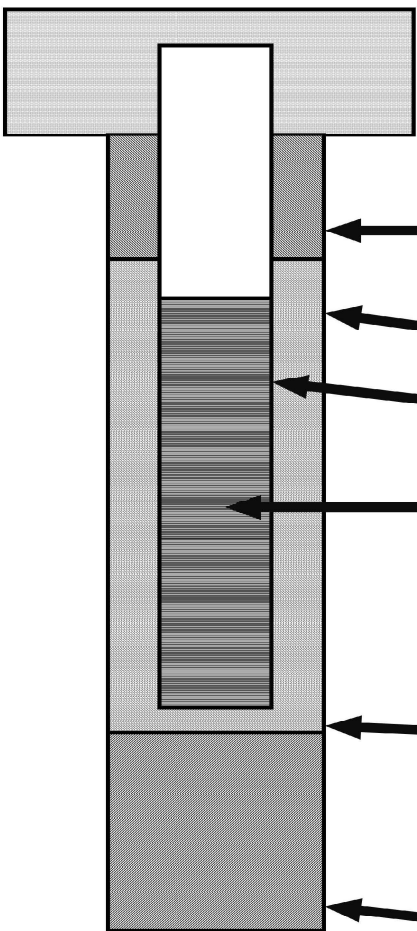
Borehole diameter 4 inches Casing diameter 2 inches

Static water level \_\_\_\_\_ ft below top of casing Date \_\_\_\_\_

Above-ground completion with bollards  Flush monument

Stick-up of top of well casing \_\_\_\_\_ ft above ground surface

Start Date 07/27/2023 Completed Date 07/27/2023

Construction/Design	Well Data	Formation Description
	Concrete Surface Seal Depth _____ FT	<u>1' - 15'</u> FT
	Blank Casing (dia x dep) _____	<b>CHIP IN PLACE</b>
	Material _____	
	Backfill <u>15'</u> FT	
	Type <u>CHIPS</u>	_____ FT
	Seal _____ FT	
	Gravel Pack _____ FT	
	Material _____	
	Screen (dia x dep) _____	_____ FT
	Slot Size _____	
Material _____		
Well Depth _____ FT		
Backfill _____		
Material _____		
Total Hole Depth <u>15'</u> FT		

# Resource Protection Well Report

Submit one well report per well installed. See page two for instructions.

**Type of Work:**

- Construction  
 Decommission ⇒ Original NOI No. R065242

Ecology Well ID Tag No. ALN-851

Site Well Name MW-23

Consulting Firm AEC

Was a variance approved for this well/boring?  Yes  No

If yes, what was the variance for? \_\_\_\_\_

**WELL CONSTRUCTION CERTIFICATION:** I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported are true to my best knowledge and belief.

Driller  Trainee  Engineer

Name (Print Last, First Name) Phillips, Blake

Driller/Engineer/Trainee Signature Blake Phillips

License No. 3328

Company Name Anderson Environmental Contracting LLC

If trainee box is checked, sponsor's license number: \_\_\_\_\_

Sponsor's signature \_\_\_\_\_

Notice of Intent No. AE78911

**Type of Well:**

- Resource Protection Well  Injection Point  
 Remediation Well  Grounding Well  
 Geotechnical Soil Boring  Ground Source Heat Pump  
 Environmental Boring  Other \_\_\_\_\_  
 Soil-  Vapor-  Water-sampling

Property Owner PORT OF GRAYS HARBOR

Well Street Address 1680 N MONTESANO ST.

City WESTPORT County GRAYS HARBOR

Tax Parcel No. 616120142001

Location (see instructions): WWM  or EWM

SE  $\frac{1}{4}$ - $\frac{1}{4}$  NE  $\frac{1}{4}$ , Section 1 Town 16N Range 12W

Latitude (Example: 47.12345) 46.90238

Longitude (Example: -120.12345) -124.10823

(WGS 84 Coordinate System)

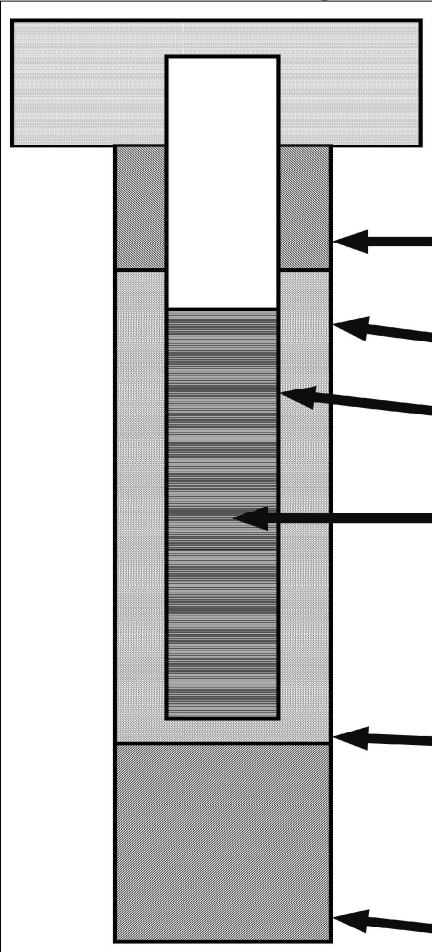
Borehole diameter 4 inches Casing diameter 2 inches

Static water level \_\_\_\_\_ ft below top of casing Date \_\_\_\_\_

Above-ground completion with bollards  Flush monument

Stick-up of top of well casing \_\_\_\_\_ ft above ground surface

Start Date 07/27/2023 Completed Date 07/27/2023

Construction/Design	Well Data	Formation Description
	Concrete Surface Seal Depth _____ FT	<u>1' - 15'</u> FT
	Blank Casing (dia x dep) _____	<b>CHIP IN PLACE</b>
	Material _____	
	Backfill <u>15'</u> FT	
	Type <u>CHIPS</u>	
	Seal _____ FT	
	Gravel Pack _____ FT	
	Material _____	
	Screen (dia x dep) _____	
	Slot Size _____	
Material _____		
Well Depth _____ FT		
Backfill _____		
Material _____		
Total Hole Depth <u>15'</u> FT		

# Resource Protection Well Report

Submit one well report per well installed. See page two for instructions.

**Type of Work:**

- Construction  
 Decommission ⇒ Original NOI No. R065242

Ecology Well ID Tag No. ALP-950

Site Well Name MW-20

Consulting Firm AEC

Was a variance approved for this well/boring?  Yes  No

If yes, what was the variance for? \_\_\_\_\_

**WELL CONSTRUCTION CERTIFICATION:** I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported are true to my best knowledge and belief.

Driller  Trainee  Engineer  
 Name (Print Last, First Name) Phillips, Blake  
 Driller/Engineer/Trainee Signature Blake Phillips  
 License No. 3328  
 Company Name Anderson Environmental Contracting LLC

If trainee box is checked, sponsor's license number: \_\_\_\_\_  
 Sponsor's signature \_\_\_\_\_

Notice of Intent No. AE78911

**Type of Well:**

- Resource Protection Well  Injection Point  
 Remediation Well  Grounding Well  
 Geotechnical Soil Boring  Ground Source Heat Pump  
 Environmental Boring  Other \_\_\_\_\_  
 ↪  Soil-  Vapor-  Water-sampling

Property Owner PORT OF GRAYS HARBOR

Well Street Address 1680 N MONTESANO ST.

City WESTPORT County GRAYS HARBOR

Tax Parcel No. 616120142001

Location (see instructions): WWM  or EWM

SE  $\frac{1}{4}$ - $\frac{1}{4}$  NE  $\frac{1}{4}$ , Section 1 Town 16N Range 12W

Latitude (Example: 47.12345) 46.90211

Longitude (Example: -120.12345) -124.10812

(WGS 84 Coordinate System)

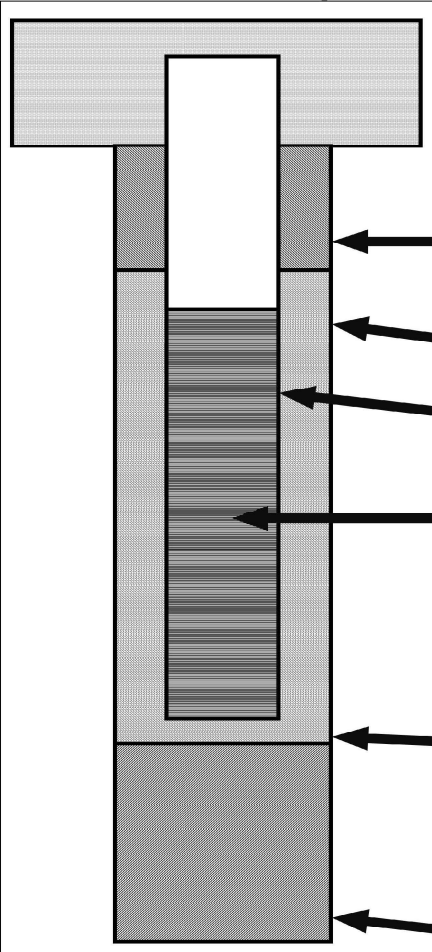
Borehole diameter 4 inches Casing diameter 2 inches

Static water level \_\_\_\_\_ ft below top of casing Date \_\_\_\_\_

Above-ground completion with bollards  Flush monument

↪ Stick-up of top of well casing \_\_\_\_\_ ft above ground surface

Start Date 07/27/2023 Completed Date 07/27/2023

Construction/Design	Well Data	Formation Description
	Concrete Surface Seal Depth _____ FT	<u>1' - 30'</u> FT
	Blank Casing (dia x dep) _____	<b>CHIP IN PLACE</b>
	Material _____	
	Backfill <u>30'</u> FT	
	Type <u>CHIPS</u>	
	Seal _____ FT	
	Gravel Pack _____ FT	
	Material _____	
	Screen (dia x dep) _____	
	Slot Size _____	
Material _____		
Well Depth _____ FT		
Backfill _____		
Material _____		
Total Hole Depth <u>30'</u> FT		

**From:** [Armocost, Zak](#)  
**To:** [Philip, Noel \(ECY\)](#)  
**Cc:** [Sauce, Marc](#); [davidw@secl.net](#)  
**Subject:** RE: Hungry Whale - Well Tags - follow up from our call today  
**Date:** Wednesday, July 26, 2023 6:15:04 PM  
**Attachments:** ~WRD001.jpg

---

Hi Noel,

Confirming that we are withdrawing the variance request. Thanks for your help!

**Zak Armocost**

Project Specialist, Geologist

Mobile: [+1 \(385\) 318-5030](tel:+13853185030)  
[zak.armocost@stantec.com](mailto:zak.armocost@stantec.com)

---

**From:** Philip, Noel (ECY) <[NPHI461@ECY.WA.GOV](mailto:NPHI461@ECY.WA.GOV)>  
**Sent:** Wednesday, July 26, 2023 2:40:13 PM  
**To:** Armocost, Zak <[Zak.Armocost@stantec.com](mailto:Zak.Armocost@stantec.com)>  
**Subject:** RE: Hungry Whale - Well Tags - follow up from our call today

Hi, Zak.

The variance to perform the decommissioning of resource protection wells at the Hungry Whale site is no longer necessary.

The disposition of the three wells has been verified, and there is no variant decommissioning required for well decommissioning compliant with the minimum standards. One well is no accessible (can't be located), possibly due to being paved over. Another has access and casing removal or perforation is planned because it will be completely removed as it is in the footprint of an excavation deeper than its total depth. Ecology has a report for the third well, so the method in WAC 173-160-460(2) is adequate to decommission the well.

Please confirm you are withdrawing the variance request because it is no longer necessary.

Thanks,

Noel

---

*Noel S. Philip, LHG (he/him)*  
*Well Construction Coordinator*  
*Water Resources Program*  
*Washington State Department of Ecology*  
*Northwest Regional Office*  
*(206) 594-0195 office*  
*[nphi461@ecy.wa.gov](mailto:nphi461@ecy.wa.gov)*  
*(425) 200-8951 mobile*  
*(206) 366-7810 fax*

*Mailing Address:*  
*Washington State Department of Ecology*  
*Northwest Regional Office*  
*Attn: Well Construction*  
*PO Box 330316*  
*Shoreline, WA 98133-9716*

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---

**From:** Armocost, Zak <[Zak.Armocost@stantec.com](mailto:Zak.Armocost@stantec.com)>  
**Sent:** Tuesday, July 25, 2023 9:51 AM  
**To:** Philip, Noel (ECY) <[NPHI461@ECY.WA.GOV](mailto:NPHI461@ECY.WA.GOV)>  
**Subject:** RE: Hungry Whale - Well Tags - follow up from our call today

Hey there Noel,

I know you gave us the verbal last week that we could start work, but I remember you also saying you would get us something in writing – do you know when you'll be able to send that our way? Or driller is asking about it. Thanks a bunch and have a great day.

**Zak Armocost** *(he/him)*  
Project Specialist, Geologist

Mobile: [+1 \(385\) 318-5030](tel:+13853185030)  
[zak.armocost@stantec.com](mailto:zak.armocost@stantec.com)

---

**From:** Armocost, Zak  
**Sent:** Friday, July 21, 2023 9:15 AM  
**To:** Philip, Noel (ECY) <[NPHI461@ECY.WA.GOV](mailto:NPHI461@ECY.WA.GOV)>  
**Subject:** FW: Hungry Whale - Well Tags - follow up from our call today

Hi Noel,

Following up on our call from yesterday – we were able to track down the log for MW-07. My supervisor has indicated that we can't find MW-04 onsite, and as a result we will not decommission it. He also believes that MW-12 is a UST observation well, so it was not logged.

Does this clear up your questions? Do we still need a variance? Or are we good to proceed?



Please let me know – I'll be at a site until the early afternoon, but I'll be happy to hop on the phone and clear anything else up if need be then.

Have a great day!

**Zak Armacost** (he/him)  
Project Specialist, Geologist

Mobile: +1 (385) 318-5030  
[zak.armacost@stantec.com](mailto:zak.armacost@stantec.com)

---

**From:** Sauze, Marc <[Marc.Sauze@stantec.com](mailto:Marc.Sauze@stantec.com)>  
**Sent:** Thursday, July 20, 2023 4:40 PM  
**To:** Armacost, Zak <[Zak.Armacost@stantec.com](mailto:Zak.Armacost@stantec.com)>  
**Subject:** FW: Hungry Whale - Well Tags - follow up from our call today

Hi Zak,

For the three wells (MW-04, MW-07 and MW-12) that we need a variance on, I couldn't find well logs for MW-04 and MW-12.

MW-12 is an UST observation wells and not drilled in. They were just installed in the UST nest but because we sampled it Ecology wants them properly decommissioned.

We do have a well log for MW-07, it's in the attached.

So that leave MW-04 and MW-12 with no logs (at least I can't find them).

What if we explain to Noel that MW-04 is lost, we can't find it, and MW-12 is a UST observation well and therefore doesn't have a log..?

Thanks

**Marc Sauze PE**  
Principal Engineer

425-894-2329  
[Marc.Sauze@stantec.com](mailto:Marc.Sauze@stantec.com)

**Stantec**  
1687 114 Ave SE Suite 100  
Bellevue WA 98004



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---

**From:** Schweiter, Andrea <[Andrea.Schweiter@stantec.com](mailto:Andrea.Schweiter@stantec.com)>  
**Sent:** Wednesday, June 21, 2023 12:05 PM  
**To:** Sauze, Marc <[Marc.Sauze@stantec.com](mailto:Marc.Sauze@stantec.com)>  
**Cc:** David Walker <[davidw@aecllc.net](mailto:davidw@aecllc.net)>  
**Subject:** RE: Hungry Whale - Well Tags

Hi Marc,

I looked over the MW-20 through MW-25 well logs again just to verify I didn't make a mistake...since you tagged MW-20 as the 29' (30') well.

- It looks like the boring log for MW-20 was two pages, the well has two screens 3-13' and 25-30'. We have this well tag.
- Wells MW-21, MW-22, MW-23 and MW-24 were the shallow wells installed to 15 feet.

**Chip in place (we have well tags):**

- MW-02: AKF194
- MW-22: ALN595
- MW-23: APF851 (ALN851 in Ecology Database)
- MW-20: ALP950

**Decommission by other means:** just called Noel Philip of Ecology. Here is what he recommends.

- MW-4:
  - Use a metal detector to find the well. We could rent one, or have the utility locator find it during the locate.
  - Get a variance from Noel to chip in place – he'll approve this.
- MW-7 and MW-12:
  - Get a variance to decommission the well by complete removal. Noel confirmed that since these wells have been used as monitoring wells, they should be properly decommissioned. However, since these are shallower than the 12' excavation depth, and they're right next to the tanks and within the tank excavation boundary there is no need to decommission by chip in place first. – he'll approve complete removal.

**Variance with Ecology**

- Complete the Variance Form and email to Noel Philip [NPHI461@ecy.wa.gov](mailto:NPHI461@ecy.wa.gov) (example attached and link for blank form is below)

- <https://apps.ecology.wa.gov/publications/SummaryPages/ECY070299.html>
- Provide a site plan with the well locations and the proposed excavation boundary.
- He can give you a verbal approval once he gets all the paperwork, then an official Ecology letter will be emailed to you.

I hope this helps!

**Andrea Schweiter**  
Project Manager

Direct: 425 289-7362  
Mobile: 425 531-8948  
Fax: 425 688-8835  
[Andrea.Schweiter@stantec.com](mailto:Andrea.Schweiter@stantec.com)

Stantec  
1687 114<sup>th</sup> Ave SE, Suite 100  
Bellevue, WA 98004



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**From:** Sauze, Marc <[Marc.Sauze@stantec.com](mailto:Marc.Sauze@stantec.com)>  
**Sent:** Wednesday, June 21, 2023 11:02 AM  
**To:** Schweiter, Andrea <[Andrea.Schweiter@stantec.com](mailto:Andrea.Schweiter@stantec.com)>  
**Cc:** David Walker <[davidw@aecllc.net](mailto:davidw@aecllc.net)>  
**Subject:** RE: Hungry Whale - Well Tags

Hi Andrea

Thanks for your continued support on the Hungry Whale. I was out at the site yesterday looking for well tags and below is a summary of what we found (attached is the site plan).

Looks like we're OK to chip the following in place because we have well tags:

- MW-02
- MW-22
- MW-23
- MW-04 – we have no tag but we could not locate and it may have been paved over. What do we do about that one?
- MW-07 and MW-12 we have no tags but they look like observation wells that were sampled as part of the gwm programs – do we have to report abandonment if they're obs wells?
- MW-20 needs to be abandoned, there's no tag. It's DTB is 29' and we're excavating to 12' – can we get a waiver for that one...?

Well ID	ECY Well Tag	On Property?	DTB (feet)	Keep?	Abandon?	Chip in Place?	Comment	OK to Chip?
MW-01	AKF-193	No					Could not locate	
MW-02	AKF-194	Yes	12.93	No	Yes	Yes	Impacted (227 ug/L Benzene in 2021)	Yes
MW-03	AKF-195	No		Yes	No	No	Clean	
MW-04	????	Yes	16.95	No	Yes	Yes	Impacted (4,750 ug/L Benzene in 2021) - Could not locate/maybe paved over	?? (can't find)
MW-05	????	No	10.77	Yes	No	No	Clean	
MW-06	????	No					Clean - could not locate	
MW-07	????	Yes	10.6	No	Yes	Yes	Impacted (8,700 Benzene in 2021) Observation well	?? (obs well)
MW-09	????	Yes/No	25.5	Yes	No	No	Impacted (2,450 ug/L Benzene in 2021)	
MW-10	????	Yes/No	24.8	Yes	No	No	Impacted (238 ug/L Benzene in 2021)	
MW-11	????	Yes/No	38.08	Yes	No	No	Clean	
MW-12	????	Yes	10.35	No	Yes	Yes	Impacted (2,340 ug/L Benzene in 2021) - Obs well	?? (obbs well)
MW-13	????	No	12.95	Yes	No	No	Clean	
MW-14	????	No	12.3	Yes	No	No	Clean	
MW-20	APF-850	Yes	28.94	No	Yes	Yes	Impacted (4,550 ug/L benzene in 2021)	No
	APF-853							
	APF-852							
MW-21	ALN-595	Yes		Yes	No	No	Clean	
MW-22	ALN-595	Yes/No	14.68	No	Yes	Yes	Impacted 1,370 ug/L TPH-g in 2021	Yes
MW-23	APF-851	Yes	14.75	No	Yes	Yes	Impacted 214 ug/L benzene in 2021	Yes
	APF-853							
	APF-852							
MW-24	ALN-595	No		Yes	No	No	Clean	
	APF-853							
	APF-852							
MW-25	ALN-595	No		Yes	No	No	Clean	

**Marc Sauze PE**  
Principal Engineer



**From:** [Sauze, Marc](#)  
**To:** [shestag, carol](#)  
**Subject:** FW: Hungry Whale Well Decommissioning  
**Date:** Friday, September 15, 2023 11:55:00 AM  
**Attachments:** [Fig 2 site plan 02-21-2017.pdf](#)  
[Re Hungry Whale - Well Tags - follow up from our call today.msg](#)

---

Hello Carol,

Also an FYI and I will put this in the file. We do not have decommission well reports for MW-04, MW-07 and MW-12 (see reason below). We do have an e-mail from Noel at ECY giving us the OK to decomm the well the wells as part of the excavation (see attached).

Thanks

**Marc Sauze PE**

Principal Engineer

425-894-2329

[Marc.Sauze@stantec.com](mailto:Marc.Sauze@stantec.com)

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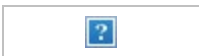
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---

**From:** Sauze, Marc

**Sent:** Monday, July 24, 2023 3:49 PM

**To:** David Walker <davidw@aecllc.net>

**Cc:** Armacost, Zak <Zak.Armacost@stantec.com>; Aaron Aschim <aaschim@portgrays.org>

**Subject:** Hungry Whale Decommissioning

Hi David,

We've been working with Noel Phillips at Ecology to get a variance to decommission MW-04, MW-07 and MW-12 (we don't have well logs for these three wells).

Noel verbally advised how to deal with MW-04, MW-07 and MW-12 (he said he'd send something in writing this week), he said the following:

- MW-07 and MW-12 do not need a variance because they are observation wells and they can be chipped in place;
- MW-04 we can't find this well and Ecology's assumption is we will not destroy it. If we do find it during excavation we need to contact Noel and he'll advise on how to properly decommission.

The following wells can be chipped in place (we have the well tags)

- MW-02: AKF194
- MW-22: ALN595
- MW-23: APF851 (ALN851 in Ecology Database)
- MW-20: ALP950

I've attached a site plan with the well locations.

We'll forward Noel's written response as soon as we get it.

Thanks

**Marc Sauze PE**

Principal Engineer

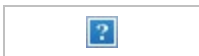
425-894-2329

[Marc.Sauze@stantec.com](mailto:Marc.Sauze@stantec.com)

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# APPENDIX D

## Project Approvals/Notifications – City of Westport and ORCAA



**From:** [Aaron Aschim](#)  
**To:** [Sauze, Marc](#)  
**Subject:** FW: Hungry Whale Remediation - Dewatering Plan  
**Date:** Tuesday, April 18, 2023 8:02:03 AM  
**Attachments:** [image001.jpg](#)

---

We have an answer.

---

**From:** Kevin Goodrich <ca@ci.westport.wa.us>  
**Sent:** Monday, April 17, 2023 4:27 PM  
**To:** Aaron Aschim <aaschim@portgrays.org>  
**Subject:** Hungry Whale Remediation - Dewatering Plan

You don't often get email from [ca@ci.westport.wa.us](mailto:ca@ci.westport.wa.us). [Learn why this is important](#)

Hi Aaron,

Per our conversation earlier I'm writing to conform that the City of Westport is acceptable to your plan to discharge the treated groundwater to our stormwater ditch system, not to exceed 150 GPM.

Let me know if you need anything else.

Best,

Kevin Goodrich  
City Administrator  
City of Westport  
Office (360) 268-0131  
Cell (360) 593-0672



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**From:** [David Walker](#)  
**To:** [aaschim@portgrays.org](mailto:aaschim@portgrays.org)  
**Cc:** [Sauze, Marc](#); [Kari Kaiser](#); [Kyle Johnson](#)  
**Subject:** Abatement Notification/Permits  
**Date:** Tuesday, July 11, 2023 8:15:01 AM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[NODR.pdf](#)  
[LNI.pdf](#)

---

Aaron,

Please see attached ORCAA & LNI notifications for the hazardous material removal from the Hungry Whale site. Let me know if you need anything further.

**David Walker** | Sr. Project Manager  
Anderson Environmental Contracting, LLC  
C: 503.351.0150 | O: 360.577.9194  
[davidw@aecllc.net](mailto:davidw@aecllc.net) | [www.aecllc.net](http://www.aecllc.net)



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**From:** [Bryson Downs](#)  
**To:** [Sauze, Marc](#)  
**Subject:** 1680 North Montesano Demolition  
**Date:** Monday, January 9, 2023 10:19:04 AM

---

Greetings,

We have received the Demolition Notification for 1680 North Montesano Street in Westport. The notification is not complete until we receive the Asbestos Survey for the structure and the on-site contact information. I understand the start date is not until August, but the notification will need to be complete at least 14 days prior to the start of demolition. If you have any questions, feel free to reach out.

Thanks,

Bryson Downs, Air Quality Specialist 1

+++++

**Olympic Region Clean Air Agency** - "*Clean Air is Everyone's Business!*"

-----  
2940 Limited Lane NW · Olympia WA 98502

1-800-422-5623 · **(360) 539-7610** ext. 110 [www.orcaa.org](http://www.orcaa.org)

Please take notice that any records or communications with ORCAA are subject to public disclosure under the Public Records Act, (RCW 42.56) unless exempt under applicable law.

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Olympic Region Clean Air Agency  
 2940 Limited Lane NW  
 Olympia, WA 98502  
 (360) 539-7610 • FAX (360) 491-6308

# Contractor Asbestos Notification

NESHAPS Project (14 day wait period)

**PROPERTY OWNER**

Name: <u>Grays Harbor (The Hungry whale)</u>	Phone: ( )	Email:	
Mailing Address: <u>1680 Montesano ST</u>	City: <u>West Port</u>	State: <u>WA</u>	Zip: <u>98595</u>
Site Contact Person: <u>Joshua Baxter</u>	Phone: ( ) <u>509 930-0350</u>	Email: <u>Joshua@elite-es.net</u>	
Site Address: <u>1680 Montesano ST</u>	City: <u>West Port</u>	County:	Zip: <u>98595</u>

**ASBESTOS CONTRACTOR**

Contractor/Business Name: <u>Safeguard Abatement</u>	Phone: ( ) <u>509 759-7481</u>	Email: <u>Joshua@elite-es.net</u>	
Mailing Address: <u>1702 Englewood Ave.</u>	City: <u>Yakima</u>	State: <u>WA</u>	Zip: <u>98902</u>

**PROJECT INFORMATION**

Start Date: <u>07-24-23</u>	Completion Date: <u>07-31-23</u>	Work Shift Days: <u>MX TX W X Th X FX Sa Su</u>	Work Shift Hours: <u>5am - 5:30pm</u>
# Structures to be Abated: <u>1</u>	Total Quantity to be Removed: <u>1400</u>	Square Feet: <u>1400</u>	Linear Feet:
Disposal Site: <u>Finley Buttes Regional LF 73221 Bombing Range Rd. Boardman OR 97818</u>			
Will all identified asbestos be removed from structure? <input type="checkbox"/> Yes <input type="checkbox"/> No		Will this structure be demolished after asbestos removal? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Material(s) being removed: <u>Boiler/Furnace</u> <u>Duct Insulation</u> <u>Pipe Insulation</u> <u>Fireproofing Paints</u> <u>Plaster</u> <u>Cement Board</u> <u>Cement Pipe</u> <u>Flooring</u> <input checked="" type="checkbox"/> <u>Roofing</u> <u>Textured Coating</u> <input checked="" type="checkbox"/> <u>Other Mastic</u>			

**ASBESTOS PROJECT CATEGORY**

**NON-REFUNDABLE FEE**

1 - <input type="checkbox"/> 10-259 linear or 48-159 square feet	\$179
2 - <input checked="" type="checkbox"/> 260-999 linear or 160-4,999 square feet	\$387
3 - <input type="checkbox"/> 1,000-9,999 linear or 5,000-49,999 sq feet	\$774
4 - <input type="checkbox"/> 10,000+ linear or 50,000 square feet	\$1547
<input type="checkbox"/> Emergency	\$60
<input type="checkbox"/> Annual – limit of 260 linear feet or 160 square feet	\$595

I do certify that I am the owner, authorized agent of the owner, or authorized contractor for the property subject to this ORCAA Notification. I authorize ORCAA staff to enter the property listed in this Notification at reasonable times for purposes of inspecting the work that is the subject of this Notification and to ensure compliance with conditions, applicable laws, and regulations. I understand this Notification does not authorize anyone to violate federal, state, or local laws or regulation pertaining to activities associated with this Notification. I have read and will abide by the conditions set forth in this Notification and any addendum thereto.

I do certify under penalty of perjury under the laws of the state of Washington that the information in this application and supplemental data is, to the best of my knowledge true, accurate and complete.

Monnie Miller Print Applicant Name      Monnie Miller Signature      6-29-23 Date

Date Received	Payment Info. <input type="checkbox"/> Cash <input type="checkbox"/> Check: # _____ <input type="checkbox"/> Credit Card Receive date: ___/___/___ Agency Use Only	Asbestos Notification # ___ ASB00 ___ Demolition Notification # ___ DEM00 ___ Survey: <input type="checkbox"/> Yes <input type="checkbox"/> No Agency Use Only
---------------	---	---



Olympic Region Clean Air Agency  
2940 Limited Lane NW  
Olympia, WA 98502  
(360) 539-7610 • FAX (360) 491-6308

# Contractor Asbestos Notification

(FY2023)

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Asbestos projects within Clallam, Grays Harbor, Jefferson, Mason, Pacific, and Thurston counties REQUIRE A NOTIFICATION and require that the following conditions be met prior to the demolition.

Olympic Region Clean Air Agency (ORCAA) regulations define an asbestos project as any activity involving the abatement, renovation, demolition, removal, salvage, clean up, or disposal of asbestos-containing materials, or any other action that disturbs or is likely to disturb any asbestos-containing materials (ACM). It includes the removal and disposal of stored asbestos-containing materials or asbestos-containing waste material. This term does not include the application of duct tape, rewettable glass cloth, canvas, cement, paint, or other non-asbestos materials to seal or fill exposed areas where asbestos fibers may be released. ORCAA defines ACM as more than 1 percent (1%) of asbestos. Notification is not required for removal and disposal of non-friable asbestos caulking, window glazing or roofing if it meets all the requirements in ORCAA Regulation 6.3.1.

The following is merely a reference guide and not a substitute for agency regulations.

1. Certified asbestos contractors can be found on ORCAA's website, on the Washington State Labor and Industries website, as well as conducting an internet search.
2. Asbestos samples must be sent to a NVLAP Laboratory (National Voluntary Laboratory Accreditation Program) per 40 CFR 763.87. A list of labs can be found on ORCAA's website.
3. The start date for asbestos abatement projects must be at least 10 days (14 days if NESHAP project) from the submission date of the complete application and payment.
4. It is the responsibility of the building owner and/or asbestos contractor to ensure all ACM identified (or suspected) in the survey and proposed to be removed, has been removed and properly disposed of in accordance with ORCAA's Regulations.
5. A copy of the asbestos survey, Asbestos Notification, and any subsequent amendments must be kept on site and be available for review by Agency inspection personnel.
6. Use the Asbestos Amendment Notification Form to make changes to the original notification.
7. The original asbestos notification will expire on the Completion Date. To change the completion date, an Amendment form must be received PRIOR to expiration. If the notification expires and the project is not complete, you must submit and pay for another asbestos notification. Under no circumstances will a project be extended beyond 1 year from original submission date.

## ADDITIONAL REQUIREMENTS:

**"Single-Family Residence"** means any structure containing space for use such as living, sleeping, food preparation and eating. This term includes houses, mobile homes, detached garages, houseboats, and houses with a "mother-in-law apartment" or "guest room". This term does not include multiple-family units (i.e., apartment, duplex, condominium, etc.), nor does this term include any mixed-use building, structure, or installation that contains a residential unit.

**Emergency Project:** A project that was not planned but results in a public health or safety hazard; the project must proceed immediately to protect equipment, ensure continuous vital utilities, or minimize property damage; ACM was encountered that was not identified during the survey or the project must proceed to avoid imposing an unreasonable burden. **\$60 non-refundable emergency fee.**





## Asbestos Project Notification Form

**Form ID: 206515#715080532**  
Submitted: 06/29/2023 at 3:30pm

Completed by: Monnie Miller

### Project dates and notice type

Notice date: 06/29/2023  
Notice type: Initial  
Project dates: 07/24/2023 to  
07/31/2023

### Work hours

#### You will work these times:

5:00am to 7:30pm

#### ...on these dates:

Monday, Tuesday, Wednesday, Thursday, and Friday from 7/24/2023 to 7/31/2023

### Job site location

Address:  
1680 Monesano St  
Westport, WA 98595  
County: Grays Harbor

### Contractor

SAFEGUARD ABATEMENT LLC (YAKIMA)  
UBI: 603246342  
Certification: ABCN00001552  
Phone: 509-759-7481  
Contact Email: Joshua@elite-es.net  
Supervisor: Joshua Baxter  
Certification: ABAS00033482  
Phone: 509-930-0350

### Property owner

Name: Grays Harbor  
Phone: 509-759-7481  
Address:  
1680 Monesano St  
Westport, WA 98595

### Facility details

Facility type: Commercial  
Construction year: Unknown  
Size: Unknown sq. feet  
Prior use: Unknown  
Construction type:  
demolition

### Project details

**Vinyl Asbestos Tile - 1400 square feet**

Indoors

Removed

Control measures:

Critical Barriers

Hepa Vacuum

Manual Methods

Wet methods

Other: Double Bag

Respiratory protection:

1/2 mask - Air purifying respirator

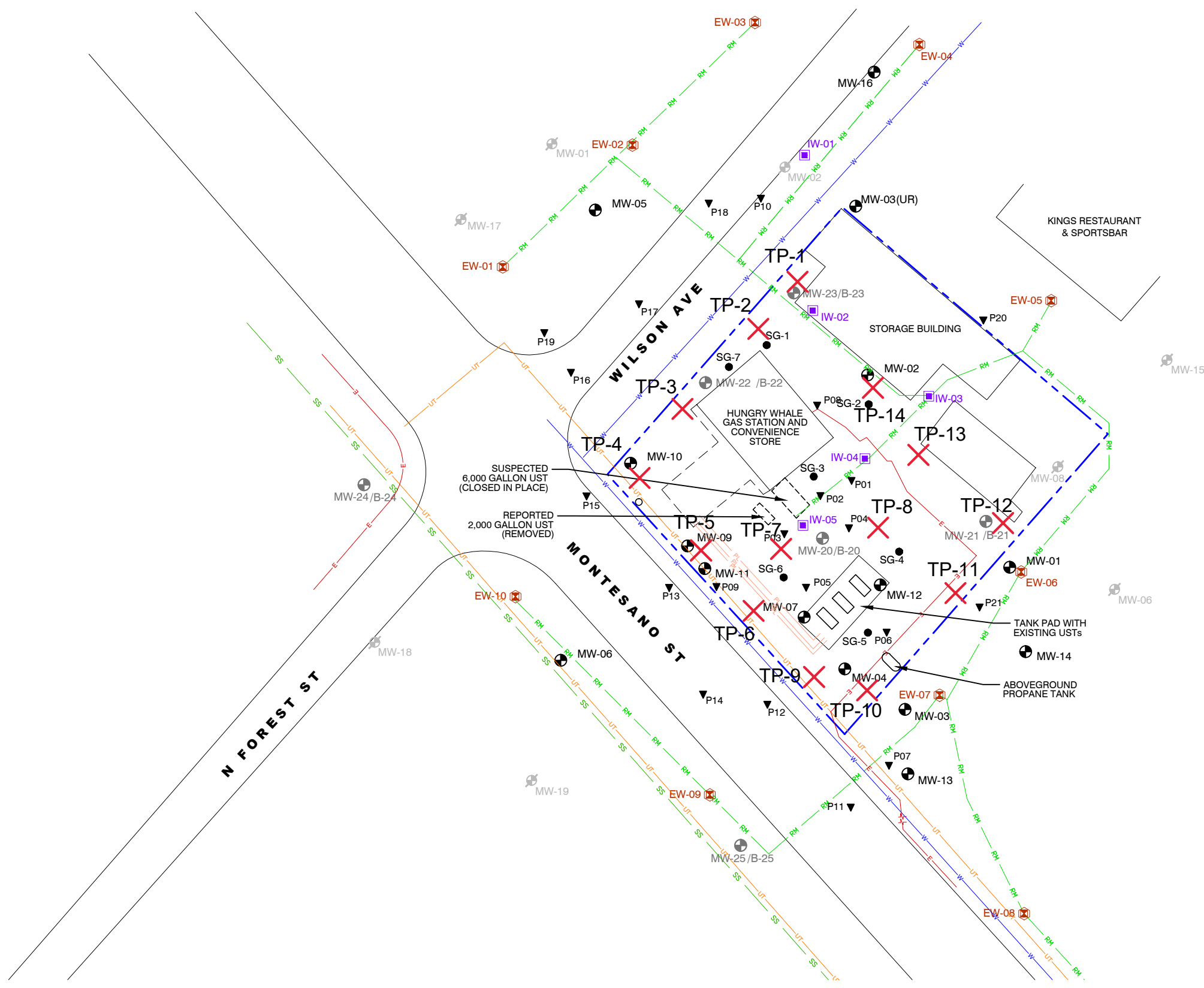
Note: w/ Mastic

# APPENDIX E

## Test Pit Data: Location Map with Field Data and Soil Analytical Reports



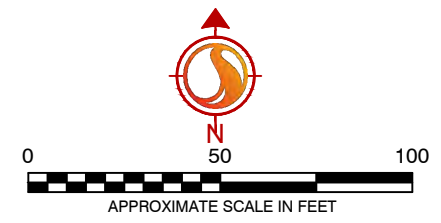
- LEGEND**
- MW-1 MONITORING WELL (pre-2007)
  - MW-1 MONITORING WELL/BORING (2007)
  - EW-01 EXTRACTION WELL (OPERATED 7/1997-10/1999)
  - IW-01 INJECTION WELL (OPERATED 7/1997-10/1999)
  - SG-1 SOIL GAS POINT (2011)
  - P01 SOIL BORING (DIRECT PUSH, 2007)
  - DESTROYED/ABANDONED WELL
  - POWER POLE
  - LEASEHOLD BOUNDARY
  - ELECTRIC LINE
  - SANITARY SEWER LINE
  - UNDERGROUND TELEPHONE LINE
  - WATER LINE
  - REMEDIATION SYSTEM PIPING
  - STATION FUEL/PRODUCT LINE
  - PROPOSED GEOTECHNICAL TEST PIT LOCATION



**NOTE: ONLY TEST PITS TP-1, TP-3, TP-4, TP-6, AND TP-10 THROUGH TP-14 WERE EXCAVATED ON 6/26/2023 AND 6/27/2023. FIELD DATA ARE SUMMARIZED BELOW.**

- TP-1: TOTAL DEPTH = 8' bgs; PID = 5200 ppm.
- TP-3: TOTAL DEPTH = 8' bgs; PID = 4580 ppm.
- TP-4: TOTAL DEPTH = 8.5 bgs; PID = 2.8 to 51.7 ppm.
- TP-6: TOTAL DEPTH = 7.5' bgs; PID = 4567 to 9999+ ppm.
- TP-10: TOTAL DEPTH = 7.5' bgs; PID = 9999+ ppm.
- TP-11: TOTAL DEPTH = 11' bgs; PID = 3963 to 4309 ppm.
- TP-12: TOTAL DEPTH = 11.5' bgs; PID = 55.7 ppm.
- TP-13: TOTAL DEPTH = 8' bgs; PID = 3613 ppm.
- TP-14: TOTAL DEPTH = 9' bgs; PID = 43.5 to 460.3 ppm.

No warranty is made by Stantec Consulting Services Inc. as to the accuracy, reliability, or completeness of these data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed electronically, and may be updated without notification. Any reproduction may result in a loss of scale and/or information.



<p>11130 NE 33RD PLACE, SUITE 200 BELLEVUE, WASHINGTON PHONE: (425) 869-9448 FAX: (425) 869-1190</p>	FOR: <b>THE HUNGRY WHALE</b> 1680 NORTH MONTESANO STREET WESTPORT, WASHINGTON		<b>PROPOSED TEST PIT LOCATIONS - SITE MAP</b>		FIGURE: <b>E1</b>
	JOB NUMBER: 185703328	DRAWN BY: MDR	CHECKED BY: CS	APPROVED BY:	DATE: JAN 2017

## Stantec- Bellevue, WA

Sample Delivery Group: L1630920  
Samples Received: 06/29/2023  
Project Number: 185751446  
Description: Hungry Whale Test Pitting

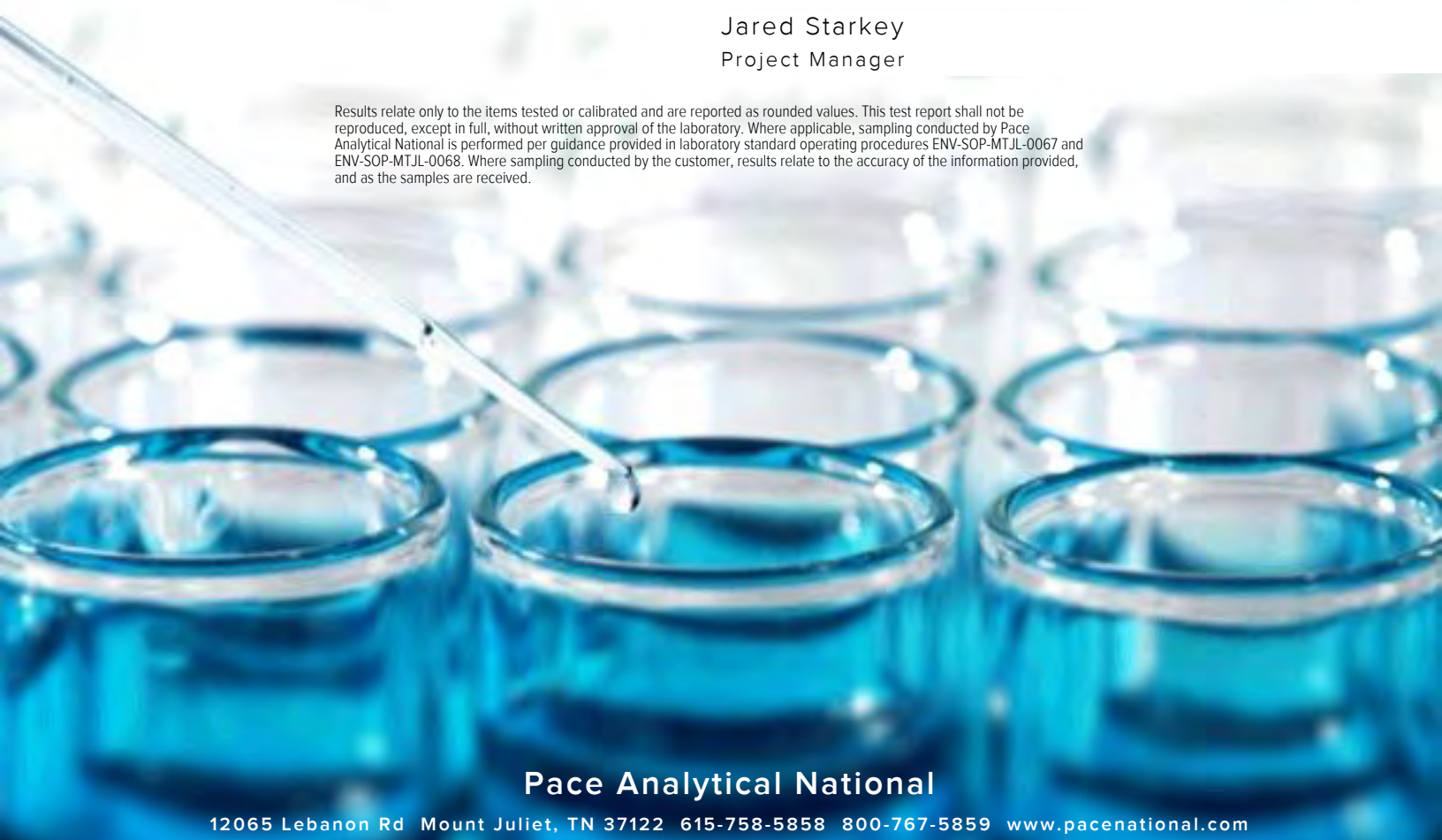
Report To: Stantec  
11130 NE 33rd Pl, Ste 200  
Bellevue, WA 98004

Entire Report Reviewed By:



Jared Starkey  
Project Manager













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



Pace Analytical National

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

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# SAMPLE SUMMARY

## TP-12-11.5 L1630920-01 Solid

Collected by  
Collected date/time  
Received date/time

06/26/23 10:01    06/29/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2087291	1	06/30/23 07:59	06/30/23 08:12	MT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2088424	25	06/26/23 10:01	07/03/23 01:02	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2088619	1	06/26/23 10:01	07/03/23 17:44	ACG	Mt. Juliet, TN



## TP-11-11.0 L1630920-02 Solid

Collected by  
Collected date/time  
Received date/time

06/26/23 11:01    06/29/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2087292	1	06/30/23 08:45	06/30/23 08:55	MT	Mt. Juliet, TN
Mercury by Method 7471B	WG2088378	1	07/06/23 12:02	07/06/23 21:25	AKB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2087410	1	07/02/23 22:07	07/06/23 23:28	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2088424	500	06/26/23 11:01	07/03/23 02:57	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2088725	40	06/26/23 11:01	07/03/23 18:02	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2090778	400	06/26/23 11:01	07/07/23 15:47	BAM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2089205	1	07/05/23 09:29	07/05/23 22:09	JSS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2089199	1	07/05/23 06:02	07/05/23 15:53	AED	Mt. Juliet, TN

## TP-1-8.0 L1630920-03 Solid

Collected by  
Collected date/time  
Received date/time

06/26/23 12:35    06/29/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2087292	1	06/30/23 08:45	06/30/23 08:55	MT	Mt. Juliet, TN
Mercury by Method 7471B	WG2088378	1	07/06/23 12:02	07/06/23 21:28	AKB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2087410	1	07/02/23 22:07	07/06/23 23:31	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2088675	1000	06/26/23 12:35	07/03/23 17:53	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2088725	80	06/26/23 12:35	07/03/23 18:21	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2089205	1	07/05/23 09:29	07/05/23 20:59	JSS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2089199	1	07/05/23 06:02	07/05/23 16:11	AED	Mt. Juliet, TN

## TP-14-3.5 L1630920-04 Solid

Collected by  
Collected date/time  
Received date/time

06/26/23 14:15    06/29/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2087292	1	06/30/23 08:45	06/30/23 08:55	MT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2088424	25	06/26/23 14:15	07/03/23 01:25	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2088725	3.33	06/26/23 14:15	07/03/23 15:28	DWR	Mt. Juliet, TN

## TP-14-13.5 L1630920-05 Solid

Collected by  
Collected date/time  
Received date/time

06/26/23 14:54    06/29/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2087292	1	06/30/23 08:45	06/30/23 08:55	MT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2088424	290	06/26/23 14:54	07/03/23 02:11	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2090778	4.24	06/26/23 14:54	07/07/23 15:28	BAM	Mt. Juliet, TN

# SAMPLE SUMMARY

## TP-13-8.0 L1630920-06 Solid

Collected by  
Collected date/time  
Received date/time

06/26/23 16:00    06/29/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2087292	1	06/30/23 08:45	06/30/23 08:55	MT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2088424	500	06/26/23 16:00	07/03/23 03:20	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2088725	41.2	06/26/23 16:00	07/03/23 18:59	DWR	Mt. Juliet, TN



## TP-10-3.0 L1630920-07 Solid

Collected by  
Collected date/time  
Received date/time

06/26/23 16:10    06/29/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2087292	1	06/30/23 08:45	06/30/23 08:55	MT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2088675	1000	06/26/23 16:10	07/03/23 18:12	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2088725	80.8	06/26/23 16:10	07/03/23 19:19	DWR	Mt. Juliet, TN

## TP-10-7.5 L1630920-08 Solid

Collected by  
Collected date/time  
Received date/time

06/26/23 16:31    06/29/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2087292	1	06/30/23 08:45	06/30/23 08:55	MT	Mt. Juliet, TN
Mercury by Method 7471B	WG2088378	1	07/06/23 12:02	07/06/23 21:30	AKB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2087410	1	07/02/23 22:07	07/06/23 23:34	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2088424	250	06/26/23 16:31	07/03/23 02:34	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2088725	20	06/26/23 16:31	07/03/23 19:38	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2089205	1	07/05/23 09:29	07/05/23 21:25	JSS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2089199	1	07/05/23 06:02	07/05/23 16:29	AED	Mt. Juliet, TN

## TP-6-7.5 L1630920-09 Solid

Collected by  
Collected date/time  
Received date/time

06/27/23 08:02    06/29/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2087292	1	06/30/23 08:45	06/30/23 08:55	MT	Mt. Juliet, TN
Mercury by Method 7471B	WG2088378	1	07/06/23 12:02	07/06/23 21:33	AKB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2090356	1	07/06/23 17:23	07/08/23 23:50	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2088675	1000	06/27/23 08:02	07/03/23 18:30	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2088997	80	06/27/23 08:02	07/04/23 05:25	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2089926	1000	06/27/23 08:02	07/06/23 13:11	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2089205	1	07/05/23 09:29	07/06/23 02:14	JSS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2089199	1	07/05/23 06:02	07/05/23 16:47	AED	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2089199	10	07/05/23 06:02	07/06/23 18:38	AED	Mt. Juliet, TN

## TP-4-8.5 L1630920-10 Solid

Collected by  
Collected date/time  
Received date/time

06/27/23 09:20    06/29/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2087292	1	06/30/23 08:45	06/30/23 08:55	MT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2088424	25	06/27/23 09:20	07/03/23 01:48	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2088997	1.06	06/27/23 09:20	07/04/23 01:58	DWR	Mt. Juliet, TN



# SAMPLE SUMMARY

## TP-3-8.0 L1630920-11 Solid

Collected by  
Collected date/time  
Received date/time

06/27/23 00:00    06/29/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2087292	1	06/30/23 08:45	06/30/23 08:55	MT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2088675	1000	06/27/23 00:00	07/03/23 18:48	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2088997	80	06/27/23 00:00	07/04/23 05:44	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2089926	1000	06/27/23 00:00	07/06/23 13:31	DWR	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

## DUP-01 L1630920-12 Solid

Collected by  
Collected date/time  
Received date/time

06/27/23 00:00    06/29/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2087293	1	06/30/23 12:01	06/30/23 12:26	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2088675	1000	06/27/23 00:00	07/03/23 19:06	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2088997	80	06/27/23 00:00	07/04/23 06:02	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2089926	800	06/27/23 00:00	07/06/23 13:51	DWR	Mt. Juliet, TN

5 Sr

6 Qc

7 Is

8 Gl

## TRIP BLANK L1630920-13 Solid

Collected by  
Collected date/time  
Received date/time

06/27/23 00:00    06/29/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2088424	25	06/27/23 00:00	07/02/23 22:20	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2088997	1	06/27/23 00:00	07/04/23 01:01	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2089377	1	06/27/23 00:00	07/05/23 20:35	JAH	Mt. Juliet, TN

9 Al

10 Sc



# CASE NARRATIVE

Unless qualified or notated within the narrative below, all sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. 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.

Jared Starkey  
Project Manager



## Metals (ICP) by Method 6010D

The sample matrix interfered with the ability to make any accurate determination; spike value is high.

Batch	Lab Sample ID	Analytes
WG2090356	(MSD) R3946529-6	Barium

The sample matrix interfered with the ability to make any accurate determination; spike value is low.

Batch	Lab Sample ID	Analytes
WG2090356	(MS) R3946529-5	Barium

The associated batch QC was outside the established quality control range for precision.

Batch	Lab Sample ID	Analytes
WG2090356	(MSD) R3946529-6	Barium

## Volatile Organic Compounds (GC) by Method NWTPHGX

The same analyte is found in the associated blank.

Batch	Analyte	Lab Sample ID
WG2088424	Gasoline Range Organics-NWTPH	L1630920-01, 04, 05, 10, 13

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

The sample matrix interfered with the ability to make any accurate determination; spike value is low.

Batch	Lab Sample ID	Analytes
WG2089205	(MS) R3945066-3	Diesel Range Organics (DRO)

The associated batch QC was outside the established quality control range for precision.

Batch	Lab Sample ID	Analytes
WG2089205	(MSD) R3945066-4	Diesel Range Organics (DRO)

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

Surrogate recovery limits have been exceeded; values are outside lower control limits.

Batch	Analyte	Lab Sample ID
WG2089199	Nitrobenzene-d5	L1630920-09

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	91.0		1	06/30/2023 08:12	<a href="#">WG2087291</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	3.91	<u>B</u>	1.02	3.00	25	07/03/2023 01:02	<a href="#">WG2088424</a>
(S) a,a,a-Trifluorotoluene(FID)	92.3			77.0-120		07/03/2023 01:02	<a href="#">WG2088424</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.00182		0.000561	0.00120	1	07/03/2023 17:44	<a href="#">WG2088619</a>
Toluene	0.0168		0.00156	0.00600	1	07/03/2023 17:44	<a href="#">WG2088619</a>
Ethylbenzene	0.0132		0.000885	0.00300	1	07/03/2023 17:44	<a href="#">WG2088619</a>
Total Xylenes	0.136		0.00106	0.00780	1	07/03/2023 17:44	<a href="#">WG2088619</a>
(S) Toluene-d8	112			75.0-131		07/03/2023 17:44	<a href="#">WG2088619</a>
(S) 4-Bromofluorobenzene	108			67.0-138		07/03/2023 17:44	<a href="#">WG2088619</a>
(S) 1,2-Dichloroethane-d4	96.3			70.0-130		07/03/2023 17:44	<a href="#">WG2088619</a>

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

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	76.8		1	06/30/2023 08:55	<a href="#">WG2087292</a>

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Mercury	0.0256	J	0.0235	0.0521	1	07/06/2023 21:25	<a href="#">WG2088378</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Arsenic	1.88	J	0.675	2.61	1	07/06/2023 23:28	<a href="#">WG2087410</a>
Barium	8.75		0.111	0.651	1	07/06/2023 23:28	<a href="#">WG2087410</a>
Cadmium	0.0997	J	0.0614	0.651	1	07/06/2023 23:28	<a href="#">WG2087410</a>
Chromium	17.5		0.173	1.30	1	07/06/2023 23:28	<a href="#">WG2087410</a>
Lead	4.02		0.271	0.651	1	07/06/2023 23:28	<a href="#">WG2087410</a>
Selenium	U		0.995	2.61	1	07/06/2023 23:28	<a href="#">WG2087410</a>
Silver	U		0.165	1.30	1	07/06/2023 23:28	<a href="#">WG2087410</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	4520		27.7	81.9	500	07/03/2023 02:57	<a href="#">WG2088424</a>
(S) a,a,a-Trifluorotoluene(FID)	97.2			77.0-120		07/03/2023 02:57	<a href="#">WG2088424</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.705		0.0306	0.0655	40	07/03/2023 18:02	<a href="#">WG2088725</a>
Toluene	31.8		0.0852	0.328	40	07/03/2023 18:02	<a href="#">WG2088725</a>
Ethylbenzene	74.4		0.0483	0.164	40	07/03/2023 18:02	<a href="#">WG2088725</a>
Total Xylenes	418		0.577	4.26	400	07/07/2023 15:47	<a href="#">WG2090778</a>
(S) Toluene-d8	106			75.0-131		07/03/2023 18:02	<a href="#">WG2088725</a>
(S) Toluene-d8	104			75.0-131		07/07/2023 15:47	<a href="#">WG2090778</a>
(S) 4-Bromofluorobenzene	102			67.0-138		07/03/2023 18:02	<a href="#">WG2088725</a>
(S) 4-Bromofluorobenzene	100			67.0-138		07/07/2023 15:47	<a href="#">WG2090778</a>
(S) 1,2-Dichloroethane-d4	91.8			70.0-130		07/03/2023 18:02	<a href="#">WG2088725</a>
(S) 1,2-Dichloroethane-d4	99.1			70.0-130		07/07/2023 15:47	<a href="#">WG2090778</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Diesel Range Organics (DRO)	122		1.73	5.21	1	07/05/2023 22:09	<a href="#">WG2089205</a>
Residual Range Organics (RRO)	8.43	J	4.34	13.0	1	07/05/2023 22:09	<a href="#">WG2089205</a>
(S) o-Terphenyl	44.7			18.0-148		07/05/2023 22:09	<a href="#">WG2089205</a>

Sample Narrative:

L1630920-02 WG2089205: Sample resembles laboratory standard for Kerosene.



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		0.00300	0.00782	1	07/05/2023 15:53	<a href="#">WG2089199</a>
Acenaphthene	0.0103		0.00272	0.00782	1	07/05/2023 15:53	<a href="#">WG2089199</a>
Acenaphthylene	U		0.00281	0.00782	1	07/05/2023 15:53	<a href="#">WG2089199</a>
Benzo(a)anthracene	0.00323	J	0.00225	0.00782	1	07/05/2023 15:53	<a href="#">WG2089199</a>
Benzo(a)pyrene	U		0.00233	0.00782	1	07/05/2023 15:53	<a href="#">WG2089199</a>
Benzo(b)fluoranthene	U		0.00199	0.00782	1	07/05/2023 15:53	<a href="#">WG2089199</a>
Benzo(g,h,i)perylene	U		0.00231	0.00782	1	07/05/2023 15:53	<a href="#">WG2089199</a>
Benzo(k)fluoranthene	U		0.00280	0.00782	1	07/05/2023 15:53	<a href="#">WG2089199</a>
Chrysene	U		0.00302	0.00782	1	07/05/2023 15:53	<a href="#">WG2089199</a>
Dibenz(a,h)anthracene	U		0.00224	0.00782	1	07/05/2023 15:53	<a href="#">WG2089199</a>
Fluoranthene	0.00732	J	0.00296	0.00782	1	07/05/2023 15:53	<a href="#">WG2089199</a>
Fluorene	0.0105		0.00267	0.00782	1	07/05/2023 15:53	<a href="#">WG2089199</a>
Indeno(1,2,3-cd)pyrene	U		0.00236	0.00782	1	07/05/2023 15:53	<a href="#">WG2089199</a>
Naphthalene	2.10		0.00532	0.0261	1	07/05/2023 15:53	<a href="#">WG2089199</a>
Phenanthrene	0.0224		0.00301	0.00782	1	07/05/2023 15:53	<a href="#">WG2089199</a>
Pyrene	0.00928		0.00261	0.00782	1	07/05/2023 15:53	<a href="#">WG2089199</a>
1-Methylnaphthalene	1.68		0.00585	0.0261	1	07/05/2023 15:53	<a href="#">WG2089199</a>
2-Methylnaphthalene	3.67		0.00556	0.0261	1	07/05/2023 15:53	<a href="#">WG2089199</a>
2-Chloronaphthalene	U		0.00607	0.0261	1	07/05/2023 15:53	<a href="#">WG2089199</a>
(S) p-Terphenyl-d14	77.1			23.0-120		07/05/2023 15:53	<a href="#">WG2089199</a>
(S) Nitrobenzene-d5	89.8			14.0-149		07/05/2023 15:53	<a href="#">WG2089199</a>
(S) 2-Fluorobiphenyl	70.5			34.0-125		07/05/2023 15:53	<a href="#">WG2089199</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	78.9		1	06/30/2023 08:55	<a href="#">WG2087292</a>

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Mercury	0.0323	J	0.0228	0.0507	1	07/06/2023 21:28	<a href="#">WG2088378</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Arsenic	1.40	J	0.657	2.54	1	07/06/2023 23:31	<a href="#">WG2087410</a>
Barium	9.58		0.108	0.634	1	07/06/2023 23:31	<a href="#">WG2087410</a>
Cadmium	0.0919	J	0.0597	0.634	1	07/06/2023 23:31	<a href="#">WG2087410</a>
Chromium	14.1		0.169	1.27	1	07/06/2023 23:31	<a href="#">WG2087410</a>
Lead	1.25		0.264	0.634	1	07/06/2023 23:31	<a href="#">WG2087410</a>
Selenium	U		0.969	2.54	1	07/06/2023 23:31	<a href="#">WG2087410</a>
Silver	U		0.161	1.27	1	07/06/2023 23:31	<a href="#">WG2087410</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	2470		52.9	156	1000	07/03/2023 17:53	<a href="#">WG2088675</a>
(S) a,a,a-Trifluorotoluene(FID)	108			77.0-120		07/03/2023 17:53	<a href="#">WG2088675</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	1.32		0.0591	0.126	80	07/03/2023 18:21	<a href="#">WG2088725</a>
Toluene	75.8		0.164	0.632	80	07/03/2023 18:21	<a href="#">WG2088725</a>
Ethylbenzene	86.2		0.0932	0.316	80	07/03/2023 18:21	<a href="#">WG2088725</a>
Total Xylenes	455		0.111	0.821	80	07/03/2023 18:21	<a href="#">WG2088725</a>
(S) Toluene-d8	105			75.0-131		07/03/2023 18:21	<a href="#">WG2088725</a>
(S) 4-Bromofluorobenzene	108			67.0-138		07/03/2023 18:21	<a href="#">WG2088725</a>
(S) 1,2-Dichloroethane-d4	94.3			70.0-130		07/03/2023 18:21	<a href="#">WG2088725</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Diesel Range Organics (DRO)	58.7		1.69	5.07	1	07/05/2023 20:59	<a href="#">WG2089205</a>
Residual Range Organics (RRO)	U		4.22	12.7	1	07/05/2023 20:59	<a href="#">WG2089205</a>
(S) o-Terphenyl	55.4			18.0-148		07/05/2023 20:59	<a href="#">WG2089205</a>

Sample Narrative:

L1630920-03 WG2089205: Sample resembles laboratory standard for Kerosene.

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Anthracene	U		0.00292	0.00761	1	07/05/2023 16:11	<a href="#">WG2089199</a>
Acenaphthene	0.0121		0.00265	0.00761	1	07/05/2023 16:11	<a href="#">WG2089199</a>
Acenaphthylene	U		0.00274	0.00761	1	07/05/2023 16:11	<a href="#">WG2089199</a>
Benzo(a)anthracene	U		0.00219	0.00761	1	07/05/2023 16:11	<a href="#">WG2089199</a>
Benzo(a)pyrene	U		0.00227	0.00761	1	07/05/2023 16:11	<a href="#">WG2089199</a>



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
Benzo(b)fluoranthene	U		0.00194	0.00761	1	07/05/2023 16:11	<a href="#">WG2089199</a>
Benzo(g,h,i)perylene	U		0.00224	0.00761	1	07/05/2023 16:11	<a href="#">WG2089199</a>
Benzo(k)fluoranthene	U		0.00273	0.00761	1	07/05/2023 16:11	<a href="#">WG2089199</a>
Chrysene	U		0.00294	0.00761	1	07/05/2023 16:11	<a href="#">WG2089199</a>
Dibenz(a,h)anthracene	U		0.00218	0.00761	1	07/05/2023 16:11	<a href="#">WG2089199</a>
Fluoranthene	0.00303	J	0.00288	0.00761	1	07/05/2023 16:11	<a href="#">WG2089199</a>
Fluorene	0.00814		0.00260	0.00761	1	07/05/2023 16:11	<a href="#">WG2089199</a>
Indeno(1,2,3-cd)pyrene	U		0.00230	0.00761	1	07/05/2023 16:11	<a href="#">WG2089199</a>
Naphthalene	2.07		0.00517	0.0254	1	07/05/2023 16:11	<a href="#">WG2089199</a>
Phenanthrene	0.0126		0.00293	0.00761	1	07/05/2023 16:11	<a href="#">WG2089199</a>
Pyrene	0.00401	J	0.00254	0.00761	1	07/05/2023 16:11	<a href="#">WG2089199</a>
1-Methylnaphthalene	2.02		0.00569	0.0254	1	07/05/2023 16:11	<a href="#">WG2089199</a>
2-Methylnaphthalene	4.59		0.00542	0.0254	1	07/05/2023 16:11	<a href="#">WG2089199</a>
2-Chloronaphthalene	U		0.00591	0.0254	1	07/05/2023 16:11	<a href="#">WG2089199</a>
(S) p-Terphenyl-d14	76.1			23.0-120		07/05/2023 16:11	<a href="#">WG2089199</a>
(S) Nitrobenzene-d5	91.1			14.0-149		07/05/2023 16:11	<a href="#">WG2089199</a>
(S) 2-Fluorobiphenyl	68.4			34.0-125		07/05/2023 16:11	<a href="#">WG2089199</a>

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

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	59.8		1	06/30/2023 08:55	<a href="#">WG2087292</a>

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	2.24	<a href="#">B J</a>	2.19	6.45	25	07/03/2023 01:25	<a href="#">WG2088424</a>
(S) a,a,a-Trifluorotoluene(FID)	94.0			77.0-120		07/03/2023 01:25	<a href="#">WG2088424</a>

3 Ss

4 Cn

5 Sr

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.0140		0.00292	0.00624	3.33	07/03/2023 15:28	<a href="#">WG2088725</a>
Toluene	0.0210	<a href="#">J</a>	0.00811	0.0313	3.33	07/03/2023 15:28	<a href="#">WG2088725</a>
Ethylbenzene	0.0223		0.00459	0.0156	3.33	07/03/2023 15:28	<a href="#">WG2088725</a>
Total Xylenes	0.0757		0.00549	0.0405	3.33	07/03/2023 15:28	<a href="#">WG2088725</a>
(S) Toluene-d8	110			75.0-131		07/03/2023 15:28	<a href="#">WG2088725</a>
(S) 4-Bromofluorobenzene	95.9			67.0-138		07/03/2023 15:28	<a href="#">WG2088725</a>
(S) 1,2-Dichloroethane-d4	86.4			70.0-130		07/03/2023 15:28	<a href="#">WG2088725</a>

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	66.5		1	06/30/2023 08:55	<a href="#">WG2087292</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	99.0	<u>B</u>	19.0	56.2	290	07/03/2023 02:11	<a href="#">WG2088424</a>
(S) a,a,a-Trifluorotoluene(FID)	86.1			77.0-120		07/03/2023 02:11	<a href="#">WG2088424</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.299		0.00392	0.00839	4.24	07/07/2023 15:28	<a href="#">WG2090778</a>
Toluene	0.0639		0.0109	0.0419	4.24	07/07/2023 15:28	<a href="#">WG2090778</a>
Ethylbenzene	0.0957		0.00617	0.0210	4.24	07/07/2023 15:28	<a href="#">WG2090778</a>
Total Xylenes	0.479		0.00738	0.0546	4.24	07/07/2023 15:28	<a href="#">WG2090778</a>
(S) Toluene-d8	107			75.0-131		07/07/2023 15:28	<a href="#">WG2090778</a>
(S) 4-Bromofluorobenzene	98.2			67.0-138		07/07/2023 15:28	<a href="#">WG2090778</a>
(S) 1,2-Dichloroethane-d4	94.1			70.0-130		07/07/2023 15:28	<a href="#">WG2090778</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	95.7		1	06/30/2023 08:55	<a href="#">WG2087292</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	1520		18.4	54.5	500	07/03/2023 03:20	<a href="#">WG2088424</a>
(S) a,a,a-Trifluorotoluene(FID)	82.5			77.0-120		07/03/2023 03:20	<a href="#">WG2088424</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	U		0.0209	0.0449	41.2	07/03/2023 18:59	<a href="#">WG2088725</a>
Toluene	0.172	J	0.0584	0.224	41.2	07/03/2023 18:59	<a href="#">WG2088725</a>
Ethylbenzene	21.2		0.0331	0.112	41.2	07/03/2023 18:59	<a href="#">WG2088725</a>
Total Xylenes	136		0.0395	0.292	41.2	07/03/2023 18:59	<a href="#">WG2088725</a>
(S) Toluene-d8	104			75.0-131		07/03/2023 18:59	<a href="#">WG2088725</a>
(S) 4-Bromofluorobenzene	105			67.0-138		07/03/2023 18:59	<a href="#">WG2088725</a>
(S) 1,2-Dichloroethane-d4	91.1			70.0-130		07/03/2023 18:59	<a href="#">WG2088725</a>

Sample Narrative:

L1630920-06 WG2088725: Non-target compounds too high to run at a lower dilution.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	78.3		1	06/30/2023 08:55	<a href="#">WG2087292</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	5340		52.9	156	1000	07/03/2023 18:12	<a href="#">WG2088675</a>
(S) a,a,a-Trifluorotoluene(FID)	108			77.0-120		07/03/2023 18:12	<a href="#">WG2088675</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	1.35		0.0586	0.125	80.8	07/03/2023 19:19	<a href="#">WG2088725</a>
Toluene	0.674		0.163	0.627	80.8	07/03/2023 19:19	<a href="#">WG2088725</a>
Ethylbenzene	88.1		0.0924	0.314	80.8	07/03/2023 19:19	<a href="#">WG2088725</a>
Total Xylenes	458		0.110	0.815	80.8	07/03/2023 19:19	<a href="#">WG2088725</a>
(S) Toluene-d8	103			75.0-131		07/03/2023 19:19	<a href="#">WG2088725</a>
(S) 4-Bromofluorobenzene	103			67.0-138		07/03/2023 19:19	<a href="#">WG2088725</a>
(S) 1,2-Dichloroethane-d4	94.0			70.0-130		07/03/2023 19:19	<a href="#">WG2088725</a>

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

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	79.0		1	06/30/2023 08:55	<a href="#">WG2087292</a>

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Mercury	0.0300	J	0.0228	0.0506	1	07/06/2023 21:30	<a href="#">WG2088378</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Arsenic	2.32	J	0.656	2.53	1	07/06/2023 23:34	<a href="#">WG2087410</a>
Barium	8.24		0.108	0.633	1	07/06/2023 23:34	<a href="#">WG2087410</a>
Cadmium	0.0692	J	0.0596	0.633	1	07/06/2023 23:34	<a href="#">WG2087410</a>
Chromium	18.1		0.168	1.27	1	07/06/2023 23:34	<a href="#">WG2087410</a>
Lead	1.72		0.263	0.633	1	07/06/2023 23:34	<a href="#">WG2087410</a>
Selenium	U		0.967	2.53	1	07/06/2023 23:34	<a href="#">WG2087410</a>
Silver	U		0.161	1.27	1	07/06/2023 23:34	<a href="#">WG2087410</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	516		13.4	39.4	250	07/03/2023 02:34	<a href="#">WG2088424</a>
(S) a,a,a-Trifluorotoluene(FID)	88.3			77.0-120		07/03/2023 02:34	<a href="#">WG2088424</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.293		0.0147	0.0315	20	07/03/2023 19:38	<a href="#">WG2088725</a>
Toluene	1.72		0.0410	0.158	20	07/03/2023 19:38	<a href="#">WG2088725</a>
Ethylbenzene	12.4		0.0232	0.0788	20	07/03/2023 19:38	<a href="#">WG2088725</a>
Total Xylenes	89.0		0.0277	0.205	20	07/03/2023 19:38	<a href="#">WG2088725</a>
(S) Toluene-d8	105			75.0-131		07/03/2023 19:38	<a href="#">WG2088725</a>
(S) 4-Bromofluorobenzene	104			67.0-138		07/03/2023 19:38	<a href="#">WG2088725</a>
(S) 1,2-Dichloroethane-d4	90.9			70.0-130		07/03/2023 19:38	<a href="#">WG2088725</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Diesel Range Organics (DRO)	19.4		1.68	5.06	1	07/05/2023 21:25	<a href="#">WG2089205</a>
Residual Range Organics (RRO)	U		4.22	12.7	1	07/05/2023 21:25	<a href="#">WG2089205</a>
(S) o-Terphenyl	29.3			18.0-148		07/05/2023 21:25	<a href="#">WG2089205</a>

Sample Narrative:

L1630920-08 WG2089205: Sample resembles laboratory standard for Gasoline.

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Anthracene	U		0.00291	0.00760	1	07/05/2023 16:29	<a href="#">WG2089199</a>
Acenaphthene	0.00309	J	0.00265	0.00760	1	07/05/2023 16:29	<a href="#">WG2089199</a>
Acenaphthylene	U		0.00273	0.00760	1	07/05/2023 16:29	<a href="#">WG2089199</a>
Benzo(a)anthracene	U		0.00219	0.00760	1	07/05/2023 16:29	<a href="#">WG2089199</a>
Benzo(a)pyrene	U		0.00227	0.00760	1	07/05/2023 16:29	<a href="#">WG2089199</a>



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
Benzo(b)fluoranthene	U		0.00194	0.00760	1	07/05/2023 16:29	<a href="#">WG2089199</a>
Benzo(g,h,i)perylene	U		0.00224	0.00760	1	07/05/2023 16:29	<a href="#">WG2089199</a>
Benzo(k)fluoranthene	U		0.00272	0.00760	1	07/05/2023 16:29	<a href="#">WG2089199</a>
Chrysene	U		0.00294	0.00760	1	07/05/2023 16:29	<a href="#">WG2089199</a>
Dibenz(a,h)anthracene	U		0.00218	0.00760	1	07/05/2023 16:29	<a href="#">WG2089199</a>
Fluoranthene	U		0.00287	0.00760	1	07/05/2023 16:29	<a href="#">WG2089199</a>
Fluorene	0.00273	J	0.00260	0.00760	1	07/05/2023 16:29	<a href="#">WG2089199</a>
Indeno(1,2,3-cd)pyrene	U		0.00229	0.00760	1	07/05/2023 16:29	<a href="#">WG2089199</a>
Naphthalene	1.10		0.00517	0.0253	1	07/05/2023 16:29	<a href="#">WG2089199</a>
Phenanthrene	0.00356	J	0.00292	0.00760	1	07/05/2023 16:29	<a href="#">WG2089199</a>
Pyrene	U		0.00253	0.00760	1	07/05/2023 16:29	<a href="#">WG2089199</a>
1-Methylnaphthalene	0.633		0.00569	0.0253	1	07/05/2023 16:29	<a href="#">WG2089199</a>
2-Methylnaphthalene	1.42		0.00541	0.0253	1	07/05/2023 16:29	<a href="#">WG2089199</a>
2-Chloronaphthalene	U		0.00590	0.0253	1	07/05/2023 16:29	<a href="#">WG2089199</a>
(S) p-Terphenyl-d14	82.8			23.0-120		07/05/2023 16:29	<a href="#">WG2089199</a>
(S) Nitrobenzene-d5	68.6			14.0-149		07/05/2023 16:29	<a href="#">WG2089199</a>
(S) 2-Fluorobiphenyl	68.9			34.0-125		07/05/2023 16:29	<a href="#">WG2089199</a>

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

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	80.1		1	06/30/2023 08:55	<a href="#">WG2087292</a>

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Mercury	0.0241	J	0.0225	0.0499	1	07/06/2023 21:33	<a href="#">WG2088378</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Arsenic	1.40	J	0.646	2.50	1	07/08/2023 23:50	<a href="#">WG2090356</a>
Barium	3.66		0.106	0.624	1	07/08/2023 23:50	<a href="#">WG2090356</a>
Cadmium	U		0.0588	0.624	1	07/08/2023 23:50	<a href="#">WG2090356</a>
Chromium	12.1		0.166	1.25	1	07/08/2023 23:50	<a href="#">WG2090356</a>
Lead	6.05		0.260	0.624	1	07/08/2023 23:50	<a href="#">WG2090356</a>
Selenium	U		0.953	2.50	1	07/08/2023 23:50	<a href="#">WG2090356</a>
Silver	U		0.158	1.25	1	07/08/2023 23:50	<a href="#">WG2090356</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	5160		52.0	153	1000	07/03/2023 18:30	<a href="#">WG2088675</a>
(S) a,a,a-Trifluorotoluene(FID)	105			77.0-120		07/03/2023 18:30	<a href="#">WG2088675</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	17.1		0.0567	0.121	80	07/04/2023 05:25	<a href="#">WG2088997</a>
Toluene	69.9		0.158	0.607	80	07/04/2023 05:25	<a href="#">WG2088997</a>
Ethylbenzene	165		0.0895	0.303	80	07/04/2023 05:25	<a href="#">WG2088997</a>
Total Xylenes	443		1.35	9.97	1000	07/06/2023 13:11	<a href="#">WG2089926</a>
(S) Toluene-d8	110			75.0-131		07/04/2023 05:25	<a href="#">WG2088997</a>
(S) Toluene-d8	97.1			75.0-131		07/06/2023 13:11	<a href="#">WG2089926</a>
(S) 4-Bromofluorobenzene	111			67.0-138		07/04/2023 05:25	<a href="#">WG2088997</a>
(S) 4-Bromofluorobenzene	101			67.0-138		07/06/2023 13:11	<a href="#">WG2089926</a>
(S) 1,2-Dichloroethane-d4	94.2			70.0-130		07/04/2023 05:25	<a href="#">WG2088997</a>
(S) 1,2-Dichloroethane-d4	105			70.0-130		07/06/2023 13:11	<a href="#">WG2089926</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Diesel Range Organics (DRO)	119		1.66	4.99	1	07/06/2023 02:14	<a href="#">WG2089205</a>
Residual Range Organics (RRO)	4.19	J	4.16	12.5	1	07/06/2023 02:14	<a href="#">WG2089205</a>
(S) o-Terphenyl	53.3			18.0-148		07/06/2023 02:14	<a href="#">WG2089205</a>

Sample Narrative:

L1630920-09 WG2089205: Sample resembles laboratory standard for Kerosene.



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		0.00287	0.00749	1	07/05/2023 16:47	<a href="#">WG2089199</a>
Acenaphthene	0.0316		0.00261	0.00749	1	07/05/2023 16:47	<a href="#">WG2089199</a>
Acenaphthylene	U		0.00270	0.00749	1	07/05/2023 16:47	<a href="#">WG2089199</a>
Benzo(a)anthracene	0.00540	J	0.00216	0.00749	1	07/05/2023 16:47	<a href="#">WG2089199</a>
Benzo(a)pyrene	0.00231	J	0.00223	0.00749	1	07/05/2023 16:47	<a href="#">WG2089199</a>
Benzo(b)fluoranthene	U		0.00191	0.00749	1	07/05/2023 16:47	<a href="#">WG2089199</a>
Benzo(g,h,i)perylene	0.00223	J	0.00221	0.00749	1	07/05/2023 16:47	<a href="#">WG2089199</a>
Benzo(k)fluoranthene	U		0.00268	0.00749	1	07/05/2023 16:47	<a href="#">WG2089199</a>
Chrysene	0.00302	J	0.00290	0.00749	1	07/05/2023 16:47	<a href="#">WG2089199</a>
Dibenz(a,h)anthracene	U		0.00215	0.00749	1	07/05/2023 16:47	<a href="#">WG2089199</a>
Fluoranthene	0.0161		0.00283	0.00749	1	07/05/2023 16:47	<a href="#">WG2089199</a>
Fluorene	0.0266		0.00256	0.00749	1	07/05/2023 16:47	<a href="#">WG2089199</a>
Indeno(1,2,3-cd)pyrene	U		0.00226	0.00749	1	07/05/2023 16:47	<a href="#">WG2089199</a>
Naphthalene	9.03		0.0509	0.250	10	07/06/2023 18:38	<a href="#">WG2089199</a>
Phenanthrene	0.0524		0.00288	0.00749	1	07/05/2023 16:47	<a href="#">WG2089199</a>
Pyrene	0.0148		0.00250	0.00749	1	07/05/2023 16:47	<a href="#">WG2089199</a>
1-Methylnaphthalene	4.60		0.00560	0.0250	1	07/05/2023 16:47	<a href="#">WG2089199</a>
2-Methylnaphthalene	10.4		0.0533	0.250	10	07/06/2023 18:38	<a href="#">WG2089199</a>
2-Chloronaphthalene	U		0.00581	0.0250	1	07/05/2023 16:47	<a href="#">WG2089199</a>
(S) p-Terphenyl-d14	78.1			23.0-120		07/06/2023 18:38	<a href="#">WG2089199</a>
(S) p-Terphenyl-d14	78.2			23.0-120		07/05/2023 16:47	<a href="#">WG2089199</a>
(S) Nitrobenzene-d5	134			14.0-149		07/06/2023 18:38	<a href="#">WG2089199</a>
(S) Nitrobenzene-d5	0.000	J2		14.0-149		07/05/2023 16:47	<a href="#">WG2089199</a>
(S) 2-Fluorobiphenyl	70.2			34.0-125		07/05/2023 16:47	<a href="#">WG2089199</a>
(S) 2-Fluorobiphenyl	72.7			34.0-125		07/06/2023 18:38	<a href="#">WG2089199</a>

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Is

8  
Gl

9  
Al

10  
Sc

Sample Narrative:

L1630920-09 WG2089199: Surrogate failure due to matrix interference

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	76.6		1	06/30/2023 08:55	<a href="#">WG2087292</a>

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	21.5	<u>B</u>	1.43	4.20	25	07/03/2023 01:48	<a href="#">WG2088424</a>
(S) a,a,a-Trifluorotoluene(FID)	84.6			77.0-120		07/03/2023 01:48	<a href="#">WG2088424</a>

3 Ss

4 Cn

5 Sr

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.0290		0.000788	0.00169	1.06	07/04/2023 01:58	<a href="#">WG2088997</a>
Toluene	0.101		0.00220	0.00844	1.06	07/04/2023 01:58	<a href="#">WG2088997</a>
Ethylbenzene	2.02		0.00124	0.00422	1.06	07/04/2023 01:58	<a href="#">WG2088997</a>
Total Xylenes	4.28		0.00149	0.0110	1.06	07/04/2023 01:58	<a href="#">WG2088997</a>
(S) Toluene-d8	113			75.0-131		07/04/2023 01:58	<a href="#">WG2088997</a>
(S) 4-Bromofluorobenzene	114			67.0-138		07/04/2023 01:58	<a href="#">WG2088997</a>
(S) 1,2-Dichloroethane-d4	92.4			70.0-130		07/04/2023 01:58	<a href="#">WG2088997</a>

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	79.3		1	06/30/2023 08:55	<a href="#">WG2087292</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	6090		51.9	153	1000	07/03/2023 18:48	<a href="#">WG2088675</a>
(S) a,a,a-Trifluorotoluene(FID)	109			77.0-120		07/03/2023 18:48	<a href="#">WG2088675</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.327		0.0584	0.125	80	07/04/2023 05:44	<a href="#">WG2088997</a>
Toluene	4.75		0.162	0.625	80	07/04/2023 05:44	<a href="#">WG2088997</a>
Ethylbenzene	203		0.0922	0.312	80	07/04/2023 05:44	<a href="#">WG2088997</a>
Total Xylenes	380		1.35	9.95	1000	07/06/2023 13:31	<a href="#">WG2089926</a>
(S) Toluene-d8	105			75.0-131		07/04/2023 05:44	<a href="#">WG2088997</a>
(S) Toluene-d8	98.6			75.0-131		07/06/2023 13:31	<a href="#">WG2089926</a>
(S) 4-Bromofluorobenzene	112			67.0-138		07/04/2023 05:44	<a href="#">WG2088997</a>
(S) 4-Bromofluorobenzene	103			67.0-138		07/06/2023 13:31	<a href="#">WG2089926</a>
(S) 1,2-Dichloroethane-d4	83.1			70.0-130		07/04/2023 05:44	<a href="#">WG2088997</a>
(S) 1,2-Dichloroethane-d4	108			70.0-130		07/06/2023 13:31	<a href="#">WG2089926</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	87.0		1	06/30/2023 12:26	<a href="#">WG2087293</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	5920		44.3	131	1000	07/03/2023 19:06	<a href="#">WG2088675</a>
(S) a,a,a-Trifluorotoluene(FID)	110			77.0-120		07/03/2023 19:06	<a href="#">WG2088675</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.156		0.0490	0.105	80	07/04/2023 06:02	<a href="#">WG2088997</a>
Toluene	2.19		0.136	0.524	80	07/04/2023 06:02	<a href="#">WG2088997</a>
Ethylbenzene	110		0.0773	0.262	80	07/04/2023 06:02	<a href="#">WG2088997</a>
Total Xylenes	399		0.921	6.80	800	07/06/2023 13:51	<a href="#">WG2089926</a>
(S) Toluene-d8	105			75.0-131		07/04/2023 06:02	<a href="#">WG2088997</a>
(S) Toluene-d8	95.2			75.0-131		07/06/2023 13:51	<a href="#">WG2089926</a>
(S) 4-Bromofluorobenzene	115			67.0-138		07/04/2023 06:02	<a href="#">WG2088997</a>
(S) 4-Bromofluorobenzene	96.2			67.0-138		07/06/2023 13:51	<a href="#">WG2089926</a>
(S) 1,2-Dichloroethane-d4	98.0			70.0-130		07/04/2023 06:02	<a href="#">WG2088997</a>
(S) 1,2-Dichloroethane-d4	112			70.0-130		07/06/2023 13:51	<a href="#">WG2089926</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	2.74	B	0.848	2.50	25	07/02/2023 22:20	<a href="#">WG2088424</a>
(S) a,a,a-Trifluorotoluene(FID)	96.4			77.0-120		07/02/2023 22:20	<a href="#">WG2088424</a>

1 Cp

2 Tc

3 Ss

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000467	0.00100	1	07/04/2023 01:01	<a href="#">WG2088997</a>
Toluene	U		0.00130	0.00500	1	07/04/2023 01:01	<a href="#">WG2088997</a>
Ethylbenzene	0.00105	J	0.000737	0.00250	1	07/05/2023 20:35	<a href="#">WG2089377</a>
Total Xylenes	0.00175	J	0.000880	0.00650	1	07/05/2023 20:35	<a href="#">WG2089377</a>
(S) Toluene-d8	120			75.0-131		07/04/2023 01:01	<a href="#">WG2088997</a>
(S) Toluene-d8	122			75.0-131		07/05/2023 20:35	<a href="#">WG2089377</a>
(S) 4-Bromofluorobenzene	94.0			67.0-138		07/04/2023 01:01	<a href="#">WG2088997</a>
(S) 4-Bromofluorobenzene	85.8			67.0-138		07/05/2023 20:35	<a href="#">WG2089377</a>
(S) 1,2-Dichloroethane-d4	92.7			70.0-130		07/04/2023 01:01	<a href="#">WG2088997</a>
(S) 1,2-Dichloroethane-d4	93.8			70.0-130		07/05/2023 20:35	<a href="#">WG2089377</a>

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R3943610-1 06/30/23 08:12

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Total Solids	0.000			

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

L1630913-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1630913-05 06/30/23 08:12 • (DUP) R3943610-3 06/30/23 08:12

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	79.0	79.3	1	0.485		10

<sup>4</sup>Cn

<sup>5</sup>Sr

Laboratory Control Sample (LCS)

(LCS) R3943610-2 06/30/23 08:12

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

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3943639-1 06/30/23 08:55

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Total Solids	0.000			

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

L1630920-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1630920-11 06/30/23 08:55 • (DUP) R3943639-3 06/30/23 08:55

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	79.3	80.3	1	1.27		10

<sup>4</sup>Cn

<sup>5</sup>Sr

Laboratory Control Sample (LCS)

(LCS) R3943639-2 06/30/23 08:55

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

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3943688-1 06/30/23 12:26

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Total Solids	0.000			

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

L1630609-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1630609-03 06/30/23 12:26 • (DUP) R3943688-3 06/30/23 12:26

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	65.8	66.9	1	1.73		10

<sup>4</sup>Cn

<sup>5</sup>Sr

Laboratory Control Sample (LCS)

(LCS) R3943688-2 06/30/23 12:26

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

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3945624-4 07/06/23 22:13

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Mercury	U		0.0180	0.0400

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

Laboratory Control Sample (LCS)

(LCS) R3945624-1 07/06/23 21:05

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Mercury	0.500	0.502	100	80.0-120	

<sup>4</sup>Cn

<sup>5</sup>Sr

L1631390-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1631390-04 07/06/23 21:07 • (MS) R3945624-2 07/06/23 21:10 • (MSD) R3945624-3 07/06/23 21:12

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
Mercury	0.513	0.103	0.609	0.573	98.5	91.5	1	75.0-125			6.07	20

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3945736-1 07/06/23 22:02

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.518	2.00
Barium	U		0.0852	0.500
Cadmium	U		0.0471	0.500
Chromium	U		0.133	1.00
Lead	U		0.208	0.500
Selenium	U		0.764	2.00
Silver	U		0.127	1.00

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

Laboratory Control Sample (LCS)

(LCS) R3945736-2 07/06/23 22:04

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	105	105	80.0-120	
Barium	100	109	109	80.0-120	
Cadmium	100	104	104	80.0-120	
Chromium	100	105	105	80.0-120	
Lead	100	104	104	80.0-120	
Selenium	100	103	103	80.0-120	
Silver	20.0	20.4	102	80.0-120	

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

L1631504-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1631504-06 07/06/23 22:07 • (MS) R3945736-5 07/06/23 22:15 • (MSD) R3945736-6 07/06/23 22:17

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 %
Arsenic	117	5.39	109	121	88.6	98.8	1	75.0-125			10.3	20
Barium	117	54.2	180	185	108	111	1	75.0-125			2.28	20
Cadmium	117	0.127	104	115	88.6	97.9	1	75.0-125			10.0	20
Chromium	117	13.3	117	131	88.2	100	1	75.0-125			11.2	20
Lead	117	4.96	113	125	92.3	102	1	75.0-125			9.82	20
Selenium	117	0.994	102	114	85.6	96.0	1	75.0-125			11.3	20
Silver	23.5	U	20.7	23.2	88.2	98.7	1	75.0-125			11.3	20

Method Blank (MB)

(MB) R3946529-1 07/08/23 23:27

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.518	2.00
Barium	U		0.0852	0.500
Cadmium	U		0.0471	0.500
Chromium	U		0.133	1.00
Lead	U		0.208	0.500
Selenium	U		0.764	2.00
Silver	U		0.127	1.00

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

Laboratory Control Sample (LCS)

(LCS) R3946529-2 07/08/23 23:29

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	97.7	97.7	80.0-120	
Barium	100	102	102	80.0-120	
Cadmium	100	96.6	96.6	80.0-120	
Chromium	100	98.5	98.5	80.0-120	
Lead	100	96.9	96.9	80.0-120	
Selenium	100	97.0	97.0	80.0-120	
Silver	20.0	19.2	95.9	80.0-120	

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

L1631329-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1631329-01 07/08/23 23:32 • (MS) R3946529-5 07/08/23 23:39 • (MSD) R3946529-6 07/08/23 23:42

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 %
Arsenic	105	1.57	91.3	91.4	85.2	85.3	1	75.0-125			0.0716	20
Barium	105	212	256	346	41.6	127	1	75.0-125	J6	J3 J5	29.8	20
Cadmium	105	U	89.6	90.1	85.1	85.5	1	75.0-125			0.491	20
Chromium	105	18.6	102	103	79.0	80.1	1	75.0-125			1.23	20
Lead	105	12.4	99.7	99.1	82.9	82.4	1	75.0-125			0.572	20
Selenium	105	U	88.2	88.7	83.7	84.2	1	75.0-125			0.561	20
Silver	21.1	U	17.6	17.9	83.6	85.0	1	75.0-125			1.70	20



Method Blank (MB)

(MB) R3945684-2 07/02/23 20:46

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	2.25	↓	0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	95.9			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3945684-1 07/02/23 18:21

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5.50	3.92	71.3	71.0-124	
(S) a,a,a-Trifluorotoluene(FID)			96.7	77.0-120	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R3944629-2 07/03/23 13:00

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	U		0.0339	0.100
(S) a,a,a-Trifluorotoluene(FID)	98.0			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3944629-1 07/03/23 12:10

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5.50	4.44	80.7	71.0-124	
(S) a,a,a-Trifluorotoluene(FID)			108	77.0-120	

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

Method Blank (MB)

(MB) R3944886-3 07/03/23 11:06

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
Benzene	U		0.000467	0.00100
Toluene	U		0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Total Xylenes	U		0.000880	0.00650
<i>(S) Toluene-d8</i>	109			75.0-131
<i>(S) 4-Bromofluorobenzene</i>	101			67.0-138
<i>(S) 1,2-Dichloroethane-d4</i>	95.3			70.0-130

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

(LCS) R3944886-1 07/03/23 09:31 • (LCSD) R3944886-2 07/03/23 09:50

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Benzene	0.125	0.134	0.130	107	104	70.0-123			3.03	20
Toluene	0.125	0.141	0.137	113	110	75.0-121			2.88	20
Ethylbenzene	0.125	0.132	0.133	106	106	74.0-126			0.755	20
Total Xylenes	0.375	0.384	0.393	102	105	72.0-127			2.32	20
<i>(S) Toluene-d8</i>				104	104	75.0-131				
<i>(S) 4-Bromofluorobenzene</i>				98.1	100	67.0-138				
<i>(S) 1,2-Dichloroethane-d4</i>				96.8	104	70.0-130				

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3945761-3 07/03/23 11:25

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Toluene	U		0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Total Xylenes	U		0.000880	0.00650
(S) Toluene-d8	114			75.0-131
(S) 4-Bromofluorobenzene	95.3			67.0-138
(S) 1,2-Dichloroethane-d4	90.9			70.0-130

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

(LCS) R3945761-1 07/03/23 09:49 • (LCSD) R3945761-2 07/03/23 10:08

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 %
Benzene	0.125	0.125	0.123	100	98.4	70.0-123			1.61	20
Toluene	0.125	0.127	0.122	102	97.6	75.0-121			4.02	20
Ethylbenzene	0.125	0.144	0.140	115	112	74.0-126			2.82	20
Total Xylenes	0.375	0.429	0.411	114	110	72.0-127			4.29	20
(S) Toluene-d8				106	103	75.0-131				
(S) 4-Bromofluorobenzene				103	105	67.0-138				
(S) 1,2-Dichloroethane-d4				98.9	98.5	70.0-130				

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3944579-3 07/03/23 21:24

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
Benzene	U		0.000467	0.00100
Toluene	U		0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Total Xylenes	U		0.000880	0.00650
<i>(S) Toluene-d8</i>	114			75.0-131
<i>(S) 4-Bromofluorobenzene</i>	96.9			67.0-138
<i>(S) 1,2-Dichloroethane-d4</i>	89.7			70.0-130

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

(LCS) R3944579-1 07/03/23 19:51 • (LCSD) R3944579-2 07/03/23 20:09

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Benzene	0.125	0.132	0.122	106	97.6	70.0-123			7.87	20
Toluene	0.125	0.132	0.124	106	99.2	75.0-121			6.25	20
Ethylbenzene	0.125	0.129	0.120	103	96.0	74.0-126			7.23	20
Total Xylenes	0.375	0.389	0.375	104	100	72.0-127			3.66	20
<i>(S) Toluene-d8</i>				105	109	75.0-131				
<i>(S) 4-Bromofluorobenzene</i>				92.9	100	67.0-138				
<i>(S) 1,2-Dichloroethane-d4</i>				95.2	94.6	70.0-130				

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3945186-3 07/05/23 16:15

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Ethylbenzene	U		0.000737	0.00250
Total Xylenes	U		0.000880	0.00650
(S) Toluene-d8	117			75.0-131
(S) 4-Bromofluorobenzene	94.1			67.0-138
(S) 1,2-Dichloroethane-d4	100			70.0-130

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

(LCS) R3945186-1 07/05/23 14:48 • (LCSD) R3945186-2 07/05/23 15:09

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 %
Ethylbenzene	0.125	0.129	0.131	103	105	74.0-126			1.54	20
Total Xylenes	0.375	0.367	0.378	97.9	101	72.0-127			2.95	20
(S) Toluene-d8				113	112	75.0-131				
(S) 4-Bromofluorobenzene				97.8	96.3	67.0-138				
(S) 1,2-Dichloroethane-d4				108	108	70.0-130				

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3945910-3 07/06/23 10:13

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Total Xylenes	U		0.000880	0.00650
(S) Toluene-d8	97.2			75.0-131
(S) 4-Bromofluorobenzene	94.1			67.0-138
(S) 1,2-Dichloroethane-d4	105			70.0-130

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

(LCS) R3945910-1 07/06/23 08:35 • (LCSD) R3945910-2 07/06/23 08:55

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 %
Total Xylenes	0.375	0.357	0.392	95.2	105	72.0-127			9.35	20
(S) Toluene-d8				90.9	95.1	75.0-131				
(S) 4-Bromofluorobenzene				97.7	94.6	67.0-138				
(S) 1,2-Dichloroethane-d4				113	109	70.0-130				

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3946090-3 07/07/23 10:28

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
Benzene	U		0.000467	0.00100
Toluene	U		0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Total Xylenes	U		0.000880	0.00650
<i>(S) Toluene-d8</i>	108			75.0-131
<i>(S) 4-Bromofluorobenzene</i>	96.3			67.0-138
<i>(S) 1,2-Dichloroethane-d4</i>	94.8			70.0-130

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

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

(LCS) R3946090-1 07/07/23 08:54 • (LCSD) R3946090-2 07/07/23 09:13

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Benzene	0.125	0.115	0.114	92.0	91.2	70.0-123			0.873	20
Toluene	0.125	0.112	0.111	89.6	88.8	75.0-121			0.897	20
Ethylbenzene	0.125	0.111	0.110	88.8	88.0	74.0-126			0.905	20
Total Xylenes	0.375	0.333	0.325	88.8	86.7	72.0-127			2.43	20
<i>(S) Toluene-d8</i>				102	102	75.0-131				
<i>(S) 4-Bromofluorobenzene</i>				100	101	67.0-138				
<i>(S) 1,2-Dichloroethane-d4</i>				101	100	70.0-130				

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc



Method Blank (MB)

(MB) R3945066-1 07/05/23 18:03

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
<i>(S) o-Terphenyl</i>	65.0			18.0-148

Laboratory Control Sample (LCS)

(LCS) R3945066-2 07/05/23 18:16

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	50.0	29.0	58.0	50.0-150	
<i>(S) o-Terphenyl</i>			66.7	18.0-148	

L1630909-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1630909-08 07/05/23 18:28 • (MS) R3945066-3 07/05/23 18:41 • (MSD) R3945066-4 07/05/23 18:53

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)	62.1	52.3	63.4	136	17.8	135	1	50.0-150	<u>J6</u>	<u>J3</u>	72.8	20
<i>(S) o-Terphenyl</i>					52.1	64.9		18.0-148				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R3945430-2 07/05/23 14:59

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	84.5			23.0-120
(S) Nitrobenzene-d5	104			14.0-149
(S) 2-Fluorobiphenyl	80.5			34.0-125

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Laboratory Control Sample (LCS)

(LCS) R3945430-1 07/05/23 14:41

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0656	82.0	50.0-126	
Acenaphthene	0.0800	0.0606	75.8	50.0-120	
Acenaphthylene	0.0800	0.0658	82.3	50.0-120	
Benzo(a)anthracene	0.0800	0.0693	86.6	45.0-120	
Benzo(a)pyrene	0.0800	0.0562	70.3	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0563	70.4	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0509	63.6	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0540	67.5	49.0-125	
Chrysene	0.0800	0.0601	75.1	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0537	67.1	47.0-125	
Fluoranthene	0.0800	0.0665	83.1	49.0-129	

Laboratory Control Sample (LCS)

(LCS) R3945430-1 07/05/23 14:41

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluorene	0.0800	0.0634	79.3	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0633	79.1	46.0-125	
Naphthalene	0.0800	0.0610	76.3	50.0-120	
Phenanthrene	0.0800	0.0598	74.8	47.0-120	
Pyrene	0.0800	0.0631	78.9	43.0-123	
1-Methylnaphthalene	0.0800	0.0627	78.4	51.0-121	
2-Methylnaphthalene	0.0800	0.0665	83.1	50.0-120	
2-Chloronaphthalene	0.0800	0.0584	73.0	50.0-120	
(S) p-Terphenyl-d14			81.8	23.0-120	
(S) Nitrobenzene-d5			99.0	14.0-149	
(S) 2-Fluorobiphenyl			78.2	34.0-125	

L1630935-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1630935-02 07/05/23 20:21 • (MS) R3945430-3 07/05/23 20:38 • (MSD) R3945430-4 07/05/23 20:56

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 %
Anthracene	0.0788	U	0.0544	0.0518	69.0	66.1	1	10.0-145			4.90	30
Acenaphthene	0.0788	U	0.0532	0.0514	67.5	65.6	1	14.0-127			3.44	27
Acenaphthylene	0.0788	U	0.0546	0.0530	69.3	67.6	1	21.0-124			2.97	25
Benzo(a)anthracene	0.0788	0.00534	0.0605	0.0580	70.0	67.2	1	10.0-139			4.22	30
Benzo(a)pyrene	0.0788	0.00523	0.0568	0.0554	65.4	64.0	1	10.0-141			2.50	31
Benzo(b)fluoranthene	0.0788	0.00645	0.0544	0.0522	60.9	58.4	1	10.0-140			4.13	36
Benzo(g,h,i)perylene	0.0788	0.00436	0.0516	0.0495	59.9	57.6	1	10.0-140			4.15	33
Benzo(k)fluoranthene	0.0788	0.00237	0.0504	0.0496	61.0	60.2	1	10.0-137			1.60	31
Chrysene	0.0788	0.00536	0.0561	0.0528	64.4	60.5	1	10.0-145			6.06	30
Dibenz(a,h)anthracene	0.0788	U	0.0494	0.0478	62.7	61.0	1	10.0-132			3.29	31
Fluoranthene	0.0788	0.0124	0.0620	0.0581	62.9	58.3	1	10.0-153			6.49	33
Fluorene	0.0788	U	0.0543	0.0527	68.9	67.2	1	11.0-130			2.99	29
Indeno(1,2,3-cd)pyrene	0.0788	0.00493	0.0591	0.0570	68.7	66.4	1	10.0-137			3.62	32
Naphthalene	0.0788	U	0.0530	0.0521	67.3	66.5	1	10.0-135			1.71	27
Phenanthrene	0.0788	0.00656	0.0547	0.0523	61.1	58.3	1	10.0-144			4.49	31
Pyrene	0.0788	0.0113	0.0605	0.0581	62.4	59.7	1	10.0-148			4.05	35
1-Methylnaphthalene	0.0788	U	0.0560	0.0543	71.1	69.3	1	10.0-142			3.08	28
2-Methylnaphthalene	0.0788	U	0.0572	0.0562	72.6	71.7	1	10.0-137			1.76	28
2-Chloronaphthalene	0.0788	U	0.0496	0.0476	62.9	60.7	1	29.0-120			4.12	24
(S) p-Terphenyl-d14					71.7	68.7		23.0-120				
(S) Nitrobenzene-d5					82.0	83.1		14.0-149				
(S) 2-Fluorobiphenyl					66.6	64.5		34.0-125				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

# INTERNAL STANDARD SUMMARY

## Instrument: VOCGC15 • File ID: 0702\_06

07/02/23 17:46

Sample ID	File ID	FLUOROBENZENE (FID)	FLUOROBENZENE (PID)
		Response	Response
Standard	0702_06	247556700	85655
Upper Limit		495113400	171310
Lower Limit		123778400	42828
LCS R3945684-1 WG2088424 1x	0702_07	257866900	97418
BLANK R3945684-2 WG2088424 25x	0702_11	215642300	71147
L1630920-13 WG2088424 25x	0702_12	212043900	40335
L1630920-01 WG2088424 25x	0702_19	216757900	65758
L1630920-04 WG2088424 25x	0702_20	226419700	16811
L1630920-10 WG2088424 25x	0702_21	252524200	52460
L1630920-05 WG2088424 290x	0702_22	248460100	132814
L1630920-08 WG2088424 250x	0702_23	239579300	132547
L1630920-02 WG2088424 500x	0702_24	252757200	64774
L1630920-06 WG2088424 500x	0702_25	260080800	98581

## Instrument: VOCGC17 • File ID: 0703\_03

07/03/23 11:52

Sample ID	File ID	FLUOROBENZENE (FID)	FLUOROBENZENE (PID)
		Response	Response
Standard	0703_03	354785700	354785700
Upper Limit		709571400	709571400
Lower Limit		177392800	177392800
LCS R3944629-1 WG2088675 1x	0703_04	391396700	391396700
BLANK R3944629-2 WG2088675 1x	0703_06	286983900	286983900
L1630920-03 WG2088675 1000x	0703_22	325815200	325815200
L1630920-07 WG2088675 1000x	0703_23	323330000	323330000
L1630920-09 WG2088675 1000x	0703_24	332566200	332566200
L1630920-11 WG2088675 1000x	0703_25	322188600	322188600
L1630920-12 WG2088675 1000x	0703_26	361692200	361692200



# INTERNAL STANDARD SUMMARY

## Instrument: VOCMS37 • File ID: 0706\_02-2

07/06/23 08:35

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0706_02-2	734116.10	334086.70	288742.50
Upper Limit		1468232	668173	577485
Lower Limit		367058	167043	144371
LCS R3945910-1 WG2089926 1x	0706_02LCSC	734116.10	334086.70	288742.50
LCSD R3945910-2 WG2089926 1x	0706_03C	714981	316920.70	276914.80
BLANK R3945910-3 WG2089926 1x	0706_07C	703018.60	305813.20	244473.40
L1630920-09 WG2089926 1000x	0706_12	736807.80	312208.60	268556.70
L1630920-11 WG2089926 1000x	0706_13	743690.20	312726.30	270036.80
L1630920-12 WG2089926 800x	0706_14	760238.10	338020.70	285966.60

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

## Instrument: VOCMS39 • File ID: 0705\_14-3

07/05/23 14:48

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0705_14-3	511513.80	189318.30	193096.90
Upper Limit		1023028	378637	386194
Lower Limit		255757	94659	96548
LCS R3945186-1 WG2089377 1x	0705_14LCSA	511513.80	189318.30	193096.90
LCSD R3945186-2 WG2089377 1x	0705_15A	516576.80	190625.40	186150
BLANK R3945186-3 WG2089377 1x	0705_18	504829.30	182855	173777.10
L1630920-13 WG2089377 1x	0705_23	459272.10	156370.60	140253.50

## Instrument: VOCMS40 • File ID: 0703\_31-1

07/03/23 19:51

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0703_31-1	381284.70	176231.10	180128.40
Upper Limit		762569	352462	360257
Lower Limit		190642	88116	90064
LCS R3944579-1 WG2088997 1x	0703_31LCS	381284.70	176231.10	180128.40
LCSD R3944579-2 WG2088997 1x	0703_32	332045.90	150817.10	153077.70
BLANK R3944579-3 WG2088997 1x	0703_36	346377	146272.50	150264.50

# INTERNAL STANDARD SUMMARY

## Instrument: VOCMS40 • File ID: 0703\_31-1

07/03/23 19:51

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
L1630920-13 WG2088997 1x	0703_39	437186.60	173773.80	153500.60
L1630920-10 WG2088997 1.06x	0703_42	493404.30	209513.10	239000.30
L1630920-09 WG2088997 80x	0703_53	435264.60	192505.80	227597.40
L1630920-11 WG2088997 80x	0703_54	416410	202952.50	243246.60
L1630920-12 WG2088997 80x	0703_55	381018.90	187621.40	229185

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

## Instrument: VOCMS42 • File ID: 0703\_02

07/03/23 09:31

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0703_02	751369.30	369468.80	260447.70
Upper Limit		1502739	738938	520895
Lower Limit		375685	184734	130224
LCS R3944886-1 WG2088619 1x	0703_02LCSA	751369.30	369468.80	260447.70
LCSD R3944886-2 WG2088619 1x	0703_03A	767670.60	388845.30	288876.40
BLANK R3944886-3 WG2088619 1x	0703_07A	801365.80	382654.60	287682.30
L1630920-01 WG2088619 1x	0703_27	893989.80	411321.40	322191.10

6 Qc

7 Is

8 Gl

9 Al

10 Sc

## Instrument: VOCMS54 • File ID: 0703\_02-1

07/03/23 09:49

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0703_02-1	724034.80	338665.50	287537.40
Upper Limit		1448070	677331	575075
Lower Limit		362017	169333	143769
LCS R3945761-1 WG2088725 1x	0703_02LCS	724034.80	338665.50	287537.40
LCSD R3945761-2 WG2088725 1x	0703_03	730721.80	357303.30	307950
BLANK R3945761-3 WG2088725 1x	0703_07	758295.10	318421.40	222760.30
L1630920-04 WG2088725 3.33x	0703_14	681300.70	306768.70	220685.50
L1630920-02 WG2088725 40x	0703_22	729835.80	331094.80	288006.40
L1630920-03 WG2088725 80x	0703_23	766482.80	354033.20	313153.60
L1630920-06 WG2088725 41.2x	0703_25	772257	362521.40	326728.90

# INTERNAL STANDARD SUMMARY

## Instrument: VOCMS54 • File ID: 0703\_02-1

07/03/23 09:49

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
L1630920-07 WG2088725 80.8x	0703_26	774453.90	367556	314728.20
L1630920-08 WG2088725 20x	0703_27	784460.10	357980.80	308198.90

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

## Instrument: VOCMS56 • File ID: 0707\_02-1

07/07/23 08:54

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0707_02-1	1252024	619549.60	577283.60
Upper Limit		2504048	1239099	1154567
Lower Limit		626012	309775	288642
LCS R3946090-1 WG2090778 1x	0707_02LCS	1252024	619549.60	577283.60
LCSD R3946090-2 WG2090778 1x	0707_03	1325574	656523.10	610584.90
BLANK R3946090-3 WG2090778 1x	0707_07	1338176	617878.10	543698
L1630920-05 WG2090778 4.24x	0707_08	1466890	683083.70	643254.60
L1630920-02 WG2090778 400x	0707_09	1277228	621045.10	575692.20

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

# INTERNAL STANDARD SUMMARY

## Instrument: VOCGC15 • File ID: 0702\_06

07/02/23 17:46

Sample ID	File ID	FLUOROBENZENE (FID)	FLUOROBENZENE (PID)
		Response	Response
Standard	0702_06	247556700	85655
Upper Limit		495113400	171310
Lower Limit		123778400	42828
LCS R3945684-1 WG2088424 1x	0702_07	257866900	97418
BLANK R3945684-2 WG2088424 25x	0702_11	215642300	71147
L1630920-13 WG2088424 25x	0702_12	212043900	40335
L1630920-01 WG2088424 25x	0702_19	216757900	65758
L1630920-04 WG2088424 25x	0702_20	226419700	16811
L1630920-10 WG2088424 25x	0702_21	252524200	52460
L1630920-05 WG2088424 290x	0702_22	248460100	132814
L1630920-08 WG2088424 250x	0702_23	239579300	132547
L1630920-02 WG2088424 500x	0702_24	252757200	64774
L1630920-06 WG2088424 500x	0702_25	260080800	98581

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

## Instrument: VOCGC17 • File ID: 0703\_03

07/03/23 11:52

Sample ID	File ID	FLUOROBENZENE (FID)	FLUOROBENZENE (PID)
		Response	Response
Standard	0703_03	354785700	354785700
Upper Limit		709571400	709571400
Lower Limit		177392800	177392800
LCS R3944629-1 WG2088675 1x	0703_04	391396700	391396700
BLANK R3944629-2 WG2088675 1x	0703_06	286983900	286983900
L1630920-03 WG2088675 1000x	0703_22	325815200	325815200
L1630920-07 WG2088675 1000x	0703_23	323330000	323330000
L1630920-09 WG2088675 1000x	0703_24	332566200	332566200
L1630920-11 WG2088675 1000x	0703_25	322188600	322188600
L1630920-12 WG2088675 1000x	0703_26	361692200	361692200



# INTERNAL STANDARD SUMMARY

## Instrument: VOCMS37 • File ID: 0706\_02-2

07/06/23 08:35

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0706_02-2	734116.10	334086.70	288742.50
Upper Limit		1468232	668173	577485
Lower Limit		367058	167043	144371
LCS R3945910-1 WG2089926 1x	0706_02LCSC	734116.10	334086.70	288742.50
LCSD R3945910-2 WG2089926 1x	0706_03C	714981	316920.70	276914.80
BLANK R3945910-3 WG2089926 1x	0706_07C	703018.60	305813.20	244473.40
L1630920-09 WG2089926 1000x	0706_12	736807.80	312208.60	268556.70
L1630920-11 WG2089926 1000x	0706_13	743690.20	312726.30	270036.80
L1630920-12 WG2089926 800x	0706_14	760238.10	338020.70	285966.60

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

## Instrument: VOCMS39 • File ID: 0705\_14-3

07/05/23 14:48

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0705_14-3	511513.80	189318.30	193096.90
Upper Limit		1023028	378637	386194
Lower Limit		255757	94659	96548
LCS R3945186-1 WG2089377 1x	0705_14LCSA	511513.80	189318.30	193096.90
LCSD R3945186-2 WG2089377 1x	0705_15A	516576.80	190625.40	186150
BLANK R3945186-3 WG2089377 1x	0705_18	504829.30	182855	173777.10
L1630920-13 WG2089377 1x	0705_23	459272.10	156370.60	140253.50

8 Gl

9 Al

10 Sc

## Instrument: VOCMS40 • File ID: 0703\_31-1

07/03/23 19:51

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0703_31-1	381284.70	176231.10	180128.40
Upper Limit		762569	352462	360257
Lower Limit		190642	88116	90064
LCS R3944579-1 WG2088997 1x	0703_31LCS	381284.70	176231.10	180128.40
LCSD R3944579-2 WG2088997 1x	0703_32	332045.90	150817.10	153077.70
BLANK R3944579-3 WG2088997 1x	0703_36	346377	146272.50	150264.50

# INTERNAL STANDARD SUMMARY

## Instrument: VOCMS40 • File ID: 0703\_31-1

07/03/23 19:51

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
L1630920-13 WG2088997 1x	0703_39	437186.60	173773.80	153500.60
L1630920-10 WG2088997 1.06x	0703_42	493404.30	209513.10	239000.30
L1630920-09 WG2088997 80x	0703_53	435264.60	192505.80	227597.40
L1630920-11 WG2088997 80x	0703_54	416410	202952.50	243246.60
L1630920-12 WG2088997 80x	0703_55	381018.90	187621.40	229185

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

## Instrument: VOCMS42 • File ID: 0703\_02

07/03/23 09:31

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0703_02	751369.30	369468.80	260447.70
Upper Limit		1502739	738938	520895
Lower Limit		375685	184734	130224
LCS R3944886-1 WG2088619 1x	0703_02LCSA	751369.30	369468.80	260447.70
LCSD R3944886-2 WG2088619 1x	0703_03A	767670.60	388845.30	288876.40
BLANK R3944886-3 WG2088619 1x	0703_07A	801365.80	382654.60	287682.30
L1630920-01 WG2088619 1x	0703_27	893989.80	411321.40	322191.10

6 Qc

7 Is

8 Gl

9 Al

10 Sc

## Instrument: VOCMS54 • File ID: 0703\_02-1

07/03/23 09:49

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0703_02-1	724034.80	338665.50	287537.40
Upper Limit		1448070	677331	575075
Lower Limit		362017	169333	143769
LCS R3945761-1 WG2088725 1x	0703_02LCS	724034.80	338665.50	287537.40
LCSD R3945761-2 WG2088725 1x	0703_03	730721.80	357303.30	307950
BLANK R3945761-3 WG2088725 1x	0703_07	758295.10	318421.40	222760.30
L1630920-04 WG2088725 3.33x	0703_14	681300.70	306768.70	220685.50
L1630920-02 WG2088725 40x	0703_22	729835.80	331094.80	288006.40
L1630920-03 WG2088725 80x	0703_23	766482.80	354033.20	313153.60
L1630920-06 WG2088725 41.2x	0703_25	772257	362521.40	326728.90

# INTERNAL STANDARD SUMMARY

## Instrument: VOCMS54 • File ID: 0703\_02-1

07/03/23 09:49

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
L1630920-07 WG2088725 80.8x	0703_26	774453.90	367556	314728.20
L1630920-08 WG2088725 20x	0703_27	784460.10	357980.80	308198.90

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

## Instrument: VOCMS56 • File ID: 0707\_02-1

07/07/23 08:54

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0707_02-1	1252024	619549.60	577283.60
Upper Limit		2504048	1239099	1154567
Lower Limit		626012	309775	288642
LCS R3946090-1 WG2090778 1x	0707_02LCS	1252024	619549.60	577283.60
LCSD R3946090-2 WG2090778 1x	0707_03	1325574	656523.10	610584.90
BLANK R3946090-3 WG2090778 1x	0707_07	1338176	617878.10	543698
L1630920-05 WG2090778 4.24x	0707_08	1466890	683083.70	643254.60
L1630920-02 WG2090778 400x	0707_09	1277228	621045.10	575692.20

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

# INTERNAL STANDARD SUMMARY

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

Instrument: BNAMS25 • File ID: 0705A\_03

07/05/23 14:20

Sample ID	File ID	NAPHTHALENE-D8 Response	ACENAPHTHENE-D10 Response	PHENANTHRENE-D10 Response	CHRYSENE-D12 Response	PERYLENE-D12 Response
Standard	0705A_03	27508	15944	28858	26078	25994
Upper Limit		55016	31888	57716	52156	51988
Lower Limit		13754	7972	14429	13039	12997
LCS R3945430-1 WG2089199 1x	0705A_04	29803	17416	31571	28713	28366
BLANK R3945430-2 WG2089199 1x	0705A_05	28738	16817	30289	27157	26356
L1630920-02 WG2089199 1x	0705A_08	28791	16989	30038	26024	24713
L1630920-03 WG2089199 1x	0705A_09	30251	17786	31705	27524	25772
L1630920-08 WG2089199 1x	0705A_10	28306	16254	29078	25403	23729
L1630920-09 WG2089199 1x	0705A_11	28395	16901	29791	26237	23796
MS R3945430-3 WG2089199 1x	0705A_24	28121	16372	29015	25333	22969
MSD R3945430-4 WG2089199 1x	0705A_25	27988	16346	29018	25114	22535

Instrument: BNAMS25 • File ID: 0706\_03

07/06/23 09:16

Sample ID	File ID	NAPHTHALENE-D8 Response	ACENAPHTHENE-D10 Response	PHENANTHRENE-D10 Response	CHRYSENE-D12 Response	PERYLENE-D12 Response
Standard	0706_03	26532	15906	29124	26092	27244
Upper Limit		53064	31812	58248	52184	54488
Lower Limit		13266	7953	14562	13046	13622
L1630920-09 WG2089199 10x	0706_32	32093	18564	33448	28773	28369

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

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

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

### Abbreviations and Definitions

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

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J3	The associated batch QC was outside the established quality control range for precision.
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.



# 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 <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	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	LA000356
Kentucky <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> 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:  
**Stantec- Bellevue, WA**

11130 NE 33rd Pl, Ste 200  
Bellevue, WA 98004

Billing Information:  
Accounts Payable  
11130 NE 33rd Pl, Ste 200  
Bellevue, WA 98004

Pres  
Chk

Analysis / Container / Preservative

Chain of Custody Page    of   



**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/hubs/pas-standard-terms.pdf>

SDG # **1630920**

**J022**

Acctnum: **STANTECBWA**

Template: **T232342**

Prelogin: **P1006484**

PM: **546 - Jared Starkey**

PB: **6/19/23 CAM**

Shipped Via:

Report to:  
**Stantec**

Email To: **zak.armacost@stantec.com**  
**MARK.SANZE@STANTEC.COM**

Project Description:  
**Hungry Whale Test Pitting**

City/State Collected: **WESTPORT, WA**

Please Circle:  
 MT  CT  ET

Phone: **425-869-9448**

Client Project #  
**185751446**

Lab Project #  
**STANTECBWA-HUNGRY**

Collected by (print):  
**Z. ARMACOST**

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

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
-----------	-----------	----------	-------	------	------	--------------

TP-12-11.5	G	SS	11.5	6/26/23	1001	3
TP-11-11.0	↓	SS	11.0	↓	1001	↓
TP-1-8.0	↓	SS	8.0	↓	1235	↓
TP-14-3.5	↓	SS	3.5	↓	1415	↓
TP-14-13.5	↓	SS	13.5	↓	1459	↓
TP-13-8.0	↓	SS	8.0	↓	1600	↓
TP-10-3.0	↓	SS	3.0	↓	1610	↓
TP-10-7.5	↓	SS	7.5	↓	1631	↓
TP-6-7.5	↓	SS	7.5	6/27/23	0802	↓
TP-4-8.5	↓	SS	8.5	6/27/23	0926	↓

MRCRA8 4ozClr-NoPres	NWTPHDXNOSGT 4ozClr-NoPres	NWTPHGX 40mlAmb/MeOH10ml/Syr	SV8270PAHSIM 4ozClr-NoPres	TS 4ozClr-NoPres	V8260BTEX 40mlAmb/MeOH10ml/Syr
		X			X
X	X	X	X		X
X	X	X	X		X
		X			X
		X			X
		X			X
X	X	X	X		X
X	X	X	X		X
		X			X

Remarks Sample # (lab only)

-01  
-02  
-03  
-04  
-05  
-06  
-07  
-08  
-09  
-10

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - WasteWater  
DW - Drinking Water  
OT - Other

Remarks:  
**5DAY TAT PLEASE**

pH \_\_\_\_\_ Temp \_\_\_\_\_  
Flow \_\_\_\_\_ Other \_\_\_\_\_

Samples returned via:  
 UPS  FedEx  Courier

Tracking # **65255508 8540**

**Sample Receipt Checklist**

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

Relinquished by: (Signature)

Date: **6/27/23** Time: **1600**

Received by: (Signature)

Trip Blank Received:  Yes /  No  
HCL / (Med)   
TBR **3**

Relinquished by: (Signature)

Date: Time:

Received by: (Signature)

Temp: **3.1** Bottles Received: **36**

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date: Time:

Received for lab by: (Signature)

Date: **06/29/23** Time: **0900**

Hold: Condition: **NCF / OK**



Company Name/Address:  
**Stantec- Bellevue, WA**  
 11130 NE 33rd Pl, Ste 200  
 Bellevue, WA 98004

Billing Information:  
**Accounts Payable**  
 11130 NE 33rd Pl, Ste 200  
 Bellevue, WA 98004

Report to:  
**Stantec**

Email To: zak.armacost@stantec.com,  
**MARC. SAUZE@STANTEC.COM**

Project Description:  
**Hungry Whale Test Pitting**

City/State Collected: **WESTPORT, WA**

Please Circle:  
 PT  MT  CT  ET

Phone: **425-869-9448**

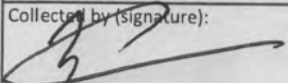
Client Project #  
**185751446**

Lab Project #  
**STANTECBWA-HUNGRY**

Collected by (print):  
**Z. ARMACOST**

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 #


Immediately Packed on Ice N  Y

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
TR-3-8:0	G	SS	8.0	6/27/23	—	3
DUP-01	G	SS	—	↓	—	3
TRIP BLANK	G	SS	—	↓	—	1
		SS				
		SS				
		SS				
		SS				
		SS				
		SS				
		SS				

Analysis / Container / Preservative						
Pres Chk						
	MRCRA8 4ozClr-NoPres	NWTPHDXNOSGT 4ozClr-NoPres	NWTPHGX 40mlAmb/MeOH10ml/Syr	SV8270PAHSIM 4ozClr-NoPres	TS 4ozClr-NoPres	V8260BTEX 40mlAmb/MeOH10ml/Syr

Chain of Custody Page \_\_\_ of \_\_\_



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/hubs/pas-standard-terms.pdf>

SDG # **1630920**

Table #

Acctnum: **STANTECBWA**

Template: **T232342**

Prelogin: **P1006484**

PM: **546 - Jared Starkey**

PB: **019/23 cam**

Shipped Via:

Remarks | Sample # (lab only)

\* Matrix:  
 SS - Soil AIR - Air F - Filter  
 GW - Groundwater B - Bioassay  
 WW - WasteWater  
 DW - Drinking Water  
 OT - Other

Remarks:  
**5 DAY TAX PLEASE**

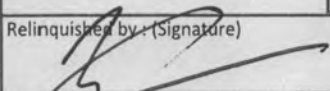
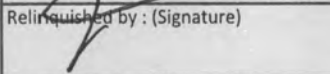
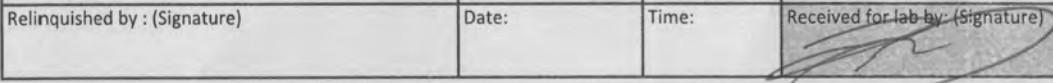
Samples returned via:  
 UPS  FedEx  Courier

Tracking #

pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_

Sample Receipt Checklist

COC Seal Present/Intact:	NP	<input type="checkbox"/> Y <input type="checkbox"/> N
COC Signed/Accurate:		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Bottles arrive intact:		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Correct bottles used:		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Sufficient volume sent:		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
If Applicable		
VOA Zero Headspace:		<input type="checkbox"/> Y <input type="checkbox"/> N
Preservation Correct/Checked:		<input type="checkbox"/> Y <input type="checkbox"/> N
RAD Screen <0.5 mR/hr:		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N

Relinquished by: (Signature) 	Date: <b>6/27/23</b>	Time: <b>1600</b>	Received by: (Signature)	Trip Blank Received: <input checked="" type="checkbox"/> Yes / <input type="checkbox"/> No <b>3</b> HCL/MeOH TBR
Relinquished by: (Signature) 	Date:	Time:	Received by: (Signature)	Temp: <b>3.1</b> Bottles Received: <b>36</b>
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) 	Date: <b>06/29/23</b> Time: <b>0906</b>

If preservation required by Login: Date/Time

Hold:

Condition:  
 NCF /  OK



# APPENDIX F

**Ecology Permanent Closure Notice, Site Check/Site  
Assessment Checklist, and UST Site  
Assessor/Decommissioning Certifications**





# INTERNATIONAL CODE COUNCIL

## PAUL JANNEY

*The International Code Council attests that the individual named on this certificate has satisfactorily demonstrated knowledge as required by the International Code Council by successfully completing the prescribed written examination based on codes and standards then in effect, and is hereby issued this certification as:*

### Washington State Site Assessment

*Given this day July 28, 2023*

Certificate No. 9957601

Handwritten signature of Michael P. Wich in black ink.

**Michael Wich, CBO**  
President, Board of Directors

Handwritten signature of Dominic Sims in black ink.

**Dominic Sims, CBO**  
Chief Executive Officer





# INTERNATIONAL CODE COUNCIL

## DAVID WALKER

*The International Code Council attests that the individual named on this certificate has satisfactorily demonstrated knowledge as required by the International Code Council by successfully completing the prescribed written examination based on codes and standards then in effect, and is hereby issued this certification as:*

### **UST Decommissioning**

*Given this day August 3, 2022*

Certificate No. 8159957

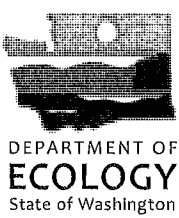
A handwritten signature in black ink that reads "Cindy Davis".

**Cindy Davis, CBO**  
President, Board of Directors

A handwritten signature in black ink that reads "Dominic Sims".

**Dominic Sims, CBO**  
Chief Executive Officer





# PERMANENT CLOSURE NOTICE

## FOR UNDERGROUND STORAGE TANKS

UST ID #: \_\_\_\_\_  
 County: Grays Harbor

*This notice certifies that permanent closure activities were performed and conducted in accordance with Chapter 173-360A WAC. Instructions are found on the back page.*

I. UST FACILITY	II. OWNER/OPERATOR INFORMATION
Facility Compliance Tag #: A5021	Owner/Operator Name: Port of Grays Harbor
UST ID #: 3488	Business Name: Port of Grays Harbor
Site Name: Hungry Whale Mini Mart	Address: PO Box 660
Site Address: 1680 N Montesano Street	City: Aberdeen State: WA Zip: 98520
City: Westport	Phone: 360-533-9518
Phone: 360-533-9518	Email: aaschim@portgrays.org

III. CERTIFIED UST DECOMMISSIONER			
Company Name: Anderson Environmental Contracting, LLC		Service Provider Name: David Walker	
Address: 705 Colorado Street		Certification Type: UST Decommissioning	
City: Kelso	State: WA Zip: 98626	Cert. No.: 8159957	Exp. Date: 8/3/24
Provider Phone: 360-577-9194		Provider Email: davidw@aecllc.net	
<i>Provider Signature: David Walker</i>		<b>Date:</b> September 1, 2023	

IV. TANK INFORMATION						
TANK ID	TANK CAPACITY	LAST SUBSTANCE STORED	CLOSURE METHOD			CLOSURE DATE
			removal	closed-in-place	change-in-service	
1-20000	10,000	Unleaded	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8/11/2023
	6,000	Unleaded	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8/11/2023
	4,000	Diesel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8/11/2023
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

V. REQUIRED SIGNATURE		
<i>Signature acknowledges UST(s) comply with UST regulation WAC 173-360A-0810 Permanent Closure Requirements.</i>		
<b>10/13/23</b> Date	 Signature of Tank Owner/Operator or Authorized Representative	 Print or Type Name <i>Contracts Manager</i>

# PERMANENT CLOSURE NOTICE

## FOR UNDERGROUND STORAGE TANKS

---

### INSTRUCTIONS

This form must be completed and submitted **within thirty days of completing** permanent closure activities to the following address:

Dept. of Ecology  
UST Section  
PO Box 47655  
Olympia, WA 98504-7655

- I./II. UST Facility and Owner/Operator:** Fill out these sections completely. If you do not know your UST ID number, include the facility compliance tag number. If all tanks at the site are permanently closed, the facility compliance tag must be returned with this notice.
- III. UST Decommissioner:** It is the responsibility of the ICC-certified Decommissioner to follow proper tank closure procedures in accordance with WAC 173-360A-0810. The Decommissioner signature certifies these procedures were followed.
- IV. Tank Information:** Use the same Tank IDs that are listed on the facility's Business License. List the last substance stored in each tank, the tank sizes, the method by which the tank is being closed, and the date closure activities were conducted. All closure methods require a site assessment be conducted in accordance with Ecology's *Guidance for Site Checks and Site Assessments for Underground Storage Tanks*.
- V. Required Signature:** The owner and/or operator's signature is required. Also, the owner and/or operator is responsible for reporting confirmed releases to Ecology within 24 hours.

All confirmed releases must be reported to Ecology by the owner immediately and by service providers within 72 hours of the discovery of the condition. If the owner or operator is not immediately available, the report should be made directly to Ecology.

Be sure to contact your local fire marshal and other local jurisdictions. They may have other codes and regulations that apply to a permanent tank closure.

*Further questions? Please contact your regional office below and ask for a tank inspector to assist you.*

#### Regional Office

Central (509) 575-2490

Eastern (509) 329-3400

HQ (360) 407-7170

Northwest (425) 649-7000

Southwest (360) 407-6300

#### Counties Served

Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, Yakima

Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman

Federal facilities in Western Washington

Island, King, Kitsap, San Juan, Skagit, Snohomish, Whatcom

Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Lewis, Mason, Pacific, Pierce, Skamania, Thurston, Wahkiakum

*or find a complete list of UST inspectors at:*

[www.ecy.wa.gov/programs/tcp/ust-lust/people.html](http://www.ecy.wa.gov/programs/tcp/ust-lust/people.html)



## SITE CHECK/SITE ASSESSMENT CHECKLIST FOR UNDERGROUND STORAGE TANKS

UST ID #: \_\_\_\_\_  
County: Grays Harbor

*This checklist certifies that site check or site assessment activities were performed in accordance with Chapter 173-360A WAC. Instructions are found on the last page.*

I. UST FACILITY		II. OWNER/OPERATOR INFORMATION	
Facility Compliance Tag #:		Owner/Operator Name:	
UST ID #:		Business Name:	
Site Name: The Hungry Whale		Address:	
Site Address: 1680 Montesano Street		City: Westport	State: WA Zip: 98595
City: Westport, WA		Phone:	
Phone: 360-268-0136		Email:	
III. CERTIFIED SITE ASSESSOR			
Service Provider Name: Paul Janney		Company Name: Stantec Consulting Inc.	
Cell Phone: 317-627-1321	Email: paul.janney@stantec.com	Address: 601 SW 2 <sup>nd</sup> Avenue, Suite 1400	
Certification #: 9957601	Exp. Date: 7/28/2025	City: Portland	State: OR Zip: 97204
IV. TANK INFORMATION			
TANK ID	TANK CAPACITY	LAST SUBSTANCE STORED	DATE SITE CHECK OR ASSESSMENT CONDUCTED
UST-1	10,000 gal	RUL	8/4/2023
UST-2	20,000 gal	RUL/PUL	8/11/2023
UST-3	6,000 gal	RUL	8/8/2023
V. REASON FOR CONDUCTING SITE CHECK/SITE ASSESSMENT (check one)			
<input checked="" type="checkbox"/> Release investigation following permanent UST system closure (i.e. tank removal or closure-in-place).			
<input type="checkbox"/> Release investigation following a failed tank and/or line tightness test.			
<input type="checkbox"/> Release investigation following discovery of contaminated soil and/or groundwater.			
<input type="checkbox"/> Release investigation directed by Ecology to determine if the UST system is the source of offsite impacts.			
<input type="checkbox"/> UST system is undergoing a "change-in-service", which is changing from storing a regulated substance (e.g. gasoline) to storing a non-regulated substance (e.g. water).			
<input type="checkbox"/> Directed by Ecology for UST system permanently closed or abandoned before 12/22/1988.			

Other (describe):

### VI. CHECKLIST

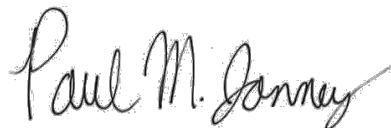
**The site assessor must check each of the following items and include it in the report.  
Sections referenced below can be found in the Ecology publication  
*Guidance for Site Checks and Site Assessments for Underground Storage Tanks.***

	YES	NO
1. The location of the UST site is shown on a vicinity map.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. A brief summary of information obtained during the site inspection is provided (Section 3.2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. A summary of UST system data is provided (Section 3.1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. The soils characteristics at the UST site are described. (Section 5.2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Is there any apparent groundwater in the tank excavation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. A brief description of the surrounding land use is provided. (Section 3.1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. The name and address of the laboratory used to perform analyses is provided. The methods used to collect and analyze the samples, including the number and types of samples collected, are also documented in the report. The data from the laboratory is appended to the report.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. The following items are provided in one or more sketches:		
• Location and ID number for all field samples collected	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• If applicable, groundwater samples are distinguished from soil samples	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Location of samples collected from stockpiled excavated soil	<input type="checkbox"/>	<input checked="" type="checkbox"/>
• Tank and piping locations and limits of excavation pit	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Adjacent structures and streets	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Approximate locations of any on-site and nearby utilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9. If sampling procedures are different from those specified in the guidance, has justification for using these alternative sampling procedures been provided? (Section 3.4)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10. A table is provided showing laboratory results for each sample collected including; sample ID number, constituents analyzed for and corresponding concentration, analytical method, and detection limit for that method. Any sample exceeding MTCA Method A cleanup standards are highlighted or bolded.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11. Any factors that may have compromised the quality of the data or validity of the results are described.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12. The results of this site check/site assessment indicate that a confirmed release of a regulated substance has occurred. The requirements for reporting confirmed releases can be found in WAC 173-360-372.	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### VII. REQUIRED SIGNATURES

*Signature acknowledges the Site Check or Site Assessment complies with UST regulations WAC 173-360A-0730 through 0750.*

Paul M. Janney



10/11/2023

Print or Type Name

Signature of Certified Site Assessor

Date

# SITE CHECK/SITE ASSESSMENT CHECKLIST

## FOR UNDERGROUND STORAGE TANKS

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### INSTRUCTIONS

This checklist must accompany the results of a Site Check Report, which is performed if a release of petroleum or other regulated substance is suspected. It is also required to accompany a Site Assessment Report, which is required following the permanent closure or “change-in-service” of an underground storage tank system. This form is required to be filled out whether or not contamination is found. This checklist is to be completed by the Site Assessor and submitted **within thirty days of completing** these activities to the following address:

Dept. of Ecology  
UST Section  
PO Box 47655  
Olympia, WA 98504-7655

- I./II. UST Facility and Owner/Operator Information:** Fill out these sections completely. If you do not know your UST ID number, include the facility compliance tag number.
- III. Service Provider Information:** It is the responsibility of the ICC-certified Site Assessor to ensure that sampling and documentation procedures are completed in accordance with Ecology’s *Guidance for Site Checks and Site Assessment for Underground Storage Tanks*.
- IV. Tank Information:** Use the same Tank identification numbers listed on the facility’s Business License which is based on the most recent UST Addendum on file with Ecology. List the last substance stored in each tank, the tank sizes and the date the site check or site assessment was completed.
- V. Required Signature:** The Site Assessor signature certifies these procedures were followed.

All confirmed releases must be reported to Ecology by the owner within 24 hours and by service providers within 72 hours of discovery. A Site Characterization Report must be submitted to Ecology within 90 days after confirming a release.

*Further questions? Please contact your regional office below and ask for a tank inspector to assist you.*

<b>Regional Office</b>	<b>Counties Served</b>
Central (509) 575-2490	Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, Yakima
Eastern (509) 329-3400	Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman
HQ (360) 407-7170	Federal facilities in Western Washington
Northwest (425) 649-7000	Island, King, Kitsap, San Juan, Skagit, Snohomish, Whatcom
Southwest (360) 407-6300	Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Lewis, Mason, Pacific, Pierce, Skamania, Thurston, Wahkiakum

*or find a complete list of UST inspectors at:*  
[www.ecy.wa.gov/programs/tcp/ust-lust/people.html](http://www.ecy.wa.gov/programs/tcp/ust-lust/people.html)



# **APPENDIX G**

## **Field Photographs**



# APPENDIX H

## UST and Impacted Soil Disposal Documentation



**W. MORE RECYCLE & SALVAGE, INC.**

13 Westport Rd.  
 Aberdeen WA, 98520-6482

Ticket #: 135593  
 Date: 08/24/2023 2:58 PM  
 Phone: (360) 612-3645  
 Fax: (360) 637-8067

Customer: WDL63R4B603B  
 GENN JASON  
 224 LEXINGTON AVE  
 KELSO WA, 98626-1809

Weigh Master: NICOLE

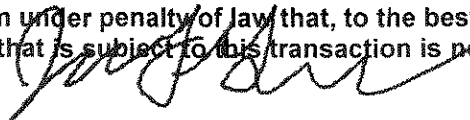
**Payment Information**

Remarks:

Type	Amount	Number
Check	\$2,243.03	129848

"I, the undersigned, affirm under penalty of law that, to the best of my knowledge, the property that is subject to this transaction is not stolen property."

Driver:



Material	Quantity	Price	Material \$	Delivery \$	Misc \$	Tax \$	Line Total \$
PREPARED IRON	44970.00 lb	\$0.0450	\$2,023.65	\$0.00	\$0.00	\$0.00	\$2,023.65
	5850.00 lb	\$0.0375	\$219.38	\$0.00	\$0.00	\$0.00	\$219.38

Material	Gross	Scale	Tare	Scale	Net	
UIRON	44970	MAN WT	0	STORED	44970	<b>\$2,243.03</b>
TN	5850	MAN WT	0	STORED	5850	

Invoice

Account #	Date	Invoice #
150	8/31/23	15988

Remit payment to:  
**Cowlitz County Solid Waste**  
 1600 - 13th Avenue South  
 Kelso, WA 98626  
 TEL (360) 677-3035  
[www.co.cowlitz.wa.us/publicworks](http://www.co.cowlitz.wa.us/publicworks)

Due Date
10/15/23

Billing Address
ANDERSON ENVIRONMENTAL 705 Colorado Street Kelso, WA 98626

Please include account number and invoice number with payment.

Tran #	Date	Site	Truck	PO	Description	Fee	Tax	Amount
651036	08-02-23	LF	10NW ROC		PCS - 45 : 26.59 TN			
651039	08-02-23	LF	11 NW ROC		PCS - 45 : 24.75 TN			
651042	08-02-23	LF	6NW ROC		PCS - 45 : 31.26 TN			
651107	08-02-23	LF	6NW ROC		PCS - 45 : 32.66 TN			
651114	08-02-23	LF	10NW COM		PCS - 45 : 33.34 TN			
651147	08-03-23	LF	10NW ROC		PCS - 45 : 31.39 TN			
651149	08-03-23	LF	14NW ROC		PCS - 45 : 28.67 TN			
651157	08-03-23	LF	11NW ROC		PCS - 45 : 31.10 TN			
651161	08-03-23	LF	6NW ROC		PCS - 45 : 28.92 TN			
651227	08-03-23	LF	10NW ROC		PCS - 45 : 31.91 TN			
651229	08-03-23	LF	14NW ROC		PCS - 45 : 30.51 TN			
651232	08-03-23	LF	6NW ROC		PCS - 45 : 31.56 TN			
651261	08-04-23	LF	11NW ROC		PCS - 45 : 30.66 TN			
651264	08-04-23	LF	10NW ROC		PCS - 45 : 31.40 TN			
651266	08-04-23	LF	14NW ROC		PCS - 45 : 30.47 TN			
651270	08-04-23	LF	6NW ROC		PCS - 45 : 32.62 TN			
651334	08-04-23	LF	11NW ROC		PCS - 45 : 30.37 TN			
651336	08-04-23	LF	14NW ROC		PCS - 45 : 30.28 TN			
651338	08-04-23	LF	6NW ROC		PCS - 45 : 31.54 TN			
651374	08-07-23	LF	11NW ROC		PCS - 45 : 29.28 TN			
651376	08-07-23	LF	12NW ROC		PCS - 45 : 30.24 TN			
651381	08-07-23	LF	10NW ROC		PCS - 45 : 29.95 TN			
651382	08-07-23	LF	5NW ROC		PCS - 45 : 30.66 TN			
651383	08-07-23	LF	4NW ROC		PCS - 45 : 30.04 TN			
651386	08-07-23	LF	6NW ROC		PCS - 45 : 31.16 TN			
651389	08-07-23	LF	8NW ROC		PCS - 45 : 30.26 TN			
651412	08-07-23	LF	9NW ROC		PCS - 45 : 30.64 TN			
651456	08-07-23	LF	11NW ROC		PCS - 45 : 29.65 TN			
651457	08-07-23	LF	12NW ROC		PCS - 45 : 29.58 TN			
651459	08-07-23	LF	4NW ROC		PCS - 45 : 30.15 TN			
651462	08-07-23	LF	6NW ROC		PCS - 45 : 28.12 TN			
651465	08-07-23	LF	5NW ROC		PCS - 45 : 32.06 TN			
651470	08-07-23	LF	10NW ROC		PCS - 45 : 30.50 TN			
651473	08-07-23	LF	8NW ROC		PCS - 45 : 30.56 TN			
651502	08-08-23	LF	4NW ROC		PCS - 45 : 27.56 TN			
651505	08-08-23	LF	9 NW ROC		PCS - 45 : 30.48 TN			
651509	08-08-23	LF	2411VCT		PCS - 45 : 31.51 TN			

# Invoice

Account #	Date	Invoice #
150	8/31/23	15988

Remit payment to:  
**Cowlitz County Solid Waste**  
 1600 - 13th Avenue South  
 Kelso, WA 98626  
 TEL (360) 577-3036  
[www.co.cowlitz.wa.us/publicworks](http://www.co.cowlitz.wa.us/publicworks)

Due Date
10/15/23

Billing Address
<b>ANDERSON ENVIRONMENTAL</b> 705 Colorado Street Kelso, WA 98626

Please include account number and invoice number with payment.

Tran #	Date	Site	Truck	PO	Description	Fee	Tax	Amount
651512	08-08-23	LF	8 NW ROC		PCS - 45 : 31.04 TN			
651513	08-08-23	LF	12 NW ROC		PCS - 45 : 29.71 TN			
651516	08-08-23	LF	11 NW ROC		PCS - 45 : 30.40 TN			
651519	08-08-23	LF	5 NW ROC		PCS - 45 : 32.50 TN			
651521	08-08-23	LF	10 NW ROC		PCS - 45 : 30.88 TN			
651524	08-08-23	LF	6 NW ROC		PCS - 45 : 31.88 TN			
651535	08-08-23	LF	2105VCT		PCS - 45 : 33.85 TN			
651540	08-08-23	LF	2023VCT		PCS - 45 : 34.53 TN			
651568	08-08-23	LF	R72 RTRAI		PCS - 45 : 32.72 TN			
651574	08-08-23	LF	143VCT		PCS - 45 : 31.06 TN			
651582	08-08-23	LF	4NW ROC		PCS - 45 : 30.85 TN			
651585	08-08-23	LF	9NW ROC		PCS - 45 : 30.94 TN			
651587	08-08-23	LF	2411VCT		PCS - 45 : 33.20 TN			
651588	08-08-23	LF	5NW ROC		PCS - 45 : 31.03 TN			
651591	08-08-23	LF	6NW ROC		PCS - 45 : 32.36 TN			
651595	08-08-23	LF	12NW ROC		PCS - 45 : 31.38 TN			
651597	08-08-23	LF	11NW ROC		PCS - 45 : 30.90 TN			
651600	08-08-23	LF	8NW ROC		PCS - 45 : 31.52 TN			
651609	08-08-23	LF	2023VCT		PCS - 45 : 32.76 TN			
651610	08-08-23	LF	2105VCT		PCS - 45 : 36.47 TN			
651619	08-09-23	LF	143VCT		PCS - 45 : 32.45 TN			
651624	08-09-23	LF	2065VCT		PCS - 45 : 33.19 TN			
651631	08-09-23	LF	3CELORIE		PCS - 45 : 30.49 TN			
651632	08-09-23	LF	2411VCT		PCS - 45 : 32.06 TN			
651635	08-09-23	LF	R72		PCS - 45 : 33.49 TN			
651640	08-09-23	LF	NWR5		PCS - 45 : 31.80 TN			
651642	08-09-23	LF	NWR14		PCS - 45 : 29.90 TN			
651644	08-09-23	LF	NWR12		PCS - 45 : 30.81 TN			
651646	08-09-23	LF	NWR15		PCS - 45 : 32.59 TN			
651647	08-09-23	LF	NWR11		PCS - 45 : 30.81 TN			
651650	08-09-23	LF	NWR10		PCS - 45 : 29.81 TN			
651652	08-09-23	LF	NWR9		PCS - 45 : 31.21 TN			

# Invoice

Account #	Date	Invoice #
150	8/31/23	15988

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 Kelso, WA 98626  
 TEL (360) 577-3036  
[www.co.cowlitz.wa.us/publicworks](http://www.co.cowlitz.wa.us/publicworks)

Due Date
10/15/23

Billing Address
<b>ANDERSON ENVIRONMENTAL</b> 705 Colorado Street Kelso, WA 98626

Please include account number and invoice number with payment.

Tran #	Date	Site	Truck	PO	Description	Fee	Tax	Amount
651654	08-09-23	LF	NWR6		PCS - 45 : 30.15 TN			
651656	08-09-23	LF	2150VCT		PCS - 45 : 29.54 TN			
651658	08-09-23	LF	TAYLOR52		PCS - 45 : 30.23 TN			
651667	08-09-23	LF	2023VCT		PCS - 45 : 33.73 TN			
651690	08-09-23	LF	2133VCT		PCS - 45 : 34.29 TN			
651699	08-09-23	LF	143VCT		PCS - 45 : 33.78 TN			
651714	08-09-23	LF	2065VCT		PCS - 45 : 33.35 TN			
651721	08-09-23	LF	2411VCT		PCS - 45 : 33.97 TN			
651724	08-09-23	LF	R72		PCS - 45 : 34.09 TN			
651727	08-09-23	LF	NWR11		PCS - 45 : 31.55 TN			
651728	08-09-23	LF	CELORIE3		PCS - 45 : 33.83 TN			
651729	08-09-23	LF	NWR5		PCS - 45 : 31.44 TN			
651730	08-09-23	LF	NWR12		PCS - 45 : 28.36 TN			
651735	08-09-23	LF	NWR10		PCS - 45 : 31.94 TN			
651737	08-09-23	LF	NWR9		PCS - 45 : 31.78 TN			
651739	08-09-23	LF	NWR14		PCS - 45 : 31.04 TN			
651741	08-09-23	LF	NWR15		PCS - 45 : 30.41 TN			
651742	08-09-23	LF	NWR6		PCS - 45 : 28.08 TN			
651744	08-09-23	LF	5262TAYL		PCS - 45 : 29.06 TN			
651745	08-09-23	LF	2105VCT		PCS - 45 : 32.94 TN			
651748	08-09-23	LF	2023VCT		PCS - 45 : 32.05 TN			
651755	08-10-23	LF	143 VCT		PCS - 45 : 32.26 TN			
651772	08-10-23	LF	2411VCT		PCS - 45 : 38.23 TN			
651773	08-10-23	LF	SHARLOW		PCS - 45 : 30.89 TN			
651775	08-10-23	LF	14NW ROC		PCS - 45 : 30.59 TN			
651776	08-10-23	LF	272 R TRA		PCS - 45 : 30.99 TN			
651778	08-10-23	LF	15NW ROC		PCS - 45 : 27.71 TN			
651779	08-10-23	LF	2105VCT		PCS - 45 : 33.27 TN			
651780	08-10-23	LF	3CELORIE		PCS - 45 : 32.52 TN			
651783	08-10-23	LF	12NWROC		PCS - 45 : 31.13 TN			

# Invoice

Account #	Date	Invoice #
150	8/31/23	15988

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**Cowlitz County Solid Waste**  
**1600 - 13th Avenue South**  
**Kelso, WA 98626**  
**TEL (360) 577-3035**  
[www.co.cowlitz.wa.us/publicworks](http://www.co.cowlitz.wa.us/publicworks)

Due Date
10/15/23

Billing Address
<b>ANDERSON ENVIRONMENTAL</b> 705 Colorado Street Kelso, WA 98626

Please include account number and invoice number with payment.

Tran #	Date	Site	Truck	PO	Description	Fee	Tax	Amount
651788	08-10-23	LF	5NW ROCH		PCS - 45 : 31.61 TN			
651790	08-10-23	LF	11NW ROC		PCS - 45 : 30.76 TN			
651792	08-10-23	LF	10NW ROC		PCS - 45 : 31.51 TN			
651794	08-10-23	LF	6NW ROCH		PCS - 45 : 32.01 TN			
651798	08-10-23	LF	562TAYLO		PCS - 45 : 30.65 TN			
651808	08-10-23	LF	2023VCT		PCS - 45 : 34.93 TN			
651832	08-10-23	LF	143VCT		PCS - 45 : 33.58 TN			
651851	08-10-23	LF	2411VCT		PCS - 45 : 34.91 TN			
651852	08-10-23	LF	72 R TRAN		PCS - 45 : 31.14 TN			
651854	08-10-23	LF	3CELORIE		PCS - 45 : 30.58 TN			
651856	08-10-23	LF	2105VCT		PCS - 45 : 32.55 TN			
651861	08-10-23	LF	12NW ROC		PCS - 45 : 31.46 TN			
651863	08-10-23	LF	5NW ROCH		PCS - 45 : 30.96 TN			
651864	08-10-23	LF	14 NW ROCH		PCS - 45 : 30.84 TN			
651865	08-10-23	LF	11 NW ROCH		PCS - 45 : 31.89 TN			
651866	08-10-23	LF	10 NW ROCH		PCS - 45 : 29.13 TN			
651867	08-10-23	LF	15 NW ROCH		PCS - 45 : 30.66 TN			
651868	08-10-23	LF	6 NW ROC		PCS - 45 : 28.46 TN			
651869	08-10-23	LF	5262 TAYL		PCS - 45 : 32.93 TN			
651873	08-10-23	LF	3HARLOW		PCS - 45 : 29.82 TN			
651876	08-10-23	LF	2023VCT		PCS - 45 : 33.17 TN			
651884	08-11-23	LF	3CELORIE		PCS - 45 : 32.52 TN			
651886	08-11-23	LF	474RTRAN		PCS - 45 : 30.86 TN			
651887	08-11-23	LF	R-72 RTRA		PCS - 45 : 32.18 TN			
651893	08-11-23	LF	143VCT		PCS - 45 : 33.65 TN			
651907	08-11-23	LF	12NW ROC		PCS - 45 : 28.17 TN			
651912	08-11-23	LF	2105VCT		PCS - 45 : 36.60 TN			
651920	08-11-23	LF	2411VCT		PCS - 45 : 37.29 TN			
651934	08-11-23	LF	5262TAYL		PCS - 45 : 30.19 TN			
651942	08-11-23	LF	2023VCT		PCS - 45 : 33.18 TN			
651975	08-11-23	LF	R-72 RTRA		PCS - 45 : 31.23 TN			

# Invoice

Account #	Date	Invoice #
150	8/31/23	15988

Remit payment to:  
**Cowlitz County Solid Waste**  
**1600 - 13th Avenue South**  
**Kelso, WA 98626**  
**TEL (360) 577-3035**

Due Date
10/15/23

[www.co.cowlitz.wa.us/publicworks](http://www.co.cowlitz.wa.us/publicworks)

Billing Address
<b>ANDERSON ENVIRONMENTAL</b> 705 Colorado Street Kelso, WA 98626

Please include account number and invoice number with payment.

Tran #	Date	Site	Truck	PO	Description	Fee	Tax	Amount
651990	08-11-23	LF	3CELORIE		PCS - 45 : 31.42 TN			
652007	08-14-23	LF	74R TRAN:		PCS - 45 : 32.85 TN			
652021	08-14-23	LF	3 HARLOW		PCS - 45 : 28.34 TN			
652022	08-14-23	LF	72R TRAN:		PCS - 45 : 32.45 TN			
652023	08-14-23	LF	4HARLOW		PCS - 45 : 32.79 TN			
652024	08-14-23	LF	3CELORIE		PCS - 45 : 30.47 TN			
652028	08-14-23	LF	22HARLOV		PCS - 45 : 29.78 TN			
652030	08-14-23	LF	12NW ROC		PCS - 45 : 31.07 TN			
652035	08-14-23	LF	15NW ROC		PCS - 45 : 29.89 TN			
652036	08-14-23	LF	528 QUIGG		PCS - 45 : 29.72 TN			
652038	08-14-23	LF	528QUIGG		PCS - 45 : 32.35 TN			
652040	08-14-23	LF	11NW ROC		PCS - 45 : 31.21 TN			
652041	08-14-23	LF	5NW ROCH		PCS - 45 : 31.68 TN			
652043	08-14-23	LF	9NW ROCH		PCS - 45 : 31.34 TN			
652044	08-14-23	LF	10 NW ROC		PCS - 45 : 31.21 TN			
652047	08-14-23	LF	143VCT		PCS - 45 : 30.95 TN			
652048	08-14-23	LF	8NW ROCH		PCS - 45 : 31.06 TN			
652058	08-14-23	LF	5262TAYLC		PCS - 45 : 30.32 TN			
652061	08-14-23	LF	2023VCT		PCS - 45 : 33.08 TN			
652067	08-14-23	LF	6NW ROCH		PCS - 45 : 31.29 TN			
652104	08-14-23	LF	5HARLOW		PCS - 45 : 31.35 TN			
652106	08-14-23	LF	4HARLOW		PCS - 45 : 28.53 TN			
652110	08-14-23	LF	2107VCT		PCS - 45 : 34.49 TN			
652111	08-14-23	LF	11NW ROC		PCS - 45 : 31.25 TN			
652115	08-14-23	LF	9NW ROCH		PCS - 45 : 31.17 TN			
652120	08-14-23	LF	528QUIGG		PCS - 45 : 24.02 TN			
652121	08-14-23	LF	12NW ROC		PCS - 45 : 30.70 TN			
652122	08-14-23	LF	18KISSLEF		PCS - 45 : 29.66 TN			
652123	08-14-23	LF	5NW ROCH		PCS - 45 : 30.99 TN			
652126	08-14-23	LF	10NW ROC		PCS - 45 : 30.89 TN			
652127	08-14-23	LF	5262TAYLC		PCS - 45 : 32.36 TN			
652129	08-14-23	LF	143VCT		PCS - 45 : 33.27 TN			
652132	08-14-23	LF	R72 R TRA		PCS - 45 : 34.46 TN			
652133	08-14-23	LF	8NWR		PCS - 45 : 31.46 TN			
652134	08-14-23	LF	3CELORIE		PCS - 45 : 31.13 TN			
652136	08-14-23	LF	528QUIG		PCS - 45 : 29.02 TN			
652143	08-15-23	LF	2023VCT		PCS - 45 : 31.67 TN			



# Invoice

Account #	Date	Invoice #
150	8/31/23	15988

Remit payment to:  
**Cowlitz County Solid Waste**  
**1600 - 13th Avenue South**  
**Kelso, WA 98626**  
**TEL (360) 577-3035**

Due Date
10/15/23

Billing Address
<b>ANDERSON ENVIRONMENTAL</b> <b>705 Colorado Street</b> <b>Kelso, WA 98626</b>

Please include account number and invoice number with payment.

Tran #	Date	Site	Truck	PO	Description	Fee	Tax	Amount
652157	08-15-23	LF	22HC		PCS - 45 : 28.61 TN			
652161	08-15-23	LF	528QB		PCS - 45 : 3.71 TN			
652163	08-15-23	LF	3HC		PCS - 45 : 29.23 TN			
652164	08-15-23	LF	3CELOR		PCS - 45 : 31.53 TN			
652165	08-15-23	LF	72R		PCS - 45 : 32.59 TN			
652171	08-15-23	LF	R74		PCS - 45 : 31.79 TN			
652175	08-15-23	LF	10NWR		PCS - 45 : 31.00 TN			
652176	08-15-23	LF	14NWR		PCS - 45 : 29.13 TN			
652177	08-15-23	LF	R88		PCS - 45 : 31.53 TN			
652179	08-15-23	LF	11NWR		PCS - 45 : 30.69 TN			
652180	08-15-23	LF	15NWR		PCS - 45 : 29.41 TN			
652183	08-15-23	LF	12NWR		PCS - 45 : 29.45 TN			
652184	08-15-23	LF	528QUIGG		PCS - 45 : 31.87 TN			
652185	08-15-23	LF	9NWR		PCS - 45 : 29.05 TN			
652188	08-15-23	LF	5NWR		PCS - 45 : 28.69 TN			
652190	08-15-23	LF	6NWR		PCS - 45 : 29.97 TN			
652196	08-15-23	LF	16KISSLEF		PCS - 45 : 31.90 TN			
652197	08-15-23	LF	5262TAYLC		PCS - 45 : 30.01 TN			
652208	08-15-23	LF	2105VCT		PCS - 45 : 31.13 TN			
652213	08-15-23	LF	728VCT		PCS - 45 : 30.83 TN			
652237	08-15-23	LF	2023VCT		PCS - 45 : 33.08 TN			
652248	08-15-23	LF	3HC		PCS - 45 : 30.51 TN			
652249	08-15-23	LF	22HC		PCS - 45 : 27.66 TN			
652252	08-15-23	LF	10NW		PCS - 45 : 28.52 TN			
652257	08-15-23	LF	11NWR		PCS - 45 : 29.10 TN			
652259	08-15-23	LF	R72R		PCS - 45 : 32.74 TN			
652260	08-15-23	LF	86R		PCS - 45 : 29.92 TN			
652263	08-15-23	LF	3CLRERE		PCS - 45 : 30.25 TN			
652265	08-15-23	LF	12NW		PCS - 45 : 31.16 TN			
652266	08-15-23	LF	6NWR		PCS - 45 : 30.82 TN			
652267	08-15-23	LF	5NWR		PCS - 45 : 30.01 TN			
652270	08-15-23	LF	9NWR		PCS - 45 : 30.07 TN			
652271	08-15-23	LF	15NWR		PCS - 45 : 28.95 TN			
652273	08-15-23	LF	14NWR		PCS - 45 : 30.95 TN			

# Invoice

Account #	Date	Invoice #
150	8/31/23	15988

Remit payment to:  
**Cowlitz County Solid Waste**  
 1600 - 13th Avenue South  
 Kelso, WA 98626  
 TEL (360) 677-3036  
[www.co.cowlitz.wa.us/publicworks](http://www.co.cowlitz.wa.us/publicworks)

Due Date
10/15/23

Billing Address
<b>ANDERSON ENVIRONMENTAL</b> 705 Colorado Street Kelso, WA 98626

Please include account number and invoice number with payment.

Tran #	Date	Site	Truck	PO	Description	Fee	Tax	Amount
652274	08-15-23	LF	10KISSLEF		PCS - 45 : 31.49 TN			
652276	08-15-23	LF	5262TAYL		PCS - 45 : 33.67 TN			
652280	08-15-23	LF	728VCT		PCS - 45 : 29.31 TN			
652281	08-15-23	LF	2105VCT		PCS - 45 : 34.48 TN			
652306	08-16-23	LF	11NW ROC		PCS - 45 : 30.49 TN			
652308	08-16-23	LF	5NW ROC		PCS - 45 : 29.56 TN			
652316	08-16-23	LF	12NW ROC		PCS - 45 : 29.51 TN			
652327	08-16-23	LF	6NW ROC		PCS - 45 : 29.62 TN			
652335	08-16-23	LF	8NW ROC		PCS - 45 : 31.37 TN			
652388	08-16-23	LF	11NW ROC		PCS - 45 : 31.03 TN			
652391	08-16-23	LF	5NW ROC		PCS - 45 : 29.42 TN			
652394	08-16-23	LF	12NW ROC		PCS - 45 : 30.10 TN			
652396	08-16-23	LF	8NW ROC		PCS - 45 : 29.05 TN			
653225	08-28-23	LF	84R TRAN		PCS - 45 : 28.88 TN			
653226	08-28-23	LF	72R TRAN		PCS - 45 : 29.16 TN			
653230	08-28-23	LF	81R TRAN		PCS - 45 : 27.85 TN			
653231	08-28-23	LF	12NW ROC		PCS - 45 : 27.79 TN			
653233	08-28-23	LF	11NW ROC		PCS - 45 : 24.36 TN			
653234	08-28-23	LF	10NW ROC		PCS - 45 : 24.60 TN			
653240	08-28-23	LF	14NW ROC		PCS - 45 : 26.35 TN			
653244	08-28-23	LF	8NW ROC		PCS - 45 : 31.21 TN			
653245	08-28-23	LF	415NW RO		PCS - 45 : 28.31 TN			
653246	08-28-23	LF	9NW ROC		PCS - 45 : 33.63 TN			
653263	08-28-23	LF	74R TRAN		PCS - 45 : 28.32 TN			
653266	08-28-23	LF	4NW ROC		PCS - 45 : 31.25 TN			
653310	08-28-23	LF	12NW ROC		PCS - 45 : 27.25 TN			
653315	08-28-23	LF	11NW ROC		PCS - 45 : 25.02 TN			
653318	08-28-23	LF	10NW ROC		PCS - 45 : 27.21 TN			
653394	08-28-23	LF	12NW ROC		PCS - 45 : 24.64 TN			

Note

# Invoice

RECEIVED OCT - 4 2023

Account #	Date	Invoice #
150	9/30/23	16148

Remit payment to:  
Cowlitz County Solid Waste  
1600 - 13th Avenue South  
Kelso, WA 98626  
TEL (360) 577-3035  
[www.co.cowlitz.wa.us/publicworks](http://www.co.cowlitz.wa.us/publicworks)

Due Date
11/15/23

Billing Address
ANDERSON ENVIRONMENTAL 705 Colorado Street Kelso, WA 98626

Please include account number and invoice number with payment.

Tran #	Date	Site	Truck	PO	Description	Fee	Tax	Amount
653853	08-05-23	LF	75AEC		PCS - 45 : 3.64 TN 23-2010			

# APPENDIX I

## Soil Laboratory Analytical Reports



## Stantec- Bellevue, WA

Sample Delivery Group: L1642968  
Samples Received: 08/05/2023  
Project Number: 185751446  
Description: Hungry Whale Test Pitting

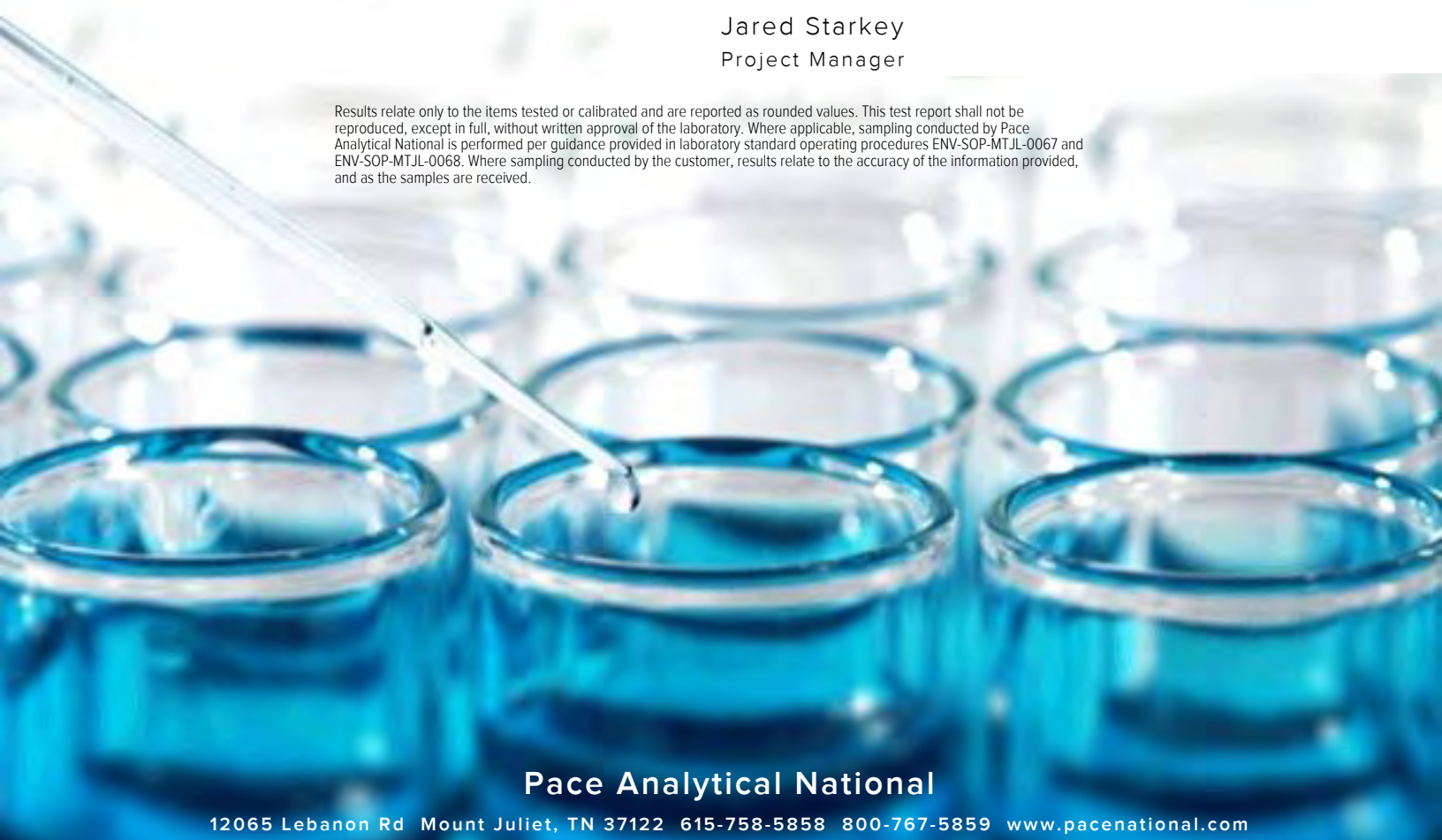
Report To: Stantec  
11130 NE 33rd Pl, Ste 200  
Bellevue, WA 98004

Entire Report Reviewed By:



Jared Starkey  
Project Manager

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



Pace Analytical National

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

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# SAMPLE SUMMARY

## USTI-SW1-5 L1642968-01 Solid

Collected by Paul Jenney      Collected date/time 08/03/23 12:35      Received date/time 08/05/23 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2110378	1	08/09/23 07:24	08/09/23 07:30	MT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2110447	1	08/09/23 15:22	08/11/23 15:43	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2113566	1000	08/03/23 12:35	08/14/23 12:04	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2111882	8	08/03/23 12:35	08/11/23 11:03	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2111987	1	08/11/23 09:43	08/12/23 01:35	JAS	Mt. Juliet, TN



## USTI-SW2-5 L1642968-02 Solid

Collected by Paul Jenney      Collected date/time 08/03/23 12:40      Received date/time 08/05/23 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2110378	1	08/09/23 07:24	08/09/23 07:30	MT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2110448	1	08/09/23 18:54	08/14/23 12:32	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2113566	2000	08/03/23 12:40	08/14/23 12:27	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2111882	8	08/03/23 12:40	08/11/23 11:21	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2114276	80	08/03/23 12:40	08/15/23 16:20	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2111987	5	08/11/23 09:43	08/11/23 20:44	TJD	Mt. Juliet, TN

## USTI-SW3-5 L1642968-03 Solid

Collected by Paul Jenney      Collected date/time 08/03/23 12:45      Received date/time 08/05/23 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2110378	1	08/09/23 07:24	08/09/23 07:30	MT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2110448	1	08/09/23 18:54	08/14/23 12:06	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2113566	2000	08/03/23 12:45	08/14/23 13:18	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2111882	8	08/03/23 12:45	08/11/23 11:40	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2114276	200	08/03/23 12:45	08/15/23 16:39	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2111987	25	08/11/23 09:43	08/11/23 21:23	TJD	Mt. Juliet, TN

## USTI-SW4-5 L1642968-04 Solid

Collected by Paul Jenney      Collected date/time 08/03/23 12:50      Received date/time 08/05/23 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2110378	1	08/09/23 07:24	08/09/23 07:30	MT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2110448	1	08/09/23 18:54	08/14/23 12:34	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2113566	10000	08/03/23 12:50	08/14/23 13:40	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2111882	40	08/03/23 12:50	08/11/23 11:59	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2114276	2000	08/03/23 12:50	08/15/23 16:58	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2111987	50	08/11/23 09:43	08/11/23 21:37	TJD	Mt. Juliet, TN

## USTI-FL-10 L1642968-05 Solid

Collected by Paul Jenney      Collected date/time 08/03/23 12:55      Received date/time 08/05/23 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2110379	1	08/09/23 06:57	08/09/23 07:10	MT	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2110448	1	08/09/23 18:54	08/14/23 12:37	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2113566	20000	08/03/23 12:55	08/14/23 14:03	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2111882	40	08/03/23 12:55	08/11/23 12:17	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2114276	2000	08/03/23 12:55	08/15/23 17:17	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2111987	50	08/11/23 09:43	08/11/23 21:50	TJD	Mt. Juliet, TN

# SAMPLE SUMMARY

## SP-SC-1 L1642968-06 Solid

Collected by: Paul Jenney  
 Collected date/time: 08/03/23 07:50  
 Received date/time: 08/05/23 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2110379	1	08/09/23 06:57	08/09/23 07:10	MT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2110799	25	08/03/23 07:50	08/09/23 18:49	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2111882	1	08/03/23 07:50	08/11/23 06:23	DWR	Mt. Juliet, TN

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

## SP-SI-1 L1642968-07 Solid

Collected by: Paul Jenney  
 Collected date/time: 08/03/23 07:55  
 Received date/time: 08/05/23 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2110379	1	08/09/23 06:57	08/09/23 07:10	MT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2113566	515	08/03/23 07:55	08/14/23 11:42	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2111882	1.03	08/03/23 07:55	08/11/23 06:41	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2114276	20.6	08/03/23 07:55	08/15/23 17:36	ADM	Mt. Juliet, TN

## SP-SI-2 L1642968-08 Solid

Collected by: Paul Jenney  
 Collected date/time: 08/03/23 08:00  
 Received date/time: 08/05/23 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2110379	1	08/09/23 06:57	08/09/23 07:10	MT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2110799	25	08/03/23 08:00	08/09/23 19:26	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2111882	1	08/03/23 08:00	08/11/23 07:00	DWR	Mt. Juliet, TN

## TB-01 L1642968-09 GW

Collected by: Paul Jenney  
 Collected date/time: 08/03/23 00:00  
 Received date/time: 08/05/23 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2113211	1	08/13/23 20:16	08/13/23 20:16	ACG	Mt. Juliet, TN



# CASE NARRATIVE

Unless qualified or notated within the narrative below, all sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. 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.



Jared Starkey  
Project Manager

## Volatile Organic Compounds (GC) by Method NWTPHGX

---

The same analyte is found in the associated blank.

Batch	Analyte	Lab Sample ID
WG2110799	Gasoline Range Organics-NWTPH	L1642968-06

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

---

Surrogate recovery limits have been exceeded; values are outside lower control limits.

Batch	Analyte	Lab Sample ID
WG2111882	1,2-Dichloroethane-d4	L1642968-01

Surrogate recovery limits have been exceeded; values are outside upper control limits.

Batch	Analyte	Lab Sample ID
WG2111882	4-Bromofluorobenzene	L1642968-01
WG2111882	Toluene-d8	L1642968-01

The same analyte is found in the associated blank.

Batch	Analyte	Lab Sample ID
WG2111882	Toluene	L1642968-01, 02, 06

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

---

Surrogate recovery cannot be used for control limit evaluation due to dilution.

Batch	Analyte	Lab Sample ID
WG2111987	o-Terphenyl	L1642968-03, 04, 05



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	89.4		1	08/09/2023 07:30	<a href="#">WG2110378</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Lead	7.85		0.233	0.559	1	08/11/2023 15:43	<a href="#">WG2110447</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	1790		42.5	125	1000	08/14/2023 12:04	<a href="#">WG2113566</a>
(S) a,a,a-Trifluorotoluene(FID)	89.3			77.0-120		08/14/2023 12:04	<a href="#">WG2113566</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	1.13		0.00469	0.0100	8	08/11/2023 11:03	<a href="#">WG2111882</a>
Toluene	0.0846	<u>B</u>	0.0130	0.0501	8	08/11/2023 11:03	<a href="#">WG2111882</a>
Ethylbenzene	21.7		0.00740	0.0251	8	08/11/2023 11:03	<a href="#">WG2111882</a>
Total Xylenes	0.806		0.00883	0.0652	8	08/11/2023 11:03	<a href="#">WG2111882</a>
(S) Toluene-d8	142	<u>J1</u>		75.0-131		08/11/2023 11:03	<a href="#">WG2111882</a>
(S) 4-Bromofluorobenzene	158	<u>J1</u>		67.0-138		08/11/2023 11:03	<a href="#">WG2111882</a>
(S) 1,2-Dichloroethane-d4	61.0	<u>J2</u>		70.0-130		08/11/2023 11:03	<a href="#">WG2111882</a>

Sample Narrative:

L1642968-01 WG2111882: Surrogate failure due to matrix interference.

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Diesel Range Organics (DRO)	127		1.49	4.47	1	08/12/2023 01:35	<a href="#">WG2111987</a>
Residual Range Organics (RRO)	24.5		3.72	11.2	1	08/12/2023 01:35	<a href="#">WG2111987</a>
(S) o-Terphenyl	62.2			18.0-148		08/12/2023 01:35	<a href="#">WG2111987</a>

Sample Narrative:

L1642968-01 WG2111987: Sample resembles laboratory standard for Kerosene.



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	78.2		1	08/09/2023 07:30	<a href="#">WG2110378</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Lead	8.81		0.266	0.640	1	08/14/2023 12:32	<a href="#">WG2110448</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	4450		106	312	2000	08/14/2023 12:27	<a href="#">WG2113566</a>
(S) a,a,a-Trifluorotoluene(FID)	90.4			77.0-120		08/14/2023 12:27	<a href="#">WG2113566</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	1.79		0.00584	0.0125	8	08/11/2023 11:21	<a href="#">WG2111882</a>
Toluene	0.0980	<u>B</u>	0.0162	0.0624	8	08/11/2023 11:21	<a href="#">WG2111882</a>
Ethylbenzene	57.7		0.0921	0.312	80	08/15/2023 16:20	<a href="#">WG2114276</a>
Total Xylenes	6.83		0.0110	0.0811	8	08/11/2023 11:21	<a href="#">WG2111882</a>
(S) Toluene-d8	115			75.0-131		08/11/2023 11:21	<a href="#">WG2111882</a>
(S) Toluene-d8	106			75.0-131		08/15/2023 16:20	<a href="#">WG2114276</a>
(S) 4-Bromofluorobenzene	108			67.0-138		08/11/2023 11:21	<a href="#">WG2111882</a>
(S) 4-Bromofluorobenzene	103			67.0-138		08/15/2023 16:20	<a href="#">WG2114276</a>
(S) 1,2-Dichloroethane-d4	79.3			70.0-130		08/11/2023 11:21	<a href="#">WG2111882</a>
(S) 1,2-Dichloroethane-d4	104			70.0-130		08/15/2023 16:20	<a href="#">WG2114276</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Diesel Range Organics (DRO)	130		8.51	25.6	5	08/11/2023 20:44	<a href="#">WG2111987</a>
Residual Range Organics (RRO)	U		21.2	64.0	5	08/11/2023 20:44	<a href="#">WG2111987</a>
(S) o-Terphenyl	48.3			18.0-148		08/11/2023 20:44	<a href="#">WG2111987</a>

Sample Narrative:

L1642968-02 WG2111987: Sample resembles laboratory standard for Kerosene.



## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	93.5		1	08/09/2023 07:30	<a href="#">WG2110378</a>

## Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Lead	7.60		0.223	0.535	1	08/14/2023 12:06	<a href="#">WG2110448</a>

## Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	6130		78.2	231	2000	08/14/2023 13:18	<a href="#">WG2113566</a>
(S) a,a,a-Trifluorotoluene(FID)	90.6			77.0-120		08/14/2023 13:18	<a href="#">WG2113566</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	1.05		0.00431	0.00923	8	08/11/2023 11:40	<a href="#">WG2111882</a>
Toluene	6.45		0.0120	0.0461	8	08/11/2023 11:40	<a href="#">WG2111882</a>
Ethylbenzene	34.2		0.170	0.577	200	08/15/2023 16:39	<a href="#">WG2114276</a>
Total Xylenes	187		0.203	1.50	200	08/15/2023 16:39	<a href="#">WG2114276</a>
(S) Toluene-d8	117			75.0-131		08/11/2023 11:40	<a href="#">WG2111882</a>
(S) Toluene-d8	105			75.0-131		08/15/2023 16:39	<a href="#">WG2114276</a>
(S) 4-Bromofluorobenzene	118			67.0-138		08/11/2023 11:40	<a href="#">WG2111882</a>
(S) 4-Bromofluorobenzene	101			67.0-138		08/15/2023 16:39	<a href="#">WG2114276</a>
(S) 1,2-Dichloroethane-d4	89.2			70.0-130		08/11/2023 11:40	<a href="#">WG2111882</a>
(S) 1,2-Dichloroethane-d4	103			70.0-130		08/15/2023 16:39	<a href="#">WG2114276</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Diesel Range Organics (DRO)	552		35.6	107	25	08/11/2023 21:23	<a href="#">WG2111987</a>
Residual Range Organics (RRO)	U		89.1	267	25	08/11/2023 21:23	<a href="#">WG2111987</a>
(S) o-Terphenyl	51.7	<a href="#">J7</a>		18.0-148		08/11/2023 21:23	<a href="#">WG2111987</a>

## Sample Narrative:

L1642968-03 WG2111987: Sample resembles laboratory standard for Kerosene.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	81.9		1	08/09/2023 07:30	<a href="#">WG2110378</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Lead	6.24		0.254	0.611	1	08/14/2023 12:34	<a href="#">WG2110448</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	31300		505	1490	10000	08/14/2023 13:40	<a href="#">WG2113566</a>
(S) a,a,a-Trifluorotoluene(FID)	91.1			77.0-120		08/14/2023 13:40	<a href="#">WG2113566</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	89.3		0.0279	0.0596	40	08/11/2023 11:59	<a href="#">WG2111882</a>
Toluene	308		3.87	14.9	2000	08/15/2023 16:58	<a href="#">WG2114276</a>
Ethylbenzene	258		2.19	7.45	2000	08/15/2023 16:58	<a href="#">WG2114276</a>
Total Xylenes	1700		2.62	19.4	2000	08/15/2023 16:58	<a href="#">WG2114276</a>
(S) Toluene-d8	111			75.0-131		08/11/2023 11:59	<a href="#">WG2111882</a>
(S) Toluene-d8	105			75.0-131		08/15/2023 16:58	<a href="#">WG2114276</a>
(S) 4-Bromofluorobenzene	111			67.0-138		08/11/2023 11:59	<a href="#">WG2111882</a>
(S) 4-Bromofluorobenzene	104			67.0-138		08/15/2023 16:58	<a href="#">WG2114276</a>
(S) 1,2-Dichloroethane-d4	96.4			70.0-130		08/11/2023 11:59	<a href="#">WG2111882</a>
(S) 1,2-Dichloroethane-d4	103			70.0-130		08/15/2023 16:58	<a href="#">WG2114276</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Diesel Range Organics (DRO)	1120		81.2	244	50	08/11/2023 21:37	<a href="#">WG2111987</a>
Residual Range Organics (RRO)	U		203	611	50	08/11/2023 21:37	<a href="#">WG2111987</a>
(S) o-Terphenyl	0.000	<a href="#">J7</a>		18.0-148		08/11/2023 21:37	<a href="#">WG2111987</a>

Sample Narrative:

L1642968-04 WG2111987: Sample resembles laboratory standard for Gasoline.



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	89.7		1	08/09/2023 07:10	<a href="#">WG2110379</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Lead	4.94		0.232	0.557	1	08/14/2023 12:37	<a href="#">WG2110448</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	39300		849	2510	20000	08/14/2023 14:03	<a href="#">WG2113566</a>
(S) a,a,a-Trifluorotoluene(FID)	90.6			77.0-120		08/14/2023 14:03	<a href="#">WG2113566</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	57.3		0.0234	0.0501	40	08/11/2023 12:17	<a href="#">WG2111882</a>
Toluene	205		3.26	12.5	2000	08/15/2023 17:17	<a href="#">WG2114276</a>
Ethylbenzene	154		1.84	6.26	2000	08/15/2023 17:17	<a href="#">WG2114276</a>
Total Xylenes	1010		2.20	16.3	2000	08/15/2023 17:17	<a href="#">WG2114276</a>
(S) Toluene-d8	114			75.0-131		08/11/2023 12:17	<a href="#">WG2111882</a>
(S) Toluene-d8	106			75.0-131		08/15/2023 17:17	<a href="#">WG2114276</a>
(S) 4-Bromofluorobenzene	109			67.0-138		08/11/2023 12:17	<a href="#">WG2111882</a>
(S) 4-Bromofluorobenzene	103			67.0-138		08/15/2023 17:17	<a href="#">WG2114276</a>
(S) 1,2-Dichloroethane-d4	91.1			70.0-130		08/11/2023 12:17	<a href="#">WG2111882</a>
(S) 1,2-Dichloroethane-d4	104			70.0-130		08/15/2023 17:17	<a href="#">WG2114276</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Diesel Range Organics (DRO)	1650		74.1	223	50	08/11/2023 21:50	<a href="#">WG2111987</a>
Residual Range Organics (RRO)	U		185	557	50	08/11/2023 21:50	<a href="#">WG2111987</a>
(S) o-Terphenyl	0.000	<a href="#">J7</a>		18.0-148		08/11/2023 21:50	<a href="#">WG2111987</a>

Sample Narrative:

L1642968-05 WG2111987: Sample resembles laboratory standard for Gasoline.



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	87.9		1	08/09/2023 07:10	<a href="#">WG2110379</a>

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

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	3.89	<u>B</u>	1.09	3.21	25	08/09/2023 18:49	<a href="#">WG2110799</a>
(S) a,a,a-Trifluorotoluene(FID)	104			77.0-120		08/09/2023 18:49	<a href="#">WG2110799</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.00121	<u>J</u>	0.000600	0.00128	1	08/11/2023 06:23	<a href="#">WG2111882</a>
Toluene	0.00483	<u>B J</u>	0.00167	0.00642	1	08/11/2023 06:23	<a href="#">WG2111882</a>
Ethylbenzene	0.00163	<u>J</u>	0.000946	0.00321	1	08/11/2023 06:23	<a href="#">WG2111882</a>
Total Xylenes	0.0193		0.00113	0.00834	1	08/11/2023 06:23	<a href="#">WG2111882</a>
(S) Toluene-d8	114			75.0-131		08/11/2023 06:23	<a href="#">WG2111882</a>
(S) 4-Bromofluorobenzene	98.9			67.0-138		08/11/2023 06:23	<a href="#">WG2111882</a>
(S) 1,2-Dichloroethane-d4	90.8			70.0-130		08/11/2023 06:23	<a href="#">WG2111882</a>

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	80.8		1	08/09/2023 07:10	<a href="#">WG2110379</a>

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	958		25.7	75.5	515	08/14/2023 11:42	<a href="#">WG2113566</a>
(S) a,a,a-Trifluorotoluene(FID)	84.3			77.0-120		08/14/2023 11:42	<a href="#">WG2113566</a>

3 Ss

4 Cn

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.244		0.000706	0.00151	1.03	08/11/2023 06:41	<a href="#">WG2111882</a>
Toluene	0.956		0.00197	0.00755	1.03	08/11/2023 06:41	<a href="#">WG2111882</a>
Ethylbenzene	5.21		0.0223	0.0755	20.6	08/15/2023 17:36	<a href="#">WG2114276</a>
Total Xylenes	25.5		0.0266	0.197	20.6	08/15/2023 17:36	<a href="#">WG2114276</a>
(S) Toluene-d8	112			75.0-131		08/11/2023 06:41	<a href="#">WG2111882</a>
(S) Toluene-d8	105			75.0-131		08/15/2023 17:36	<a href="#">WG2114276</a>
(S) 4-Bromofluorobenzene	114			67.0-138		08/11/2023 06:41	<a href="#">WG2111882</a>
(S) 4-Bromofluorobenzene	103			67.0-138		08/15/2023 17:36	<a href="#">WG2114276</a>
(S) 1,2-Dichloroethane-d4	82.6			70.0-130		08/11/2023 06:41	<a href="#">WG2111882</a>
(S) 1,2-Dichloroethane-d4	102			70.0-130		08/15/2023 17:36	<a href="#">WG2114276</a>

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	80.2		1	08/09/2023 07:10	<a href="#">WG2110379</a>

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	268		1.27	3.74	25	08/09/2023 19:26	<a href="#">WG2110799</a>
(S) a,a,a-Trifluorotoluene(FID)	106			77.0-120		08/09/2023 19:26	<a href="#">WG2110799</a>

3 Ss

4 Cn

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.0713		0.000698	0.00149	1	08/11/2023 07:00	<a href="#">WG2111882</a>
Toluene	0.117		0.00194	0.00747	1	08/11/2023 07:00	<a href="#">WG2111882</a>
Ethylbenzene	2.94		0.00110	0.00374	1	08/11/2023 07:00	<a href="#">WG2111882</a>
Total Xylenes	9.28		0.00132	0.00972	1	08/11/2023 07:00	<a href="#">WG2111882</a>
(S) Toluene-d8	115			75.0-131		08/11/2023 07:00	<a href="#">WG2111882</a>
(S) 4-Bromofluorobenzene	115			67.0-138		08/11/2023 07:00	<a href="#">WG2111882</a>
(S) 1,2-Dichloroethane-d4	81.8			70.0-130		08/11/2023 07:00	<a href="#">WG2111882</a>

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0941	1.00	1	08/13/2023 20:16	<a href="#">WG2113211</a>
Toluene	U		0.278	1.00	1	08/13/2023 20:16	<a href="#">WG2113211</a>
Ethylbenzene	U		0.137	1.00	1	08/13/2023 20:16	<a href="#">WG2113211</a>
Total Xylenes	U		0.174	3.00	1	08/13/2023 20:16	<a href="#">WG2113211</a>
<i>(S) Toluene-d8</i>	111			80.0-120		08/13/2023 20:16	<a href="#">WG2113211</a>
<i>(S) 4-Bromofluorobenzene</i>	97.4			77.0-126		08/13/2023 20:16	<a href="#">WG2113211</a>
<i>(S) 1,2-Dichloroethane-d4</i>	105			70.0-130		08/13/2023 20:16	<a href="#">WG2113211</a>

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

Method Blank (MB)

(MB) R3958615-1 08/09/23 07:30

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

1 Cp

2 Tc

3 Ss

L1642968-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1642968-03 08/09/23 07:30 • (DUP) R3958615-3 08/09/23 07:30

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	93.5	94.4	1	0.969		10

4 Cn

5 Sr

Laboratory Control Sample (LCS)

(LCS) R3958615-2 08/09/23 07:30

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	%	%	%	%	
Total Solids	50.0	50.0	99.9	85.0-115	

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R3958594-1 08/09/23 07:10

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

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

L1643018-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1643018-03 08/09/23 07:10 • (DUP) R3958594-3 08/09/23 07:10

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits
Total Solids	85.9	86.4	1	0.592		10

<sup>4</sup>Cn

<sup>5</sup>Sr

Laboratory Control Sample (LCS)

(LCS) R3958594-2 08/09/23 07:10

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	99.9	85.0-115	

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3959609-2 08/11/23 13:12

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Lead	U		0.208	0.500

Laboratory Control Sample (LCS)

(LCS) R3959609-1 08/11/23 13:09

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Lead	100	104	104	80.0-120	

L1642788-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1642788-01 08/11/23 13:16 • (MS) R3959609-5 08/11/23 13:25 • (MSD) R3959609-6 08/11/23 13:28

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 %
Lead	124	29.3	155	142	101	91.1	1	75.0-125			8.51	20

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3960362-1 08/14/23 12:00

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Lead	U		0.208	0.500

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

Laboratory Control Sample (LCS)

(LCS) R3960362-2 08/14/23 12:03

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Lead	100	104	104	80.0-120	

<sup>4</sup>Cn

<sup>5</sup>Sr

L1642968-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1642968-03 08/14/23 12:06 • (MS) R3960362-5 08/14/23 12:13 • (MSD) R3960362-6 08/14/23 12:16

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 %
Lead	107	7.60	102	107	88.2	92.5	1	75.0-125			4.41	20

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3960115-3 08/09/23 14:32

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	2.02	↓	0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	104			77.0-120

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

(LCS) R3960115-1 08/09/23 12:35 • (LCSD) R3960115-2 08/09/23 12:54

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	5.24	5.59	95.3	102	71.0-124			6.46	20
(S) a,a,a-Trifluorotoluene(FID)				110	112	77.0-120				

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

Method Blank (MB)

(MB) R3960304-2 08/14/23 10:51

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	1.04	↓	0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	92.0			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3960304-1 08/14/23 10:05

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5.50	5.84	106	71.0-124	
(S) a,a,a-Trifluorotoluene(FID)			95.6	77.0-120	

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



Method Blank (MB)

(MB) R3960728-3 08/11/23 06:04

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
Benzene	U		0.000467	0.00100
Toluene	0.00147	U	0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Total Xylenes	U		0.000880	0.00650
(S) Toluene-d8	117			75.0-131
(S) 4-Bromofluorobenzene	102			67.0-138
(S) 1,2-Dichloroethane-d4	92.4			70.0-130

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

(LCS) R3960728-1 08/11/23 04:31 • (LCSD) R3960728-2 08/11/23 04:50

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Benzene	0.125	0.113	0.109	90.4	87.2	70.0-123			3.60	20
Toluene	0.125	0.127	0.128	102	102	75.0-121			0.784	20
Ethylbenzene	0.125	0.134	0.133	107	106	74.0-126			0.749	20
Total Xylenes	0.375	0.395	0.411	105	110	72.0-127			3.97	20
(S) Toluene-d8				112	112	75.0-131				
(S) 4-Bromofluorobenzene				98.8	105	67.0-138				
(S) 1,2-Dichloroethane-d4				95.7	97.4	70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R3961137-3 08/15/23 11:21

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Toluene	U		0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Total Xylenes	U		0.000880	0.00650
<i>(S) Toluene-d8</i>	106			75.0-131
<i>(S) 4-Bromofluorobenzene</i>	101			67.0-138
<i>(S) 1,2-Dichloroethane-d4</i>	99.9			70.0-130

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

(LCS) R3961137-1 08/15/23 09:46 • (LCSD) R3961137-2 08/15/23 10:05

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 %
Toluene	0.125	0.106	0.115	84.8	92.0	75.0-121			8.14	20
Ethylbenzene	0.125	0.104	0.115	83.2	92.0	74.0-126			10.0	20
Total Xylenes	0.375	0.321	0.356	85.6	94.9	72.0-127			10.3	20
<i>(S) Toluene-d8</i>				104	104	75.0-131				
<i>(S) 4-Bromofluorobenzene</i>				102	101	67.0-138				
<i>(S) 1,2-Dichloroethane-d4</i>				104	105	70.0-130				

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

Method Blank (MB)

(MB) R3960214-2 08/13/23 14:56

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.0941	1.00
Toluene	U		0.278	1.00
Ethylbenzene	U		0.137	1.00
Total Xylenes	U		0.174	3.00
<i>(S) Toluene-d8</i>	109			80.0-120
<i>(S) 4-Bromofluorobenzene</i>	99.4			77.0-126
<i>(S) 1,2-Dichloroethane-d4</i>	109			70.0-130

Laboratory Control Sample (LCS)

(LCS) R3960214-1 08/13/23 14:13

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	5.00	4.37	87.4	70.0-123	
Toluene	5.00	4.52	90.4	79.0-120	
Ethylbenzene	5.00	4.33	86.6	79.0-123	
Total Xylenes	15.0	12.8	85.3	79.0-123	
<i>(S) Toluene-d8</i>			104	80.0-120	
<i>(S) 4-Bromofluorobenzene</i>			97.4	77.0-126	
<i>(S) 1,2-Dichloroethane-d4</i>			104	70.0-130	

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3959740-1 08/11/23 16:29

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
<i>(S) o-Terphenyl</i>	60.1			18.0-148

Laboratory Control Sample (LCS)

(LCS) R3959740-2 08/11/23 16:42

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	50.0	36.2	72.4	50.0-150	
<i>(S) o-Terphenyl</i>			70.1	18.0-148	

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

# INTERNAL STANDARD SUMMARY

## Instrument: VOCGC4 • File ID: 0814\_03

08/14/23 08:09

Sample ID	File ID	FLUOROBENZENE (FID)	FLUOROBENZENE (PID)
		Response	Response
Standard	0814_03	3857200	1337267
Upper Limit		7714400	2674534
Lower Limit		1928600	668634
LCS R3960304-1 WG2113566 1x	0814_05	3793670	1299598
BLANK R3960304-2 WG2113566 25x	0814_07	4158846	1493090
L1642968-07 WG2113566 515x	0814_08	4012457	1278021
L1642968-01 WG2113566 1000x	0814_09	4240810	1412269
L1642968-02 WG2113566 2000x	0814_10	4193904	1405820
L1642968-03 WG2113566 2000x	0814_11	3361814	1140849
L1642968-04 WG2113566 10000x	0814_12	3699365	1244480
L1642968-05 WG2113566 20000x	0814_13	3757506	1253629

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

## Instrument: VOCGC17 • File ID: 0809\_03

08/09/23 12:17

Sample ID	File ID	FLUOROBENZENE (FID)	FLUOROBENZENE (PID)
		Response	Response
Standard	0809_03	338956400	338956400
Upper Limit		677912800	677912800
Lower Limit		169478200	169478200
LCS R3960115-1 WG2110799 1x	0809_04	300345100	300345100
LCSD R3960115-2 WG2110799 1x	0809_05	294907400	294907400
BLANK R3960115-3 WG2110799 25x	0809_08	248958300	248958300

## Instrument: VOCGC17 • File ID: 0809\_15

08/09/23 17:10

Sample ID	File ID	FLUOROBENZENE (FID)	FLUOROBENZENE (PID)
		Response	Response
Standard	0809_15	331782000	331782000
Upper Limit		663564000	663564000
Lower Limit		165891000	165891000
L1642968-06 WG2110799 25x	0809_20	258881200	258881200
L1642968-08 WG2110799 25x	0809_22	263789800	263789800

# INTERNAL STANDARD SUMMARY

Instrument: VOCMS56 • File ID: 0811\_02-1

08/11/23 04:31

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0811_02-1	914542.50	426966.40	389002.10
Upper Limit		1829085	853933	778004
Lower Limit		457271	213483	194501
LCS R3960728-1 WG2111882 1x	0811_02LCS	914542.50	426966.40	389002.10
LCSD R3960728-2 WG2111882 1x	0811_03	904654.80	412733.30	400209.30
BLANK R3960728-3 WG2111882 1x	0811_07	892868.50	382594.10	349649.40
L1642968-06 WG2111882 1x	0811_08	911629.70	401456	357943.90
L1642968-07 WG2111882 1.03x	0811_09	846869.10	384643.90	356635
L1642968-08 WG2111882 1x	0811_10	896111.60	401753.20	389808.80
L1642968-01 WG2111882 8x	0811_23	975569.70	329954.90	377495.80
L1642968-02 WG2111882 8x	0811_24	929094.20	396131.90	383819.50
L1642968-03 WG2111882 8x	0811_25	940644.70	401083.20	385487.60
L1642968-04 WG2111882 40x	0811_26	928050	380676.90	356233.60
L1642968-05 WG2111882 40x	0811_27	947980.70	403639.50	390271.40

Instrument: VOCMS58 • File ID: 0815\_02-1

08/15/23 09:46

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0815_02-1	1264940	589738	597441.60
Upper Limit		2529882	1179476	1194883
Lower Limit		632471	294869	298721
LCS R3961137-1 WG2114276 1x	0815_02LCS	1264940	589738	597441.60
LCSD R3961137-2 WG2114276 1x	0815_03	1159138	535029.70	535613.20
BLANK R3961137-3 WG2114276 1x	0815_07	1241232	553562.10	532621.90
L1642968-02 WG2114276 80x	0815_09	1220129	550318.60	554950.10
L1642968-03 WG2114276 200x	0815_10	1300111	603773.30	601493.10
L1642968-04 WG2114276 2000x	0815_11	1207150	548658.10	556317.20
L1642968-05 WG2114276 2000x	0815_12	1295865	583721.10	588978.60
L1642968-07 WG2114276 20.6x	0815_13	1201924	548849.50	553374.40



# INTERNAL STANDARD SUMMARY

Instrument: VOCMS16 • File ID: 0813\_28-3

08/13/23 14:13

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0813_28-3	268674	107083	90901
Upper Limit		537348	214166	181802
Lower Limit		134337	53542	45451
LCS R3960214-1 WG2113211 1x	0813_28LCS	268674	107083	90901
BLANK R3960214-2 WG2113211 1x	0813_30	220776	85449	75870
L1642968-09 WG2113211 1x	0813_39	270338	106194	90828

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

# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

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

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

### Abbreviations and Definitions

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

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
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.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.





# 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 <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	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	LA000356
Kentucky <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> 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:  
**Stantec- Bellevue, WA**

11130 NE 33rd Pl, Ste 200  
Bellevue, WA 98004

Billing Information:  
**Accounts Payable**  
11130 NE 33rd Pl, Ste 200  
Bellevue, WA 98004

Pres  
Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Report to:  
**Stantec**

Email To:  
zak.armacost@stantec.com; marc.suaze@stantec.com

Project Description:  
**Hungry Whale Test Pitting**

City/State Collected: **Westport, WA**

Please Circle:  
 MT  CT  ET

Phone: **425-869-9448**

Client Project #  
**185751446**

Lab Project #  
**STANTECBWA-HUNGRY**

Collected by (print):  
**Paul Sumney**

Site/Facility ID #

P.O. #

Collected by (signature):  
**Paul M. Sumney**

**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

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
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UST1-SW1-5	G	SS	5	8/3/23	1235	5
UST1-SW2-5	G	SS	5	8/3/23	1240	5
UST1-SW3-5	G	SS	5	8/3/23	1245	5
UST1-SW4-5	G	SS	5	8/3/23	1250	5
UST1-SW <sup>FL</sup> -FL-10	G	SS	10	8/3/23	1255	5
SP-SC-1	G	SS	-	8/4/23	0750	3
SP-SI-1	G	SS	-	8/4/23	0755	3
SP-SI-2	G	SS	-	8/4/23	0800	3
TB-01	-	W SS	-	8/3/23	-	2
		SS				

Analysis / Container / Preservative	EPH WA 4ozAmb-NoPres	NWTPHDXNOSGT 4ozClr-NoPres	NWTPHGX 40miAmb/MeOH10ml/Syr	Pb 6010 2ozClr-NoPres	SV8270PAHSIM 4ozClr-NoPres	Total Solids 4ozClr-NoPres	V8260BTEX 40miAmb/MeOH10ml/Syr	VPH WA 40miAmb/MeOH10ml/Syr
	X	X	X		X	X		
	X	X	X		X	X		
	X	X	X		X	X		
	X	X	X		X	X		
	X	X	X		X	X		
		X			X	X		
		X			X	X		
			X			X		
						X		

**Pace**  
PEOPLE ADVANCING SCIENCE

**MT JULIET, TN**

1206S 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/hubs/pas-standard-terms.pdf>

SDG # **Ubrtaly**

Table # **H175**

Acctnum: **STANTECBWA**  
Template: **T234672**  
Prelogin: **P1013674**  
PM: **546 - Jared Starkey**  
PB: **7/25/23 cam**

Shipped Via: **FedEX Standard**

Remarks | Sample # (lab only)

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - WasteWater  
DW - Drinking Water  
OT - Other

Remarks:  
pH \_\_\_\_\_ Temp \_\_\_\_\_  
Flow \_\_\_\_\_ Other \_\_\_\_\_

Samples returned via:  
 UPS  FedEx  Courier

Tracking # **6841 8344 9916**

**Sample Receipt Checklist**

COC Seal Present/Intact:	NP	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
COC Signed/Accurate:		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Bottles arrive intact:		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Correct bottles used:		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Sufficient volume sent:		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
If Applicable		
VOA Zero Headspace:		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Preservation Correct/Checked:		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
RAD Screen <0.5 mR/hr:		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N

Relinquished by: (Signature)  
**Paul M. Sumney**

Date: **8/4/23**  
Time: **1530**

Received by: (Signature)  
**FedEx**

Trip Blank Received:  Yes /  No  
Temp: **63.8°C** Bottles Received: **2**  
**1.7+0=1.7** **34**

Relinquished by: (Signature)

Date: \_\_\_\_\_  
Time: \_\_\_\_\_

Received by: (Signature)

Date: \_\_\_\_\_  
Time: \_\_\_\_\_

Relinquished by: (Signature)

Date: \_\_\_\_\_  
Time: \_\_\_\_\_

Received for lab by: (Signature)  
**(18)**

Date: **8/5/23**  
Time: **0845**

If preservation required by Login: Date/Time

Hold: \_\_\_\_\_  
Condition: **NCF / OK**



## Stantec- Bellevue, WA

Sample Delivery Group: L1645178  
Samples Received: 08/11/2023  
Project Number: 185751446  
Description: Hungry Whale Test Pitting

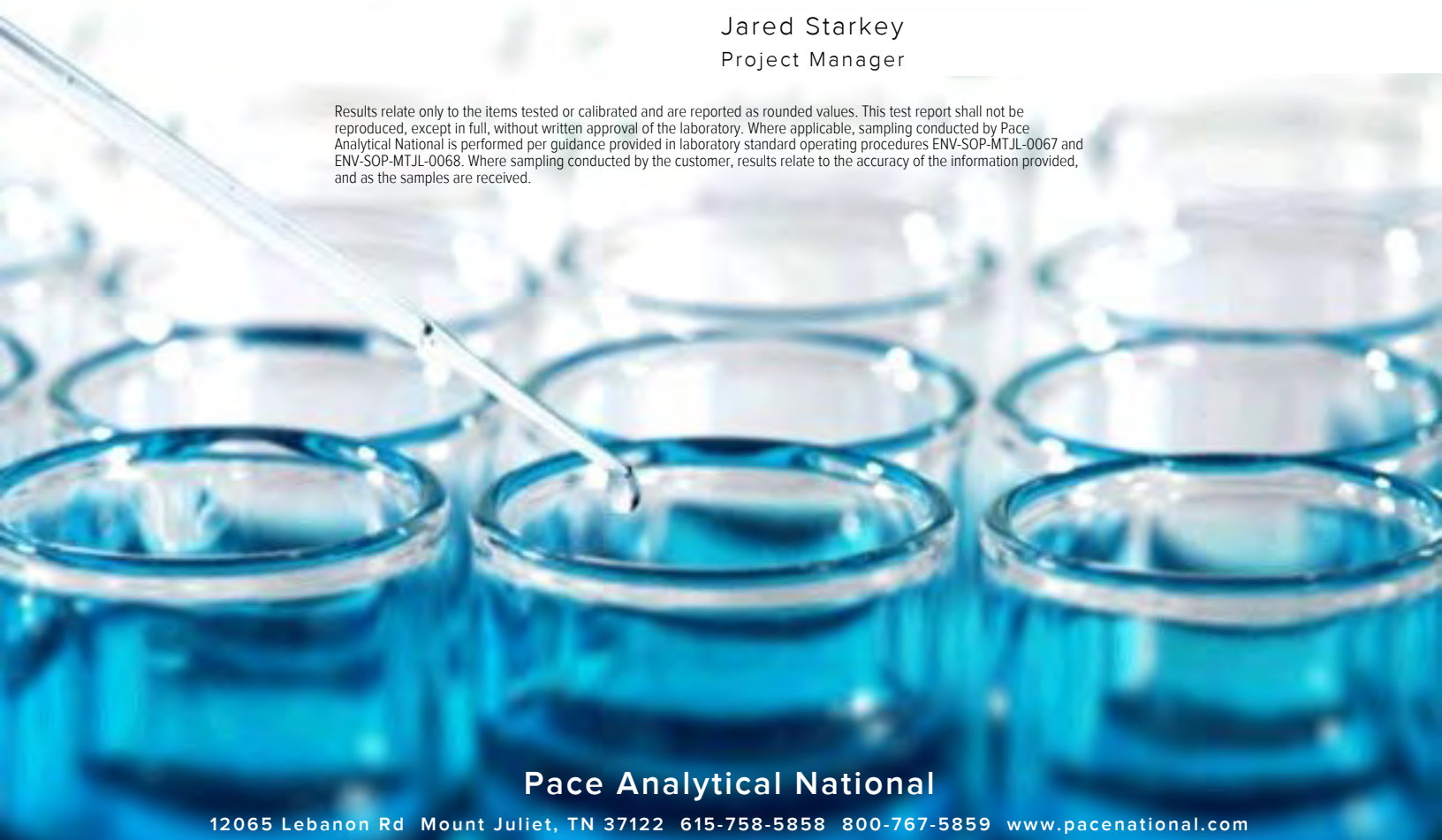
Report To: Stantec  
11130 NE 33rd Pl, Ste 200  
Bellevue, WA 98004

Entire Report Reviewed By:



Jared Starkey  
Project Manager

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



**Pace Analytical National**

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 [www.pacenational.com](http://www.pacenational.com)

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<sup>1</sup> Cp
<sup>2</sup> Tc
<sup>3</sup> Ss
<sup>4</sup> Cn
<sup>5</sup> Sr
<sup>6</sup> Qc
<sup>7</sup> Is
<sup>8</sup> Gl
<sup>9</sup> Al
<sup>10</sup> Sc

# SAMPLE SUMMARY

## UST1-D3P1-7 L1645178-01 Solid

Collected by Paul Janney      Collected date/time 08/07/23 13:00      Received date/time 08/11/23 11:35

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2112654	1	08/12/23 17:53	08/12/23 18:04	CMK	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2113121	1	08/13/23 23:23	08/16/23 13:50	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2115088	5000	08/07/23 13:00	08/16/23 12:15	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2112779	20	08/07/23 13:00	08/12/23 17:35	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2113658	200	08/07/23 13:00	08/14/23 16:54	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2112959	1	08/15/23 00:05	08/15/23 11:22	KAP	Mt. Juliet, TN



## UST1-D3P2-7 L1645178-02 Solid

Collected by Paul Janney      Collected date/time 08/07/23 13:10      Received date/time 08/11/23 11:35

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2112654	1	08/12/23 17:53	08/12/23 18:04	CMK	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2113086	1	08/14/23 10:10	08/15/23 22:32	ZSA	Mt. Juliet, TN
Volatile Petroleum Hydrocarbons by Method VPHWA	WG2120661	10	08/07/23 13:10	08/29/23 08:27	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2112771	500	08/07/23 13:10	08/12/23 22:05	BAM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2112779	40	08/07/23 13:10	08/12/23 17:55	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2112959	1	08/15/23 00:05	08/15/23 08:54	KAP	Mt. Juliet, TN
TPH by Method EPH	WG2113964	1	08/14/23 08:21	08/16/23 06:04	DMG	Mt. Juliet, TN
TPH by Method EPH	WG2113964	1	08/14/23 08:21	08/16/23 07:55	DMG	Mt. Juliet, TN
TPH by Method EPH	WG2113964	5	08/14/23 08:21	08/16/23 09:01	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2112962	1	08/13/23 20:07	08/14/23 10:34	AMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2112962	20	08/13/23 20:07	08/14/23 17:58	AGW	Mt. Juliet, TN

## A5-FL-12 L1645178-03 Solid

Collected by Paul Janney      Collected date/time 08/08/23 09:40      Received date/time 08/11/23 11:35

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2112648	1	08/12/23 12:42	08/12/23 12:58	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2112530	25	08/08/23 09:40	08/12/23 00:37	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2112779	1	08/08/23 09:40	08/12/23 15:19	ADM	Mt. Juliet, TN

## UST3-SW3-3 L1645178-04 Solid

Collected by Paul Janney      Collected date/time 08/08/23 13:30      Received date/time 08/11/23 11:35

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2112654	1	08/12/23 17:53	08/12/23 18:04	CMK	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2113086	1	08/14/23 10:10	08/15/23 22:35	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2112616	25	08/08/23 13:30	08/12/23 03:38	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2112779	1	08/08/23 13:30	08/12/23 15:38	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2112959	1	08/15/23 00:05	08/15/23 09:20	KAP	Mt. Juliet, TN

## UST3-SW2-3 L1645178-05 Solid

Collected by Paul Janney      Collected date/time 08/08/23 13:40      Received date/time 08/11/23 11:35

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2112654	1	08/12/23 17:53	08/12/23 18:04	CMK	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2113086	1	08/14/23 10:10	08/15/23 22:38	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2112616	25	08/08/23 13:40	08/12/23 07:04	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2112779	1	08/08/23 13:40	08/12/23 15:58	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2112959	1	08/15/23 00:05	08/15/23 13:13	KAP	Mt. Juliet, TN



# SAMPLE SUMMARY

## UST3-SW4-4 L1645178-06 Solid

Collected by Paul Janney      Collected date/time 08/08/23 14:20      Received date/time 08/11/23 11:35

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2112654	1	08/12/23 17:53	08/12/23 18:04	CMK	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2113086	1	08/14/23 10:10	08/15/23 22:40	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2112616	25	08/08/23 14:20	08/12/23 07:54	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2112779	1	08/08/23 14:20	08/12/23 16:17	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2112959	1	08/15/23 00:05	08/15/23 09:07	KAP	Mt. Juliet, TN



## UST3-SW1-5 L1645178-07 Solid

Collected by Paul Janney      Collected date/time 08/08/23 14:30      Received date/time 08/11/23 11:35

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2112654	1	08/12/23 17:53	08/12/23 18:04	CMK	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2113086	1	08/14/23 10:10	08/15/23 22:43	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2112616	27.8	08/08/23 14:30	08/12/23 08:16	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2112779	1.11	08/08/23 14:30	08/12/23 16:37	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2112959	1	08/15/23 00:05	08/15/23 13:26	KAP	Mt. Juliet, TN



## UST2-PIPING-3 L1645178-08 Solid

Collected by Paul Janney      Collected date/time 08/08/23 08:30      Received date/time 08/11/23 11:35

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2112654	1	08/12/23 17:53	08/12/23 18:04	CMK	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2113086	1	08/14/23 10:10	08/15/23 22:46	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2115088	500	08/08/23 08:30	08/16/23 11:53	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2112779	1	08/08/23 08:30	08/12/23 16:56	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2113658	20	08/08/23 08:30	08/14/23 17:13	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2114341	200	08/08/23 08:30	08/16/23 14:55	BAM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2112959	1	08/15/23 00:05	08/15/23 12:20	KAP	Mt. Juliet, TN



## DUP-01 L1645178-09 Solid

Collected by Paul Janney      Collected date/time 08/08/23 00:00      Received date/time 08/11/23 11:35

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2112654	1	08/12/23 17:53	08/12/23 18:04	CMK	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2113086	1	08/14/23 10:10	08/15/23 22:54	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2115088	1030	08/08/23 00:00	08/16/23 14:27	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2112779	1.03	08/08/23 00:00	08/12/23 17:16	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2113658	10.1	08/08/23 00:00	08/14/23 17:31	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2112959	1	08/15/23 00:05	08/15/23 12:33	KAP	Mt. Juliet, TN

## TB-01 L1645178-10 GW

Collected by Paul Janney      Collected date/time 08/08/23 00:00      Received date/time 08/11/23 11:35

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2112916	1	08/12/23 22:40	08/12/23 22:40	DYW	Mt. Juliet, TN

# CASE NARRATIVE

Unless qualified or notated within the narrative below, all sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. 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.

Jared Starkey  
Project Manager



## Volatile Petroleum Hydrocarbons by Method VPHWA

The same analyte is found in the associated blank.

Batch	Analyte	Lab Sample ID
WG2120661	Adjusted C5-C6 Aliphatics	L1645178-02
WG2120661	Unadjusted C5-C6 Aliphatics	L1645178-02

## Volatile Organic Compounds (GC) by Method NWTPHGX

The same analyte is found in the associated blank.

Batch	Analyte	Lab Sample ID
WG2112530	Gasoline Range Organics-NWTPH	L1645178-03
WG2112616	Gasoline Range Organics-NWTPH	L1645178-05, 06, 07
WG2115088	Gasoline Range Organics-NWTPH	L1645178-01

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

Surrogate recovery limits have been exceeded; values are outside lower control limits.

Batch	Analyte	Lab Sample ID
WG2112779	Toluene-d8	L1645178-08

The same analyte is found in the associated blank.

Batch	Analyte	Lab Sample ID
WG2113658	Toluene	L1645178-08

## TPH by Method EPH

Surrogate recovery limits have been exceeded; values are outside lower control limits.

Batch	Analyte	Lab Sample ID
WG2113964	1-Chloro-octadecane	L1645178-02
WG2113964	o-Terphenyl	L1645178-02

The same analyte is found in the associated blank.

Batch	Analyte	Lab Sample ID
WG2113964	C21-C34 Aliphatics	L1645178-02

# CASE NARRATIVE

## TPH by Method EPH

---

The associated batch QC was below the established quality control range for accuracy.

Batch	Lab Sample ID	Analytes
WG2113964	(LCS) R3961277-5, (LCSD) R3961277-6, L1645178-02	C12-C16 Aromatics

The sample matrix interfered with the ability to make any accurate determination; spike value is low.

Batch	Lab Sample ID	Analytes
WG2113964	(MS) R3961277-9, (MSD) R3961277-10	C12-C16 Aromatics

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

---

The sample matrix interfered with the ability to make any accurate determination; spike value is high.

Batch	Lab Sample ID	Analytes
WG2112959	(MS) R3960732-3, (MSD) R3960732-4, L1645178-01	Diesel Range Organics (DRO)

The associated batch QC was outside the established quality control range for precision.

Batch	Lab Sample ID	Analytes
WG2112959	(MSD) R3960732-4, L1645178-01	Diesel Range Organics (DRO)

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

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Surrogate recovery cannot be used for control limit evaluation due to dilution.

Batch	Analyte	Lab Sample ID
WG2112962	2-Fluorobiphenyl	L1645178-02
WG2112962	Nitrobenzene-d5	L1645178-02
WG2112962	p-Terphenyl-d14	L1645178-02

Surrogate recovery limits have been exceeded; values are outside lower control limits.

Batch	Analyte	Lab Sample ID
WG2112962	Nitrobenzene-d5	L1645178-02

The sample matrix interfered with the ability to make any accurate determination; spike value is high.

Batch	Lab Sample ID	Analytes
WG2112962	(MS) R3960367-3, (MSD) R3960367-4	14 analytes

The associated batch QC was outside the established quality control range for precision.

Batch	Lab Sample ID	Analytes
WG2112962	(MSD) R3960367-4	13 analytes





Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	80.2		1	08/12/2023 18:04	<a href="#">WG2112654</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Lead	4.47		0.259	0.624	1	08/16/2023 13:50	<a href="#">WG2113121</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	2010	<u>B</u>	264	780	5000	08/16/2023 12:15	<a href="#">WG2115088</a>
(S) a,a,a-Trifluorotoluene(FID)	89.1			77.0-120		08/16/2023 12:15	<a href="#">WG2115088</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	1.79		0.0146	0.0312	20	08/12/2023 17:35	<a href="#">WG2112779</a>
Toluene	16.8		0.0405	0.156	20	08/12/2023 17:35	<a href="#">WG2112779</a>
Ethylbenzene	148		0.228	0.777	200	08/14/2023 16:54	<a href="#">WG2113658</a>
Total Xylenes	598		0.273	2.02	200	08/14/2023 16:54	<a href="#">WG2113658</a>
(S) Toluene-d8	106			75.0-131		08/12/2023 17:35	<a href="#">WG2112779</a>
(S) Toluene-d8	103			75.0-131		08/14/2023 16:54	<a href="#">WG2113658</a>
(S) 4-Bromofluorobenzene	99.2			67.0-138		08/12/2023 17:35	<a href="#">WG2112779</a>
(S) 4-Bromofluorobenzene	98.3			67.0-138		08/14/2023 16:54	<a href="#">WG2113658</a>
(S) 1,2-Dichloroethane-d4	91.8			70.0-130		08/12/2023 17:35	<a href="#">WG2112779</a>
(S) 1,2-Dichloroethane-d4	93.0			70.0-130		08/14/2023 16:54	<a href="#">WG2113658</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Diesel Range Organics (DRO)	44.9	<u>J3 J5</u>	1.66	4.99	1	08/15/2023 11:22	<a href="#">WG2112959</a>
Residual Range Organics (RRO)	U		4.15	12.5	1	08/15/2023 11:22	<a href="#">WG2112959</a>
(S) o-Terphenyl	36.8			18.0-148		08/15/2023 11:22	<a href="#">WG2112959</a>

Sample Narrative:

L1645178-01 WG2112959: Sample resembles laboratory standard for Stoddard solvent.



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	86.9		1	08/12/2023 18:04	<a href="#">WG2112654</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Lead	0.884		0.239	0.575	1	08/15/2023 22:32	<a href="#">WG2113086</a>

Volatile Petroleum Hydrocarbons by Method VPHWA

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Unadjusted C5-C6 Aliphatics	75.3	B	21.8	65.8	10	08/29/2023 08:27	<a href="#">WG2120661</a>
Adjusted C5-C6 Aliphatics	75.3	B	21.8	65.8	10	08/29/2023 08:27	<a href="#">WG2120661</a>
Unadjusted C6-C8 Aliphatics	300		5.99	65.8	10	08/29/2023 08:27	<a href="#">WG2120661</a>
Adjusted C6-C8 Aliphatics	300		5.99	65.8	10	08/29/2023 08:27	<a href="#">WG2120661</a>
Unadjusted C8-C10 Aliphatics	690		21.8	65.8	10	08/29/2023 08:27	<a href="#">WG2120661</a>
Adjusted C8-C10 Aliphatics	430		21.8	65.8	10	08/29/2023 08:27	<a href="#">WG2120661</a>
C8-C10 Aromatics	1030		7.30	65.8	10	08/29/2023 08:27	<a href="#">WG2120661</a>
(S) 2,5-Dibromotoluene(FID)	89.1			60.0-140		08/29/2023 08:27	<a href="#">WG2120661</a>
(S) 2,5-Dibromotoluene(PID)	90.3			60.0-140		08/29/2023 08:27	<a href="#">WG2120661</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	2630		22.2	65.7	500	08/12/2023 22:05	<a href="#">WG2112771</a>
(S) a,a,a-Trifluorotoluene(FID)	92.4			77.0-120		08/12/2023 22:05	<a href="#">WG2112771</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.542		0.0246	0.0526	40	08/12/2023 17:55	<a href="#">WG2112779</a>
Toluene	24.7		0.0684	0.263	40	08/12/2023 17:55	<a href="#">WG2112779</a>
Ethylbenzene	33.3		0.0388	0.131	40	08/12/2023 17:55	<a href="#">WG2112779</a>
Total Xylenes	201		0.0463	0.342	40	08/12/2023 17:55	<a href="#">WG2112779</a>
(S) Toluene-d8	115			75.0-131		08/12/2023 17:55	<a href="#">WG2112779</a>
(S) 4-Bromofluorobenzene	94.1			67.0-138		08/12/2023 17:55	<a href="#">WG2112779</a>
(S) 1,2-Dichloroethane-d4	89.4			70.0-130		08/12/2023 17:55	<a href="#">WG2112779</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Diesel Range Organics (DRO)	150		1.53	4.60	1	08/15/2023 08:54	<a href="#">WG2112959</a>
Residual Range Organics (RRO)	U		3.83	11.5	1	08/15/2023 08:54	<a href="#">WG2112959</a>
(S) o-Terphenyl	46.9			18.0-148		08/15/2023 08:54	<a href="#">WG2112959</a>

Sample Narrative:

L1645178-02 WG2112959: Sample resembles laboratory standard for Stoddard solvent.



UST1-D3P2-7

SAMPLE RESULTS - 02

Collected date/time: 08/07/23 13:10

L1645178

TPH by Method EPH

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C12 Aliphatics	32.2		1.93	5.75	1	08/16/2023 07:55	WG2113964
C12-C16 Aliphatics	14.4		1.93	5.75	1	08/16/2023 07:55	WG2113964
C16-C21 Aliphatics	U		1.93	5.75	1	08/16/2023 07:55	WG2113964
C21-C34 Aliphatics	10.7	B	1.93	5.75	1	08/16/2023 07:55	WG2113964
C10-C12 Aromatics	79.4		12.2	28.8	5	08/16/2023 09:01	WG2113964
C12-C16 Aromatics	27.3	J4	2.44	5.75	1	08/16/2023 06:04	WG2113964
C16-C21 Aromatics	4.36	J	2.44	5.75	1	08/16/2023 06:04	WG2113964
C21-C34 Aromatics	7.69		2.44	5.75	1	08/16/2023 06:04	WG2113964
(S) o-Terphenyl	63.4	J2		70.0-130		08/16/2023 09:01	WG2113964
(S) o-Terphenyl	63.0	J2		70.0-130		08/16/2023 06:04	WG2113964
(S) 1-Chloro-octadecane	64.7	J2		70.0-130		08/16/2023 07:55	WG2113964
(S) 2-Fluorobiphenyl	89.3			70.0-130		08/16/2023 09:01	WG2113964
(S) 2-Fluorobiphenyl	92.4			70.0-130		08/16/2023 06:04	WG2113964
(S) 2-Bromonaphthalene	93.0			70.0-130		08/16/2023 06:04	WG2113964
(S) 2-Bromonaphthalene	87.0			70.0-130		08/16/2023 09:01	WG2113964

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

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		0.00265	0.00691	1	08/14/2023 10:34	WG2112962
Acenaphthene	0.0486		0.00241	0.00691	1	08/14/2023 10:34	WG2112962
Acenaphthylene	U		0.00249	0.00691	1	08/14/2023 10:34	WG2112962
Benzo(a)anthracene	0.00429	J	0.00199	0.00691	1	08/14/2023 10:34	WG2112962
Benzo(a)pyrene	0.00238	J	0.00206	0.00691	1	08/14/2023 10:34	WG2112962
Benzo(b)fluoranthene	U		0.00176	0.00691	1	08/14/2023 10:34	WG2112962
Benzo(g,h,i)perylene	0.00322	J	0.00204	0.00691	1	08/14/2023 10:34	WG2112962
Benzo(k)fluoranthene	U		0.00247	0.00691	1	08/14/2023 10:34	WG2112962
Chrysene	0.00359	J	0.00267	0.00691	1	08/14/2023 10:34	WG2112962
Dibenz(a,h)anthracene	U		0.00198	0.00691	1	08/14/2023 10:34	WG2112962
Fluoranthene	0.0129		0.00261	0.00691	1	08/14/2023 10:34	WG2112962
Fluorene	0.0490		0.00236	0.00691	1	08/14/2023 10:34	WG2112962
Indeno(1,2,3-cd)pyrene	U		0.00208	0.00691	1	08/14/2023 10:34	WG2112962
Naphthalene	22.0		0.0939	0.460	20	08/14/2023 17:58	WG2112962
Phenanthrene	0.0640		0.00266	0.00691	1	08/14/2023 10:34	WG2112962
Pyrene	0.0168		0.00230	0.00691	1	08/14/2023 10:34	WG2112962
1-Methylnaphthalene	13.9		0.103	0.460	20	08/14/2023 17:58	WG2112962
2-Methylnaphthalene	30.5		0.0983	0.460	20	08/14/2023 17:58	WG2112962
2-Chloronaphthalene	U		0.00536	0.0230	1	08/14/2023 10:34	WG2112962
(S) p-Terphenyl-d14	75.0			23.0-120		08/14/2023 10:34	WG2112962
(S) p-Terphenyl-d14	82.0	J7		23.0-120		08/14/2023 17:58	WG2112962
(S) Nitrobenzene-d5	0.000	J2		14.0-149		08/14/2023 10:34	WG2112962
(S) Nitrobenzene-d5	0.000	J7		14.0-149		08/14/2023 17:58	WG2112962
(S) 2-Fluorobiphenyl	79.9			34.0-125		08/14/2023 10:34	WG2112962
(S) 2-Fluorobiphenyl	77.1	J7		34.0-125		08/14/2023 17:58	WG2112962

Sample Narrative:

L1645178-02 WG2112962: Surrogate failure due to matrix interference

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	86.7		1	08/12/2023 12:58	<a href="#">WG2112648</a>

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	2.40	<a href="#">B J</a>	1.11	3.27	25	08/12/2023 00:37	<a href="#">WG2112530</a>
(S) a,a,a-Trifluorotoluene(FID)	101			77.0-120		08/12/2023 00:37	<a href="#">WG2112530</a>

3 Ss

4 Cn

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
Benzene	0.00411		0.000610	0.00131	1	08/12/2023 15:19	<a href="#">WG2112779</a>
Toluene	0.0111		0.00170	0.00653	1	08/12/2023 15:19	<a href="#">WG2112779</a>
Ethylbenzene	0.00775		0.000963	0.00327	1	08/12/2023 15:19	<a href="#">WG2112779</a>
Total Xylenes	0.0159		0.00115	0.00849	1	08/12/2023 15:19	<a href="#">WG2112779</a>
(S) Toluene-d8	114			75.0-131		08/12/2023 15:19	<a href="#">WG2112779</a>
(S) 4-Bromofluorobenzene	92.6			67.0-138		08/12/2023 15:19	<a href="#">WG2112779</a>
(S) 1,2-Dichloroethane-d4	82.8			70.0-130		08/12/2023 15:19	<a href="#">WG2112779</a>

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	80.1		1	08/12/2023 18:04	<a href="#">WG2112654</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Lead	10.5		0.260	0.624	1	08/15/2023 22:35	<a href="#">WG2113086</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	23.3		1.36	4.00	25	08/12/2023 03:38	<a href="#">WG2112616</a>
(S) a,a,a-Trifluorotoluene(FID)	92.2			77.0-120		08/12/2023 03:38	<a href="#">WG2112616</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.00539		0.000746	0.00160	1	08/12/2023 15:38	<a href="#">WG2112779</a>
Toluene	0.0106		0.00208	0.00799	1	08/12/2023 15:38	<a href="#">WG2112779</a>
Ethylbenzene	0.0676		0.00118	0.00400	1	08/12/2023 15:38	<a href="#">WG2112779</a>
Total Xylenes	0.0238		0.00141	0.0104	1	08/12/2023 15:38	<a href="#">WG2112779</a>
(S) Toluene-d8	110			75.0-131		08/12/2023 15:38	<a href="#">WG2112779</a>
(S) 4-Bromofluorobenzene	89.4			67.0-138		08/12/2023 15:38	<a href="#">WG2112779</a>
(S) 1,2-Dichloroethane-d4	87.9			70.0-130		08/12/2023 15:38	<a href="#">WG2112779</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Diesel Range Organics (DRO)	31.1		1.66	4.99	1	08/15/2023 09:20	<a href="#">WG2112959</a>
Residual Range Organics (RRO)	U		4.15	12.5	1	08/15/2023 09:20	<a href="#">WG2112959</a>
(S) o-Terphenyl	63.3			18.0-148		08/15/2023 09:20	<a href="#">WG2112959</a>

Sample Narrative:

L1645178-04 WG2112959: Sample resembles laboratory standard for Kerosene.



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	88.0		1	08/12/2023 18:04	<a href="#">WG2112654</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Lead	11.9		0.236	0.568	1	08/15/2023 22:38	<a href="#">WG2113086</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	2.67	<a href="#">B J</a>	1.09	3.21	25	08/12/2023 07:04	<a href="#">WG2112616</a>
(S) a,a,a-Trifluorotoluene(FID)	92.1			77.0-120		08/12/2023 07:04	<a href="#">WG2112616</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	U		0.000600	0.00128	1	08/12/2023 15:58	<a href="#">WG2112779</a>
Toluene	0.00425	<a href="#">J</a>	0.00167	0.00642	1	08/12/2023 15:58	<a href="#">WG2112779</a>
Ethylbenzene	U		0.000947	0.00321	1	08/12/2023 15:58	<a href="#">WG2112779</a>
Total Xylenes	0.0121		0.00113	0.00835	1	08/12/2023 15:58	<a href="#">WG2112779</a>
(S) Toluene-d8	116			75.0-131		08/12/2023 15:58	<a href="#">WG2112779</a>
(S) 4-Bromofluorobenzene	95.2			67.0-138		08/12/2023 15:58	<a href="#">WG2112779</a>
(S) 1,2-Dichloroethane-d4	87.8			70.0-130		08/12/2023 15:58	<a href="#">WG2112779</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Diesel Range Organics (DRO)	4.65		1.51	4.54	1	08/15/2023 13:13	<a href="#">WG2112959</a>
Residual Range Organics (RRO)	17.4		3.78	11.4	1	08/15/2023 13:13	<a href="#">WG2112959</a>
(S) o-Terphenyl	58.9			18.0-148		08/15/2023 13:13	<a href="#">WG2112959</a>

Sample Narrative:

L1645178-05 WG2112959: Sample resembles laboratory standard for Hydraulic Oil.



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	97.1		1	08/12/2023 18:04	<a href="#">WG2112654</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Lead	6.43		0.214	0.515	1	08/15/2023 22:40	<a href="#">WG2113086</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	3.40	<u>B</u>	0.900	2.65	25	08/12/2023 07:54	<a href="#">WG2112616</a>
(S) a,a,a-Trifluorotoluene(FID)	90.5			77.0-120		08/12/2023 07:54	<a href="#">WG2112616</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.00102	<u>J</u>	0.000496	0.00106	1	08/12/2023 16:17	<a href="#">WG2112779</a>
Toluene	0.0126		0.00138	0.00531	1	08/12/2023 16:17	<a href="#">WG2112779</a>
Ethylbenzene	0.00913		0.000783	0.00265	1	08/12/2023 16:17	<a href="#">WG2112779</a>
Total Xylenes	0.0723		0.000934	0.00690	1	08/12/2023 16:17	<a href="#">WG2112779</a>
(S) Toluene-d8	118			75.0-131		08/12/2023 16:17	<a href="#">WG2112779</a>
(S) 4-Bromofluorobenzene	95.2			67.0-138		08/12/2023 16:17	<a href="#">WG2112779</a>
(S) 1,2-Dichloroethane-d4	86.8			70.0-130		08/12/2023 16:17	<a href="#">WG2112779</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Diesel Range Organics (DRO)	U		1.37	4.12	1	08/15/2023 09:07	<a href="#">WG2112959</a>
Residual Range Organics (RRO)	U		3.43	10.3	1	08/15/2023 09:07	<a href="#">WG2112959</a>
(S) o-Terphenyl	52.3			18.0-148		08/15/2023 09:07	<a href="#">WG2112959</a>



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.2		1	08/12/2023 18:04	<a href="#">WG2112654</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Lead	8.42		0.259	0.623	1	08/15/2023 22:43	<a href="#">WG2113086</a>

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	5.86	<u>B</u>	1.38	4.08	27.8	08/12/2023 08:16	<a href="#">WG2112616</a>
(S) a,a,a-Trifluorotoluene(FID)	91.5			77.0-120		08/12/2023 08:16	<a href="#">WG2112616</a>

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	
Benzene	0.00262		0.000761	0.00163	1.11	08/12/2023 16:37	<a href="#">WG2112779</a>
Toluene	0.00627	<u>J</u>	0.00212	0.00815	1.11	08/12/2023 16:37	<a href="#">WG2112779</a>
Ethylbenzene	U		0.00120	0.00408	1.11	08/12/2023 16:37	<a href="#">WG2112779</a>
Total Xylenes	0.0117		0.00144	0.0106	1.11	08/12/2023 16:37	<a href="#">WG2112779</a>
(S) Toluene-d8	115			75.0-131		08/12/2023 16:37	<a href="#">WG2112779</a>
(S) 4-Bromofluorobenzene	95.3			67.0-138		08/12/2023 16:37	<a href="#">WG2112779</a>
(S) 1,2-Dichloroethane-d4	92.1			70.0-130		08/12/2023 16:37	<a href="#">WG2112779</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	25.6		1.66	4.99	1	08/15/2023 13:26	<a href="#">WG2112959</a>
Residual Range Organics (RRO)	66.1		4.15	12.5	1	08/15/2023 13:26	<a href="#">WG2112959</a>
(S) o-Terphenyl	53.9			18.0-148		08/15/2023 13:26	<a href="#">WG2112959</a>

Sample Narrative:

L1645178-07 WG2112959: Sample resembles laboratory standard for Hydraulic Oil.





# UST2-PIPING-3

Collected date/time: 08/08/23 08:30

# SAMPLE RESULTS - 08

L1645178

## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	80.2		1	08/12/2023 18:04	<a href="#">WG2112654</a>

## Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Lead	3.22		0.259	0.624	1	08/15/2023 22:46	<a href="#">WG2113086</a>

## Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	3800		25.3	74.7	500	08/16/2023 11:53	<a href="#">WG2115088</a>
(S) a,a,a-Trifluorotoluene(FID)	92.8			77.0-120		08/16/2023 11:53	<a href="#">WG2115088</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	1.87		0.000698	0.00149	1	08/12/2023 16:56	<a href="#">WG2112779</a>
Toluene	8.88	B	0.0389	0.149	20	08/14/2023 17:13	<a href="#">WG2113658</a>
Ethylbenzene	26.3		0.0220	0.0747	20	08/14/2023 17:13	<a href="#">WG2113658</a>
Total Xylenes	227		0.263	1.94	200	08/16/2023 14:55	<a href="#">WG2114341</a>
(S) Toluene-d8	68.2	J2		75.0-131		08/12/2023 16:56	<a href="#">WG2112779</a>
(S) Toluene-d8	98.3			75.0-131		08/14/2023 17:13	<a href="#">WG2113658</a>
(S) Toluene-d8	109			75.0-131		08/16/2023 14:55	<a href="#">WG2114341</a>
(S) 4-Bromofluorobenzene	138			67.0-138		08/12/2023 16:56	<a href="#">WG2112779</a>
(S) 4-Bromofluorobenzene	99.3			67.0-138		08/14/2023 17:13	<a href="#">WG2113658</a>
(S) 4-Bromofluorobenzene	91.3			67.0-138		08/16/2023 14:55	<a href="#">WG2114341</a>
(S) 1,2-Dichloroethane-d4	89.9			70.0-130		08/12/2023 16:56	<a href="#">WG2112779</a>
(S) 1,2-Dichloroethane-d4	98.5			70.0-130		08/14/2023 17:13	<a href="#">WG2113658</a>
(S) 1,2-Dichloroethane-d4	96.6			70.0-130		08/16/2023 14:55	<a href="#">WG2114341</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Diesel Range Organics (DRO)	97.3		1.66	4.99	1	08/15/2023 12:20	<a href="#">WG2112959</a>
Residual Range Organics (RRO)	7.60	J	4.15	12.5	1	08/15/2023 12:20	<a href="#">WG2112959</a>
(S) o-Terphenyl	28.6			18.0-148		08/15/2023 12:20	<a href="#">WG2112959</a>

### Sample Narrative:

L1645178-08 WG2112959: Sample resembles laboratory standard for Stoddard solvent.



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	81.7		1	08/12/2023 18:04	<a href="#">WG2112654</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Lead	3.99		0.254	0.612	1	08/15/2023 22:54	<a href="#">WG2113086</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	1990		50.3	148	1030	08/16/2023 14:27	<a href="#">WG2115088</a>
(S) a,a,a-Trifluorotoluene(FID)	91.7			77.0-120		08/16/2023 14:27	<a href="#">WG2115088</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.695		0.000693	0.00148	1.03	08/12/2023 17:16	<a href="#">WG2112779</a>
Toluene	2.28		0.00193	0.00742	1.03	08/12/2023 17:16	<a href="#">WG2112779</a>
Ethylbenzene	6.69		0.0108	0.0366	10.1	08/14/2023 17:31	<a href="#">WG2113658</a>
Total Xylenes	71.9		0.0129	0.0948	10.1	08/14/2023 17:31	<a href="#">WG2113658</a>
(S) Toluene-d8	118			75.0-131		08/12/2023 17:16	<a href="#">WG2112779</a>
(S) Toluene-d8	104			75.0-131		08/14/2023 17:31	<a href="#">WG2113658</a>
(S) 4-Bromofluorobenzene	92.3			67.0-138		08/12/2023 17:16	<a href="#">WG2112779</a>
(S) 4-Bromofluorobenzene	103			67.0-138		08/14/2023 17:31	<a href="#">WG2113658</a>
(S) 1,2-Dichloroethane-d4	84.6			70.0-130		08/12/2023 17:16	<a href="#">WG2112779</a>
(S) 1,2-Dichloroethane-d4	95.8			70.0-130		08/14/2023 17:31	<a href="#">WG2113658</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Diesel Range Organics (DRO)	160		1.63	4.89	1	08/15/2023 12:33	<a href="#">WG2112959</a>
Residual Range Organics (RRO)	20.1		4.07	12.2	1	08/15/2023 12:33	<a href="#">WG2112959</a>
(S) o-Terphenyl	61.3			18.0-148		08/15/2023 12:33	<a href="#">WG2112959</a>

Sample Narrative:

L1645178-09 WG2112959: Sample resembles laboratory standard for Stoddard solvent and Kerosene.



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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0941	1.00	1	08/12/2023 22:40	<a href="#">WG2112916</a>
Toluene	U		0.278	1.00	1	08/12/2023 22:40	<a href="#">WG2112916</a>
Ethylbenzene	U		0.137	1.00	1	08/12/2023 22:40	<a href="#">WG2112916</a>
Total Xylenes	U		0.174	3.00	1	08/12/2023 22:40	<a href="#">WG2112916</a>
<i>(S) Toluene-d8</i>	107			80.0-120		08/12/2023 22:40	<a href="#">WG2112916</a>
<i>(S) 4-Bromofluorobenzene</i>	99.0			77.0-126		08/12/2023 22:40	<a href="#">WG2112916</a>
<i>(S) 1,2-Dichloroethane-d4</i>	105			70.0-130		08/12/2023 22:40	<a href="#">WG2112916</a>

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

Method Blank (MB)

(MB) R3960095-1 08/12/23 12:58

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

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

L1645178-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1645178-03 08/12/23 12:58 • (DUP) R3960095-3 08/12/23 12:58

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	86.7	85.3	1	1.67		10

<sup>4</sup>Cn

<sup>5</sup>Sr

Laboratory Control Sample (LCS)

(LCS) R3960095-2 08/12/23 12:58

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

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3960179-1 08/12/23 18:04

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

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

L1645232-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1645232-01 08/12/23 18:04 • (DUP) R3960179-3 08/12/23 18:04

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits
Total Solids	92.0	92.0	1	0.0486		10

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

Laboratory Control Sample (LCS)

(LCS) R3960179-2 08/12/23 18:04

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

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3961239-1 08/15/23 21:48

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Lead	U		0.208	0.500

Laboratory Control Sample (LCS)

(LCS) R3961239-2 08/15/23 21:51

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Lead	100	96.2	96.2	80.0-120	

L1645028-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1645028-03 08/15/23 21:54 • (MS) R3961239-5 08/15/23 22:01 • (MSD) R3961239-6 08/15/23 22:04

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 %
Lead	112	9.47	107	109	87.0	89.0	1	75.0-125			2.03	20



Method Blank (MB)

(MB) R3961455-1 08/16/23 13:45

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Lead	U		0.208	0.500

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

Laboratory Control Sample (LCS)

(LCS) R3961455-2 08/16/23 13:47

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Lead	100	95.8	95.8	80.0-120	

<sup>4</sup>Cn

<sup>5</sup>Sr

L1645178-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1645178-01 08/16/23 13:50 • (MS) R3961455-5 08/16/23 13:58 • (MSD) R3961455-6 08/16/23 14:00

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 %
Lead	125	4.47	127	128	98.2	99.3	1	75.0-125			1.09	20

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3967194-3 08/29/23 02:44

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Unadjusted C5-C6 Aliphatics	2.08	U	1.67	5.00
Adjusted C5-C6 Aliphatics	2.08	U	1.67	5.00
Unadjusted C6-C8 Aliphatics	U		0.455	5.00
Adjusted C6-C8 Aliphatics	U		0.455	5.00
Unadjusted C8-C10 Aliphatics	U		1.67	5.00
Adjusted C8-C10 Aliphatics	U		1.67	5.00
C8-C10 Aromatics	U		0.555	5.00
(S) 2,5-Dibromotoluene(FID)	76.3			60.0-140
(S) 2,5-Dibromotoluene(PID)	88.1			60.0-140

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

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

(LCS) R3967194-1 08/29/23 00:27 • (LCSD) R3967194-2 08/29/23 01:02

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 %
Unadjusted C5-C6 Aliphatics	30.0	25.3	26.2	84.3	87.3	70.0-130			3.50	25
Unadjusted C6-C8 Aliphatics	20.0	18.5	19.2	92.5	96.0	70.0-130			3.71	25
Unadjusted C8-C10 Aliphatics	60.0	66.0	68.9	110	115	70.0-130			4.30	25
C8-C10 Aromatics	50.0	61.4	63.3	123	127	70.0-130			3.05	25
(S) 2,5-Dibromotoluene(FID)				83.7	86.5	60.0-140				
(S) 2,5-Dibromotoluene(PID)				93.2	95.9	60.0-140				

7 Is

8 Gl

9 Al

10 Sc



Method Blank (MB)

(MB) R3960312-2 08/11/23 23:36

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	1.40	J	0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	108			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3960312-1 08/11/23 22:30

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	138	135	97.8	71.0-124	
(S) a,a,a-Trifluorotoluene(FID)			112	77.0-120	

L1643950-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1643950-01 08/12/23 00:55 • (MS) R3960312-3 08/12/23 06:43 • (MSD) R3960312-4 08/12/23 07:01

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	139	1.28	126	117	90.1	83.6	25	50.0-150			7.41	27
(S) a,a,a-Trifluorotoluene(FID)					116	110		77.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R3961273-2 08/12/23 03:16

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	1.01	↓	0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	93.0			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3961273-1 08/12/23 01:07

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5.50	6.05	110	71.0-124	
(S) a,a,a-Trifluorotoluene(FID)			101	77.0-120	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R3960958-4 08/12/23 16:24

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	1.32	↓	0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	92.1			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3960958-3 08/12/23 14:45

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5.50	5.50	100	71.0-124	
(S) a,a,a-Trifluorotoluene(FID)			99.2	77.0-120	

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

Method Blank (MB)

(MB) R3961461-2 08/16/23 10:37

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	1.09	↓	0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	93.8			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3961461-1 08/16/23 09:52

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5.50	5.35	97.3	71.0-124	
(S) a,a,a-Trifluorotoluene(FID)			100	77.0-120	

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

Method Blank (MB)

(MB) R3960196-3 08/12/23 11:06

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
Benzene	U		0.000467	0.00100
Toluene	U		0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Total Xylenes	U		0.000880	0.00650
<i>(S) Toluene-d8</i>	115			75.0-131
<i>(S) 4-Bromofluorobenzene</i>	87.3			67.0-138
<i>(S) 1,2-Dichloroethane-d4</i>	89.0			70.0-130

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

(LCS) R3960196-1 08/12/23 09:28 • (LCSD) R3960196-2 08/12/23 09:48

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Benzene	0.125	0.113	0.108	90.4	86.4	70.0-123			4.52	20
Toluene	0.125	0.123	0.125	98.4	100	75.0-121			1.61	20
Ethylbenzene	0.125	0.125	0.122	100	97.6	74.0-126			2.43	20
Total Xylenes	0.375	0.349	0.338	93.1	90.1	72.0-127			3.20	20
<i>(S) Toluene-d8</i>				110	110	75.0-131				
<i>(S) 4-Bromofluorobenzene</i>				88.8	86.5	67.0-138				
<i>(S) 1,2-Dichloroethane-d4</i>				98.6	95.3	70.0-130				

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3960751-3 08/14/23 08:47

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Toluene	0.00133	↓	0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Total Xylenes	U		0.000880	0.00650
(S) Toluene-d8	105			75.0-131
(S) 4-Bromofluorobenzene	95.9			67.0-138
(S) 1,2-Dichloroethane-d4	92.2			70.0-130

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

(LCS) R3960751-1 08/14/23 07:12 • (LCSD) R3960751-2 08/14/23 07:31

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 %
Toluene	0.125	0.107	0.126	85.6	101	75.0-121			16.3	20
Ethylbenzene	0.125	0.105	0.124	84.0	99.2	74.0-126			16.6	20
Total Xylenes	0.375	0.306	0.360	81.6	96.0	72.0-127			16.2	20
(S) Toluene-d8				102	100	75.0-131				
(S) 4-Bromofluorobenzene				96.4	96.8	67.0-138				
(S) 1,2-Dichloroethane-d4				101	100	70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R3961532-3 08/16/23 13:09

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Total Xylenes	U		0.000880	0.00650
(S) Toluene-d8	112			75.0-131
(S) 4-Bromofluorobenzene	89.1			67.0-138
(S) 1,2-Dichloroethane-d4	87.1			70.0-130

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

(LCS) R3961532-1 08/16/23 11:31 • (LCSD) R3961532-2 08/16/23 11:51

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 %
Total Xylenes	0.375	0.371	0.373	98.9	99.5	72.0-127			0.538	20
(S) Toluene-d8				110	110	75.0-131				
(S) 4-Bromofluorobenzene				92.0	91.8	67.0-138				
(S) 1,2-Dichloroethane-d4				95.6	96.4	70.0-130				

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3961067-3 08/12/23 21:59

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.0941	1.00
Toluene	U		0.278	1.00
Ethylbenzene	U		0.137	1.00
Total Xylenes	U		0.174	3.00
<i>(S) Toluene-d8</i>	104			80.0-120
<i>(S) 4-Bromofluorobenzene</i>	103			77.0-126
<i>(S) 1,2-Dichloroethane-d4</i>	105			70.0-130

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

(LCS) R3961067-1 08/12/23 21:02 • (LCSD) R3961067-2 08/12/23 21:21

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Benzene	5.00	4.86	4.87	97.2	97.4	70.0-123			0.206	20
Toluene	5.00	4.75	4.76	95.0	95.2	79.0-120			0.210	20
Ethylbenzene	5.00	4.61	4.62	92.2	92.4	79.0-123			0.217	20
Total Xylenes	15.0	14.3	13.6	95.3	90.7	79.0-123			5.02	20
<i>(S) Toluene-d8</i>				106	104	80.0-120				
<i>(S) 4-Bromofluorobenzene</i>				99.3	97.4	77.0-126				
<i>(S) 1,2-Dichloroethane-d4</i>				103	103	70.0-130				

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc



Method Blank (MB)

(MB) R3960732-1 08/15/23 08:14

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
<i>(S) o-Terphenyl</i>	49.5			18.0-148

Laboratory Control Sample (LCS)

(LCS) R3960732-2 08/15/23 08:27

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	50.0	41.8	83.6	50.0-150	
<i>(S) o-Terphenyl</i>			79.4	18.0-148	

L1645178-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1645178-01 08/15/23 11:22 • (MS) R3960732-3 08/15/23 11:35 • (MSD) R3960732-4 08/15/23 11:48

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	44.9	287	379	393	538	1	50.0-150	J5	J3 J5	27.7	20
<i>(S) o-Terphenyl</i>					44.1	63.0		18.0-148				

Sample Narrative:

OS: Sample resembles laboratory standard for Stoddard solvent.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R3961277-1 08/16/23 00:32

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C12 Aliphatics	U		1.68	5.00
C12-C16 Aliphatics	U		1.68	5.00
C16-C21 Aliphatics	U		1.68	5.00
C21-C34 Aliphatics	3.17	J	1.68	5.00
(S) 1-Chloro-octadecane	86.3			70.0-130

Method Blank (MB)

(MB) R3961277-4 08/16/23 01:39

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C12 Aromatics	U		2.12	5.00
C12-C16 Aromatics	U		2.12	5.00
C16-C21 Aromatics	U		2.12	5.00
C21-C34 Aromatics	U		2.12	5.00
(S) o-Terphenyl	78.9			70.0-130
(S) 2-Fluorobiphenyl	88.7			70.0-130
(S) 2-Bromonaphthalene	91.5			70.0-130

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

(LCS) R3961277-2 08/16/23 00:54 • (LCSD) R3961277-3 08/16/23 01:17

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 %
C10-C12 Aliphatics	6.65	4.79	5.04	72.0	75.8	70.0-130			5.09	20
C12-C16 Aliphatics	13.3	10.3	10.4	77.4	78.2	70.0-130			0.966	20
C16-C21 Aliphatics	20.0	17.0	17.1	85.0	85.5	70.0-130			0.587	20
C21-C34 Aliphatics	33.3	27.9	28.1	83.8	84.4	70.0-130			0.714	20
(S) 1-Chloro-octadecane				74.4	74.1	70.0-130				

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

(LCS) R3961277-5 08/16/23 02:01 • (LCSD) R3961277-6 08/16/23 02:23

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 %
C10-C12 Aromatics	6.65	4.68	4.92	70.4	74.0	70.0-130			5.00	20
C12-C16 Aromatics	20.0	13.3	13.6	66.5	68.0	70.0-130	J4	J4	2.23	20
C16-C21 Aromatics	33.3	25.9	26.1	77.8	78.4	70.0-130			0.769	20
C21-C34 Aromatics	53.2	41.7	40.7	78.4	76.5	70.0-130			2.43	20



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

(LCS) R3961277-5 08/16/23 02:01 • (LCSD) R3961277-6 08/16/23 02:23

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
(S) o-Terphenyl				76.7	76.3	70.0-130				
(S) 2-Fluorobiphenyl				93.6	89.7	70.0-130				
(S) 2-Bromonaphthalene				93.0	88.0	70.0-130				

L1644969-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1644969-06 08/16/23 10:34 • (MS) R3961277-7 08/16/23 11:40 • (MSD) R3961277-8 08/16/23 12:10

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 %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
C10-C12 Aliphatics	7.26	U	5.54	5.91	76.4	82.6	1	70.0-130			6.34	20
C12-C16 Aliphatics	14.5	U	11.4	11.9	78.8	83.1	1	70.0-130			3.77	20
C16-C21 Aliphatics	21.8	U	19.1	19.6	87.9	91.3	1	70.0-130			2.27	20
C21-C34 Aliphatics	36.3	4.04	32.0	32.4	77.1	79.5	1	70.0-130			1.37	20
(S) 1-Chloro-octadecane					75.9	79.8		70.0-130				

L1644969-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1644969-06 08/16/23 12:32 • (MS) R3961277-9 08/16/23 12:54 • (MSD) R3961277-10 08/16/23 13:16

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 %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
C10-C12 Aromatics	7.26	U	5.35	5.47	73.6	76.5	1	70.0-130			2.24	20
C12-C16 Aromatics	21.8	U	14.8	14.8	68.2	69.2	1	70.0-130	J6	J6	0.000	20
C16-C21 Aromatics	36.3	U	28.9	28.3	79.7	79.1	1	70.0-130			2.31	20
C21-C34 Aromatics	58.1	U	45.9	44.9	79.0	78.5	1	70.0-130			2.18	20
(S) o-Terphenyl					79.5	78.8		70.0-130				
(S) 2-Fluorobiphenyl					94.1	91.5		70.0-130				
(S) 2-Bromonaphthalene					94.3	92.1		70.0-130				



Method Blank (MB)

(MB) R3960367-2 08/14/23 09:58

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	87.3			23.0-120
(S) Nitrobenzene-d5	83.9			14.0-149
(S) 2-Fluorobiphenyl	90.3			34.0-125

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Laboratory Control Sample (LCS)

(LCS) R3960367-1 08/14/23 09:40

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0727	90.9	50.0-126	
Acenaphthene	0.0800	0.0712	89.0	50.0-120	
Acenaphthylene	0.0800	0.0731	91.4	50.0-120	
Benzo(a)anthracene	0.0800	0.0712	89.0	45.0-120	
Benzo(a)pyrene	0.0800	0.0609	76.1	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0675	84.4	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0718	89.8	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0649	81.1	49.0-125	
Chrysene	0.0800	0.0718	89.8	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0738	92.3	47.0-125	
Fluoranthene	0.0800	0.0781	97.6	49.0-129	

Laboratory Control Sample (LCS)

(LCS) R3960367-1 08/14/23 09:40

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluorene	0.0800	0.0762	95.3	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0764	95.5	46.0-125	
Naphthalene	0.0800	0.0756	94.5	50.0-120	
Phenanthrene	0.0800	0.0717	89.6	47.0-120	
Pyrene	0.0800	0.0648	81.0	43.0-123	
1-Methylnaphthalene	0.0800	0.0774	96.8	51.0-121	
2-Methylnaphthalene	0.0800	0.0802	100	50.0-120	
2-Chloronaphthalene	0.0800	0.0726	90.8	50.0-120	
(S) p-Terphenyl-d14			89.8	23.0-120	
(S) Nitrobenzene-d5			89.1	14.0-149	
(S) 2-Fluorobiphenyl			95.1	34.0-125	

L1645453-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1645453-01 08/14/23 13:49 • (MS) R3960367-3 08/14/23 14:07 • (MSD) R3960367-4 08/14/23 14:25

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 %
Anthracene	0.0760	0.0388	0.238	0.126	262	114	1	10.0-145	J5	J3	61.5	30
Acenaphthene	0.0760	0.0124	0.143	0.0893	172	101	1	14.0-127	J5	J3	46.2	27
Acenaphthylene	0.0760	0.0115	0.102	0.0866	119	98.3	1	21.0-124			16.3	25
Benzo(a)anthracene	0.0760	0.196	0.551	0.325	467	169	1	10.0-139	J5	J3 J5	51.6	30
Benzo(a)pyrene	0.0760	0.239	0.562	0.375	425	178	1	10.0-141	J5	J3 J5	39.9	31
Benzo(b)fluoranthene	0.0760	0.252	0.544	0.363	384	145	1	10.0-140	J5	J3 J5	39.9	36
Benzo(g,h,i)perylene	0.0760	0.179	0.390	0.273	278	123	1	10.0-140	J5	J3	35.3	33
Benzo(k)fluoranthene	0.0760	0.0862	0.238	0.164	200	102	1	10.0-137	J5	J3	36.8	31
Chrysene	0.0760	0.211	0.563	0.310	463	130	1	10.0-145	J5	J3	58.0	30
Dibenz(a,h)anthracene	0.0760	0.0339	0.114	0.0910	105	74.7	1	10.0-132			22.4	31
Fluoranthene	0.0760	0.302	1.12	0.514	1080	277	1	10.0-153	J5	J3 J5	74.2	33
Fluorene	0.0760	0.00957	0.146	0.0897	180	105	1	11.0-130	J5	J3	47.8	29
Indeno(1,2,3-cd)pyrene	0.0760	0.186	0.419	0.279	307	122	1	10.0-137	J5	J3	40.1	32
Naphthalene	0.0760	0.0246	0.136	0.112	147	114	1	10.0-135	J5		19.4	27
Phenanthrene	0.0760	0.138	0.896	0.299	997	211	1	10.0-144	J5	J3 J5	99.9	31
Pyrene	0.0760	0.290	1.03	0.463	974	226	1	10.0-148	J5	J3 J5	76.0	35
1-Methylnaphthalene	0.0760	0.0106	0.108	0.0980	128	114	1	10.0-142			9.71	28
2-Methylnaphthalene	0.0760	0.0146	0.113	0.107	129	121	1	10.0-137			5.45	28
2-Chloronaphthalene	0.0760	U	0.0612	0.0601	80.5	78.7	1	29.0-120			1.81	24
(S) p-Terphenyl-d14					82.3	81.2		23.0-120				
(S) Nitrobenzene-d5					81.4	82.3		14.0-149				
(S) 2-Fluorobiphenyl					81.4	80.4		34.0-125				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

# INTERNAL STANDARD SUMMARY

## Instrument: VOCGC4 • File ID: 0811\_34

08/12/23 00:06

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	0811_34	2819501	1140538
Upper Limit		5639002	2281076
Lower Limit		1409751	570269
LCS R3961273-1 WG2112616 1x	0811_35	2696557	1096914
BLANK R3961273-2 WG2112616 25x	0811_39	3121577	1328543
L1645178-04 WG2112616 25x	0811_40	3251408	1368716
L1645178-05 WG2112616 25x	0811_41	2961777	1274053
L1645178-06 WG2112616 25x	0811_42	2904084	1239320
L1645178-07 WG2112616 27.8x	0811_43	2825650	1210637

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

## Instrument: VOCGC4 • File ID: 0812\_02

08/12/23 12:59

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	0812_02	2746293	1233205
Upper Limit		5492586	2466410
Lower Limit		1373147	616603
LCS R3960958-3 WG2112771 1x	0812_06A	3476532	1476413
BLANK R3960958-4 WG2112771 25x	0812_08A	2942515	1341708
L1645178-02 WG2112771 500x	0812_19	3381594	1459107

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

## Instrument: VOCGC4 • File ID: 0816\_03

08/16/23 09:29

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	0816_03	3049466	1372359
Upper Limit		6098932	2744718
Lower Limit		1524733	686180
LCS R3961461-1 WG2115088 1x	0816_04	3479037	1544307
BLANK R3961461-2 WG2115088 25x	0816_06	2991168	1376123
L1645178-08 WG2115088 500x	0816_08	3542173	1429416
L1645178-01 WG2115088 5000x	0816_09	2913943	1216486

# INTERNAL STANDARD SUMMARY

## Instrument: VO CGC4 • File ID: 0816\_03

08/16/23 09:29

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
L1645178-09 WG2115088 1030x	0816_14	3243724	1423229

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

## Instrument: VO CGC17 • File ID: 0811\_31

08/11/23 22:12

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	0811_31	286314100	286314100
Upper Limit		572628200	572628200
Lower Limit		143157100	143157100
LCS R3960312-1 WG2112530 25x	0811_32	266675900	266675900
BLANK R3960312-2 WG2112530 25x	0811_35	264092600	264092600
L1645178-03 WG2112530 25x	0811_36	253521800	253521800
MS R3960312-3 WG2112530 25x	0811_56	280402300	280402300
MSD R3960312-4 WG2112530 25x	0811_57	303616200	303616200

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

# INTERNAL STANDARD SUMMARY

## Instrument: VOCMS40 • File ID: 0814\_02-1

08/14/23 07:12

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0814_02-1	897261	404747.20	334223.60
Upper Limit		1794522	809494	668447
Lower Limit		448631	202374	167112
LCS R3960751-1 WG2113658 1x	0814_02LCSB	897261	404747.20	334223.60
LCSD R3960751-2 WG2113658 1x	0814_03B	889250.40	406314.30	347486.50
BLANK R3960751-3 WG2113658 1x	0814_07B	860096.30	377372.10	294848.70
L1645178-01 WG2113658 200x	0814_19	852262.90	383920.20	329635.70
L1645178-08 WG2113658 20x	0814_20	862090.50	405481.20	348212.20
L1645178-09 WG2113658 10.1x	0814_21	949210.90	419748.80	358455.60

## Instrument: VOCMS59 • File ID: 0812\_02-1

08/12/23 09:28

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0812_02-1	265080.90	111378.20	106424.50
Upper Limit		530162	222756	212849
Lower Limit		132540	55689	53212
LCS R3960196-1 WG2112779 1x	0812_02LCS	265080.90	111378.20	106424.50
LCSD R3960196-2 WG2112779 1x	0812_03	279599.50	118906.90	104864.30
BLANK R3960196-3 WG2112779 1x	0812_07	272997.90	108878.20	96058.40
L1645178-03 WG2112779 1x	0812_12	277029.50	108811.90	97852.70
L1645178-04 WG2112779 1x	0812_13	276035.60	112166.60	98948.80
L1645178-05 WG2112779 1x	0812_14	271540.80	106112	95264.60
L1645178-06 WG2112779 1x	0812_15	278946	106392.90	98619.30
L1645178-07 WG2112779 1.11x	0812_16	277269.40	109510.10	97873
L1645178-08 WG2112779 1x	0812_17	359985.90	189270.80	101924.20
L1645178-09 WG2112779 1.03x	0812_18	318992.20	122333.20	105399.60
L1645178-01 WG2112779 20x	0812_19	351159.20	151034.10	119595.80
L1645178-02 WG2112779 40x	0812_20	294616	122084.40	118242.60





# INTERNAL STANDARD SUMMARY

Instrument: VOCMS59 • File ID: 0816\_27-1

08/16/23 11:31

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0816_27-1	262458	111096.20	106933.50
Upper Limit		524916	222192	213867
Lower Limit		131229	55548	53467
LCS R3961532-1 WG2114341 1x	0816_27LCSB	262458	111096.20	106933.50
LCSD R3961532-2 WG2114341 1x	0816_28B	264054	111062.90	108285.40
BLANK R3961532-3 WG2114341 1x	0816_32B	275788.40	113180.20	97872.30
L1645178-08 WG2114341 200x	0816_34	258885.50	111032.90	104938.50

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

Instrument: VOCMS59 • File ID: 0816\_27-2

08/16/23 11:31

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0816_27-2	262458	111096.20	106933.50
Upper Limit		524916	222192	213867
Lower Limit		131229	55548	53467
LCS R3961532-1 WG2114341 1x	0816_27LCSB	262458	111096.20	106933.50
LCSD R3961532-2 WG2114341 1x	0816_28B	264054	111062.90	108285.40
BLANK R3961532-3 WG2114341 1x	0816_32B	275788.40	113180.20	97872.30
L1645178-08 WG2114341 200x	0816_34	258885.50	111032.90	104938.50

# INTERNAL STANDARD SUMMARY

Instrument: VOCMS32 • File ID: 0812\_58-1

08/12/23 21:02

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0812_58-1	240006	97013	89379
Upper Limit		480012	194026	178758
Lower Limit		120003	48507	44690
LCS R3961067-1 WG2112916 1x	0812_58LCS	240006	97013	89379
LCSD R3961067-2 WG2112916 1x	0812_59	255904	110501	102899
BLANK R3961067-3 WG2112916 1x	0812_61	230737	95568	94801
L1645178-10 WG2112916 1x	0812_62	250554	102232	91033

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

# INTERNAL STANDARD SUMMARY

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

Instrument: BNAMS18 • File ID: 0814\_03

08/14/23 09:22

Sample ID	File ID	NAPHTHALENE-D8 Response	ACENAPHTHENE-D10 Response	PHENANTHRENE-D10 Response	CHRYSENE-D12 Response	PERYLENE-D12 Response
Standard	0814_03	46429	24925	42266	36629	36626
Upper Limit		92858	49850	84532	73258	73252
Lower Limit		23215	12463	21133	18315	18313
LCS R3960367-1 WG2112962 1x	0814_04	49569	26033	45505	39261	37719
BLANK R3960367-2 WG2112962 1x	0814_05	53316	28061	49035	40634	38906
L1645178-02 WG2112962 1x	0814_07	49034	27130	50322	40368	37462
MS R3960367-3 WG2112962 1x	0814_19	50706	27593	48024	40394	43807
MSD R3960367-4 WG2112962 1x	0814_20	52937	29116	51060	45115	48917
L1645178-02 WG2112962 20x	0814_32	51057	28818	52219	46596	46400

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

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

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

### Abbreviations and Definitions

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

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



# 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 <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	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	LA000356
Kentucky <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> 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:  
**Stantec- Bellevue, WA**

11130 NE 33rd Pl, Ste 200  
Bellevue, WA 98004

Billing Information:  
**Accounts Payable**  
11130 NE 33rd Pl, Ste 200  
Bellevue, WA 98004

Pres  
Chk

Report to:  
**Stantec**

Email To:  
zak.armacost@stantec.com;marc.suaze@stantec.com

Project Description:  
**Hungry Whale Test Pitting**

City/State  
Collected: **Westport, WA**

Please Circle:  
 PT  MT  CT  ET

Phone: **425-869-9448**

Client Project #  
**145751446**

Lab Project #  
**STANTECBWA-HUNGRY**

Collected by (print):  
**Paul Samay**

Site/Facility ID #

P.O. #

Collected by (signature):  
**Paul M. Jennings**

**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  
**\*24hr TAT for A5-FL-12\***

Immediately Packed on Ice N  Y  X

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
-----------	-----------	----------	-------	------	------	--------------

Analysis / Container / Preservative										
EPH WA 4ozAmb-NoPres	NWTPHDXNOSGT 4ozClr-NoPres	NWTPHGX 40mlAmb/MeOH10ml/Syr	Pb 6010 2ozClr-NoPres	SV8270PAHSIM 4ozClr-NoPres	Total Solids 4ozClr-NoPres	V8260BTEX 40mlAmb/MeOH10ml/Syr	VPH WA 40mlAmb/MeOH10ml/Syr			

Chain of Custody Page 1 of 1



**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/hubs/pas-standard-terms.pdf>

SDG # **L1645178**

Table # **5000**

Acctnum: **STANTECBWA**

Template: **T234672**

Prelogin: **P1013674**

PM: **546 - Jared Starkey**

PB: **7/28/23 CAM**

Shipped Via: **FedEX Standard**

Remarks Sample # (lab only)

Paul M. Jennings

<del>UST1-Dsp1-7</del>	<del>G</del>	<del>SS</del>	<del>7</del>	<del>8/7/23</del>	<del>1300</del>	<del>5</del>												
<del>UST1-Dsp2-7</del>	<del>G</del>	<del>SS</del>	<del>7</del>	<del>8/7/23</del>	<del>1310</del>	<del>5</del>	X	X	X	X	X	X	X	X	X	X	X	X
<del>A5-FL-12</del>	<del>G</del>	<del>SS</del>	<del>12</del>	<del>8/8/23</del>	<del>0940</del>	<del>3</del>												
UST3-SW3-3	G	SS	3	8/8/23	1330	45												
UST3-SW2-3	G	SS	3	8/8/23	1340	4												
UST3-SW4-4	G	SS	4	8/8/23	1420	4												
UST3-SW1-5	G	SS	5	8/8/23	1430	4												
UST2-Piping-3	G	SS	3	8/8/23	0430	5												
Dup-01	G	SS	-	8/8/23	-	5												
TB-02-01	-	W-SS	-	8/8/23	-	2												

\* Matrix:  
 SS - Soil AIR - Air F - Filter  
 GW - Groundwater B - Bioassay  
 WW - WasteWater  
 DW - Drinking Water  
 OT - Other

Remarks: **\*24hr TAT for A5-FL-12 only please\***

pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_

Sample Receipt Checklist	
COC Seal Present/Intact:	<input type="checkbox"/> NP <input checked="" type="checkbox"/> Y <input type="checkbox"/> N
COC Signed/Accurate:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Bottles arrive intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Correct bottles used:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Sufficient volume sent:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
If Applicable	
VOA Zero Headspace:	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Preservation Correct/Checked:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
RAD Screen <0.5 mR/hr:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N

Samples returned via:  UPS  FedEx  Courier

Tracking # **6841 8344 9868**

Relinquished by: (Signature) <b>Paul M. Jennings</b>	Date: <b>8/8/23</b>	Time: <b>1545</b>	Received by: (Signature) <b>FedEx</b>	Trip Blank Received: <input checked="" type="checkbox"/> Yes / <input type="checkbox"/> No <b>2</b>	Temp: _____ °C <b>GBAS 2.5+0=2.5 31</b>	If preservation required by Login: Date/Time	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: _____ °C	Bottles Received: _____		
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <b>Jennings</b>	Date: <b>8/11/23</b>	Time: <b>0835</b>	Hold:	Conditions: NCF <input checked="" type="radio"/> OK



## Stantec- Bellevue, WA

Sample Delivery Group: L1645564  
Samples Received: 08/12/2023  
Project Number: 185751446  
Description: Hungry Whale Test Pitting

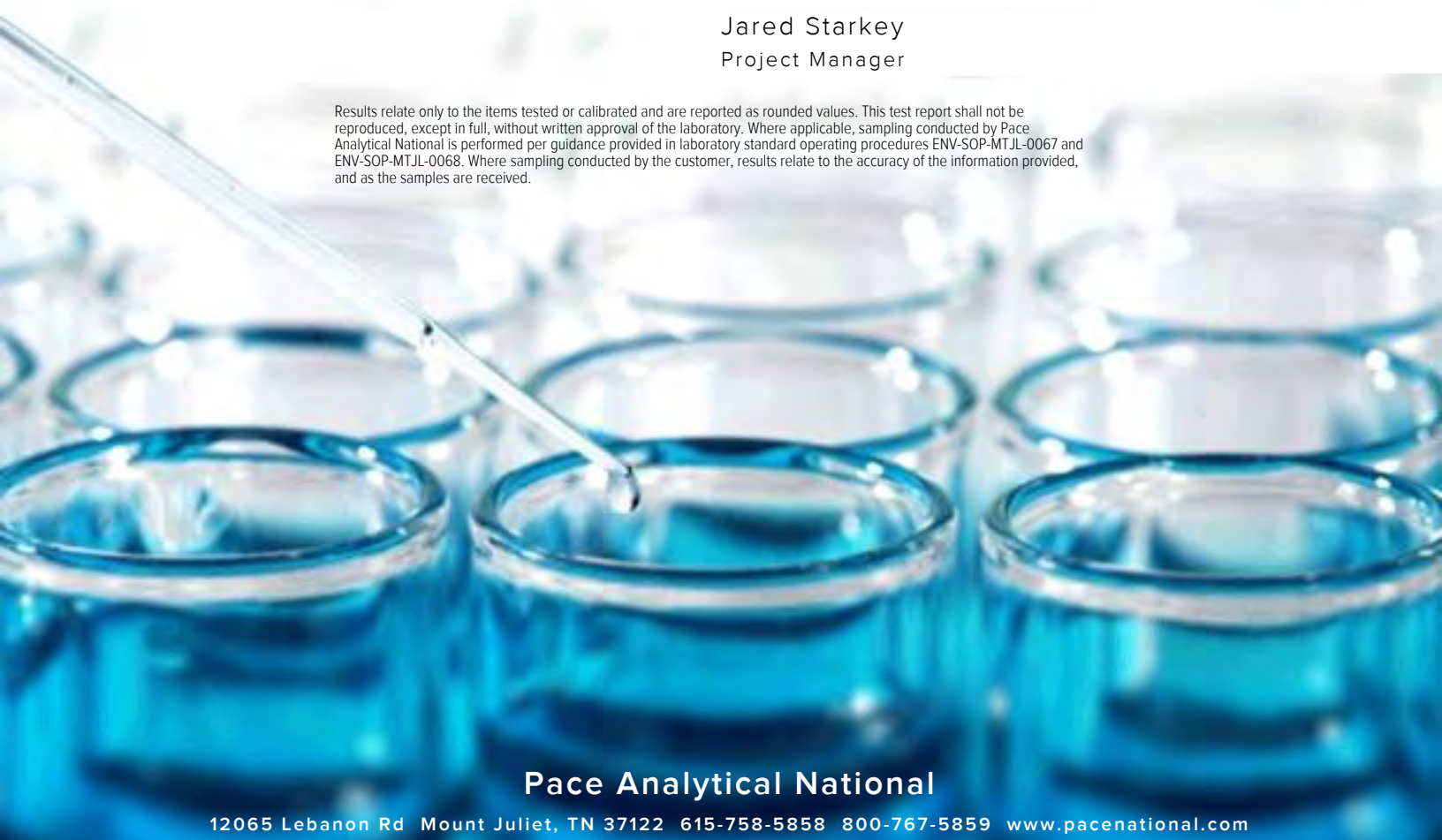
Report To: Stantec  
11130 NE 33rd Pl, Ste 200  
Bellevue, WA 98004

Entire Report Reviewed By:



Jared Starkey  
Project Manager

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



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# SAMPLE SUMMARY

## UST3-FL-8 L1645564-01 Solid

Collected by Paul Janney      Collected date/time 08/09/23 09:00      Received date/time 08/12/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2113834	1	08/14/23 15:40	08/14/23 15:46	CMK	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2114521	1	08/16/23 04:47	08/16/23 13:18	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2116141	1000	08/09/23 09:00	08/18/23 02:51	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2113597	8	08/09/23 09:00	08/14/23 14:16	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2115813	400	08/09/23 09:00	08/17/23 12:25	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2114153	5	08/15/23 21:07	08/16/23 14:44	JSS	Mt. Juliet, TN



## UST2-SW4-8 L1645564-02 Solid

Collected by Paul Janney      Collected date/time 08/09/23 09:15      Received date/time 08/12/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2113834	1	08/14/23 15:40	08/14/23 15:46	CMK	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2114521	1	08/16/23 04:47	08/16/23 13:21	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2116141	2500	08/09/23 09:15	08/18/23 04:24	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2113597	20	08/09/23 09:15	08/14/23 14:35	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2115813	400	08/09/23 09:15	08/17/23 12:45	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2114153	5	08/15/23 21:07	08/16/23 14:57	JSS	Mt. Juliet, TN

## UST2-SW1-8 L1645564-03 Solid

Collected by Paul Janney      Collected date/time 08/09/23 09:20      Received date/time 08/12/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2113834	1	08/14/23 15:40	08/14/23 15:46	CMK	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2114521	1	08/16/23 04:47	08/16/23 13:23	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2116141	5000	08/09/23 09:20	08/18/23 05:56	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2113597	40	08/09/23 09:20	08/14/23 14:54	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2115813	2000	08/09/23 09:20	08/17/23 13:05	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2114153	10	08/15/23 21:07	08/16/23 15:23	JSS	Mt. Juliet, TN

## SP-SI-3 L1645564-04 Solid

Collected by Paul Janney      Collected date/time 08/09/23 12:10      Received date/time 08/12/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2113834	1	08/14/23 15:40	08/14/23 15:46	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2116141	263	08/09/23 12:10	08/18/23 02:28	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2113597	1.04	08/09/23 12:10	08/14/23 11:25	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2115813	41.6	08/09/23 12:10	08/17/23 13:25	JHH	Mt. Juliet, TN

## SP-SI-4 L1645564-05 Solid

Collected by Paul Janney      Collected date/time 08/10/23 07:35      Received date/time 08/12/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2113834	1	08/14/23 15:40	08/14/23 15:46	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2113641	26.5	08/10/23 07:35	08/14/23 15:11	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2113597	1.03	08/10/23 07:35	08/14/23 11:44	DWR	Mt. Juliet, TN

# SAMPLE SUMMARY

## UST2-SW2-7 L1645564-06 Solid

Collected by Paul Janney      Collected date/time 08/10/23 10:40      Received date/time 08/12/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2113834	1	08/14/23 15:40	08/14/23 15:46	CMK	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2114521	1	08/16/23 04:47	08/16/23 13:26	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2113641	25	08/10/23 10:40	08/14/23 15:34	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2113597	1	08/10/23 10:40	08/14/23 12:03	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2114153	1	08/15/23 21:07	08/16/23 09:39	JAS	Mt. Juliet, TN

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

## UST2-SW3-7 L1645564-07 Solid

Collected by Paul Janney      Collected date/time 08/10/23 10:45      Received date/time 08/12/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2113834	1	08/14/23 15:40	08/14/23 15:46	CMK	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2114521	1	08/16/23 04:47	08/16/23 13:29	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2116141	2500	08/10/23 10:45	08/18/23 04:47	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2113597	20	08/10/23 10:45	08/14/23 15:13	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2115813	2000	08/10/23 10:45	08/17/23 13:44	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2114153	10	08/15/23 21:07	08/16/23 15:37	JSS	Mt. Juliet, TN

## UST2-FL-11 L1645564-08 Solid

Collected by Paul Janney      Collected date/time 08/10/23 13:30      Received date/time 08/12/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2113834	1	08/14/23 15:40	08/14/23 15:46	CMK	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2114521	1	08/16/23 04:47	08/16/23 13:31	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2116141	2500	08/10/23 13:30	08/18/23 05:10	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2113597	20	08/10/23 13:30	08/14/23 15:32	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2115813	2000	08/10/23 13:30	08/17/23 14:04	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2114153	5	08/15/23 21:07	08/16/23 15:10	JSS	Mt. Juliet, TN

## A1-SW1-4 L1645564-09 Solid

Collected by Paul Janney      Collected date/time 08/10/23 14:55      Received date/time 08/12/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2113834	1	08/14/23 15:40	08/14/23 15:46	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2113641	26.3	08/10/23 14:55	08/14/23 15:57	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2113597	1.01	08/10/23 14:55	08/14/23 12:22	DWR	Mt. Juliet, TN

## A3-SW1-6 L1645564-10 Solid

Collected by Paul Janney      Collected date/time 08/10/23 15:00      Received date/time 08/12/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2113834	1	08/14/23 15:40	08/14/23 15:46	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2113641	26.3	08/10/23 15:00	08/14/23 16:19	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2113597	1.08	08/10/23 15:00	08/14/23 12:41	DWR	Mt. Juliet, TN

## A4-SW1-8 L1645564-11 Solid

Collected by Paul Janney      Collected date/time 08/10/23 15:05      Received date/time 08/12/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2113835	1	08/14/23 15:33	08/14/23 15:39	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2116141	1000	08/10/23 15:05	08/18/23 03:15	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2113597	8	08/10/23 15:05	08/14/23 15:51	DWR	Mt. Juliet, TN

# SAMPLE SUMMARY

## A4-SW1-8 L1645564-11 Solid

Collected by Paul Janney      Collected date/time 08/10/23 15:05      Received date/time 08/12/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2115813	200	08/10/23 15:05	08/17/23 16:22	JHH	Mt. Juliet, TN

1 Cp

2 Tc

## C5-SW4-8 L1645564-12 Solid

Collected by Paul Janney      Collected date/time 08/10/23 15:10      Received date/time 08/12/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2113835	1	08/14/23 15:33	08/14/23 15:39	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2116141	2000	08/10/23 15:10	08/18/23 03:38	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2113597	20	08/10/23 15:10	08/14/23 16:10	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2115813	2000	08/10/23 15:10	08/17/23 14:43	JHH	Mt. Juliet, TN

3 Ss

4 Cn

5 Sr

6 Qc

## E5-SW4-8 L1645564-13 Solid

Collected by Paul Janney      Collected date/time 08/10/23 15:15      Received date/time 08/12/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2113835	1	08/14/23 15:33	08/14/23 15:39	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2116141	2500	08/10/23 15:15	08/18/23 05:33	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2115813	2000	08/10/23 15:15	08/17/23 15:03	JHH	Mt. Juliet, TN

7 Is

8 Gl

9 Al

10 Sc

## E5-SW4-8-ADD L1645564-14 Solid

Collected by Paul Janney      Collected date/time 08/10/23 15:20      Received date/time 08/12/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2113835	1	08/14/23 15:33	08/14/23 15:39	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2116141	2000	08/10/23 15:20	08/18/23 04:01	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2113597	8	08/10/23 15:20	08/14/23 16:48	DWR	Mt. Juliet, TN

## SP-SI-5 L1645564-15 Solid

Collected by Paul Janney      Collected date/time 08/11/23 06:10      Received date/time 08/12/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2113835	1	08/14/23 15:33	08/14/23 15:39	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2115079	1130	08/11/23 06:10	08/16/23 18:36	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2113597	8.24	08/11/23 06:10	08/14/23 17:07	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2115813	412	08/11/23 06:10	08/17/23 15:22	JHH	Mt. Juliet, TN

## SP-SI-6 L1645564-16 Solid

Collected by Paul Janney      Collected date/time 08/11/23 06:15      Received date/time 08/12/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2113835	1	08/14/23 15:33	08/14/23 15:39	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2115079	250	08/11/23 06:15	08/16/23 18:59	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2113597	1.08	08/11/23 06:15	08/14/23 13:00	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2115813	86.4	08/11/23 06:15	08/17/23 15:42	JHH	Mt. Juliet, TN

# SAMPLE SUMMARY

TB-01 L1645564-17 GW

Collected by Paul Janney  
Collected date/time 08/09/23 00:00  
Received date/time 08/12/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2114625	1	08/16/23 01:02	08/16/23 01:02	DYW	Mt. Juliet, TN

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

# CASE NARRATIVE

Unless qualified or notated within the narrative below, all sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. 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.



Jared Starkey  
Project Manager

## Report Revision History

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Level II Report - Version 1: 08/18/23 10:52

## Project Comments

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ID Corrections

## Volatile Organic Compounds (GC) by Method NWTPHGX

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The same analyte is found in the associated blank.

Batch	Analyte	Lab Sample ID
WG2113641	Gasoline Range Organics-NWTPH	L1645564-09

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

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Surrogate recovery limits have been exceeded; values are outside lower control limits.

Batch	Analyte	Lab Sample ID
WG2113597	Toluene-d8	L1645564-16



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	79.8		1	08/14/2023 15:46	<a href="#">WG2113834</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Lead	17.2		0.260	0.626	1	08/16/2023 13:18	<a href="#">WG2114521</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	2880		52.1	154	1000	08/18/2023 02:51	<a href="#">WG2116141</a>
(S) a,a,a-Trifluorotoluene(FID)	89.2			77.0-120		08/18/2023 02:51	<a href="#">WG2116141</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.236		0.00576	0.0123	8	08/14/2023 14:16	<a href="#">WG2113597</a>
Toluene	0.102		0.0160	0.0617	8	08/14/2023 14:16	<a href="#">WG2113597</a>
Ethylbenzene	31.1		0.455	1.54	400	08/17/2023 12:25	<a href="#">WG2115813</a>
Total Xylenes	256		0.543	4.01	400	08/17/2023 12:25	<a href="#">WG2115813</a>
(S) Toluene-d8	87.4			75.0-131		08/14/2023 14:16	<a href="#">WG2113597</a>
(S) Toluene-d8	104			75.0-131		08/17/2023 12:25	<a href="#">WG2115813</a>
(S) 4-Bromofluorobenzene	92.9			67.0-138		08/14/2023 14:16	<a href="#">WG2113597</a>
(S) 4-Bromofluorobenzene	96.0			67.0-138		08/17/2023 12:25	<a href="#">WG2115813</a>
(S) 1,2-Dichloroethane-d4	103			70.0-130		08/14/2023 14:16	<a href="#">WG2113597</a>
(S) 1,2-Dichloroethane-d4	98.3			70.0-130		08/17/2023 12:25	<a href="#">WG2115813</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Diesel Range Organics (DRO)	233		8.33	25.0	5	08/16/2023 14:44	<a href="#">WG2114153</a>
Residual Range Organics (RRO)	U		20.8	62.6	5	08/16/2023 14:44	<a href="#">WG2114153</a>
(S) o-Terphenyl	54.6			18.0-148		08/16/2023 14:44	<a href="#">WG2114153</a>

Sample Narrative:

L1645564-01 WG2114153: Sample resembles laboratory standard for Mineral Spirits



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	92.2		1	08/14/2023 15:46	<a href="#">WG2113834</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Lead	4.65		0.226	0.542	1	08/16/2023 13:21	<a href="#">WG2114521</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	7600		99.1	292	2500	08/18/2023 04:24	<a href="#">WG2116141</a>
(S) a,a,a-Trifluorotoluene(FID)	91.5			77.0-120		08/18/2023 04:24	<a href="#">WG2116141</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	14.4		0.0110	0.0235	20	08/14/2023 14:35	<a href="#">WG2113597</a>
Toluene	109		0.610	2.35	400	08/17/2023 12:45	<a href="#">WG2115813</a>
Ethylbenzene	101		0.346	1.17	400	08/17/2023 12:45	<a href="#">WG2115813</a>
Total Xylenes	1010		0.413	3.05	400	08/17/2023 12:45	<a href="#">WG2115813</a>
(S) Toluene-d8	88.7			75.0-131		08/14/2023 14:35	<a href="#">WG2113597</a>
(S) Toluene-d8	104			75.0-131		08/17/2023 12:45	<a href="#">WG2115813</a>
(S) 4-Bromofluorobenzene	91.4			67.0-138		08/14/2023 14:35	<a href="#">WG2113597</a>
(S) 4-Bromofluorobenzene	93.8			67.0-138		08/17/2023 12:45	<a href="#">WG2115813</a>
(S) 1,2-Dichloroethane-d4	117			70.0-130		08/14/2023 14:35	<a href="#">WG2113597</a>
(S) 1,2-Dichloroethane-d4	101			70.0-130		08/17/2023 12:45	<a href="#">WG2115813</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Diesel Range Organics (DRO)	625		7.21	21.7	5	08/16/2023 14:57	<a href="#">WG2114153</a>
Residual Range Organics (RRO)	18.7	J	18.0	54.2	5	08/16/2023 14:57	<a href="#">WG2114153</a>
(S) o-Terphenyl	57.7			18.0-148		08/16/2023 14:57	<a href="#">WG2114153</a>

Sample Narrative:

L1645564-02 WG2114153: Sample resembles laboratory standard for Mineral Spirits



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	80.6		1	08/14/2023 15:46	<a href="#">WG2113834</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Lead	6.32		0.258	0.620	1	08/16/2023 13:23	<a href="#">WG2114521</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	15900		262	774	5000	08/18/2023 05:56	<a href="#">WG2116141</a>
(S) a,a,a-Trifluorotoluene(FID)	93.8			77.0-120		08/18/2023 05:56	<a href="#">WG2116141</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	26.5		0.0290	0.0620	40	08/14/2023 14:54	<a href="#">WG2113597</a>
Toluene	107		0.0806	0.310	40	08/14/2023 14:54	<a href="#">WG2113597</a>
Ethylbenzene	271		2.28	7.75	2000	08/17/2023 13:05	<a href="#">WG2115813</a>
Total Xylenes	2510		2.73	20.2	2000	08/17/2023 13:05	<a href="#">WG2115813</a>
(S) Toluene-d8	96.5			75.0-131		08/14/2023 14:54	<a href="#">WG2113597</a>
(S) Toluene-d8	99.8			75.0-131		08/17/2023 13:05	<a href="#">WG2115813</a>
(S) 4-Bromofluorobenzene	94.0			67.0-138		08/14/2023 14:54	<a href="#">WG2113597</a>
(S) 4-Bromofluorobenzene	94.1			67.0-138		08/17/2023 13:05	<a href="#">WG2115813</a>
(S) 1,2-Dichloroethane-d4	109			70.0-130		08/14/2023 14:54	<a href="#">WG2113597</a>
(S) 1,2-Dichloroethane-d4	102			70.0-130		08/17/2023 13:05	<a href="#">WG2115813</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Diesel Range Organics (DRO)	1630		16.5	49.6	10	08/16/2023 15:23	<a href="#">WG2114153</a>
Residual Range Organics (RRO)	U		41.3	124	10	08/16/2023 15:23	<a href="#">WG2114153</a>
(S) o-Terphenyl	57.6			18.0-148		08/16/2023 15:23	<a href="#">WG2114153</a>

Sample Narrative:

L1645564-03 WG2114153: Sample resembles laboratory standard for Mineral Spirits





Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	92.0		1	08/14/2023 15:46	<a href="#">WG2113834</a>

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	648		10.4	30.7	263	08/18/2023 02:28	<a href="#">WG2116141</a>
(S) a,a,a-Trifluorotoluene(FID)	84.0			77.0-120		08/18/2023 02:28	<a href="#">WG2116141</a>

3 Ss

4 Cn

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.0392		0.000568	0.00122	1.04	08/14/2023 11:25	<a href="#">WG2113597</a>
Toluene	1.64		0.00158	0.00608	1.04	08/14/2023 11:25	<a href="#">WG2113597</a>
Ethylbenzene	5.09		0.0359	0.122	41.6	08/17/2023 13:25	<a href="#">WG2115813</a>
Total Xylenes	27.5		0.0428	0.316	41.6	08/17/2023 13:25	<a href="#">WG2115813</a>
(S) Toluene-d8	97.4			75.0-131		08/14/2023 11:25	<a href="#">WG2113597</a>
(S) Toluene-d8	105			75.0-131		08/17/2023 13:25	<a href="#">WG2115813</a>
(S) 4-Bromofluorobenzene	96.6			67.0-138		08/14/2023 11:25	<a href="#">WG2113597</a>
(S) 4-Bromofluorobenzene	94.1			67.0-138		08/17/2023 13:25	<a href="#">WG2115813</a>
(S) 1,2-Dichloroethane-d4	104			70.0-130		08/14/2023 11:25	<a href="#">WG2113597</a>
(S) 1,2-Dichloroethane-d4	101			70.0-130		08/17/2023 13:25	<a href="#">WG2115813</a>

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	92.5		1	08/14/2023 15:46	<a href="#">WG2113834</a>

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

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	110		1.04	3.07	26.5	08/14/2023 15:11	<a href="#">WG2113641</a>
(S) a,a,a-Trifluorotoluene(FID)	90.7			77.0-120		08/14/2023 15:11	<a href="#">WG2113641</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.0570		0.000558	0.00120	1.03	08/14/2023 11:44	<a href="#">WG2113597</a>
Toluene	0.182		0.00156	0.00598	1.03	08/14/2023 11:44	<a href="#">WG2113597</a>
Ethylbenzene	0.240		0.000881	0.00300	1.03	08/14/2023 11:44	<a href="#">WG2113597</a>
Total Xylenes	1.87		0.00105	0.00778	1.03	08/14/2023 11:44	<a href="#">WG2113597</a>
(S) Toluene-d8	105			75.0-131		08/14/2023 11:44	<a href="#">WG2113597</a>
(S) 4-Bromofluorobenzene	101			67.0-138		08/14/2023 11:44	<a href="#">WG2113597</a>
(S) 1,2-Dichloroethane-d4	102			70.0-130		08/14/2023 11:44	<a href="#">WG2113597</a>

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	83.0		1	08/14/2023 15:46	<a href="#">WG2113834</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Lead	8.63		0.250	0.602	1	08/16/2023 13:26	<a href="#">WG2114521</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	126		1.24	3.65	25	08/14/2023 15:34	<a href="#">WG2113641</a>
(S) a,a,a-Trifluorotoluene(FID)	92.8			77.0-120		08/14/2023 15:34	<a href="#">WG2113641</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.268		0.000679	0.00145	1	08/14/2023 12:03	<a href="#">WG2113597</a>
Toluene	0.262		0.00189	0.00727	1	08/14/2023 12:03	<a href="#">WG2113597</a>
Ethylbenzene	1.56		0.00107	0.00363	1	08/14/2023 12:03	<a href="#">WG2113597</a>
Total Xylenes	4.26		0.00128	0.00945	1	08/14/2023 12:03	<a href="#">WG2113597</a>
(S) Toluene-d8	103			75.0-131		08/14/2023 12:03	<a href="#">WG2113597</a>
(S) 4-Bromofluorobenzene	98.5			67.0-138		08/14/2023 12:03	<a href="#">WG2113597</a>
(S) 1,2-Dichloroethane-d4	103			70.0-130		08/14/2023 12:03	<a href="#">WG2113597</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Diesel Range Organics (DRO)	27.5		1.60	4.82	1	08/16/2023 09:39	<a href="#">WG2114153</a>
Residual Range Organics (RRO)	23.5		4.01	12.0	1	08/16/2023 09:39	<a href="#">WG2114153</a>
(S) o-Terphenyl	38.5			18.0-148		08/16/2023 09:39	<a href="#">WG2114153</a>

Sample Narrative:

L1645564-06 WG2114153: Sample resembles laboratory standard for Hydraulic Oil and Kerosene.



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	90.7		1	08/14/2023 15:46	<a href="#">WG2113834</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Lead	5.69		0.229	0.551	1	08/16/2023 13:29	<a href="#">WG2114521</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	9160		102	301	2500	08/18/2023 04:47	<a href="#">WG2116141</a>
(S) a,a,a-Trifluorotoluene(FID)	95.1			77.0-120		08/18/2023 04:47	<a href="#">WG2116141</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	7.50		0.0113	0.0241	20	08/14/2023 15:13	<a href="#">WG2113597</a>
Toluene	130		3.14	12.1	2000	08/17/2023 13:44	<a href="#">WG2115813</a>
Ethylbenzene	134		1.77	6.04	2000	08/17/2023 13:44	<a href="#">WG2115813</a>
Total Xylenes	1330		2.13	15.7	2000	08/17/2023 13:44	<a href="#">WG2115813</a>
(S) Toluene-d8	85.0			75.0-131		08/14/2023 15:13	<a href="#">WG2113597</a>
(S) Toluene-d8	105			75.0-131		08/17/2023 13:44	<a href="#">WG2115813</a>
(S) 4-Bromofluorobenzene	88.4			67.0-138		08/14/2023 15:13	<a href="#">WG2113597</a>
(S) 4-Bromofluorobenzene	98.1			67.0-138		08/17/2023 13:44	<a href="#">WG2115813</a>
(S) 1,2-Dichloroethane-d4	113			70.0-130		08/14/2023 15:13	<a href="#">WG2113597</a>
(S) 1,2-Dichloroethane-d4	98.9			70.0-130		08/17/2023 13:44	<a href="#">WG2115813</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Diesel Range Organics (DRO)	1340		14.7	44.1	10	08/16/2023 15:37	<a href="#">WG2114153</a>
Residual Range Organics (RRO)	U		36.7	110	10	08/16/2023 15:37	<a href="#">WG2114153</a>
(S) o-Terphenyl	54.1			18.0-148		08/16/2023 15:37	<a href="#">WG2114153</a>

Sample Narrative:

L1645564-07 WG2114153: Sample resembles laboratory standard for Mineral Spirits



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	82.9		1	08/14/2023 15:46	<a href="#">WG2113834</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Lead	4.67		0.251	0.603	1	08/16/2023 13:31	<a href="#">WG2114521</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	7930		125	367	2500	08/18/2023 05:10	<a href="#">WG2116141</a>
(S) a,a,a-Trifluorotoluene(FID)	91.4			77.0-120		08/18/2023 05:10	<a href="#">WG2116141</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	17.4		0.0137	0.0293	20	08/14/2023 15:32	<a href="#">WG2113597</a>
Toluene	149		3.81	14.6	2000	08/17/2023 14:04	<a href="#">WG2115813</a>
Ethylbenzene	154		2.15	7.32	2000	08/17/2023 14:04	<a href="#">WG2115813</a>
Total Xylenes	1280		2.58	19.0	2000	08/17/2023 14:04	<a href="#">WG2115813</a>
(S) Toluene-d8	92.9			75.0-131		08/14/2023 15:32	<a href="#">WG2113597</a>
(S) Toluene-d8	101			75.0-131		08/17/2023 14:04	<a href="#">WG2115813</a>
(S) 4-Bromofluorobenzene	93.3			67.0-138		08/14/2023 15:32	<a href="#">WG2113597</a>
(S) 4-Bromofluorobenzene	98.2			67.0-138		08/17/2023 14:04	<a href="#">WG2115813</a>
(S) 1,2-Dichloroethane-d4	112			70.0-130		08/14/2023 15:32	<a href="#">WG2113597</a>
(S) 1,2-Dichloroethane-d4	100			70.0-130		08/17/2023 14:04	<a href="#">WG2115813</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Diesel Range Organics (DRO)	923		8.02	24.1	5	08/16/2023 15:10	<a href="#">WG2114153</a>
Residual Range Organics (RRO)	U		20.0	60.3	5	08/16/2023 15:10	<a href="#">WG2114153</a>
(S) o-Terphenyl	59.3			18.0-148		08/16/2023 15:10	<a href="#">WG2114153</a>

Sample Narrative:

L1645564-08 WG2114153: Sample resembles laboratory standard for Mineral Spirits



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	91.2		1	08/14/2023 15:46	<a href="#">WG2113834</a>

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

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	2.99	<a href="#">B J</a>	1.06	3.13	26.3	08/14/2023 15:57	<a href="#">WG2113641</a>
(S) a,a,a-Trifluorotoluene(FID)	92.5			77.0-120		08/14/2023 15:57	<a href="#">WG2113641</a>

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
Benzene	0.00349		0.000563	0.00120	1.01	08/14/2023 12:22	<a href="#">WG2113597</a>
Toluene	0.0111		0.00156	0.00602	1.01	08/14/2023 12:22	<a href="#">WG2113597</a>
Ethylbenzene	0.0124		0.000887	0.00302	1.01	08/14/2023 12:22	<a href="#">WG2113597</a>
Total Xylenes	0.0627		0.00106	0.00782	1.01	08/14/2023 12:22	<a href="#">WG2113597</a>
(S) Toluene-d8	105			75.0-131		08/14/2023 12:22	<a href="#">WG2113597</a>
(S) 4-Bromofluorobenzene	100			67.0-138		08/14/2023 12:22	<a href="#">WG2113597</a>
(S) 1,2-Dichloroethane-d4	102			70.0-130		08/14/2023 12:22	<a href="#">WG2113597</a>

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	54.9		1	08/14/2023 15:46	<a href="#">WG2113834</a>

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	195		2.32	6.83	26.3	08/14/2023 16:19	<a href="#">WG2113641</a>
(S) a,a,a-Trifluorotoluene(FID)	92.3			77.0-120		08/14/2023 16:19	<a href="#">WG2113641</a>

3 Ss

4 Cn

5 Sr

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.0235		0.00130	0.00279	1.08	08/14/2023 12:41	<a href="#">WG2113597</a>
Toluene	0.199		0.00361	0.0139	1.08	08/14/2023 12:41	<a href="#">WG2113597</a>
Ethylbenzene	3.92		0.00205	0.00696	1.08	08/14/2023 12:41	<a href="#">WG2113597</a>
Total Xylenes	13.3		0.00245	0.0181	1.08	08/14/2023 12:41	<a href="#">WG2113597</a>
(S) Toluene-d8	105			75.0-131		08/14/2023 12:41	<a href="#">WG2113597</a>
(S) 4-Bromofluorobenzene	100			67.0-138		08/14/2023 12:41	<a href="#">WG2113597</a>
(S) 1,2-Dichloroethane-d4	104			70.0-130		08/14/2023 12:41	<a href="#">WG2113597</a>

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	86.3		1	08/14/2023 15:39	<a href="#">WG2113835</a>

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

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	1360		45.2	133	1000	08/18/2023 03:15	<a href="#">WG2116141</a>
(S) a,a,a-Trifluorotoluene(FID)	87.2			77.0-120		08/18/2023 03:15	<a href="#">WG2116141</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.166		0.00498	0.0106	8	08/14/2023 15:51	<a href="#">WG2113597</a>
Toluene	15.4		0.0138	0.0532	8	08/14/2023 15:51	<a href="#">WG2113597</a>
Ethylbenzene	28.3		0.196	0.665	200	08/17/2023 16:22	<a href="#">WG2115813</a>
Total Xylenes	144		0.234	1.73	200	08/17/2023 16:22	<a href="#">WG2115813</a>
(S) Toluene-d8	99.7			75.0-131		08/14/2023 15:51	<a href="#">WG2113597</a>
(S) Toluene-d8	102			75.0-131		08/17/2023 16:22	<a href="#">WG2115813</a>
(S) 4-Bromofluorobenzene	99.1			67.0-138		08/14/2023 15:51	<a href="#">WG2113597</a>
(S) 4-Bromofluorobenzene	92.9			67.0-138		08/17/2023 16:22	<a href="#">WG2115813</a>
(S) 1,2-Dichloroethane-d4	107			70.0-130		08/14/2023 15:51	<a href="#">WG2113597</a>
(S) 1,2-Dichloroethane-d4	106			70.0-130		08/17/2023 16:22	<a href="#">WG2115813</a>



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	91.5		1	08/14/2023 15:39	<a href="#">WG2113835</a>

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	14800		80.9	239	2000	08/18/2023 03:38	<a href="#">WG2116141</a>
(S) a,a,a-Trifluorotoluene(FID)	109			77.0-120		08/18/2023 03:38	<a href="#">WG2116141</a>

3 Ss

4 Cn

5 Sr

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	28.5		0.0112	0.0240	20	08/14/2023 16:10	<a href="#">WG2113597</a>
Toluene	183		3.11	12.0	2000	08/17/2023 14:43	<a href="#">WG2115813</a>
Ethylbenzene	123		1.76	5.99	2000	08/17/2023 14:43	<a href="#">WG2115813</a>
Total Xylenes	1110		2.11	15.6	2000	08/17/2023 14:43	<a href="#">WG2115813</a>
(S) Toluene-d8	83.9			75.0-131		08/14/2023 16:10	<a href="#">WG2113597</a>
(S) Toluene-d8	103			75.0-131		08/17/2023 14:43	<a href="#">WG2115813</a>
(S) 4-Bromofluorobenzene	89.5			67.0-138		08/14/2023 16:10	<a href="#">WG2113597</a>
(S) 4-Bromofluorobenzene	97.8			67.0-138		08/17/2023 14:43	<a href="#">WG2115813</a>
(S) 1,2-Dichloroethane-d4	116			70.0-130		08/14/2023 16:10	<a href="#">WG2113597</a>
(S) 1,2-Dichloroethane-d4	99.1			70.0-130		08/17/2023 14:43	<a href="#">WG2115813</a>

6 Qc

7 Is

8 Gl

9 Al

10 Sc

## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	80.9		1	08/14/2023 15:39	<a href="#">WG2113835</a>

## Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	22800		129	380	2500	08/18/2023 05:33	<a href="#">WG2116141</a>
(S) a,a,a-Trifluorotoluene(FID)	108			77.0-120		08/18/2023 05:33	<a href="#">WG2116141</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	87.1		1.45	3.10	2000	08/17/2023 15:03	<a href="#">WG2115813</a>
Toluene	850		4.03	15.5	2000	08/17/2023 15:03	<a href="#">WG2115813</a>
Ethylbenzene	278		2.28	7.75	2000	08/17/2023 15:03	<a href="#">WG2115813</a>
Total Xylenes	2080		2.73	20.2	2000	08/17/2023 15:03	<a href="#">WG2115813</a>
(S) Toluene-d8	102			75.0-131		08/17/2023 15:03	<a href="#">WG2115813</a>
(S) 4-Bromofluorobenzene	97.6			67.0-138		08/17/2023 15:03	<a href="#">WG2115813</a>
(S) 1,2-Dichloroethane-d4	103			70.0-130		08/17/2023 15:03	<a href="#">WG2115813</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	80.3		1	08/14/2023 15:39	<a href="#">WG2113835</a>

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

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	5480		105	309	2000	08/18/2023 04:01	<a href="#">WG2116141</a>
(S) a,a,a-Trifluorotoluene(FID)	91.9			77.0-120		08/18/2023 04:01	<a href="#">WG2116141</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.454		0.00570	0.0122	8	08/14/2023 16:48	<a href="#">WG2113597</a>
Toluene	0.706		0.0159	0.0610	8	08/14/2023 16:48	<a href="#">WG2113597</a>
Ethylbenzene	25.2		0.00899	0.0305	8	08/14/2023 16:48	<a href="#">WG2113597</a>
Total Xylenes	31.7		0.0107	0.0793	8	08/14/2023 16:48	<a href="#">WG2113597</a>
(S) Toluene-d8	76.6			75.0-131		08/14/2023 16:48	<a href="#">WG2113597</a>
(S) 4-Bromofluorobenzene	84.0			67.0-138		08/14/2023 16:48	<a href="#">WG2113597</a>
(S) 1,2-Dichloroethane-d4	119			70.0-130		08/14/2023 16:48	<a href="#">WG2113597</a>

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	95.2		1	08/14/2023 15:39	<a href="#">WG2113835</a>

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

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	4240		42.0	124	1130	08/16/2023 18:36	<a href="#">WG2115079</a>
(S) a,a,a-Trifluorotoluene(FID)	88.2			77.0-120		08/16/2023 18:36	<a href="#">WG2115079</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.447		0.00424	0.00907	8.24	08/14/2023 17:07	<a href="#">WG2113597</a>
Toluene	7.22		0.0118	0.0453	8.24	08/14/2023 17:07	<a href="#">WG2113597</a>
Ethylbenzene	44.6		0.335	1.13	412	08/17/2023 15:22	<a href="#">WG2115813</a>
Total Xylenes	295		0.399	2.95	412	08/17/2023 15:22	<a href="#">WG2115813</a>
(S) Toluene-d8	87.1			75.0-131		08/14/2023 17:07	<a href="#">WG2113597</a>
(S) Toluene-d8	101			75.0-131		08/17/2023 15:22	<a href="#">WG2115813</a>
(S) 4-Bromofluorobenzene	92.6			67.0-138		08/14/2023 17:07	<a href="#">WG2113597</a>
(S) 4-Bromofluorobenzene	95.2			67.0-138		08/17/2023 15:22	<a href="#">WG2115813</a>
(S) 1,2-Dichloroethane-d4	107			70.0-130		08/14/2023 17:07	<a href="#">WG2113597</a>
(S) 1,2-Dichloroethane-d4	101			70.0-130		08/17/2023 15:22	<a href="#">WG2115813</a>

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	82.0		1	08/14/2023 15:39	<a href="#">WG2113835</a>

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

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	961		12.2	36.1	250	08/16/2023 18:59	<a href="#">WG2115079</a>
(S) a,a,a-Trifluorotoluene(FID)	88.1			77.0-120		08/16/2023 18:59	<a href="#">WG2115079</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.0681		0.000718	0.00154	1.08	08/14/2023 13:00	<a href="#">WG2113597</a>
Toluene	2.92		0.00199	0.00769	1.08	08/14/2023 13:00	<a href="#">WG2113597</a>
Ethylbenzene	10.9		0.0907	0.308	86.4	08/17/2023 15:42	<a href="#">WG2115813</a>
Total Xylenes	127		0.108	0.800	86.4	08/17/2023 15:42	<a href="#">WG2115813</a>
(S) Toluene-d8	72.0	<a href="#">J2</a>		75.0-131		08/14/2023 13:00	<a href="#">WG2113597</a>
(S) Toluene-d8	103			75.0-131		08/17/2023 15:42	<a href="#">WG2115813</a>
(S) 4-Bromofluorobenzene	79.6			67.0-138		08/14/2023 13:00	<a href="#">WG2113597</a>
(S) 4-Bromofluorobenzene	95.1			67.0-138		08/17/2023 15:42	<a href="#">WG2115813</a>
(S) 1,2-Dichloroethane-d4	97.6			70.0-130		08/14/2023 13:00	<a href="#">WG2113597</a>
(S) 1,2-Dichloroethane-d4	98.2			70.0-130		08/17/2023 15:42	<a href="#">WG2115813</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0941	1.00	1	08/16/2023 01:02	<a href="#">WG2114625</a>
Toluene	U		0.278	1.00	1	08/16/2023 01:02	<a href="#">WG2114625</a>
Ethylbenzene	U		0.137	1.00	1	08/16/2023 01:02	<a href="#">WG2114625</a>
Total Xylenes	U		0.174	3.00	1	08/16/2023 01:02	<a href="#">WG2114625</a>
<i>(S) Toluene-d8</i>	103			80.0-120		08/16/2023 01:02	<a href="#">WG2114625</a>
<i>(S) 4-Bromofluorobenzene</i>	95.7			77.0-126		08/16/2023 01:02	<a href="#">WG2114625</a>
<i>(S) 1,2-Dichloroethane-d4</i>	109			70.0-130		08/16/2023 01:02	<a href="#">WG2114625</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R3960691-1 08/14/23 15:46

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

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

L1645564-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1645564-05 08/14/23 15:46 • (DUP) R3960691-3 08/14/23 15:46

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	92.5	89.5	1	3.28		10

<sup>4</sup>Cn

<sup>5</sup>Sr

Laboratory Control Sample (LCS)

(LCS) R3960691-2 08/14/23 15:46

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

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3960689-1 08/14/23 15:39

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

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

L1645564-15 Original Sample (OS) • Duplicate (DUP)

(OS) L1645564-15 08/14/23 15:39 • (DUP) R3960689-3 08/14/23 15:39

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	95.2	93.9	1	1.34		10

<sup>4</sup>Cn

<sup>5</sup>Sr

Laboratory Control Sample (LCS)

(LCS) R3960689-2 08/14/23 15:39

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

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc



Method Blank (MB)

(MB) R3961395-1 08/16/23 11:34

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Lead	U		0.208	0.500

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

Laboratory Control Sample (LCS)

(LCS) R3961395-2 08/16/23 11:36

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Lead	100	98.8	98.8	80.0-120	

<sup>4</sup>Cn

<sup>5</sup>Sr

L1645831-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1645831-03 08/16/23 11:39 • (MS) R3961395-5 08/16/23 11:46 • (MSD) R3961395-6 08/16/23 11:49

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 %
Lead	108	9.38	118	115	101	97.8	1	75.0-125			2.57	20

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3962065-2 08/14/23 10:51

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	1.04	↓	0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	92.0			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3962065-1 08/14/23 10:05

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5.50	5.84	106	71.0-124	
(S) a,a,a-Trifluorotoluene(FID)			95.6	77.0-120	

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3962034-1 08/16/23 14:07

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	1.39	↓	0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	91.9			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3962034-2 08/16/23 14:55

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5.50	5.00	90.9	71.0-124	
(S) a,a,a-Trifluorotoluene(FID)			98.8	77.0-120	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R3962385-2 08/18/23 02:05

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	1.69	J	0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	93.0			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3962385-1 08/18/23 00:33

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5.50	5.57	101	71.0-124	
(S) a,a,a-Trifluorotoluene(FID)			107	77.0-120	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R3961791-2 08/14/23 07:57

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Toluene	U		0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Total Xylenes	U		0.000880	0.00650
(S) Toluene-d8	105			75.0-131
(S) 4-Bromofluorobenzene	99.1			67.0-138
(S) 1,2-Dichloroethane-d4	104			70.0-130

Laboratory Control Sample (LCS)

(LCS) R3961791-1 08/14/23 06:40

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.113	90.4	70.0-123	
Toluene	0.125	0.109	87.2	75.0-121	
Ethylbenzene	0.125	0.107	85.6	74.0-126	
Total Xylenes	0.375	0.330	88.0	72.0-127	
(S) Toluene-d8			103	75.0-131	
(S) 4-Bromofluorobenzene			99.2	67.0-138	
(S) 1,2-Dichloroethane-d4			107	70.0-130	

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3962097-3 08/17/23 10:34

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
Benzene	U		0.000467	0.00100
Toluene	U		0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Total Xylenes	U		0.000880	0.00650
<i>(S) Toluene-d8</i>	103			75.0-131
<i>(S) 4-Bromofluorobenzene</i>	90.8			67.0-138
<i>(S) 1,2-Dichloroethane-d4</i>	97.8			70.0-130

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

(LCS) R3962097-1 08/17/23 08:56 • (LCSD) R3962097-2 08/17/23 09:15

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Benzene	0.125	0.137	0.130	110	104	70.0-123			5.24	20
Toluene	0.125	0.133	0.128	106	102	75.0-121			3.83	20
Ethylbenzene	0.125	0.132	0.127	106	102	74.0-126			3.86	20
Total Xylenes	0.375	0.374	0.366	99.7	97.6	72.0-127			2.16	20
<i>(S) Toluene-d8</i>				102	103	75.0-131				
<i>(S) 4-Bromofluorobenzene</i>				93.9	95.5	67.0-138				
<i>(S) 1,2-Dichloroethane-d4</i>				105	105	70.0-130				

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

Method Blank (MB)

(MB) R3961334-3 08/15/23 21:37

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.0941	1.00
Toluene	U		0.278	1.00
Ethylbenzene	U		0.137	1.00
Total Xylenes	U		0.174	3.00
<i>(S) Toluene-d8</i>	104			80.0-120
<i>(S) 4-Bromofluorobenzene</i>	91.8			77.0-126
<i>(S) 1,2-Dichloroethane-d4</i>	108			70.0-130

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

(LCS) R3961334-1 08/15/23 20:15 • (LCSD) R3961334-2 08/15/23 20:35

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Benzene	5.00	5.15	5.18	103	104	70.0-123			0.581	20
Toluene	5.00	4.97	4.83	99.4	96.6	79.0-120			2.86	20
Ethylbenzene	5.00	4.98	4.83	99.6	96.6	79.0-123			3.06	20
Total Xylenes	15.0	14.3	14.2	95.3	94.7	79.0-123			0.702	20
<i>(S) Toluene-d8</i>				101	99.1	80.0-120				
<i>(S) 4-Bromofluorobenzene</i>				92.8	89.8	77.0-126				
<i>(S) 1,2-Dichloroethane-d4</i>				108	107	70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R3961515-1 08/16/23 08:46

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	57.1			18.0-148

Laboratory Control Sample (LCS)

(LCS) R3961515-2 08/16/23 08:59

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	50.0	30.1	60.2	50.0-150	
(S) o-Terphenyl			60.4	18.0-148	

L1645473-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1645473-01 08/16/23 11:00 • (MS) R3961515-3 08/16/23 11:13 • (MSD) R3961515-4 08/16/23 11:26

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)	55.5	6.87	41.0	44.8	61.6	68.7	1	50.0-150			8.67	20
(S) o-Terphenyl					55.2	58.4		18.0-148				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc



# INTERNAL STANDARD SUMMARY

Instrument: VOCMS26 • File ID: 0815\_29-2

08/15/23 20:15

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0815_29-2	413875	188137	168792
Upper Limit		827750	376274	337584
Lower Limit		206938	94069	84396
LCS R3961334-1 WG2114625 1x	0815_29LCSB	413875	188137	168792
LCSD R3961334-2 WG2114625 1x	0815_30B	415487	192261	166612
BLANK R3961334-3 WG2114625 1x	0815_33B	404516	179191	155110
L1645564-17 WG2114625 1x	0815_42	401398	178209	158136

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

# INTERNAL STANDARD SUMMARY

## Instrument: VOCGC4 • File ID: 0814\_03

08/14/23 08:09

Sample ID	File ID	FLUOROBENZENE (FID)	FLUOROBENZENE (PID)
		Response	Response
Standard	0814_03	3857200	1337267
Upper Limit		7714400	2674534
Lower Limit		1928600	668634
LCS R3962065-1 WG2113641 1x	0814_05A	3793670	1299598
BLANK R3962065-2 WG2113641 25x	0814_07A	4158846	1493090
L1645564-05 WG2113641 26.5x	0814_16	3682188	1198227
L1645564-06 WG2113641 25x	0814_17	4104784	1363074
L1645564-09 WG2113641 26.3x	0814_18	3167193	1116166
L1645564-10 WG2113641 26.3x	0814_19	4179370	1403085

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

## Instrument: VOCGC15 • File ID: 0816\_05

08/16/23 12:58

Sample ID	File ID	FLUOROBENZENE (FID)	FLUOROBENZENE (PID)
		Response	Response
Standard	0816_05	259764800	112141
Upper Limit		519529600	224282
Lower Limit		129882400	56071
BLANK R3962034-1 WG2115079 25x	0816_08B	252962000	50603
LCS R3962034-2 WG2115079 1x	0816_09B	233603200	107375
L1645564-15 WG2115079 1130x	0816_18	296547800	167264
L1645564-16 WG2115079 250x	0816_19	303556900	133709

## Instrument: VOCGC15 • File ID: 0817\_31

08/18/23 00:09

Sample ID	File ID	FLUOROBENZENE (FID)	FLUOROBENZENE (PID)
		Response	Response
Standard	0817_31	271290900	75522
Upper Limit		542581800	151044
Lower Limit		135645500	37761
LCS R3962385-1 WG2116141 1x	0817_32	232661300	20071
BLANK R3962385-2 WG2116141 25x	0817_36	230680600	153816
L1645564-04 WG2116141 263x	0817_37	293139600	86977

# INTERNAL STANDARD SUMMARY

Instrument: VO CGC15 • File ID: 0817\_31

08/18/23 00:09

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
L1645564-01 WG2116141 1000x	0817_38	264788900	131439
L1645564-11 WG2116141 1000x	0817_39	279708300	42216
L1645564-12 WG2116141 2000x	0817_40	246331800	43069
L1645564-14 WG2116141 2000x	0817_41	270186400	73845
L1645564-02 WG2116141 2500x	0817_42	286249700	43956
L1645564-07 WG2116141 2500x	0817_43	251256000	123109
L1645564-08 WG2116141 2500x	0817_44	257028200	26762
L1645564-13 WG2116141 2500x	0817_45	290288400	35683
L1645564-03 WG2116141 5000x	0817_46	262253400	36425

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Is
- <sup>8</sup> Gl
- <sup>9</sup> Al
- <sup>10</sup> Sc

# INTERNAL STANDARD SUMMARY

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

Instrument: VOCMS37 • File ID: 0817\_02-1

08/17/23 08:56

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0817_02-1	308505.10	127850.40	11971.30
Upper Limit		617010	255701	223943
Lower Limit		154253	63925	55986
LCS R3962097-1 WG2115813 1x	0817_02LCS	308505.10	127850.40	11971.30
LCSD R3962097-2 WG2115813 1x	0817_03	307794.70	128568.70	112473
BLANK R3962097-3 WG2115813 1x	0817_07	324386.10	136269.50	107288.60
L1645564-01 WG2115813 400x	0817_08	329844.40	137982.60	120304.50
L1645564-02 WG2115813 400x	0817_09	323998.70	138915.60	119450.40
L1645564-03 WG2115813 2000x	0817_10	307807.30	133861.50	114636
L1645564-04 WG2115813 41.6x	0817_11	313285.10	134494.60	115687.60
L1645564-07 WG2115813 2000x	0817_12	305985.80	121533.70	108158.20
L1645564-08 WG2115813 2000x	0817_13	298031.50	125204.50	108503.70
L1645564-12 WG2115813 2000x	0817_15	310068.30	129205	109573.70
L1645564-13 WG2115813 2000x	0817_16	303985.70	123287.30	108961.20
L1645564-15 WG2115813 412x	0817_17	302983.30	129616.50	114775.80
L1645564-16 WG2115813 86.4x	0817_18	309107	131124.70	112242.10
L1645564-11 WG2115813 200x	0817_20	297860.90	127817	110471.20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Instrument: VOCMS58 • File ID: 0814\_02-1

08/14/23 06:21

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0814_02-1	1175837	547093	518055.90
Upper Limit		2351674	1094186	1036112
Lower Limit		587919	273547	259028
LCS R3961791-1 WG2113597 1x	0814_03	1195660	555227.70	522646.70
BLANK R3961791-2 WG2113597 1x	0814_07	1162568	525417.80	477874.90
L1645564-04 WG2113597 1.04x	0814_09	1264494	607598.30	531939.90
L1645564-05 WG2113597 1.03x	0814_10	1354703	601501.60	571423.20
L1645564-06 WG2113597 1x	0814_11	1294189	588783.90	543522.30
L1645564-09 WG2113597 1.01x	0814_12	1330335	594657.90	567949.40
L1645564-10 WG2113597 1.08x	0814_13	1403951	635147.40	601773.10
L1645564-16 WG2113597 1.08x	0814_14	1345717	834669.10	558572.60
L1645564-01 WG2113597 8x	0814_18	1339171	713162.80	593634.20
L1645564-02 WG2113597 20x	0814_19	1526911	777802.20	634777.30

# INTERNAL STANDARD SUMMARY

Instrument: VOCMS58 • File ID: 0814\_02-1

08/14/23 06:21

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
L1645564-03 WG2113597 40x	0814_20	1510868	721663.70	607519
L1645564-07 WG2113597 20x	0814_21	1590009	841179.90	651575.90
L1645564-08 WG2113597 20x	0814_22	1664395	791300.40	651565.90
L1645564-11 WG2113597 8x	0814_23	1505352	700452.20	658976.40
L1645564-12 WG2113597 20x	0814_24	1561511	823712.40	670234.90
L1645564-14 WG2113597 8x	0814_26	1671815	924608.50	685366.60
L1645564-15 WG2113597 8.24x	0814_27	1480658	776824.50	662276.40

- <sup>1</sup>Cp
- <sup>2</sup>Tc
- <sup>3</sup>Ss
- <sup>4</sup>Cn
- <sup>5</sup>Sr
- <sup>6</sup>Qc
- <sup>7</sup>Is
- <sup>8</sup>Gl
- <sup>9</sup>Al
- <sup>10</sup>Sc

# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

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

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

### Abbreviations and Definitions

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

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.



# 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 <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	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	LA000356
Kentucky <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> 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.

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

Company Name/Address:  
**Stantec- Bellevue, WA**  
 11130 NE 33rd Pl, Ste 200  
 Bellevue, WA 98004

Billing Information:  
**Accounts Payable**  
 11130 NE 33rd Pl, Ste 200  
 Bellevue, WA 98004

Report to:  
**Stantec**  
 Email To: zak.armacost@stantec.com;marc.suaze@stantec.com

Project Description:  
**Hungry Whale Test Pitting**  
 City/State Collected: **Westport, WA**  
 Please Circle:  PT  MT  CT  ET

Phone: **425-869-9448**  
 Client Project # **145751446**  
 Lab Project # **STANTECBWA-HUNGRY**

Collected by (print): **Paul Jarney**  
 Site/Facility ID #  
 P.O. #

Collected by (signature): **Paul M. Jarney**  
**Rush?** (Lab MUST Be Notified)  
 Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day  
 Date Results Needed  
 No. of Cntrs

Immediately Packed on Ice  N  Y  X

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
UST3-FL-8	G	SS	8	8/9/23	0900	4
UST2-SW4-8	G	SS	8	8/9/23	0915	4
UST2-SW1-8	G	SS	8	8/9/23	0920	4
SP-SI-3	G	SS	-	8/9/23	1210	3
SP-SI-4	G	SS	-	8/10/23	0735	3
UST2-SW2-7	G	SS	7		1040	4
UST2-SW3-7	G	SS	7		1045	4
UST2-FL-11	G	SS	11		1330	4
A1-SW1-4	G	SS	4		1455	4 <sup>3</sup>
A3-SW1-6	G	SS	6		1500	4 <sup>3</sup>

Analysis / Container / Preservative										Chain of Custody Page 1 of 2		
EPH WA 4ozAmb-NoPres	NWTPHDXNOSGT 4ozClr-NoPres	NWTPHGX 40mlAmb/MeOH10ml/Syr	Pb 6010 2ozClr-NoPres	SV8270PAHSIM 4ozClr-NoPres	Total Solids 4ozClr-NoPres	V8260BTEX 40mlAmb/MeOH10ml/Syr	VPH WA 40mlAmb/MeOH10ml/Syr					
Pace PEOPLE ADVANCING SCIENCE <b>MT JULIET, TN</b> 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: <a href="https://info.pacelabs.com/hubs/pas-standard-terms.pdf">https://info.pacelabs.com/hubs/pas-standard-terms.pdf</a>										SDG # <b>L1645564</b> <b>G215</b> Acctnum: <b>STANTECBWA</b> Template: <b>T234672</b> Prelogin: <b>P1013674</b> PM: <b>546 - Jared Starkey</b> PB: <b>7/25/23 CAM</b> Shipped Via: <b>FedEx Standard</b>		
Remarks										Sample # (lab only)		

\* Matrix:  
 SS - Soil AIR - Air F - Filter  
 GW - Groundwater B - Bioassay  
 WW - WasteWater  
 DW - Drinking Water  
 OT - Other

Remarks:  
 pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_  
 Samples returned via:  
 UPS  FedEx  Courier  
 Tracking # **6841 8344 8920**

Sample Receipt Checklist	
COC Seal Present/Intact:	NP <input checked="" type="checkbox"/> Y <input type="checkbox"/> N
COC Signed/Accurate:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Bottles arrive intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Correct bottles used:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Sufficient volume sent:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
If Applicable	
VOA Zero Headspace:	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Preservation Correct/Checked:	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N
RAD Screen <0.5 mR/hr:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N

Relinquished by: (Signature) <b>Paul M. Jarney</b>	Date: <b>8/11/23</b>	Time: <b>1600</b>	Received by: (Signature) <b>FedEx</b>	Trip Blank Received: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <b>2</b>	<input checked="" type="checkbox"/> MeOH <input type="checkbox"/> TBR
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: <b>4.3°C</b> <b>3.140 = 3.1</b>	Bottles Received: <b>54</b>
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <b>[Signature]</b>	Date: <b>8/12/23</b>	Time: <b>0900</b>

Condition:  
 NCF / OK



Company Name/Address:  
**Stantec- Bellevue, WA**  
 11130 NE 33rd Pl, Ste 200  
 Bellevue, WA 98004

Billing Information:  
**Accounts Payable**  
 11130 NE 33rd Pl, Ste 200  
 Bellevue, WA 98004

Pres  
Chk

Report to:  
**Stantec**

Email To:  
 zak.armacost@stantec.com; marc.suaze@stantec.com

Project Description:  
**Hungry Whale Test Pitting**

City/State  
 Collected:

Please Circle:  
 PT MT CT ET

Phone: **425-869-9448**

Client Project #  
**145751446**

Lab Project #  
**STANTECBWA-HUNGRY**

Collected by (print):  
*Paul Jarney*

Site/Facility ID #

P.O. #

Collected by (signature):  
*Paul M. Jarney*

**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

No. of  
 Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
<del>A5-SW1-8</del> A4-SW1-8	G	SS	B	8/10/23	1505	4 <sup>3</sup>
C5-SW4-8	G	SS	B	8/10/23	1510	4 <sup>3</sup>
E5-SW4-8	G	SS	B	8/10/23	1515	3
<del>C5-SW4-8</del> E5-SW1-8-ADD	G	SS	B	8/10/23	1520	3
SP-SI-5	G	SS	-	8/11/23	0610	3
SP-SI-6	G	SS	-	8/11/23	0615	3
TB-01	-	SS	-	8/9/23	-	2
		SS				
		SS				
		SS				

Paul M. Jarney

Analysis / Container / Preservative

EPH WA 4ozAmb-NoPres	NWTPHDXNOSGT 4ozClr-NoPres	NWTPHGX 40mlAmb/MeOH10ml/Syr	Pb 6010 2ozClr-NoPres	SV8270PAHSIM 4ozClr-NoPres	Total Solids 4ozClr-NoPres	V8260BTEX 40mlAmb/MeOH10ml/Syr	VPH WA 40mlAmb/MeOH10ml/Syr
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Chain of Custody Page 2 of 2



**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/hubs/pas-standard-terms.pdf>

SDG #  
 Table #  
 Acctnum: **STANTECBWA**  
 Template: **T234672**  
 Prelogin: **P1013674**  
 PM: **546 - Jared Starkey**  
 PB: **7125/23 Cam**  
 Shipped Via: **FedEX Standard**

Remarks	Sample # (lab only)
	-11
	-12
	-13
	-14
	-15
	-16
	-17

\* Matrix:  
 SS - Soil AIR - Air F - Filter  
 GW - Groundwater B - Bioassay  
 WW - WasteWater  
 DW - Drinking Water  
 OT - Other

Remarks:  
 pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_  
 Samples returned via:  
 \_\_\_ UPS \_\_\_ FedEx \_\_\_ Courier \_\_\_\_\_  
 Tracking # **6841 8344 8920**

Sample Receipt Checklist	
COC Seal Present/Intact: NP	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
COC Signed/Accurate:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Bottles arrive intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Correct bottles used:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Sufficient volume sent:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
If Applicable	
VOA Zero Headspace:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Preservation Correct/Checked:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
RAD Screen <0.5 mR/hr:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N

Relinquished by: (Signature) <i>Paul M. Jarney</i>	Date: 8/11/23	Time: 1600	Received by: (Signature) <i>FedEx</i>	Trip Blank Received: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (HCl/ MeOH TBR)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: <i>3.120 = 3.1</i> Bottles Received: <i>54</i>
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i>	Date: <i>8.17.23</i> Time: <i>0800</i>

If preservation required by Login: Date/Time  
 Hold:  
 Condition:  
 NCF / OK

September 11, 2023

Revised Report

## Stantec- Bellevue, WA

Sample Delivery Group: L1646084  
Samples Received: 08/15/2023  
Project Number: 185751446  
Description: Hungry Whale Test Pitting

Report To: Stantec  
11130 NE 33rd Pl, Ste 200  
Bellevue, WA 98004

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Entire Report Reviewed By:



Jared Starkey  
Project Manager

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

Pace Analytical National

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



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<sup>1</sup> Cp
<sup>2</sup> Tc
<sup>3</sup> Ss
<sup>4</sup> Cn
<sup>5</sup> Sr
<sup>6</sup> Qc
<sup>7</sup> Is
<sup>8</sup> Gl
<sup>9</sup> Al
<sup>10</sup> Sc

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# SAMPLE SUMMARY

## A3-FL-12 L1646084-01 Solid

Collected by Paul Janney      Collected date/time 08/14/23 04:15      Received date/time 08/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2114863	1	08/16/23 07:50	08/16/23 08:01	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2115004	25	08/14/23 04:15	08/16/23 14:49	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2114768	1	08/14/23 04:15	08/15/23 23:04	JHH	Mt. Juliet, TN



## A1-FL-14 L1646084-02 Solid

Collected by Paul Janney      Collected date/time 08/14/23 04:45      Received date/time 08/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2114863	1	08/16/23 07:50	08/16/23 08:01	CMK	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2114752	1	08/16/23 01:45	08/17/23 20:52	CCE	Mt. Juliet, TN
Volatile Petroleum Hydrocarbons by Method VPHWA	WG2115532	4.32	08/14/23 04:45	08/17/23 12:57	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2115004	25	08/14/23 04:45	08/16/23 15:12	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2114768	1	08/14/23 04:45	08/15/23 23:25	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2114887	1	08/16/23 22:33	08/17/23 11:13	KAP	Mt. Juliet, TN
TPH by Method EPH	WG2116010	1	08/16/23 16:29	08/18/23 14:59	JDG	Mt. Juliet, TN
TPH by Method EPH	WG2116010	1	08/16/23 16:29	08/18/23 15:21	JDG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2114852	1	08/16/23 17:13	08/17/23 05:53	DSH	Mt. Juliet, TN

## A2-FL-14 L1646084-03 Solid

Collected by Paul Janney      Collected date/time 08/14/23 05:15      Received date/time 08/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2114863	1	08/16/23 07:50	08/16/23 08:01	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2115004	25	08/14/23 05:15	08/16/23 15:34	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2114768	1.02	08/14/23 05:15	08/15/23 23:47	JHH	Mt. Juliet, TN

## A3-SW1-13 L1646084-04 Solid

Collected by Paul Janney      Collected date/time 08/14/23 05:20      Received date/time 08/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2114864	1	08/16/23 07:39	08/16/23 07:45	CMK	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2114752	1	08/16/23 01:45	08/17/23 20:55	CCE	Mt. Juliet, TN
Volatile Petroleum Hydrocarbons by Method VPHWA	WG2115532	1.4	08/14/23 05:20	08/17/23 12:23	ADM	Mt. Juliet, TN
Volatile Petroleum Hydrocarbons by Method VPHWA	WG2116517	1.05	08/14/23 05:20	08/29/23 03:53	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2115004	27.3	08/14/23 05:20	08/16/23 15:57	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2114768	1.05	08/14/23 05:20	08/16/23 00:08	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2114887	1	08/16/23 22:33	08/17/23 11:00	KAP	Mt. Juliet, TN
TPH by Method EPH	WG2116010	1	08/16/23 16:29	08/18/23 11:54	JDG	Mt. Juliet, TN
TPH by Method EPH	WG2116010	1	08/16/23 16:29	08/18/23 14:36	JDG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2114852	1	08/16/23 17:13	08/17/23 06:13	DSH	Mt. Juliet, TN

## A2-FL-14-ADD L1646084-05 Solid

Collected by Paul Janney      Collected date/time 08/14/23 05:50      Received date/time 08/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2114864	1	08/16/23 07:39	08/16/23 07:45	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2115004	25.3	08/14/23 05:50	08/16/23 16:19	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2114768	1	08/14/23 05:50	08/16/23 00:29	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2116697	1	08/14/23 05:50	08/18/23 12:34	DWR	Mt. Juliet, TN

# SAMPLE SUMMARY

## A4-SW1-13 L1646084-06 Solid

Collected by Paul Janney      Collected date/time 08/14/23 06:00      Received date/time 08/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2114864	1	08/16/23 07:39	08/16/23 07:45	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2115004	25	08/14/23 06:00	08/16/23 16:42	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2114768	1	08/14/23 06:00	08/16/23 00:51	JHH	Mt. Juliet, TN



## SP-SI-7 L1646084-07 Solid

Collected by Paul Janney      Collected date/time 08/14/23 06:10      Received date/time 08/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2114864	1	08/16/23 07:39	08/16/23 07:45	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2116530	348	08/14/23 06:10	08/18/23 14:17	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2114768	1	08/14/23 06:10	08/16/23 01:12	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2116697	10	08/14/23 06:10	08/18/23 14:09	DWR	Mt. Juliet, TN

## B1-FL-15 L1646084-08 Solid

Collected by Paul Janney      Collected date/time 08/14/23 06:40      Received date/time 08/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2114864	1	08/16/23 07:39	08/16/23 07:45	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2116530	25	08/14/23 06:40	08/18/23 13:41	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2114768	1	08/14/23 06:40	08/16/23 01:34	JHH	Mt. Juliet, TN

## B2-FL-13 L1646084-09 Solid

Collected by Paul Janney      Collected date/time 08/14/23 06:50      Received date/time 08/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2114864	1	08/16/23 07:39	08/16/23 07:45	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2116530	25	08/14/23 06:50	08/18/23 13:59	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2114768	1	08/14/23 06:50	08/16/23 01:56	JHH	Mt. Juliet, TN

## B2-FL-15-ADD L1646084-10 Solid

Collected by Paul Janney      Collected date/time 08/14/23 07:00      Received date/time 08/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2114864	1	08/16/23 07:39	08/16/23 07:45	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2115004	25	08/14/23 07:00	08/16/23 18:34	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2114768	1	08/14/23 07:00	08/16/23 02:18	JHH	Mt. Juliet, TN

## B3-FL-15 L1646084-11 Solid

Collected by Paul Janney      Collected date/time 08/14/23 07:05      Received date/time 08/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2114864	1	08/16/23 07:39	08/16/23 07:45	CMK	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2114752	1	08/16/23 01:45	08/17/23 20:57	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2115004	25	08/14/23 07:05	08/16/23 19:27	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2114768	1	08/14/23 07:05	08/16/23 02:39	JHH	Mt. Juliet, TN

# SAMPLE SUMMARY

## B4-FL-15 L1646084-12 Solid

Collected by Paul Janney      Collected date/time 08/14/23 07:15      Received date/time 08/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2114864	1	08/16/23 07:39	08/16/23 07:45	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2115004	25	08/14/23 07:15	08/16/23 19:49	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2114768	1	08/14/23 07:15	08/16/23 03:01	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2116697	1	08/14/23 07:15	08/18/23 12:53	DWR	Mt. Juliet, TN

## A4-SW4-12 L1646084-13 Solid

Collected by Paul Janney      Collected date/time 08/14/23 07:25      Received date/time 08/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2114864	1	08/16/23 07:39	08/16/23 07:45	CMK	Mt. Juliet, TN
Volatile Petroleum Hydrocarbons by Method VPHWA	WG2115532	4	08/14/23 07:25	08/17/23 13:32	ADM	Mt. Juliet, TN
Volatile Petroleum Hydrocarbons by Method VPHWA	WG2116517	4	08/14/23 07:25	08/29/23 04:27	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2116530	500	08/14/23 07:25	08/18/23 14:35	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2114768	8	08/14/23 07:25	08/16/23 05:31	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2116697	80	08/14/23 07:25	08/18/23 14:28	DWR	Mt. Juliet, TN
TPH by Method EPH	WG2116010	1	08/16/23 16:29	08/18/23 12:16	JDG	Mt. Juliet, TN
TPH by Method EPH	WG2116010	1	08/16/23 16:29	08/18/23 14:14	JDG	Mt. Juliet, TN
TPH by Method EPH	WG2116010	5	08/16/23 16:29	08/18/23 16:27	JDG	Mt. Juliet, TN

## B5-SW4-12 L1646084-14 Solid

Collected by Paul Janney      Collected date/time 08/14/23 07:55      Received date/time 08/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2114865	1	08/16/23 07:23	08/16/23 07:32	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2115004	100	08/14/23 07:55	08/16/23 22:29	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2114768	8	08/14/23 07:55	08/16/23 05:53	JHH	Mt. Juliet, TN

## C3-FL-15 L1646084-15 Solid

Collected by Paul Janney      Collected date/time 08/14/23 08:10      Received date/time 08/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2114865	1	08/16/23 07:23	08/16/23 07:32	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2115004	25	08/14/23 08:10	08/16/23 20:12	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2114768	1	08/14/23 08:10	08/16/23 03:22	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2116697	1	08/14/23 08:10	08/18/23 13:12	DWR	Mt. Juliet, TN

## C4-FL-15 L1646084-16 Solid

Collected by Paul Janney      Collected date/time 08/14/23 08:20      Received date/time 08/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2114865	1	08/16/23 07:23	08/16/23 07:32	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2115004	25	08/14/23 08:20	08/16/23 20:34	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2114768	1	08/14/23 08:20	08/16/23 03:44	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2116697	1	08/14/23 08:20	08/18/23 13:31	DWR	Mt. Juliet, TN



# SAMPLE SUMMARY

## B1-SW2-12 L1646084-17 Solid

Collected by Paul Janney      Collected date/time 08/14/23 08:30      Received date/time 08/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2114865	1	08/16/23 07:23	08/16/23 07:32	CMK	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2114752	1	08/16/23 01:45	08/17/23 21:05	CCE	Mt. Juliet, TN
Volatile Petroleum Hydrocarbons by Method VPHWA	WG2120661	4	08/14/23 08:30	08/29/23 09:01	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2115004	25	08/14/23 08:30	08/16/23 21:21	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2114768	1	08/14/23 08:30	08/16/23 04:05	JHH	Mt. Juliet, TN
TPH by Method EPH	WG2116010	1	08/16/23 16:29	08/18/23 12:38	JDG	Mt. Juliet, TN
TPH by Method EPH	WG2116010	1	08/16/23 16:29	08/18/23 13:44	JDG	Mt. Juliet, TN



## SP-SI-8 L1646084-18 Solid

Collected by Paul Janney      Collected date/time 08/14/23 08:35      Received date/time 08/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2114865	1	08/16/23 07:23	08/16/23 07:32	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2116530	505	08/14/23 08:35	08/18/23 14:54	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2114768	1	08/14/23 08:35	08/16/23 04:27	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2116697	20	08/14/23 08:35	08/18/23 14:47	DWR	Mt. Juliet, TN

## C2-FL-15-ADD L1646084-19 Solid

Collected by Paul Janney      Collected date/time 08/14/23 09:15      Received date/time 08/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2114865	1	08/16/23 07:23	08/16/23 07:32	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2116631	25	08/14/23 09:15	08/18/23 13:22	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2116697	1	08/14/23 09:15	08/18/23 13:50	DWR	Mt. Juliet, TN

## C2-FL-15 L1646084-20 Solid

Collected by Paul Janney      Collected date/time 08/14/23 09:40      Received date/time 08/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2114865	1	08/16/23 07:23	08/16/23 07:32	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2115568	25	08/14/23 09:40	08/17/23 03:24	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2114768	1	08/14/23 09:40	08/16/23 05:09	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2116697	10	08/14/23 09:40	08/18/23 15:05	DWR	Mt. Juliet, TN

## C1-FL-15 L1646084-21 Solid

Collected by Paul Janney      Collected date/time 08/14/23 09:50      Received date/time 08/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2114865	1	08/16/23 07:23	08/16/23 07:32	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2115568	25	08/14/23 09:50	08/17/23 03:47	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2115218	1	08/14/23 09:50	08/16/23 13:57	DWR	Mt. Juliet, TN

## C1-SW2-12 L1646084-22 Solid

Collected by Paul Janney      Collected date/time 08/14/23 10:20      Received date/time 08/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2114865	1	08/16/23 07:23	08/16/23 07:32	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2115568	25	08/14/23 10:20	08/17/23 04:10	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2115218	1	08/14/23 10:20	08/16/23 14:16	DWR	Mt. Juliet, TN



# SAMPLE SUMMARY

## SP-SI-9 L1646084-23 Solid

Collected by Paul Janney      Collected date/time 08/14/23 10:30      Received date/time 08/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2114865	1	08/16/23 07:23	08/16/23 07:32	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2115568	100	08/14/23 10:30	08/17/23 06:06	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2115218	8	08/14/23 10:30	08/16/23 16:26	DWR	Mt. Juliet, TN



## D2-FL-15 L1646084-24 Solid

Collected by Paul Janney      Collected date/time 08/14/23 12:25      Received date/time 08/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2114866	1	08/16/23 08:37	08/16/23 08:44	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2115568	25	08/14/23 12:25	08/17/23 04:33	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2115218	1	08/14/23 12:25	08/16/23 14:34	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2116565	8	08/14/23 12:25	08/18/23 12:45	JHH	Mt. Juliet, TN

## D3-FL-15 L1646084-25 Solid

Collected by Paul Janney      Collected date/time 08/14/23 12:45      Received date/time 08/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2114866	1	08/16/23 08:37	08/16/23 08:44	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2115568	25	08/14/23 12:45	08/17/23 04:56	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2115218	1	08/14/23 12:45	08/16/23 14:53	DWR	Mt. Juliet, TN

## DUP-02 L1646084-26 Solid

Collected by Paul Janney      Collected date/time 08/14/23 00:00      Received date/time 08/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2114866	1	08/16/23 08:37	08/16/23 08:44	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2115568	25	08/14/23 00:00	08/17/23 05:20	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2115218	1.03	08/14/23 00:00	08/16/23 15:12	DWR	Mt. Juliet, TN

## DUP-03 L1646084-27 Solid

Collected by Paul Janney      Collected date/time 08/14/23 00:00      Received date/time 08/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2114866	1	08/16/23 08:37	08/16/23 08:44	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2115568	25	08/14/23 00:00	08/17/23 05:43	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2115218	1	08/14/23 00:00	08/16/23 15:30	DWR	Mt. Juliet, TN

## TB-01 L1646084-28 GW

Collected by Paul Janney      Collected date/time 08/14/23 00:00      Received date/time 08/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2115046	1	08/16/23 12:37	08/16/23 12:37	BAM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2114625	1	08/16/23 01:22	08/16/23 01:22	DYW	Mt. Juliet, TN

# CASE NARRATIVE

Unless qualified or notated within the narrative below, all sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. 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.

Jared Starkey  
Project Manager

## Report Revision History

Level II Report - Version 1: 08/30/23 14:11



## Project Comments

ID Corrections

## Volatile Petroleum Hydrocarbons by Method VPHWA

The same analyte is found in the associated blank.

Batch	Analyte	Lab Sample ID
WG2115532	Adjusted C6-C8 Aliphatics	L1646084-04
WG2115532	Unadjusted C6-C8 Aliphatics	L1646084-04
WG2116517	Adjusted C5-C6 Aliphatics	L1646084-04
WG2116517	Unadjusted C5-C6 Aliphatics	L1646084-04

The associated batch QC was above the established quality control range for accuracy.

Batch	Lab Sample ID	Analytes
WG2115532	(LCS) R3962306-2, (LCSD) R3962306-3, L1646084-02	Unadjusted C5-C6 Aliphatics and Unadjusted C8-C10 Aliphatics

## Volatile Organic Compounds (GC) by Method NWTPHGX

The same analyte is found in the associated blank.

Batch	Analyte	Lab Sample ID
WG2115004	Gasoline Range Organics-NWTPH	L1646084-01, 03, 05, 06, 12, 15, 16
WG2115568	Gasoline Range Organics-NWTPH	L1646084-21, 25, 26, 27

## TPH by Method EPH

Surrogate recovery limits have been exceeded; values are outside lower control limits.

Batch	Analyte	Lab Sample ID
WG2116010	1-Chloro-octadecane	(MS) R3962736-7, L1646084-02, 04, 13, 17
WG2116010	o-Terphenyl	(MS) R3962736-10, L1646084-02, 04, 13, 17

# CASE NARRATIVE

## TPH by Method EPH

The same analyte is found in the associated blank.

Batch	Analyte	Lab Sample ID
WG2116010	C12-C16 Aliphatics	L1646084-04, 17
WG2116010	C21-C34 Aliphatics	L1646084-02, 04, 13, 17

The associated batch QC was below the established quality control range for accuracy.

Batch	Lab Sample ID	Analytes
WG2116010	(LCS) R3962736-5, L1646084-02, 04, 13, 17	C12-C16 Aromatics

The sample matrix interfered with the ability to make any accurate determination; spike value is low.

Batch	Lab Sample ID	Analytes
WG2116010	(MS) R3962736-10, (MS) R3962736-7, (MSD) R3962736-9	C10-C12 Aromatics, C12-C16 Aliphatics, C12-C16 Aromatics, C16-C21 Aliphatics, C16-C21 Aromatics, C21-C34 Aliphatics and C21-C34 Aromatics

The associated batch QC was outside the established quality control range for precision.

Batch	Lab Sample ID	Analytes
WG2116010	(MSD) R3962736-8, (MSD) R3962736-9	C16-C21 Aliphatics, C21-C34 Aliphatics and C21-C34 Aromatics

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

Surrogate recovery limits have been exceeded; values are outside upper control limits.

Batch	Analyte	Lab Sample ID
WG2114852	Nitrobenzene-d5	(LCS) R3962637-1

The associated batch QC was outside the established quality control range for precision.

Batch	Lab Sample ID	Analytes
WG2114852	(MSD) R3962637-4	1-Methylnaphthalene, 2-Methylnaphthalene and Naphthalene



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	78.4		1	08/16/2023 08:01	<a href="#">WG2114863</a>

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

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	3.87	<a href="#">B J</a>	1.33	3.93	25	08/16/2023 14:49	<a href="#">WG2115004</a>
(S) a,a,a-Trifluorotoluene(FID)	93.8			77.0-120		08/16/2023 14:49	<a href="#">WG2115004</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	U		0.000738	0.00158	1	08/15/2023 23:04	<a href="#">WG2114768</a>
Toluene	0.0110		0.00205	0.00790	1	08/15/2023 23:04	<a href="#">WG2114768</a>
Ethylbenzene	0.00672		0.00116	0.00395	1	08/15/2023 23:04	<a href="#">WG2114768</a>
Total Xylenes	0.0359		0.00139	0.0103	1	08/15/2023 23:04	<a href="#">WG2114768</a>
(S) Toluene-d8	91.7			75.0-131		08/15/2023 23:04	<a href="#">WG2114768</a>
(S) 4-Bromofluorobenzene	100			67.0-138		08/15/2023 23:04	<a href="#">WG2114768</a>
(S) 1,2-Dichloroethane-d4	91.9			70.0-130		08/15/2023 23:04	<a href="#">WG2114768</a>

## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	79.2		1	08/16/2023 08:01	<a href="#">WG2114863</a>

## Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Lead	1.50		0.263	0.631	1	08/17/2023 20:52	<a href="#">WG2114752</a>

## Volatile Petroleum Hydrocarbons by Method VPHWA

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Unadjusted C5-C6 Aliphatics	U	<a href="#">J4</a>	10.8	32.5	4.32	08/17/2023 12:57	<a href="#">WG2115532</a>
Adjusted C5-C6 Aliphatics	U		10.8	32.5	4.32	08/17/2023 12:57	<a href="#">WG2115532</a>
Unadjusted C6-C8 Aliphatics	U		2.97	32.5	4.32	08/17/2023 12:57	<a href="#">WG2115532</a>
Adjusted C6-C8 Aliphatics	U		2.97	32.5	4.32	08/17/2023 12:57	<a href="#">WG2115532</a>
Unadjusted C8-C10 Aliphatics	U	<a href="#">J4</a>	10.8	32.5	4.32	08/17/2023 12:57	<a href="#">WG2115532</a>
Adjusted C8-C10 Aliphatics	U		10.8	32.5	4.32	08/17/2023 12:57	<a href="#">WG2115532</a>
C8-C10 Aromatics	U		3.61	32.5	4.32	08/17/2023 12:57	<a href="#">WG2115532</a>
(S) 2,5-Dibromotoluene(FID)	93.7			60.0-140		08/17/2023 12:57	<a href="#">WG2115532</a>
(S) 2,5-Dibromotoluene(PID)	89.1			60.0-140		08/17/2023 12:57	<a href="#">WG2115532</a>

## Sample Narrative:

L1646084-02 WG2115532: Lowest possible dilution due to sample foaming.

## Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	U		1.33	3.92	25	08/16/2023 15:12	<a href="#">WG2115004</a>
(S) a,a,a-Trifluorotoluene(FID)	93.5			77.0-120		08/16/2023 15:12	<a href="#">WG2115004</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.00418		0.000733	0.00157	1	08/15/2023 23:25	<a href="#">WG2114768</a>
Toluene	0.0256		0.00204	0.00785	1	08/15/2023 23:25	<a href="#">WG2114768</a>
Ethylbenzene	0.0182		0.00116	0.00393	1	08/15/2023 23:25	<a href="#">WG2114768</a>
Total Xylenes	0.0757		0.00138	0.0102	1	08/15/2023 23:25	<a href="#">WG2114768</a>
(S) Toluene-d8	99.1			75.0-131		08/15/2023 23:25	<a href="#">WG2114768</a>
(S) 4-Bromofluorobenzene	103			67.0-138		08/15/2023 23:25	<a href="#">WG2114768</a>
(S) 1,2-Dichloroethane-d4	100			70.0-130		08/15/2023 23:25	<a href="#">WG2114768</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Diesel Range Organics (DRO)	U		1.68	5.05	1	08/17/2023 11:13	<a href="#">WG2114887</a>
Residual Range Organics (RRO)	U		4.21	12.6	1	08/17/2023 11:13	<a href="#">WG2114887</a>
(S) o-Terphenyl	63.3			18.0-148		08/17/2023 11:13	<a href="#">WG2114887</a>



## TPH by Method EPH

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C12 Aliphatics	U		2.12	6.31	1	08/18/2023 15:21	<a href="#">WG2116010</a>
C12-C16 Aliphatics	U		2.12	6.31	1	08/18/2023 15:21	<a href="#">WG2116010</a>
C16-C21 Aliphatics	U		2.12	6.31	1	08/18/2023 15:21	<a href="#">WG2116010</a>
C21-C34 Aliphatics	4.08	<u>BJ</u>	2.12	6.31	1	08/18/2023 15:21	<a href="#">WG2116010</a>
C10-C12 Aromatics	U		2.68	6.31	1	08/18/2023 14:59	<a href="#">WG2116010</a>
C12-C16 Aromatics	U	<u>J4</u>	2.68	6.31	1	08/18/2023 14:59	<a href="#">WG2116010</a>
C16-C21 Aromatics	U		2.68	6.31	1	08/18/2023 14:59	<a href="#">WG2116010</a>
C21-C34 Aromatics	U		2.68	6.31	1	08/18/2023 14:59	<a href="#">WG2116010</a>
(S) o-Terphenyl	66.7	<u>J2</u>		70.0-130		08/18/2023 14:59	<a href="#">WG2116010</a>
(S) 1-Chloro-octadecane	64.2	<u>J2</u>		70.0-130		08/18/2023 15:21	<a href="#">WG2116010</a>
(S) 2-Fluorobiphenyl	87.0			70.0-130		08/18/2023 14:59	<a href="#">WG2116010</a>
(S) 2-Bromonaphthalene	89.2			70.0-130		08/18/2023 14:59	<a href="#">WG2116010</a>

## 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		0.00290	0.00758	1	08/17/2023 05:53	<a href="#">WG2114852</a>
Acenaphthene	U		0.00264	0.00758	1	08/17/2023 05:53	<a href="#">WG2114852</a>
Acenaphthylene	U		0.00273	0.00758	1	08/17/2023 05:53	<a href="#">WG2114852</a>
Benzo(a)anthracene	U		0.00218	0.00758	1	08/17/2023 05:53	<a href="#">WG2114852</a>
Benzo(a)pyrene	U		0.00226	0.00758	1	08/17/2023 05:53	<a href="#">WG2114852</a>
Benzo(b)fluoranthene	U		0.00193	0.00758	1	08/17/2023 05:53	<a href="#">WG2114852</a>
Benzo(g,h,i)perylene	U		0.00224	0.00758	1	08/17/2023 05:53	<a href="#">WG2114852</a>
Benzo(k)fluoranthene	U		0.00272	0.00758	1	08/17/2023 05:53	<a href="#">WG2114852</a>
Chrysene	U		0.00293	0.00758	1	08/17/2023 05:53	<a href="#">WG2114852</a>
Dibenz(a,h)anthracene	U		0.00217	0.00758	1	08/17/2023 05:53	<a href="#">WG2114852</a>
Fluoranthene	U		0.00287	0.00758	1	08/17/2023 05:53	<a href="#">WG2114852</a>
Fluorene	U		0.00259	0.00758	1	08/17/2023 05:53	<a href="#">WG2114852</a>
Indeno(1,2,3-cd)pyrene	U		0.00229	0.00758	1	08/17/2023 05:53	<a href="#">WG2114852</a>
Naphthalene	0.0351		0.00515	0.0253	1	08/17/2023 05:53	<a href="#">WG2114852</a>
Phenanthrene	U		0.00292	0.00758	1	08/17/2023 05:53	<a href="#">WG2114852</a>
Pyrene	U		0.00253	0.00758	1	08/17/2023 05:53	<a href="#">WG2114852</a>
1-Methylnaphthalene	0.0272		0.00567	0.0253	1	08/17/2023 05:53	<a href="#">WG2114852</a>
2-Methylnaphthalene	0.0533		0.00539	0.0253	1	08/17/2023 05:53	<a href="#">WG2114852</a>
2-Chloronaphthalene	U		0.00588	0.0253	1	08/17/2023 05:53	<a href="#">WG2114852</a>
(S) p-Terphenyl-d14	82.7			23.0-120		08/17/2023 05:53	<a href="#">WG2114852</a>
(S) Nitrobenzene-d5	148			14.0-149		08/17/2023 05:53	<a href="#">WG2114852</a>
(S) 2-Fluorobiphenyl	61.7			34.0-125		08/17/2023 05:53	<a href="#">WG2114852</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	79.2		1	08/16/2023 08:01	<a href="#">WG2114863</a>

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

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	2.04	<u>B J</u>	1.30	3.84	25	08/16/2023 15:34	<a href="#">WG2115004</a>
(S) a,a,a-Trifluorotoluene(FID)	93.9			77.0-120		08/16/2023 15:34	<a href="#">WG2115004</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	U		0.000725	0.00155	1.02	08/15/2023 23:47	<a href="#">WG2114768</a>
Toluene	0.00323	<u>J</u>	0.00202	0.00776	1.02	08/15/2023 23:47	<a href="#">WG2114768</a>
Ethylbenzene	U		0.00114	0.00388	1.02	08/15/2023 23:47	<a href="#">WG2114768</a>
Total Xylenes	0.00671	<u>J</u>	0.00137	0.0101	1.02	08/15/2023 23:47	<a href="#">WG2114768</a>
(S) Toluene-d8	98.0			75.0-131		08/15/2023 23:47	<a href="#">WG2114768</a>
(S) 4-Bromofluorobenzene	103			67.0-138		08/15/2023 23:47	<a href="#">WG2114768</a>
(S) 1,2-Dichloroethane-d4	99.7			70.0-130		08/15/2023 23:47	<a href="#">WG2114768</a>

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	85.9		1	08/16/2023 07:45	<a href="#">WG2114864</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Lead	1.73		0.242	0.582	1	08/17/2023 20:55	<a href="#">WG2114752</a>

Volatile Petroleum Hydrocarbons by Method VPHWA

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Unadjusted C5-C6 Aliphatics	4.50	<a href="#">B J</a>	2.31	6.93	1.05	08/29/2023 03:53	<a href="#">WG2116517</a>
Adjusted C5-C6 Aliphatics	4.50	<a href="#">B J</a>	2.31	6.93	1.05	08/29/2023 03:53	<a href="#">WG2116517</a>
Unadjusted C6-C8 Aliphatics	6.20	<a href="#">B J</a>	0.816	8.97	1.4	08/17/2023 12:23	<a href="#">WG2115532</a>
Adjusted C6-C8 Aliphatics	6.20	<a href="#">B J</a>	0.816	8.97	1.4	08/17/2023 12:23	<a href="#">WG2115532</a>
Unadjusted C8-C10 Aliphatics	7.25		2.31	6.93	1.05	08/29/2023 03:53	<a href="#">WG2116517</a>
Adjusted C8-C10 Aliphatics	3.81	<a href="#">J</a>	2.31	6.93	1.05	08/29/2023 03:53	<a href="#">WG2116517</a>
C8-C10 Aromatics	25.5		0.995	8.97	1.4	08/17/2023 12:23	<a href="#">WG2115532</a>
(S) 2,5-Dibromotoluene(FID)	93.3			60.0-140		08/17/2023 12:23	<a href="#">WG2115532</a>
(S) 2,5-Dibromotoluene(FID)	75.5			60.0-140		08/29/2023 03:53	<a href="#">WG2116517</a>
(S) 2,5-Dibromotoluene(PID)	86.9			60.0-140		08/17/2023 12:23	<a href="#">WG2115532</a>
(S) 2,5-Dibromotoluene(PID)	85.6			60.0-140		08/29/2023 03:53	<a href="#">WG2116517</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	73.0		1.22	3.59	27.3	08/16/2023 15:57	<a href="#">WG2115004</a>
(S) a,a,a-Trifluorotoluene(FID)	92.3			77.0-120		08/16/2023 15:57	<a href="#">WG2115004</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.00226		0.000647	0.00139	1.05	08/16/2023 00:08	<a href="#">WG2114768</a>
Toluene	0.105		0.00179	0.00693	1.05	08/16/2023 00:08	<a href="#">WG2114768</a>
Ethylbenzene	0.532		0.00102	0.00347	1.05	08/16/2023 00:08	<a href="#">WG2114768</a>
Total Xylenes	2.80		0.00122	0.00901	1.05	08/16/2023 00:08	<a href="#">WG2114768</a>
(S) Toluene-d8	98.9			75.0-131		08/16/2023 00:08	<a href="#">WG2114768</a>
(S) 4-Bromofluorobenzene	103			67.0-138		08/16/2023 00:08	<a href="#">WG2114768</a>
(S) 1,2-Dichloroethane-d4	95.9			70.0-130		08/16/2023 00:08	<a href="#">WG2114768</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Diesel Range Organics (DRO)	6.42		1.55	4.66	1	08/17/2023 11:00	<a href="#">WG2114887</a>
Residual Range Organics (RRO)	U		3.88	11.6	1	08/17/2023 11:00	<a href="#">WG2114887</a>
(S) o-Terphenyl	63.3			18.0-148		08/17/2023 11:00	<a href="#">WG2114887</a>

Sample Narrative:

L1646084-04 WG2114887: Sample resembles laboratory standard for Kerosene.





TPH by Method EPH

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C12 Aliphatics	U		1.96	5.82	1	08/18/2023 11:54	<a href="#">WG2116010</a>
C12-C16 Aliphatics	1.99	<u>BJ</u>	1.96	5.82	1	08/18/2023 11:54	<a href="#">WG2116010</a>
C16-C21 Aliphatics	U		1.96	5.82	1	08/18/2023 11:54	<a href="#">WG2116010</a>
C21-C34 Aliphatics	3.74	<u>BJ</u>	1.96	5.82	1	08/18/2023 11:54	<a href="#">WG2116010</a>
C10-C12 Aromatics	U		2.47	5.82	1	08/18/2023 14:36	<a href="#">WG2116010</a>
C12-C16 Aromatics	U	<u>J4</u>	2.47	5.82	1	08/18/2023 14:36	<a href="#">WG2116010</a>
C16-C21 Aromatics	U		2.47	5.82	1	08/18/2023 14:36	<a href="#">WG2116010</a>
C21-C34 Aromatics	U		2.47	5.82	1	08/18/2023 14:36	<a href="#">WG2116010</a>
(S) o-Terphenyl	63.7	<u>J2</u>		70.0-130		08/18/2023 14:36	<a href="#">WG2116010</a>
(S) 1-Chloro-octadecane	65.6	<u>J2</u>		70.0-130		08/18/2023 11:54	<a href="#">WG2116010</a>
(S) 2-Fluorobiphenyl	85.5			70.0-130		08/18/2023 14:36	<a href="#">WG2116010</a>
(S) 2-Bromonaphthalene	88.4			70.0-130		08/18/2023 14:36	<a href="#">WG2116010</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

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	08/17/2023 06:13	<a href="#">WG2114852</a>
Acenaphthene	0.00263	<u>J</u>	0.00243	0.00698	1	08/17/2023 06:13	<a href="#">WG2114852</a>
Acenaphthylene	U		0.00251	0.00698	1	08/17/2023 06:13	<a href="#">WG2114852</a>
Benzo(a)anthracene	U		0.00201	0.00698	1	08/17/2023 06:13	<a href="#">WG2114852</a>
Benzo(a)pyrene	U		0.00208	0.00698	1	08/17/2023 06:13	<a href="#">WG2114852</a>
Benzo(b)fluoranthene	U		0.00178	0.00698	1	08/17/2023 06:13	<a href="#">WG2114852</a>
Benzo(g,h,i)perylene	U		0.00206	0.00698	1	08/17/2023 06:13	<a href="#">WG2114852</a>
Benzo(k)fluoranthene	U		0.00250	0.00698	1	08/17/2023 06:13	<a href="#">WG2114852</a>
Chrysene	U		0.00270	0.00698	1	08/17/2023 06:13	<a href="#">WG2114852</a>
Dibenz(a,h)anthracene	U		0.00200	0.00698	1	08/17/2023 06:13	<a href="#">WG2114852</a>
Fluoranthene	U		0.00264	0.00698	1	08/17/2023 06:13	<a href="#">WG2114852</a>
Fluorene	0.00325	<u>J</u>	0.00239	0.00698	1	08/17/2023 06:13	<a href="#">WG2114852</a>
Indeno(1,2,3-cd)pyrene	U		0.00211	0.00698	1	08/17/2023 06:13	<a href="#">WG2114852</a>
Naphthalene	0.670		0.00475	0.0233	1	08/17/2023 06:13	<a href="#">WG2114852</a>
Phenanthrene	0.00547	<u>J</u>	0.00269	0.00698	1	08/17/2023 06:13	<a href="#">WG2114852</a>
Pyrene	U		0.00233	0.00698	1	08/17/2023 06:13	<a href="#">WG2114852</a>
1-Methylnaphthalene	0.562		0.00523	0.0233	1	08/17/2023 06:13	<a href="#">WG2114852</a>
2-Methylnaphthalene	1.23		0.00497	0.0233	1	08/17/2023 06:13	<a href="#">WG2114852</a>
2-Chloronaphthalene	U		0.00542	0.0233	1	08/17/2023 06:13	<a href="#">WG2114852</a>
(S) p-Terphenyl-d14	118			23.0-120		08/17/2023 06:13	<a href="#">WG2114852</a>
(S) Nitrobenzene-d5	127			14.0-149		08/17/2023 06:13	<a href="#">WG2114852</a>
(S) 2-Fluorobiphenyl	97.2			34.0-125		08/17/2023 06:13	<a href="#">WG2114852</a>

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	77.9		1	08/16/2023 07:45	<a href="#">WG2114864</a>

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

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	3.49	<u>B J</u>	1.34	3.96	25.3	08/16/2023 16:19	<a href="#">WG2115004</a>
(S) a,a,a-Trifluorotoluene(FID)	92.9			77.0-120		08/16/2023 16:19	<a href="#">WG2115004</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	U		0.000736	0.00158	1	08/16/2023 00:29	<a href="#">WG2114768</a>
Toluene	0.00410	<u>J</u>	0.00205	0.00788	1	08/16/2023 00:29	<a href="#">WG2114768</a>
Ethylbenzene	0.00181	<u>J</u>	0.00116	0.00394	1	08/18/2023 12:34	<a href="#">WG2116697</a>
Total Xylenes	0.00525	<u>J</u>	0.00139	0.0102	1	08/18/2023 12:34	<a href="#">WG2116697</a>
(S) Toluene-d8	98.3			75.0-131		08/16/2023 00:29	<a href="#">WG2114768</a>
(S) Toluene-d8	100			75.0-131		08/18/2023 12:34	<a href="#">WG2116697</a>
(S) 4-Bromofluorobenzene	104			67.0-138		08/16/2023 00:29	<a href="#">WG2114768</a>
(S) 4-Bromofluorobenzene	99.8			67.0-138		08/18/2023 12:34	<a href="#">WG2116697</a>
(S) 1,2-Dichloroethane-d4	100			70.0-130		08/16/2023 00:29	<a href="#">WG2114768</a>
(S) 1,2-Dichloroethane-d4	98.4			70.0-130		08/18/2023 12:34	<a href="#">WG2116697</a>

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	85.8		1	08/16/2023 07:45	<a href="#">WG2114864</a>

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

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	4.59	<u>B</u>	1.14	3.37	25	08/16/2023 16:42	<a href="#">WG2115004</a>
(S) a,a,a-Trifluorotoluene(FID)	89.6			77.0-120		08/16/2023 16:42	<a href="#">WG2115004</a>

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
Benzene	0.000791	<u>J</u>	0.000622	0.00133	1	08/16/2023 00:51	<a href="#">WG2114768</a>
Toluene	0.0101		0.00173	0.00666	1	08/16/2023 00:51	<a href="#">WG2114768</a>
Ethylbenzene	0.0465		0.000982	0.00333	1	08/16/2023 00:51	<a href="#">WG2114768</a>
Total Xylenes	0.244		0.00117	0.00866	1	08/16/2023 00:51	<a href="#">WG2114768</a>
(S) Toluene-d8	97.2			75.0-131		08/16/2023 00:51	<a href="#">WG2114768</a>
(S) 4-Bromofluorobenzene	100			67.0-138		08/16/2023 00:51	<a href="#">WG2114768</a>
(S) 1,2-Dichloroethane-d4	96.8			70.0-130		08/16/2023 00:51	<a href="#">WG2114768</a>

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	86.9		1	08/16/2023 07:45	<a href="#">WG2114864</a>

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	1330		14.8	43.8	348	08/18/2023 14:17	<a href="#">WG2116530</a>
(S) a,a,a-Trifluorotoluene(FID)	110			77.0-120		08/18/2023 14:17	<a href="#">WG2116530</a>

3 Ss

4 Cn

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.0318		0.000609	0.00130	1	08/16/2023 01:12	<a href="#">WG2114768</a>
Toluene	0.312		0.00170	0.00652	1	08/16/2023 01:12	<a href="#">WG2114768</a>
Ethylbenzene	2.41		0.000962	0.00326	1	08/16/2023 01:12	<a href="#">WG2114768</a>
Total Xylenes	29.7		0.0115	0.0848	10	08/18/2023 14:09	<a href="#">WG2116697</a>
(S) Toluene-d8	87.4			75.0-131		08/16/2023 01:12	<a href="#">WG2114768</a>
(S) Toluene-d8	103			75.0-131		08/18/2023 14:09	<a href="#">WG2116697</a>
(S) 4-Bromofluorobenzene	95.3			67.0-138		08/16/2023 01:12	<a href="#">WG2114768</a>
(S) 4-Bromofluorobenzene	103			67.0-138		08/18/2023 14:09	<a href="#">WG2116697</a>
(S) 1,2-Dichloroethane-d4	95.9			70.0-130		08/16/2023 01:12	<a href="#">WG2114768</a>
(S) 1,2-Dichloroethane-d4	97.2			70.0-130		08/18/2023 14:09	<a href="#">WG2116697</a>

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	80.0		1	08/16/2023 07:45	<a href="#">WG2114864</a>

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

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	142		1.31	3.86	25	08/18/2023 13:41	<a href="#">WG2116530</a>
(S) a,a,a-Trifluorotoluene(FID)	111			77.0-120		08/18/2023 13:41	<a href="#">WG2116530</a>

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
Benzene	0.187		0.000715	0.00153	1	08/16/2023 01:34	<a href="#">WG2114768</a>
Toluene	0.172		0.00199	0.00766	1	08/16/2023 01:34	<a href="#">WG2114768</a>
Ethylbenzene	1.03		0.00113	0.00383	1	08/16/2023 01:34	<a href="#">WG2114768</a>
Total Xylenes	4.95		0.00135	0.00995	1	08/16/2023 01:34	<a href="#">WG2114768</a>
(S) Toluene-d8	97.0			75.0-131		08/16/2023 01:34	<a href="#">WG2114768</a>
(S) 4-Bromofluorobenzene	96.2			67.0-138		08/16/2023 01:34	<a href="#">WG2114768</a>
(S) 1,2-Dichloroethane-d4	95.8			70.0-130		08/16/2023 01:34	<a href="#">WG2114768</a>

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	77.9		1	08/16/2023 07:45	<a href="#">WG2114864</a>

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	24.5		1.37	4.05	25	08/18/2023 13:59	<a href="#">WG2116530</a>
(S) a,a,a-Trifluorotoluene(FID)	105			77.0-120		08/18/2023 13:59	<a href="#">WG2116530</a>

3 Ss

4 Cn

5 Sr

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.0208		0.000753	0.00161	1	08/16/2023 01:56	<a href="#">WG2114768</a>
Toluene	0.145		0.00210	0.00806	1	08/16/2023 01:56	<a href="#">WG2114768</a>
Ethylbenzene	0.218		0.00119	0.00403	1	08/16/2023 01:56	<a href="#">WG2114768</a>
Total Xylenes	1.40		0.00142	0.0105	1	08/16/2023 01:56	<a href="#">WG2114768</a>
(S) Toluene-d8	97.2			75.0-131		08/16/2023 01:56	<a href="#">WG2114768</a>
(S) 4-Bromofluorobenzene	101			67.0-138		08/16/2023 01:56	<a href="#">WG2114768</a>
(S) 1,2-Dichloroethane-d4	96.6			70.0-130		08/16/2023 01:56	<a href="#">WG2114768</a>

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	80.3		1	08/16/2023 07:45	<a href="#">WG2114864</a>

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	72.7		1.30	3.84	25	08/16/2023 18:34	<a href="#">WG2115004</a>
(S) a,a,a-Trifluorotoluene(FID)	90.3			77.0-120		08/16/2023 18:34	<a href="#">WG2115004</a>

3 Ss

4 Cn

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.0374		0.000719	0.00154	1	08/16/2023 02:18	<a href="#">WG2114768</a>
Toluene	0.330		0.00200	0.00770	1	08/16/2023 02:18	<a href="#">WG2114768</a>
Ethylbenzene	0.803		0.00114	0.00385	1	08/16/2023 02:18	<a href="#">WG2114768</a>
Total Xylenes	2.91		0.00136	0.0100	1	08/16/2023 02:18	<a href="#">WG2114768</a>
(S) Toluene-d8	96.9			75.0-131		08/16/2023 02:18	<a href="#">WG2114768</a>
(S) 4-Bromofluorobenzene	99.9			67.0-138		08/16/2023 02:18	<a href="#">WG2114768</a>
(S) 1,2-Dichloroethane-d4	94.7			70.0-130		08/16/2023 02:18	<a href="#">WG2114768</a>

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	80.3		1	08/16/2023 07:45	<a href="#">WG2114864</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Lead	1.93		0.259	0.623	1	08/17/2023 20:57	<a href="#">WG2114752</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	104		1.29	3.80	25	08/16/2023 19:27	<a href="#">WG2115004</a>
(S) a,a,a-Trifluorotoluene(FID)	90.9			77.0-120		08/16/2023 19:27	<a href="#">WG2115004</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.113		0.000727	0.00156	1	08/16/2023 02:39	<a href="#">WG2114768</a>
Toluene	0.425		0.00202	0.00779	1	08/16/2023 02:39	<a href="#">WG2114768</a>
Ethylbenzene	1.13		0.00115	0.00389	1	08/16/2023 02:39	<a href="#">WG2114768</a>
Total Xylenes	3.33		0.00137	0.0101	1	08/16/2023 02:39	<a href="#">WG2114768</a>
(S) Toluene-d8	97.0			75.0-131		08/16/2023 02:39	<a href="#">WG2114768</a>
(S) 4-Bromofluorobenzene	102			67.0-138		08/16/2023 02:39	<a href="#">WG2114768</a>
(S) 1,2-Dichloroethane-d4	93.0			70.0-130		08/16/2023 02:39	<a href="#">WG2114768</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	78.4		1	08/16/2023 07:45	<a href="#">WG2114864</a>

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	2.20	<u>B J</u>	1.34	3.95	25	08/16/2023 19:49	<a href="#">WG2115004</a>
(S) a,a,a-Trifluorotoluene(FID)	93.3			77.0-120		08/16/2023 19:49	<a href="#">WG2115004</a>

3 Ss

4 Cn

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.000790	<u>J</u>	0.000745	0.00160	1	08/16/2023 03:01	<a href="#">WG2114768</a>
Toluene	0.00700	<u>J</u>	0.00207	0.00798	1	08/16/2023 03:01	<a href="#">WG2114768</a>
Ethylbenzene	0.00274	<u>J</u>	0.00118	0.00399	1	08/18/2023 12:53	<a href="#">WG2116697</a>
Total Xylenes	0.0104		0.00140	0.0104	1	08/18/2023 12:53	<a href="#">WG2116697</a>
(S) Toluene-d8	96.4			75.0-131		08/16/2023 03:01	<a href="#">WG2114768</a>
(S) Toluene-d8	102			75.0-131		08/18/2023 12:53	<a href="#">WG2116697</a>
(S) 4-Bromofluorobenzene	103			67.0-138		08/16/2023 03:01	<a href="#">WG2114768</a>
(S) 4-Bromofluorobenzene	99.4			67.0-138		08/18/2023 12:53	<a href="#">WG2116697</a>
(S) 1,2-Dichloroethane-d4	95.8			70.0-130		08/16/2023 03:01	<a href="#">WG2114768</a>
(S) 1,2-Dichloroethane-d4	98.4			70.0-130		08/18/2023 12:53	<a href="#">WG2116697</a>

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	88.9		1	08/16/2023 07:45	<a href="#">WG2114864</a>

Volatile Petroleum Hydrocarbons by Method VPHWA

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Unadjusted C5-C6 Aliphatics	U		8.56	25.7	4	08/29/2023 04:27	<a href="#">WG2116517</a>
Adjusted C5-C6 Aliphatics	U		8.56	25.7	4	08/29/2023 04:27	<a href="#">WG2116517</a>
Unadjusted C6-C8 Aliphatics	205		2.33	25.6	4	08/17/2023 13:32	<a href="#">WG2115532</a>
Adjusted C6-C8 Aliphatics	205		2.33	25.6	4	08/17/2023 13:32	<a href="#">WG2115532</a>
Unadjusted C8-C10 Aliphatics	244		8.56	25.7	4	08/29/2023 04:27	<a href="#">WG2116517</a>
Adjusted C8-C10 Aliphatics	88.1		8.56	25.7	4	08/29/2023 04:27	<a href="#">WG2116517</a>
C8-C10 Aromatics	589		2.84	25.6	4	08/17/2023 13:32	<a href="#">WG2115532</a>
(S) 2,5-Dibromotoluene(FID)	111			60.0-140		08/17/2023 13:32	<a href="#">WG2115532</a>
(S) 2,5-Dibromotoluene(FID)	81.5			60.0-140		08/29/2023 04:27	<a href="#">WG2116517</a>
(S) 2,5-Dibromotoluene(PID)	90.6			60.0-140		08/17/2023 13:32	<a href="#">WG2115532</a>
(S) 2,5-Dibromotoluene(PID)	86.2			60.0-140		08/29/2023 04:27	<a href="#">WG2116517</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	1280		21.7	64.3	500	08/18/2023 14:35	<a href="#">WG2116530</a>
(S) a,a,a-Trifluorotoluene(FID)	107			77.0-120		08/18/2023 14:35	<a href="#">WG2116530</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	1.52		0.00479	0.0102	8	08/16/2023 05:31	<a href="#">WG2114768</a>
Toluene	5.88		0.0133	0.0512	8	08/16/2023 05:31	<a href="#">WG2114768</a>
Ethylbenzene	19.1		0.00756	0.0256	8	08/16/2023 05:31	<a href="#">WG2114768</a>
Total Xylenes	131		0.0902	0.666	80	08/18/2023 14:28	<a href="#">WG2116697</a>
(S) Toluene-d8	96.9			75.0-131		08/16/2023 05:31	<a href="#">WG2114768</a>
(S) Toluene-d8	101			75.0-131		08/18/2023 14:28	<a href="#">WG2116697</a>
(S) 4-Bromofluorobenzene	102			67.0-138		08/16/2023 05:31	<a href="#">WG2114768</a>
(S) 4-Bromofluorobenzene	102			67.0-138		08/18/2023 14:28	<a href="#">WG2116697</a>
(S) 1,2-Dichloroethane-d4	93.7			70.0-130		08/16/2023 05:31	<a href="#">WG2114768</a>
(S) 1,2-Dichloroethane-d4	101			70.0-130		08/18/2023 14:28	<a href="#">WG2116697</a>

TPH by Method EPH

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
C10-C12 Aliphatics	47.5		1.89	5.63	1	08/18/2023 12:16	<a href="#">WG2116010</a>
C12-C16 Aliphatics	27.9		1.89	5.63	1	08/18/2023 12:16	<a href="#">WG2116010</a>
C16-C21 Aliphatics	3.08	J	1.89	5.63	1	08/18/2023 12:16	<a href="#">WG2116010</a>
C21-C34 Aliphatics	22.2	B	1.89	5.63	1	08/18/2023 12:16	<a href="#">WG2116010</a>
C10-C12 Aromatics	127		11.9	28.1	5	08/18/2023 16:27	<a href="#">WG2116010</a>
C12-C16 Aromatics	50.0	J4	2.39	5.63	1	08/18/2023 14:14	<a href="#">WG2116010</a>
C16-C21 Aromatics	8.49		2.39	5.63	1	08/18/2023 14:14	<a href="#">WG2116010</a>
C21-C34 Aromatics	16.3		2.39	5.63	1	08/18/2023 14:14	<a href="#">WG2116010</a>
(S) o-Terphenyl	56.0	J2		70.0-130		08/18/2023 14:14	<a href="#">WG2116010</a>
(S) o-Terphenyl	58.1	J2		70.0-130		08/18/2023 16:27	<a href="#">WG2116010</a>
(S) 1-Chloro-octadecane	54.5	J2		70.0-130		08/18/2023 12:16	<a href="#">WG2116010</a>
(S) 2-Fluorobiphenyl	88.5			70.0-130		08/18/2023 16:27	<a href="#">WG2116010</a>
(S) 2-Fluorobiphenyl	83.8			70.0-130		08/18/2023 14:14	<a href="#">WG2116010</a>
(S) 2-Bromonaphthalene	85.0			70.0-130		08/18/2023 14:14	<a href="#">WG2116010</a>



TPH by Method EPH

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
(S) 2-Bromonaphthalene	73.5			70.0-130		08/18/2023 16:27	<a href="#">WG2116010</a>

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

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	81.4		1	08/16/2023 07:32	<a href="#">WG2114865</a>

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	728		5.15	15.2	100	08/16/2023 22:29	<a href="#">WG2115004</a>
(S) a,a,a-Trifluorotoluene(FID)	90.7			77.0-120		08/16/2023 22:29	<a href="#">WG2115004</a>

3 Ss

4 Cn

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	1.71		0.00561	0.0120	8	08/16/2023 05:53	<a href="#">WG2114768</a>
Toluene	0.145		0.0156	0.0600	8	08/16/2023 05:53	<a href="#">WG2114768</a>
Ethylbenzene	1.01		0.00885	0.0300	8	08/16/2023 05:53	<a href="#">WG2114768</a>
Total Xylenes	27.3		0.0106	0.0780	8	08/16/2023 05:53	<a href="#">WG2114768</a>
(S) Toluene-d8	98.1			75.0-131		08/16/2023 05:53	<a href="#">WG2114768</a>
(S) 4-Bromofluorobenzene	104			67.0-138		08/16/2023 05:53	<a href="#">WG2114768</a>
(S) 1,2-Dichloroethane-d4	101			70.0-130		08/16/2023 05:53	<a href="#">WG2114768</a>

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	79.0		1	08/16/2023 07:32	<a href="#">WG2114865</a>

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

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	5.81	<u>B</u>	1.32	3.90	25	08/16/2023 20:12	<a href="#">WG2115004</a>
(S) a,a,a-Trifluorotoluene(FID)	87.8			77.0-120		08/16/2023 20:12	<a href="#">WG2115004</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.110		0.000732	0.00157	1	08/16/2023 03:22	<a href="#">WG2114768</a>
Toluene	0.00396	<u>J</u>	0.00204	0.00783	1	08/16/2023 03:22	<a href="#">WG2114768</a>
Ethylbenzene	0.00290	<u>J</u>	0.00115	0.00392	1	08/18/2023 13:12	<a href="#">WG2116697</a>
Total Xylenes	0.00868	<u>J</u>	0.00138	0.0102	1	08/18/2023 13:12	<a href="#">WG2116697</a>
(S) Toluene-d8	96.0			75.0-131		08/16/2023 03:22	<a href="#">WG2114768</a>
(S) Toluene-d8	102			75.0-131		08/18/2023 13:12	<a href="#">WG2116697</a>
(S) 4-Bromofluorobenzene	101			67.0-138		08/16/2023 03:22	<a href="#">WG2114768</a>
(S) 4-Bromofluorobenzene	101			67.0-138		08/18/2023 13:12	<a href="#">WG2116697</a>
(S) 1,2-Dichloroethane-d4	95.9			70.0-130		08/16/2023 03:22	<a href="#">WG2114768</a>
(S) 1,2-Dichloroethane-d4	97.4			70.0-130		08/18/2023 13:12	<a href="#">WG2116697</a>

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	76.4		1	08/16/2023 07:32	<a href="#">WG2114865</a>

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	5.58	<u>B</u>	1.40	4.13	25	08/16/2023 20:34	<a href="#">WG2115004</a>
(S) a,a,a-Trifluorotoluene(FID)	93.0			77.0-120		08/16/2023 20:34	<a href="#">WG2115004</a>

3 Ss

4 Cn

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	U		0.000771	0.00165	1	08/16/2023 03:44	<a href="#">WG2114768</a>
Toluene	0.00231	<u>J</u>	0.00215	0.00825	1	08/16/2023 03:44	<a href="#">WG2114768</a>
Ethylbenzene	U		0.00122	0.00413	1	08/16/2023 03:44	<a href="#">WG2114768</a>
Total Xylenes	0.00416	<u>J</u>	0.00145	0.0107	1	08/18/2023 13:31	<a href="#">WG2116697</a>
(S) Toluene-d8	95.4			75.0-131		08/16/2023 03:44	<a href="#">WG2114768</a>
(S) Toluene-d8	104			75.0-131		08/18/2023 13:31	<a href="#">WG2116697</a>
(S) 4-Bromofluorobenzene	104			67.0-138		08/16/2023 03:44	<a href="#">WG2114768</a>
(S) 4-Bromofluorobenzene	101			67.0-138		08/18/2023 13:31	<a href="#">WG2116697</a>
(S) 1,2-Dichloroethane-d4	96.8			70.0-130		08/16/2023 03:44	<a href="#">WG2114768</a>
(S) 1,2-Dichloroethane-d4	93.8			70.0-130		08/18/2023 13:31	<a href="#">WG2116697</a>

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	77.9		1	08/16/2023 07:32	<a href="#">WG2114865</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Lead	1.43		0.267	0.641	1	08/17/2023 21:05	<a href="#">WG2114752</a>

Volatile Petroleum Hydrocarbons by Method VPHWA

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Unadjusted C5-C6 Aliphatics	U		10.5	31.6	4	08/29/2023 09:01	<a href="#">WG2120661</a>
Adjusted C5-C6 Aliphatics	U		10.5	31.6	4	08/29/2023 09:01	<a href="#">WG2120661</a>
Unadjusted C6-C8 Aliphatics	29.4	J	2.88	31.6	4	08/29/2023 09:01	<a href="#">WG2120661</a>
Adjusted C6-C8 Aliphatics	29.3	J	2.88	31.6	4	08/29/2023 09:01	<a href="#">WG2120661</a>
Unadjusted C8-C10 Aliphatics	24.7	J	10.5	31.6	4	08/29/2023 09:01	<a href="#">WG2120661</a>
Adjusted C8-C10 Aliphatics	18.3	J	10.5	31.6	4	08/29/2023 09:01	<a href="#">WG2120661</a>
C8-C10 Aromatics	60.1		3.51	31.6	4	08/29/2023 09:01	<a href="#">WG2120661</a>
(S) 2,5-Dibromotoluene(FID)	84.4			60.0-140		08/29/2023 09:01	<a href="#">WG2120661</a>
(S) 2,5-Dibromotoluene(PID)	93.3			60.0-140		08/29/2023 09:01	<a href="#">WG2120661</a>

Sample Narrative:

L1646084-17 WG2120661: Non-target compounds too high to run at a lower dilution.

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	405		1.34	3.96	25	08/16/2023 21:21	<a href="#">WG2115004</a>
(S) a,a,a-Trifluorotoluene(FID)	103			77.0-120		08/16/2023 21:21	<a href="#">WG2115004</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.137		0.000744	0.00159	1	08/16/2023 04:05	<a href="#">WG2114768</a>
Toluene	0.0196		0.00207	0.00796	1	08/16/2023 04:05	<a href="#">WG2114768</a>
Ethylbenzene	1.94		0.00117	0.00398	1	08/16/2023 04:05	<a href="#">WG2114768</a>
Total Xylenes	4.46		0.00140	0.0104	1	08/16/2023 04:05	<a href="#">WG2114768</a>
(S) Toluene-d8	95.7			75.0-131		08/16/2023 04:05	<a href="#">WG2114768</a>
(S) 4-Bromofluorobenzene	102			67.0-138		08/16/2023 04:05	<a href="#">WG2114768</a>
(S) 1,2-Dichloroethane-d4	99.1			70.0-130		08/16/2023 04:05	<a href="#">WG2114768</a>

TPH by Method EPH

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
C10-C12 Aliphatics	8.76		2.16	6.41	1	08/18/2023 12:38	<a href="#">WG2116010</a>
C12-C16 Aliphatics	7.31	B	2.16	6.41	1	08/18/2023 12:38	<a href="#">WG2116010</a>
C16-C21 Aliphatics	U		2.16	6.41	1	08/18/2023 12:38	<a href="#">WG2116010</a>
C21-C34 Aliphatics	5.12	B J	2.16	6.41	1	08/18/2023 12:38	<a href="#">WG2116010</a>
C10-C12 Aromatics	5.27	J	2.72	6.41	1	08/18/2023 13:44	<a href="#">WG2116010</a>
C12-C16 Aromatics	3.94	J J4	2.72	6.41	1	08/18/2023 13:44	<a href="#">WG2116010</a>
C16-C21 Aromatics	3.41	J	2.72	6.41	1	08/18/2023 13:44	<a href="#">WG2116010</a>
C21-C34 Aromatics	U		2.72	6.41	1	08/18/2023 13:44	<a href="#">WG2116010</a>
(S) o-Terphenyl	68.6	J2		70.0-130		08/18/2023 13:44	<a href="#">WG2116010</a>
(S) 1-Chloro-octadecane	67.3	J2		70.0-130		08/18/2023 12:38	<a href="#">WG2116010</a>



TPH by Method EPH

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
(S) 2-Fluorobiphenyl	84.0			70.0-130		08/18/2023 13:44	<a href="#">WG2116010</a>
(S) 2-Bromonaphthalene	85.9			70.0-130		08/18/2023 13:44	<a href="#">WG2116010</a>

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	87.4		1	08/16/2023 07:32	<a href="#">WG2114865</a>

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

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	1240		22.0	65.0	505	08/18/2023 14:54	<a href="#">WG2116530</a>
(S) a,a,a-Trifluorotoluene(FID)	106			77.0-120		08/18/2023 14:54	<a href="#">WG2116530</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.278		0.000601	0.00129	1	08/16/2023 04:27	<a href="#">WG2114768</a>
Toluene	2.64		0.00167	0.00644	1	08/16/2023 04:27	<a href="#">WG2114768</a>
Ethylbenzene	7.97		0.0189	0.0644	20	08/18/2023 14:47	<a href="#">WG2116697</a>
Total Xylenes	53.7		0.0227	0.167	20	08/18/2023 14:47	<a href="#">WG2116697</a>
(S) Toluene-d8	92.3			75.0-131		08/16/2023 04:27	<a href="#">WG2114768</a>
(S) Toluene-d8	101			75.0-131		08/18/2023 14:47	<a href="#">WG2116697</a>
(S) 4-Bromofluorobenzene	110			67.0-138		08/16/2023 04:27	<a href="#">WG2114768</a>
(S) 4-Bromofluorobenzene	102			67.0-138		08/18/2023 14:47	<a href="#">WG2116697</a>
(S) 1,2-Dichloroethane-d4	88.9			70.0-130		08/16/2023 04:27	<a href="#">WG2114768</a>
(S) 1,2-Dichloroethane-d4	101			70.0-130		08/18/2023 14:47	<a href="#">WG2116697</a>

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	77.1		1	08/16/2023 07:32	<a href="#">WG2114865</a>

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	8.62		1.38	4.08	25	08/18/2023 13:22	<a href="#">WG2116631</a>
(S) a,a,a-Trifluorotoluene(FID)	106			77.0-120		08/18/2023 13:22	<a href="#">WG2116631</a>

3 Ss

4 Cn

5 Sr

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.0144		0.000761	0.00163	1	08/18/2023 13:50	<a href="#">WG2116697</a>
Toluene	0.00762	J	0.00212	0.00815	1	08/18/2023 13:50	<a href="#">WG2116697</a>
Ethylbenzene	0.0277		0.00120	0.00407	1	08/18/2023 13:50	<a href="#">WG2116697</a>
Total Xylenes	0.0275		0.00143	0.0106	1	08/18/2023 13:50	<a href="#">WG2116697</a>
(S) Toluene-d8	102			75.0-131		08/18/2023 13:50	<a href="#">WG2116697</a>
(S) 4-Bromofluorobenzene	99.1			67.0-138		08/18/2023 13:50	<a href="#">WG2116697</a>
(S) 1,2-Dichloroethane-d4	98.9			70.0-130		08/18/2023 13:50	<a href="#">WG2116697</a>

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	77.9		1	08/16/2023 07:32	<a href="#">WG2114865</a>

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	223		1.41	4.16	25	08/17/2023 03:24	<a href="#">WG2115568</a>
(S) a,a,a-Trifluorotoluene(FID)	107			77.0-120		08/17/2023 03:24	<a href="#">WG2115568</a>

3 Ss

4 Cn

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.0382		0.000747	0.00160	1	08/16/2023 05:09	<a href="#">WG2114768</a>
Toluene	0.436		0.00208	0.00799	1	08/16/2023 05:09	<a href="#">WG2114768</a>
Ethylbenzene	2.59		0.00118	0.00400	1	08/16/2023 05:09	<a href="#">WG2114768</a>
Total Xylenes	19.3		0.0141	0.104	10	08/18/2023 15:05	<a href="#">WG2116697</a>
(S) Toluene-d8	97.6			75.0-131		08/16/2023 05:09	<a href="#">WG2114768</a>
(S) Toluene-d8	101			75.0-131		08/18/2023 15:05	<a href="#">WG2116697</a>
(S) 4-Bromofluorobenzene	94.9			67.0-138		08/16/2023 05:09	<a href="#">WG2114768</a>
(S) 4-Bromofluorobenzene	101			67.0-138		08/18/2023 15:05	<a href="#">WG2116697</a>
(S) 1,2-Dichloroethane-d4	95.8			70.0-130		08/16/2023 05:09	<a href="#">WG2114768</a>
(S) 1,2-Dichloroethane-d4	101			70.0-130		08/18/2023 15:05	<a href="#">WG2116697</a>

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	77.0		1	08/16/2023 07:32	<a href="#">WG2114865</a>

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	7.39	<u>B</u>	1.38	4.06	25	08/17/2023 03:47	<a href="#">WG2115568</a>
(S) a,a,a-Trifluorotoluene(FID)	85.2			77.0-120		08/17/2023 03:47	<a href="#">WG2115568</a>

3 Ss

4 Cn

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.132		0.000768	0.00164	1	08/16/2023 13:57	<a href="#">WG2115218</a>
Toluene	0.0205		0.00214	0.00822	1	08/16/2023 13:57	<a href="#">WG2115218</a>
Ethylbenzene	0.0833		0.00121	0.00411	1	08/16/2023 13:57	<a href="#">WG2115218</a>
Total Xylenes	0.306		0.00145	0.0107	1	08/16/2023 13:57	<a href="#">WG2115218</a>
(S) Toluene-d8	114			75.0-131		08/16/2023 13:57	<a href="#">WG2115218</a>
(S) 4-Bromofluorobenzene	101			67.0-138		08/16/2023 13:57	<a href="#">WG2115218</a>
(S) 1,2-Dichloroethane-d4	91.6			70.0-130		08/16/2023 13:57	<a href="#">WG2115218</a>

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	82.5		1	08/16/2023 07:32	<a href="#">WG2114865</a>

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	33.6		1.29	3.80	25	08/17/2023 04:10	<a href="#">WG2115568</a>
(S) a,a,a-Trifluorotoluene(FID)	80.4			77.0-120		08/17/2023 04:10	<a href="#">WG2115568</a>

3 Ss

4 Cn

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.127		0.000707	0.00151	1	08/16/2023 14:16	<a href="#">WG2115218</a>
Toluene	0.0217		0.00197	0.00757	1	08/16/2023 14:16	<a href="#">WG2115218</a>
Ethylbenzene	0.798		0.00112	0.00379	1	08/16/2023 14:16	<a href="#">WG2115218</a>
Total Xylenes	2.29		0.00133	0.00985	1	08/16/2023 14:16	<a href="#">WG2115218</a>
(S) Toluene-d8	116			75.0-131		08/16/2023 14:16	<a href="#">WG2115218</a>
(S) 4-Bromofluorobenzene	102			67.0-138		08/16/2023 14:16	<a href="#">WG2115218</a>
(S) 1,2-Dichloroethane-d4	89.6			70.0-130		08/16/2023 14:16	<a href="#">WG2115218</a>

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	88.1		1	08/16/2023 07:32	<a href="#">WG2114865</a>

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	398		4.33	12.8	100	08/17/2023 06:06	<a href="#">WG2115568</a>
(S) a,a,a-Trifluorotoluene(FID)	86.3			77.0-120		08/17/2023 06:06	<a href="#">WG2115568</a>

3 Ss

4 Cn

5 Sr

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.0363		0.00478	0.0102	8	08/16/2023 16:26	<a href="#">WG2115218</a>
Toluene	1.42		0.0133	0.0511	8	08/16/2023 16:26	<a href="#">WG2115218</a>
Ethylbenzene	5.34		0.00754	0.0256	8	08/16/2023 16:26	<a href="#">WG2115218</a>
Total Xylenes	31.3		0.00900	0.0665	8	08/16/2023 16:26	<a href="#">WG2115218</a>
(S) Toluene-d8	115			75.0-131		08/16/2023 16:26	<a href="#">WG2115218</a>
(S) 4-Bromofluorobenzene	103			67.0-138		08/16/2023 16:26	<a href="#">WG2115218</a>
(S) 1,2-Dichloroethane-d4	92.3			70.0-130		08/16/2023 16:26	<a href="#">WG2115218</a>

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	80.4		1	08/16/2023 08:44	<a href="#">WG2114866</a>

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	65.4		1.30	3.83	25	08/17/2023 04:33	<a href="#">WG2115568</a>
(S) a,a,a-Trifluorotoluene(FID)	87.5			77.0-120		08/17/2023 04:33	<a href="#">WG2115568</a>

3 Ss

4 Cn

5 Sr

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.107		0.000719	0.00154	1	08/16/2023 14:34	<a href="#">WG2115218</a>
Toluene	0.403		0.00200	0.00770	1	08/16/2023 14:34	<a href="#">WG2115218</a>
Ethylbenzene	1.94		0.00113	0.00385	1	08/16/2023 14:34	<a href="#">WG2115218</a>
Total Xylenes	9.35		0.0108	0.0801	8	08/18/2023 12:45	<a href="#">WG2116565</a>
(S) Toluene-d8	116			75.0-131		08/16/2023 14:34	<a href="#">WG2115218</a>
(S) Toluene-d8	106			75.0-131		08/18/2023 12:45	<a href="#">WG2116565</a>
(S) 4-Bromofluorobenzene	103			67.0-138		08/16/2023 14:34	<a href="#">WG2115218</a>
(S) 4-Bromofluorobenzene	107			67.0-138		08/18/2023 12:45	<a href="#">WG2116565</a>
(S) 1,2-Dichloroethane-d4	89.6			70.0-130		08/16/2023 14:34	<a href="#">WG2115218</a>
(S) 1,2-Dichloroethane-d4	97.2			70.0-130		08/18/2023 12:45	<a href="#">WG2116565</a>

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	80.0		1	08/16/2023 08:44	<a href="#">WG2114866</a>

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	10.4	<u>B</u>	1.32	3.88	25	08/17/2023 04:56	<a href="#">WG2115568</a>
(S) a,a,a-Trifluorotoluene(FID)	88.0			77.0-120		08/17/2023 04:56	<a href="#">WG2115568</a>

3 Ss

4 Cn

5 Sr

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.0227		0.000722	0.00155	1	08/16/2023 14:53	<a href="#">WG2115218</a>
Toluene	0.603		0.00201	0.00773	1	08/16/2023 14:53	<a href="#">WG2115218</a>
Ethylbenzene	0.541		0.00114	0.00386	1	08/16/2023 14:53	<a href="#">WG2115218</a>
Total Xylenes	3.18		0.00136	0.0100	1	08/16/2023 14:53	<a href="#">WG2115218</a>
(S) Toluene-d8	115			75.0-131		08/16/2023 14:53	<a href="#">WG2115218</a>
(S) 4-Bromofluorobenzene	99.7			67.0-138		08/16/2023 14:53	<a href="#">WG2115218</a>
(S) 1,2-Dichloroethane-d4	87.6			70.0-130		08/16/2023 14:53	<a href="#">WG2115218</a>

6 Qc

7 Is

8 Gl

9 Al

10 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	85.7		1	08/16/2023 08:44	<a href="#">WG2114866</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	4.93	<u>B</u>	1.14	3.37	25	08/17/2023 05:20	<a href="#">WG2115568</a>
(S) a,a,a-Trifluorotoluene(FID)	88.4			77.0-120		08/17/2023 05:20	<a href="#">WG2115568</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.00130	<u>J</u>	0.000639	0.00137	1.03	08/16/2023 15:12	<a href="#">WG2115218</a>
Toluene	0.0161		0.00178	0.00684	1.03	08/16/2023 15:12	<a href="#">WG2115218</a>
Ethylbenzene	0.0594		0.00101	0.00343	1.03	08/16/2023 15:12	<a href="#">WG2115218</a>
Total Xylenes	0.297		0.00120	0.00890	1.03	08/16/2023 15:12	<a href="#">WG2115218</a>
(S) Toluene-d8	115			75.0-131		08/16/2023 15:12	<a href="#">WG2115218</a>
(S) 4-Bromofluorobenzene	98.7			67.0-138		08/16/2023 15:12	<a href="#">WG2115218</a>
(S) 1,2-Dichloroethane-d4	87.4			70.0-130		08/16/2023 15:12	<a href="#">WG2115218</a>

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

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	77.5		1	08/16/2023 08:44	<a href="#">WG2114866</a>

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

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	10.8	<u>B</u>	1.40	4.12	25	08/17/2023 05:43	<a href="#">WG2115568</a>
(S) a,a,a-Trifluorotoluene(FID)	87.1			77.0-120		08/17/2023 05:43	<a href="#">WG2115568</a>

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
Benzene	0.0214		0.000770	0.00165	1	08/16/2023 15:30	<a href="#">WG2115218</a>
Toluene	0.577		0.00214	0.00824	1	08/16/2023 15:30	<a href="#">WG2115218</a>
Ethylbenzene	0.506		0.00122	0.00412	1	08/16/2023 15:30	<a href="#">WG2115218</a>
Total Xylenes	2.97		0.00145	0.0107	1	08/16/2023 15:30	<a href="#">WG2115218</a>
(S) Toluene-d8	117			75.0-131		08/16/2023 15:30	<a href="#">WG2115218</a>
(S) 4-Bromofluorobenzene	101			67.0-138		08/16/2023 15:30	<a href="#">WG2115218</a>
(S) 1,2-Dichloroethane-d4	89.0			70.0-130		08/16/2023 15:30	<a href="#">WG2115218</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		31.6	100	1	08/16/2023 12:37	<a href="#">WG2115046</a>
(S) a,a,a-Trifluorotoluene(FID)	105			78.0-120		08/16/2023 12:37	<a href="#">WG2115046</a>

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

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Benzene	U		0.0941	1.00	1	08/16/2023 01:22	<a href="#">WG2114625</a>
Toluene	U		0.278	1.00	1	08/16/2023 01:22	<a href="#">WG2114625</a>
Ethylbenzene	U		0.137	1.00	1	08/16/2023 01:22	<a href="#">WG2114625</a>
Total Xylenes	U		0.174	3.00	1	08/16/2023 01:22	<a href="#">WG2114625</a>
(S) Toluene-d8	104			80.0-120		08/16/2023 01:22	<a href="#">WG2114625</a>
(S) 4-Bromofluorobenzene	92.8			77.0-126		08/16/2023 01:22	<a href="#">WG2114625</a>
(S) 1,2-Dichloroethane-d4	111			70.0-130		08/16/2023 01:22	<a href="#">WG2114625</a>

Method Blank (MB)

(MB) R3961449-1 08/16/23 08:01

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Total Solids	0.00300			

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

L1645676-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1645676-03 08/16/23 08:01 • (DUP) R3961449-3 08/16/23 08:01

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	76.9	76.6	1	0.511		10

<sup>4</sup>Cn

<sup>5</sup>Sr

Laboratory Control Sample (LCS)

(LCS) R3961449-2 08/16/23 08:01

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	%	%	%	%	
Total Solids	50.0	50.0	99.9	85.0-115	

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3961443-1 08/16/23 07:45

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

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

L1646084-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1646084-06 08/16/23 07:45 • (DUP) R3961443-3 08/16/23 07:45

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	85.8	86.1	1	0.345		10

<sup>4</sup>Cn

<sup>5</sup>Sr

Laboratory Control Sample (LCS)

(LCS) R3961443-2 08/16/23 07:45

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

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3961441-1 08/16/23 07:32

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Total Solids	0.00300			

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

L1646084-16 Original Sample (OS) • Duplicate (DUP)

(OS) L1646084-16 08/16/23 07:32 • (DUP) R3961441-3 08/16/23 07:32

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	76.4	79.4	1	3.78		10

<sup>4</sup>Cn

<sup>5</sup>Sr

Laboratory Control Sample (LCS)

(LCS) R3961441-2 08/16/23 07:32

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

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3961468-1 08/16/23 08:44

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

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

L1646084-26 Original Sample (OS) • Duplicate (DUP)

(OS) L1646084-26 08/16/23 08:44 • (DUP) R3961468-3 08/16/23 08:44

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	85.7	85.4	1	0.356		10

<sup>4</sup>Cn

<sup>5</sup>Sr

Laboratory Control Sample (LCS)

(LCS) R3961468-2 08/16/23 08:44

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

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3962308-1 08/17/23 20:34

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Lead	U		0.208	0.500

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

Laboratory Control Sample (LCS)

(LCS) R3962308-2 08/17/23 20:37

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Lead	100	96.3	96.3	80.0-120	

<sup>4</sup>Cn

<sup>5</sup>Sr

L1646114-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1646114-04 08/17/23 20:39 • (MS) R3962308-5 08/17/23 20:47 • (MSD) R3962308-6 08/17/23 20:49

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 %
Lead	112	8.67	118	118	97.6	98.0	1	75.0-125			0.431	20

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc



Method Blank (MB)

(MB) R3962306-1 08/17/23 07:50

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Unadjusted C5-C6 Aliphatics	2.57	U	1.67	5.00
Adjusted C5-C6 Aliphatics	2.57	U	1.67	5.00
Unadjusted C6-C8 Aliphatics	0.519	U	0.455	5.00
Adjusted C6-C8 Aliphatics	0.519	U	0.455	5.00
Unadjusted C8-C10 Aliphatics	U		1.67	5.00
Adjusted C8-C10 Aliphatics	U		1.67	5.00
C8-C10 Aromatics	U		0.555	5.00
(S) 2,5-Dibromotoluene(FID)	95.0			60.0-140
(S) 2,5-Dibromotoluene(PID)	89.4			60.0-140

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

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

(LCS) R3962306-2 08/17/23 14:40 • (LCSD) R3962306-3 08/17/23 15:14

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 %
Unadjusted C5-C6 Aliphatics	30.0	39.6	41.1	132	137	70.0-130	J4	J4	3.72	25
Unadjusted C6-C8 Aliphatics	20.0	25.3	25.8	127	129	70.0-130			1.96	25
Unadjusted C8-C10 Aliphatics	60.0	82.9	85.3	138	142	70.0-130	J4	J4	2.85	25
C8-C10 Aromatics	50.0	57.2	59.3	114	119	70.0-130			3.61	25
(S) 2,5-Dibromotoluene(FID)				100	101	60.0-140				
(S) 2,5-Dibromotoluene(PID)				91.2	93.1	60.0-140				

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

Method Blank (MB)

(MB) R3967193-3 08/29/23 02:44

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Unadjusted C5-C6 Aliphatics	2.08	U	1.67	5.00
Adjusted C5-C6 Aliphatics	2.08	U	1.67	5.00
Unadjusted C8-C10 Aliphatics	U		1.67	5.00
Adjusted C8-C10 Aliphatics	U		1.67	5.00
(S) 2,5-Dibromotoluene(FID)	76.3			60.0-140
(S) 2,5-Dibromotoluene(PID)	88.1			60.0-140

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

(LCS) R3967193-1 08/29/23 00:27 • (LCSD) R3967193-2 08/29/23 01:02

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 %
Unadjusted C5-C6 Aliphatics	30.0	25.3	26.2	84.3	87.3	70.0-130			3.50	25
Unadjusted C8-C10 Aliphatics	60.0	66.0	68.9	110	115	70.0-130			4.30	25
(S) 2,5-Dibromotoluene(FID)				83.7	86.5	60.0-140				
(S) 2,5-Dibromotoluene(PID)				93.2	95.9	60.0-140				

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3967194-3 08/29/23 02:44

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Unadjusted C5-C6 Aliphatics	2.08	U	1.67	5.00
Adjusted C5-C6 Aliphatics	2.08	U	1.67	5.00
Unadjusted C6-C8 Aliphatics	U		0.455	5.00
Adjusted C6-C8 Aliphatics	U		0.455	5.00
Unadjusted C8-C10 Aliphatics	U		1.67	5.00
Adjusted C8-C10 Aliphatics	U		1.67	5.00
C8-C10 Aromatics	U		0.555	5.00
(S) 2,5-Dibromotoluene(FID)	76.3			60.0-140
(S) 2,5-Dibromotoluene(PID)	88.1			60.0-140

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

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

(LCS) R3967194-1 08/29/23 00:27 • (LCSD) R3967194-2 08/29/23 01:02

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 %
Unadjusted C5-C6 Aliphatics	30.0	25.3	26.2	84.3	87.3	70.0-130			3.50	25
Unadjusted C6-C8 Aliphatics	20.0	18.5	19.2	92.5	96.0	70.0-130			3.71	25
Unadjusted C8-C10 Aliphatics	60.0	66.0	68.9	110	115	70.0-130			4.30	25
C8-C10 Aromatics	50.0	61.4	63.3	123	127	70.0-130			3.05	25
(S) 2,5-Dibromotoluene(FID)				83.7	86.5	60.0-140				
(S) 2,5-Dibromotoluene(PID)				93.2	95.9	60.0-140				

7 Is

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R3962322-2 08/16/23 10:37

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	1.09	↓	0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	93.8			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3962322-1 08/16/23 09:52

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5.50	5.35	97.3	71.0-124	
(S) a,a,a-Trifluorotoluene(FID)			100	77.0-120	

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

Method Blank (MB)

(MB) R3962397-3 08/17/23 02:04

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	1.31	↓	0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	91.9			77.0-120

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

(LCS) R3962397-1 08/17/23 00:31 • (LCSD) R3962397-2 08/17/23 00:55

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	4.38	4.56	79.6	82.9	71.0-124			4.03	20
(S) a,a,a-Trifluorotoluene(FID)				97.4	96.3	77.0-120				

L1645575-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1645575-01 08/17/23 06:52 • (MS) R3962397-4 08/17/23 10:43 • (MSD) R3962397-5 08/17/23 11:06

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	210	2.08	159	179	74.7	84.1	27	50.0-150			11.8	27
(S) a,a,a-Trifluorotoluene(FID)					99.3	101		77.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R3962548-2 08/18/23 12:25

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)	112			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3962548-1 08/18/23 10:33

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5.50	5.55	101	71.0-124	
(S) a,a,a-Trifluorotoluene(FID)			113	77.0-120	

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

Method Blank (MB)

(MB) R3962549-2 08/18/23 12:25

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)	112			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3962549-1 08/18/23 10:33

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5.50	5.55	101	71.0-124	
(S) a,a,a-Trifluorotoluene(FID)			113	77.0-120	

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

Method Blank (MB)

(MB) R3962172-3 08/16/23 11:47

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	104			78.0-120

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

(LCS) R3962172-1 08/16/23 10:27 • (LCSD) R3962172-2 08/16/23 11:03

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5500	5430	4950	98.7	90.0	70.0-124			9.25	20
(S) a,a,a-Trifluorotoluene(FID)				102	103	78.0-120				

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc



Method Blank (MB)

(MB) R3961334-3 08/15/23 21:37

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.0941	1.00
Toluene	U		0.278	1.00
Ethylbenzene	U		0.137	1.00
Total Xylenes	U		0.174	3.00
<i>(S) Toluene-d8</i>	104			80.0-120
<i>(S) 4-Bromofluorobenzene</i>	91.8			77.0-126
<i>(S) 1,2-Dichloroethane-d4</i>	108			70.0-130

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

(LCS) R3961334-1 08/15/23 20:15 • (LCSD) R3961334-2 08/15/23 20:35

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Benzene	5.00	5.15	5.18	103	104	70.0-123			0.581	20
Toluene	5.00	4.97	4.83	99.4	96.6	79.0-120			2.86	20
Ethylbenzene	5.00	4.98	4.83	99.6	96.6	79.0-123			3.06	20
Total Xylenes	15.0	14.3	14.2	95.3	94.7	79.0-123			0.702	20
<i>(S) Toluene-d8</i>				101	99.1	80.0-120				
<i>(S) 4-Bromofluorobenzene</i>				92.8	89.8	77.0-126				
<i>(S) 1,2-Dichloroethane-d4</i>				108	107	70.0-130				

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

Method Blank (MB)

(MB) R3962427-3 08/15/23 22:09

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
Benzene	U		0.000467	0.00100
Toluene	U		0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Total Xylenes	U		0.000880	0.00650
(S) Toluene-d8	96.3			75.0-131
(S) 4-Bromofluorobenzene	101			67.0-138
(S) 1,2-Dichloroethane-d4	95.7			70.0-130

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

(LCS) R3962427-1 08/15/23 20:23 • (LCSD) R3962427-2 08/15/23 20:44

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Benzene	0.125	0.131	0.128	105	102	70.0-123			2.32	20
Toluene	0.125	0.106	0.109	84.8	87.2	75.0-121			2.79	20
Ethylbenzene	0.125	0.116	0.116	92.8	92.8	74.0-126			0.000	20
Total Xylenes	0.375	0.333	0.348	88.8	92.8	72.0-127			4.41	20
(S) Toluene-d8				91.7	91.4	75.0-131				
(S) 4-Bromofluorobenzene				108	109	67.0-138				
(S) 1,2-Dichloroethane-d4				110	109	70.0-130				

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3962362-3 08/16/23 10:37

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
Benzene	U		0.000467	0.00100
Toluene	U		0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Total Xylenes	U		0.000880	0.00650
(S) Toluene-d8	116			75.0-131
(S) 4-Bromofluorobenzene	97.9			67.0-138
(S) 1,2-Dichloroethane-d4	87.7			70.0-130

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

(LCS) R3962362-1 08/16/23 09:04 • (LCSD) R3962362-2 08/16/23 09:23

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Benzene	0.125	0.110	0.108	88.0	86.4	70.0-123			1.83	20
Toluene	0.125	0.121	0.121	96.8	96.8	75.0-121			0.000	20
Ethylbenzene	0.125	0.131	0.128	105	102	74.0-126			2.32	20
Total Xylenes	0.375	0.393	0.382	105	102	72.0-127			2.84	20
(S) Toluene-d8				112	113	75.0-131				
(S) 4-Bromofluorobenzene				104	99.7	67.0-138				
(S) 1,2-Dichloroethane-d4				101	97.7	70.0-130				

L1644903-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1644903-02 08/16/23 18:18 • (MS) R3962362-4 08/16/23 20:03 • (MSD) R3962362-5 08/16/23 20:54

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	%	%		%			%	%
Benzene	2.11	U	2.03	1.74	96.0	82.4	8	10.0-149			15.2	37
Toluene	2.11	U	2.32	1.99	110	94.1	8	10.0-156			15.6	38
Ethylbenzene	2.11	U	2.56	2.04	121	96.7	8	10.0-160			22.3	38
Total Xylenes	6.34	0.0177	7.60	6.25	120	98.7	8	10.0-160			19.5	38
(S) Toluene-d8					114	115		75.0-131				
(S) 4-Bromofluorobenzene					102	101		67.0-138				
(S) 1,2-Dichloroethane-d4					88.7	93.2		70.0-130				

Sample Narrative:

OS: Lowest possible dilution due to sample foaming.



Method Blank (MB)

(MB) R3962545-2 08/18/23 11:00

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Total Xylenes	U		0.000880	0.00650
(S) Toluene-d8	105			75.0-131
(S) 4-Bromofluorobenzene	105			67.0-138
(S) 1,2-Dichloroethane-d4	97.2			70.0-130

Laboratory Control Sample (LCS)

(LCS) R3962545-1 08/18/23 09:44

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Xylenes	0.375	0.424	113	72.0-127	
(S) Toluene-d8			105	75.0-131	
(S) 4-Bromofluorobenzene			105	67.0-138	
(S) 1,2-Dichloroethane-d4			99.1	70.0-130	

- <sup>1</sup>Cp
- <sup>2</sup>Tc
- <sup>3</sup>Ss
- <sup>4</sup>Cn
- <sup>5</sup>Sr
- <sup>6</sup>Qc
- <sup>7</sup>Is
- <sup>8</sup>Gl
- <sup>9</sup>Al
- <sup>10</sup>Sc

Method Blank (MB)

(MB) R3962669-3 08/18/23 11:51

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
Benzene	U		0.000467	0.00100
Toluene	U		0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Total Xylenes	U		0.000880	0.00650
(S) Toluene-d8	103			75.0-131
(S) 4-Bromofluorobenzene	101			67.0-138
(S) 1,2-Dichloroethane-d4	98.9			70.0-130

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

(LCS) R3962669-1 08/18/23 09:29 • (LCSD) R3962669-2 08/18/23 09:48

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Benzene	0.125	0.120	0.120	96.0	96.0	70.0-123			0.000	20
Toluene	0.125	0.111	0.109	88.8	87.2	75.0-121			1.82	20
Ethylbenzene	0.125	0.112	0.110	89.6	88.0	74.0-126			1.80	20
Total Xylenes	0.375	0.315	0.317	84.0	84.5	72.0-127			0.633	20
(S) Toluene-d8				101	98.9	75.0-131				
(S) 4-Bromofluorobenzene				100	97.4	67.0-138				
(S) 1,2-Dichloroethane-d4				102	102	70.0-130				

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3962023-1 08/17/23 09:02

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
<i>(S) o-Terphenyl</i>	67.0			18.0-148

Laboratory Control Sample (LCS)

(LCS) R3962023-2 08/17/23 09:15

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	50.0	33.4	66.8	50.0-150	
<i>(S) o-Terphenyl</i>			70.0	18.0-148	

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

Method Blank (MB)

(MB) R3962736-1 08/18/23 09:33

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C12 Aliphatics	U		1.68	5.00
C12-C16 Aliphatics	1.73	J	1.68	5.00
C16-C21 Aliphatics	U		1.68	5.00
C21-C34 Aliphatics	3.10	J	1.68	5.00
(S) 1-Chloro-octadecane	78.6			70.0-130

Method Blank (MB)

(MB) R3962736-4 08/18/23 10:40

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C12 Aromatics	U		2.12	5.00
C12-C16 Aromatics	U		2.12	5.00
C16-C21 Aromatics	U		2.12	5.00
C21-C34 Aromatics	U		2.12	5.00
(S) o-Terphenyl	80.5			70.0-130
(S) 2-Fluorobiphenyl	91.7			70.0-130
(S) 2-Bromonaphthalene	93.6			70.0-130

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

(LCS) R3962736-2 08/18/23 09:55 • (LCSD) R3962736-3 08/18/23 10:17

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 %
C10-C12 Aliphatics	6.65	5.36	5.23	80.6	78.6	70.0-130			2.46	20
C12-C16 Aliphatics	13.3	11.0	10.6	82.7	79.7	70.0-130			3.70	20
C16-C21 Aliphatics	20.0	17.3	17.1	86.5	85.5	70.0-130			1.16	20
C21-C34 Aliphatics	33.3	28.3	28.0	85.0	84.1	70.0-130			1.07	20
(S) 1-Chloro-octadecane					74.6	74.2				70.0-130

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

(LCS) R3962736-5 08/18/23 11:09 • (LCSD) R3962736-6 08/18/23 11:31

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 %
C10-C12 Aromatics	6.65	4.91	5.27	73.8	79.2	70.0-130			7.07	20
C12-C16 Aromatics	20.0	13.3	14.1	66.5	70.5	70.0-130	J4		5.84	20
C16-C21 Aromatics	33.3	25.3	26.4	76.0	79.3	70.0-130			4.26	20
C21-C34 Aromatics	53.2	40.6	41.7	76.3	78.4	70.0-130			2.67	20



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

(LCS) R3962736-5 08/18/23 11:09 • (LCSD) R3962736-6 08/18/23 11:31

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
(S) o-Terphenyl				75.6	78.0	70.0-130				
(S) 2-Fluorobiphenyl				86.7	90.4	70.0-130				
(S) 2-Bromonaphthalene				85.7	89.7	70.0-130				

L1646535-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1646535-09 08/19/23 18:09 • (MS) R3962736-7 08/19/23 18:31 • (MSD) R3962736-8 08/19/23 19:01

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
C10-C12 Aliphatics	6.45	U	4.67	4.75	72.4	75.4	1	70.0-130			1.70	20
C12-C16 Aliphatics	12.9	1.85	10.1	11.4	64.0	75.8	1	70.0-130	<u>J6</u>		12.1	20
C16-C21 Aliphatics	19.4	4.08	17.4	21.4	68.7	91.6	1	70.0-130	<u>J6</u>	<u>J3</u>	20.6	20
C21-C34 Aliphatics	32.3	17.6	36.1	48.0	57.3	96.5	1	70.0-130	<u>J6</u>	<u>J3</u>	28.3	20
(S) 1-Chloro-octadecane					65.5	80.0		70.0-130	<u>J2</u>			

L1646535-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1646535-09 08/19/23 20:52 • (MS) R3962736-10 08/19/23 20:30 • (MSD) R3962736-9 08/19/23 20:08

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
C10-C12 Aromatics	6.45	U	4.30	4.35	66.7	69.0	1	70.0-130	<u>J6</u>	<u>J6</u>	1.16	20
C12-C16 Aromatics	19.4	U	11.8	12.2	60.8	64.6	1	70.0-130	<u>J6</u>	<u>J6</u>	3.33	20
C16-C21 Aromatics	32.3	4.35	25.2	28.8	64.6	77.6	1	70.0-130	<u>J6</u>		13.3	20
C21-C34 Aromatics	51.6	17.4	52.2	67.5	67.4	99.4	1	70.0-130	<u>J6</u>	<u>J3</u>	25.6	20
(S) o-Terphenyl					65.7	73.0		70.0-130	<u>J2</u>			
(S) 2-Fluorobiphenyl					84.9	86.9		70.0-130				
(S) 2-Bromonaphthalene					87.6	89.5		70.0-130				

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



Method Blank (MB)

(MB) R3962637-2 08/17/23 04:35

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	110			23.0-120
(S) Nitrobenzene-d5	144			14.0-149
(S) 2-Fluorobiphenyl	97.0			34.0-125

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Laboratory Control Sample (LCS)

(LCS) R3962637-1 08/17/23 03:55

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0758	94.8	50.0-126	
Acenaphthene	0.0800	0.0817	102	50.0-120	
Acenaphthylene	0.0800	0.0807	101	50.0-120	
Benzo(a)anthracene	0.0800	0.0714	89.3	45.0-120	
Benzo(a)pyrene	0.0800	0.0569	71.1	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0694	86.8	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0635	79.4	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0791	98.9	49.0-125	
Chrysene	0.0800	0.0787	98.4	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0629	78.6	47.0-125	
Fluoranthene	0.0800	0.0859	107	49.0-129	

Laboratory Control Sample (LCS)

(LCS) R3962637-1 08/17/23 03:55

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluorene	0.0800	0.0852	107	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0632	79.0	46.0-125	
Naphthalene	0.0800	0.0844	106	50.0-120	
Phenanthrene	0.0800	0.0843	105	47.0-120	
Pyrene	0.0800	0.0842	105	43.0-123	
1-Methylnaphthalene	0.0800	0.0883	110	51.0-121	
2-Methylnaphthalene	0.0800	0.0846	106	50.0-120	
2-Chloronaphthalene	0.0800	0.0810	101	50.0-120	
(S) p-Terphenyl-d14			106	23.0-120	
(S) Nitrobenzene-d5			165	14.0-149	J1
(S) 2-Fluorobiphenyl			108	34.0-125	

L1644817-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1644817-13 08/17/23 09:29 • (MS) R3962637-3 08/17/23 09:49 • (MSD) R3962637-4 08/17/23 10:08

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	0.102	U	0.0557	0.0528	54.7	51.4	1	10.0-145			5.24	30
Acenaphthene	0.102	U	0.0576	0.0520	56.6	50.6	1	14.0-127			10.1	27
Acenaphthylene	0.102	U	0.0620	0.0541	60.9	52.6	1	21.0-124			13.6	25
Benzo(a)anthracene	0.102	U	0.0594	0.0615	58.4	59.8	1	10.0-139			3.42	30
Benzo(a)pyrene	0.102	U	0.0588	0.0629	57.7	61.2	1	10.0-141			6.79	31
Benzo(b)fluoranthene	0.102	U	0.0487	0.0520	47.8	50.6	1	10.0-140			6.67	36
Benzo(g,h,i)perylene	0.102	U	0.0515	0.0551	50.6	53.6	1	10.0-140			6.78	33
Benzo(k)fluoranthene	0.102	U	0.0666	0.0682	65.5	66.3	1	10.0-137			2.30	31
Chrysene	0.102	U	0.0779	0.0803	76.5	78.1	1	10.0-145			3.10	30
Dibenz(a,h)anthracene	0.102	U	0.0577	0.0589	56.7	57.3	1	10.0-132			1.99	31
Fluoranthene	0.102	U	0.0537	0.0561	52.8	54.5	1	10.0-153			4.24	33
Fluorene	0.102	U	0.0608	0.0558	59.8	54.3	1	11.0-130			8.64	29
Indeno(1,2,3-cd)pyrene	0.102	U	0.0499	0.0546	49.0	53.1	1	10.0-137			9.15	32
Naphthalene	0.102	U	0.0926	0.0593	91.0	57.7	1	10.0-135		J3	43.9	27
Phenanthrene	0.102	U	0.0562	0.0573	55.2	55.8	1	10.0-144			2.05	31
Pyrene	0.102	U	0.0616	0.0646	60.5	62.8	1	10.0-148			4.71	35
1-Methylnaphthalene	0.102	U	0.0878	0.0572	86.3	55.7	1	10.0-142		J3	42.2	28
2-Methylnaphthalene	0.102	0.0108	0.118	0.0601	105	47.9	1	10.0-137		J3	64.7	28
2-Chloronaphthalene	0.102	U	0.0624	0.0548	61.3	53.3	1	29.0-120			13.0	24
(S) p-Terphenyl-d14					60.0	72.8		23.0-120				
(S) Nitrobenzene-d5					108	125		14.0-149				
(S) 2-Fluorobiphenyl					49.5	47.5		34.0-125				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

# INTERNAL STANDARD SUMMARY

Instrument: VO CGC4 • File ID: 0816\_03

08/16/23 09:29

Sample ID	File ID	FLUOROBENZENE (FID)	FLUOROBENZENE (PID)
		Response	Response
Standard	0816_03	3049466	1372359
Upper Limit		6098932	2744718
Lower Limit		1524733	686180
LCS R3962322-1 WG2115004 1x	0816_04A	3479037	1544307
BLANK R3962322-2 WG2115004 25x	0816_06A	2991168	1376123
L1646084-01 WG2115004 25x	0816_15	3004600	1363256
L1646084-02 WG2115004 25x	0816_16	2927510	1319172
L1646084-03 WG2115004 25x	0816_17	3205865	1428447
L1646084-04 WG2115004 27.3x	0816_18	3954043	1477881
L1646084-05 WG2115004 25.3x	0816_19	3659720	1369686
L1646084-06 WG2115004 25x	0816_20	4208201	1516335
L1646084-10 WG2115004 25x	0816_24	3964102	1404524
L1646084-11 WG2115004 25x	0816_25	3651941	1315098
L1646084-12 WG2115004 25x	0816_26	3723181	1415747
L1646084-15 WG2115004 25x	0816_27	3781103	1357534
L1646084-16 WG2115004 25x	0816_28	3479147	1307670
L1646084-17 WG2115004 25x	0816_29	3794685	1478612
L1646084-14 WG2115004 100x	0816_32	3698413	1278289

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

Instrument: VO CGC15 • File ID: 0816\_31

08/17/23 00:08

Sample ID	File ID	FLUOROBENZENE (FID)	FLUOROBENZENE (PID)
		Response	Response
Standard	0816_31	265797100	51742
Upper Limit		531594200	103484
Lower Limit		132898600	25871
LCS R3962397-1 WG2115568 1x	0816_32	307033600	39680
LCSD R3962397-2 WG2115568 1x	0816_33	291456600	135760
BLANK R3962397-3 WG2115568 25x	0816_36	302884000	66079
L1646084-20 WG2115568 25x	0816_39	272987200	81513
L1646084-21 WG2115568 25x	0816_40	260638100	41294
L1646084-22 WG2115568 25x	0816_41	328797500	94856
L1646084-24 WG2115568 25x	0816_42	314866100	74190
L1646084-25 WG2115568 25x	0816_43	290457100	124003
L1646084-26 WG2115568 25x	0816_44	281217400	39569

# INTERNAL STANDARD SUMMARY

## Instrument: VOCGC15 • File ID: 0816\_31

08/17/23 00:08

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
L1646084-27 WG2115568 25x	0816_45	297134100	61890
L1646084-23 WG2115568 100x	0816_46	303194500	139001
MS R3962397-4 WG2115568 27x	0816_58	335400100	151764
MSD R3962397-5 WG2115568 27x	0816_59	308862700	34872

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

## Instrument: VOCGC17 • File ID: 0818\_03

08/18/23 09:51

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	0818_03	269091700	269091700
Upper Limit		538183400	538183400
Lower Limit		134545900	134545900
LCS R3962548-1 WG2116530 1x	0818_04	268952300	268952300
LCS R3962549-1 WG2116631 1x	0818_04A	268952300	268952300
BLANK R3962548-2 WG2116530 25x	0818_07	243920600	243920600
BLANK R3962549-2 WG2116631 25x	0818_07A	243920600	243920600
L1646084-19 WG2116631 25x	0818_09	214422100	214422100
L1646084-08 WG2116530 25x	0818_10	246889900	246889900
L1646084-09 WG2116530 25x	0818_11	260209200	260209200
L1646084-07 WG2116530 348x	0818_12	253225800	253225800
L1646084-13 WG2116530 500x	0818_13	245643500	245643500
L1646084-18 WG2116530 505x	0818_14	248539500	248539500

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

# INTERNAL STANDARD SUMMARY

Instrument: VOCGC12 • File ID: 0816\_03

08/16/23 10:27

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	0816_03	976313900	945568600
Upper Limit		1952628000	1891137000
Lower Limit		488157000	472784300
LCS R3962172-1 WG2115046 1x	0816_03U	976313900	945568600
LCSD R3962172-2 WG2115046 1x	0816_04	957651700	922295200
BLANK R3962172-3 WG2115046 1x	0816_06	812415700	805042900
L1646084-28 WG2115046 1x	0816_07	804473200	795427100

- <sup>1</sup>Cp
- <sup>2</sup>Tc
- <sup>3</sup>Ss
- <sup>4</sup>Cn
- <sup>5</sup>Sr
- <sup>6</sup>Qc
- <sup>7</sup>Is
- <sup>8</sup>Gl
- <sup>9</sup>Al
- <sup>10</sup>Sc

# INTERNAL STANDARD SUMMARY

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

Instrument: VOCMS39 • File ID: 0815\_28-1

08/15/23 20:23

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0815_28-1	402981.90	122088.50	139638.50
Upper Limit		805964	244177	279277
Lower Limit		201491	61044	69819
LCS R3962427-1 WG2114768 1x	0815_28LCS	402981.90	122088.50	139638.50
LCSD R3962427-2 WG2114768 1x	0815_29	398424.90	121447.70	140203.40
BLANK R3962427-3 WG2114768 1x	0815_33	456449.40	138378.80	145047.30
L1646084-01 WG2114768 1x	0815_34	489461.30	155607.70	155276.20
L1646084-02 WG2114768 1x	0815_35	534653.60	158377.60	169975.30
L1646084-03 WG2114768 1.02x	0815_36	440868.70	126652.30	134478.30
L1646084-04 WG2114768 1.05x	0815_37	436628.30	131311.50	135752.40
L1646084-05 WG2114768 1x	0815_38	443579.50	135096.10	140415.70
L1646084-06 WG2114768 1x	0815_39	460537.80	135758.90	141951.30
L1646084-07 WG2114768 1x	0815_40	454076.90	177285.80	144061.60
L1646084-08 WG2114768 1x	0815_41	472829.50	152218.40	143843.40
L1646084-09 WG2114768 1x	0815_42	498006	150708.40	151842.70
L1646084-10 WG2114768 1x	0815_43	504344	159607.70	154630.20
L1646084-11 WG2114768 1x	0815_44	489942.50	154678.10	152501.50
L1646084-12 WG2114768 1x	0815_45	488992.90	146579.90	155105.80
L1646084-15 WG2114768 1x	0815_46	468432.40	139130.10	145932.80
L1646084-16 WG2114768 1x	0815_47	467000	138163.80	144189.20
L1646084-17 WG2114768 1x	0815_48	446833.30	156620.30	146433.30
L1646084-18 WG2114768 1x	0815_49	518999.90	189319.30	160085.50
L1646084-20 WG2114768 1x	0815_51	492234	161410.80	149919.90
L1646084-13 WG2114768 8x	0815_52	469690.70	153949.20	141609.50
L1646084-14 WG2114768 8x	0815_53	474787	141132.80	153970.40

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Instrument: VOCMS40 • File ID: 0818\_02

08/18/23 09:29

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0818_02	891618.70	411556.60	361127.30
Upper Limit		1783237	823113	722255
Lower Limit		445809	205778	180564
LCS R3962669-1 WG2116697 1x	0818_02LCS	891618.70	411556.60	361127.30
LCSD R3962669-2 WG2116697 1x	0818_03	873483.70	408559	340977.70

# INTERNAL STANDARD SUMMARY

## Instrument: VOCMS40 • File ID: 0818\_02

08/18/23 09:29

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
BLANK R3962669-3 WG2116697 1x	0818_07	845358.20	381861	324045
L1646084-05 WG2116697 1x	0818_08	878435.10	400900.90	338441.20
L1646084-12 WG2116697 1x	0818_09	919309.10	413666.10	345077.30
L1646084-15 WG2116697 1x	0818_10	919638.60	412812.90	343750.60
L1646084-16 WG2116697 1x	0818_11	884525	392621.90	321040.80
L1646084-19 WG2116697 1x	0818_12	911954.70	411990.70	341203.70
L1646084-07 WG2116697 10x	0818_13	902635.50	407727.20	356779
L1646084-13 WG2116697 80x	0818_14	844494.80	388492.20	335882.60
L1646084-18 WG2116697 20x	0818_15	867908.50	402171.60	349031
L1646084-20 WG2116697 10x	0818_16	910486.30	414076.90	352298.70

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

## Instrument: VOCMS42 • File ID: 0818\_03-1

08/18/23 09:44

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0818_03-1	583169.90	272006.70	255370.90
Upper Limit		1166340	544013	510742
Lower Limit		291585	136003	127685
LCS R3962545-1 WG2116565 1x	0818_03LCS	583169.90	272006.70	255370.90
BLANK R3962545-2 WG2116565 1x	0818_07	605418.50	282056.90	265512.80
L1646084-24 WG2116565 8x	0818_11	556206.60	261729.10	246415.90

## Instrument: VOCMS56 • File ID: 0816\_02-1

08/16/23 09:04

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0816_02-1	766432.40	356950.10	346804.80
Upper Limit		1532865	713900	693610
Lower Limit		383216	178475	173402
LCS R3962362-1 WG2115218 1x	0816_02LCS	766432.40	356950.10	346804.80
LCSD R3962362-2 WG2115218 1x	0816_03	808302.60	376148.40	346644.90
BLANK R3962362-3 WG2115218 1x	0816_07	779848.60	358307.50	314067.50

# INTERNAL STANDARD SUMMARY

Instrument: VOCMS56 • File ID: 0816\_02-1

08/16/23 09:04

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
L1646084-21 WG2115218 1x	0816_10	831615.10	362642.70	331896.90
L1646084-22 WG2115218 1x	0816_11	899068.40	388881.90	363920.90
L1646084-24 WG2115218 1x	0816_12	818222.50	349138	333381.30
L1646084-25 WG2115218 1x	0816_13	925604	403527.10	375939.10
L1646084-26 WG2115218 1.03x	0816_14	906925.40	407338	370507.70
L1646084-27 WG2115218 1x	0816_15	904798.60	391608.90	356675.30
L1646084-23 WG2115218 8x	0816_18	930587.40	407618.30	381341.80
MS R3962362-4 WG2115218 8x	0816_28	866229.40	393867.10	354636.90
MSD R3962362-5 WG2115218 8x	0816_29	946134.80	427020	386572.50

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



# INTERNAL STANDARD SUMMARY

Instrument: VOCMS26 • File ID: 0815\_29-2

08/15/23 20:15

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0815_29-2	413875	188137	168792
Upper Limit		827750	376274	337584
Lower Limit		206938	94069	84396
LCS R3961334-1 WG2114625 1x	0815_29LCSB	413875	188137	168792
LCSD R3961334-2 WG2114625 1x	0815_30B	415487	192261	166612
BLANK R3961334-3 WG2114625 1x	0815_33B	404516	179191	155110
L1646084-28 WG2114625 1x	0815_43	388837	172658	152549

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

# INTERNAL STANDARD SUMMARY

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

Instrument: BNAMS22 • File ID: 0817\_03

08/17/23 03:22

Sample ID	File ID	NAPHTHALENE-D8 Response	ACENAPHTHENE-D10 Response	PHENANTHRENE-D10 Response	CHRYSENE-D12 Response	PERYLENE-D12 Response
Standard	0817_03	31621	19248	31613	19539	12942
Upper Limit		63242	38496	63226	39078	25884
Lower Limit		15811	9624	15807	9770	6471
LCS R3962637-1 WG2114852 1x	0817_04	25732	16163	25795	18139	12518
BLANK R3962637-2 WG2114852 1x	0817_06	24624	15543	24757	15283	10758
L1646084-02 WG2114852 1x	0817_10	24393	15016	23722	14188	9895
L1646084-04 WG2114852 1x	0817_11	24501	15372	25469	14798	10576
MS R3962637-3 WG2114852 1x	0817_22	22484	14557	23131	14048	9896
MSD R3962637-4 WG2114852 1x	0817_23	22373	14258	22601	13787	9536

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

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

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

### Abbreviations and Definitions

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

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
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.
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.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.



# 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 <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	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	LA000356
Kentucky <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> 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:  
**Stantec- Bellevue, WA**

11130 NE 33rd Pl, Ste 200  
Bellevue, WA 98004

Billing Information:  
**Accounts Payable**  
11130 NE 33rd Pl, Ste 200  
Bellevue, WA 98004

Pres  
Chk

Report to:  
**Stantec**

Email To:  
zak.armacost@stantec.com;marc.suaze@stantec.com

Project Description:  
**Hungry Whale Test Pitting**

City/State  
Collected: **Westport, WA**

Please Circle:  
 MT  CT  ET

Phone: **425-869-9448**

Client Project #  
**145751446**

Lab Project #  
**STANTECBWA-HUNGRY**

Collected by (print):  
**Paul Jarney**

Site/Facility ID #

P.O. #

Collected by (signature):  
**Paul M. Jarney**

**Rush?** (Lab MUST Be Notified)

Quote #

Immediately Packed on Ice N \_\_\_ Y

\_\_\_ Same Day \_\_\_ Five Day  
\_\_\_ Next Day \_\_\_ 5 Day (Rad Only)  
\_\_\_ Two Day \_\_\_ 10 Day (Rad Only)  
 Three Day

Date Results Needed

No. of Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
<del>A4-FL-12</del> <b>A3-FL-12</b>	G	SS	12	8/14/23	0415	3
A1-FL-14	G	SS	14	8/14/23	0445	5
A2-FL-14	G	SS	14	8/14/23	0515	3
<del>A2-SW2-12</del> <b>A2-SW1-12</b>	G	SS	12	8/14/23	0520	5
<del>A3-FL-14</del> <b>A2-FL-14-ADD</b>	G	SS	14	8/14/23	0550	3
<del>A4-SW1-13</del> <b>A3-SW1-13</b>	G	SS	13	8/14/23	0600	3
SP-SI-7	G	SS	-	8/14/23	0610	3
B1-FL-15	G	SS	15	8/14/23	0640	3
B2-FL-13	G	SS	13	8/14/23	0650	3
<del>B3-FL-15</del> <b>B2-FL-15-ADD</b>	G	SS	15	8/14/23	0700	3

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - WasteWater  
DW - Drinking Water  
OT - Other

Remarks:

Samples returned via:  
\_\_\_ UPS \_\_\_ FedEx \_\_\_ Courier

Tracking # **60841 8344 8758**

pH \_\_\_ Temp \_\_\_  
Flow \_\_\_ Other \_\_\_

Sample Receipt Checklist	
COC Seal Present/Intact: <input checked="" type="checkbox"/> NP	<input checked="" type="checkbox"/> N
COC Signed/Accurate:	<input checked="" type="checkbox"/> N
Bottles arrive intact:	<input checked="" type="checkbox"/> N
Correct bottles used:	<input checked="" type="checkbox"/> N
Sufficient volume sent:	<input checked="" type="checkbox"/> N
If Applicable	
VOA Zero Headspace:	<input checked="" type="checkbox"/> N
Preservation Correct/Checked:	<input checked="" type="checkbox"/> N
RAD Screen <0.5 mR/hr:	<input checked="" type="checkbox"/> N

Relinquished by: (Signature)

**Paul M. Jarney**

Date: **8/14/23**

Time: **1600**

Received by: (Signature)

**FedEx**

Trip Blank Received: Yes  No

**2** (HCL MeOH TBR)

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp: **2-8 to 2-8** °C Bottles Received: **89**

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

**Hana Muechling**

Date: **08-15-23** Time: **0900**

Hold:

Condition:

NCF /  OK

Analysis / Container / Preservative

Chain of Custody Page 1 of 2



**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.paceabs.com/hubs/pas-standard-terms.pdf>

SDG #

**L1646084**

Table

**E050**

Acctnum: **STANTECBWA**

Template: **T234672**

Prelogin: **P1013674**

PM: **546 - Jared Starkey**

PB: **7/28/23 CAW**

Shipped Via: **FedEX Standard**

Remarks Sample # (lab only)

-01

-02

-03

-04

-05

-06

-07

-08

-09

-10

*Paul M. Jarney*



Company Name/Address:  
**Stantec- Bellevue, WA**  
 11130 NE 33rd Pl, Ste 200  
 Bellevue, WA 98004

Billing Information:  
**Accounts Payable**  
 11130 NE 33rd Pl, Ste 200  
 Bellevue, WA 98004

Pres  
 Chk

Report to:  
**Stantec**

Email To:  
 zak.armacost@stantec.com;marc.suaze@stantec.com

Project Description:  
**Hungry Whale Test Pitting**

City/State  
 Collected: **Westport, WA**

Please Circle:  
 MT  CT  ET

Phone: **425-869-9448**

Client Project #  
**185751446**

Lab Project #  
**STANTECBWA-HUNGRY**

Collected by (print):  
**Paul Jarney**

Site/Facility ID #

P.O. #

Collected by (signature):  
**Paul M. Jarney**

**Rush?** (Lab MUST Be Notified)  
 Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

Quote #

Immediately  
 Packed on Ice N  Y  X

Date Results Needed

No.  
 of  
 Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
<del>B4-FL-15</del> <b>B3-FL-15</b> G		SS	15	8/14/23	0705	3
<del>B5-FL-15</del> <b>B4-FL-15</b> G		SS	15	8/14/23	0715	3
<del>A5-SW4-12</del> <b>A4-SW4-12</b>		SS	12	8/14/23	0725	5
B5-SW4-12	G	SS	12	8/14/23	0755	3
<del>C4-FL-15</del> <b>C3-FL-15</b> G		SS	15	8/14/23	0810	3
<del>C5-FL-15</del> <b>C4-FL-15</b> G		SS	15	8/14/23	0820	3
B1-SW2-12	G	SS	12	8/14/23	0830	5
SP-SI-4	G	SS	-	8/14/23	0835	3
<del>C3-FL-15</del> <b>C2-FL-15-ADD</b>		SS	15	8/14/23	0915	3
C2-FL-15	G	SS	15	8/14/23	0940	3

Analysis / Container / Preservative						
EPH WA 4ozAmb-NoPres	NWTPHDXNOSGT 4ozClr-NoPres	NWTPHGX 40mlAmb/MeOH10ml/Syr	Pb 6010 2ozClr-NoPres	SV8270PAHSIM 4ozClr-NoPres	Total Solids 4ozClr-NoPres	V8260BTEX 40mlAmb/MeOH10ml/Syr
						VPH WA 40mlAmb/MeOH10ml/Syr

Chain of Custody Page 2 of 3



**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 # **L1646084**

Table #

Acctnum: **STANTECBWA**  
 Template: **T234672**  
 Prelogin: **P1013674**  
 PM: **546 - Jared Starkey**  
 PB: **7/25/23 CAM**

Shipped Via: **FedEx Standard**

Remarks | Sample # (lab only)

\* Matrix:  
 SS - Soil AIR - Air F - Filter  
 GW - Groundwater B - Bioassay  
 WW - WasteWater  
 DW - Drinking Water  
 OT - Other

Remarks:

pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_

Samples returned via:  
 UPS  FedEx  Courier

Tracking # **6841 8344 8758**

Sample Receipt Checklist

COC Seal Present/Intact:	NP	<input checked="" type="checkbox"/>	N
COC Signed/Accurate:		<input checked="" type="checkbox"/>	N
Bottles arrive intact:		<input checked="" type="checkbox"/>	N
Correct bottles used:		<input checked="" type="checkbox"/>	N
Sufficient volume sent:		<input checked="" type="checkbox"/>	N
If Applicable			
VOA Zero Headspace:		<input checked="" type="checkbox"/>	N
Preservation Correct/Checked:		<input checked="" type="checkbox"/>	N
RAD Screen <0.5 mR/hr:		<input checked="" type="checkbox"/>	N

Relinquished by: (Signature)  
**Paul M. Jarney**

Date:  
**8/14/23**

Time:  
**1600**

Received by: (Signature)  
**FedEx**

Trip Blank Received: Yes  No   
 HCl/MeOH  
 TBR

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp: °C **28.10 = 28.89**  
 Bottles Received:

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)  
**Hanna Mweching**

Date: **8.15.23** Time: **0900**

Hold: Condition: **NCF / OK**





## Stantec- Bellevue, WA

Sample Delivery Group: L1647515  
Samples Received: 08/18/2023  
Project Number: 185751446  
Description: Hungry Whale Test Pitting

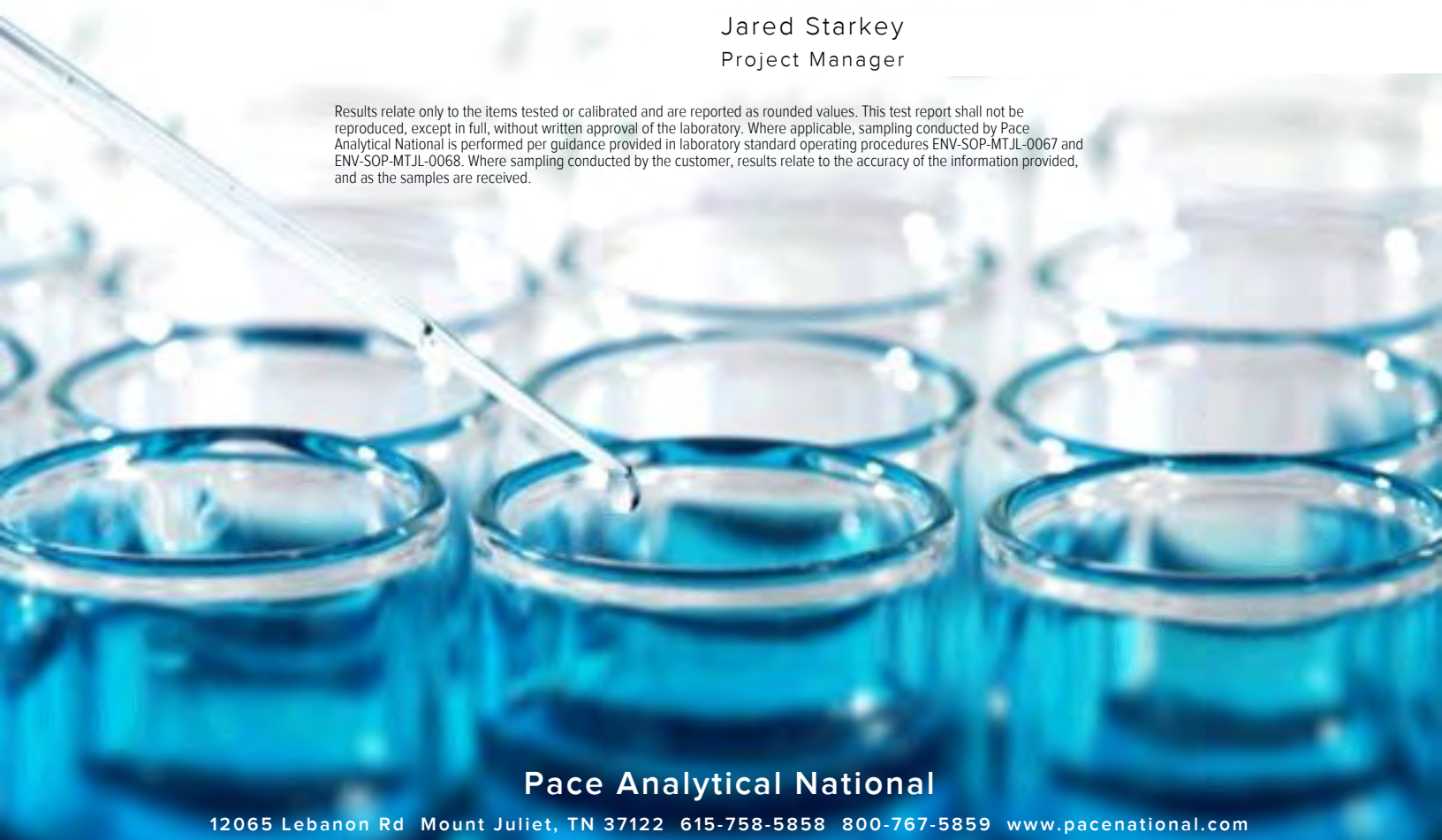
Report To: Stantec  
11130 NE 33rd Pl, Ste 200  
Bellevue, WA 98004

Entire Report Reviewed By:



Jared Starkey  
Project Manager

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



Pace Analytical National

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



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# SAMPLE SUMMARY

## SP-SI-10 L1647515-01 Solid

Collected by Paul Janney      Collected date/time 08/15/23 06:30      Received date/time 08/18/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2117067	1	08/19/23 10:22	08/19/23 10:39	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2117360	25.3	08/15/23 06:30	08/19/23 23:17	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2117303	1.01	08/15/23 06:30	08/19/23 18:31	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2117946	10	08/15/23 06:30	08/21/23 13:17	JAH	Mt. Juliet, TN



## C5-SW4-6 L1647515-02 Solid

Collected by Paul Janney      Collected date/time 08/15/23 06:45      Received date/time 08/18/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2117068	1	08/19/23 12:00	08/19/23 12:17	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2119788	2000	08/15/23 06:45	08/24/23 05:05	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2117303	8	08/15/23 06:45	08/19/23 19:08	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2117946	800	08/15/23 06:45	08/21/23 13:36	JAH	Mt. Juliet, TN

## D5-SW4-10 L1647515-03 Solid

Collected by Paul Janney      Collected date/time 08/15/23 06:55      Received date/time 08/18/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2117068	1	08/19/23 12:00	08/19/23 12:17	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2117360	25	08/15/23 06:55	08/19/23 23:36	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2117303	1	08/15/23 06:55	08/19/23 18:50	DWR	Mt. Juliet, TN

## D1-SW2-12 L1647515-04 Solid

Collected by Paul Janney      Collected date/time 08/15/23 07:25      Received date/time 08/18/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2117068	1	08/19/23 12:00	08/19/23 12:17	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2119788	25	08/15/23 07:25	08/24/23 03:15	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2117318	1	08/15/23 07:25	08/19/23 20:08	KSD	Mt. Juliet, TN

## F5-SW4-13 L1647515-05 Solid

Collected by Paul Janney      Collected date/time 08/15/23 13:40      Received date/time 08/18/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2117068	1	08/19/23 12:00	08/19/23 12:17	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2117360	25	08/15/23 13:40	08/20/23 00:13	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2117318	1	08/15/23 13:40	08/19/23 20:28	KSD	Mt. Juliet, TN

## F5-SW4-13 L1647515-06 Solid

Collected by Paul Janney      Collected date/time 08/15/23 13:50      Received date/time 08/18/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2117068	1	08/19/23 12:00	08/19/23 12:17	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2117360	25	08/15/23 13:50	08/20/23 00:31	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2117318	1	08/15/23 13:50	08/19/23 20:47	KSD	Mt. Juliet, TN

# SAMPLE SUMMARY

## F5-SW3-12 L1647515-07 Solid

Collected by Paul Janney      Collected date/time 08/15/23 14:05      Received date/time 08/18/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2117068	1	08/19/23 12:00	08/19/23 12:17	CMK	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2117305	1	08/19/23 15:45	08/23/23 13:10	ZSA	Mt. Juliet, TN
Volatile Petroleum Hydrocarbons by Method VPHWA	WG2120661	1	08/15/23 14:05	08/29/23 07:53	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2117360	25	08/15/23 14:05	08/20/23 00:49	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2117318	1	08/15/23 14:05	08/19/23 21:06	KSD	Mt. Juliet, TN
TPH by Method EPH	WG2118724	1	08/22/23 07:00	08/23/23 17:50	DMG	Mt. Juliet, TN
TPH by Method EPH	WG2118724	1	08/22/23 07:00	08/23/23 23:31	DMG	Mt. Juliet, TN

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

## SP-SI-11 L1647515-08 Solid

Collected by Paul Janney      Collected date/time 08/16/23 07:00      Received date/time 08/18/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2117068	1	08/19/23 12:00	08/19/23 12:17	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2119788	500	08/16/23 07:00	08/24/23 04:47	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2117318	8	08/16/23 07:00	08/19/23 22:22	KSD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2118985	80	08/16/23 07:00	08/23/23 11:36	ACG	Mt. Juliet, TN

## SP-SI-12 L1647515-09 Solid

Collected by Paul Janney      Collected date/time 08/16/23 07:05      Received date/time 08/18/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2117068	1	08/19/23 12:00	08/19/23 12:17	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2117360	100	08/16/23 07:05	08/20/23 02:21	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2117318	8	08/16/23 07:05	08/19/23 22:41	KSD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2118985	80	08/16/23 07:05	08/23/23 11:55	ACG	Mt. Juliet, TN

## DUP-04 L1647515-10 Solid

Collected by Paul Janney      Collected date/time 08/15/23 00:00      Received date/time 08/18/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2117068	1	08/19/23 12:00	08/19/23 12:17	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2117360	25	08/15/23 00:00	08/20/23 01:08	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2117318	1	08/15/23 00:00	08/19/23 21:25	KSD	Mt. Juliet, TN

## DUP-05 L1647515-11 Solid

Collected by Paul Janney      Collected date/time 08/15/23 00:00      Received date/time 08/18/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2117068	1	08/19/23 12:00	08/19/23 12:17	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2117360	25	08/15/23 00:00	08/20/23 01:26	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2117318	1	08/15/23 00:00	08/19/23 21:44	KSD	Mt. Juliet, TN

# CASE NARRATIVE

Unless qualified or notated within the narrative below, all sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. 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.

Jared Starkey  
Project Manager

## Report Revision History

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Level II Report - Version 1: 08/30/23 14:10



## Project Comments

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ID Corrections

## Volatile Organic Compounds (GC) by Method NWTPHGX

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The same analyte is found in the associated blank.

Batch	Analyte	Lab Sample ID
WG2117360	Gasoline Range Organics-NWTPH	L1647515-05, 07

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

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Surrogate recovery limits have been exceeded; values are outside upper control limits.

Batch	Analyte	Lab Sample ID
WG2117303	4-Bromofluorobenzene	L1647515-01

Surrogate recovery limits have been exceeded; values are outside lower control limits.

Batch	Analyte	Lab Sample ID
WG2117303	Toluene-d8	L1647515-02

## TPH by Method EPH

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Surrogate recovery limits have been exceeded; values are outside lower control limits.

Batch	Analyte	Lab Sample ID
WG2118724	1-Chloro-octadecane	L1647515-07
WG2118724	o-Terphenyl	L1647515-07

The same analyte is found in the associated blank.

Batch	Analyte	Lab Sample ID
WG2118724	C21-C34 Aliphatics	L1647515-07

# CASE NARRATIVE

## TPH by Method EPH

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The associated batch QC was below the established quality control range for accuracy.

Batch	Lab Sample ID	Analytes
WG2118724	(LCS) R3964773-5, (LCSD) R3964773-6, L1647515-07	C12-C16 Aromatics

The sample matrix interfered with the ability to make any accurate determination; spike value is low.

Batch	Lab Sample ID	Analytes
WG2118724	(MS) R3965378-1, (MS) R3965378-3, (MSD) R3965378-4	C12-C16 Aliphatics and C12-C16 Aromatics

The associated batch QC was outside the established quality control range for precision.

Batch	Lab Sample ID	Analytes
WG2118724	(MSD) R3965378-2	C16-C21 Aliphatics

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	80.0		1	08/19/2023 10:39	<a href="#">WG2117067</a>

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

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	250		1.28	3.79	25.3	08/19/2023 23:17	<a href="#">WG2117360</a>
(S) a,a,a-Trifluorotoluene(FID)	111			77.0-120		08/19/2023 23:17	<a href="#">WG2117360</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.00575		0.000707	0.00151	1.01	08/19/2023 18:31	<a href="#">WG2117303</a>
Toluene	0.0277		0.00196	0.00756	1.01	08/19/2023 18:31	<a href="#">WG2117303</a>
Ethylbenzene	0.0410		0.00111	0.00379	1.01	08/19/2023 18:31	<a href="#">WG2117303</a>
Total Xylenes	11.3		0.0132	0.0975	10	08/21/2023 13:17	<a href="#">WG2117946</a>
(S) Toluene-d8	122			75.0-131		08/19/2023 18:31	<a href="#">WG2117303</a>
(S) Toluene-d8	105			75.0-131		08/21/2023 13:17	<a href="#">WG2117946</a>
(S) 4-Bromofluorobenzene	153	J1		67.0-138		08/19/2023 18:31	<a href="#">WG2117303</a>
(S) 4-Bromofluorobenzene	108			67.0-138		08/21/2023 13:17	<a href="#">WG2117946</a>
(S) 1,2-Dichloroethane-d4	101			70.0-130		08/19/2023 18:31	<a href="#">WG2117303</a>
(S) 1,2-Dichloroethane-d4	109			70.0-130		08/21/2023 13:17	<a href="#">WG2117946</a>

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	95.3		1	08/19/2023 12:17	<a href="#">WG2117068</a>

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	1100		74.7	220	2000	08/24/2023 05:05	<a href="#">WG2119788</a>
(S) a,a,a-Trifluorotoluene(FID)	113			77.0-120		08/24/2023 05:05	<a href="#">WG2119788</a>

3 Ss

4 Cn

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
Benzene	5.80		0.00412	0.00881	8	08/19/2023 19:08	<a href="#">WG2117303</a>
Toluene	13.2		0.0115	0.0441	8	08/19/2023 19:08	<a href="#">WG2117303</a>
Ethylbenzene	113		0.650	2.20	800	08/21/2023 13:36	<a href="#">WG2117946</a>
Total Xylenes	1160		0.775	5.73	800	08/21/2023 13:36	<a href="#">WG2117946</a>
(S) Toluene-d8	74.8	<a href="#">J2</a>		75.0-131		08/19/2023 19:08	<a href="#">WG2117303</a>
(S) Toluene-d8	106			75.0-131		08/21/2023 13:36	<a href="#">WG2117946</a>
(S) 4-Bromofluorobenzene	81.7			67.0-138		08/19/2023 19:08	<a href="#">WG2117303</a>
(S) 4-Bromofluorobenzene	97.9			67.0-138		08/21/2023 13:36	<a href="#">WG2117946</a>
(S) 1,2-Dichloroethane-d4	92.0			70.0-130		08/19/2023 19:08	<a href="#">WG2117303</a>
(S) 1,2-Dichloroethane-d4	108			70.0-130		08/21/2023 13:36	<a href="#">WG2117946</a>

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	95.0		1	08/19/2023 12:17	<a href="#">WG2117068</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	140		0.939	2.77	25	08/19/2023 23:36	<a href="#">WG2117360</a>
(S) a,a,a-Trifluorotoluene(FID)	112			77.0-120		08/19/2023 23:36	<a href="#">WG2117360</a>

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
Benzene	0.0839		0.000517	0.00111	1	08/19/2023 18:50	<a href="#">WG2117303</a>
Toluene	0.482		0.00144	0.00554	1	08/19/2023 18:50	<a href="#">WG2117303</a>
Ethylbenzene	0.696		0.000816	0.00277	1	08/19/2023 18:50	<a href="#">WG2117303</a>
Total Xylenes	5.77		0.000974	0.00720	1	08/19/2023 18:50	<a href="#">WG2117303</a>
(S) Toluene-d8	112			75.0-131		08/19/2023 18:50	<a href="#">WG2117303</a>
(S) 4-Bromofluorobenzene	92.9			67.0-138		08/19/2023 18:50	<a href="#">WG2117303</a>
(S) 1,2-Dichloroethane-d4	92.5			70.0-130		08/19/2023 18:50	<a href="#">WG2117303</a>

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



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	79.4		1	08/19/2023 12:17	<a href="#">WG2117068</a>

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

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	4.77		1.35	3.97	25	08/24/2023 03:15	<a href="#">WG2119788</a>
(S) a,a,a-Trifluorotoluene(FID)	107			77.0-120		08/24/2023 03:15	<a href="#">WG2119788</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	U		0.000742	0.00159	1	08/19/2023 20:08	<a href="#">WG2117318</a>
Toluene	0.00412	J	0.00207	0.00794	1	08/19/2023 20:08	<a href="#">WG2117318</a>
Ethylbenzene	0.00437		0.00117	0.00397	1	08/19/2023 20:08	<a href="#">WG2117318</a>
Total Xylenes	0.0257		0.00140	0.0103	1	08/19/2023 20:08	<a href="#">WG2117318</a>
(S) Toluene-d8	104			75.0-131		08/19/2023 20:08	<a href="#">WG2117318</a>
(S) 4-Bromofluorobenzene	106			67.0-138		08/19/2023 20:08	<a href="#">WG2117318</a>
(S) 1,2-Dichloroethane-d4	94.8			70.0-130		08/19/2023 20:08	<a href="#">WG2117318</a>

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	75.3		1	08/19/2023 12:17	<a href="#">WG2117068</a>

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

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	13.2	<u>B</u>	1.44	4.24	25	08/20/2023 00:13	<a href="#">WG2117360</a>
(S) a,a,a-Trifluorotoluene(FID)	106			77.0-120		08/20/2023 00:13	<a href="#">WG2117360</a>

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
Benzene	0.477		0.000792	0.00170	1	08/19/2023 20:28	<a href="#">WG2117318</a>
Toluene	0.256		0.00221	0.00848	1	08/19/2023 20:28	<a href="#">WG2117318</a>
Ethylbenzene	0.204		0.00125	0.00424	1	08/19/2023 20:28	<a href="#">WG2117318</a>
Total Xylenes	1.02		0.00149	0.0110	1	08/19/2023 20:28	<a href="#">WG2117318</a>
(S) Toluene-d8	106			75.0-131		08/19/2023 20:28	<a href="#">WG2117318</a>
(S) 4-Bromofluorobenzene	108			67.0-138		08/19/2023 20:28	<a href="#">WG2117318</a>
(S) 1,2-Dichloroethane-d4	97.8			70.0-130		08/19/2023 20:28	<a href="#">WG2117318</a>

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	78.4		1	08/19/2023 12:17	<a href="#">WG2117068</a>

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

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	22.6		1.35	3.98	25	08/20/2023 00:31	<a href="#">WG2117360</a>
(S) a,a,a-Trifluorotoluene(FID)	109			77.0-120		08/20/2023 00:31	<a href="#">WG2117360</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	1.02		0.000743	0.00159	1	08/19/2023 20:47	<a href="#">WG2117318</a>
Toluene	0.0344		0.00207	0.00796	1	08/19/2023 20:47	<a href="#">WG2117318</a>
Ethylbenzene	0.627		0.00117	0.00398	1	08/19/2023 20:47	<a href="#">WG2117318</a>
Total Xylenes	0.855		0.00140	0.0103	1	08/19/2023 20:47	<a href="#">WG2117318</a>
(S) Toluene-d8	106			75.0-131		08/19/2023 20:47	<a href="#">WG2117318</a>
(S) 4-Bromofluorobenzene	106			67.0-138		08/19/2023 20:47	<a href="#">WG2117318</a>
(S) 1,2-Dichloroethane-d4	98.8			70.0-130		08/19/2023 20:47	<a href="#">WG2117318</a>

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	78.8		1	08/19/2023 12:17	<a href="#">WG2117068</a>

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Lead	1.65		0.264	0.634	1	08/23/2023 13:10	<a href="#">WG2117305</a>

Volatile Petroleum Hydrocarbons by Method VPHWA

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Unadjusted C5-C6 Aliphatics	U		2.57	7.69	1	08/29/2023 07:53	<a href="#">WG2120661</a>
Adjusted C5-C6 Aliphatics	U		2.57	7.69	1	08/29/2023 07:53	<a href="#">WG2120661</a>
Unadjusted C6-C8 Aliphatics	1.26	J	0.700	7.69	1	08/29/2023 07:53	<a href="#">WG2120661</a>
Adjusted C6-C8 Aliphatics	U		0.700	7.69	1	08/29/2023 07:53	<a href="#">WG2120661</a>
Unadjusted C8-C10 Aliphatics	U		2.57	7.69	1	08/29/2023 07:53	<a href="#">WG2120661</a>
Adjusted C8-C10 Aliphatics	U		2.57	7.69	1	08/29/2023 07:53	<a href="#">WG2120661</a>
C8-C10 Aromatics	U		0.854	7.69	1	08/29/2023 07:53	<a href="#">WG2120661</a>
(S) 2,5-Dibromotoluene(FID)	78.4			60.0-140		08/29/2023 07:53	<a href="#">WG2120661</a>
(S) 2,5-Dibromotoluene(PID)	90.0			60.0-140		08/29/2023 07:53	<a href="#">WG2120661</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	13.4	B	1.30	3.84	25	08/20/2023 00:49	<a href="#">WG2117360</a>
(S) a,a,a-Trifluorotoluene(FID)	103			77.0-120		08/20/2023 00:49	<a href="#">WG2117360</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.892		0.000718	0.00154	1	08/19/2023 21:06	<a href="#">WG2117318</a>
Toluene	0.0195		0.00200	0.00769	1	08/19/2023 21:06	<a href="#">WG2117318</a>
Ethylbenzene	0.855		0.00113	0.00384	1	08/19/2023 21:06	<a href="#">WG2117318</a>
Total Xylenes	0.332		0.00135	0.0100	1	08/19/2023 21:06	<a href="#">WG2117318</a>
(S) Toluene-d8	106			75.0-131		08/19/2023 21:06	<a href="#">WG2117318</a>
(S) 4-Bromofluorobenzene	104			67.0-138		08/19/2023 21:06	<a href="#">WG2117318</a>
(S) 1,2-Dichloroethane-d4	99.8			70.0-130		08/19/2023 21:06	<a href="#">WG2117318</a>

TPH by Method EPH

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
C10-C12 Aliphatics	U		2.13	6.34	1	08/23/2023 17:50	<a href="#">WG2118724</a>
C12-C16 Aliphatics	U		2.13	6.34	1	08/23/2023 17:50	<a href="#">WG2118724</a>
C16-C21 Aliphatics	U		2.13	6.34	1	08/23/2023 17:50	<a href="#">WG2118724</a>
C21-C34 Aliphatics	2.55	B J	2.13	6.34	1	08/23/2023 17:50	<a href="#">WG2118724</a>
C10-C12 Aromatics	U		2.69	6.34	1	08/23/2023 23:31	<a href="#">WG2118724</a>
C12-C16 Aromatics	U	J4	2.69	6.34	1	08/23/2023 23:31	<a href="#">WG2118724</a>
C16-C21 Aromatics	U		2.69	6.34	1	08/23/2023 23:31	<a href="#">WG2118724</a>
C21-C34 Aromatics	U		2.69	6.34	1	08/23/2023 23:31	<a href="#">WG2118724</a>
(S) o-Terphenyl	61.0	J2		70.0-130		08/23/2023 23:31	<a href="#">WG2118724</a>
(S) 1-Chloro-octadecane	56.8	J2		70.0-130		08/23/2023 17:50	<a href="#">WG2118724</a>
(S) 2-Fluorobiphenyl	90.3			70.0-130		08/23/2023 23:31	<a href="#">WG2118724</a>
(S) 2-Bromonaphthalene	86.8			70.0-130		08/23/2023 23:31	<a href="#">WG2118724</a>



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	90.8		1	08/19/2023 12:17	<a href="#">WG2117068</a>

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	1730		20.3	60.2	500	08/24/2023 04:47	<a href="#">WG2119788</a>
(S) a,a,a-Trifluorotoluene(FID)	93.9			77.0-120		08/24/2023 04:47	<a href="#">WG2119788</a>

3 Ss

4 Cn

5 Sr

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.163		0.00450	0.00963	8	08/19/2023 22:22	<a href="#">WG2117318</a>
Toluene	5.51		0.0125	0.0482	8	08/19/2023 22:22	<a href="#">WG2117318</a>
Ethylbenzene	13.8		0.00710	0.0241	8	08/19/2023 22:22	<a href="#">WG2117318</a>
Total Xylenes	125		0.0848	0.626	80	08/23/2023 11:36	<a href="#">WG2118985</a>
(S) Toluene-d8	105			75.0-131		08/19/2023 22:22	<a href="#">WG2117318</a>
(S) Toluene-d8	108			75.0-131		08/23/2023 11:36	<a href="#">WG2118985</a>
(S) 4-Bromofluorobenzene	110			67.0-138		08/19/2023 22:22	<a href="#">WG2117318</a>
(S) 4-Bromofluorobenzene	98.9			67.0-138		08/23/2023 11:36	<a href="#">WG2118985</a>
(S) 1,2-Dichloroethane-d4	95.9			70.0-130		08/19/2023 22:22	<a href="#">WG2117318</a>
(S) 1,2-Dichloroethane-d4	91.9			70.0-130		08/23/2023 11:36	<a href="#">WG2118985</a>

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	90.2		1	08/19/2023 12:17	<a href="#">WG2117068</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	1160		4.15	12.2	100	08/20/2023 02:21	<a href="#">WG2117360</a>
(S) a,a,a-Trifluorotoluene(FID)	105			77.0-120		08/20/2023 02:21	<a href="#">WG2117360</a>

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
Benzene	0.185		0.00458	0.00980	8	08/19/2023 22:41	<a href="#">WG2117318</a>
Toluene	8.21		0.0127	0.0490	8	08/19/2023 22:41	<a href="#">WG2117318</a>
Ethylbenzene	14.0		0.00723	0.0245	8	08/19/2023 22:41	<a href="#">WG2117318</a>
Total Xylenes	130		0.0862	0.637	80	08/23/2023 11:55	<a href="#">WG2118985</a>
(S) Toluene-d8	106			75.0-131		08/19/2023 22:41	<a href="#">WG2117318</a>
(S) Toluene-d8	107			75.0-131		08/23/2023 11:55	<a href="#">WG2118985</a>
(S) 4-Bromofluorobenzene	111			67.0-138		08/19/2023 22:41	<a href="#">WG2117318</a>
(S) 4-Bromofluorobenzene	98.6			67.0-138		08/23/2023 11:55	<a href="#">WG2118985</a>
(S) 1,2-Dichloroethane-d4	95.5			70.0-130		08/19/2023 22:41	<a href="#">WG2117318</a>
(S) 1,2-Dichloroethane-d4	92.0			70.0-130		08/23/2023 11:55	<a href="#">WG2118985</a>

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Is

8  
Gl

9  
Al

10  
Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	96.1		1	08/19/2023 12:17	<a href="#">WG2117068</a>

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

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	155		0.918	2.71	25	08/20/2023 01:08	<a href="#">WG2117360</a>
(S) a,a,a-Trifluorotoluene(FID)	113			77.0-120		08/20/2023 01:08	<a href="#">WG2117360</a>

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
Benzene	0.109		0.000505	0.00108	1	08/19/2023 21:25	<a href="#">WG2117318</a>
Toluene	0.615		0.00141	0.00541	1	08/19/2023 21:25	<a href="#">WG2117318</a>
Ethylbenzene	0.870		0.000797	0.00271	1	08/19/2023 21:25	<a href="#">WG2117318</a>
Total Xylenes	7.06		0.000952	0.00703	1	08/19/2023 21:25	<a href="#">WG2117318</a>
(S) Toluene-d8	105			75.0-131		08/19/2023 21:25	<a href="#">WG2117318</a>
(S) 4-Bromofluorobenzene	104			67.0-138		08/19/2023 21:25	<a href="#">WG2117318</a>
(S) 1,2-Dichloroethane-d4	102			70.0-130		08/19/2023 21:25	<a href="#">WG2117318</a>

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	77.3		1	08/19/2023 12:17	<a href="#">WG2117068</a>

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	28.1		1.39	4.09	25	08/20/2023 01:26	<a href="#">WG2117360</a>
(S) a,a,a-Trifluorotoluene(FID)	107			77.0-120		08/20/2023 01:26	<a href="#">WG2117360</a>

3 Ss

4 Cn

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
Benzene	1.26		0.000763	0.00163	1	08/19/2023 21:44	<a href="#">WG2117318</a>
Toluene	0.0322		0.00212	0.00817	1	08/19/2023 21:44	<a href="#">WG2117318</a>
Ethylbenzene	0.698		0.00120	0.00409	1	08/19/2023 21:44	<a href="#">WG2117318</a>
Total Xylenes	0.704		0.00144	0.0106	1	08/19/2023 21:44	<a href="#">WG2117318</a>
(S) Toluene-d8	106			75.0-131		08/19/2023 21:44	<a href="#">WG2117318</a>
(S) 4-Bromofluorobenzene	105			67.0-138		08/19/2023 21:44	<a href="#">WG2117318</a>
(S) 1,2-Dichloroethane-d4	97.2			70.0-130		08/19/2023 21:44	<a href="#">WG2117318</a>

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc



Method Blank (MB)

(MB) R3962968-1 08/19/23 10:39

Analyte	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
	%		%	%
Total Solids	0.00200			

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

L1647515-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1647515-01 08/19/23 10:39 • (DUP) R3962968-3 08/19/23 10:39

Analyte	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
	%	%		%		%
Total Solids	80.0	79.0	1	1.30		10

<sup>4</sup>Cn

<sup>5</sup>Sr

Laboratory Control Sample (LCS)

(LCS) R3962968-2 08/19/23 10:39

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

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3962978-1 08/19/23 12:17

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

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

L1647515-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1647515-11 08/19/23 12:17 • (DUP) R3962978-3 08/19/23 12:17

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	77.3	78.5	1	1.53		10

<sup>4</sup>Cn

<sup>5</sup>Sr

Laboratory Control Sample (LCS)

(LCS) R3962978-2 08/19/23 12:17

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

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3964428-1 08/23/23 11:44

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Lead	U		0.208	0.500

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

Laboratory Control Sample (LCS)

(LCS) R3964428-2 08/23/23 11:46

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Lead	100	101	101	80.0-120	

<sup>4</sup>Cn

<sup>5</sup>Sr

L1646856-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1646856-01 08/23/23 11:49 • (MS) R3964428-5 08/23/23 11:58 • (MSD) R3964428-6 08/23/23 12:01

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 %
Lead	100	6.73	97.3	104	90.5	97.6	1	75.0-125			6.95	20

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3967194-3 08/29/23 02:44

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Unadjusted C5-C6 Aliphatics	2.08	U	1.67	5.00
Adjusted C5-C6 Aliphatics	2.08	U	1.67	5.00
Unadjusted C6-C8 Aliphatics	U		0.455	5.00
Adjusted C6-C8 Aliphatics	U		0.455	5.00
Unadjusted C8-C10 Aliphatics	U		1.67	5.00
Adjusted C8-C10 Aliphatics	U		1.67	5.00
C8-C10 Aromatics	U		0.555	5.00
(S) 2,5-Dibromotoluene(FID)	76.3			60.0-140
(S) 2,5-Dibromotoluene(PID)	88.1			60.0-140

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

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

(LCS) R3967194-1 08/29/23 00:27 • (LCSD) R3967194-2 08/29/23 01:02

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 %
Unadjusted C5-C6 Aliphatics	30.0	25.3	26.2	84.3	87.3	70.0-130			3.50	25
Unadjusted C6-C8 Aliphatics	20.0	18.5	19.2	92.5	96.0	70.0-130			3.71	25
Unadjusted C8-C10 Aliphatics	60.0	66.0	68.9	110	115	70.0-130			4.30	25
C8-C10 Aromatics	50.0	61.4	63.3	123	127	70.0-130			3.05	25
(S) 2,5-Dibromotoluene(FID)				83.7	86.5	60.0-140				
(S) 2,5-Dibromotoluene(PID)				93.2	95.9	60.0-140				

7 Is

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R3963584-2 08/19/23 22:00

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	0.932	J	0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	106			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3963584-1 08/19/23 20:31

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5.50	5.89	107	71.0-124	
(S) a,a,a-Trifluorotoluene(FID)			108	77.0-120	

L1647515-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1647515-01 08/19/23 23:17 • (MS) R3963584-3 08/20/23 05:42 • (MSD) R3963584-4 08/20/23 06:01

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	208	250	478	494	109	117	25.3	50.0-150	E	E	3.39	27
(S) a,a,a-Trifluorotoluene(FID)					116	115		77.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R3964793-3 08/24/23 02:04

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)	114			77.0-120

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

(LCS) R3964793-1 08/24/23 00:51 • (LCSD) R3964793-2 08/24/23 01:09

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	6.01	5.89	109	107	71.0-124			2.02	20
(S) a,a,a-Trifluorotoluene(FID)				110	114	77.0-120				

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

Method Blank (MB)

(MB) R3963142-3 08/19/23 15:22

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
Benzene	U		0.000467	0.00100
Toluene	0.00158	J	0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Total Xylenes	U		0.000880	0.00650
(S) Toluene-d8	113			75.0-131
(S) 4-Bromofluorobenzene	73.3			67.0-138
(S) 1,2-Dichloroethane-d4	98.0			70.0-130

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

(LCS) R3963142-1 08/19/23 12:40 • (LCSD) R3963142-2 08/19/23 12:59

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Benzene	0.125	0.112	0.115	89.6	92.0	70.0-123			2.64	20
Toluene	0.125	0.120	0.122	96.0	97.6	75.0-121			1.65	20
Ethylbenzene	0.125	0.126	0.126	101	101	74.0-126			0.000	20
Total Xylenes	0.375	0.381	0.383	102	102	72.0-127			0.524	20
(S) Toluene-d8				109	109	75.0-131				
(S) 4-Bromofluorobenzene				99.2	102	67.0-138				
(S) 1,2-Dichloroethane-d4				101	103	70.0-130				

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3963980-2 08/19/23 15:53

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
Benzene	U		0.000467	0.00100
Toluene	U		0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Total Xylenes	U		0.000880	0.00650
<i>(S) Toluene-d8</i>	108			75.0-131
<i>(S) 4-Bromofluorobenzene</i>	104			67.0-138
<i>(S) 1,2-Dichloroethane-d4</i>	97.9			70.0-130

Laboratory Control Sample (LCS)

(LCS) R3963980-1 08/19/23 13:23

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	mg/kg	mg/kg	%	%	
Benzene	0.125	0.140	112	70.0-123	
Toluene	0.125	0.143	114	75.0-121	
Ethylbenzene	0.125	0.137	110	74.0-126	
Total Xylenes	0.375	0.410	109	72.0-127	
<i>(S) Toluene-d8</i>			106	75.0-131	
<i>(S) 4-Bromofluorobenzene</i>			108	67.0-138	
<i>(S) 1,2-Dichloroethane-d4</i>			101	70.0-130	

L1647469-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1647469-05 08/19/23 22:03 • (MS) R3963980-3 08/20/23 00:35 • (MSD) R3963980-4 08/20/23 00:54

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Benzene	1.00	U	1.44	1.45	144	145	8	10.0-149			0.692	37
Toluene	1.00	U	1.48	1.46	148	146	8	10.0-156			1.36	38
Ethylbenzene	1.00	0.0124	1.45	1.45	144	144	8	10.0-160			0.000	38
Total Xylenes	3.00	0.0132	4.26	4.23	142	141	8	10.0-160			0.707	38
<i>(S) Toluene-d8</i>					105	105		75.0-131				
<i>(S) 4-Bromofluorobenzene</i>					108	107		67.0-138				
<i>(S) 1,2-Dichloroethane-d4</i>					96.4	97.1		70.0-130				

Sample Narrative:

OS: Lowest possible dilution due to sample foaming.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc



Method Blank (MB)

(MB) R3963828-3 08/21/23 09:59

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
Ethylbenzene	U		0.000737	0.00250
Total Xylenes	U		0.000880	0.00650
(S) Toluene-d8	103			75.0-131
(S) 4-Bromofluorobenzene	101			67.0-138
(S) 1,2-Dichloroethane-d4	106			70.0-130

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

(LCS) R3963828-1 08/21/23 08:23 • (LCSD) R3963828-2 08/21/23 08:42

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Ethylbenzene	0.125	0.126	0.129	101	103	74.0-126			2.35	20
Total Xylenes	0.375	0.373	0.382	99.5	102	72.0-127			2.38	20
(S) Toluene-d8				118	105	75.0-131				
(S) 4-Bromofluorobenzene				98.8	96.3	67.0-138				
(S) 1,2-Dichloroethane-d4				113	108	70.0-130				

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3964509-3 08/23/23 09:19

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Total Xylenes	U		0.000880	0.00650
(S) Toluene-d8	108			75.0-131
(S) 4-Bromofluorobenzene	93.3			67.0-138
(S) 1,2-Dichloroethane-d4	86.3			70.0-130

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

(LCS) R3964509-1 08/23/23 07:41 • (LCSD) R3964509-2 08/23/23 08:00

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 %
Total Xylenes	0.375	0.356	0.357	94.9	95.2	72.0-127			0.281	20
(S) Toluene-d8				107	108	75.0-131				
(S) 4-Bromofluorobenzene				94.6	95.6	67.0-138				
(S) 1,2-Dichloroethane-d4				91.8	94.1	70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R3964773-1 08/23/23 15:37

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C12 Aliphatics	U		1.68	5.00
C12-C16 Aliphatics	U		1.68	5.00
C16-C21 Aliphatics	U		1.68	5.00
C21-C34 Aliphatics	2.24	J	1.68	5.00
(S) 1-Chloro-octadecane	82.0			70.0-130

Method Blank (MB)

(MB) R3964773-4 08/23/23 16:44

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C12 Aromatics	U		2.12	5.00
C12-C16 Aromatics	U		2.12	5.00
C16-C21 Aromatics	U		2.12	5.00
C21-C34 Aromatics	U		2.12	5.00
(S) o-Terphenyl	79.3			70.0-130
(S) 2-Fluorobiphenyl	90.0			70.0-130
(S) 2-Bromonaphthalene	91.0			70.0-130

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

(LCS) R3964773-2 08/23/23 15:59 • (LCSD) R3964773-3 08/23/23 16:21

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 %
C10-C12 Aliphatics	6.65	4.68	4.91	70.4	73.8	70.0-130			4.80	20
C12-C16 Aliphatics	13.3	9.90	10.3	74.4	77.4	70.0-130			3.96	20
C16-C21 Aliphatics	20.0	17.5	18.2	87.5	91.0	70.0-130			3.92	20
C21-C34 Aliphatics	33.3	28.9	29.1	86.8	87.4	70.0-130			0.690	20
(S) 1-Chloro-octadecane				78.0	76.3	70.0-130				

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

(LCS) R3964773-5 08/23/23 17:06 • (LCSD) R3964773-6 08/23/23 17:28

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 %
C10-C12 Aromatics	6.65	4.74	4.78	71.3	71.9	70.0-130			0.840	20
C12-C16 Aromatics	20.0	12.9	13.2	64.5	66.0	70.0-130	J4	J4	2.30	20
C16-C21 Aromatics	33.3	25.7	26.5	77.2	79.6	70.0-130			3.07	20
C21-C34 Aromatics	53.2	42.3	43.3	79.5	81.4	70.0-130			2.34	20



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

(LCS) R3964773-5 08/23/23 17:06 • (LCSD) R3964773-6 08/23/23 17:28

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 %
(S) o-Terphenyl				78.0	78.0	70.0-130				
(S) 2-Fluorobiphenyl				91.9	89.8	70.0-130				
(S) 2-Bromonaphthalene				93.0	90.8	70.0-130				

L1646265-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1646265-01 08/24/23 15:30 • (MS) R3965378-1 08/24/23 15:52 • (MSD) R3965378-2 08/24/23 16:14

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 %
C10-C12 Aliphatics	7.25	U	5.56	5.68	76.8	77.7	1	70.0-130			1.98	20
C12-C16 Aliphatics	14.5	6.37	15.2	16.8	60.7	71.7	1	70.0-130	J6		10.5	20
C16-C21 Aliphatics	21.7	17.2	32.9	41.5	72.3	111	1	70.0-130		J3	23.1	20
C21-C34 Aliphatics	36.2	10.2	36.0	43.7	71.3	91.7	1	70.0-130			19.3	20
(S) 1-Chloro-octadecane					74.2	71.4		70.0-130				

L1646265-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1646265-01 08/24/23 15:30 • (MS) R3965378-3 08/24/23 19:34 • (MSD) R3965378-4 08/24/23 19:56

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 %
C10-C12 Aromatics	7.25	U	5.18	5.23	71.5	71.6	1	70.0-130			0.857	20
C12-C16 Aromatics	21.7	U	14.3	14.6	65.6	66.5	1	70.0-130	J6	J6	2.32	20
C16-C21 Aromatics	36.2	U	29.1	30.4	80.3	83.2	1	70.0-130			4.49	20
C21-C34 Aromatics	58.0	U	49.2	50.8	84.8	87.0	1	70.0-130			3.34	20
(S) o-Terphenyl					75.8	74.6		70.0-130				
(S) 2-Fluorobiphenyl					89.0	88.7		70.0-130				
(S) 2-Bromonaphthalene					90.8	90.8		70.0-130				



# INTERNAL STANDARD SUMMARY

## Instrument: VOCGC17 • File ID: 0819\_32

08/19/23 20:12

Sample ID	File ID	FLUOROBENZENE (FID)	FLUOROBENZENE (PID)
		Response	Response
Standard	0819_32	242652500	242652500
Upper Limit		485305000	485305000
Lower Limit		121326200	121326200
LCS R3963584-1 WG2117360 1x	0819_33	271081700	271081700
BLANK R3963584-2 WG2117360 25x	0819_36	240874400	240874400
L1647515-01 WG2117360 25.3x	0819_37	229343100	229343100
L1647515-03 WG2117360 25x	0819_38	233378800	233378800
L1647515-05 WG2117360 25x	0819_40	235739100	235739100
L1647515-06 WG2117360 25x	0819_41	285204700	285204700
L1647515-07 WG2117360 25x	0819_42	237607100	1900303
L1647515-10 WG2117360 25x	0819_43	222319600	222319600
L1647515-11 WG2117360 25x	0819_44	232177500	232177500
L1647515-09 WG2117360 100x	0819_47	252291100	252291100
MS R3963584-3 WG2117360 25.3x	0819_58	227541400	227541400
MSD R3963584-4 WG2117360 25.3x	0819_59	219538300	219538300

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

## Instrument: VOCGC17 • File ID: 0824\_02

08/24/23 00:31

Sample ID	File ID	FLUOROBENZENE (FID)	FLUOROBENZENE (PID)
		Response	Response
Standard	0824_02	245436200	245436200
Upper Limit		490872400	490872400
Lower Limit		122718100	122718100
LCS R3964793-1 WG2119788 1x	0824_03A	255970800	255970800
LCSD R3964793-2 WG2119788 1x	0824_04A	241951800	241951800
BLANK R3964793-3 WG2119788 25x	0824_07A	225944400	225944400
L1647515-04 WG2119788 25x	0824_10	234898100	234898100
L1647515-08 WG2119788 500x	0824_15	243499600	243499600
L1647515-02 WG2119788 2000x	0824_16	253250800	253250800

# INTERNAL STANDARD SUMMARY

Instrument: VOCMS42 • File ID: 0819\_09-1

08/19/23 13:23

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0819_09-1	549113.60	257149.90	242370.10
Upper Limit		1098227	514300	484740
Lower Limit		274557	128575	121185
LCS R3963980-1 WG2117318 1x	0819_09LCS	549113.60	257149.90	242370.10
BLANK R3963980-2 WG2117318 1x	0819_12	499538.60	238751.50	217884.60
L1647515-04 WG2117318 1x	0819_20	566248.40	267757.60	249344.30
L1647515-05 WG2117318 1x	0819_21	522046.70	250392.70	237013.90
L1647515-06 WG2117318 1x	0819_22	517387.20	246822.80	231080.30
L1647515-07 WG2117318 1x	0819_23	554748	268404.60	243442
L1647515-10 WG2117318 1x	0819_24	519908.40	248833.10	237882.60
L1647515-11 WG2117318 1x	0819_25	546225.80	263666.40	247185.60
L1647515-08 WG2117318 8x	0819_27	594226.40	281105.90	265018.40
L1647515-09 WG2117318 8x	0819_28	607599.10	288031.30	278400.30
MS R3963980-3 WG2117318 8x	0819_34	585330.10	277694.90	266362.70
MSD R3963980-4 WG2117318 8x	0819_35	582852.90	273245.40	259844.40

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Instrument: VOCMS54 • File ID: 0821\_02-1

08/21/23 08:23

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0821_02-1	595885	239717.50	193568.60
Upper Limit		1191770	479435	387137
Lower Limit		297943	119859	96784
LCS R3963828-1 WG2117946 1x	0821_02LCSA	595885	239717.50	193568.60
LCSD R3963828-2 WG2117946 1x	0821_03A	544505.60	248174.50	187189
BLANK R3963828-3 WG2117946 1x	0821_07	552095.10	277725.40	228200.10
L1647515-01 WG2117946 10x	0821_08	590691.50	270734.60	256076
L1647515-02 WG2117946 800x	0821_09	552701.70	252778.70	195040.80

# INTERNAL STANDARD SUMMARY

## Instrument: VOCMS56 • File ID: 0819\_02-1

08/19/23 12:40

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0819_02-1	786571.30	375154.20	334622.80
Upper Limit		1573143	750308	669246
Lower Limit		393286	187577	167311
LCS R3963142-1 WG2117303 1x	0819_02LCS	786571.30	375154.20	334622.80
LCSD R3963142-2 WG2117303 1x	0819_03	794983.80	383019.20	360510.70
BLANK R3963142-3 WG2117303 1x	0819_09	735852.80	328114.60	192886
L1647515-01 WG2117303 1.01x	0819_16	666242	231002.70	321063.80
L1647515-03 WG2117303 1x	0819_17	857074	386712.30	279290.60
L1647515-02 WG2117303 8x	0819_18	930104.90	507017.50	318590.90

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

## Instrument: VOCMS59 • File ID: 0823\_02-1

08/23/23 07:41

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0823_02-1	214419.30	93879.70	98402.40
Upper Limit		428839	187759	196805
Lower Limit		107210	46940	49201
LCS R3964509-1 WG2118985 1x	0823_02LCSA	214419.30	93879.70	98402.40
LCSD R3964509-2 WG2118985 1x	0823_03A	217541.90	94829.40	97730.30
BLANK R3964509-3 WG2118985 1x	0823_07A	214915.60	92344.10	92041.30
L1647515-08 WG2118985 80x	0823_10	203912	90811.90	95499.50
L1647515-09 WG2118985 80x	0823_11	204917.40	90744.20	95038.90

# 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.
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.
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.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.





# 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 <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	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	LA000356
Kentucky <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> 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.

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

Company Name/Address:  
**Stantec- Bellevue, WA**

11130 NE 33rd Pl, Ste 200  
 Bellevue, WA 98004

Billing Information:

Accounts Payable  
 11130 NE 33rd Pl, Ste 200  
 Bellevue, WA 98004

Pres  
 Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Report to:  
**Stantec**

Email To:  
 zak.armacost@stantec.com;marc.suaze@stantec.com

Project Description:  
**Hungry Whale Test Pitting**

City/State  
 Collected: **Westport WA**

Please Circle:  
 PT  MT  CT  ET

Phone: **425-869-9448**

Client Project #  
**1465751446**

Lab Project #  
**STANTECBWA-HUNGRY**

Collected by (print):  
**Paul Serney**

Site/Facility ID #

P.O. #

Collected by (signature):  
*Paul M. Serney*

Rush? (Lab MUST Be Notified)

Quote #

Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

Date Results Needed

Immediately Packed on Ice N  Y

No. of  
 Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
SP-SI-10	G	SS	-	8/15/23	0630	3
C5-SW4-6	G	SS	6	8/15/23	0645	3
<del>D6-SW4-10</del>	G	SS	10	8/15/23	0655	3
D1-SW2-12	G	SS	12	8/15/23	0725	3
<del>G6-SW4-15</del>	G	SS	15	8/15/23	1340	3
<del>H6-SW4-13</del>	G	SS	13	8/15/23	1350	3
<del>H5-SW3-12</del>	G	SS	12	8/15/23	1405	3
SP-SI-11	G	SS	-	8/16/23	0700	3
SP-SI-12	G	SS	-	8/16/23	0705	3
Dup-04	G	SS	-	8/15/23	-	3

EPH WA 4ozAmb-NoPres

NWTPHDXNOSGT 4ozClr-NoPres

NWTPHGX 40mlAmb/MeOH10ml/Syr

Pb 6010 2ozClr-NoPres

SV8270PAHSIM 4ozClr-NoPres

Total Solids 4ozClr-NoPres

V8260BTEX 40mlAmb/MeOH10ml/Syr

VPH WA 40mlAmb/MeOH10ml/Syr

**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/hubs/pas-standard-terms.pdf>

SDG # **4647515**  
**B141**

Table  
 Acctnum: **STANTECBWA**  
 Template: **T234672**  
 Prelogin: **P1013674**  
 PM: **546 - Jared Starkey**  
 PB: **7/25/23 am**  
 Shipped Via: **FedEX Standard**

Remarks | Sample # (lab only)

D5-SW4-10  
 F5-SW4-15  
 F5-SW4-13  
 F5-SW3-12

-01  
 -02  
 -03  
 -04  
 -05  
 -06  
 -07  
 -08  
 -09  
 -10

\* Matrix:  
 SS - Soil AIR - Air F - Filter  
 GW - Groundwater B - Bioassay  
 WW - WasteWater  
 DW - Drinking Water  
 OT - Other

Remarks:

pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_

Sample Receipt Checklist  
 COC Seal Present/Intact:  Y  N  
 COC Signed/Accurate:  Y  N  
 Bottles arrive intact:  Y  N  
 Correct bottles used:  Y  N  
 Sufficient volume sent:  Y  N  
 If Applicable  
 VOA Zero Headspace:  Y  N  
 Preservation Correct/Checked:  Y  N  
 RAD Screen <0.5 mR/hr:  Y  N

Samples returned via: \_\_\_\_\_ Tracking # **6841 8344 8770**

Relinquished by: (Signature) <i>Paul M. Serney</i>	Date: <b>8/17/23</b>	Time: <b>1530</b>	Received by: (Signature) <b>FedEx</b>	Trip Blank Received: Yes / <input checked="" type="checkbox"/> No HCL / MeOH TBR
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: <b>6.48°C</b> Bottles Received: <b>35</b>
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <b>g LO</b>	Date: <b>8-18-23</b> Time: <b>8:00</b> Hold: Condition: <b>NCF / OK</b>

If preservation required by Login: Date/Time



Company Name/Address:  
**Stantec- Bellevue, WA**

11130 NE 33rd Pl, Ste 200  
Bellevue, WA 98004

Billing Information:  
**Accounts Payable**  
11130 NE 33rd Pl, Ste 200  
Bellevue, WA 98004

Pres  
Chk

Analysis / Container / Preservative

Chain of Custody Page **2** of **2**

Report to:  
**Stantec**

Email To:  
zak.armacost@stantec.com;marc.suaze@stantec.com

Project Description:  
**Hungry Whale Test Pitting**

City/State  
Collected: **Westport, WA**

Please Circle:  
 PT  MT  CT  ET

Phone: **425-869-9448**

Client Project #  
**195751446**

Lab Project #  
**STANTECBWA-HUNGRY**

Collected by (print):  
**Paul Searcy**

Site/Facility ID #

P.O. #

Collected by (signature):  
**Paul M. Searcy**

**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  X

No.  
of  
Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
<b>Dup-05</b>	<b>G</b>	<b>SS</b>	<b>-</b>	<b>8/15/23</b>	<b>-</b>	<b>3</b>
		SS				
		SS				
		SS				
		SS				
		SS				
		SS				
		SS				
		SS				
		SS				

EPH WA 4ozAmb-NoPres

NWTPHDXNOSGT 4ozClr-NoPres

NWTPHGX 40mlAmb/MeOH10ml/Syr

Pb 6010 2ozClr-NoPres

SV8270PAHSIM 4ozClr-NoPres

Total Solids 4ozClr-NoPres

V8260BTEX 40mlAmb/MeOH10ml/Syr

VPH WA 40mlAmb/MeOH10ml/Syr

SDG # **11047015**

Table #

Acctnum: **STANTECBWA**

Template: **T234672**

Prelogin: **P1013674**

PM: **546 - Jared Starkey**

PB: **7/26/23 CAM**

Shipped Via: **FedEx Standard**

Remarks | Sample # (lab only)

**-11**

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - WasteWater  
DW - Drinking Water  
OT - Other

Remarks:

pH \_\_\_\_\_ Temp \_\_\_\_\_

Flow \_\_\_\_\_ Other \_\_\_\_\_

Samples returned via:  
 UPS  FedEx  Courier

Tracking # **6841 8344 8770**

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)  
**Paul M. Searcy**

Date: **8/17/23**

Time: **1530**

Received by: (Signature)  
**FedEx**

Trip Blank Received: Yes / No  
HCL / MeOH  
TBR

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp **6648 °C**  
**2.160 > 1**

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)  
**7 10**

Date: **8-18-23** Time: **9:00**

Hold: Condition: **NCF / OK**

**Stantec- Bellevue, WA**

Sample Delivery Group: L1650994  
Samples Received: 08/30/2023  
Project Number: 185751446  
Description: Hungry Whale

Report To: Stantec  
11130 NE 33rd Pl, Ste 200  
Bellevue, WA 98004

Entire Report Reviewed By:



Jared Starkey  
Project Manager

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

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# SAMPLE SUMMARY

## D4-FL-15 L1650994-01 Solid

Collected by Paul Janney      Collected date/time 08/28/23 05:30      Received date/time 08/30/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2126048	1	09/04/23 06:14	09/04/23 06:23	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2126379	1000	08/28/23 05:30	09/05/23 16:07	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2125035	8	08/28/23 05:30	09/01/23 09:33	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2127231	400	08/28/23 05:30	09/06/23 21:16	KSD	Mt. Juliet, TN



## E4-FL-15 L1650994-02 Solid

Collected by Paul Janney      Collected date/time 08/28/23 05:40      Received date/time 08/30/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2126048	1	09/04/23 06:14	09/04/23 06:23	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2126379	500	08/28/23 05:40	09/05/23 16:31	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2125035	1	08/28/23 05:40	09/01/23 07:01	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2127231	40	08/28/23 05:40	09/06/23 20:57	KSD	Mt. Juliet, TN

## F4-FL-15 L1650994-03 Solid

Collected by Paul Janney      Collected date/time 08/28/23 05:50      Received date/time 08/30/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2126048	1	09/04/23 06:14	09/04/23 06:23	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2126379	25	08/28/23 05:50	09/05/23 14:53	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2125035	1	08/28/23 05:50	09/01/23 07:20	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2127231	20	08/28/23 05:50	09/06/23 20:38	KSD	Mt. Juliet, TN

## F4-SW3-12 L1650994-04 Solid

Collected by Paul Janney      Collected date/time 08/28/23 06:00      Received date/time 08/30/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2126048	1	09/04/23 06:14	09/04/23 06:23	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2126379	25	08/28/23 06:00	09/05/23 15:17	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2125035	1	08/28/23 06:00	09/01/23 07:39	DWR	Mt. Juliet, TN

## SP-SI-13 L1650994-05 Solid

Collected by Paul Janney      Collected date/time 08/28/23 06:15      Received date/time 08/30/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2126048	1	09/04/23 06:14	09/04/23 06:23	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2125620	25	08/28/23 06:15	09/02/23 08:59	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2127231	1	08/28/23 06:15	09/06/23 20:18	KSD	Mt. Juliet, TN

## F3-FL-15 L1650994-06 Solid

Collected by Paul Janney      Collected date/time 08/28/23 06:25      Received date/time 08/30/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2126048	1	09/04/23 06:14	09/04/23 06:23	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2126379	25	08/28/23 06:25	09/05/23 15:42	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2125035	1	08/28/23 06:25	09/01/23 08:17	DWR	Mt. Juliet, TN

# SAMPLE SUMMARY

## E3-FL-15 L1650994-07 Solid

Collected by Paul Janney      Collected date/time 08/28/23 06:35      Received date/time 08/30/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2126048	1	09/04/23 06:14	09/04/23 06:23	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2128172	2500	08/28/23 06:35	09/07/23 16:07	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2125035	8	08/28/23 06:35	09/01/23 09:52	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2127231	400	08/28/23 06:35	09/06/23 21:35	KSD	Mt. Juliet, TN



## F3-SW3-12 L1650994-08 Solid

Collected by Paul Janney      Collected date/time 08/28/23 06:45      Received date/time 08/30/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2126049	1	09/04/23 07:03	09/04/23 07:11	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2125898	28	08/28/23 06:45	09/03/23 01:58	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2125293	1.12	08/28/23 06:45	09/01/23 13:47	ADM	Mt. Juliet, TN

## E2-FL-15 L1650994-09 Solid

Collected by Paul Janney      Collected date/time 08/28/23 07:35      Received date/time 08/30/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2126049	1	09/04/23 07:03	09/04/23 07:11	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2125898	25	08/28/23 07:35	09/03/23 02:21	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2125293	1	08/28/23 07:35	09/01/23 14:06	ADM	Mt. Juliet, TN

## F2-FL-15 L1650994-10 Solid

Collected by Paul Janney      Collected date/time 08/28/23 07:45      Received date/time 08/30/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2126049	1	09/04/23 07:03	09/04/23 07:11	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2125898	25	08/28/23 07:45	09/03/23 02:44	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2125293	1	08/28/23 07:45	09/01/23 14:26	ADM	Mt. Juliet, TN

## E2-SW2-13 L1650994-11 Solid

Collected by Paul Janney      Collected date/time 08/28/23 08:00      Received date/time 08/30/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2126049	1	09/04/23 07:03	09/04/23 07:11	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2125898	25	08/28/23 08:00	09/03/23 03:07	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2125293	1	08/28/23 08:00	09/01/23 14:46	ADM	Mt. Juliet, TN

## F2-SW2-15 L1650994-12 Solid

Collected by Paul Janney      Collected date/time 08/28/23 08:10      Received date/time 08/30/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2126049	1	09/04/23 07:03	09/04/23 07:11	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2125898	25	08/28/23 08:10	09/03/23 03:30	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2125293	1	08/28/23 08:10	09/01/23 15:05	ADM	Mt. Juliet, TN



# SAMPLE SUMMARY

## F2-SW3-12 L1650994-13 Solid

Collected by: Paul Janney  
 Collected date/time: 08/28/23 08:20  
 Received date/time: 08/30/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2126049	1	09/04/23 07:03	09/04/23 07:11	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2125898	25	08/28/23 08:20	09/03/23 03:53	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2125293	1	08/28/23 08:20	09/01/23 15:25	ADM	Mt. Juliet, TN

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

## SP-SI-14 L1650994-14 Solid

Collected by: Paul Janney  
 Collected date/time: 08/28/23 08:40  
 Received date/time: 08/30/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2126049	1	09/04/23 07:03	09/04/23 07:11	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2125898	25	08/28/23 08:40	09/03/23 04:17	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2125293	1	08/28/23 08:40	09/01/23 15:45	ADM	Mt. Juliet, TN

## SP-SI-15 L1650994-15 Solid

Collected by: Paul Janney  
 Collected date/time: 08/28/23 08:50  
 Received date/time: 08/30/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2126049	1	09/04/23 07:03	09/04/23 07:11	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2125898	25	08/28/23 08:50	09/03/23 04:40	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2125293	1	08/28/23 08:50	09/01/23 16:05	ADM	Mt. Juliet, TN

## TB-01 L1650994-16 GW

Collected by: Paul Janney  
 Collected date/time: 08/28/23 00:00  
 Received date/time: 08/30/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2127150	1	09/06/23 12:09	09/06/23 12:09	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2126979	1	09/05/23 21:13	09/05/23 21:13	JAH	Mt. Juliet, TN

## DUP-06 L1650994-17 Solid

Collected by: Paul Janney  
 Collected date/time: 08/28/23 00:00  
 Received date/time: 08/30/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2126049	1	09/04/23 07:03	09/04/23 07:11	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2125898	25	08/28/23 00:00	09/03/23 05:03	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2125293	1	08/28/23 00:00	09/01/23 16:24	ADM	Mt. Juliet, TN



# CASE NARRATIVE

Unless qualified or notated within the narrative below, all sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. 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.



Jared Starkey  
Project Manager

## Sample Delivery Group (SDG) Narrative

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Analyzed from headspace vial.

Batch	Method	Lab Sample ID
WG2127150	NWTPHGX	L1650994-16

## Volatile Organic Compounds (GC) by Method NWTPHGX

---

The same analyte is found in the associated blank.

Batch	Analyte	Lab Sample ID
WG2126379	Gasoline Range Organics-NWTPH	L1650994-04, 06



## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	77.5		1	09/04/2023 06:23	<a href="#">WG2126048</a>

## Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	5200		56.3	166	1000	09/05/2023 16:07	<a href="#">WG2126379</a>
(S) a,a,a-Trifluorotoluene(FID)	99.4			77.0-120		09/05/2023 16:07	<a href="#">WG2126379</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	5.90		0.00621	0.0133	8	09/01/2023 09:33	<a href="#">WG2125035</a>
Toluene	34.5		0.864	3.32	400	09/06/2023 21:16	<a href="#">WG2127231</a>
Ethylbenzene	41.0		0.490	1.66	400	09/06/2023 21:16	<a href="#">WG2127231</a>
Total Xylenes	296		0.585	4.32	400	09/06/2023 21:16	<a href="#">WG2127231</a>
(S) Toluene-d8	95.9			75.0-131		09/01/2023 09:33	<a href="#">WG2125035</a>
(S) Toluene-d8	103			75.0-131		09/06/2023 21:16	<a href="#">WG2127231</a>
(S) 4-Bromofluorobenzene	97.7			67.0-138		09/01/2023 09:33	<a href="#">WG2125035</a>
(S) 4-Bromofluorobenzene	101			67.0-138		09/06/2023 21:16	<a href="#">WG2127231</a>
(S) 1,2-Dichloroethane-d4	92.5			70.0-130		09/01/2023 09:33	<a href="#">WG2125035</a>
(S) 1,2-Dichloroethane-d4	89.3			70.0-130		09/06/2023 21:16	<a href="#">WG2127231</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	80.0		1	09/04/2023 06:23	<a href="#">WG2126048</a>

## Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	3420		26.3	77.8	500	09/05/2023 16:31	<a href="#">WG2126379</a>
(S) a,a,a-Trifluorotoluene(FID)	98.6			77.0-120		09/05/2023 16:31	<a href="#">WG2126379</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.779		0.000726	0.00156	1	09/01/2023 07:01	<a href="#">WG2125035</a>
Toluene	4.59		0.0809	0.311	40	09/06/2023 20:57	<a href="#">WG2127231</a>
Ethylbenzene	6.92		0.0459	0.156	40	09/06/2023 20:57	<a href="#">WG2127231</a>
Total Xylenes	39.5		0.0547	0.404	40	09/06/2023 20:57	<a href="#">WG2127231</a>
(S) Toluene-d8	96.2			75.0-131		09/01/2023 07:01	<a href="#">WG2125035</a>
(S) Toluene-d8	99.7			75.0-131		09/06/2023 20:57	<a href="#">WG2127231</a>
(S) 4-Bromofluorobenzene	93.0			67.0-138		09/01/2023 07:01	<a href="#">WG2125035</a>
(S) 4-Bromofluorobenzene	102			67.0-138		09/06/2023 20:57	<a href="#">WG2127231</a>
(S) 1,2-Dichloroethane-d4	81.1			70.0-130		09/01/2023 07:01	<a href="#">WG2125035</a>
(S) 1,2-Dichloroethane-d4	91.7			70.0-130		09/06/2023 20:57	<a href="#">WG2127231</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	78.2		1	09/04/2023 06:23	<a href="#">WG2126048</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	110		1.38	4.06	25	09/05/2023 14:53	<a href="#">WG2126379</a>
(S) a,a,a-Trifluorotoluene(FID)	98.2			77.0-120		09/05/2023 14:53	<a href="#">WG2126379</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.781		0.000758	0.00162	1	09/01/2023 07:20	<a href="#">WG2125035</a>
Toluene	2.83		0.00211	0.00812	1	09/01/2023 07:20	<a href="#">WG2125035</a>
Ethylbenzene	1.64		0.00120	0.00406	1	09/01/2023 07:20	<a href="#">WG2125035</a>
Total Xylenes	11.4		0.0286	0.211	20	09/06/2023 20:38	<a href="#">WG2127231</a>
(S) Toluene-d8	99.4			75.0-131		09/01/2023 07:20	<a href="#">WG2125035</a>
(S) Toluene-d8	101			75.0-131		09/06/2023 20:38	<a href="#">WG2127231</a>
(S) 4-Bromofluorobenzene	103			67.0-138		09/01/2023 07:20	<a href="#">WG2125035</a>
(S) 4-Bromofluorobenzene	96.5			67.0-138		09/06/2023 20:38	<a href="#">WG2127231</a>
(S) 1,2-Dichloroethane-d4	87.7			70.0-130		09/01/2023 07:20	<a href="#">WG2125035</a>
(S) 1,2-Dichloroethane-d4	84.3			70.0-130		09/06/2023 20:38	<a href="#">WG2127231</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	76.1		1	09/04/2023 06:23	<a href="#">WG2126048</a>

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	21.1	<u>B</u>	1.42	4.19	25	09/05/2023 15:17	<a href="#">WG2126379</a>
(S) a,a,a-Trifluorotoluene(FID)	95.1			77.0-120		09/05/2023 15:17	<a href="#">WG2126379</a>

3 Ss

4 Cn

5 Sr

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	1.18		0.000782	0.00167	1	09/01/2023 07:39	<a href="#">WG2125035</a>
Toluene	0.0155		0.00218	0.00837	1	09/01/2023 07:39	<a href="#">WG2125035</a>
Ethylbenzene	0.189		0.00123	0.00419	1	09/01/2023 07:39	<a href="#">WG2125035</a>
Total Xylenes	0.0783		0.00147	0.0109	1	09/01/2023 07:39	<a href="#">WG2125035</a>
(S) Toluene-d8	98.9			75.0-131		09/01/2023 07:39	<a href="#">WG2125035</a>
(S) 4-Bromofluorobenzene	102			67.0-138		09/01/2023 07:39	<a href="#">WG2125035</a>
(S) 1,2-Dichloroethane-d4	86.5			70.0-130		09/01/2023 07:39	<a href="#">WG2125035</a>

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	81.4		1	09/04/2023 06:23	<a href="#">WG2126048</a>

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

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	18.3		1.24	3.66	25	09/02/2023 08:59	<a href="#">WG2125620</a>
(S) a,a,a-Trifluorotoluene(FID)	111			77.0-120		09/02/2023 08:59	<a href="#">WG2125620</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.00565		0.000684	0.00146	1	09/06/2023 20:18	<a href="#">WG2127231</a>
Toluene	0.0176		0.00190	0.00732	1	09/06/2023 20:18	<a href="#">WG2127231</a>
Ethylbenzene	0.0149		0.00108	0.00366	1	09/06/2023 20:18	<a href="#">WG2127231</a>
Total Xylenes	0.105		0.00129	0.00952	1	09/06/2023 20:18	<a href="#">WG2127231</a>
(S) Toluene-d8	107			75.0-131		09/06/2023 20:18	<a href="#">WG2127231</a>
(S) 4-Bromofluorobenzene	102			67.0-138		09/06/2023 20:18	<a href="#">WG2127231</a>
(S) 1,2-Dichloroethane-d4	83.5			70.0-130		09/06/2023 20:18	<a href="#">WG2127231</a>

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	75.0		1	09/04/2023 06:23	<a href="#">WG2126048</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	16.9	<u>B</u>	1.46	4.30	25	09/05/2023 15:42	<a href="#">WG2126379</a>
(S) a,a,a-Trifluorotoluene(FID)	95.9			77.0-120		09/05/2023 15:42	<a href="#">WG2126379</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.715		0.000803	0.00172	1	09/01/2023 08:17	<a href="#">WG2125035</a>
Toluene	0.0127		0.00223	0.00859	1	09/01/2023 08:17	<a href="#">WG2125035</a>
Ethylbenzene	0.206		0.00127	0.00430	1	09/01/2023 08:17	<a href="#">WG2125035</a>
Total Xylenes	0.0340		0.00151	0.0112	1	09/01/2023 08:17	<a href="#">WG2125035</a>
(S) Toluene-d8	99.5			75.0-131		09/01/2023 08:17	<a href="#">WG2125035</a>
(S) 4-Bromofluorobenzene	104			67.0-138		09/01/2023 08:17	<a href="#">WG2125035</a>
(S) 1,2-Dichloroethane-d4	87.4			70.0-130		09/01/2023 08:17	<a href="#">WG2125035</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	79.4		1	09/04/2023 06:23	<a href="#">WG2126048</a>

## Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	7590		134	395	2500	09/07/2023 16:07	<a href="#">WG2128172</a>
(S) a,a,a-Trifluorotoluene(FID)	109			77.0-120		09/07/2023 16:07	<a href="#">WG2128172</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	3.49		0.00590	0.0126	8	09/01/2023 09:52	<a href="#">WG2125035</a>
Toluene	64.9		0.821	3.16	400	09/06/2023 21:35	<a href="#">WG2127231</a>
Ethylbenzene	54.8		0.466	1.58	400	09/06/2023 21:35	<a href="#">WG2127231</a>
Total Xylenes	333		0.556	4.10	400	09/06/2023 21:35	<a href="#">WG2127231</a>
(S) Toluene-d8	97.2			75.0-131		09/01/2023 09:52	<a href="#">WG2125035</a>
(S) Toluene-d8	101			75.0-131		09/06/2023 21:35	<a href="#">WG2127231</a>
(S) 4-Bromofluorobenzene	97.2			67.0-138		09/01/2023 09:52	<a href="#">WG2125035</a>
(S) 4-Bromofluorobenzene	99.7			67.0-138		09/06/2023 21:35	<a href="#">WG2127231</a>
(S) 1,2-Dichloroethane-d4	73.6			70.0-130		09/01/2023 09:52	<a href="#">WG2125035</a>
(S) 1,2-Dichloroethane-d4	91.1			70.0-130		09/06/2023 21:35	<a href="#">WG2127231</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	48.6		1	09/04/2023 07:11	<a href="#">WG2126049</a>

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

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	59.7		2.85	8.40	28	09/03/2023 01:58	<a href="#">WG2125898</a>
(S) a,a,a-Trifluorotoluene(FID)	78.1			77.0-120		09/03/2023 01:58	<a href="#">WG2125898</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.645		0.00157	0.00336	1.12	09/01/2023 13:47	<a href="#">WG2125293</a>
Toluene	0.0137	J	0.00438	0.0168	1.12	09/01/2023 13:47	<a href="#">WG2125293</a>
Ethylbenzene	0.0498		0.00248	0.00840	1.12	09/01/2023 13:47	<a href="#">WG2125293</a>
Total Xylenes	0.552		0.00296	0.0218	1.12	09/01/2023 13:47	<a href="#">WG2125293</a>
(S) Toluene-d8	92.9			75.0-131		09/01/2023 13:47	<a href="#">WG2125293</a>
(S) 4-Bromofluorobenzene	93.9			67.0-138		09/01/2023 13:47	<a href="#">WG2125293</a>
(S) 1,2-Dichloroethane-d4	115			70.0-130		09/01/2023 13:47	<a href="#">WG2125293</a>

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	77.0		1	09/04/2023 07:11	<a href="#">WG2126049</a>

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

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	6.26		1.42	4.18	25	09/03/2023 02:21	<a href="#">WG2125898</a>
(S) a,a,a-Trifluorotoluene(FID)	89.0			77.0-120		09/03/2023 02:21	<a href="#">WG2125898</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.00385		0.000782	0.00167	1	09/01/2023 14:06	<a href="#">WG2125293</a>
Toluene	0.0961		0.00218	0.00837	1	09/01/2023 14:06	<a href="#">WG2125293</a>
Ethylbenzene	0.0300		0.00123	0.00418	1	09/01/2023 14:06	<a href="#">WG2125293</a>
Total Xylenes	0.708		0.00147	0.0109	1	09/01/2023 14:06	<a href="#">WG2125293</a>
(S) Toluene-d8	88.2			75.0-131		09/01/2023 14:06	<a href="#">WG2125293</a>
(S) 4-Bromofluorobenzene	87.8			67.0-138		09/01/2023 14:06	<a href="#">WG2125293</a>
(S) 1,2-Dichloroethane-d4	110			70.0-130		09/01/2023 14:06	<a href="#">WG2125293</a>

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	79.4		1	09/04/2023 07:11	<a href="#">WG2126049</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	2.70	J	1.33	3.93	25	09/03/2023 02:44	<a href="#">WG2125898</a>
(S) a,a,a-Trifluorotoluene(FID)	93.8			77.0-120		09/03/2023 02:44	<a href="#">WG2125898</a>

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
Benzene	0.00111	J	0.000733	0.00157	1	09/01/2023 14:26	<a href="#">WG2125293</a>
Toluene	0.00473	J	0.00204	0.00785	1	09/01/2023 14:26	<a href="#">WG2125293</a>
Ethylbenzene	0.00209	J	0.00116	0.00393	1	09/01/2023 14:26	<a href="#">WG2125293</a>
Total Xylenes	0.0134		0.00138	0.0102	1	09/01/2023 14:26	<a href="#">WG2125293</a>
(S) Toluene-d8	95.0			75.0-131		09/01/2023 14:26	<a href="#">WG2125293</a>
(S) 4-Bromofluorobenzene	91.8			67.0-138		09/01/2023 14:26	<a href="#">WG2125293</a>
(S) 1,2-Dichloroethane-d4	111			70.0-130		09/01/2023 14:26	<a href="#">WG2125293</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

## Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	75.5		1	09/04/2023 07:11	<a href="#">WG2126049</a>

## Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	18.9		1.44	4.26	25	09/03/2023 03:07	<a href="#">WG2125898</a>
(S) a,a,a-Trifluorotoluene(FID)	90.2			77.0-120		09/03/2023 03:07	<a href="#">WG2125898</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.156		0.000796	0.00170	1	09/01/2023 14:46	<a href="#">WG2125293</a>
Toluene	0.440		0.00221	0.00852	1	09/01/2023 14:46	<a href="#">WG2125293</a>
Ethylbenzene	0.336		0.00126	0.00426	1	09/01/2023 14:46	<a href="#">WG2125293</a>
Total Xylenes	3.36		0.00150	0.0111	1	09/01/2023 14:46	<a href="#">WG2125293</a>
(S) Toluene-d8	89.8			75.0-131		09/01/2023 14:46	<a href="#">WG2125293</a>
(S) 4-Bromofluorobenzene	89.0			67.0-138		09/01/2023 14:46	<a href="#">WG2125293</a>
(S) 1,2-Dichloroethane-d4	114			70.0-130		09/01/2023 14:46	<a href="#">WG2125293</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	78.7		1	09/04/2023 07:11	<a href="#">WG2126049</a>

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

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	5.22		1.36	4.01	25	09/03/2023 03:30	<a href="#">WG2125898</a>
(S) a,a,a-Trifluorotoluene(FID)	87.4			77.0-120		09/03/2023 03:30	<a href="#">WG2125898</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.00742		0.000748	0.00160	1	09/01/2023 15:05	<a href="#">WG2125293</a>
Toluene	0.0665		0.00208	0.00801	1	09/01/2023 15:05	<a href="#">WG2125293</a>
Ethylbenzene	0.0111		0.00118	0.00401	1	09/01/2023 15:05	<a href="#">WG2125293</a>
Total Xylenes	0.287		0.00141	0.0104	1	09/01/2023 15:05	<a href="#">WG2125293</a>
(S) Toluene-d8	92.1			75.0-131		09/01/2023 15:05	<a href="#">WG2125293</a>
(S) 4-Bromofluorobenzene	87.9			67.0-138		09/01/2023 15:05	<a href="#">WG2125293</a>
(S) 1,2-Dichloroethane-d4	116			70.0-130		09/01/2023 15:05	<a href="#">WG2125293</a>

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	77.5		1	09/04/2023 07:11	<a href="#">WG2126049</a>

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

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	3.49	J	1.38	4.08	25	09/03/2023 03:53	<a href="#">WG2125898</a>
(S) a,a,a-Trifluorotoluene(FID)	93.0			77.0-120		09/03/2023 03:53	<a href="#">WG2125898</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.00139	J	0.000761	0.00163	1	09/01/2023 15:25	<a href="#">WG2125293</a>
Toluene	0.00256	J	0.00212	0.00815	1	09/01/2023 15:25	<a href="#">WG2125293</a>
Ethylbenzene	0.00287	J	0.00120	0.00408	1	09/01/2023 15:25	<a href="#">WG2125293</a>
Total Xylenes	0.00732	J	0.00143	0.0106	1	09/01/2023 15:25	<a href="#">WG2125293</a>
(S) Toluene-d8	90.6			75.0-131		09/01/2023 15:25	<a href="#">WG2125293</a>
(S) 4-Bromofluorobenzene	86.9			67.0-138		09/01/2023 15:25	<a href="#">WG2125293</a>
(S) 1,2-Dichloroethane-d4	116			70.0-130		09/01/2023 15:25	<a href="#">WG2125293</a>

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	80.7		1	09/04/2023 07:11	<a href="#">WG2126049</a>

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

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	5.44		1.29	3.79	25	09/03/2023 04:17	<a href="#">WG2125898</a>
(S) a,a,a-Trifluorotoluene(FID)	90.8			77.0-120		09/03/2023 04:17	<a href="#">WG2125898</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.00488		0.000708	0.00152	1	09/01/2023 15:45	<a href="#">WG2125293</a>
Toluene	0.0524		0.00197	0.00758	1	09/01/2023 15:45	<a href="#">WG2125293</a>
Ethylbenzene	0.0667		0.00112	0.00379	1	09/01/2023 15:45	<a href="#">WG2125293</a>
Total Xylenes	1.17		0.00133	0.00985	1	09/01/2023 15:45	<a href="#">WG2125293</a>
(S) Toluene-d8	89.7			75.0-131		09/01/2023 15:45	<a href="#">WG2125293</a>
(S) 4-Bromofluorobenzene	91.5			67.0-138		09/01/2023 15:45	<a href="#">WG2125293</a>
(S) 1,2-Dichloroethane-d4	108			70.0-130		09/01/2023 15:45	<a href="#">WG2125293</a>

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	84.6		1	09/04/2023 07:11	<a href="#">WG2126049</a>

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	21.7		1.18	3.48	25	09/03/2023 04:40	<a href="#">WG2125898</a>
(S) a,a,a-Trifluorotoluene(FID)	89.0			77.0-120		09/03/2023 04:40	<a href="#">WG2125898</a>

3 Ss

4 Cn

5 Sr

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.00348		0.000649	0.00139	1	09/01/2023 16:05	<a href="#">WG2125293</a>
Toluene	0.0225		0.00181	0.00695	1	09/01/2023 16:05	<a href="#">WG2125293</a>
Ethylbenzene	0.0466		0.00102	0.00348	1	09/01/2023 16:05	<a href="#">WG2125293</a>
Total Xylenes	0.435		0.00122	0.00904	1	09/01/2023 16:05	<a href="#">WG2125293</a>
(S) Toluene-d8	92.2			75.0-131		09/01/2023 16:05	<a href="#">WG2125293</a>
(S) 4-Bromofluorobenzene	86.6			67.0-138		09/01/2023 16:05	<a href="#">WG2125293</a>
(S) 1,2-Dichloroethane-d4	115			70.0-130		09/01/2023 16:05	<a href="#">WG2125293</a>

6 Qc

7 Is

8 Gl

9 Al

10 Sc



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		31.6	100	1	09/06/2023 12:09	<a href="#">WG2127150</a>
(S) a,a,a-Trifluorotoluene(FID)	94.5			78.0-120		09/06/2023 12:09	<a href="#">WG2127150</a>

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

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0941	1.00	1	09/05/2023 21:13	<a href="#">WG2126979</a>
Toluene	U		0.278	1.00	1	09/05/2023 21:13	<a href="#">WG2126979</a>
Ethylbenzene	U		0.137	1.00	1	09/05/2023 21:13	<a href="#">WG2126979</a>
Total Xylenes	U		0.174	3.00	1	09/05/2023 21:13	<a href="#">WG2126979</a>
(S) Toluene-d8	111			80.0-120		09/05/2023 21:13	<a href="#">WG2126979</a>
(S) 4-Bromofluorobenzene	86.0			77.0-126		09/05/2023 21:13	<a href="#">WG2126979</a>
(S) 1,2-Dichloroethane-d4	115			70.0-130		09/05/2023 21:13	<a href="#">WG2126979</a>

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	84.1		1	09/04/2023 07:11	<a href="#">WG2126049</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	17.8		1.20	3.53	25	09/03/2023 05:03	<a href="#">WG2125898</a>
(S) a,a,a-Trifluorotoluene(FID)	90.7			77.0-120		09/03/2023 05:03	<a href="#">WG2125898</a>

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Benzene	0.130		0.000659	0.00141	1	09/01/2023 16:24	<a href="#">WG2125293</a>
Toluene	0.277		0.00183	0.00705	1	09/01/2023 16:24	<a href="#">WG2125293</a>
Ethylbenzene	0.254		0.00104	0.00353	1	09/01/2023 16:24	<a href="#">WG2125293</a>
Total Xylenes	2.84		0.00124	0.00917	1	09/01/2023 16:24	<a href="#">WG2125293</a>
(S) Toluene-d8	91.9			75.0-131		09/01/2023 16:24	<a href="#">WG2125293</a>
(S) 4-Bromofluorobenzene	88.6			67.0-138		09/01/2023 16:24	<a href="#">WG2125293</a>
(S) 1,2-Dichloroethane-d4	114			70.0-130		09/01/2023 16:24	<a href="#">WG2125293</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R3969008-1 09/04/23 06:23

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

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

L1652399-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1652399-03 09/04/23 06:23 • (DUP) R3969008-3 09/04/23 06:23

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits
Total Solids	77.7	77.6	1	0.0772		10

<sup>4</sup>Cn

<sup>5</sup>Sr

Laboratory Control Sample (LCS)

(LCS) R3969008-2 09/04/23 06:23

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	99.9	85.0-115	

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3969024-1 09/04/23 07:11

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Total Solids	0.000			

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

L1650994-17 Original Sample (OS) • Duplicate (DUP)

(OS) L1650994-17 09/04/23 07:11 • (DUP) R3969024-3 09/04/23 07:11

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	84.1	77.4	1	8.31		10

<sup>4</sup>Cn

<sup>5</sup>Sr

Laboratory Control Sample (LCS)

(LCS) R3969024-2 09/04/23 07:11

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

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3968953-2 09/02/23 01:31

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)	104			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3968953-1 09/02/23 00:33

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5.50	6.47	118	71.0-124	
(S) a,a,a-Trifluorotoluene(FID)			115	77.0-120	

L1650781-20 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1650781-20 09/02/23 07:09 • (MS) R3968953-3 09/02/23 10:12 • (MSD) R3968953-4 09/02/23 10:30

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	202	57.4	284	286	112	113	25	50.0-150			0.651	27
(S) a,a,a-Trifluorotoluene(FID)					113	113		77.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R3970202-2 09/02/23 21:30

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)	94.4			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3970202-1 09/02/23 19:24

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5.50	4.53	82.4	71.0-124	
(S) a,a,a-Trifluorotoluene(FID)			97.5	77.0-120	

L1650994-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1650994-09 09/03/23 02:21 • (MS) R3970202-3 09/03/23 05:49 • (MSD) R3970202-4 09/03/23 06:12

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 %
Gasoline Range Organics-NWTPH	184	6.26	167	166	87.3	87.0	25	50.0-150			0.402	27
(S) a,a,a-Trifluorotoluene(FID)					99.7	98.8		77.0-120				

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3969881-2 09/05/23 13:03

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	2.35	↓	0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	95.9			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3969881-1 09/05/23 11:43

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5.50	5.41	98.4	71.0-124	
(S) a,a,a-Trifluorotoluene(FID)			100	77.0-120	

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

Method Blank (MB)

(MB) R3970676-3 09/07/23 15:13

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	1.09	↓	0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	108			77.0-120

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

(LCS) R3970676-1 09/07/23 13:51 • (LCSD) R3970676-2 09/07/23 14:10

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 %
Gasoline Range Organics-NWTPH	5.50	6.10	5.95	111	108	71.0-124			2.49	20
(S) a,a,a-Trifluorotoluene(FID)				112	110	77.0-120				

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



Method Blank (MB)

(MB) R3970187-2 09/06/23 11:32

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	93.4			78.0-120

Laboratory Control Sample (LCS)

(LCS) R3970187-1 09/06/23 10:20

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5500	5120	93.1	70.0-124	
(S) a,a,a-Trifluorotoluene(FID)			99.9	78.0-120	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R3968654-3 09/01/23 03:32

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
Benzene	U		0.000467	0.00100
Toluene	U		0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Total Xylenes	U		0.000880	0.00650
<i>(S) Toluene-d8</i>	99.4			75.0-131
<i>(S) 4-Bromofluorobenzene</i>	101			67.0-138
<i>(S) 1,2-Dichloroethane-d4</i>	90.3			70.0-130

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

(LCS) R3968654-1 09/01/23 01:57 • (LCSD) R3968654-2 09/01/23 02:16

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Benzene	0.125	0.131	0.129	105	103	70.0-123			1.54	20
Toluene	0.125	0.110	0.113	88.0	90.4	75.0-121			2.69	20
Ethylbenzene	0.125	0.109	0.111	87.2	88.8	74.0-126			1.82	20
Total Xylenes	0.375	0.318	0.316	84.8	84.3	72.0-127			0.631	20
<i>(S) Toluene-d8</i>				95.4	97.2	75.0-131				
<i>(S) 4-Bromofluorobenzene</i>				101	102	67.0-138				
<i>(S) 1,2-Dichloroethane-d4</i>				100	101	70.0-130				

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

Method Blank (MB)

(MB) R3969791-3 09/01/23 10:24

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Toluene	U		0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Total Xylenes	U		0.000880	0.00650
<i>(S) Toluene-d8</i>	93.8			75.0-131
<i>(S) 4-Bromofluorobenzene</i>	88.9			67.0-138
<i>(S) 1,2-Dichloroethane-d4</i>	115			70.0-130

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

(LCS) R3969791-1 09/01/23 08:45 • (LCSD) R3969791-2 09/01/23 09:05

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 %
Benzene	0.125	0.149	0.137	119	110	70.0-123			8.39	20
Toluene	0.125	0.117	0.109	93.6	87.2	75.0-121			7.08	20
Ethylbenzene	0.125	0.114	0.103	91.2	82.4	74.0-126			10.1	20
Total Xylenes	0.375	0.310	0.294	82.7	78.4	72.0-127			5.30	20
<i>(S) Toluene-d8</i>				89.5	90.7	75.0-131				
<i>(S) 4-Bromofluorobenzene</i>				94.1	92.4	67.0-138				
<i>(S) 1,2-Dichloroethane-d4</i>				128	125	70.0-130				

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3970075-3 09/06/23 19:52

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Toluene	U		0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Total Xylenes	U		0.000880	0.00650
(S) Toluene-d8	101			75.0-131
(S) 4-Bromofluorobenzene	100			67.0-138
(S) 1,2-Dichloroethane-d4	90.2			70.0-130

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

(LCS) R3970075-1 09/06/23 18:14 • (LCSD) R3970075-2 09/06/23 18:33

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 %
Benzene	0.125	0.117	0.113	93.6	90.4	70.0-123			3.48	20
Toluene	0.125	0.118	0.116	94.4	92.8	75.0-121			1.71	20
Ethylbenzene	0.125	0.119	0.118	95.2	94.4	74.0-126			0.844	20
Total Xylenes	0.375	0.351	0.346	93.6	92.3	72.0-127			1.43	20
(S) Toluene-d8				102	102	75.0-131				
(S) 4-Bromofluorobenzene				95.8	96.8	67.0-138				
(S) 1,2-Dichloroethane-d4				89.1	89.1	70.0-130				

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3969845-3 09/05/23 19:59

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.0941	1.00
Toluene	U		0.278	1.00
Ethylbenzene	U		0.137	1.00
Total Xylenes	U		0.174	3.00
(S) Toluene-d8	108			80.0-120
(S) 4-Bromofluorobenzene	90.2			77.0-126
(S) 1,2-Dichloroethane-d4	115			70.0-130

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

(LCS) R3969845-1 09/05/23 18:34 • (LCSD) R3969845-2 09/05/23 19:38

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Benzene	5.00	5.74	5.03	115	101	70.0-123			13.2	20
Toluene	5.00	5.10	4.69	102	93.8	79.0-120			8.38	20
Ethylbenzene	5.00	4.58	4.40	91.6	88.0	79.0-123			4.01	20
Total Xylenes	15.0	14.0	13.1	93.3	87.3	79.0-123			6.64	20
(S) Toluene-d8				103	105	80.0-120				
(S) 4-Bromofluorobenzene				90.9	91.9	77.0-126				
(S) 1,2-Dichloroethane-d4				109	108	70.0-130				

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

# INTERNAL STANDARD SUMMARY

Instrument: VO CGC15 • File ID: 0906\_03

09/06/23 09:57

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	0906_03	186928800	28142
Upper Limit		373857600	56284
Lower Limit		93464400	14071
LCS R3970187-1 WG2127150 1x	0906_04	213124200	103954
BLANK R3970187-2 WG2127150 1x	0906_06	183201700	73105
L1650994-16 WG2127150 1x	0906_07	199605000	39319

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Is
- <sup>8</sup> Gl
- <sup>9</sup> Al
- <sup>10</sup> Sc

# INTERNAL STANDARD SUMMARY

Instrument: VOCMS6 • File ID: 0905\_24-2

09/05/23 18:34

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0905_24-2	270413	141311	135507
Upper Limit		540826	282622	271014
Lower Limit		135207	70656	67754
LCS R3969845-1 WG2126979 1x	0905_24LCS	270413	141311	135507
LCSD R3969845-2 WG2126979 1x	0905_27	273099	140317	136127
BLANK R3969845-3 WG2126979 1x	0905_28	274156	129703	118320
L1650994-16 WG2126979 1x	0905_31	263327	122810	107746

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

# INTERNAL STANDARD SUMMARY

## Instrument: VOCGC1 • File ID: 0905\_06

09/05/23 11:18

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	0905_06	2185013	4119241
Upper Limit		4370026	8238482
Lower Limit		1092507	2059621
LCS R3969881-1 WG2126379 1x	0905_07	2225799	4195013
BLANK R3969881-2 WG2126379 25x	0905_10	2123828	4215029
L1650994-03 WG2126379 25x	0905_13	2104998	4120482
L1650994-04 WG2126379 25x	0905_14	2176838	4295371
L1650994-06 WG2126379 25x	0905_15	2133217	4220677
L1650994-01 WG2126379 1000x	0905_16	2114955	4015499
L1650994-02 WG2126379 500x	0905_17	2158768	4121502

## Instrument: VOCGC15 • File ID: 0902\_03

09/02/23 19:01

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	0902_03	183941300	39415
Upper Limit		367882600	78830
Lower Limit		91970650	19708
LCS R3970202-1 WG2125898 1x	0902_04	215015400	215760
BLANK R3970202-2 WG2125898 25x	0902_07	190502200	78140
L1650994-08 WG2125898 28x	0902_18	249284800	151293
L1650994-09 WG2125898 25x	0902_19	181688200	86701
L1650994-10 WG2125898 25x	0902_20	177423600	93171
L1650994-11 WG2125898 25x	0902_21	189021800	199619
L1650994-12 WG2125898 25x	0902_22	192013100	63465
L1650994-13 WG2125898 25x	0902_23	185351500	62778
L1650994-14 WG2125898 25x	0902_24	202335700	57632
L1650994-15 WG2125898 25x	0902_25	175292900	69912
L1650994-17 WG2125898 25x	0902_26	185423200	97217
MS R3970202-3 WG2125898 25x	0902_28	215037500	43465
MSD R3970202-4 WG2125898 25x	0902_29	215360200	109196

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc



# INTERNAL STANDARD SUMMARY

## Instrument: VOCGC17 • File ID: 0901A\_30

09/02/23 00:14

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	0901A_30	225390900	36275690
Upper Limit		450781800	72551380
Lower Limit		112695400	18137840
LCS R3968953-1 WG2125620 1x	0901A_31B	223982600	51431890
BLANK R3968953-2 WG2125620 25x	0901A_34u	215843700	215843700
L1650994-05 WG2125620 25x	0901A_58	188052700	188052700
MS R3968953-3 WG2125620 25x	0901A_62	217793100	217793100
MSD R3968953-4 WG2125620 25x	0901A_63	220125100	220125100

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

## Instrument: VOCGC17 • File ID: 0907\_03

09/07/23 13:33

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	0907_03	220837500	220837500
Upper Limit		441675000	441675000
Lower Limit		110418800	110418800
LCS R3970676-1 WG2128172 1x	0907_04B	225643200	225643200
LCSD R3970676-2 WG2128172 1x	0907_05B	232532400	232532400
BLANK R3970676-3 WG2128172 25x	0907_07A	189171500	189171500
L1650994-07 WG2128172 2500x	0907_10	202031000	202031000

# INTERNAL STANDARD SUMMARY

## Instrument: VOCMS37 • File ID: 0901\_02-2

09/01/23 08:45

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0901_02-2	400923.50	207209.30	155078.10
Upper Limit		801847	414419	310156
Lower Limit		200462	103605	77539
LCS R3969791-1 WG2125293 1x	0901_02LCS	400923.50	207209.30	155078.10
LCSD R3969791-2 WG2125293 1x	0901_03	417895.50	215188.50	154453.50
BLANK R3969791-3 WG2125293 1x	0901_07	416050.60	212951.80	154291.80
L1650994-08 WG2125293 1.12x	0901_14	412915.20	203767.80	152189.60
L1650994-09 WG2125293 1x	0901_15	419537.90	212008.50	149076.20
L1650994-10 WG2125293 1x	0901_16	397943.60	191364.70	138148.40
L1650994-11 WG2125293 1x	0901_17	387326.10	197218.90	147230.90
L1650994-12 WG2125293 1x	0901_18	387479	205577.50	143066.90
L1650994-13 WG2125293 1x	0901_19	404150.30	207917.80	149282.20
L1650994-14 WG2125293 1x	0901_20	400203.20	201398.70	153419.60
L1650994-15 WG2125293 1x	0901_21	404616.30	202761.50	151318.70
L1650994-17 WG2125293 1x	0901_22	403825.70	209818.80	149872.30

## Instrument: VOCMS40 • File ID: 0901\_02-1

09/01/23 01:57

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0901_02-1	781502.30	385431.90	334675.60
Upper Limit		1563005	770864	669351
Lower Limit		390751	192716	167338
LCS R3968654-1 WG2125035 1x	0901_02LCS	781502.30	385431.90	334675.60
LCSD R3968654-2 WG2125035 1x	0901_03	755548.50	368673.60	326743.30
BLANK R3968654-3 WG2125035 1x	0901_07	798030.20	374238.90	316101.60
L1650994-02 WG2125035 1x	0901_18	840158.50	401231.30	338596.80
L1650994-03 WG2125035 1x	0901_19	865222.40	419222.10	354553.30
L1650994-04 WG2125035 1x	0901_20	845779.60	407713	348108.50
L1650994-06 WG2125035 1x	0901_22	859867.40	406858.60	350341
L1650994-01 WG2125035 8x	0901_26	869506.60	410789.80	347615.30
L1650994-07 WG2125035 8x	0901_27	889994.70	418065.60	358131.40

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

# INTERNAL STANDARD SUMMARY

Instrument: VOCMS53 • File ID: 0906\_29-2

09/06/23 18:14

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0906_29-2	549055.80	240389.40	228923.70
Upper Limit		1098112	480779	457847
Lower Limit		274528	120195	114462
LCS R3970075-1 WG2127231 1x	0906_29LCSA	549055.80	240389.40	228923.70
LCSD R3970075-2 WG2127231 1x	0906_30A	582565.10	249668.10	236755.40
BLANK R3970075-3 WG2127231 1x	0906_34A	522610.70	213910	210271.40
L1650994-05 WG2127231 1x	0906_35	548472.20	217576.80	214477.30
L1650994-03 WG2127231 20x	0906_36	546153.70	233052.30	219728.60
L1650994-02 WG2127231 40x	0906_37	520060.90	218726.60	218552.70
L1650994-01 WG2127231 400x	0906_38	539106.30	222092.70	222371
L1650994-07 WG2127231 400x	0906_39	531994.70	219587	219185.70

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

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

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

### Abbreviations and Definitions

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

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.



# 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 <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	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	LA000356
Kentucky <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> 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:  
**Stantec- Bellevue, WA**  
 11130 NE 33rd Pl, Ste 200  
 Bellevue, WA 98004

Billing Information:  
**Accounts Payable**  
 11130 NE 33rd Pl, Ste 200  
 Bellevue, WA 98004

Pres Chk

Chain of Custody Page 1 of 2



**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/hubs/pas-standard-terms.pdf>

Report to:  
**Stantec**

Email To:  
 zak.armacost@stantec.com; marc.suaze@stantec.com

Project Description:  
**Hungry Whale Test Pitting**

City/State  
 Collected: Westport, WA

Please Circle:  
 MT  CT  ET

Phone: **425-869-9448**

Client Project #  
185751446

Lab Project #  
**STANTECBWA-HUNGRY**

Collected by (print):  
Paul Sorey

Site/Facility ID #

P.O. #

Collected by (signature):  
Paul M. Sorey

**Rush?** (Lab MUST Be Notified)  
 Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

Quote #

Immediately Packed on Ice N  Y

Date Results Needed  
STD

No. of Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
-----------	-----------	----------	-------	------	------	--------------

Analysis / Container / Preservative

Analysis / Container / Preservative	EPH WA 4ozAmb-NoPres	NWTPHDXNOSGT 4ozClr-NoPres	NWTPHGX 40mlAmb/MeOH10ml/Syr	Pb 6010 2ozClr-NoPres	SV8270PAHSIM 4ozClr-NoPres	Total Solids 4ozClr-NoPres	V8260BTEX 40mlAmb/MeOH10ml/Syr	VPH WA 40mlAmb/MeOH10ml/Syr
-------------------------------------	----------------------	----------------------------	------------------------------	-----------------------	----------------------------	----------------------------	--------------------------------	-----------------------------

SDG # L1658994  
**G039**

Acctnum: **STANTECBWA**  
 Template: **T234672**

Prelogin: **P1013674**  
 PM: **546 - Jared Starkey**

PB: 7/26/23 CAM  
 Shipped Via: **FedEX Standard**

D4-FL-15	G	SS	15	8/28/23	0530	3												
E4-FL-15	G	SS	15	8/28/23	0540	3												
F4-FL-15	G	SS	15	8/28/23	0550	3												
F4-SW3-12	G	SS	12	8/28/23	0600	3												
SP-SI-13	G	SS	-	8/28/23	0615	3												
F3-FL-15	G	SS	15	8/28/23	0625	3												
E3-FL-15	G	SS	15	8/28/23	0635	3												
F3-SW3-12	G	SS	12	8/28/23	0645	3												
E2-FL-15	G	SS	15	8/28/23	0735	3												
F2-FL-15	G	SS	15	8/28/23	0745	3												


Remarks	Sample # (lab only)
	01
	02
	03
	04
	05
	06
	07
	08
	09
	10

\* Matrix:  
 SS - Soil AIR - Air F - Filter  
 GW - Groundwater B - Bioassay  
 WW - WasteWater  
 DW - Drinking Water  
 OT - Other

Remarks:  
 pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_  
 Samples returned via:  
 UPS  FedEx  Courier \_\_\_\_\_  
 Tracking # 6846 8244 8791

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)  
Paul M. Sorey

Date: 8/28/23  
 Time: 1530

Received by: (Signature)  
FedEx

Trip Blank Received:  Yes  No  
 HCL/MeOH TBR

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date: \_\_\_\_\_  
 Time: \_\_\_\_\_

Received by: (Signature)

Temp: 9.8°C  
56-20-28 Bottles Received: 48

Hold: \_\_\_\_\_  
 Condition: NCF / OK

Relinquished by: (Signature)

Date: \_\_\_\_\_  
 Time: \_\_\_\_\_

Received for lab by: (Signature)  
[Signature]

Date: 8-20-23  
 Time: 0900

Hold: \_\_\_\_\_  
 Condition: NCF / OK



Company Name/Address:  
**Stantec- Bellevue, WA**  
 11130 NE 33rd Pl, Ste 200  
 Bellevue, WA 98004

Billing Information:  
**Accounts Payable**  
 11130 NE 33rd Pl, Ste 200  
 Bellevue, WA 98004

Analysis / Container / Preservative  
 Chain of Custody Page 2 of 2

Report to:  
**Stantec**

Email To:  
 zak.armacost@stantec.com;marc.suaze@stantec.com

Project Description:  
**Hungry Whale Test Pitting**

City/State Collected: **Westport, WA**  
 Please Circle:  PT  MT  CT  ET

Phone: **425-869-9448**

Client Project #  
**146751446**

Lab Project #  
**STANTECBWA-HUNGRY**

Collected by (print):  
**Paul Sonny**

Site/Facility ID #

P.O. #

Collected by (signature):  
*Paul M. Sonny*

**Rush?** (Lab MUST Be Notified)  
 Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

Quote #

Immediately Packed on Ice N  Y

Date Results Needed  
**(STD)**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
-----------	-----------	----------	-------	------	------	--------------

E2-SW2-13	G	SS	13	8/28/23	0900	3-
F2-SW2-15	G	SS	15	8/28/23	0910	3-
F2-SW3-12	G	SS	12	8/28/23	0920	3-
SP-SI-14	G	SS	-	8/28/23	0940	3-
SP-SI-15	G	SS	-	8/28/23	0945	3-
TB-01	-	SS	-	8/28/23	-	2
Dup-06	G	SS	-	8/28/23	-	3-
		SS				
		SS				
		SS				

Analysis / Container / Preservative	EPH WA 4ozAmb-NoPres	NWTPHDXNOSGT 4ozCir-NoPres	NWTPHGX 40mlAmb/MeOH10ml/Syr	Pb 6010 2ozCir-NoPres	SV8270PAHSIM 4ozCir-NoPres	Total Solids 4ozCir-NoPres	V8260BTEX 40mlAmb/MeOH10ml/Syr	VPH WA 40mlAmb/MeOH10ml/Syr
			X			X	X	
			X			X	X	
			X			X	X	
			X			X	X	
			X			X	X	
			X				X	
			X			X	X	

**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/hubs/pas-standard-terms.pdf>

SDG # **U65 0994**

Table #

Acctnum: **STANTECBWA**  
 Template: **T234672**  
 Prelogin: **P1013674**  
 PM: **546 - Jared Starkey**  
 PB: **8/28/23 CAM**

Shipped Via: **FedEX Standard**

Remarks Sample # (lab only)

\* Matrix:  
 SS - Soil AIR - Air F - Filter  
 GW - Groundwater B - Bioassay  
 WW - WasteWater  
 DW - Drinking Water  
 OT - Other

Remarks:

pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_

Samples returned via:  
 UPS  FedEx  Courier

Tracking # **6841 8744 8791**

**Sample Receipt Checklist**

COC Seal Present/Intact:	<input type="checkbox"/> NP	<input type="checkbox"/> Y	<input type="checkbox"/> N
COC Signed/Accurate:	<input type="checkbox"/>	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
Bottles arrive intact:	<input type="checkbox"/>	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
Correct bottles used:	<input type="checkbox"/>	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
Sufficient volume sent:	<input type="checkbox"/>	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
<b>If Applicable</b>			
VOA Zero Headspace:	<input type="checkbox"/>	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
Preservation Correct/Checked:	<input type="checkbox"/>	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
RAD Screen <0.5 mR/hr:	<input type="checkbox"/>	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N

Relinquished by: (Signature) <i>Paul M. Sonny</i>	Date: 8/29/23	Time: 1530	Received by: (Signature) <i>FedEx</i>	Trip Blank Received: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No HCL/MeOH TBR
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: <b>5.30°C</b> Bottles Received: <b>48</b>
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i>	Date: <b>8-30-23</b> Time: <b>09</b>

If preservation required by Login: Date/Time

Hold:

Condition:  
 NCF /  OK

# APPENDIX J

## Groundwater Discharge Laboratory Analytical Reports





**Stantec- Bellevue, WA**

Sample Delivery Group: L1645973  
Samples Received: 08/15/2023  
Project Number: 185751446  
Description: Hungry Whale Test Pitting

Report To: Stantec  
11130 NE 33rd Pl, Ste 200  
Bellevue, WA 98004

Entire Report Reviewed By:



Jared Starkey  
Project Manager

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

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# SAMPLE SUMMARY

## DC-1 L1645973-01 GW

Collected by: Paul Janney  
 Collected date/time: 08/14/23 13:00  
 Received date/time: 08/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2114581	1	08/15/23 18:33	08/16/23 12:05	ZSA	Mt. Juliet, TN
Volatile Petroleum Hydrocarbons by Method VPHWA	WG2115527	1	08/17/23 04:25	08/17/23 04:25	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2114809	1	08/16/23 02:08	08/16/23 02:08	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2114724	1	08/15/23 20:41	08/15/23 20:41	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2114107	1	08/15/23 17:10	08/16/23 13:37	TJD	Mt. Juliet, TN
TPH by Method EPH	WG2115338	1	08/16/23 06:58	08/18/23 12:27	DMG	Mt. Juliet, TN
TPH by Method EPH	WG2115338	1	08/16/23 06:58	08/18/23 12:49	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2114486	1	08/15/23 17:22	08/16/23 03:26	AGW	Mt. Juliet, TN

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

## TB-01 L1645973-02 GW

Collected by: Paul Janney  
 Collected date/time: 08/14/23 00:00  
 Received date/time: 08/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2114809	1	08/16/23 01:47	08/16/23 01:47	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2114724	1	08/15/23 20:22	08/15/23 20:22	ADM	Mt. Juliet, TN

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

# CASE NARRATIVE

Unless qualified or notated within the narrative below, all sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. 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.

Jared Starkey  
Project Manager



## Volatile Petroleum Hydrocarbons by Method VPHWA

The same analyte is found in the associated blank.

Batch	Analyte	Lab Sample ID
WG2115527	Adjusted C6-C8 Aliphatics	L1645973-01
WG2115527	Unadjusted C6-C8 Aliphatics	L1645973-01

## TPH by Method EPH

Surrogate recovery limits have been exceeded; values are outside lower control limits.

Batch	Analyte	Lab Sample ID
WG2115338	1-Chloro-octadecane	(LCSD) R3962490-3, L1645973-01
WG2115338	o-Terphenyl	L1645973-01

The same analyte is found in the associated blank.

Batch	Analyte	Lab Sample ID
WG2115338	C21-C34 ALIPHATICS	L1645973-01
WG2115338	C21-C34 Aromatics	L1645973-01

The associated batch QC was below the established quality control range for accuracy.

Batch	Lab Sample ID	Analytes
WG2115338	(LCS) R3962490-2, (LCSD) R3962490-3, (LCSD) R3962490-6, L1645973-01	C10-C12 Aliphatics and C10-C12 Aromatics

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

Surrogate recovery limits have been exceeded; values are outside lower control limits.

Batch	Analyte	Lab Sample ID
WG2114107	o-Terphenyl	L1645973-01

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

Surrogate recovery limits have been exceeded; values are outside lower control limits.

Batch	Analyte	Lab Sample ID
WG2114486	p-Terphenyl-d14	L1645973-01

## Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Lead	U		2.99	6.00	1	08/16/2023 12:05	<a href="#">WG2114581</a>

## Volatile Petroleum Hydrocarbons by Method VPHWA

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Unadjusted C5-C6 Aliphatics	U		33.3	100	1	08/17/2023 04:25	<a href="#">WG2115527</a>
Adjusted C5-C6 Aliphatics	U		33.3	100	1	08/17/2023 04:25	<a href="#">WG2115527</a>
Unadjusted C6-C8 Aliphatics	9.05	<a href="#">B J</a>	6.88	100	1	08/17/2023 04:25	<a href="#">WG2115527</a>
Adjusted C6-C8 Aliphatics	8.96	<a href="#">B J</a>	6.88	100	1	08/17/2023 04:25	<a href="#">WG2115527</a>
Unadjusted C8-C10 Aliphatics	U		33.3	100	1	08/17/2023 04:25	<a href="#">WG2115527</a>
Adjusted C8-C10 Aliphatics	U		33.3	100	1	08/17/2023 04:25	<a href="#">WG2115527</a>
C8-C10 Aromatics	U		18.0	100	1	08/17/2023 04:25	<a href="#">WG2115527</a>
(S) 2,5-Dibromotoluene(FID)	102			60.0-140		08/17/2023 04:25	<a href="#">WG2115527</a>
(S) 2,5-Dibromotoluene(PID)	94.2			60.0-140		08/17/2023 04:25	<a href="#">WG2115527</a>

## Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	08/16/2023 02:08	<a href="#">WG2114809</a>
(S) a,a,a-Trifluorotoluene(FID)	103			78.0-120		08/16/2023 02:08	<a href="#">WG2114809</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	0.0920		0.0160	0.0400	1	08/15/2023 20:41	<a href="#">WG2114724</a>
Ethylbenzene	0.326		0.0212	0.100	1	08/15/2023 20:41	<a href="#">WG2114724</a>
Naphthalene	0.353	<a href="#">J</a>	0.124	0.500	1	08/15/2023 20:41	<a href="#">WG2114724</a>
Toluene	0.445		0.0500	0.200	1	08/15/2023 20:41	<a href="#">WG2114724</a>
o-Xylene	0.737		0.0400	0.100	1	08/15/2023 20:41	<a href="#">WG2114724</a>
m&p-Xylenes	1.64		0.0600	0.160	1	08/15/2023 20:41	<a href="#">WG2114724</a>
Xylenes, Total	2.38		0.191	0.260	1	08/15/2023 20:41	<a href="#">WG2114724</a>
(S) Toluene-d8	105			75.0-131		08/15/2023 20:41	<a href="#">WG2114724</a>
(S) 4-Bromofluorobenzene	107			67.0-138		08/15/2023 20:41	<a href="#">WG2114724</a>
(S) 1,2-Dichloroethane-d4	98.6			70.0-130		08/15/2023 20:41	<a href="#">WG2114724</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Diesel Range Organics (DRO)	U		66.7	200	1	08/16/2023 13:37	<a href="#">WG2114107</a>
Residual Range Organics (RRO)	U		83.3	250	1	08/16/2023 13:37	<a href="#">WG2114107</a>
(S) o-Terphenyl	47.7	<a href="#">J2</a>		52.0-156		08/16/2023 13:37	<a href="#">WG2114107</a>

## Sample Narrative:

L1645973-01 WG2114107: Sample produced emulsion during Extraction process, low surr/spike recoveries due to matrix.

## TPH by Method EPH

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
C10-C12 Aliphatics	17.8	<a href="#">J J4</a>	16.7	50.0	1	08/18/2023 12:49	<a href="#">WG2115338</a>
C12-C16 Aliphatics	26.7	<a href="#">J</a>	16.7	50.0	1	08/18/2023 12:49	<a href="#">WG2115338</a>
C16-C21 ALIPHATICS	U		16.7	50.0	1	08/18/2023 12:49	<a href="#">WG2115338</a>
C21-C34 ALIPHATICS	39.4	<a href="#">B J</a>	16.7	50.0	1	08/18/2023 12:49	<a href="#">WG2115338</a>



## TPH by Method EPH

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
C10-C12 Aromatics	U	<u>J4</u>	16.7	50.0	1	08/18/2023 12:27	<a href="#">WG2115338</a>
C12-C16 Aromatics	U		16.7	50.0	1	08/18/2023 12:27	<a href="#">WG2115338</a>
C16-C21 Aromatics	19.7	<u>J</u>	16.7	50.0	1	08/18/2023 12:27	<a href="#">WG2115338</a>
C21-C34 Aromatics	24.4	<u>B J</u>	16.7	50.0	1	08/18/2023 12:27	<a href="#">WG2115338</a>
(S) o-Terphenyl	61.3	<u>J2</u>		70.0-130		08/18/2023 12:27	<a href="#">WG2115338</a>
(S) 1-Chloro-octadecane	36.3	<u>J2</u>		70.0-130		08/18/2023 12:49	<a href="#">WG2115338</a>
(S) 2-Fluorobiphenyl	87.4			70.0-130		08/18/2023 12:27	<a href="#">WG2115338</a>
(S) 2-Bromonaphthalene	87.7			70.0-130		08/18/2023 12:27	<a href="#">WG2115338</a>

## Sample Narrative:

L1645973-01 WG2115338: Sample produced heavy emulsion during Extraction process, low surr/spike recoveries due to matrix

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Naphthalene	0.106	<u>J</u>	0.0917	0.250	1	08/16/2023 03:26	<a href="#">WG2114486</a>
(S) Nitrobenzene-d5	94.0			31.0-160		08/16/2023 03:26	<a href="#">WG2114486</a>
(S) 2-Fluorobiphenyl	65.0			48.0-148		08/16/2023 03:26	<a href="#">WG2114486</a>
(S) p-Terphenyl-d14	36.5	<u>J2</u>		37.0-146		08/16/2023 03:26	<a href="#">WG2114486</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		31.6	100	1	08/16/2023 01:47	<a href="#">WG2114809</a>
(S) a,a,a-Trifluorotoluene(FID)	103			78.0-120		08/16/2023 01:47	<a href="#">WG2114809</a>

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0160	0.0400	1	08/15/2023 20:22	<a href="#">WG2114724</a>
1,2-Dichloroethane	U		0.0190	0.100	1	08/15/2023 20:22	<a href="#">WG2114724</a>
Ethylbenzene	U		0.0212	0.100	1	08/15/2023 20:22	<a href="#">WG2114724</a>
n-Hexane	U		0.0424	0.200	1	08/15/2023 20:22	<a href="#">WG2114724</a>
Methyl tert-butyl ether	U		0.0118	0.0400	1	08/15/2023 20:22	<a href="#">WG2114724</a>
Naphthalene	U		0.124	0.500	1	08/15/2023 20:22	<a href="#">WG2114724</a>
Toluene	U		0.0500	0.200	1	08/15/2023 20:22	<a href="#">WG2114724</a>
o-Xylene	U		0.0400	0.100	1	08/15/2023 20:22	<a href="#">WG2114724</a>
m&p-Xylenes	U		0.0600	0.160	1	08/15/2023 20:22	<a href="#">WG2114724</a>
Xylenes, Total	U		0.191	0.260	1	08/15/2023 20:22	<a href="#">WG2114724</a>
(S) Toluene-d8	106			75.0-131		08/15/2023 20:22	<a href="#">WG2114724</a>
(S) 4-Bromofluorobenzene	105			67.0-138		08/15/2023 20:22	<a href="#">WG2114724</a>
(S) 1,2-Dichloroethane-d4	98.0			70.0-130		08/15/2023 20:22	<a href="#">WG2114724</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R3961490-1 08/16/23 11:45

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Lead	U		2.99	6.00

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

Laboratory Control Sample (LCS)

(LCS) R3961490-2 08/16/23 11:48

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Lead	1000	948	94.8	80.0-120	

<sup>4</sup>Cn

<sup>5</sup>Sr

L1645894-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1645894-01 08/16/23 11:51 • (MS) R3961490-4 08/16/23 11:57 • (MSD) R3961490-5 08/16/23 11:59

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Lead	1000	U	950	938	95.0	93.8	1	75.0-125			1.28	20

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc



Method Blank (MB)

(MB) R3961801-3 08/17/23 02:08

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Unadjusted C5-C6 Aliphatics	U		33.3	100
Adjusted C5-C6 Aliphatics	U		33.3	100
Unadjusted C6-C8 Aliphatics	7.06	U	6.88	100
Adjusted C6-C8 Aliphatics	7.06	U	6.88	100
Unadjusted C8-C10 Aliphatics	U		33.3	100
Adjusted C8-C10 Aliphatics	U		33.3	100
C8-C10 Aromatics	U		18.0	100
(S) 2,5-Dibromotoluene(FID)	98.7			60.0-140
(S) 2,5-Dibromotoluene(PID)	92.4			60.0-140

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

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

(LCS) R3961801-1 08/17/23 00:26 • (LCSD) R3961801-2 08/17/23 01:00

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Unadjusted C5-C6 Aliphatics	600	696	626	116	104	70.0-130			10.6	25
Unadjusted C6-C8 Aliphatics	400	455	414	114	104	70.0-130			9.44	25
Unadjusted C8-C10 Aliphatics	1200	1440	1350	120	113	70.0-130			6.45	25
C8-C10 Aromatics	1000	1030	991	103	99.1	70.0-130			3.86	25
(S) 2,5-Dibromotoluene(FID)				109	103	60.0-140				
(S) 2,5-Dibromotoluene(PID)				98.1	93.8	60.0-140				

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3961201-2 08/16/23 01:05

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	105			78.0-120

Laboratory Control Sample (LCS)

(LCS) R3961201-1 08/16/23 00:21

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5500	5300	96.4	70.0-124	
(S) a,a,a-Trifluorotoluene(FID)			104	78.0-120	

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

Method Blank (MB)

(MB) R3961309-3 08/15/23 19:17

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.0160	0.0400
1,2-Dichloroethane	U		0.0190	0.100
Ethylbenzene	U		0.0212	0.100
n-Hexane	U		0.0424	0.200
Methyl tert-butyl ether	U		0.0118	0.0400
Naphthalene	U		0.124	0.500
Toluene	U		0.0500	0.200
o-Xylene	U		0.0400	0.100
m&p-Xylenes	U		0.0600	0.160
Xylenes, Total	U		0.191	0.260
(S) Toluene-d8	106			75.0-131
(S) 4-Bromofluorobenzene	101			67.0-138
(S) 1,2-Dichloroethane-d4	96.8			70.0-130

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

(LCS) R3961309-1 08/15/23 18:01 • (LCSD) R3961309-2 08/15/23 18:20

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Benzene	5.00	5.63	5.59	113	112	70.0-123			0.713	20
1,2-Dichloroethane	5.00	4.66	4.74	93.2	94.8	65.0-131			1.70	20
Ethylbenzene	5.00	5.52	5.64	110	113	74.0-126			2.15	20
n-Hexane	5.00	5.89	6.00	118	120	55.0-137			1.85	20
Methyl tert-butyl ether	5.00	5.38	5.11	108	102	66.0-132			5.15	20
Naphthalene	5.00	4.95	4.70	99.0	94.0	59.0-130			5.18	20
Toluene	5.00	5.68	5.81	114	116	75.0-121			2.26	20
o-Xylene	5.00	5.52	5.52	110	110	79.0-124			0.000	20
m&p-Xylenes	10.0	11.2	11.2	112	112	76.0-126			0.000	20
Xylenes, Total	15.0	16.7	16.7	111	111	72.0-127			0.000	20
(S) Toluene-d8				106	107	75.0-131				
(S) 4-Bromofluorobenzene				105	107	67.0-138				
(S) 1,2-Dichloroethane-d4				99.0	97.8	70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R3961706-3 08/16/23 12:57

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Diesel Range Organics (DRO)	U		66.7	200
Residual Range Organics (RRO)	U		83.3	250
<i>(S) o-Terphenyl</i>	83.5			52.0-156

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

(LCS) R3961706-1 08/16/23 12:17 • (LCSD) R3961706-2 08/16/23 12:37

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	1500	1080	1160	72.0	77.3	50.0-150			7.14	20
<i>(S) o-Terphenyl</i>				69.5	76.0	52.0-156				

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3962490-1 08/18/23 10:14

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
C10-C12 Aliphatics	U		16.7	50.0
C12-C16 Aliphatics	U		16.7	50.0
C16-C21 ALIPHATICS	U		16.7	50.0
C21-C34 ALIPHATICS	38.0	J	16.7	50.0
(S) 1-Chloro-octadecane	70.5			70.0-130

Method Blank (MB)

(MB) R3962490-4 08/18/23 11:20

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
C10-C12 Aromatics	U		16.7	50.0
C12-C16 Aromatics	U		16.7	50.0
C16-C21 Aromatics	U		16.7	50.0
C21-C34 Aromatics	18.0	J	16.7	50.0
(S) o-Terphenyl	82.7			70.0-130
(S) 2-Fluorobiphenyl	90.0			70.0-130
(S) 2-Bromonaphthalene	90.9			70.0-130

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

(LCS) R3962490-2 08/18/23 10:36 • (LCSD) R3962490-3 08/18/23 10:58

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
C10-C12 Aliphatics	100	50.0	43.0	50	43	70-130	J4	J4	15	20
C12-C16 Aliphatics	200	160	150	80	75	70-130			6.5	20
C16-C21 ALIPHATICS	300	270	250	90	83	70-130			7.7	20
C21-C34 ALIPHATICS	500	460	430	92	86	70-130			6.7	20
(S) 1-Chloro-octadecane				73.9	69.1	70.0-130		J2		

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

(LCS) R3962490-5 08/18/23 11:43 • (LCSD) R3962490-6 08/18/23 12:05

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
C10-C12 Aromatics	100	71.0	64.0	71	64	70-130		J4	10	20
C12-C16 Aromatics	300	250	230	83	77	70-130			8.3	20
C16-C21 Aromatics	500	490	460	98	92	70-130			6.3	20
C21-C34 Aromatics	800	780	760	98	95	70-130			2.6	20



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

(LCS) R3962490-5 08/18/23 11:43 • (LCSD) R3962490-6 08/18/23 12:05

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
(S) o-Terphenyl				89.5	84.4	70.0-130				
(S) 2-Fluorobiphenyl				99.8	105	70.0-130				
(S) 2-Bromonaphthalene				92.8	97.9	70.0-130				

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

Method Blank (MB)

(MB) R3961294-2 08/16/23 03:08

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Naphthalene	U		0.0917	0.250
(S) Nitrobenzene-d5	109			31.0-160
(S) 2-Fluorobiphenyl	98.0			48.0-148
(S) p-Terphenyl-d14	92.5			37.0-146

Laboratory Control Sample (LCS)

(LCS) R3961294-1 08/16/23 02:51

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Naphthalene	2.00	2.12	106	61.0-137	
(S) Nitrobenzene-d5			111	31.0-160	
(S) 2-Fluorobiphenyl			99.0	48.0-148	
(S) p-Terphenyl-d14			77.5	37.0-146	

L1646074-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1646074-01 08/16/23 10:20 • (MS) R3961294-3 08/16/23 10:37 • (MSD) R3961294-4 08/16/23 10:55

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Naphthalene	2.00	U	2.15	2.21	107	111	1	10.0-160			2.75	20
(S) Nitrobenzene-d5					116	123		31.0-160				
(S) 2-Fluorobiphenyl					102	106		48.0-148				
(S) p-Terphenyl-d14					98.5	105		37.0-146				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

# INTERNAL STANDARD SUMMARY

Instrument: VOCGC12 • File ID: 0815\_30

08/16/23 00:21

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	0815_30	976473200	969216200
Upper Limit		1952946000	1938432000
Lower Limit		488236600	484608100
LCS R3961201-1 WG2114809 1x	0815_30u	976473200	969216200
BLANK R3961201-2 WG2114809 1x	0815_32	878353200	870472400
L1645973-02 WG2114809 1x	0815_33	888133600	878801900
L1645973-01 WG2114809 1x	0815_34	863062300	860900500

- <sup>1</sup>Cp
- <sup>2</sup>Tc
- <sup>3</sup>Ss
- <sup>4</sup>Cn
- <sup>5</sup>Sr
- <sup>6</sup>Qc
- <sup>7</sup>Is
- <sup>8</sup>Gl
- <sup>9</sup>Al
- <sup>10</sup>Sc



# INTERNAL STANDARD SUMMARY

Instrument: VOCMS42 • File ID: 0815\_26-3

08/15/23 18:01

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0815_26-3	629134	285968.70	264017
Upper Limit		1258268	571937	528034
Lower Limit		314567	142984	132009
LCS R3961309-1 WG2114724 1x	0815_26LCSA	629134	285968.70	264017
LCSD R3961309-2 WG2114724 1x	0815_27A	662602.30	306197.70	283680.10
BLANK R3961309-3 WG2114724 1x	0815_30	621043	284147.10	243136.80
L1645973-02 WG2114724 1x	0815_32	736771.20	330218.20	307928.90
L1645973-01 WG2114724 1x	0815_33	638194.80	296019.50	281833.80

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

# INTERNAL STANDARD SUMMARY

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

Instrument: BNAMS31 • File ID: 0816\_03

08/16/23 01:59

Sample ID	File ID	NAPHTHALENE-D8 Response	ACENAPHTHENE-D10 Response	PHENANTHRENE-D10 Response	CHRYSENE-D12 Response	PERYLENE-D12 Response
Standard	0816_03	32591	17774	32590	26023	21078
Upper Limit		65182	35548	65180	52046	42156
Lower Limit		16296	8887	16295	13012	10539
LCS R3961294-1 WG2114486 1x	0816_06	30300	16005	29862	23266	18728
BLANK R3961294-2 WG2114486 1x	0816_07	32594	17481	32372	24953	19987
L1645973-01 WG2114486 1x	0816_08	32324	17233	32204	24765	19743
MS R3961294-3 WG2114486 1x	0816_33	33097	17882	33359	27485	23566
MSD R3961294-4 WG2114486 1x	0816_34	32099	17506	32308	26299	22588

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

# 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.
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.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
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 <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	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	LA000356
Kentucky <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> 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:  
**Stantec- Bellevue, WA**

11130 NE 33rd Pl, Ste 200  
 Bellevue, WA 98004

Billing Information:  
**Accounts Payable**  
 11130 NE 33rd Pl, Ste 200  
 Bellevue, WA 98004

Pres  
 Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Report to:  
**Stantec**

Email To:  
 zak.armacost@stantec.com; marc.suaze@stantec.com

Project Description:  
**Hungry Whale Test Pitting**

City/State  
 Collected: **Westport, WA**

Please Circle:  
 PT  MT  CT  ET

Phone: **425-869-9448**

Client Project #

Lab Project #

**185751446**

**STANTECBWA-HUNGRY**

Collected by (print):

Site/Facility ID #

P.O. #

*Paul Sarnay*

Collected by (signature):

**Rush?** (Lab MUST Be Notified)

Quote #

Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

Date Results Needed

**ASAP**

No.  
 of  
 Cntrs

Immediately  
 Packed on Ice N  Y



**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 # **11645973**  
**B028**

Acctnum: **STANTECBWA**

Template: **T234674**

Prelogin: **P1013678**

PM: **546 - Jared Starkey**

PB: **7/26/23**

Shipped Via: **FedEx Standard**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	NWTPHDXLVINOSGT 40mlAmb-HCl-BT	NWTPHGX 40mlAmb HCl	PAHSIMLVI 40mlAmb-NoPres-WT	PBICP 250mlHDPE-HNO3	SVEPHWA 1L-Amb-Add HCl	V8260BTEX 40mlAmb-HCl	VPHWA 40mlAmb HCl	Remarks	Sample # (lab only)
DC-1	G	GW	-	8/14/23	1300	16	X	X	X	X	X	X	X		-01
TB-01	G	GW	-	8/14/23	-	2		X				X			-02
		GW													
		GW													
		GW													
		GW													
		GW													
		GW													
		GW													
		GW													

\* Matrix:  
 SS - Soil AIR - Air F - Filter  
 GW - Groundwater B - Bioassay  
 WW - WasteWater  
 DW - Drinking Water  
 OT - Other

Remarks:

pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_

Samples returned via:  
 UPS  FedEx  Courier

Tracking # **9165 0224 4572**

Sample Receipt Checklist	
COC Seal Present/Intact:	<input checked="" type="checkbox"/> NP <input type="checkbox"/> N
COC Signed/Accurate:	<input checked="" type="checkbox"/> N <input type="checkbox"/> N
Bottles arrive intact:	<input checked="" type="checkbox"/> N <input type="checkbox"/> N
Correct bottles used:	<input checked="" type="checkbox"/> N <input type="checkbox"/> N
Sufficient volume sent:	<input checked="" type="checkbox"/> N <input type="checkbox"/> N
If Applicable	
VOA Zero Headspace:	<input checked="" type="checkbox"/> N <input type="checkbox"/> N
Preservation Correct/Checked:	<input checked="" type="checkbox"/> N <input type="checkbox"/> N
RAD Screen <0.5 mR/hr:	<input checked="" type="checkbox"/> N <input type="checkbox"/> N

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Trip Blank Received:  Yes  No  
 HCl/MeOH  
 TBR

*Paul M. Jennings*

**8/14/23**

**1600**

**FedEx**

**2**

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp **6.24°C** Bottles Received: **16**

If preservation required, hold at \_\_\_\_\_ °C/Time  
**PH-10BDH4321 TRC-2144141**  
**CR6-20221V**

*Paul M. Jennings*

**8/15/23**

**9:00**

**9**

**8:15-23**

**9:00**

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Date: Time:

Hold at \_\_\_\_\_ °C/Time  
 Condition: **NCF / OK**

*Paul M. Jennings*

**8/15/23**

**9:00**

**9**

**8:15-23**

**9:00**

**Stantec- Bellevue, WA**

Sample Delivery Group: L1647487  
Samples Received: 08/18/2023  
Project Number: 185751446  
Description: Hungry Whale Test Pitting

Report To: Stantec  
11130 NE 33rd Pl, Ste 200  
Bellevue, WA 98004

Entire Report Reviewed By:













Jared Starkey  
Project Manager

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



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# SAMPLE SUMMARY

## DC-2 L1647487-01 GW

Collected by: Paul Janney  
 Collected date/time: 08/17/23 13:30  
 Received date/time: 08/18/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2116725	1	08/18/23 16:17	08/18/23 16:17	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2116695	1	08/18/23 13:40	08/18/23 13:40	ACG	Mt. Juliet, TN

## TB-01 L1647487-02 GW

Collected by: Paul Janney  
 Collected date/time: 08/15/23 00:00  
 Received date/time: 08/18/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2116725	1	08/18/23 15:55	08/18/23 15:55	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2116695	1	08/18/23 13:17	08/18/23 13:17	ACG	Mt. Juliet, TN

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



# CASE NARRATIVE

Unless qualified or notated within the narrative below, all sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. 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.



Jared Starkey  
Project Manager

## Volatile Organic Compounds (GC) by Method NWTPHGX

---

The same analyte is found in the associated blank.

Batch	Analyte	Lab Sample ID
WG2116725	Gasoline Range Organics-NWTPH	L1647487-01, 02



## Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	42.9	<u>B</u> <u>J</u>	31.6	100	1	08/18/2023 16:17	<a href="#">WG2116725</a>
(S) <i>a,a</i> -Trifluorotoluene(FID)	105			78.0-120		08/18/2023 16:17	<a href="#">WG2116725</a>

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0941	1.00	1	08/18/2023 13:40	<a href="#">WG2116695</a>
Toluene	U		0.278	1.00	1	08/18/2023 13:40	<a href="#">WG2116695</a>
Ethylbenzene	U		0.137	1.00	1	08/18/2023 13:40	<a href="#">WG2116695</a>
Total Xylenes	U		0.174	3.00	1	08/18/2023 13:40	<a href="#">WG2116695</a>
(S) Toluene-d8	106			80.0-120		08/18/2023 13:40	<a href="#">WG2116695</a>
(S) 4-Bromofluorobenzene	112			77.0-126		08/18/2023 13:40	<a href="#">WG2116695</a>
(S) 1,2-Dichloroethane-d4	108			70.0-130		08/18/2023 13:40	<a href="#">WG2116695</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	66.7	<u>B</u>	31.6	100	1	08/18/2023 15:55	<a href="#">WG2116725</a>
(S) a,a,a-Trifluorotoluene(FID)	104			78.0-120		08/18/2023 15:55	<a href="#">WG2116725</a>

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

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0941	1.00	1	08/18/2023 13:17	<a href="#">WG2116695</a>
Toluene	U		0.278	1.00	1	08/18/2023 13:17	<a href="#">WG2116695</a>
Ethylbenzene	U		0.137	1.00	1	08/18/2023 13:17	<a href="#">WG2116695</a>
Total Xylenes	U		0.174	3.00	1	08/18/2023 13:17	<a href="#">WG2116695</a>
(S) Toluene-d8	108			80.0-120		08/18/2023 13:17	<a href="#">WG2116695</a>
(S) 4-Bromofluorobenzene	108			77.0-126		08/18/2023 13:17	<a href="#">WG2116695</a>
(S) 1,2-Dichloroethane-d4	106			70.0-130		08/18/2023 13:17	<a href="#">WG2116695</a>

Method Blank (MB)

(MB) R3962717-3 08/18/23 14:22

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	65.7	↓	31.6	100
(S) a,a,a-Trifluorotoluene(FID)	105			78.0-120

Laboratory Control Sample (LCS)

(LCS) R3962717-2 08/18/23 13:19

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5500	5510	100	70.0-124	
(S) a,a,a-Trifluorotoluene(FID)			111	78.0-120	

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

Method Blank (MB)

(MB) R3962563-4 08/18/23 10:50

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.0941	1.00
Toluene	U		0.278	1.00
Ethylbenzene	U		0.137	1.00
Total Xylenes	U		0.174	3.00
<i>(S) Toluene-d8</i>	108			80.0-120
<i>(S) 4-Bromofluorobenzene</i>	110			77.0-126
<i>(S) 1,2-Dichloroethane-d4</i>	105			70.0-130

Laboratory Control Sample (LCS)

(LCS) R3962563-1 08/18/23 09:22

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Benzene	5.00	5.52	110	70.0-123	
Toluene	5.00	5.04	101	79.0-120	
Ethylbenzene	5.00	4.81	96.2	79.0-123	
Total Xylenes	15.0	14.7	98.0	79.0-123	
<i>(S) Toluene-d8</i>			105	80.0-120	
<i>(S) 4-Bromofluorobenzene</i>			108	77.0-126	
<i>(S) 1,2-Dichloroethane-d4</i>			103	70.0-130	

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

# INTERNAL STANDARD SUMMARY

Instrument: VOCGC10 • File ID: 0818\_03

08/18/23 13:19

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	0818_03	173861300	339921300
Upper Limit		347722600	679842600
Lower Limit		86930650	169960700
LCS R3962717-2 WG2116725 1x	0818_03U	173861300	339921300
BLANK R3962717-3 WG2116725 1x	0818_05	173928000	332121000
L1647487-02 WG2116725 1x	0818_10	170754300	327334400
L1647487-01 WG2116725 1x	0818_11	181729700	350291100

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

# INTERNAL STANDARD SUMMARY

Instrument: VOCMS21 • File ID: 0818\_03-1

08/18/23 09:22

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0818_03-1	207897	106854	99897
Upper Limit		415794	213708	199794
Lower Limit		103949	53427	49949
LCS R3962563-1 WG2116695 1x	0818_03LCS	207897	106854	99897
BLANK R3962563-4 WG2116695 1x	0818_07	200984	101342	97618
L1647487-02 WG2116695 1x	0818_09	196193	98779	93564
L1647487-01 WG2116695 1x	0818_10	197962	98156	92653

- <sup>1</sup>Cp
- <sup>2</sup>Tc
- <sup>3</sup>Ss
- <sup>4</sup>Cn
- <sup>5</sup>Sr
- <sup>6</sup>Qc
- <sup>7</sup>Is
- <sup>8</sup>Gl
- <sup>9</sup>Al
- <sup>10</sup>Sc

# 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.
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
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.





# 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 <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	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	LA000356
Kentucky <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> 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.

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

Company Name/Address:  
**Stantec- Bellevue, WA**

11130 NE 33rd Pl, Ste 200  
Bellevue, WA 98004

Billing Information:  
**Accounts Payable**  
11130 NE 33rd Pl, Ste 200  
Bellevue, WA 98004

Report to:  
**Stantec**

Email To:  
zak.armacost@stantec.com;marc.suaze@stantec.com

Project Description:  
**Hungry Whale Test Pitting**

City/State Collected: **Westport WA**

Please Circle:  
 PT  MT  CT  ET

Phone: **425-869-9448**

Client Project #  
**146751446**

Lab Project #  
**STANTECBWA-HUNGRY**

Collected by (print):  
**Paul Jarney**

Site/Facility ID #

P.O. #

Collected by (signature):  
*Paul Jarney*

**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

No. of Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
DL-2	G	GW	-	8/17/23	1330	6
TB-01	G	GW	-	8/15/23	-	2
		GW				
		GW				
		GW				
		GW				
		GW				
		GW				
		GW				
		GW				

Pres Chk	Analysis / Container / Preservative						
	NWTPHDXLVINOSGT 40mlAmb-HCl-BT	NWTPHGX 40mlAmb HCl	PAHSIMLVI 40mlAmb-NoPres-WT	PBICP 250mlHDPE-HNO3	SVEPHWA 1L-Amb-Add HCl	V8260BTEX 40mlAmb-HCl	VPHWA 40mlAmb HCl
		X				X	
		X				X	

Chain of Custody Page 1 of 1

**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/hubs/pas-standard-terms.pdf>

SDG # **11047487**

Table **B140**

Acctnum: **STANTECBWA**

Template: **T234674**

Prelogin: **P1013678**

PM: **546 - Jared Starkey**

PB: **7/26/23 JB**

Shipped Via: **FedEX Standard**

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - WasteWater  
DW - Drinking Water  
OT - Other

Remarks:

pH \_\_\_\_\_ Temp \_\_\_\_\_  
Flow \_\_\_\_\_ Other \_\_\_\_\_

Samples returned via:  
 UPS  FedEx  Courier

Tracking # **6841 8344 8770**

**Sample Receipt Checklist**

COC Seal Present/Intact:	NP	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
COC Signed/Accurate:		<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
Bottles arrive intact:		<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
Correct bottles used:		<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
Sufficient volume sent:		<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
<b>If Applicable</b>			
VOA Zero Headspace:		<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
Preservation Correct/Checked:		<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
RAD Screen <0.5 mR/hr:		<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N

Relinquished by: (Signature) <i>Paul Jarney</i>	Date: <b>8/17/23</b>	Time: <b>1530</b>	Received by: (Signature) <b>FedEx</b>	Trip Blank Received: <b>2</b> Yes/No <input checked="" type="checkbox"/> HCl/MeOH <input type="checkbox"/> TBR
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: <b>6.44°C</b> Bottles Received: <b>6</b>
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <b>g 10</b>	Date: <b>8.18.23</b> Time: <b>9:00</b> Hold: Condition: <b>NCF / OK</b>

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

## Stantec- Bellevue, WA

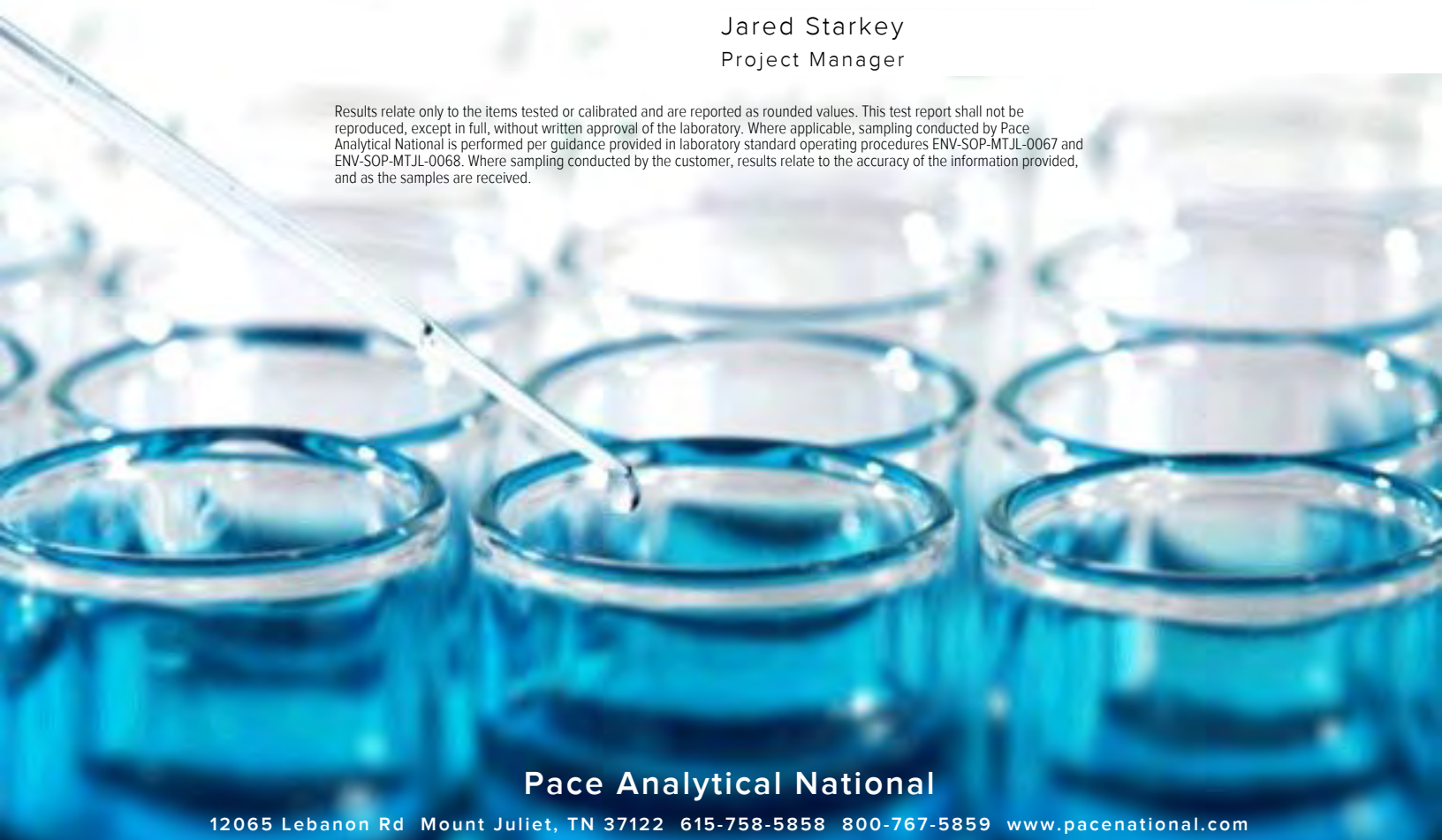
Sample Delivery Group: L1647951  
Samples Received: 08/19/2023  
Project Number:  
Description: Hungry Whale Test Pitting  
  
Report To: Stantec  
11130 NE 33rd Pl, Ste 200  
Bellevue, WA 98004

Entire Report Reviewed By:



Jared Starkey  
Project Manager











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



**Pace Analytical National**

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 [www.pacenational.com](http://www.pacenational.com)

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# SAMPLE SUMMARY

## DC-3 L1647951-01 GW

Collected by: Paul Sanney  
 Collected date/time: 08/18/23 11:50  
 Received date/time: 08/19/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2117260	1	08/19/23 15:50	08/19/23 15:50	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2117255	1	08/19/23 13:56	08/19/23 13:56	JAH	Mt. Juliet, TN

## TB-01 L1647951-02 GW

Collected by: Paul Sanney  
 Collected date/time: 08/18/23 00:00  
 Received date/time: 08/19/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2117260	1	08/19/23 15:06	08/19/23 15:06	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2117255	1	08/19/23 13:35	08/19/23 13:35	JAH	Mt. Juliet, TN

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

# CASE NARRATIVE

Unless qualified or notated within the narrative below, all sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. 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.



Jared Starkey  
Project Manager

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		31.6	100	1	08/19/2023 15:50	<a href="#">WG2117260</a>
(S) a,a,a-Trifluorotoluene(FID)	104			78.0-120		08/19/2023 15:50	<a href="#">WG2117260</a>

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

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0941	1.00	1	08/19/2023 13:56	<a href="#">WG2117255</a>
Toluene	U		0.278	1.00	1	08/19/2023 13:56	<a href="#">WG2117255</a>
Ethylbenzene	U		0.137	1.00	1	08/19/2023 13:56	<a href="#">WG2117255</a>
Total Xylenes	U		0.174	3.00	1	08/19/2023 13:56	<a href="#">WG2117255</a>
(S) Toluene-d8	90.8			80.0-120		08/19/2023 13:56	<a href="#">WG2117255</a>
(S) 4-Bromofluorobenzene	109			77.0-126		08/19/2023 13:56	<a href="#">WG2117255</a>
(S) 1,2-Dichloroethane-d4	109			70.0-130		08/19/2023 13:56	<a href="#">WG2117255</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		31.6	100	1	08/19/2023 15:06	<a href="#">WG2117260</a>
(S) a,a,a-Trifluorotoluene(FID)	104			78.0-120		08/19/2023 15:06	<a href="#">WG2117260</a>

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

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Benzene	U		0.0941	1.00	1	08/19/2023 13:35	<a href="#">WG2117255</a>
Toluene	U		0.278	1.00	1	08/19/2023 13:35	<a href="#">WG2117255</a>
Ethylbenzene	U		0.137	1.00	1	08/19/2023 13:35	<a href="#">WG2117255</a>
Total Xylenes	U		0.174	3.00	1	08/19/2023 13:35	<a href="#">WG2117255</a>
(S) Toluene-d8	90.4			80.0-120		08/19/2023 13:35	<a href="#">WG2117255</a>
(S) 4-Bromofluorobenzene	105			77.0-126		08/19/2023 13:35	<a href="#">WG2117255</a>
(S) 1,2-Dichloroethane-d4	110			70.0-130		08/19/2023 13:35	<a href="#">WG2117255</a>



Method Blank (MB)

(MB) R3962949-2 08/19/23 13:57

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	103			78.0-120

Laboratory Control Sample (LCS)

(LCS) R3962949-1 08/19/23 13:00

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5500	5430	98.7	70.0-124	
(S) a,a,a-Trifluorotoluene(FID)			102	78.0-120	

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

Method Blank (MB)

(MB) R3962950-2 08/19/23 11:34

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.0941	1.00
Toluene	U		0.278	1.00
Ethylbenzene	U		0.137	1.00
Total Xylenes	U		0.174	3.00
<i>(S) Toluene-d8</i>	94.7			80.0-120
<i>(S) 4-Bromofluorobenzene</i>	110			77.0-126
<i>(S) 1,2-Dichloroethane-d4</i>	109			70.0-130

Laboratory Control Sample (LCS)

(LCS) R3962950-1 08/19/23 10:30

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Benzene	5.00	4.85	97.0	70.0-123	
Toluene	5.00	4.13	82.6	79.0-120	
Ethylbenzene	5.00	4.27	85.4	79.0-123	
Total Xylenes	15.0	13.0	86.7	79.0-123	
<i>(S) Toluene-d8</i>			93.7	80.0-120	
<i>(S) 4-Bromofluorobenzene</i>			110	77.0-126	
<i>(S) 1,2-Dichloroethane-d4</i>			105	70.0-130	

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

# INTERNAL STANDARD SUMMARY

Instrument: VO CGC12 • File ID: 0819\_28

08/19/23 13:00

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	0819_28	1048284000	991742800
Upper Limit		2096568000	1983486000
Lower Limit		524142000	495871400
LCS R3962949-1 WG2117260 1x	0819_28U	1048284000	991742800
BLANK R3962949-2 WG2117260 1x	0819_30	824244400	823207000
L1647951-02 WG2117260 1x	0819_31	824316900	816893700
L1647951-01 WG2117260 1x	0819_33	884885100	884460500

- <sup>1</sup>Cp
- <sup>2</sup>Tc
- <sup>3</sup>Ss
- <sup>4</sup>Cn
- <sup>5</sup>Sr
- <sup>6</sup>Qc
- <sup>7</sup>Is
- <sup>8</sup>Gl
- <sup>9</sup>Al
- <sup>10</sup>Sc

# INTERNAL STANDARD SUMMARY

Instrument: VOCMS39 • File ID: 0819\_03-2

08/19/23 10:30

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0819_03-2	375438.90	109221.90	127735.40
Upper Limit		750878	218444	255471
Lower Limit		187719	54611	63868
LCS R3962950-1 WG2117255 1x	0819_03LCS	375438.90	109221.90	127735.40
BLANK R3962950-2 WG2117255 1x	0819_06	351674.30	100348	123185.70
L1647951-02 WG2117255 1x	0819_08	373660.50	116685.80	129705.90
L1647951-01 WG2117255 1x	0819_09	335479.40	95408.60	112783.30

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

# 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.
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

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 <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	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	LA000356
Kentucky <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> 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:  
**Stantec- Bellevue, WA**  
 11130 NE 33rd Pl, Ste 200  
 Bellevue, WA 98004

Billing Information:  
**Accounts Payable**  
 11130 NE 33rd Pl, Ste 200  
 Bellevue, WA 98004

Report to:  
**Stantec**

Email To:  
 zak.armacost@stantec.com;marc.suaze@stantec.com

Project Description: **Hungry Whale Test Pitting** City/State: **Westport, WA** Please Circle:  PT  MT  CT  ET

Phone: **425-869-9448** Client Project #: **135751446** Lab Project #: **STANTECBWA-HUNGRY**

Collected by (print): **Paul Senney** Site/Facility ID #: P.O. #

Collected by (signature): **Paul M. Senney** **Rush?** (Lab MUST Be Notified)  Same Day  Five Day  Next Day  5 Day (Rad Only)  Two Day  10 Day (Rad Only)  Three Day Quote #

Immediately Packed on Ice N  Y  Date Results Needed No. of Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
DL-3	G	GW	-	8/14/23	1150	6
TB-01	-	GW	-	8/14/23	-	2
		GW				
		GW				

Analysis / Container / Preservative	Pres Chk
NWTPHDXLVINOSGT 40mlAmb-HCl-BT	
NWTPHGX 40mlAmb HCl	X
PAHSIMLV 40mlAmb-NoPres-WT	
PBICP 250mlHDPE-HNO3	
SVEPHWA 1L-Amb-Add HCl	
V8260BTEX 40mlAmb-HCl	X
VPHWA 40mlAmb HCl	X

Chain of Custody Page 1 of 1

**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 # **L1647951**  
**C154**

Acctnum: **STANTECBWA**  
 Template: **T234674**  
 Prelogin: **P1013678**  
 PM: **546 Jared Starkey**  
 PB: **7/26/23**

Shipped Via: **FedEx Standard**

\* Matrix:  
 SS - Soil AIR - Air F - Filter  
 GW - Groundwater B - Bioassay  
 WW - WasteWater  
 DW - Drinking Water  
 OT - Other

Remarks:

Samples returned via:  UPS  FedEx  Courier Tracking # **6841 8344 9905**

pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_

**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) <b>Paul M. Senney</b>	Date: <b>8/14/23</b>	Time: <b>1500</b>	Received by: (Signature) <b>FedEx</b>	Trip Blank Received: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	HCl / MeOH TBR
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: <b>6.98 °C</b>	Bottles Received: <b>6</b>
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <b>GRACE BARRON</b>	Date: <b>08.19.23</b>	Time: <b>0900</b>

If preservation required by Login: Date/Time

Condition:  NCF  OK

August 25, 2023

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

**Stantec- Bellevue, WA**

Sample Delivery Group: L1648719  
Samples Received: 08/23/2023  
Project Number: 185751446  
Description: Hungry Whale

Report To: Stantec  
11130 NE 33rd Pl, Ste 200  
Bellevue, WA 98004

Entire Report Reviewed By:



Jared Starkey  
Project Manager

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

**Pace Analytical National**12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 [www.pacenational.com](http://www.pacenational.com)



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# SAMPLE SUMMARY

## DC-4 L1648719-01 GW

Collected by Paul Janney      Collected date/time 08/22/23 09:00      Received date/time 08/23/23 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2120303	1	08/24/23 17:31	08/24/23 17:31	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2119441	1	08/23/23 12:49	08/23/23 12:49	KSD	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2119755	1	08/23/23 22:23	08/24/23 10:08	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2119763	1	08/23/23 18:51	08/23/23 23:11	AGW	Mt. Juliet, TN

## DC-5 L1648719-02 GW

Collected by Paul Janney      Collected date/time 08/22/23 09:30      Received date/time 08/23/23 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2120303	1	08/24/23 17:53	08/24/23 17:53	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2119441	1	08/23/23 13:10	08/23/23 13:10	KSD	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2119755	1	08/23/23 22:23	08/24/23 10:28	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2119763	1	08/23/23 18:51	08/23/23 23:30	AGW	Mt. Juliet, TN

## TB-01 L1648719-03 GW

Collected by Paul Janney      Collected date/time 08/22/23 00:00      Received date/time 08/23/23 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2120303	1	08/24/23 16:48	08/24/23 16:48	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2119188	1	08/24/23 00:05	08/24/23 00:05	JHH	Mt. Juliet, TN



# CASE NARRATIVE

Unless qualified or notated within the narrative below, all sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. 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.



Jared Starkey  
Project Manager

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Is
- <sup>8</sup> Gl
- <sup>9</sup> Al
- <sup>10</sup> Sc

## Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		31.6	100	1	08/24/2023 17:31	<a href="#">WG2120303</a>
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	102			78.0-120		08/24/2023 17:31	<a href="#">WG2120303</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Benzene	U		0.0941	1.00	1	08/23/2023 12:49	<a href="#">WG2119441</a>
Toluene	U		0.278	1.00	1	08/23/2023 12:49	<a href="#">WG2119441</a>
Ethylbenzene	U		0.137	1.00	1	08/23/2023 12:49	<a href="#">WG2119441</a>
Total Xylenes	U		0.174	3.00	1	08/23/2023 12:49	<a href="#">WG2119441</a>
(S) Toluene-d8	108			80.0-120		08/23/2023 12:49	<a href="#">WG2119441</a>
(S) 4-Bromofluorobenzene	109			77.0-126		08/23/2023 12:49	<a href="#">WG2119441</a>
(S) 1,2-Dichloroethane-d4	115			70.0-130		08/23/2023 12:49	<a href="#">WG2119441</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	70.2	J	66.7	200	1	08/24/2023 10:08	<a href="#">WG2119755</a>
Residual Range Organics (RRO)	U		83.3	250	1	08/24/2023 10:08	<a href="#">WG2119755</a>
(S) <i>o</i> -Terphenyl	137			52.0-156		08/24/2023 10:08	<a href="#">WG2119755</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Naphthalene	U		0.0917	0.250	1	08/23/2023 23:11	<a href="#">WG2119763</a>
(S) Nitrobenzene-d5	92.6			31.0-160		08/23/2023 23:11	<a href="#">WG2119763</a>
(S) 2-Fluorobiphenyl	88.4			48.0-148		08/23/2023 23:11	<a href="#">WG2119763</a>
(S) <i>p</i> -Terphenyl-d14	93.2			37.0-146		08/23/2023 23:11	<a href="#">WG2119763</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

## Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		31.6	100	1	08/24/2023 17:53	<a href="#">WG2120303</a>
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	104			78.0-120		08/24/2023 17:53	<a href="#">WG2120303</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Benzene	U		0.0941	1.00	1	08/23/2023 13:10	<a href="#">WG2119441</a>
Toluene	U		0.278	1.00	1	08/23/2023 13:10	<a href="#">WG2119441</a>
Ethylbenzene	U		0.137	1.00	1	08/23/2023 13:10	<a href="#">WG2119441</a>
Total Xylenes	U		0.174	3.00	1	08/23/2023 13:10	<a href="#">WG2119441</a>
(S) Toluene-d8	111			80.0-120		08/23/2023 13:10	<a href="#">WG2119441</a>
(S) 4-Bromofluorobenzene	110			77.0-126		08/23/2023 13:10	<a href="#">WG2119441</a>
(S) 1,2-Dichloroethane-d4	110			70.0-130		08/23/2023 13:10	<a href="#">WG2119441</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	76.8	J	66.7	200	1	08/24/2023 10:28	<a href="#">WG2119755</a>
Residual Range Organics (RRO)	U		83.3	250	1	08/24/2023 10:28	<a href="#">WG2119755</a>
(S) <i>o</i> -Terphenyl	134			52.0-156		08/24/2023 10:28	<a href="#">WG2119755</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Naphthalene	U		0.0917	0.250	1	08/23/2023 23:30	<a href="#">WG2119763</a>
(S) Nitrobenzene-d5	75.3			31.0-160		08/23/2023 23:30	<a href="#">WG2119763</a>
(S) 2-Fluorobiphenyl	72.6			48.0-148		08/23/2023 23:30	<a href="#">WG2119763</a>
(S) <i>p</i> -Terphenyl-d14	73.7			37.0-146		08/23/2023 23:30	<a href="#">WG2119763</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		31.6	100	1	08/24/2023 16:48	<a href="#">WG2120303</a>
(S) a,a,a-Trifluorotoluene(FID)	99.9			78.0-120		08/24/2023 16:48	<a href="#">WG2120303</a>

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

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Benzene	U		0.0941	1.00	1	08/24/2023 00:05	<a href="#">WG2119188</a>
Toluene	U		0.278	1.00	1	08/24/2023 00:05	<a href="#">WG2119188</a>
Ethylbenzene	U		0.137	1.00	1	08/24/2023 00:05	<a href="#">WG2119188</a>
Total Xylenes	U		0.174	3.00	1	08/24/2023 00:05	<a href="#">WG2119188</a>
(S) Toluene-d8	112			80.0-120		08/24/2023 00:05	<a href="#">WG2119188</a>
(S) 4-Bromofluorobenzene	106			77.0-126		08/24/2023 00:05	<a href="#">WG2119188</a>
(S) 1,2-Dichloroethane-d4	114			70.0-130		08/24/2023 00:05	<a href="#">WG2119188</a>

Method Blank (MB)

(MB) R3965204-2 08/24/23 11:18

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	106			78.0-120

Laboratory Control Sample (LCS)

(LCS) R3965204-1 08/24/23 09:03

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5500	5180	94.2	70.0-124	
(S) a,a,a-Trifluorotoluene(FID)			99.3	78.0-120	

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

Method Blank (MB)

(MB) R3964817-3 08/23/23 23:35

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.0941	1.00
Toluene	U		0.278	1.00
Ethylbenzene	U		0.137	1.00
Total Xylenes	U		0.174	3.00
<i>(S) Toluene-d8</i>	117			80.0-120
<i>(S) 4-Bromofluorobenzene</i>	104			77.0-126
<i>(S) 1,2-Dichloroethane-d4</i>	118			70.0-130

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

(LCS) R3964817-1 08/23/23 22:09 • (LCSD) R3964817-2 08/23/23 22:31

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Benzene	5.00	4.84	4.70	96.8	94.0	70.0-123			2.94	20
Toluene	5.00	5.04	4.90	101	98.0	79.0-120			2.82	20
Ethylbenzene	5.00	4.86	4.80	97.2	96.0	79.0-123			1.24	20
Total Xylenes	15.0	14.7	13.8	98.0	92.0	79.0-123			6.32	20
<i>(S) Toluene-d8</i>				110	108	80.0-120				
<i>(S) 4-Bromofluorobenzene</i>				107	105	77.0-126				
<i>(S) 1,2-Dichloroethane-d4</i>				117	96.9	70.0-130				

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc



Method Blank (MB)

(MB) R3964532-2 08/23/23 10:29

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.0941	1.00
Toluene	U		0.278	1.00
Ethylbenzene	U		0.137	1.00
Total Xylenes	U		0.174	3.00
<i>(S) Toluene-d8</i>	107			80.0-120
<i>(S) 4-Bromofluorobenzene</i>	101			77.0-126
<i>(S) 1,2-Dichloroethane-d4</i>	112			70.0-130

Laboratory Control Sample (LCS)

(LCS) R3964532-1 08/23/23 09:24

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Benzene	5.00	5.03	101	70.0-123	
Toluene	5.00	4.63	92.6	79.0-120	
Ethylbenzene	5.00	4.67	93.4	79.0-123	
Total Xylenes	15.0	13.0	86.7	79.0-123	
<i>(S) Toluene-d8</i>			101	80.0-120	
<i>(S) 4-Bromofluorobenzene</i>			106	77.0-126	
<i>(S) 1,2-Dichloroethane-d4</i>			111	70.0-130	

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

Method Blank (MB)

(MB) R3964915-1 08/24/23 09:07

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Diesel Range Organics (DRO)	U		66.7	200
Residual Range Organics (RRO)	U		83.3	250
<i>(S) o-Terphenyl</i>	132			52.0-156

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

(LCS) R3964915-2 08/24/23 09:28 • (LCSD) R3964915-3 08/24/23 09:48

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Diesel Range Organics (DRO)	1500	1780	1700	119	113	50.0-150			4.60	20
<i>(S) o-Terphenyl</i>				140	135	52.0-156				

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

Method Blank (MB)

(MB) R3964808-3 08/23/23 22:51

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Naphthalene	U		0.0917	0.250
(S) Nitrobenzene-d5	119			31.0-160
(S) 2-Fluorobiphenyl	114			48.0-148
(S) p-Terphenyl-d14	91.5			37.0-146

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

(LCS) R3964808-1 08/23/23 22:12 • (LCSD) R3964808-2 08/23/23 22:31

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Naphthalene	2.00	1.82	1.68	91.0	84.0	61.0-137			8.00	20
(S) Nitrobenzene-d5				101	94.5	31.0-160				
(S) 2-Fluorobiphenyl				88.5	90.5	48.0-148				
(S) p-Terphenyl-d14				92.5	94.5	37.0-146				

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

# INTERNAL STANDARD SUMMARY

Instrument: VOCGC12 • File ID: 0824\_03

08/24/23 09:03

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	0824_03	1042018000	1019822000
Upper Limit		2084036000	2039644000
Lower Limit		521009000	509911000
LCS R3965204-1 WG2120303 1x	0824_03z	1042018000	1019822000
BLANK R3965204-2 WG2120303 1x	0824_05	962593700	961507600
L1648719-03 WG2120303 1x	0824_17	868531500	860095600
L1648719-01 WG2120303 1x	0824_19	827776100	827776100
L1648719-02 WG2120303 1x	0824_20	827421800	826430100

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

# INTERNAL STANDARD SUMMARY

Instrument: VOCMS21 • File ID: 0823A\_03-2

08/23/23 09:24

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0823A_03-2	130708	70679	65249
Upper Limit		261416	141358	130498
Lower Limit		65354	35340	32625
LCS R3964532-1 WG2119441 1x	0823A_03LCS	130708	70679	65249
BLANK R3964532-2 WG2119441 1x	0823A_06	127266	65170	62050
L1648719-01 WG2119441 1x	0823A_11	123185	60739	57129
L1648719-02 WG2119441 1x	0823A_12	121731	59866	58661

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

Instrument: VOCMS21 • File ID: 0823A\_37-2

08/23/23 22:09

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0823A_37-2	143745	68134	63250
Upper Limit		287490	136268	126500
Lower Limit		71873	34067	31625
LCS R3964817-1 WG2119188 1x	0823A_37LCS	143745	68134	63250
LCSD R3964817-2 WG2119188 1x	0823A_38	109415	71846	65681
BLANK R3964817-3 WG2119188 1x	0823A_41	139341	63280	60154
L1648719-03 WG2119188 1x	0823A_42	138571	63771	58611

## INTERNAL STANDARD SUMMARY

Instrument: BNAMS13 • File ID: 0823B\_03

08/23/23 21:52

Sample ID	File ID	NAPHTHALENE-D8 Response	ACENAPHTHENE-D10 Response	PHENANTHRENE-D10 Response	CHRYSENE-D12 Response	PERYLENE-D12 Response
Standard	0823B_03	30258	15253	25058	17054	12214
Upper Limit		60516	30506	50116	34108	24428
Lower Limit		15129	7627	12529	8527	6107
LCS R3964808-1 WG2119763 1x	0823B_04	32851	16625	27398	19722	13934
LCSD R3964808-2 WG2119763 1x	0823B_05	32686	16291	26613	18768	13568
BLANK R3964808-3 WG2119763 1x	0823B_06	31742	15457	25386	16958	11725
L1648719-01 WG2119763 1x	0823B_07	30975	15256	24929	16437	11570
L1648719-02 WG2119763 1x	0823B_08	28927	14179	23216	15378	10728

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

# 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.
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

J	The identification of the analyte is acceptable; the reported value is an estimate.
---	---



# 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 <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	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	LA000356
Kentucky <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> 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:  
**Stantec- Bellevue, WA**

11130 NE 33rd Pl, Ste 200  
Bellevue, WA 98004

Billing Information:  
**Accounts Payable**  
11130 NE 33rd Pl, Ste 200  
Bellevue, WA 98004

Report to:  
**Stantec**

Email To:  
zak.armacost@stantec.com;marc.suaze@stantec.com

Project Description:  
**Hungry Whale Test Pitting**

City/State Collected:  
**Westport, WA**

Please Circle:  
 PT  MT  CT  ET

Phone: **425-869-9448**

Client Project #  
**1465751446**

Lab Project #  
**STANTECBWA-HUNGRY**

Collected by (print):  
**Paul Janney**

Site/Facility ID #

P.O. #

Collected by (signature):  
*Paul M. Janney*

Rush? (Lab MUST Be Notified)  
 Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

Quote #

Immediately Packed on Ice N  Y

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
DC-4	G	GWSS	-	8/22/23	0900	10
DC-5	G	GWSS	-	8/22/23	0930	10
TB-01	-	WSS	-	8/22/23	-	2
		SS				
		SS				
		SS				
		SS				
		SS				
		SS				

Pres Chk	Analysis / Container / Preservative							
	EPH WA 4ozAmb-NoPres	NWTPHDXNOSGT 4ozClr-NoPres	NWTPHGX 40mlAmb/MeOH10ml/Syr	Pb 6010 2ozClr-NoPres	SV8270PAHSIM 4ozClr-NoPres	Total Solids 4ozClr-NoPres	V8260BTEX 40mlAmb/MeOH10ml/Syr	VPH WA 40mlAmb/MeOH10ml/Syr
		X	X		X		X	
		X	X		X		X	

Chain of Custody Page 1 of 1

**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/hubs/pas-standard-terms.pdf>

SDG # **L11648719**

**A140**

Acctnum: **STANTECBWA**

Template: **T234672**

Prelogin: **P1013674**

PM: **546 - Jared Starkey**

PB: **9/26/23 CAM**

Shipped Via: **FedEx Standard**

Remarks Sample # (lab only)

-01  
-02  
-03

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - WasteWater  
DW - Drinking Water  
OT - Other

Remarks:

Samples returned via:  
 UPS  FedEx  Courier

Tracking #

pH \_\_\_\_\_ Temp \_\_\_\_\_  
Flow \_\_\_\_\_ Other \_\_\_\_\_

Sample Receipt Checklist

COC Seal Present/Intact:	NP	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
COC Signed/Accurate:		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Bottles arrive intact:		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Correct bottles used:		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Sufficient volume sent:		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
If Applicable		
VOA Zero Headspace:		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Preservation Correct/Checked:		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
RAD Screen <0.5 mR/hr:		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N

Relinquished by: (Signature) <i>Paul M. Janney</i>	Date: 8/22/23	Time: 1400	Received by: (Signature) <i>FedEx</i>	Trip Blank Received: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (HCl) MeOH TBR
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 9.0/5.8 5.8/0.5.8 Bottles Received: 20
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>M. J. [unclear]</i>	Date: 8/23/23 Time: 1830

If preservation required by Login: Date/Time

Hold:

Condition:  
 NCF  OK

### 8/23-NCF-L1648719 STANTECBWA

R0/R1

Time estimate: 0h

Time spent: 0h

#### Members



Hailey Melson (responsible)



Jared Starkey

Due on 26 August 2023 8:00 AM for target Done

- Login Clarification needed
- Chain of custody is incomplete
- Please specify Metals requested
- Please specify TCLLP requested
- Received additional samples not listed on COC
- Sample IDs on containers do not match IDs on COC
- Client did not "X" analysis
- Chain of Custody is missing
- If no COC: Received by: \_\_\_\_\_
- If no COC: Date/Time: \_\_\_\_\_
- If no COC: Temp./Cont.Rec./pH: \_\_\_\_\_
- If no COC: Carrier: \_\_\_\_\_
- If no COC: Tracking #: \_\_\_\_\_
- Client informed by call
- Client informed by Email
- Client informed by Voicemail
- Date/Time: \_\_\_\_\_
- PM initials: \_\_\_\_\_
- Client Contact: \_\_\_\_\_

#### Comments

<p><i>Hailey Melson</i></p> <p>Trip blank ID is not marked for analysis. Currently logged on hold.</p>	<p>23 August 2023 10:22 AM</p>
<p><i>Jared Starkey</i></p> <p>Please log TB or BTEX/GX</p>	<p>23 August 2023 10:54 AM</p>
<p><i>Hailey Melson</i></p> <p>Done</p>	<p>23 August 2023 11:05 AM</p>

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

## Stantec- Bellevue, WA

Sample Delivery Group: L1650989  
Samples Received: 08/30/2023  
Project Number: 185751446  
Description: Hungry Whale

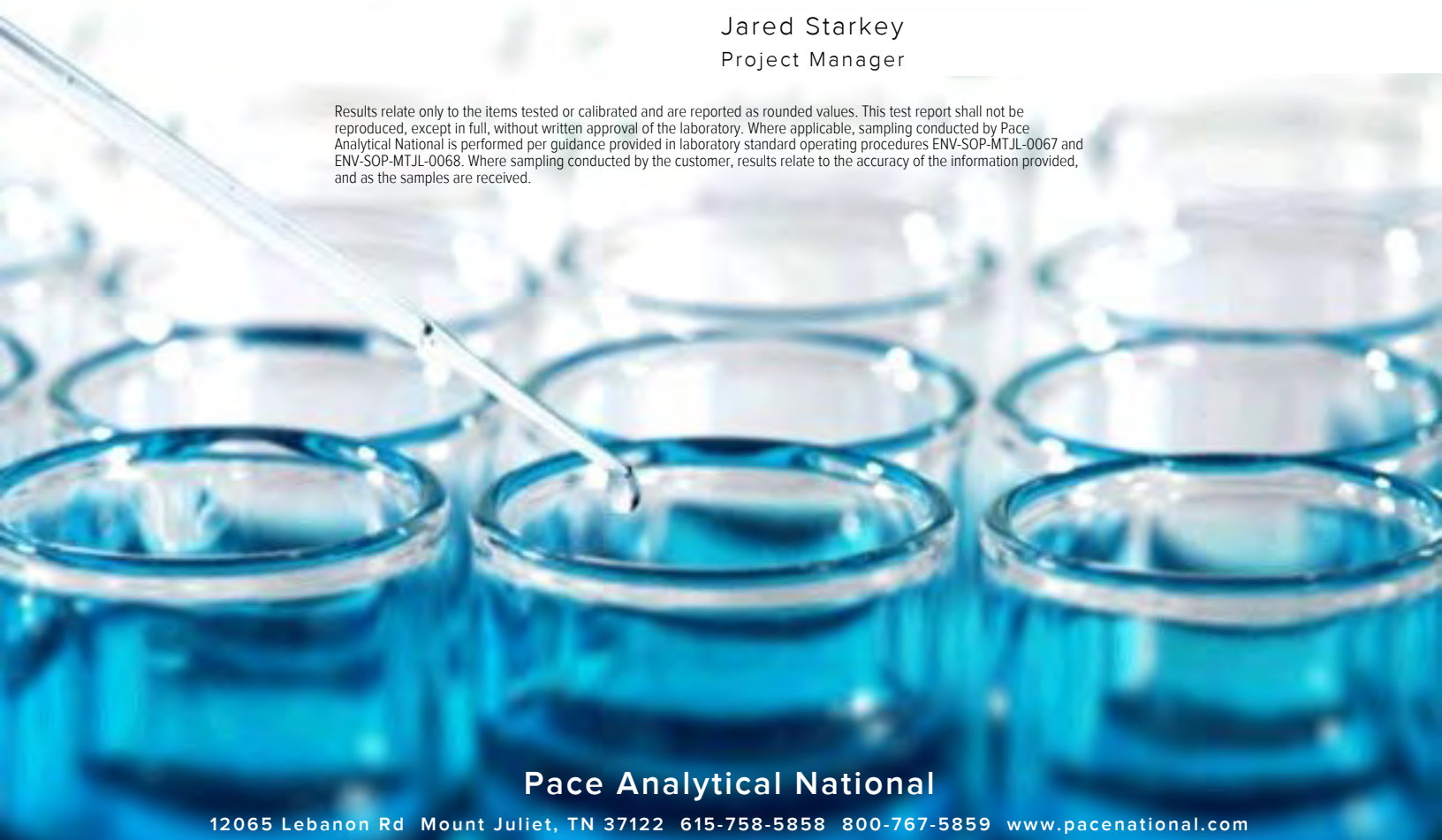
Report To: Stantec  
11130 NE 33rd Pl, Ste 200  
Bellevue, WA 98004

Entire Report Reviewed By:



Jared Starkey  
Project Manager

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



**Pace Analytical National**

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 [www.pacenational.com](http://www.pacenational.com)

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# SAMPLE SUMMARY

## DC-6 L1650989-01 GW

Collected by Paul Janney      Collected date/time 08/29/23 12:00      Received date/time 08/30/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2123461	1	08/30/23 12:19	08/30/23 12:19	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2123767	1	08/30/23 12:27	08/30/23 12:27	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2123779	1	08/30/23 11:27	08/30/23 14:32	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2123776	1	08/30/23 11:25	08/30/23 14:15	AMM	Mt. Juliet, TN

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

## DC-DUP L1650989-02 GW

Collected by Paul Janney      Collected date/time 08/29/23 00:00      Received date/time 08/30/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2123461	1	08/30/23 12:42	08/30/23 12:42	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2123767	1	08/30/23 12:48	08/30/23 12:48	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2123779	1	08/30/23 11:27	08/30/23 14:58	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2123776	1	08/30/23 11:25	08/30/23 14:33	AMM	Mt. Juliet, TN

## TB-01 L1650989-03 GW

Collected by Paul Janney      Collected date/time 08/29/23 00:00      Received date/time 08/30/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2123461	1	08/30/23 11:55	08/30/23 11:55	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2123767	1	08/30/23 12:06	08/30/23 12:06	JHH	Mt. Juliet, TN



# CASE NARRATIVE

Unless qualified or notated within the narrative below, all sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. 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.



Jared Starkey  
Project Manager

## Volatile Organic Compounds (GC) by Method NWTPHGX

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The same analyte is found in the associated blank.

Batch	Analyte	Lab Sample ID
WG2123461	Gasoline Range Organics-NWTPH	L1650989-03

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

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The associated batch QC was above the established quality control range for accuracy.

Batch	Lab Sample ID	Analytes
WG2123776	(LCS) R3967374-1, L1650989-01, 02	Benzo(b)fluoranthene



## Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	08/30/2023 12:19	<a href="#">WG2123461</a>
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	92.4			78.0-120		08/30/2023 12:19	<a href="#">WG2123461</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0941	1.00	1	08/30/2023 12:27	<a href="#">WG2123767</a>
Toluene	U		0.278	1.00	1	08/30/2023 12:27	<a href="#">WG2123767</a>
Ethylbenzene	U		0.137	1.00	1	08/30/2023 12:27	<a href="#">WG2123767</a>
Total Xylenes	U		0.174	3.00	1	08/30/2023 12:27	<a href="#">WG2123767</a>
(S) Toluene-d8	109			80.0-120		08/30/2023 12:27	<a href="#">WG2123767</a>
(S) 4-Bromofluorobenzene	94.6			77.0-126		08/30/2023 12:27	<a href="#">WG2123767</a>
(S) 1,2-Dichloroethane-d4	112			70.0-130		08/30/2023 12:27	<a href="#">WG2123767</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Diesel Range Organics (DRO)	U		66.7	200	1	08/30/2023 14:32	<a href="#">WG2123779</a>
Residual Range Organics (RRO)	U		83.3	250	1	08/30/2023 14:32	<a href="#">WG2123779</a>
(S) <i>o</i> -Terphenyl	83.7			52.0-156		08/30/2023 14:32	<a href="#">WG2123779</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Anthracene	U		0.0190	0.0500	1	08/30/2023 14:15	<a href="#">WG2123776</a>
Acenaphthene	U		0.0190	0.0500	1	08/30/2023 14:15	<a href="#">WG2123776</a>
Acenaphthylene	U		0.0171	0.0500	1	08/30/2023 14:15	<a href="#">WG2123776</a>
Benzo(a)anthracene	U		0.0203	0.0500	1	08/30/2023 14:15	<a href="#">WG2123776</a>
Benzo(a)pyrene	U		0.0184	0.0500	1	08/30/2023 14:15	<a href="#">WG2123776</a>
Benzo(b)fluoranthene	U	J4	0.0168	0.0500	1	08/30/2023 14:15	<a href="#">WG2123776</a>
Benzo(g,h,i)perylene	U		0.0184	0.0500	1	08/30/2023 14:15	<a href="#">WG2123776</a>
Benzo(k)fluoranthene	U		0.0202	0.0500	1	08/30/2023 14:15	<a href="#">WG2123776</a>
Chrysene	U		0.0179	0.0500	1	08/30/2023 14:15	<a href="#">WG2123776</a>
Dibenz(a,h)anthracene	U		0.0160	0.0500	1	08/30/2023 14:15	<a href="#">WG2123776</a>
Fluoranthene	U		0.0270	0.100	1	08/30/2023 14:15	<a href="#">WG2123776</a>
Fluorene	U		0.0169	0.0500	1	08/30/2023 14:15	<a href="#">WG2123776</a>
Indeno(1,2,3-cd)pyrene	U		0.0158	0.0500	1	08/30/2023 14:15	<a href="#">WG2123776</a>
Naphthalene	U		0.0917	0.250	1	08/30/2023 14:15	<a href="#">WG2123776</a>
Phenanthrene	U		0.0180	0.0500	1	08/30/2023 14:15	<a href="#">WG2123776</a>
Pyrene	U		0.0169	0.0500	1	08/30/2023 14:15	<a href="#">WG2123776</a>
1-Methylnaphthalene	U		0.0687	0.250	1	08/30/2023 14:15	<a href="#">WG2123776</a>
2-Methylnaphthalene	U		0.0674	0.250	1	08/30/2023 14:15	<a href="#">WG2123776</a>
2-Chloronaphthalene	U		0.0682	0.250	1	08/30/2023 14:15	<a href="#">WG2123776</a>
(S) Nitrobenzene-d5	90.0			31.0-160		08/30/2023 14:15	<a href="#">WG2123776</a>
(S) 2-Fluorobiphenyl	106			48.0-148		08/30/2023 14:15	<a href="#">WG2123776</a>
(S) <i>p</i> -Terphenyl-d14	104			37.0-146		08/30/2023 14:15	<a href="#">WG2123776</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

## Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	08/30/2023 12:42	<a href="#">WG2123461</a>
(S) a,a,a-Trifluorotoluene(FID)	91.3			78.0-120		08/30/2023 12:42	<a href="#">WG2123461</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0941	1.00	1	08/30/2023 12:48	<a href="#">WG2123767</a>
Toluene	U		0.278	1.00	1	08/30/2023 12:48	<a href="#">WG2123767</a>
Ethylbenzene	U		0.137	1.00	1	08/30/2023 12:48	<a href="#">WG2123767</a>
Total Xylenes	U		0.174	3.00	1	08/30/2023 12:48	<a href="#">WG2123767</a>
(S) Toluene-d8	106			80.0-120		08/30/2023 12:48	<a href="#">WG2123767</a>
(S) 4-Bromofluorobenzene	90.4			77.0-126		08/30/2023 12:48	<a href="#">WG2123767</a>
(S) 1,2-Dichloroethane-d4	113			70.0-130		08/30/2023 12:48	<a href="#">WG2123767</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Diesel Range Organics (DRO)	U		66.7	200	1	08/30/2023 14:58	<a href="#">WG2123779</a>
Residual Range Organics (RRO)	U		83.3	250	1	08/30/2023 14:58	<a href="#">WG2123779</a>
(S) o-Terphenyl	83.2			52.0-156		08/30/2023 14:58	<a href="#">WG2123779</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Anthracene	U		0.0190	0.0500	1	08/30/2023 14:33	<a href="#">WG2123776</a>
Acenaphthene	U		0.0190	0.0500	1	08/30/2023 14:33	<a href="#">WG2123776</a>
Acenaphthylene	U		0.0171	0.0500	1	08/30/2023 14:33	<a href="#">WG2123776</a>
Benzo(a)anthracene	U		0.0203	0.0500	1	08/30/2023 14:33	<a href="#">WG2123776</a>
Benzo(a)pyrene	U		0.0184	0.0500	1	08/30/2023 14:33	<a href="#">WG2123776</a>
Benzo(b)fluoranthene	U	J4	0.0168	0.0500	1	08/30/2023 14:33	<a href="#">WG2123776</a>
Benzo(g,h,i)perylene	U		0.0184	0.0500	1	08/30/2023 14:33	<a href="#">WG2123776</a>
Benzo(k)fluoranthene	U		0.0202	0.0500	1	08/30/2023 14:33	<a href="#">WG2123776</a>
Chrysene	U		0.0179	0.0500	1	08/30/2023 14:33	<a href="#">WG2123776</a>
Dibenz(a,h)anthracene	U		0.0160	0.0500	1	08/30/2023 14:33	<a href="#">WG2123776</a>
Fluoranthene	U		0.0270	0.100	1	08/30/2023 14:33	<a href="#">WG2123776</a>
Fluorene	U		0.0169	0.0500	1	08/30/2023 14:33	<a href="#">WG2123776</a>
Indeno(1,2,3-cd)pyrene	U		0.0158	0.0500	1	08/30/2023 14:33	<a href="#">WG2123776</a>
Naphthalene	U		0.0917	0.250	1	08/30/2023 14:33	<a href="#">WG2123776</a>
Phenanthrene	U		0.0180	0.0500	1	08/30/2023 14:33	<a href="#">WG2123776</a>
Pyrene	U		0.0169	0.0500	1	08/30/2023 14:33	<a href="#">WG2123776</a>
1-Methylnaphthalene	U		0.0687	0.250	1	08/30/2023 14:33	<a href="#">WG2123776</a>
2-Methylnaphthalene	U		0.0674	0.250	1	08/30/2023 14:33	<a href="#">WG2123776</a>
2-Chloronaphthalene	U		0.0682	0.250	1	08/30/2023 14:33	<a href="#">WG2123776</a>
(S) Nitrobenzene-d5	103			31.0-160		08/30/2023 14:33	<a href="#">WG2123776</a>
(S) 2-Fluorobiphenyl	122			48.0-148		08/30/2023 14:33	<a href="#">WG2123776</a>
(S) p-Terphenyl-d14	119			37.0-146		08/30/2023 14:33	<a href="#">WG2123776</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	35.1	<u>B</u>	31.6	100	1	08/30/2023 11:55	<a href="#">WG2123461</a>
(S) a,a,a-Trifluorotoluene(FID)	92.8			78.0-120		08/30/2023 11:55	<a href="#">WG2123461</a>

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

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0941	1.00	1	08/30/2023 12:06	<a href="#">WG2123767</a>
Toluene	U		0.278	1.00	1	08/30/2023 12:06	<a href="#">WG2123767</a>
Ethylbenzene	U		0.137	1.00	1	08/30/2023 12:06	<a href="#">WG2123767</a>
Total Xylenes	U		0.174	3.00	1	08/30/2023 12:06	<a href="#">WG2123767</a>
(S) Toluene-d8	108			80.0-120		08/30/2023 12:06	<a href="#">WG2123767</a>
(S) 4-Bromofluorobenzene	93.9			77.0-126		08/30/2023 12:06	<a href="#">WG2123767</a>
(S) 1,2-Dichloroethane-d4	113			70.0-130		08/30/2023 12:06	<a href="#">WG2123767</a>

Method Blank (MB)

(MB) R3967287-2 08/30/23 11:18

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	37.1	↓	31.6	100
(S) a,a,a-Trifluorotoluene(FID)	96.3			78.0-120

Laboratory Control Sample (LCS)

(LCS) R3967287-1 08/30/23 10:08

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5500	5000	90.9	70.0-124	
(S) a,a,a-Trifluorotoluene(FID)			99.4	78.0-120	

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

Method Blank (MB)

(MB) R3967296-3 08/30/23 11:02

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.0941	1.00
Toluene	U		0.278	1.00
Ethylbenzene	U		0.137	1.00
Total Xylenes	U		0.174	3.00
(S) Toluene-d8	104			80.0-120
(S) 4-Bromofluorobenzene	90.9			77.0-126
(S) 1,2-Dichloroethane-d4	111			70.0-130

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

(LCS) R3967296-1 08/30/23 09:58 • (LCSD) R3967296-2 08/30/23 10:41

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Benzene	5.00	5.16	4.72	103	94.4	70.0-123			8.91	20
Toluene	5.00	4.63	4.55	92.6	91.0	79.0-120			1.74	20
Ethylbenzene	5.00	4.50	4.32	90.0	86.4	79.0-123			4.08	20
Total Xylenes	15.0	13.2	12.1	88.0	80.7	79.0-123			8.70	20
(S) Toluene-d8				102	102	80.0-120				
(S) 4-Bromofluorobenzene				89.9	94.6	77.0-126				
(S) 1,2-Dichloroethane-d4				112	116	70.0-130				

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3967495-1 08/30/23 13:15

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Diesel Range Organics (DRO)	U		66.7	200
Residual Range Organics (RRO)	U		83.3	250
<i>(S) o-Terphenyl</i>	82.0			52.0-156

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

(LCS) R3967495-2 08/30/23 13:40 • (LCSD) R3967495-3 08/30/23 14:06

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	1500	1480	1470	98.7	98.0	50.0-150			0.678	20
<i>(S) o-Terphenyl</i>				100	100	52.0-156				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R3967374-3 08/30/23 13:58

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Anthracene	U		0.0190	0.0500
Acenaphthene	U		0.0190	0.0500
Acenaphthylene	U		0.0171	0.0500
Benzo(a)anthracene	U		0.0203	0.0500
Benzo(a)pyrene	U		0.0184	0.0500
Benzo(b)fluoranthene	U		0.0168	0.0500
Benzo(g,h,i)perylene	U		0.0184	0.0500
Benzo(k)fluoranthene	U		0.0202	0.0500
Chrysene	U		0.0179	0.0500
Dibenz(a,h)anthracene	U		0.0160	0.0500
Fluoranthene	U		0.0270	0.100
Fluorene	U		0.0169	0.0500
Indeno(1,2,3-cd)pyrene	U		0.0158	0.0500
Naphthalene	U		0.0917	0.250
Phenanthrene	U		0.0180	0.0500
Pyrene	U		0.0169	0.0500
1-Methylnaphthalene	U		0.0687	0.250
2-Methylnaphthalene	U		0.0674	0.250
2-Chloronaphthalene	U		0.0682	0.250
(S) Nitrobenzene-d5	103			31.0-160
(S) 2-Fluorobiphenyl	123			48.0-148
(S) p-Terphenyl-d14	131			37.0-146

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

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

(LCS) R3967374-1 08/30/23 13:22 • (LCSD) R3967374-2 08/30/23 13:40

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	2.00	2.34	2.26	117	113	67.0-150			3.48	20
Acenaphthene	2.00	2.46	2.46	123	123	65.0-138			0.000	20
Acenaphthylene	2.00	2.35	2.32	117	116	66.0-140			1.28	20
Benzo(a)anthracene	2.00	2.39	2.33	119	117	61.0-140			2.54	20
Benzo(a)pyrene	2.00	2.72	2.66	136	133	60.0-143			2.23	20
Benzo(b)fluoranthene	2.00	2.94	2.76	147	138	58.0-141	J4		6.32	20
Benzo(g,h,i)perylene	2.00	2.84	2.84	142	142	52.0-153			0.000	20
Benzo(k)fluoranthene	2.00	2.65	2.67	133	133	58.0-148			0.752	20
Chrysene	2.00	2.67	2.62	133	131	64.0-144			1.89	20
Dibenz(a,h)anthracene	2.00	2.69	2.67	134	133	52.0-155			0.746	20
Fluoranthene	2.00	2.62	2.57	131	129	69.0-153			1.93	20

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

(LCS) R3967374-1 08/30/23 13:22 • (LCSD) R3967374-2 08/30/23 13:40

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Fluorene	2.00	2.48	2.53	124	126	64.0-136			2.00	20
Indeno(1,2,3-cd)pyrene	2.00	2.73	2.65	137	133	54.0-153			2.97	20
Naphthalene	2.00	2.50	2.47	125	123	61.0-137			1.21	20
Phenanthrene	2.00	2.56	2.52	128	126	62.0-137			1.57	20
Pyrene	2.00	2.68	2.66	134	133	60.0-142			0.749	20
1-Methylnaphthalene	2.00	2.55	2.50	128	125	66.0-142			1.98	20
2-Methylnaphthalene	2.00	2.62	2.58	131	129	62.0-136			1.54	20
2-Chloronaphthalene	2.00	2.54	2.48	127	124	64.0-140			2.39	20
<i>(S) Nitrobenzene-d5</i>				111	105	31.0-160				
<i>(S) 2-Fluorobiphenyl</i>				131	127	48.0-148				
<i>(S) p-Terphenyl-d14</i>				130	126	37.0-146				

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

# INTERNAL STANDARD SUMMARY

Instrument: VO CGC15 • File ID: 0830\_03

08/30/23 09:45

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	0830_03	179967600	126968
Upper Limit		359935200	253936
Lower Limit		89983800	63484
LCS R3967287-1 WG2123461 1x	0830_04	218830400	47790
BLANK R3967287-2 WG2123461 1x	0830_06	176584000	72274
L1650989-03 WG2123461 1x	0830_07	206369600	139669
L1650989-01 WG2123461 1x	0830_08	201195600	93028
L1650989-02 WG2123461 1x	0830_09	211229900	72441

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

# INTERNAL STANDARD SUMMARY

Instrument: VOCMS6 • File ID: 0830\_13-1

08/30/23 09:58

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0830_13-1	317668	164707	145733
Upper Limit		635336	329414	291466
Lower Limit		158834	82354	72867
LCS R3967296-1 WG2123767 1x	0830_13LCS	317668	164707	145733
LCSD R3967296-2 WG2123767 1x	0830_15	309393	161812	146133
BLANK R3967296-3 WG2123767 1x	0830_16	323148	150215	129996
L1650989-03 WG2123767 1x	0830_19	308954	144039	127353
L1650989-01 WG2123767 1x	0830_20	305767	139922	119970
L1650989-02 WG2123767 1x	0830_21	307285	142498	123347

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc



## INTERNAL STANDARD SUMMARY

Instrument: BNAMS25 • File ID: 0830\_03

08/30/23 12:39

Sample ID	File ID	NAPHTHALENE-D8 Response	ACENAPHTHENE-D10 Response	PHENANTHRENE-D10 Response	CHRYSENE-D12 Response	PERYLENE-D12 Response
Standard	0830_03	59772	36009	67480	63183	54193
Upper Limit		119544	72018	134960	126366	108386
Lower Limit		29886	18005	33740	31592	27097
LCS R3967374-1 WG2123776 1x	0830_04	50350	27622	48249	43450	36437
LCSD R3967374-2 WG2123776 1x	0830_05	51844	28229	50340	44294	35861
BLANK R3967374-3 WG2123776 1x	0830_06	50403	27847	48952	41066	33349
L1650989-01 WG2123776 1x	0830_07	60656	33615	58887	50241	40418
L1650989-02 WG2123776 1x	0830_08	52387	29053	51541	42893	34231

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

# 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.
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

B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
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 <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	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	LA000356
Kentucky <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> 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.

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

Company Name/Address:  
**Stantec- Bellevue, WA**

11130 NE 33rd Pl, Ste 200  
Bellevue, WA 98004

Billing Information:

Accounts Payable  
11130 NE 33rd Pl, Ste 200  
Bellevue, WA 98004

Pres  
Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1



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/hubs/pas-standard-terms.pdf>

SDG # **U658989**

**G038**

Acctnum: **STANTECBWA**

Template: **T234672**

Prelogin: **P1013674**

PM: **546 - Jared Starkey**

PB: **True 23 CAM**

Shipped Via: **FedEX Standard**

Remarks | Sample # (lab only)

Report to:  
**Stantec**

Email To:  
zak.armacost@stantec.com; marc.suaze@stantec.com

Project Description:  
**Hungry Whale Test Pitting**

City/State  
Collected: **Westport, WA**

Please Circle:  
 PT  MT  CT  ET

Phone: **425-869-9448**

Client Project #  
**145751446**

Lab Project #  
**STANTECBWA-HUNGRY**

Collected by (print):  
**Paul Jorney**

Site/Facility ID #

P.O. #

Collected by (signature):  
**Paul M. Jorney**

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  
**ASAP**

No.  
of  
Cntrs

Immediately  
Packed on Ice N \_\_\_ Y \_\_\_

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	EPH WA 4ozAmb-NoPres	NWTPHDXNOSGT 4ozClr-NoPres 40mL HCl	NWTPHGX 40mIAmb/MeOH10m/Syr 40mL HCl	Pb 6010 2ozClr-NoPres	SV8270PAHSIM 4ozClr-NoPres 40mL NoPres	Total Solids 4ozClr-NoPres	V8260BTEX 40mIAmb/MeOH10m/Syr 40mL HCl	VPH WA 40mIAmb/MeOH10m/Syr
DC-6	G	GW-SS	-	8/29/23	1200	11		X	X		X		X	
DC-Dup	G	GW-SS	-	8/29/23	-	11		X	X		X		X	
TB-01	G	W-SS	-	8/29/23	-	2			X				X	
		SS												
		SS												
		SS												
		SS												
		SS												
		SS												

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - WasteWater  
DW - Drinking Water  
OT - Other

Remarks: **PAH containers triple rinsed - Unpreserved.**

pH \_\_\_ Temp \_\_\_

Flow \_\_\_ Other \_\_\_

Samples returned via:  
\_\_\_ UPS \_\_\_ FedEx \_\_\_ Courier

Tracking # **5841 8346 8791**

Sample Receipt Checklist	
COC Seal Present/Intact:	NP <input checked="" type="checkbox"/> Y <input type="checkbox"/> N
COC Signed/Accurate:	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>
Bottles arrive intact:	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>
Correct bottles used:	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>
Sufficient volume sent:	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>
if Applicable	
VOA Zero Headpace:	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>
Preservation Correct/Checked:	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>
RAD Screen <0.5 mR/hr:	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>

Relinquished by: (Signature)

**Paul M. Jorney**

Date:  
**8/29/23**

Time:  
**1530**

Received by: (Signature)

**FedEx**

Trip Blank Received:  Yes /  No  
**2** HCL/MeOH  
TBR

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp: **6.4/5.6** Bottles Received: **22**  
**5.6 x 20 = 56**

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Date: **8/30/23** Time: **0900**

Hold:

Condition:  
NCF / **OK**

# APPENDIX K

## Compaction Test Results and Filter Fabric Specifications





# Port of Grays Harbor Hungry Whale - 23S160 - IPD-Soil Compaction: Report #D317356

**CLIENT** Anderson Environmental Contracting, LLC **DATE** 09/01/2023  
**PROJECT LOCATION** 1680 North Montesano Street Westport WA 98595 **PERMIT #**

## Inspection Information:

**Inspection Date:** 09/01/2023 **Time Onsite:** 11:15 AM **Weather Conditions:** Partly Cloudy 60s F

**Inspection Performed:** IPD-Soil Compaction

## Field Data:

**Work / Location:** Grading/Open Lot Area at intersection of N Montesano and W Wilson **Gauge Standard MS:** 752

**Equipment ID & Serial #:** Instrotek 3500, Ser. #4547 **Gauge Standard DS:** 2677

## Test Samples:

Sample #:	Description:	Proctor Value(pcf):	Optimum Moisture	Oversize Rock Correction:
1. S23-0971	Well Graded Gravel with Sand	116.5	3.7	

**TEST METHOD**  ASTM D-1557 /AASHTO T-180

## In Place Density Test Results (ASTM D-6938):

Test #	Mode / Depth	Location of Test	Elev.	Wet Dens.	Dry Dens.	Moist %	Sample #	% Comp.	% Reqd.
1	8	East Edge	FSG	128.3	121.3	5.8	1	104.1	95
2	8	West Edge	FSG	123.9	114.9	7.8	1	98.6	95
3	6	North Edge	FSG	129.2	120.6	7.1	1	103.5	95
4	8	South Edge	FSG	123.2	115.7	6.5	1	99.3	95

- Native Soils      Soils consistent with Proctor       Yes     No
- Imported Fills      Soils found to be firm and stable; and to the best of our knowledge, meet compaction       Yes     No
- Contractor notified of results       Yes     No

## Remarks:

On site for density testing of previously placed and compacted fill at the location noted above. Earthwork and grading was performed by the Port of Westport. Contractor placed approximately 8"-12" of structural fill over 15' of permeable ballast and achieved compaction using a Hamm H10i vibratory steel drum roller. Material appeared to be very well compacted, displaying very little deflection beneath roller. Please see above for all in place density results.

To the best of MTC inspector's knowledge, the above-described work was performed in general accordance with project specifications and approved plans.

## Images:

All results apply only to actual locations and materials tested. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

**Environmental • Geotechnical Engineering • Special Inspection • Non-Destructive Testing • Materials Testing**

Burlington|Olympia|Bellingham|Silverdale|Tukwila  
360.755.1990

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UPLOADED: 09/04/2023 13:28:08



UPLOADED: 09/04/2023 13:28:10



UPLOADED: 09/04/2023 13:40:33



UPLOADED: 09/04/2023 13:40:34

REPORTED BY: Cecil Clark      REVIEWED BY: Michael Houser, Project Manager

All results apply only to actual locations and materials tested. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

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## Mirafi<sup>®</sup> 140N

Mirafi<sup>®</sup> 140N is a nonwoven geotextile composed of polypropylene fibers, which are formed into a stable network such that the fibers retain their relative position. 140N is inert to biological degradation and resists naturally encountered chemicals, alkalis, and acids.

Mechanical Properties	Test Method	Unit	Minimum Average Roll Value	
			MD	CD
Grab Tensile Strength	ASTM D 4632	kN (lbs)	0.53 (120)	0.53 (120)
Grab Tensile Elongation	ASTM D 4632	%	50	50
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.22 (50)	0.22 (50)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	1550 (225)	
Puncture Strength <sup>1</sup>	ASTM D 4833	kN (lbs)	0.30 (65)	
CBR Puncture Strength	ASTM D 6241	kN (lbs)	1.33 (300)	
Apparent Opening Size (AOS)	ASTM D 4751	mm (U.S. Sieve)	0.212 (70)	
Permittivity	ASTM D 4491	sec <sup>-1</sup>	1.8	
Permeability	ASTM D 4491	cm/sec	0.21	
Flow Rate	ASTM D 4491	l/min/m <sup>2</sup> (gal/min/ft <sup>2</sup> )	5500 (135)	
UV Resistance (at 500 hours)	ASTM D 4355	% strength retained	70	

<sup>1</sup> ASTM D 4833 has been replaced with ASTM D 6241

Physical Properties	Test Method	Unit	Typical Value	
Weight	ASTM D 5261	g/m <sup>2</sup> (oz/yd <sup>2</sup> )	163 (4.8)	
Thickness	ASTM D 5199	mm (mils)	1.4 (55)	
Roll Dimensions (width x length)	--	m (ft)	3.8 x 110 (12.5 x 360)	4.5 x 110 (15 x 360)
Roll Area	--	m <sup>2</sup> (yd <sup>2</sup> )	418 (500)	502 (600)
Estimated Roll Weight	--	kg (lb)	74 (164)	89 (197)

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